



NAVFAC
 SPECIFICATION
 NO.
 Construction Contract No.
 eProject No. 1371550
 PE: CI42 S.Kumagai

C50061 REPAIR SALTWATER PIPING AT INDIA BASIN 6 TO BLDG.1525

At the

U.S. FLEET ACTIVITIES, SASEBO, JAPAN

SPECIFICATION AND DRAWINGS PREPARED BY:

NAVAL FACILITIES ENGINEERING COMMAND, FAR EAST
 CAPITAL IMPROVEMENTS DEPARTMENT

DM/LEAD BR : DATE <i>2015 Subeda 8/12/15</i>	MECH: DATE
SPEC: DATE <i>For 240matani 8/12/15</i>	ELEC: DATE
ARCH: DATE	CIVIL: DATE
STRUCT: DATE	FIRE PROT: DATE
DESIGN DIV: <i>Misc/Fac</i>	DATE
K.MATSUZAKI (NAVFAC FE CI4)	<i>8/12/15</i>
APPROVED <i>Teresa M. Erickson</i>	DATE
TERESA ERICKSON (NAVFAC FE CI4) FOR COMMANDER NAVFAC	<i>8.13.15</i>
ACTIVITY	DATE
SATISFACTORY TO	

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SECTION 01 11 00

SUMMARY OF WORK

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

HEADQUARTERS, US FORCES JAPAN, DEPARTMENT OF DEFENSE (DOD)

JEGS

Japan Environmental Governing Standards

1.2 DEFINITIONS

Definitions pertaining to sustainable development are as defined in JEGS, Section 01 57 19.00 20 "TEMPORARY ENVIRONMENTAL CONTROLS", and as specified.

- a. "Environmentally preferable products" have a lesser or reduced effect on the environment in comparison to conventional products and services. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product.
- b. "Indoor environmental quality" is the physical characteristics of the building interior that impact occupants, including air quality, illumination, acoustics, occupant control, thermal comfort, daylighting, and views.
- c. "Operational performance" is the functional behavior of the building as a whole or of the building components.
- d. "Sustainability" is the balance of environmental, economic, and societal considerations.

1.3 SUBMITTALS

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

SD-01 Preconstruction Submittals

Submit the following items to the Contracting Officer:

Utility Outage Requests; G (CME)

Utility Connection Requests; G (CME)

Excavation Permits; G (CME)

Note: CME is the Government's construction management engineer

1.4 WORK COVERED BY CONTRACT DOCUMENTS

1.4.1 Project Description

The work includes rerouting saltwater piping with new HDPE piping from pump house building 1525 to India basin Baerth-6, 7, 8, 9, and 10, and **related works**, as described on plans and specifications. Related works are defined as temporary works and relevant works which are required to accomplish this project. These works do not include unforeseen site conditions.

1.4.1.1 Specifications and Standards

The specifications and standards referenced in this project specification, including addenda, amendments, and errata listed, will govern in all cases where references thereto are made. Apply the latest edition to the referenced standards and codes. In case of differences between these specifications or standards and this project specification or its accompanying drawings, this project specification and its accompanying drawings will govern to the extent of such differences. Otherwise, the referenced specifications and standards will apply. The requirement for packaging, packing, marking, and preparation for shipment or delivery included in the referenced specifications will apply only to materials and equipment that are furnished directly to the Government and not to materials and equipment that are to be furnished and installed by the Contractor.

1.4.2 Location

The work shall be located at the U.S. FLEET ACTIVITIES, SASEBO, JAPAN, approximately as indicated. The exact location will be shown by the Contracting Officer.

1.5 CONTRACT DRAWINGS

The following drawings accompany this specification and are a part thereof.

a. Index of Contract Drawings:

NAVFAC DRAWING NO.	TITLE
17171416	General Description of Work and Location Maps
17171417	Site Plan-1
17171418	Site Plan-2
17171419	Site Plan-3
17171420	Site Plan-4
17171421	Site Plan-5
17171422	Site Plan-6
17171423	Site Plan-7
17171424	Profile-1
17171425	Profile-2
17171426	Details of Bldg.1525

17171427 Details-1
17171428 Details-2
17171429 Details of Salt Water Outlet

1.6 PROJECT SCHEDULE AND TIME CONSTRAINTS

1.6.1 Commencement, and Completion of Work

The Contractor shall be required to complete the entire work, ready for use, not later than **360** calendar days, including the mailing period, after the date of Award. The mailing period includes the days for mailing of the Notice of Award and the submission of the required bonds, Certificate of Insurance, and pre-construction activities. The time for completion shall include final clean-up of the premises.

1.6.2 Sequence work

This contract is sequence work and shall be done by following numerical order of **WORK SEQUENCE**.

WORK SEQUENCE	Area	On-site Work days (Calender Days)	Construction
1	Berth 6 Berth 7 Berth 8 Berth 9 Berth 10	250	Provision of underground salt water piping.
2	Pump-house area and connection points	30	Replacement of aboveground steel pipe, connection work to existing pipe, connection works to existing outlet control valves.
3	Abandon pipe area	20	Filling air mortar

NOTE: In the Work Sequence 1, actual construction of each berth will be determined after award as specified in Section 01 14 00 "Work Restrictions."

1.7 PROJECT ENVIRONMENTAL GOALS

Contractor shall distribute copies of the Environmental Goals to each subcontractor and the Contracting Officer. The overall goal for design, construction, and operation is to produce a facility that meets the functional program needs and incorporates the principles of sustainability. Specifically:

- a. Preserve and restore the site ecosystem and biodiversity; avoid site degradation and erosion. Minimize offsite environmental impact.
- b. Use the minimum amount of energy, water, and materials feasible to meet the design intent. Select energy and water efficient equipment and strategies.

- c. Use environmentally preferable products and decrease toxicity level of materials used.
- d. Use renewable energy and material resources.
- e. Optimize operational performance (through commissioning efforts) in order to ensure energy efficient equipment operates as intended. Consider the durability, maintainability, and flexibility of facility systems.
- f. Manage construction site and storage of materials to ensure no negative impact on the environmental quality of the facility.
- g. Reduce construction waste through reuse, recycling, and supplier take-back.

1.8 OCCUPANCY OF PREMISES

As specified in Section 01 14 00 "Work Restrictions."

1.9 EXISTING WORK

In addition to "FAR 52.236-9, Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements":

- a. Remove or alter existing work in such a manner as to prevent injury or damage to any portions of the existing work which remain.
- b. Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as approved by the Contracting Officer. At the completion of operations, existing work shall be in a condition equal to or better than that which existed before new work started.

1.10 ON-SITE PERMITS

1.10.1 Utility Outage Requests and Utility Connection Requests

Work shall be scheduled to hold outages to a minimum. Restrictions to utility outage and/or Government operation are/is specified in section 01 14 00 "Work Restrictions."

Utility outages and connections required during the prosecution of work that affect existing systems shall be arranged for at the convenience of the Government.

Contracting Officer may permit utility outages at his/her discretion.

Requests for utility outages and connections shall be made in writing to the Contracting Officer at least 15 calendar days in advance of the time required. Each request shall state the system involved, area involved, approximate duration of outage, and the nature of work involved.

Notify the Contacting Officer at least 72 hours prior to starting excavation work. Contractor is responsible for marking and verifying all utilities not marked.

The Contractor shall verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed. But indicated in locations to be transversed by piping, ducts, and other work to be installed. Verify elevations before installing new work closer than nearest manhole or other structure at which an adjustment in grade can be made.

1.10.2 Burning and Excavation Permits

<u>ACTIVITY</u> <u>FORM</u>	<u>SUBMISSION DATE</u>	<u>SUBMISSION</u>
Excavation Permits	15 calendar days prior to work	CME

Permits shall be posted at a conspicuous location in the construction area. Burning of trash or rubbish is not permitted on project site.

1.11 LOCATION OF UNDERGROUND FACILITIES

Obtain digging permits prior to start of excavation by contacting the Contracting Officer 15 calendar days in advance.

1.11.1 Notification and Permission Prior to Excavation

The Contractor shall request and receive written permission from the CME whenever digging is required to perform this contract. The request will provide a sketch of the area, limits of the excavation and expected depths . Any unforeseen discovery of soils suspected of being contaminated with oil or other hazardous materials shall be handled and reported as required by Section 01 35 26 Paragraph "Unforeseen Hazardous Material", in addition, after notifying the Contracting Officer, the Contractor shall also notify the CME and the NAVFAC FE Environment Office and shall, at no additional cost to the Government, take reasonable measures to protect the excavation from erosion and prevent the spread of suspected contaminants until testing can be accomplished.

1.11.2 Utility Map

Utility Maps are attached end of this specification as "UTILITIES SYSTEM MAP".

1.12 CONCILIATION CLAUSE

- a. Any disagreement arising under this contract which is not resolved by the parties to this contract may be submitted to the U.S.-Japan Joint Committee for Conciliation in accordance with paragraph 10, Article XVIII, of the Status of Forces Agreement under Article VI, of the Treaty of Mutual Cooperation and Security between Japan and the United States of America.
- b. Recourse to the Joint Committee for Conciliation for resolving disputes is available in addition to the procedures set forth in the

Contract Disputes Act of 1978 and the Disputes Clause of this contract, 52.233-1. A request for conciliation by the Joint Committee, however, shall not toll the time periods allowed under the Contract Disputes Act for appealing a contracting officer's final decision to either the Armed Services Board of Contract Appeals or U.S. Court of Federal Claims.

- c. Upon filing a request for conciliation with the Joint Committee, the Contractor shall immediately notify the Contracting Officer in writing of the request.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 EXISTING CONDITIONS

Before beginning any work, survey the site and examine the drawings and specifications to determine the extent of the work.

-- End of Section --

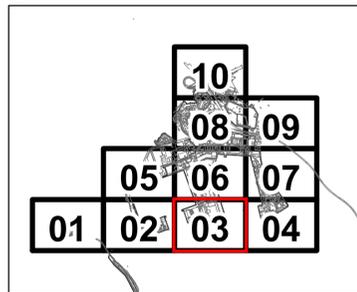


Legend

- | | |
|---|--|
| <p>Cold Water</p> <ul style="list-style-type: none"> Water Hydrant Water Valve Water Pressure/Reducing Water Backflow Preventer Water Air Vent Water Drinking Fountain Water Faucet/Hose Bib Water Sprinkler Water Distribution Main Water Hydrant Lateral Water Transmission Main Water Commercial Water Domestic Water Fire Protection <p>Compressed Air</p> <ul style="list-style-type: none"> Air Valve Air Compressor Air Separator Air Expansion Joint Air Flowmeter Air Receiver Tank Air Service Pipe Air Manhole <p>Electrical</p> <ul style="list-style-type: none"> Electric Exterior Light Electric Grounding Point Electric Terminator Electric Substructure Electric Connection Box Electric Switch Over Head Electric Switch Pad Mount Electric Transformer Overhead Electric Transformer Padmount Electric Manhole Electric Handhole Electric Junction Box Electric Pull Box Electric Vault Electric Conduit System <p>Fuel Oil</p> <ul style="list-style-type: none"> Fuel Storage Facility Fuel Valve Fuel Check Valve Fuel Expansion Joint Fuel Flowmeter Fuel Strainer Fuel Pump Fuel Oil Pipe Fuel Manhole | <p>High Quality Water</p> <ul style="list-style-type: none"> High Flow Meter High Valve High Check Valve High Supply Pipe High Return Pipe <p>Natural Gas</p> <ul style="list-style-type: none"> Gas Meter Gas Valve Gas Check Valve Gas Regulator Gas Transmission Line Gas Service Line Gas Manhole <p>Salt Water</p> <ul style="list-style-type: none"> Salt Manhole Salt Valve Salt Check Valve Salt Blow Salt Pump Salt Flowmeter Salt Strainer Salt Inlet Salt Air Vent Salt Service Pipe <p>Steam</p> <ul style="list-style-type: none"> Steam Pressure/Reducing Valve Steam Expansion Joint Steam Return Tank Steam Pump Steam Service Supply Steam Service Return Steam Main Supply Steam Main Return Steam Manhole <p>Storm Drain</p> <ul style="list-style-type: none"> Sto Manhole Sto Junction Box Sto Drop Inlet Sto Catch Basin Sto Tee Connection Sto Discharge Point Sto Valve Sto Oil Separator Sto Man Pipe Sto Service Pipe Sto Curvet/Chish <p>Wastewater</p> <ul style="list-style-type: none"> Wet Clean/Out Wet Cap Wet Manhole Wet Oil Water Separator Wet Pump Wet Sump Tank Wet Gravity/Main Wet Force/Main |
|---|--|

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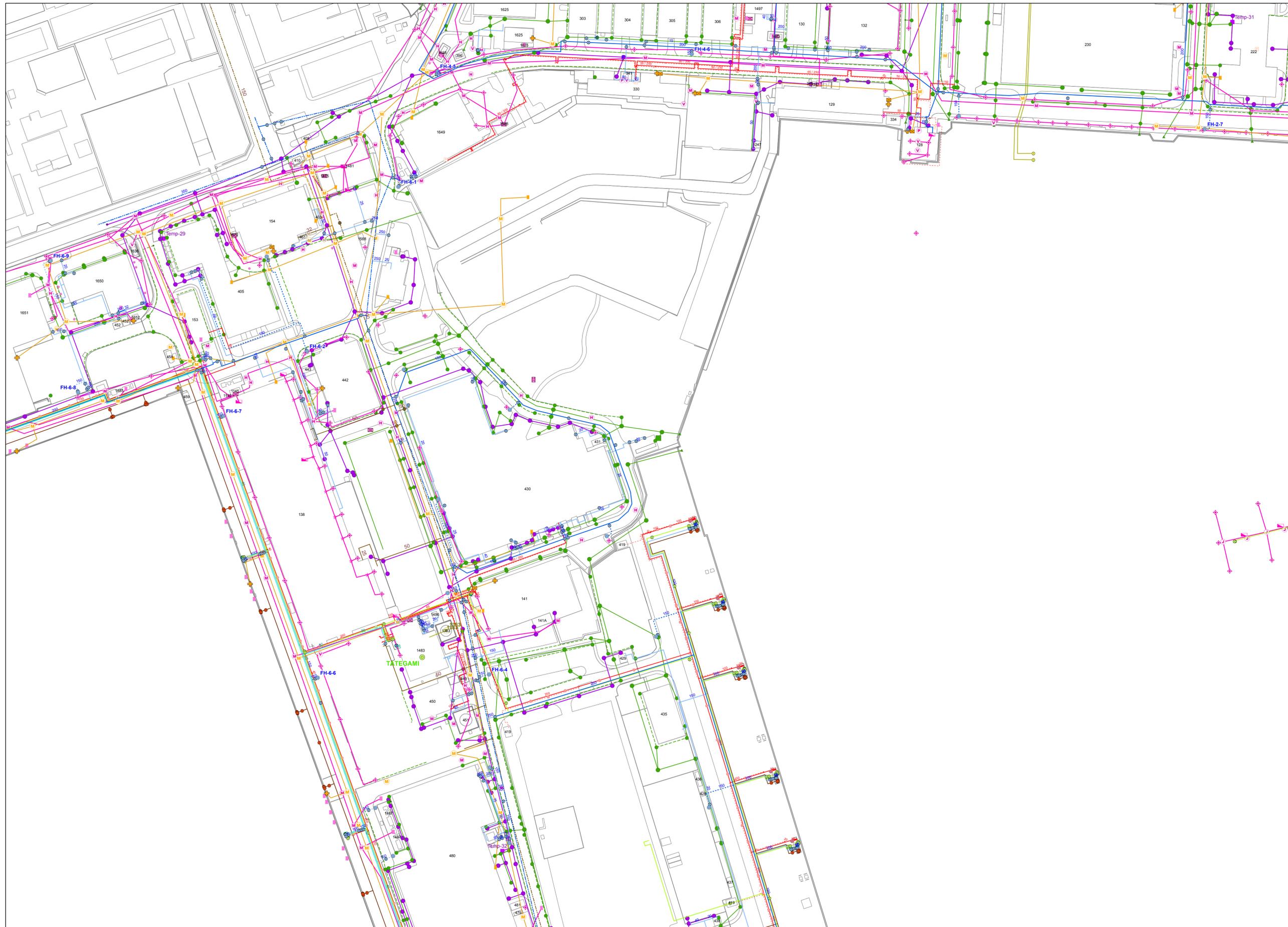
KEY PLAN

NAVAL FACILITIES ENGINEERING COMMAND, FAR EAST
ASSET UTILIZATION BRANCH, AM4

**UTILITIES SYSTEM MAP,
SASEBO**

SCALE : 1/1000 PAPER SIZE : D (34"x22")

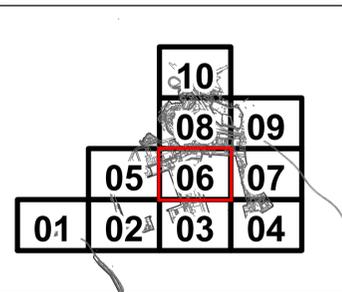




- Legend**
- Cold Water**
 - Water Hydrant
 - Water Valve
 - Water Pressure/Reducing
 - Water Backflow Preventer
 - Water Air Vent
 - Water Drinking Fountain
 - Water Faucet/Hose Bib
 - Water Sprinkler
 - Water Distribution Main
 - Water Hydrant Lateral
 - Water Transmission Main
 - Water Commercial
 - Water Domestic
 - Water Fire Protection
 - High Quality Water**
 - High Flow Meter
 - High Valve
 - High Check Valve
 - High Supply Pipe
 - High Return Pipe
 - Natural Gas**
 - Gas Meter
 - Gas Valve
 - Gas Check Valve
 - Gas Regulator
 - Gas Service Line
 - Gas Main Line
 - Salt Water**
 - Salt Manhole
 - Salt Valve
 - Salt Check Valve
 - Salt Blow
 - Salt Pump
 - Salt Flowmeter
 - Salt Strainer
 - Salt Inlet
 - Salt Air Vent
 - Salt Service Pipe
 - Compressed Air**
 - Air Valve
 - Air Compressor
 - Air Separator
 - Air Expansion Joint
 - Air Flowmeter
 - Air Receiver Tank
 - Air Service Pipe
 - Air Manhole
 - Electrical**
 - Electric Exterior Light
 - Electric Grounding Point
 - Electric Terminator
 - Electric Race/Structure
 - Electric Connection Box
 - Electric Switch Over Head
 - Electric Switch/Pole Mount
 - Electric Transformer Overhead
 - Electric Transformer Padmount
 - Electric Manhole
 - Electric Handhole
 - Electric Junction Box
 - Electric Pull Box
 - Electric Vault
 - Electric Conduit System
 - Fuel Oil**
 - Fuel Storage Facility
 - Fuel Valve
 - Fuel Check Valve
 - Fuel Expansion Joint
 - Fuel Flowmeter
 - Fuel Strainer
 - Fuel Pump
 - Fuel Oil Pipe
 - Fuel Manhole
 - Steam**
 - Steam Pressure/Reducing Valve
 - Steam Expansion Joint
 - Steam Return Tank
 - Steam Pump
 - Steam Service Supply
 - Steam Service Return
 - Steam Main Supply
 - Steam Main Return
 - Steam Manhole
 - Storm Drain**
 - Storm Manhole
 - Storm Junction Box
 - Storm Drop Inlet
 - Storm Catch Basin
 - Storm Tee Connection
 - Storm Discharge Point
 - Storm Valve
 - Storm Oil Separator
 - Storm Main Pipe
 - Storm Service Pipe
 - Storm Culvert/Chute
 - Wastewater**
 - Wastewater Cleanout
 - Wet Cap
 - Wet Manhole
 - Wet Oil Water Separator
 - Wet Pump
 - Wet Sump Tank
 - Wet Gravity Main
 - Wet Force Main

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NAVAL FACILITIES ENGINEERING COMMAND, FAR EAST
ASSET UTILIZATION BRANCH, AM4

**UTILITIES SYSTEM MAP,
SASEBO**

SCALE: 1/1000 PAPER SIZE: D (34"x22")

MAP ID : all_sasebo-d1000-006
REVISED DATE : Mar/09/2015 Sheet 06 of 10
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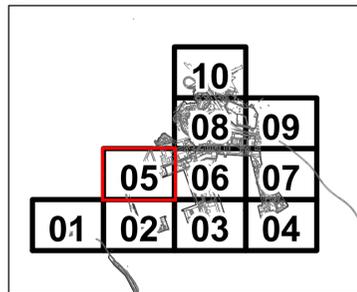


Legend

- Cold Water**
 - Water Hydrant
 - Water Meter
 - Water Pressure/Reducing
 - Water Backflow Preventer
 - Water Air Vent
 - Water Drinking Fountain
 - Water Faucet/Hose Bib
 - Water Sprinkler
 - Water Distribution Main
 - Water Hydrant Lateral
 - Water Transmission Main
 - Water Commercial
 - Water Domestic
 - Water Fire Protection
- High Quality Water**
 - High Flow Meter
 - High Check Valve
 - High Supply Pipe
 - High Return Pipe
- Natural Gas**
 - Gas Meter
 - Gas Valve
 - Gas Check Valve
 - Gas Regulator
 - Gas Service Line
 - Gas Main Line
- Salt Water**
 - Salt Manhole
 - Salt Valve
 - Salt Check Valve
 - Salt Blow
 - Salt Pump
 - Salt Flowmeter
 - Salt Strainer
 - Salt Inlet
 - Salt Air Vent
 - Salt Service Pipe
- Communication**
 - Com Vault Communication
 - Com Manhole
 - Com Handhole
 - Com Pullbox
 - Com Pole
 - Com Terminal
 - Com Service Point
 - Com Cable Joint
 - Com Cable End
 - Com UG Ductbank Line
 - Com Overhead Line
- Compressed Air**
 - Air Valve
 - Air Compressor
 - Air Separator
 - Air Expansion Joint
 - Air Flowmeter
 - Air Receiver Tank
 - Air Service Pipe
 - Air Manhole
- Electrical**
 - Elec Exterior Light
 - Elec Grounding Point
 - Elec Terminator
 - Elec Substructure
 - Elec Connection Box
 - Elec Switch Over Head
 - Elec Switch/Pole Mount
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 - Elec Transformer Padmount
 - Elec Manhole
 - Elec Handhole
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 - Fuel Manhole
- Steam**
 - Steam Pressure/Reducing Valve
 - Steam Expansion Joint
 - Steam Return Tank
 - Steam Pump
 - Steam Service Supply
 - Steam Service Return
 - Steam Main Supply
 - Steam Main Return
 - Steam Manhole
- Storm Drain**
 - Sto Manhole
 - Sto Junction Box
 - Sto Drop Inlet
 - Sto Catch Basin
 - Sto Tee Connection
 - Sto Discharge Point
 - Sto Valve
 - Sto Oil Separator
 - Sto Manhole
 - Sto Service Pipe
 - Sto Curved/Chish
- Wastewater**
 - Ww Manhole
 - Ww Cleanout
 - Ww Cap
 - Ww Manhole
 - Ww Oil Water Separator
 - Ww Pump
 - Ww Sump Tank
 - Ww Gravity Main
 - Ww Force Main

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KEY PLAN

NAVAL FACILITIES ENGINEERING COMMAND, FAR EAST
ASSET UTILIZATION BRANCH, AM4

UTILITIES SYSTEM MAP,
SASEBO

SCALE : 1/1000 PAPER SIZE : D (34"x22")



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 REVISED DATE : Mar/09/2015 Sheet 05 of 10
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SECTION 01 14 00

WORK RESTRICTIONS
11/11

PART 1 GENERAL

1.1 SUBMITTALS

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

SD-01 Preconstruction Submittals:

List of Contact Personnel;

Vehicle list;

Employee List for High Restricted area; G (CME)

1.2 RESTRICTIONS ON OPERATIONS

1.2.1 Coordination with Other Work

The Contract Clause entitled FAR 52.236-8 "Other Contracts".

1.3 SPECIAL SCHEDULING REQUIREMENTS

- a. Permission to interrupt any Activity roads, and/or utility service shall be requested in writing a minimum of 15 calendar days prior to the desired date of interruption.
- b. The Government will perform normal operation at berths and pump house, where not scheduled to Contractor's work. Conduct construction so as to cause the least possible interference with normal operations of the activity.
- c. The Contractor shall complete all the on-site work within the Government directed **300** calendar days.

The work under this contract requires special attention to the scheduling and conduct of the work in connection with existing berth operations. The Contractor shall not work on a berth when ship is berthing. The Government will inform berthing schedule of each berth 30 calendar days before berthing. Identify on the construction schedule each factor which constitutes a potential interruption to operations.

The following conditions apply:

- (1) Work sequence-1 will be divided into five Berths (Berth-6, 7, 8, 9 and 10). One or more Berths will be available to the Contractor at the same time. Availability of five Berths will be notified to the Contractor by the Government.
 - (2) Government Emergency Use of Berth-6, 7, 8, 9 and 10 of India Basin: When non-scheduled U.S. Navy ship uses the Berth-6, 7, 8, 9 or 10 of the India Basin during on-site construction period, the Contractor will be issued a "Suspension of Work Order" in accordance with FAR 52.242.14. The Contractor will be directed to stop works at such Berth. The Government will issue the "Suspension of Work Order" 14 calendar days prior to suspend the Contractor's work. The Contractor will be compensated for all delays, costs, as appropriate, in accordance with the FAR 52.242.14 Suspension of Work clause.
- d. Remove construction debris, waste materials, packaging material and the like from the work site daily.

1.4 CONTRACTOR ACCESS AND USE OF PREMISES

1.4.1 Activity Regulations

Ensure that Contractor personnel employed on the Activity become familiar with and obey Activity regulations including access, safety, environment, fire, traffic and security regulations. Provide written "General Authorization to Work on Base" to the [Security Office, Commander Fleet Activities, Sasebo](#). Keep within the limits of the work and avenues of ingress and egress. To minimize traffic congestion, delivery of materials shall be outside of peak traffic hours (6:30 to 8:00 a.m. and 3:30 to 5:00 p.m.) unless otherwise approved by the Contracting Officer. Wear safety gears (such as hard hats, high visibility vest) with the Contractor's name prominently displayed, in construction site and designated areas. Do not enter any restricted areas unless required to do so and until cleared for such entry. The Contractor's equipment shall be conspicuously marked for identification.

1.4.1.1 Subcontractors and Personnel Contacts

Within 15 days after the date of Award, furnish a list of contact personnel of the Contractor and subcontractors including the names, job titles, addresses and telephone numbers for use in the event of an emergency. As changes occur and additional information becomes available, correct and change the information contained in previous lists.

1.4.1.2 Vehicle List

Submit an original list of vehicles to be utilized at the work site with the following information for each vehicle:

- a. Make
- b. Year

- c. Model
- d. License number
- e. Registered owner
- f. Current BASE pass expiration date.

1.4.1.3 No Smoking Policy

Smoking is prohibited within and outside of all buildings on installations under the cognizance of NAVFAC except in designated smoking areas. This applies to existing buildings, buildings under construction and buildings under renovation. Discarding tobacco materials other than into designated tobacco receptacles is considered littering and is subject to fines. The Contracting Officer will identify designated smoking areas.

1.4.2 Shipyard Regulations

Ensure that Contractor personnel employed on the Shipyard become familiar with and obey Shipyard regulations. Do not enter any restricted areas unless required to do so and until cleared for such entry. The Contractor's equipment shall be conspicuously marked for identification. Comply with the following conditions:

- a. Restrict employees/representatives to the work site and control travel directly to and from the work site.
- b. Be responsible for control and security of Contractor-owned equipment and materials at the work site. Report immediately missing/lost/stolen property to the Contracting Officer as each case occurs.
- c. Vehicle Speed Limits: The speed limits of all vehicles on the pier shall be 15 kilos or less per an hour.
- d. Pier Access Request: The Contractor shall submit "Pire Access Request" to the Government, 5 working days prior to start the work.

1.4.3 Working Hours

The project site will be available during regular working hours established by the CME between 8:00 a.m. and 4:45 p.m., Monday through Friday, excluding all U.S. legal holidays.

1.4.4 Work Outside Regular Hours

Work outside regular working hours requires Contracting Officer approval. If the Contractor desires to carry on work outside regular hours, including Saturdays, Sundays, and Government holidays, submit a written justification giving the benefit to the Government, specific dates, hours, location, type of work to be performed, contract number and project title for approval, and submit request outside regular hours 96 hours in advance of the date the work will start. During periods of darkness, light the different parts of the work in an approved manner. All work outside of regular hours is subject to approval by the CME. All work outside of regular hours must be able to demonstrate a benefit to the Government. The Contractor must attach a Safety Brief and the Activity Hazard Analysis (AHA) for work that

will be done outside regular working hours. The Safety Brief will be signed by the employees performing the work and submitted to the Government's Representative.

1.4.5 Occupied and Existing Buildings

- a. The Contractor shall be working around existing buildings which are occupied. Do not enter the buildings without prior approval of the Contracting Officer. Before work is started, the Contractor shall arrange with the Contracting Officer a sequence of procedure, means of access, space for storage of materials and equipment, and use of approaches.
- b. Prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution. Vacuum and dust the work area daily.

1.4.6 Evacuated project site

Project site will be evacuated.

1.4.7 Utility Cutovers and Interruptions

This project will not permit interruptions to utility services and the Government's regular operations, except the saltwater service, at India Basin Berth-6, 7, 8, 9 and 10, repaired by this contract.

- a. Ensure that new saltwater lines are complete, except all work in work sequence-2, before interrupting existing service.
- b. Limit such interruption to saltwater service to one time of maximum 21 calendar days during this project. This time limit includes time for deactivation and reactivation. The interruption shall be scheduled to hold outages to a minimum.
- c. Operation of Station Utilities: The Contractor shall not operate nor disturb the setting of control devices in the station utilities system, including water, sewer, electrical, and steam services. The Government will operate the control devices as required for normal conduct of the work, or permit such operation to the contractor. The Contractor shall notify the Contracting Officer giving reasonable advance notice when such operation is required.

1.4.8 Restrictions on Equipment

1.4.8.1 Restrictions on Radio Transmitter Equipment

Conform to the restrictions and procedures for the use of radio transmitting equipment, as directed. Do not use transmitters without prior approval.

1.4.8.2 Prohibition of Radiographic Operations on NAVFAC Projects

No radiographic operations including radiographical tests are allowed on NAVFAC projects. This includes machine and equipment that produce ionizing

radiation such as industrial x-ray machines, particle accelerators, electron microscopes, laboratory analytical devices, and all other equipment capable of producing ionizing radiation.

1.5 SECURITY REQUIREMENTS

Contract Clause "FAR 52.204-2, Security Requirements and Alternate II," "FAC 5252.236-9301, Special Working Conditions and Entry to Work Area," and the following apply:

1.5.1 Areas Not Covered by Contract

Contractor personnel will not be permitted to enter Shipyard buildings, spaces, and areas not covered by this contract except on prior approval of the Shipyard department/office/shop having jurisdiction of the areas. Coordinate action with the Contracting officer to obtain such entry approval.

1.5.2 Access to Unclassified Information

Access to unclassified U.S. Navy ship building, conversion, or repair technology and related technical information manuals, documents, drawings, plans, specifications, and other unclassified information is restricted to official need-to-know basis, designated by physical markings to show the appropriate control designations. Handle, control, and safeguard to prevent oral, visual, and documentary disclosure to the public, to foreign sources, and to personnel not having an official need-to-know. Return this information to the naval Shipyard upon completion of contracted work, except when specific retention authorization is granted by the Contracting Officer's Security Representative.

1.5.3 Photographs

Unofficial photograph is prohibited in the Naval Shipyard . When operationally required, submit a written request containing specific justification and details to the Security Officer prior to release.

1.5.4 Employee List for High Restricted Area

A list of all employees to be engaged in the performance of work shall be furnished to the Security Department.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 20 00.00 20

PRICE AND PAYMENT PROCEDURES

01/12

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EP-1110-1-8

Construction Equipment Ownership and
Operating Expense Schedule, Vol 1-12

1.2 SUBMITTALS

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

SD-01 Preconstruction Submittals

Earned Value Report; G (CME)

1.3 EARNED VALUE REPORT

1.3.1 Data Required

This contract requires the use of a cost-loaded Network Analysis Schedule (NAS). The information required for the Schedule of Prices will be entered as an integral part of the Network Analysis Schedule. Within 15 calendar days of notice of award, prepare and deliver to the Contracting Officer an Earned Value Report (construction contract) as directed by the Contracting Officer. Provide a detailed breakdown of the contract price, giving quantities for each of the various kinds of work, unit prices, and extended prices. Costs shall be summarized and totals provided for each construction category.

1.3.2 Schedule Instructions

Payments will not be made until the Earned Value Report from the cost-loaded NAS has been submitted to and accepted by the Contracting Officer. Identify the cost for site work. .

1.4 CONTRACT MODIFICATIONS

In conjunction with the Contract Clause "DFARS 252.236-7000, Modification Proposals-Price Breakdown," and where actual ownership and operating costs of construction equipment cannot be determined from Contractor accounting records, equipment use rates shall be based upon the applicable provisions of the EP-1110-1-8.

1.5 CONTRACTOR'S INVOICE AND CONTRACT PERFORMANCE STATEMENT

1.5.1 Content of Invoice

Requests for payment will be processed in accordance with the Contract. Clause FAR 52.232-27, Prompt Payment Construction Contracts and FAR 52.232-5, Payments Under Fixed-Price Construction Contracts. The Requests for payment shall include the documents listed below:

- a. The Contractor's invoice, on NAVFAC Form 7300/30 furnished by the Government, showing in summary form, the basis for arriving at the amount of the invoice. Form 7300/30 shall include certification by Quality Control (QC) Manager as required by the contract.
- b. The Earned Value Report from the cost-loaded NAS, showing in detail: the estimated cost, percentage of completion, and value of completed performance for each of the construction categories stated in this contract.
 - a. Contract Performance Statement
 - b. Updated Project Schedule and reports required by the contract
 - c. Contractor Safety Self Evaluation Checklist
 - d. Other supporting documents as requested
 - e. Updated copy of submittal register.
 - f. Invoices not completed in accordance with contract requirements will be returned to the Contractor for correction of the deficiencies.
 - g. Monthly Work-hour report
 - h. Solid Waste Disposal Report

1.5.2 Submission of Invoices

Submit invoices in accordance with the Contract Clauses "DFARS 252.232-7003 *Electronic Submission of Payment Requests and Receiving Reports*" and "DFARS 252.232-7006 *Wide Area Workflow Payment Instructions*". The documents listed in paragraph titled "Content of Invoice" above shall be provided in their entirety as an attachment in Wide Area Work Flow (WAWF) for each invoice submitted. The maximum size of each WAWF attachment is two megabytes, but there are no limits on the number of attachments. If a document cannot be attached in WAWF due to system or size restriction it shall be provided as instructed by the Contracting Officer.

1.5.3 Final Invoice

- a. A final invoice shall be accompanied by the certification required by DFARS 252.247.7023 TRANSPORTATION OF SUPPLIES BY SEA, and the Contractor's Final Release. If the Contractor is incorporated, the Final Release shall contain the corporate seal. An officer of the corporation shall sign and the corporate secretary shall certify the Final Release.
- b. For final invoices being submitted via WAWF or as instructed by the Contracting Officer, the original Contractor's Final Release Form and required certification of Transportation of Supplies by Sea must be provided directly to the respective Contracting Officer prior to submission of the final invoice. Once receipt of the original Final Release Form and required certification of Transportation of Supplies by Sea has been confirmed by the Contracting Officer, the Contractor shall then submit final invoice and attach a copy of the Final Release Form and required certification of Transportation of Supplies by Sea in WAWF or as instructed by the Contracting Officer.
- c. Final invoices not accompanied by the Contractor's Final Release and required certification of Transportation of Supplies by Sea will be considered incomplete and will be returned to the Contractor.

1.6 PAYMENTS TO THE CONTRACTOR

Payments will be made on submission of itemized requests by the Contractor which comply with the requirements of this section, and will be subject to reduction for overpayments or increase for underpayments made on previous payments to the Contractor.

1.6.1 Obligation of Government Payments

The obligation of the Government to make payments required under the provisions of this contract will, at the discretion of the Contracting Officer, be subject to reductions and/or suspensions permitted under the FAR and agency regulations including the following in accordance with "FAR 32.503-6:

- a. Reasonable deductions due to defects in material or workmanship;
- b. Claims which the Government may have against the Contractor under or in connection with this contract;
- c. Unless otherwise adjusted, repayment to the Government upon demand for overpayments made to the Contractor; and
- d. Failure to provide up to date record drawings not current as stated in Contract Clause "FAC 5252.236-9310, Record Drawings."

1.6.2 Payment for Onsite and Offsite Materials

Progress payments may be made to the contractor for materials delivered on the site, for materials stored off construction sites, or materials that are in transit to the construction sites under the following conditions:

- a. FAR 52.232-5(b) Payments Under Fixed Price Construction Contracts.
- b. 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. 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/prestressed concrete products, plastic lumber (e.g., fender piles/curbs) and high-voltage electrical cable. Materials not acceptable for payment include consumable materials such as nails, fasteners, conduits, gypsum board, glass, insulation, and wall coverings.
- c. Materials to be considered for progress payment prior to installation shall be specifically and separately identified in the Contractor's estimates of work submitted for the Contracting Officer's approval in accordance with Earned Value Report requirement of this contract. Requests for progress payment consideration for such items shall be supported by documents establishing their value and that the title requirements of the clause at FAR 52.232-5 have been met.
- d. Materials are adequately insured and protected from theft and exposure.
- e. Provide a written consent from the surety company with each payment request for offsite materials.
- f. Materials to be considered for progress payments prior to installation shall be stored either in Hawaii, Guam, Puerto Rico, or the Continental United States. Other locations are subject to written approval of the Contracting Officer.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 30 00

ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SUBMITTALS

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

SD-01 Preconstruction Submittals

Certificate of Insurance; G (Contract Specialist)

View location map;

Progress and completion pictures; G (CI)

Limited Authorization for Use of Hardcopy Data and Electronic Data; G (CME)

1.2 VIEW LOCATION MAP

Submit to the Contracting Officer, prior to or with the first digital photograph submittals, a sketch or drawing indicating the required photographic locations. Update as required if the locations are moved.

1.3 PROGRESS AND COMPLETION PICTURES

Photographically document site conditions prior to start of construction operations. Provide monthly, and within one month of the completion of work, digital photographs, 1600x1200x24 bit true color minimum resolution in JPEG file format showing the sequence and progress of work. Take a minimum of 20 digital photographs each week throughout the entire project in accordance with "Eizen Kouji Shashin Satsuei Youryo" (published by Japanese Ministry of Land Infrastructure and Transport), except specified herein. Submit with the monthly invoice two sets of digital photographs each set on a separate CD-R, cumulative of all photos to date. Indicate photographs demonstrating environmental procedures.

Photographs for each month shall be in a separate monthly directory and each file shall be named to indicate its location on the view location sketch. The view location sketch shall also be provided on the CD as digital file. All file names shall include a date designator. Cross reference submittals in the appropriate daily report. Photographs shall be provided for unrestricted use by the Government.

1.4 MINIMUM INSURANCE REQUIREMENTS

Procure and maintain during the entire period of performance under this contract the following minimum insurance coverage:

- a. Comprehensive general liability: ¥50,000,000 per occurrence
 - (1) Certificate of Insurance for Comprehensive general liability

Certificate of insurance shall indicate *Contract Number, Contract Title, Insurance Limit, and Insurance coverage.*

Certificate of insurance shall provide for at least 30 days written notice to the Contracting Officer by the insurance company prior to cancellation or material change in policy coverage.
- b. Automobile liability: ¥20,000,000 per person, ¥50,000,000 per occurrence for bodily injury, ¥2,000,000 per occurrence for property damage
- c. Workmen's compensation as required by Japanese law or Federal and State workers' compensation and occupational disease laws.
- d. Employer's liability coverage of ¥10,000,000,
- e. Others as required by Japanese law.

1.5 PERFORMANCE EVALUATION

Contractor's performance will be evaluated using the contractor performance evaluation report entry system located on the website <http://www.cpars.gov/cparsmain.htm> On-line training for Contractor's personnel is available on the website. Prior to commencement of work, the Contractor is required to provide the government with the name, phone number and e-mail address of the "Contractor's Representative" that will be responsible for receipt and review of draft performance evaluations prepared by the government. It is the Contractor's responsibility to keep this contact information current. After contractor performance evaluation is completed, it will be placed in the Federal Government's Past Performance Information Retrieval System (PPIRS) for use by source selection officials when considering contractors for award of new contracts.

1.6 INTERPRETER

The Contractor shall furnish the service of an interpreter on the job. This interpreter shall have strong knowledge of the English language in terms of writing, listening, speaking and reading skills. Interpreter's English skills shall also be well suited to the construction industry. If at any time the CME feels the Contractor's interpreter is unable to perform the duties required of him/her, the CME will ask for his/her immediate replacement. When the QC manager or the project superintendent talks with the Government representative, on-site or off-site, they shall be accompanied by their interpreter.

1.7 PRECONSTRUCTION CONFERENCE

After award of the contract but prior to commencement of any work at the site, meet with the Contracting Officer to discuss and develop a mutual understanding relative to the administration of the value engineering and safety program, preparation of the schedule prices, shop drawings, and other submittals, scheduling programming, and prosecution of the work. Major subcontractors who will engage in the work shall also attend.

1.8 PARTNERING

To most effectively accomplish this contract, the Government requires the formation of a cohesive partnership within the Project Team whose members are from the Government, the Contractor and their Subcontractors. Key personnel from the Supported Command, the End User (who will occupy the facility), NAVFAC (Echelon III and IV), the Navy Region/Installation, the Contractor and Subcontractors, and the Designer of Record will be invited to participate in the Partnering process. The Partnership will draw on the strength of each organization in an effort to achieve a project that is without any safety mishaps, conforms to the Contract, and stays within budget and on schedule. The Contracting Officer will provide Information on the Partnering Process and a list of key and optional personnel who should attend the Partnering meeting.

1.8.1 Informal Partnering

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

The Initial Partnering session should be a part of the Pre-Construction Meeting. Partnering sessions will be held at a location agreed to by the Contracting Officer and the Contractor (typically a conference room provided by the CME or the Contractor).

The Initial Informal Partnering Session will be conducted and facilitated using electronic media (a video and accompanying forms) provided by the Contracting Officer.

The Partners will determine the frequency of the follow-on sessions.

1.9 AVAILABILITY OF CADD DRAWING FILES

After award and upon request, the electronic "Computer-Aided Drafting and Design (CADD)" drawing files, AUTOCADD 2004 U.S version for drawings prepared before March 2014, AUTOCADD 2010 U.S file format version for drawings prepared after April 2014, will only be made available to the Contractor for use in preparation of construction data related to the referenced contract subject to the following terms and conditions. Request specific drawing numbers of files required with purpose; the entire set of drawing files will not be provided.

Data contained on these electronic files shall not be used for any purpose other than as a convenience in the preparation of construction data for the referenced project. Any other use or reuse shall be at the sole risk of the Contractor and without liability or legal exposure to the Government. The Contractor shall make no claim and waives to the fullest extent permitted by law, any claim or cause of action of any nature against the Government, its agents or sub consultants that may arise out of or in connection with the use of these electronic files. The Contractor shall, to the fullest extent permitted by law, indemnify and hold the Government harmless against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.

These electronic CADD drawing files are not construction documents. Differences may exist between the CADD files and the corresponding construction documents. The Government makes no representation regarding the accuracy or completeness of the electronic CADD files, nor does it make representation to the compatibility of these files with the Contractors hardware or software. In the event that a conflict arises between the signed and sealed construction documents prepared by the Government and the furnished CADD files, the signed and sealed construction documents shall govern. The Contractor is responsible for determining if any conflict exists. Use of these CADD files does not relieve the Contractor of duty to fully comply with the contract documents, including and without limitation, the need to check, confirm and coordinate the work of all contractors for the project.

If the Contractor uses, duplicates and/or modifies these electronic CADD files for use in producing construction data related to this contract, all previous indicia of ownership (seals, logos, signatures, initials and dates) shall be removed.

1.10 LIMITED AUTHORIZATION FOR USE OF HARDCOPY DATA AND ELECTRONIC DATA

The Contractor shall sign the "Limited Authorization for Use of Hardcopy Data" and the "Limited Authorization for Use of Electronic Data" attached end of this section, before the AUTOCAD files are released to the Contractor.

1.11 ELECTRONIC MAIL (E-MAIL) ADDRESS

The Contractor shall establish and maintain electronic mail (e-mail) capability along with the capability to open various electronic attachments in Microsoft, Adobe Acrobat, and other similar formats. Within 10 days after contract award, the Contractor shall provide the Contracting Officer a single (only one) e-mail address for electronic communications from the Contracting Officer related to this contract including, but not limited to contract documents, invoice information, request for proposals, and other correspondence. The Contracting Officer may also use email to notify the Contractor of base access conditions when emergency conditions warrant, such as hurricanes, terrorist threats, etc. Multiple email address will not be allowed.

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

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --



DEPARTMENT OF THE NAVY
 NAVFAC Far East
 Yokosuka Japan



**LIMITED AUTHORIZATION FOR
 USE OF HARDCOPY DATA**

Contractor Information		
Primary: Name (Print)	Signature	Phone #
Additional: Name (Print)	Signature	Phone #
Additional: Name (Print)	Signature	Phone #
(Hereinafter "Contractor") is authorized to use the attached electronic data for the sole and exclusive purpose of		
<hr/> (Insert use: e.g. assisting in the preparation of Contract related submittals for Contract No. 1234)		

The Contractor shall not use the data for any other purpose, including any other commercial, business or for-profit activity. The Contractor shall not assign, loan, sell, copy or otherwise transfer the data to any other party without the Government's prior written consent. The Government makes no representation or warranty as to the suitability of the data for the Contractor's preparation of drawings and/or specifications as part of their contract submittal, including but not limited to, any expressed or implied warranty of merchantability or fitness for a particular purpose. The Contractor is under no obligation to use the data and assumes full and complete responsibility for their use. However, should they decide to use the data, the Contractor acknowledges and agrees to indemnify, defend and hold the Government and their consultants harmless from and against any and all claims arising out of the use of the data. The Contractor also agrees to submit back to the Government the data in relation to the above-referenced purpose for incorporation back into the Government database.

The Contractor's use of the attached data constitutes acknowledgment and agreement to the terms noted herein this limited authorization.

For Government Approval/Acknowledgment		
Name (Print)	Signature	Phone #
Title	Date	



DEPARTMENT OF THE NAVY
 NAVFAC Far East
 Yokosuka Japan



**LIMITED AUTHORIZATION FOR
 USE OF ELECTRONIC DATA**

Contractor Information		
Primary: Name (Print)	Signature	Phone #
Additional: Name (Print)	Signature	Phone #
Additional: Name (Print)	Signature	Phone #
(Hereinafter "Contractor") is authorized to use the attached electronic data for the sole and exclusive purpose of		
<hr/> (Insert use: e.g. assisting in the preparation of Contract related submittals for Contract No. 1234)		

The Contractor shall not use the electronic data for any other purpose, including any other commercial, business or for-profit activity. The Contractor shall not assign, loan, sell, copy or otherwise transfer the electronic data to any other party without the Government's prior written consent. The Government makes no representation or warranty as to the suitability of the data for the Contractor's preparation of drawings and/or specifications as part of their contract submittal, including but not limited to, any expressed or implied warranty of merchantability or fitness for a particular purpose. The Contractor is under no obligation to use the electronic data and assumes full and complete responsibility for their use in preparing drawings and/or specifications for the above-referenced purpose. However, should they decide to use the electronic data, the Contractor acknowledges and agrees to indemnify, defend and hold the Government and their consultants harmless from and against any and all claims arising out of the use of the data. The Contractor also agrees to submit back to the Government the affected data where modified in relation to the above-referenced purpose for incorporation into the Government database.

The Contractor's use of the attached electronic data constitutes acknowledgment and agreement to the terms noted herein this limited authorization.

For Government Approval/Acknowledgment		
Name (Print)	Signature	Phone #
Title	Date	

SECTION 01 32 16.00 20

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00.00 20 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction schedule; G (CME)

1.2 ACCEPTANCE

Prior to the start of work, prepare and submit to the Contracting Officer for acceptance a construction schedule in the form of a Network Analysis Schedule (NAS) in accordance with the terms in Contract Clause "FAR 52.236-15, Schedules for Construction Contracts," except as modified in this contract. Acceptance of an error free Baseline Schedule and updates is a condition precedent to processing the Contractor's pay request.

1.3 SCHEDULE FORMAT

1.3.1 Network Analysis Schedule (NAS)

The Contractor shall use the critical path method (CPM) to schedule and control project activities.

The scheduling software that will be utilized by the Government on this project is MS Projects 2010 by Microsoft, Inc. Notwithstanding any other provision in the contract, schedules submitted for this project must be prepared using MS Projects. Submission of data from another software system where data conversion techniques or software is used to import into MS Projects scheduling software is not acceptable and will be cause for rejection of the submitted schedule. The schedule shall be built as follows:

The Project Schedule shall show submittals, government review periods, material/equipment delivery, utility outages, all on-site construction, inspection, testing, and closeout activities. Government and Contractor on-site work activities shall be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days.

With the exception of the Contract Award and End Contract milestone activities, no activities shall be open-ended; each activity shall have predecessor and successor ties.

Each activity shall be assigned its appropriate Responsibility Code indicating responsibility to accomplish the work indicated by the activity, Phase Code and Work Location Code.

Date/time constraint(s) and/or lags, other than those required by the contract, shall not be allowed unless accepted by the Contracting Officer. The Contractor shall include as the last activity in the contract schedule, a milestone activity named "Contract Completion Date". The "Contract Completion Date" milestone shall have a "Mandatory Finish" constraint equal to the contract completion date.

1.3.1.1 Cost Loading Activities

Material, labor and equipment costs will be assigned to their respective Construction Activities. Material and equipment costs for which payment will be requested in advance of installation will be assigned to their respective procurement activity (i.e., the material/equipment on-site activity). Evenly disperse overhead and profit to each activity over the duration of the project. Cost loading shall total to 100 percent of the value of the contract.

1.3.1.2 NAS Submittals and Procedures

- a. Submit all network analysis and updates in hard copy and on electronic media as directed by the Contracting Officer. Submit an electronic back-up of the project schedule in an import format compatible with the governments scheduling program.
- b. Submit an Earned Value Report with each schedule update showing activity budget, cost percent complete, earned amount and cost to complete as directed by the contracting officer.
- c. With each schedule submission, provide a Schedule Variance Control (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.

1.4 UPDATED SCHEDULES

Update the construction schedule at monthly intervals or when the schedule has been revised. The updated schedule shall be kept current, reflecting actual activity progress and plan for completing the remaining work. Submit copies of the purchase orders and confirmation of the delivery dates as directed.

1.5 3-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 Construction Schedule. The work plans shall be keyed to activity numbers when a NAS is required 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 3-Week Look Ahead Schedule. The detail work plans are to be bar chart type schedules, maintained separately from the Construction Schedule on an electronic spreadsheet program and printed on 8 ½ 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 CQC Coordination Meeting.

1.6 CORRESPONDENCE AND TEST REPORTS

All correspondence (e.g., letters, Requests for Information (RFIs), e-mails, meeting minute items, Production and QC Daily Reports, material delivery tickets, photographs, etc.) shall reference Schedule activities that are being addressed. All test reports (e.g., concrete, soil compaction, weld, pressure, etc.) shall reference the schedule activities that are being addressed.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section -

REQUEST FOR INFORMATION		ACTIVITY ID	DATE
CONTRACT NO	CONTRACT TITLE		RFI NO
RFI SUBJECT		SPEC SECTION	DWG NO
RFI PRIORITY?	<input type="radio"/> HIGH <input type="radio"/> NORMAL <input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> YES <input type="radio"/> NO	SPEC PARAGRAPH	DWG DETAIL
POTENTIAL TIME/COST?		SPEC PAGE NO	DWG SHEET NO
SCHEDULE REFERENCED?			
CRITICAL PATH?			
CONTRACTOR QUESTION AND PROPOSED SOLUTION			
RFI QUESTION/ISSUE:			
CONTRACTOR PROPOSED SOLUTION:			
		_____ CONTRACTOR/PROJECT MANAGER	_____ DATE
ANSWERS AND COMMENTS			
RFI ACTION	NOTE: If the determination of this RFI is "Answered - No Cost" then this reply is given with the expressed understanding that it does not constitute a basis for any change in the amount or time of subject contract. Information provided in this response does not authorize work not currently included in the contract. If determination of this RFI is "Answered - Pending PCO" then this response may require a change to the contract.		
RFI REASON CODE			
COMMENTS FOR DETAILED REVIEWER:			
DETAILED REVIEWER 1 RECOMMENDED RFI SOLUTION:			
DETAILED REVIEWER 1 NAME/SIGNATURE	TITLE	RESPONSE DATE	
DETAILED REVIEWER 2 RECOMMENDED RFI SOLUTION:			
DETAILED REVIEWER 2 NAME/SIGNATURE	TITLE	RESPONSE DATE	
RFI RESPONSE:			
		_____ GOVERNMENT CONSTRUCTION MANAGER	_____ DATE

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 DEFINITIONS

1.1.1 Submittal Description (SD)

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

SD-01 Preconstruction Submittals

Submittals which are required prior to a notice to proceed commencing work on site. Schedules or 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, submitted prior to contract notice to proceed.

Certificates of insurance
Surety bonds
List of proposed subcontractors
List of proposed products
Construction Progress Schedule
Network Analysis Schedule (NAS)
Submittal register
Schedule of prices or Earned Value Report
Health and safety plan
Work plan
Quality control plan
Environmental protection plan

SD-02 Shop Drawings

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

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

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

SD-03 Product Data

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

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

SD-04 Samples

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

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

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

SD-05 Design Data

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

SD-06 Test Reports

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

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

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

Investigation reports.
Daily logs and checklists.
Final acceptance test and operational test procedure.

SD-07 Certificates

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

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

Confined space entry permits.
Text of posted operating instructions.

SD-08 Manufacturer's Instructions

Preprinted material describing installation of a product, system or material, including special notices and Material Safety Data sheets concerning impedances, hazards and safety precautions.

SD-09 Manufacturer's Field Reports

Documentation of the testing and verification actions taken by manufacturer's representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer's standards or instructions. The documentation must be signed by an authorized official of a testing laboratory or agency and must state the test results; and indicate whether the material, product, or system has passed or failed the test.

Factory test reports.

SD-10 Operation and Maintenance Data

Data that is furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel. This data is needed by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item. This Data is intended to be incorporated in an operations and maintenance manual or control system.

SD-11 Closeout Submittals

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

Special requirements necessary to properly close out a construction contract. For example, Record Drawings, manufacturer's help and product lines necessary to maintain and install equipment. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract.

1.1.2 Approving Authority

Office or designated person authorized to approve submittal.

1.1.3 Work

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

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.

The following shall be submitted in accordance with Section 01 33 00
SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Submittal register; G (CME)

1.3 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.3.1 Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Government approval is required for any deviations from the Solicitation or Accepted Proposal and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.3.2 Information Only

Submittals not requiring Government approval will be for information only.

1.4 PREPARATION

1.4.1 Transmittal Form

Transmit each submittal, except sample installations and sample panels to CME. Transmit submittals with electronic transmittal form prescribed by Contracting Officer and standard for project. On the transmittal form identify Contractor, indicate date of submittal, and include information prescribed by transmittal form and required in paragraph entitled "Identifying Submittals." Process transmittal forms to record actions regarding samples. Transmit all electronic submittals less than 1MB by e-mail. All electronic submittals larger than 1MB shall be brought to the CME on CD or DVD.

1.4.2 Identifying Submittals

When submittals are provided by a lower tier contractor the Prime Contractor is to prepare, review and stamp with Contractor's approval all specified submittals prior to submitting for Government approval. Identify submittals, except sample installations and sample panels, with the following information permanently adhered to or noted on each separate component of each submittal and noted on transmittal form. Mark each copy of each submittal identically, with the following:

- a. Project title and location.
- b. Construction contract number.
- c. Date of the drawings and revisions.

- d. Name, address, and telephone number of subcontractor, supplier, manufacturer and any other second tier Contractor associated with submittal.
- e. Section number of the specification section by which submittal is required.
- f. Submittal description (SD) number of each component of submittal.
- g. When a resubmission, add alphabetic suffix on submittal description, for example, submittal 18 would become 18A, to indicate resubmission.
- h. Product identification and location in project.

1.4.3 Format for SD-02 Shop Drawings

- a. Shop drawings are not to be less than 210 by 297 mm nor more than 1189 by 841 mm, except for full size patterns or templates. Prepare drawings to accurate size, with scale indicated, unless other form is required. Drawings are to be suitable for reproduction and be of a quality to produce clear, distinct lines and letters with dark lines on a white background.
- b. Present A4 297 by 210 mm sized shop drawings as part of the bound volume for submittals required by section. Present larger drawings in sets.
- c. Include on each drawing the drawing title, number, date, and revision numbers and dates, in addition to information required in paragraph entitled "Identifying Submittals."
- d. Number drawings in a logical sequence. Contractors may use their own number system. Each drawing is to bear the number of the submittal in a uniform location adjacent to the title block. Place the Government contract number in the margin, immediately below the title block, for each drawing.
- e. Reserve a blank space, no smaller than 25 millimeter on the right hand side of each sheet for the Government disposition stamp.
- f. Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Use the same unit of measure for shop drawings as indicated on the contract drawings. Identify materials and products for work shown.
- g. Include the nameplate data, size and capacity on drawings. Also include applicable federal, military, industry and technical society publication references.

1.4.4 Format of SD-03 Product Data and SD-08 Manufacturer's Instructions

- a. Present product data submittals for each section as a complete, bound volume. Include table of contents, listing page and catalog item numbers for product data.
- b. Indicate, by prominent notation, each product which is being submitted; indicate specification section number and paragraph number to which it pertains.

- c. Supplement product data with material prepared for project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for project, with information and format as required for submission of SD-07 Certificates.
- d. Provide product data in metric dimensions. Where product data are included in preprinted catalogs with English units only, submit metric dimensions on separate sheet.
- e. Include the manufacturer's name, trade name, place of manufacture, and catalog model or number on product data. Also include applicable federal, military, industry and technical society publication references. Should manufacturer's data require supplemental information for clarification, submit as specified for SD-07 Certificates.
- f. Where equipment or materials are specified to conform to industry and technical society reference standards of the organizations such as Japanese Industrial Standard (JIS), American National Standards Institute (ANSI), ASTM International (ASTM), National Electrical Manufacturer's Association (NEMA), Underwriters Laboratories (UL), and Association of Edison Illuminating Companies (AEIC), submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the Contracting Officer. State on the certificate that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard.
- g. Collect required data submittals for each specific material, product, unit of work, or system into a single submittal and marked for choices, options, and portions applicable to the submittal. Mark each copy of the product data identically. Partial submittals will be accepted for expedition of construction effort.
- h. Submit manufacturer's instructions prior to installation.

1.4.5 Format of SD-04 Samples

- a. Furnish samples in sizes below, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately same size as specified:
 - (1) Sample of Equipment or Device: Full size.
 - (2) Sample of Materials Less Than 50 by 75 mm: Built up to A4 297 by 210 mm.
 - (3) Sample of Materials Exceeding A4 297 by 210 mm: Cut down to A4 297 by 210 mm and adequate to indicate color, texture, and material variations.
 - (4) Sample of Linear Devices or Materials: 250 mm length or length to be supplied, if less than 250 mm. Examples of linear devices or materials are conduit and handrails.

- (5) Sample of Non-Solid Materials: 750 ml. Examples of non-solid materials are sand and paint.
 - (6) Color Selection Samples: 50 by 100 mm. Where samples are specified for selection of color, finish, pattern, or texture, submit the full set of available choices for the material or product specified. Sizes and quantities of samples are to represent their respective standard unit.
 - (7) Sample Panel: 1200 by 1200 mm.
 - (8) Sample Installation: 10 square meters.
- b. Samples Showing Range of Variation: Where variations in color, finish, pattern, or texture are unavoidable due to nature of the materials, submit sets of samples of not less than three units showing extremes and middle of range. Mark each unit to describe its relation to the range of the variation.
 - c. Reusable Samples: Incorporate returned samples into work only if so specified or indicated. Incorporated samples are to be in undamaged condition at time of use.
 - d. Recording of Sample Installation: Note and preserve the notation of area constituting sample installation but remove notation at final clean up of project.

1.4.6 Format of SD-05 Design Data and SD-07 Certificates

Provide design data and certificates on 297 by 210 mm paper. Provide a bound volume for submittals containing numerous pages.

1.4.7 Format of SD-06 Test Reports and SD-09 Manufacturer's Field Reports

- a. Provide reports on 297 by 210 mm paper in a complete bound volume.
- b. Indicate by prominent notation, each report in the submittal. Indicate specification number and paragraph number to which it pertains.

1.4.8 Format of SD-10 Operation and Maintenance Data (O&M)

Comply with the requirements specified in Section 01 78 23 OPERATION AND MAINTENANCE DATA for O&M Data format.

1.4.9 Format of SD-01 Preconstruction Submittals and SD-11 Closeout Submittals

- a. When submittal includes a document which is to be used in project or become part of project record, other than as a submittal, do not apply Contractor's approval stamp to document, but to a separate sheet accompanying document.
- b. Provide all dimensions in administrative submittals in metric. Where data are included in preprinted material with English units only, submit metric dimensions on separate sheet.

1.5 QUANTITY OF SUBMITTALS

All submittals to the Government shall be in English or with English translation.

1.5.1 Number of Copies of SD-02 Shop Drawings

Submit three copies of submittals of shop drawings requiring review and approval only by QC organization and one CD copy of shop drawings requiring review and approval by the Government.

1.5.2 Number of Copies of SD-03 Product Data and SD-08 Manufacturer's Instructions

Submit in compliance with quantity requirements specified for shop drawings.

1.5.3 Number of Samples SD-04 Samples

- a. Submit two samples, or two sets of samples showing range of variation, of each required item.
- b. Submit one sample panel or provide one sample installation where directed. Include components listed in technical section or as directed.
- c. Submit one sample installation, where directed.
- d. Submit one sample of non-solid materials.

1.5.4 Number of Copies SD-05 Design Data and SD-07 Certificates

Submit in compliance with quantity requirements specified for shop drawings.

1.5.5 Number of Copies SD-06 Test Reports and SD-09 Manufacturer's Field Reports

Submit in compliance with quantity and quality requirements specified for shop drawings other than field test results that will be submitted with QC reports.

1.5.6 Number of Copies of SD-10 Operation and Maintenance Data

Submit three copies of O&M Data to the Contracting Officer for review and approval.

1.5.7 Number of Copies of SD-01 Preconstruction Submittals and SD-11 Closeout Submittals

Unless otherwise specified, submit two sets of administrative submittals.

1.6 VARIATIONS / SUBSTITUTION REQUESTS

Variations from contract requirements require Government approval pursuant to contract Clause FAR 52.236-21 and will be considered where advantageous to Government.

1.6.1 Considering Variations

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

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

1.6.2 Proposing Variations

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

1.6.3 Warranting That Variations Are Compatible

When delivering a variation for approval, Contractor warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work.

1.6.4 Review Schedule Is Modified

In addition to normal submittal review period, a period of 15 calendar days will be allowed for consideration by the Government of submittals with variations.

1.7 SUBMITTAL REGISTER

Prepare and maintain submittal register, as the work progresses. Do not change data which is output in columns (c), (d), (e), and (f) as delivered by Government; retain data which is output in columns (a), (g), (h), and (i) as approved. A submittal register showing items of equipment and materials for which submittals are required by the specifications is provided as an attachment. This list may not be all inclusive and additional submittals may be required. Maintain a submittal register for the project in accordance with Section 01 45 00.00 20 "QUALITY CONTROL" with the following fields completed, to the extent that will be required by the Government during subsequent usage.

Column (c): Lists specification section in which submittal is required.

Column (d): Lists each submittal description (SD No. and type, e.g. SD-02 Shop Drawings) required in each specification section.

Column (e): Lists one principal paragraph in specification section where a material or product is specified. This listing is only to facilitate locating submitted requirements. Do not consider entries in column (e) as limiting project requirements.

Column (f): Indicate approving authority for each submittal. Approved offices, flowing "G", are to be used as follows;

CME- Construction Management Engineer
CS- Contract Specialist
CI- NAVFACFE CI4
FE- Far East Fire Protection Engineer
EV- Environment Office
BSVE- Base Support Vehicle & Equipment
Blank - Contractor QC Manager

1.7.1 Use of Submittal Register

Submit submittal register. Submit with QC plan and project schedule. Verify that all submittals required for project are listed and add missing submittals. Coordinate and complete the following fields on the register submitted with the QC plan and the project schedule:

Column (a) Activity Number: Activity number from the project schedule.

Column (g) Contractor Submit Date: Scheduled date for approving authority to receive submittals.

Column (h) Contractor Approval Date: Date Contractor needs approval of submittal.

Column (i) Contractor Material: Date that Contractor needs material delivered to Contractor control.

1.7.2 Contractor Use of Submittal Register

Update the following fields with each submittal throughout contract.

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (j) Action Code (k): Date of action used to record Contractor's review when forwarding submittals to QC.

Column (l) List date of submittal transmission.

Column (q) List date approval received.

1.7.3 Approving Authority Use of Submittal Register

Update the following fields.

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (l) List date of submittal receipt.

Column (m) through (p) List Date related to review actions.

Column (q) List date returned to Contractor.

1.7.4 Contractor Action Code and Action Code

Entries for columns (j) and (o), are to be used are as follows (others may be prescribed by Transmittal Form):

NR - Not Received
AN - Approved as noted
A - Approved
RA or F - Receipt, acknowledged
RR - Disapproved, Revise, and Resubmit

1.7.5 Copies Delivered to the Government

Deliver one copy of submittal register updated by Contractor to Government with each invoice request.

1.8 SCHEDULING

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

- a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of work so that work will not be delayed by submittal processing. Allow for potential resubmittal of requirements.
- b. Submittals called for by the contract documents will be listed on the register. If a submittal is called for but does not pertain to the contract work, the Contractor is to include the submittal in the register and annotate it "N/A" with a brief explanation. Approval by the Contracting Officer does not relieve the Contractor of supplying submittals required by the contract documents but which have been omitted from the register or marked "N/A".
- c. Re-submit register and annotate monthly by the Contractor with actual submission and approval dates. When all items on the register have been fully approved, no further re-submittal is required.
- d. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."
- e. Except as specified otherwise, allow review period, beginning with receipt by approving authority, that includes at least 15 calendar days for submittals for QC Manager approval and 21 calendar days for submittals for Contracting Officer approval. Period of review for submittals with Contracting Officer approval begins when Government receives submittal from QC organization.
- f. For submittals requiring review by environment office, allow review period, beginning when Government receives submittal from QC organization, of 21 calendar days for return of submittal to the Contractor.
- g. Period of review for each resubmittal is the same as for initial submittal.

Within 15 calendar days of notice to proceed, provide, for approval by the Contracting Officer, the following schedule of submittals:

- a. A schedule of shop drawings and technical submittals required by the specifications and drawings. Indicate the specification or drawing reference requiring the submittal; the material, item, or process for which the submittal is required; the "SD" number and identifying title of the submittal; the Contractor's anticipated submission date and the approval need date.
- b. A separate schedule of other submittals required under the contract but not listed in the specifications or drawings. Schedule will indicate the contract requirement reference; the type or title of the submittal; the Contractor's anticipated submission date and the approved need date (if approval is required).

1.8.1 Reviewing, Certifying, Approving Authority

The QC organization is responsible for reviewing and certifying that submittals are in compliance with contract requirements. Approving authority on submittals is QC Manager unless otherwise specified for specific submittal. At each "Submittal" paragraph in individual specification sections, a notation "G," following a submittal item, indicates Contracting Officer is approving authority for that submittal item.

1.8.2 Constraints

- a. Conform to provisions of this section, unless explicitly stated otherwise for submittals listed or specified in this contract.
- b. Submit complete submittals for each definable feature of work. Submit at the same time components of definable feature interrelated as a system.
- c. When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, submittal will be returned without review.
- d. Approval of a separate material, product, or component does not imply approval of assembly in which item functions.

1.8.3 QC Organization Responsibilities

- a. Note date on which submittal was received from Contractor on each submittal.
- b. Review each submittal; and check and coordinate each submittal with requirements of work and contract documents.
- c. Review submittals for conformance with project design concepts and compliance with contract documents.
- d. Act on submittals, determining appropriate action based on QC organization's review of submittal.
 - (1) When QC Manager is approving authority, take appropriate action on submittal from the possible actions defined in paragraph entitled, "Actions Possible."

(2) When Contracting Officer is approving authority or when variation has been proposed, forward submittal to Government with certifying statement or return submittal marked "not reviewed" or "revise and resubmit" as appropriate. The QC organization's review of submittal determines appropriate action.

e. Ensure that material is clearly legible.

f. Stamp each sheet of each submittal with QC certifying statement or approving statement, except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only.

(1) When approving authority is Contracting Officer, QC organization will certify submittals forwarded to Contracting Officer with the following certifying statement:

"I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is that proposed to be incorporated with contract Number [____], is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is submitted for Government approval.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Certified by QC Manager _____, Date _____"
(Signature)

(2) When approving authority is QC Manager, QC Manager will use the following approval statement when returning submittals to Contractor as "Approved" or "Approved as Noted."

"I hereby certify that the (material) (equipment) (article) shown and marked in this submittal and proposed to be incorporated with contract Number [____], is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is approved for use.

Certified by Submittal Reviewer _____, Date _____
(Signature when applicable)

Approved by QC Manager _____, Date _____"
(Signature)

g. Sign certifying statement or approval statement. The QC organization member designated in the approved QC plan is the person signing certifying statements. The use of original ink for signatures is required. Stamped signatures are not acceptable.

h. Update submittal register as submittal actions occur and maintain the submittal register at project site until final acceptance of all work by Contracting Officer.

i. Retain a copy of approved submittals at project site, including Contractor's copy of approved samples.

1.9 GOVERNMENT APPROVING AUTHORITY

When approving authority is Contracting Officer, the Government will:

- a. Note date on which submittal was received from QC Manager.
- b. Review submittals for approval within scheduling period specified and only for conformance with project design concepts and compliance with contract documents.
- c. Identify returned submittals with one of the actions defined in paragraph entitled "Review Notations" and with markings appropriate for action indicated.

Upon completion of review of submittals requiring Government approval, stamp and date approved submittals. If the contract requires submittals in hard copy, three copies of the approved submittal will be retained by the Contracting Officer and four copies of the submittal will be returned to the Contractor.

1.9.1 Review Notations

Contracting Officer review will be completed within 21 calendar days after date of submission. Submittals will be returned to the Contractor with the following notations:

- a. Submittals marked "approved" or "accepted" authorize the Contractor to proceed with the work covered.
- b. Submittals marked "approved as noted" "or approved except as noted, resubmittal not required," authorize the Contractor to proceed with the work covered provided he takes no exception to the corrections.
- c. Submittals marked "not approved" or "disapproved," or "revise and resubmit," indicate noncompliance with the contract requirements or design concept, or that submittal is incomplete. Resubmit with appropriate changes. No work shall proceed for this item until resubmittal is approved.
- d. Submittals marked "not reviewed" will indicate submittal has been previously reviewed and approved, is not required, does not have evidence of being reviewed and approved by Contractor, or is not complete. A submittal marked "not reviewed" will be returned with an explanation of the reason it is not reviewed. Resubmit submittals returned for lack of review by Contractor or for being incomplete, with appropriate action, coordination, or change.

1.10 DISAPPROVED OR REJECTED SUBMITTALS

Contractor shall make corrections required by the Contracting Officer. If the Contractor considers any correction or notation on the returned submittals to constitute a change to the contract drawings or specifications; notice as required under the clause entitled, "Changes" is to be given to the Contracting Officer. Contractor is responsible for the dimensions and design of connection details and construction of work. Failure to point out deviations may result in the Government requiring rejection and removal of such work at the Contractor's expense. If changes are necessary to submittals, the Contractor shall make such revisions and submission of the submittals in accordance with the procedures above. No

item of work requiring a submittal change is to be accomplished until the changed submittals are approved.

1.11 APPROVED/ACCEPTED SUBMITTALS

The Contracting Officer's approval or acceptance of submittals is not be construed as a complete check, and indicates only that the general method of construction, materials, detailing and other information are satisfactory design, general method of construction, materials, detailing and other information appear to meet the Solicitation and Accepted Proposal. Approval or acceptance will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved or accepted by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.12 APPROVED SAMPLES

Approval of a sample is only for the characteristics or use named in such approval and is not be construed to change or modify any contract requirements. Before submitting samples, the Contractor to assure that the materials or equipment will be available in quantities required in the project. No change or substitution will be permitted after a sample has been approved. Match the approved samples for Materials and equipment incorporated in the work. If requested, approved samples, including those which may be damaged in testing, will be returned to the Contractor, at his expense, upon completion of the contract. Samples not approved will also be returned to the Contractor at its expense, if so requested. Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. Government reserves the right to disapproved any material or equipment which previously has proved unsatisfactory in service. Samples of various materials or equipment delivered on the site or in place may be taken by the Contracting Officer for testing. Samples failing to meet contract requirements will automatically void previous approvals. Contractor to replace such materials or equipment to meet contract requirements. Approval of the Contractor's samples by the Contracting Officer does not relieve the Contractor of his responsibilities under the contract.

1.13 WITHHOLDING OF PAYMENT

No payment for materials incorporated in the work will be made if all required Government approvals have not been obtained. No payment will be made for any materials incorporated into the work for any conformance review submittals or information only submittals found to contain errors or deviations from the Solicitation or Accepted Proposal.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

SUBMITTAL TRANSMITTAL		ACTIVITY ID	DATE
CONTRACT NO	CONTRACT TITLE		SUBMIT NO
SUBM ITEM DESCRIPTION		SUBMITTAL PRIORITY?	<input type="radio"/> HIGH <input type="radio"/> NORMAL
		PREPARED BY CQC MGR?	<input type="radio"/> YES <input type="radio"/> NO
		SCHEDULE REFERENCED?	<input type="radio"/> YES <input type="radio"/> NO
		CRITICAL PATH?	<input type="radio"/> YES <input type="radio"/> NO
SPEC SECTION	SPEC PARAGRAPH	SPEC PAGE NO	
CQC REMARKS:			
		<input type="text"/> <small>CONTRACTOR/QUALITY CONTROL MANAGER</small>	<input type="text"/> <small>DATE</small>
APPROVAL AND COMMENTS			
COMMENTS FOR DETAILED REVIEWER:			
DETAILED REVIEWER 1 COMMENTS:			
DETAILED REVIEWER 1 NAME/SIGNATURE	TITLE	RESPONSE DATE	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
DETAILED REVIEWER 2 COMMENTS:			
DETAILED REVIEWER 2 NAME/SIGNATURE	TITLE	RESPONSE DATE	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
APPROVER'S COMMENTS:			
SUBM STATUS	<input type="text"/> <small>GOVERNMENT CONSTRUCTION MANAGER</small>		<input type="text"/> <small>DATE</small>

Transmittal/Review/Approval					DATE
CONTRACT NO		TITLE Fill in Project Title/Location Here			
FROM (CONTRACTOR)		TO	SUBMITTAL NO.	FOR SPEC. SECTION	
ENCL. NO.	NO. OF COPIES	DESCRIPTION	SPEC. SEC.PARA./DWG.NO.	SCHEDULE ACTIVITY NO.	CCC CODE
DATE NEEDED BY: _____					
TRANSMITTED FOR: <input type="checkbox"/> APPROVAL <input type="checkbox"/> CLARIFICATION <input type="checkbox"/> SELECTION <input type="checkbox"/> RECORD <input type="checkbox"/> VARIANCE					
It is hereby certified that the material submitted herein conforms to contract requirements and can be installed in the allocated spaces.			CONTRACTOR'S SIGNATURE _____		
FROM _____		SIGNATURE: _____		DATE: _____	
TO: _____		For review/comment () copies of enclosures forwarded. RETURN WITHIN () WORKING DAYS, unless submittal is for record/info purposes only and there are no adverse comments.			
FROM: _____		TO _____		DATE: _____	
RECOMMEND:					
<input type="checkbox"/> APPROVAL/ACCEPTANCE, subject to contract requirements			<input type="checkbox"/> DISAPPROVAL		
<input type="checkbox"/> APPROVAL/ACCEPTANCE, as noted, subject to contract requirements			<input type="checkbox"/> REVIEWED AND PROCEED		
<input type="checkbox"/> RETURN for correction and resubmission			<input type="checkbox"/> _____		
REMARKS:					
<input type="checkbox"/> copies of encls retained		SIGNATURE: _____			
FROM: _____		TO (CONTRACTOR) _____		DATE: _____	
Enclosure(s) is (are):					
<input type="checkbox"/> APPROVED/ACCEPTED, subject to contract requirements			<input type="checkbox"/> DISAPPROVED		
<input type="checkbox"/> APPROVED/ACCEPTED, as noted, subject to contract requirements			<input type="checkbox"/> NOT REVIEWED		
<input type="checkbox"/> RETURNED for correction and resubmission			<input type="checkbox"/> RECEIVED FOR RECORD		
REMARKS:					
<input type="checkbox"/> copies of encls returned		SIGNATURE _____			
Copy to: Contract File (w/encls)		BY DIRECTION OF THE CONTRACTING OFFICER			
ConRep/ET (w/encls)					
CME (w/encls)					

NOTE: CME=Construction Management Engineer, CS=Contract Specialist, CI=NAVFACFE CI4, FE=Far East Fire Protection Engineer, EV =NAVFACFE Environment Office, BSVE=Base Support Vehicle&Equipment, Blank=Contractor QC Ma

SUBMITTAL REGISTER											CONTRACT NO. eProject No. 1371550						
TITLE AND LOCATION						CONTRACTOR											
C50061 Repair Saltwater Piping At India Basin 6 To Bldg.1525																	
ACTIVITY NO	TRANSMITTAL NO	SPEC SECTION	SD NUMBER	PARAGRAPH NUMBER AND DISCRPTION	CLASSIFICATION	CONTRACTOR: SCHEDULE DATE			CONTRACTOR ACTION		APPROVING AUTHORITY					REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACT I O N	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FRM APPR AUTH	DATE FWD TO OTHER REVIEWER	DATE RCD FRM OTHER REVIEWER	ACT I O N	DATE OF ACTION		MAILED TO CONTR/ DATE RCD FRM APPR AUTH
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		Contract Clauses	SD-01	Bonds	G (CS)												
		01 11 00	SD-01	Utility Outage Requests	G (CME)												
			SD-01	Utility Connection Requests	G (CME)												
			SD-01	Excavation Permits	G (CME)												
		01 14 00	SD-01	List of Contact Personnel													
			SD-01	Vehicle list													
			SD-01	Employee List for High Restricted area	G (CME)												
		01 20 00.00 20	SD-01	Earned Value Report	G (CME)												
		01 30 00	SD-01	Certificate of Insurance	G (CS)												
			SD-01	Progress and completion pictures	G (CI)												
			SD-01	Limited Authorization for Use of Hardcopy Data and Electronic Data	G (CME)												
		01 32 16.00 20	SD-01	Construction schedule	G (CME)												
		01 33 00	SD-01	Submittal register	G (CME)												
		01 35 26	SD-01	Accident Prevention Plan (APP)	G (CME)												
			SD-01	Activity Hazard Analysis (AHA)	G (CME)												
			SD-01	Crane Critical Lift Plan	G (BSVE) (CME)												
			SD-01	Proof of qualification for Crane Operators	G (BSVE)												
			SD-01	Temporary Wiring and Lighting sketch													
			SD-01	Fall Protection and Prevention (FP&P) Plan	G (CME)												
			SD-01	Scaffolding plan	G (CME)												
			SD-01	Energized Electrical Work Permit	G (CME)												
			SD-01	Credentials of the Competent Person(s)													

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SUBMITTAL REGISTER	CONTRACT NO. eProject No. 1371550
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TITLE AND LOCATION C50061 Repair Saltwater Piping At India Basin 6 To Bldg.1525	CONTRACTOR
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ACTIVITY NO	TRANSMITTAL NO	SPEC SECTION	SD NUMBER	PARAGRAPH NUMBER AND DISCRPTION	CLASSIFICATION	CONTRACTOR: SCHEDULE DATE			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACT I O N	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FRM APPR AUTH	DATE FWD TO OTHER REVIEWER	DATE RCD FRM OTHER REVIEWER	ACT I O N			DATE OF ACTION
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
			SD-06	Accident Reports													
			SD-06	Monthly Exposure Reports													
			SD-06	Crane Reports													
			SD-07	Hot work permit													
			SD-07	Contractor safety self-evaluation checklist													
			SD-07	Certificate of compliance (Crane)													
			SD-07	Confined space entry permit	G (CME)												
		01 45 00.00 20	SD-01	Construction Quality Control (QC) Plan	G (CME)												
			SD-01	Indoor Air Quality (IAQ) Management Plan	G (CME)												
		01 50 00	SD-01	Construction site plan	G (CME)												
			SD-01	Traffic control plan	G (CME)												
			SD-01	Fence plan	G (CME)												
			SD-01	Field-type sanitary facility													
			SD-03	Backflow preventers													
			SD-06	Backflow Preventer Tests													
			SD-07	Backflow Tester Certification													
			SD-07	Backflow Preventers Certificate													
		01 57 19.00 20	SD-01	Preconstruction Survey													
			SD-01	Solid Waste Management Plan and Permit	G (EV)												
			SD-01	Environmental Protection Plan	G (EV)												
			SD-01	Contractor Hazardous Material Inventory Log	G (EV)												
			SD-11	Waste determination documentation	G (EV)												
			SD-11	Bill of lading for regulated solid	G (EV)												
			SD-11	Contractor Hazardous Material Inventory Log	G (EV)												
		01 58 00	SD-02	Preliminary drawing indicating layout and text content													
		01 74 19	SD-01	Waste Management Plan	G (EV)												

SUBMITTAL REGISTER	CONTRACT NO. ePeoject No. 1371550
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TITLE AND LOCATION C50061 Repair Saltwater Piping At India Basin 6 To Bldg.1525	CONTRACTOR
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ACTIVITY NO	TRANS MITTAL NO	SPEC SECTION	SD NUMBER	PARAGRAPH NUMBER AND DISCRPTION	CLAS SIFICATION CODE	CONTRACTOR: SCHEDULE DATE			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACT ION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FRM APPR AUTH	DATE FWD TO OTHER REVIEWER	DATE RCD FRM OTHER REVIEWER	ACT ION CODE			DATE OF ACTION
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
			SD-11	Records with manifests	G (EV)												
		01 78 00	SD-03	As-Built Record of Equipment and Materials	G (CME)												
			SD-03	Warranty Management Plan	G (CME)												
			SD-03	Warranty Tags	G (CME)												
			SD-03	Final Cleaning	G (CME)												
			SD-03	Spare Parts Data	G (CME)												
			SD-08	Preventative Maintenance	G (CME)												
			SD-08	Condition Monitoring (Predictive Testing)	G (CME)												
			SD-08	Inspection	G (CME)												
			SD-11	Record Drawings	G (CME)												
			SD-11	Certification of lead free, asbestos free and PCB free materials	G (CME)												
		02 41 00.00 20	SD-01	Demolition Plan	G (CME)												
			SD-01	Existing Conditions													
			SD-07	Disposal manifest for Solid Waste	G (EV) (CME)												
		02 83 13.00 20	SD-01	Lead Compliance Plan including CP approval (signature, date, and certification number)	G (CME)												
			SD-01	Competent Person qualifications	G (CME)												
			SD-01	Training Certification of workers and supervisors	G (CME)												
			SD-01	Lead waste management plan	G (CME)												
			SD-01	Material safety data sheets for all chemicals	G (CME)												
			SD-01	Certification of Medical Examinations	G (CME)												
			SD-03	Vacuum filters	G (CME)												
			SD-03	Respirators	G (CME)												
			SD-03	Material for chemical removal method	G (CME)												

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
			SD-06	Sampling results	G (CME)												
			SD-06	Occupational and Environmental Assessment Data Report	G (CME)												
			SD-07	Testing laboratory qualifications	G (CME)												
			SD-07	Clearance Certification	G (CME)												
			SD-08	Chemicals removal method													
		03 30 00	SD-02	Installation drawing of concrete encasement													
			SD-05	Concrete mix design													
		07 92 00.00 33	SD-02	Installation details of sealant at pipe penetration													
			SD-03	Sealant													
		09 90 00	SD-03	Paint materials	G (CI)												
			SD-07	Applicator's qualifications													
			SD-08	Manufacturer's safety data sheets (SDS)													
		32 10 00.00 33	SD-02	Installation drawings of AC pavement													
			SD-02	Detail drawings of AC pavement													
			SD-06	Density and thickness test report													
		32 17 23.00 20	SD-03	Traffic Paint, with safety data sheet (SDS)													
		32 13 13.06 33	SD-03	Reinforcement													
			SD-05	Concrete mix design													
		33 11 00	SD-02	Piping	G (CI)												
			SD-02	Detail drawings of HDPE Pipe connections													
			SD-02	Concrete pit wall penetration													
			SD-02	Pump house wall penetration													
			SD-02	Underpass of existing utility trench													
			SD-02	Air Mortar, filling plan and details													
			SD-03	HDPE Piping Materials	G (CI)												

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(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
			SD-03	Polyethylene lining steel Piping Materials	G (CI)												
			SD-03	Valve for outlet	G (CI)												
			SD-03	Band for Pipe support													
			SD-03	Joint filler	G (CI)												
			SD-03	Air Mortar	G (CI)												
			SD-06	Field test													
			SD-07	Training certificate for HDPE pipe													
			SD-07	Piping, fittings, joints, and adapters													
			SD-08	Installation procedures for HDPE piping	G (CI)												

SECTION 01 35 26

GOVERNMENTAL SAFETY REQUIREMENTS
05/12

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

LAW OF THE JAPANESE GOVERNMENT

No. 57 Industrial Safety and Health Law

AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE/SAFE)

ASSE/SAFE A10.32 Personal Fall Protection - Safety Requirements for Construction and Demolition Operations

ASSE/SAFE A10.34 Protection of the Public on or Adjacent to Construction Sites

ASSE/SAFE Z359.1 Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components

ASSE/ISEA 107 Standard for High Visibility Safety Apparel and Hardwear

AMERICAN SOCIETY OF MECHANICAL ENGINEERS INTERNATIONAL (ASME), or equivalent host nation standards

ASME B30.22 Articulating Boom Cranes

ASME B30.3 Construction Tower Cranes

ASME B30.5 Mobile and Locomotive Cranes

ASME B30.8 Floating Cranes and Floating Derricks

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 Portable Fire Extinguishers

NFPA 241 Safeguarding Construction, Alteration, and Demolition Operations

NFPA 306 Standard for Control of Gas Hazards on Vessels

NFPA 51B Fire Prevention During Welding, Cutting, and
Other Hot Work

NFPA 70 National Electrical Code

NFPA 70E Standard for Electrical Safety in the
Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910 Occupational Safety and Health Standards

29 CFR 1910.146 Permit-required Confined Spaces

29 CFR 1915 Confined and Enclosed Spaces and Other
Dangerous Atmospheres in Shipyard Employment

29 CFR 1919 Gear Certification

29 CFR 1926 Safety and Health Regulations for
Construction

29 CFR 1926.500 Fall Protection

NAVFAC FAR EAST INSTRUCTION

NAVFACFEINS 11260.1G
OR MOST CURRENT VERSION Weight Handling Equipment (WHE) Program
Manual

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval and are submitted for information only. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G (CME)

Activity Hazard Analysis (AHA); G (CME)

Crane Critical Lift Plan; G (CME and Base Support Vehicles &
Equipment)

Proof of qualification for Crane Operators; G (Base Support Vehicles &
Equipment)

Temporary Wiring and Lighting sketch;

Fall Protection and Prevention (FP&P) Plan; G (CME)

Scaffolding plan; G (CME)

Excavation Plan;

Energized Electrical Work Permit; G (CME)

Credentials of the Competent Person(s);

SD-06 Test Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Accident Reports;

Monthly Exposure Reports;

Crane Reports;

SD-07 Certificates

Hot work permit;

Contractor safety self-evaluation checklist;

Certificate of compliance (Crane);

Confined space entry permit; G (CME)

Submit one copy of each permit/certificate attached to each Daily Quality Control Report.

1.3 DEFINITIONS

- a. Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.
- b. Crane. Contractor operated crane includes cranes, multi-purpose machines, material handling equipment (Forklifts), and Construction Equipment when used as cranes to lift suspended loads and rigging equipment in weight handling operations.
- c. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.
- d. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- e. Operating Envelope. The area surrounding any crane. Inside this "envelope" is the crane, the operator, riggers and crane walkers, rigging gear between the hook and the load, the load and the crane's supporting structure (ground, rail, etc.).

- f. Qualified Person for Fall Protection. A person with a recognized degree or professional certificate, and with extensive knowledge, training and experience in the field of fall protection; who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.
- g. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:
- (1) Death, regardless of the time between the injury and death, or the length of the illness;
 - (2) Days away from work (any time lost after day of injury/illness onset);
 - (3) Restricted work;
 - (4) Transfer to another job;
 - (5) Medical treatment beyond first aid;
 - (6) Loss of consciousness; or
 - (7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.
- h. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.
- i. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; (minor injuries that are inherent to any industrial operation, including strains and repetitive motion related injury shall be reported by normal personnel injury reporting process of this contract); material or equipment damage; dropped load; derailment; two-blocking; overload (This includes load test when test load tolerances is exceeded); and/or collision, including unplanned contact between the load, crane, and/or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occur. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, rollover, etc.).
- Exception. If a crane is used as an anchor point for a portable hoist/rigging gear, a rigging gear accident as defined in paragraph 12.3 NAVFAC P-307 is not considered a crane accident if the crane is not being operated (no functions are in motion) at the time of the rigging gear accident, unless the accident results in an overload or damage to the crane, in which case it shall be reported as a crane accident.
- j. Rigging Gear Accident. For the purpose of this definition it is assumed there is an "Operating Envelop" around any weight handling operation and inside the envelop are the following Rigging and miscellaneous equipment

used for lifting, the user of the rigging gear or equipment, other personnel involved in the operation, the load, the rigging gear or equipment's supporting structure, the loads rigging path and the rigging procedure.

- k. A rigging gear accident occurs when any elements in the operating envelope fails to perform correctly during weight handling operations resulting in personnel injury or death, (minor injuries that are inherent to any industrial operation, including strains and repetitive motion related injury shall be reported by normal personnel injury reporting process of this contract. material or equipment damage, dropped load, two-blocking of cranes and powered hoists or an overload (This includes load test when test load tolerances is exceeded) The last three mentioned items are considered accidents even if no material damage or injuries occurred.

A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped load, damaged load, etc.)

1.4 CONTRACTOR SAFETY SELF-EVALUATION CHECKLIST

Contracting Officer will provide a "Contractor Safety Self-Evaluation checklist" to the Contractor at the pre-construction conference. The checklist will be completed monthly by the Contractor and submitted with each request for payment voucher. An acceptable score of 90 or greater is required. Failure to submit the completed safety self-evaluation checklist or achieve a score of at least 90, will result in a retention of up to 10 percent of the voucher.

1.5 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and the applicable federal, state, state, and local laws, host nation, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements shall apply.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

- a. Provide a Safety oversight team that includes a minimum of one (1) person at each project site to function as the Site Safety and Health Officer (SSHO). The SSHO or an equally-qualified Designated Representative/alternate shall be at the work site at all times to implement and administer the Contractor's safety program and government-accepted Accident Prevention Plan. The SSHO's training, experience, and qualifications shall be as required by EM 385-1-1 paragraph 01.A.17, entitled SITE SAFETY AND HEALTH OFFICER (SSHO), and all associated sub-paragraphs.

A Competent Person shall be provided for all of the hazards identified in the Contractor's Safety and Health Program in accordance with the accepted Accident Prevention Plan, and shall be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed. The credentials of the Competent Person (s) shall be approved by the Contracting Officer in consultation with the Safety Office.

The Contractor Quality Control (QC) person cannot be the SSHO on this project, even though the QC has safety inspection responsibilities as part of the QC duties.

NOTE: Host Nation Safety training will be considered to the equivalent 30 hour OSHA Construction safety class training requirement. The Japan Construction Occupational Safety and Health Association (JCOSHA) provides the construction safety course "**Kouji Shunin**", or "**Course for Construction Site Managers**", which is an acceptable equivalent to the 30-Hour OSHA Construction Safety Course mentioned above. Completion of this training will fulfill the requirements of the above. This training can be viewed at the JCOSHA website <http://www.kensaibou.or.jp>, or <http://www.kensaibou.or.jp/english>.

NOTE: All Host Nation Safety equivalent training, OSHA 30-Hour OSHA Construction Safety Class, and other Competent Person training will require re-fresher training every 5 years from the date of completion.

b. Complete the NAVFAC Far East 24-hr **EM 385-1-1** Awareness Course for Contractors within 6 months of award of contract. The completion of the 24-hr **EM 385-1-1** Awareness Course for Contractors cannot be used as credit for the 24-hrs of additional formal safety training required by **EM 385-1-1**, para 01.A.17.

SSHOs shall receive additional 24-hrs of formal safety training every 4 years for continuing safety training from a Host Country or CONUS recognized training provider IAW **EM 385-1-1**, para 01.A.17.

Note 1: **EM 385-1-1** Awareness course will require re-fresher training every 5 years or when a new **EM 385-1-1** manual is issued. Which ever comes first will apply.

Note 2: Certification of training for the **EM 385-1-1** Awareness can be valid up to two years after a NEW edition of the **EM 385-1-1** is placed into effect. GDA reserves the authority to terminate or grant extensions of validation for the **EM 385-1-1** Awareness course up to two years.

EM 385-1-1 Awareness Course is not all inclusive of the contract or project site safety requirements. SSHO and Prime Contractor are still required to implement a safety program IAW contract specification and Host Nation safety requirements.

1.6.1.2 Competent Person for Scaffolding

Provide a scaffolding competent person to perform the work meeting the definition and requirements of **EM 385-1-1**.

1.6.1.3 Competent Person for Confined Space Entry

Provide a competent person for confined space meeting the definition and requirements of EM 385-1-1.

For work involving marine operations that handle combustible or hazardous materials, this person shall have the ability to understand and follow through on the air sampling, PPE, and instructions of a Marine Chemist, Coast Guard authorized persons, or Certified Industrial Hygienist. All confined space and enclosed space work shall comply with NFPA 306, OSHA 29 CFR 1915, Subpart B, "Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment" or as applicable, 29 CFR 1910.147 for general industry.

1.6.1.4 Crane Operators

Meet the crane operators requirements in USACE EM 385-1-1, Section 16 and Appendix I, NAVFAC P-307 and NAVFACFEINST 11260.1G or most current version. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacities of 0.5 tons or greater, designate crane operators as qualified by a source that qualifies crane operators (i.e., union, a government agency, or and organization that tests and qualifies crane operators). Provide proof of current qualification. Operators of Category four (UNIC) truck cranes are not allowed to operate the boom or load past the middle of the front stabilizers without prior written approval of the CME.

The contractor shall also certify that all of crane (or other machines used for lifting suspended loads) operators working on the naval activity have been trained not to bypass safety devices (e.g. anti-two block devices) during lifting operations. Require that the certifications be posted on the crane.

Crane operators shall also meet the requirement of host nation's laws and regulations regarding to Crane operation.

The Contactor may request to the Government for operating existing crane and for providing rigging equipment. The Contractor shall pay all necessary cost to the Government.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

In addition to duties required in EM 385-1-1, perform the following duties:

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the Contractors' daily production report.
- b. Conduct a crane specific safety brief if cranes or any other equipment used to suspend a load or rigging gear used by itself. To include all of the details of the lift and any obstructions to include working in the vicinity of power lines if this is the case there should be a critical lift plan submitted before work can start.

- c. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300(or equivalent) and Daily Production reports for prime and sub-contractors.
- d. Maintain applicable safety reference material on the job site.
- e. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- f. Review implement and enforce accepted APPS and AHAs.
- g. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. Post a list of unresolved safety and health deficiencies the safety bulletin board.
- h. Ensure sub-contractor compliance with safety and health requirements.
- i. Maintain a list of hazardous chemicals on site and their material safety data sheets.
- j. Complete Contractor Safety Self-Evaluation Checklist per paragraph 1.4.
- k. Validates, ensures, and oversees onsite Competent Personnel (CP) are provided for all of the hazards identified in the Contractor's Safety and Health Program in accordance with the accepted Accident Prevention Plan, and are on-site when the work that presents the hazards associated with their professional expertise is being performed.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

- a. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).
- b. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.
- c. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor

shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

- d. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design & Build Contracts.

1.6.3.2 Safety Meetings

Conduct and document meetings as required by EM 385-1-1. Attach minutes showing contract title, signatures of attendees and a list of topics discussed to the Contractors' daily production report. Daily safety meeting for all workers performing work activities identified in the activity hazard analysis shall be conducted by the competent person(s) for that activity.

1.7 ACCIDENT PREVENTION PLAN (APP)

Use a qualified person to prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan". Specific requirements for some of the APP elements are described below. The APP shall be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Include any portions of the Contractor's overall safety and health program referenced in the APP in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer and the Contractor Quality control Manager.

Submit the APP to the Contracting Officer prior to beginning any on-site work for acceptance. Work cannot proceed without an accepted APP.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any hazard become evident, stop work in the area, secure the area, and develop a plan to remove the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate/remove the hazard. In the interim, all necessary action shall be taken to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSE/SAFE A10.34,) and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer's office and at the job site.

The plan shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered.

1.7.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

- a. Names and qualifications (resumes including education, training, experience and certifications) of all Site Safety and Health Officer (SSHO) personnel designated to perform work on this project to include the and other competent and qualified personnel to be used such as Scaffolding, Fall Protection, Excavation, Electrical. Confined Spaces, etc. Specify the duties of each position.
- b. Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; personal protective equipment and clothing to include selection, use and maintenance.
- c. Confined Space Entry Plan. Develop a confined space entry plan in accordance with USACE EM 385-1-1, applicable OSHA standards 29 CFR 1910, 29 CFR 1915, and 29 CFR 1926, and any other federal, state and local regulatory requirements identified in this contract. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)
- d. Crane Critical Lift Plan. Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; lifts made in the vicinity of overhead power lines, and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of NAVFAC P-307, paragraph 10.7.2.g and USACE EM 385-1-1 paragraph 16H.
 - (1) The size and weight of the load to be lifted, including crane (or other machine) and rigging equipment that add to the weight. The OEM's maximum load capacities for the entire range of the lift shall also be provided.
 - (2) The lift geometry, including the crane (or other machine) position, boom length and angle, height of lift, and radius for the entire range of the lift. Applies to both single and multiple crane/machine lifts.

- (3) A rigging plan, showing the lift points, rigging equipment, and rigging procedures.
 - (4) The environmental conditions under which lift operations are to be stopped.
 - (5) For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29 CFR 1926.1431.
 - (6) For barge mounted mobile cranes, barge stability calculations identifying crane placement/footprint; barge list and trim based on anticipated loading; and load charts based on calculated list and trim specific to the barge the crane is mounted on. The amount of list and trim shall be within the crane manufacturer's requirements.
 - (7) For lifts in the vicinity of overhead power lines (i.e., if any part of the crane or other machine, including the fully extended boom of a telescoping boom crane or machine, or the load could approach the distances noted in figure 10-3 during a proposed operation), the plan shall demonstrate compliance To 29 CFR 1926.1408, 29 CFR 1926.1409, 29 CFR 1926.1410, 29 CFR 1926.1411.
- e. Fall Protection and Prevention (FP&P) Plan. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. Address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 1.8 m (6 feet). A qualified person for fall protection shall prepare and sign the plan. Include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Revise the Fall Protection and Prevention Plan every six months for lengthy project, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. Keep and maintain the accepted Fall Protection and Prevention Plan at the job site for the duration of the project. Include the Fall Protection and Prevention Plan in the Accident Prevention Plan (APP).
- f. Lead Compliance Plan. The safety and health aspects of lead work, prepared in accordance with Section 02 83 13.00 20 LEAD IN CONSTRUCTION.
- g. Site Demolition Plan. The safety and health aspects prepared in accordance with Section 02 41 00.00 20 DEMOLITION and referenced sources. Include engineering survey as applicable.
- h. Excavation Plan. The safety and health aspects prepared in accordance with Section 31 23 00.00 20 EXCAVATION AND FILL.

1.8 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format (see attached) shall be in accordance with USACE EM 385-1-1, Section 1 and the attached "Activity Hazard Analysis Review". Submit the AHA for review at least fifteen (15) calendar days prior to the start of each Definable Feature Of Work (DFOW). Format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Develop the activity hazard analyses using the project schedule as the basis for the DFOWs to be performed. Any DFOWs listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the Contracting Officer.

Integrate the concepts of Operational Risk Management (ORM) into the AHA. Identify the hazards of the activity in the Principle Steps, Assess the Risks in the Potential Safety and Health Hazards, Make Risks Decisions in the Recommended Controls, Implement Controls for the Equipment and Training and supervise during the Inspection Process.

1.9 DISPLAY OF SAFETY INFORMATION

Within 1 calendar day after commencement of work, erect a safety bulletin board at the job site. Where size, duration, or logistics of project do not facilitate a bulletin board, an alternative method, acceptable to the Contracting Officer, that is accessible and includes all mandatory information for employee and visitor review, shall be deemed as meeting the requirement for a bulletin board. Include and maintain information on safety bulletin board as required by EM 385-1-1, section 01.A.06. Additional items required to be posted include:

- a. Confined space entry permit.
- b. Hot work permit.
- c. Excavation and road closure permit.

1.10 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.11 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.12 REPORTS

1.12.1 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident and complete the NAVFAC Initial Mishap Notification form (see attached) to the Contracting Officer. Within notification include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description

of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

a. Crane Accident Notification

Require the contractor to notify the contracting officer as soon as practical, but not later than four hours, after any WHE accident. (See definition in section 12.) Require the contractor to secure the accident site and protect evidence until released by the contracting officer. Require the contractor to conduct an accident investigation to establish the root cause(s) of any WHE accident. Crane operations shall not proceed until cause is determined and corrective actions have been implemented to the satisfaction of the contracting officer. Require the contractor to provide the contracting officer within 30 days of any accident a Crane and Rigging Gear Accident Report using the form provided in attachment 1 consisting of a summary of circumstances, an explanation of causes(s), photographs (if available), and corrective actions taken. These notifications and reporting requirements are in addition to those promulgated by OPNAVINST 5100.23 and related command instructions.

1.12.2 Accident Reports

- a. Conduct an accident investigation for recordable injuries and illnesses, as defined in 1.3.g and property damage accidents resulting in at least \$2,000 in damages, and near misses as defined in EM 385-1-1, to establish the root cause(s) of the accident. Complete the applicable Contractor Incident Report System (CIRS) and provide the report to the Contracting Officer within 24 hours of the accident. Provide final CIRS within 40 calendar days of the accident. The Contracting Officer will provide copies of any required or special forms.
- b. Conduct an accident investigation for any weight handling equipment accident (including rigging gear accidents) to establish the root cause(s) of the accident, complete the WHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within five (5 days) of the accident. Do not proceed with crane operations until cause is determined and corrective actions have been implemented to the satisfaction of the contracting officer. The Contracting Officer will provide a blank copy of the accident report form.

1.12.3 Crane Reports

Submit pre-use check list attachment page 7 on a daily basis that cranes are utilized on project site.

1.12.4 Certificate of Compliance

Provide a Certificate of Compliance for each crane, or other equipment used to lift or suspend a load and rigging gear entering an activity under this contract (see Contracting Officer for a blank certificate). State within the certificate that the crane and rigging gear meet applicable OSHA regulations (with the Contractor citing which OSHA regulations are applicable, e.g., cranes used in construction, demolition, or maintenance comply with

applicable ANSI or ASME, 29 CFR 1926, and USACE EM 385-1-1 section 16 and Appendix I) and crane and rigging gear conform to the appropriate host country safety standards. Certify on the Certificate of Compliance that the crane operator(s) is qualified and trained in the operation of the crane to be used. For cranes machines and rigging equipment at naval activities in foreign countries, the Contractor shall certify that the cranes, machines, and rigging gear conform to the appropriate host country safety standards. The Contractor shall also certify that all of its crane operators working on the DOD activity have been trained in the proper use of all safety devices (e.g., anti-two block devices) and not to bypass these devices. These certifications shall be posted on the crane.

For multi-purpose machines, material handling equipment, and construction equipment used to lift loads suspended by rigging equipment, require proof or authorization from the machine OEM (Original Equipment Manufacture) that the machine is capable of making lifts of loads suspended by rigging equipment. Require the contractor to demonstrate that the equipment is properly configured to make such lifts and is equipped with a load chart.

1.13 HOT WORK

Submit and obtain a written permit prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, from the Fire Division. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The Contractor will provide at least two (2) twenty (20) pound 4A:20 BC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and remain on-site for a minimum of one hour after completion of the task or as specified on the hot work permit.

When starting work in the facility, require their personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Fire Division phone number. ANY FIRE, NO MATTER HOW SMALL, SHALL BE REPORTED TO THE RESPONSIBLE FIRE DIVISION IMMEDIATELY.

1.14 SCAFFOLDING PLAN

Submit scaffolding plan within 15 calendar days prior to start of work. Provide scaffolds in accordance with the Japanese Labor Safety and Sanitation Law and U.S. Department of Labor Occupational Safety and Health Administration (OSHA) Regulation, 29 CFR 1926. Scaffolding shall have guardrails, mid-rails, toeboards, and ramps. Scaffolding shall be one of the following types: (1) steel pipe scaffolds (Tankan-ashiba); (2) steel pipe frame type scaffolds (Wakugumi-ashiba); (3) hung type scaffolds (Tsurei-ashiba); (4) movable scaffolding; in accordance with JASS 2 and Japanese Industrial Standard JIS A 8951, Tubular Steel Scaffolds. Provide warning signs (sign-board) on the scaffolding to prevent unauthorized persons from climbing on the scaffolding regardless of where it was located. Sample figure of warning sign is attached as ATTACHMENT-5 at the end of this section. Scaffolding plan shall include license for scaffolding competent person.

1.15 FLAMMABLE/COMBUSTIBLE LIQUIDS

Plastic containers shall not be used for storage of flammable and combustible liquids. Safety cans of not more than 5 gal (18.9 Liters) capacity, having a spring-closing cover and designed to safely relieve internal pressures under fire exposures shall be used on this project. The safety can shall be labeled/listed and painted red with a yellow band around the can and the name of the contents legibly indicated on the container. The safety can shall be kept in well ventilated locations, free from excessive heat, smoke, sparks, flame, or direct rays of the sun.

1.16 RADIATION SAFETY REQUIREMENTS

Use of radiation materials or equipment is strictly prohibited for all NAVFAC Far East project sites and facilities. The Prime Contractor is responsible to ensure all sub-contractors are in compliance with this requirement.

1.17 FACILITY OCCUPANCY CLOSURE

Streets, walks, and other facilities occupied and used by the Government shall not be closed or obstructed without written permission from the Contracting Officer.

1.18 SEVERE STORM PLAN

In the event of a severe storm warning, the Contractor must:

- a. Secure outside equipment and materials and place materials that could be damaged in protected areas.
- b. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.
- c. Ensure that temporary erosion controls are adequate.

1.19 CONFINED SPACE ENTRY REQUIREMENTS

Contractors entering and working in confined spaces performing shipyard industry work are required to follow the requirements of 29 CFR 1915 Subpart B. Contractors entering and working in confined spaces performing general industry work are required to follow the requirements of 29 CFR 1926.

Navy personnel entering and working in confined spaces performing naval maritime facility work are required to follow the requirements of NAVSEA S6470-AA-SAF-010 Rev. 03. Navy personnel entering and working in confined spaces performing non-maritime facility work are required to follow the requirements of OPNAVINST 5100.23 Chapter 27.

PART 2 PRODUCTS

2.1 CONFINED SPACE SIGNAGE

The Contractor shall provide permanent signs integral to or securely attached to access covers for new permit-required confined spaces. Signs

wording: "DANGER--PERMIT-REQUIRED CONFINED SPACE - DO NOT ENTER -" in English and Japanese bold letters a minimum of 25 mm (one inch) in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from 1.52 m (5 feet).

2.2 FALL PROTECTION ANCHORAGE

Leave in place fall protection anchorage, conforming to ASSE/SAFE Z359.1, installed under the supervision of a qualified person in fall protection, for continued customer use and so identified by signage stating the capacity of the anchorage (strength and number of persons who may be tied-off to it at any one time).

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

Comply with USACE EM 385-1-1, NFPA 241, the APP, the AHA, Federal and/or State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard prevails.

3.1.1 Hazardous Material Use

Each hazardous material must receive approval from the Contracting Office or their designated representative prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material.

3.1.2 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. The Radiation Safety Officer (RSO) must be notified prior to excepted items of radioactive material and devices being brought on base.

3.1.3 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos and other regulated materials defined in JEGS or OSHA (i.e. 29 CFR Part 1910.1000). If additional material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 35 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government may issue a modification,

subject to availability of funds pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages at least 30 days in advance. As a minimum, the request should include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, the Contractor shall attend a pre-outage coordination meeting with the Contracting Officer to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

3.3 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Whenever possible, all equipment and circuits to be worked on shall be de-energized before work is started and personnel protected by clearance procedures, lockout/tagout, and grounding.

Work on energized equipment or circuits will require the completion of the NAVFAC Far East Energized Electrical Work Permit and approval from the NAVFAC Far East Commanding Officer. Permit can be obtained from the Contracting Officer.

Contractor shall ensure that each employee is familiar with and complies with these procedures and USACE EM 385-1-1, Section 12, Control of Hazardous Energy.

Contracting Officer will, at the Contractor's request, apply lockout/tagout tags and take other actions that, because of experience and knowledge, are known to be necessary to make the particular equipment safe to work on for government owned and operated systems.

No person, regardless of position or authority, shall operate any switch, valve, or equipment that has an official lockout/tagout tag attached to it, nor shall such tag be removed except as provided in this section. No person shall work on any energized equipment including, but not limited to activities such as erecting, installing, constructing, repairing, adjusting, inspecting, un-jamming, setting up, trouble shooting, testing, cleaning, dismantling, servicing and maintaining machines equipment of processes until an evaluation has been conducted identifying the energy source and the procedures which will be taken to ensure the safety of personnel.

When work is to be performed on electrical circuits, only qualified personnel shall perform work on electrical circuits.

No person shall work on any equipment that requires a lockout/tagout tag unless he, his immediate supervisor, project leader, or a subordinate has in his possession the stubs of the required lockout/tagout tags.

A supervisor who is required to enter an area protected by a lockout/tagout tag will be considered a member of the protected group provided he notifies the holder of the tag stub each time he enters and departs from the protected area.

Identification markings on building light and power distribution circuits shall not be relied on for established safe work conditions.

Before clearance will be given on any equipment other than electrical (generally referred to as mechanical apparatus), the apparatus, valves, or systems shall be secured in a passive condition with the appropriate vents, pins, and locks.

Pressurized or vacuum systems shall be vented to relieve differential pressure completely.

Vent valves shall be tagged open during the course of the work.

Where dangerous gas or fluid systems are involved, or in areas where the environment may be oxygen deficient, system or areas shall be purged, ventilated, or otherwise made safe prior to entry.

3.3.1 Tag Placement

Lockout/tagout tags shall be completed in accordance with the regulations printed on the back thereof and attached to any device which, if operated, could cause an unsafe condition to exist.

If more than one group is to work on any circuit or equipment, the employee in charge of each group shall have a separate set of lockout/tagout tags completed and properly attached.

When it is required that certain equipment be tagged, the Government will review the characteristics of the various systems involved that affect the safety of the operations and the work to be done; take the necessary actions, including voltage and pressure checks, grounding, and venting, to make the system and equipment safe to work on; and apply such lockout/tagout tags to those switches, valves, vents, or other mechanical devices needed to preserve the safety provided. This operation is referred to as "Providing Safety Clearance."

3.3.2 Tag Removal

When any individual or group has completed its part of the work and is clear of the circuits or equipment, the supervisor, project leader, or individual for whom the equipment was tagged shall turn in his signed lockout/tagout tag stub to the Contracting Officer. That group's or individual's lockout/tagout tags on equipment may then be removed on authorization by the Contracting Officer.

3.4 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

Establish a Site-Specific Fall Protection and Prevention Plan IAW EM 385-1-1, para 21.C, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures.

Safety monitoring systems are not adequate fall protection and are not authorized for any fall protection hazards. A 100 percent fall protection

program will be instituted for all projects. Safety nets will be required for all unguarded work areas 25 feet or more above the adjacent floor level.

For workers erecting and dismantling scaffolds, an evaluation shall be conducted by a Competent Person (CP) for fall protection to determine the feasibility and safety of providing fall protection. If fall protection is not feasible, then an AHA detailing the rationale for infeasibility of use of fall protection shall be submitted to the Contracting Officer for review and acceptance.

AHA shall be attached or part of the Scaffolding Plan.

3.4.1 Training

Institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, provide training for each employee who might be exposed to fall hazards. Provide training by a competent person for fall protection in accordance with USACE EM 385-1-1, Section 21.B.

3.4.2 Fall Protection Equipment and Systems

Enforce use of the fall protection equipment and systems designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in EM 385-1-1, Section 21. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with USACE EM 385-1-1, Paragraphs 21.N through 21.N.04. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, or travel. Fall protection must comply with 29 CFR 1926.500, Subpart M, USACE EM 385-1-1 and ASSE/SAFE A10.32.

3.4.3 Existing Anchorage

Certified (or re-certified) by a qualified person for fall protection existing anchorages, to be used for attachment of personal fall arrest equipment in accordance with ASSE/SAFE Z359.1. Existing horizontal lifeline anchorages must be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

3.4.4 Horizontal Lifelines

Design, install, certify and use under the supervision of a qualified person horizontal lifelines for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500).

3.4.5 Guardrails and Safety Nets

Design, install and use guardrails and safety nets in accordance with EM 385-1-1 and 29 CFR 1926 Subpart M.

3.4.6 Rescue and Evacuation Procedures

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. Include the Rescue and Evacuation Plan within the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

3.5 SCAFFOLDING

Provide employees with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Access scaffold platforms greater than 6 m (20 feet) maximum in height by use of a scaffold stair system. Do not use vertical ladders commonly provided by scaffold system manufacturers for accessing scaffold platforms greater than 6 m (20 feet) maximum in height. The use of an adequate gate is required. Ensure that employees are qualified to perform scaffold erection and dismantling. Do not use scaffold without the capability of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection and prevention plan. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward. Give special care to ensure scaffold systems are not overloaded. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material is prohibited. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base. Place work platforms on mud sills. Scaffold or work platform erectors shall have fall protection during the erection and dismantling of scaffolding or work platforms that are more than six feet. Delineate fall protection requirements when working above six feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

Submit scaffolding plan within 15 calendar days prior to start of work. Manufactured scaffolding shall be erected, used, tested, maintained, and repaired in accordance with EM 385-1-1, Section 22 or equivalent and manufacture recommendations. All scaffolding shall have guardrails, midrails, toeboards, and safe means of access IAW EM 385-1-1, Section 21, 22, and 24. Stairways shall be provided for scaffolding greater than 20 ft (12 m) unless fall protection is used.

Scaffolding with a mesh, plastic, tarp, etc. covering will require a Registered Professional Engineer (RPE) to design and certify the scaffolding system is adequately braced, supported, anchored, etc. for maximum anticipated wind loads for the area and season.

Scaffold plan shall consist of detailed engineering drawing of the scaffolding system to include size and dimensions of mudsills, safe access points, tie-ins/anchoring of scaffold, location of outriggers, guardrails, mid-rails, maximum rated capacity, etc. for GDA review and acceptance.

All scaffolding designs and components shall be capable of supporting without failure at least 4 times the maximum anticipated loads and validated by the Competent Person (CP) or Qualified Person (QP) for safe scaffolding

3.5.1 Scaffold Tagging System

Contractors shall use a scaffold tagging system in which all scaffolds are tagged by the Competent Person. Tags shall be color-coded: green indicates the scaffold has been inspected and is safe to use; red indicates the scaffold is unsafe to use. Tags shall be readily visible, made of materials that will withstand the environment in which they are used, be legible and shall include:

- a. The Competent Person's name and signature;
- b. Dates of initial and last inspections.

3.5.2 Stilts

The use of stilts for gaining additional height in construction, renovation, repair or maintenance work is prohibited.

3.6 EQUIPMENT

3.6.1 Contractor Operated Crane

- a. Require the contractor to comply with applicable ANSI or ASME standards (e.g., ASME B30.0 for construction tower cranes, and ASME B30.8 for floating cranes, ASME B30.9 for slings, ASME B30.20 for below the hook lifting device, and ASME B30.26 for rigging hardware, ANSI/ITSDF B56.6 for rough terrain forklifts) or equivalent host nation regulations.
- b. Require that all hooks used on cranes, hoists, other machines, and rigging gear shall have self-closing latches or the throat opening shall be "mouse" (secured with wire, rope, heavy tape, etc.) or otherwise secured to prevent the attached item from coming free of the hook under a slack condition. The following exceptions apply and shall be approved by the contractor's technical organization: items where the hook throat is fully obstructed and not available for manual securing and lifts where securing the hook throat increases the danger to personnel such as forge shop, dip tank, or underwater work.

3.6.2 Material Handling Equipment

- a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.
- b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions. The manufacture must provide a load chart and instruction on the proper use of the hook.
- c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

- d. Material handling equipment (MHE) shall be inspected daily prior to being used and inspection records shall be maintained for the duration of the project.

3.6.3 Weight Handling Equipment

Comply with [EM 385-1-1](#), Section 16, host nation safety standards, [NAVFAC P-307](#), and [NAVFACFEINST 11260.1G](#) or most current version.

- a. Equip cranes and derricks as specified in [EM 385-1-1](#), section 16.
- b. Notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.
- c. The Contracting Officer or there representative will perform on-site-spot checks to assure that crane safety is observed and any unsafe conditions or actions will cause the stoppage of crane work. The Contractor Crane Operation Checklist and Contractor Crane Operator's daily checklist attached at the end of this section will be utilized for this surveillance.
- d. Comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in [ASME B30.5](#)). Perform all testing in accordance with the manufacturer's recommended procedures.
- e. Comply with [ASME B30.5](#) for mobile and locomotive cranes, [ASME B30.22](#) for articulating boom cranes, [ASME B30.3](#) for construction tower cranes, and [ASME B30.8](#) for floating cranes and floating derricks.
- f. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.
- g. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and follow the requirements of USACE [EM 385-1-1](#) Section 11 and [ASME B30.5](#) or [ASME B30.22](#) as applicable and the requirements of the [NAVFAC P-307](#) for critical lifts.
- h. Do not crane suspended personnel work platforms (baskets) unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Do not lift personnel with a line hoist or friction crane. Personal lift must comply with [29 CFR 1926.550](#) (g) and be approved by NAVFAC and Base safety Offices prior to the lift being conducted.
- i. Inspect, maintain, and recharge portable fire extinguishers as specified in [NFPA 10](#), Standard for Portable Fire Extinguishers.
- j. All employees must keep clear of loads about to be lifted and or suspended loads.
- k. Use cribbing when performing lifts on outriggers.

- l. The crane hook/block must be positioned directly over the loads center of gravity. Side loading of the crane is prohibited.
- m. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.
- n. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.
- o. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.
- p. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices) and that these devices will not be bypassed during lifting operations.
- q. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. Prior to conducting lifting operations set a maximum wind speed at which a crane can be safely operated based on the equipment being used, the load being lifted, experience of operators and riggers, and hazards on the work site. This maximum wind speed determination shall be included as part of the activity hazard analysis plan for that operation.
- r. A wind gage shall be installed on the boom tip of the crane. A reading device shall be installed at the operator's station. All lifts will be suspended when the wind speeds reach or exceed the crane manufacturer's recommendations.
- s. All lifts will be made with the outriggers fully extended to the appropriate setting indicated by the load chart. The outriggers will be deployed so that the weight of the machine is totally removed from the wheels at every setting.
- t. The Contractor will ensure with the local NAVFAC the ground loading prior to setting up any crane.

3.6.4 Machinery and Mechanized Equipment

- a. Proof of qualifications for operator shall be kept on the project site for review.
- b. Manufacture specifications or owner's manual for the equipment shall be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Such additional safety precautions or requirements shall be incorporated into the AHAs.
- c. Shall be equipped with at least one fire extinguisher with a minimum rating of 10-B:C.

3.7 EXCAVATIONS

Perform soil classification by a competent person in accordance with 29 CFR 1926.

3.7.1 Utility Locations

Prior to digging, the appropriate digging permit must be obtained. All underground utilities in the work area must be positively identified by a private utility locating service in addition to any station locating service and coordinated with the station utility department. Any markings made during the utility investigation must be maintained throughout the contract. Refer also to instruction contained within Section 01 14 00 WORK RESTRICTIONS.

3.7.2 Utility Location Verification

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Digging within 610 mm (2 feet) of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility expose the utility by hand digging every 30.5 m (100 feet) if parallel within 1.5 m (5 feet) of the excavation.

3.7.3 Shoring Systems

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding must have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

3.7.4 Trenching Machinery

Operate trenching machines with digging chain drives only when the spotters/laborers are in plain view of the operator. Provide operator and spotters/laborers training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Keep documentation of the training on file at the project site.

3.8 UTILITIES WITHIN CONCRETE SLABS

Utilities located within concrete slabs or pier structures, bridges, and the like, are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever contract work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with station utility departments in addition to a private locating service. Outages to isolate utility systems must be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the contractor from meeting this requirement

3.9 ELECTRICAL

3.9.1 Conduct of Electrical Work

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers will be permitted to enter. When work requires Contractor to work near energized circuits as defined by the [NFPA 70](#), high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. In addition, provide electrical arc flash protection for personnel as required by [NFPA 70E](#). Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA.

Whenever possible, all equipment and circuits to be worked on shall be de-energized before work is started and personnel protected by clearance procedures, lockout/tagout, and grounding.

Work on energized equipment or circuits will require the completion of the NAVFAC Far East Energized Electrical Work Permit and approval from the NAVFAC Far East Commanding Officer. Permit can be obtained from the Contracting Officer.

3.9.2 Portable Extension Cords

Size portable extension cords in accordance with manufacturer ratings for the tool to be powered and protected from damage. Immediately removed from service all damaged extension cords. Portable extension cords shall meet the requirements of [NFPA 70E](#) and OSHA electrical standards.

3.9.3 Ground Fault Circuit Interrupter (GFCI)

All receptacle outlets that provide temporary electrical power during construction, remodeling, maintenance, repair, or demolition shall have a Ground Fault Circuit Interrupter (GFCI) protection for personnel IAW [EM 385-1-1](#), para 11.D.05.

The GFCI device shall be calibrated to trip within the threshold values of 5 ma +/- 1 ma.

All GFCI's shall be tested at least monthly with a GFCI tester that applies a load to the GFCI circuit in addition to a function test.

3.9.4 Temporary Wiring and Lighting

All temporary electrical distribution systems and devices shall be checked and found acceptable for polarity, ground continuity, and ground resistance (less than 25 ohms) before initial use, before use after repair/modification and inspected/tested at least monthly by a Qualified Person (QP) for electrical safety.

Temporary lighting circuits shall be separated from electrical tool circuits. Receptacle circuits shall be dedicated to either temporary lighting or electrical tools and shall be labeled "Lights Only" or "Tools Only" as applicable.

3.10 WORK IN CONFINED SPACES

Comply with the requirements in Section 34 of USACE EM 385-1-1, OSHA 29 CFR 1910.146 and OSHA 29 CFR 1926.21(b)(6). Any potential for a hazard in the confined space requires a permit system to be used.

- a. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. (See Section 34 of USACE EM 385-1-1 for entry procedures.) All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.
- b. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its' action level.
- c. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

3.11 SAFETY APPAREL ON CONSTRUCTION JOBSITES

All personnel on construction jobsites shall wear high-visibility safety apparel (garment, vest, or harness of retroreflective and fluorescent material) meeting ANSI/ISEA 107 latest requirements. As a minimum, all personnel shall wear ANSI/ISEA 107 Class II compliant apparel. When the risk level exceeds , Class II, then Class III safety apparel shall be worn.

All workers will be required to wear their hard hats with the bill facing forward. Ball caps, knit caps, or other headdress worn under the hard hat is prohibited unless approved by the hard hat manufacturer.

3.12 FORMS

See ATTACHMENTS following this section

-- End of Section --

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CRANE AND RIGGING GEAR ACCIDENT REPORT			
Accident Category:		<input type="checkbox"/> Crane Accident	<input type="checkbox"/> Rigging Gear Accident
From:		To: Navy Crane Center Bldg 491 NNSY Portsmouth, VA 23709 Fax (757) 967-3808	
UIC:		Report No:	
Activity:			Report No:
Crane No:	Category:	Accident Date:	Time: hrs
Category of Service:	<input type="checkbox"/> SPS <input type="checkbox"/> GPS	Crane Type:	Crane Manufacturer:
Was Crane/Rigging Gear Being Used in SPS? Yes <input type="checkbox"/> No <input type="checkbox"/>		Was Crane/Rigging Gear Being Used in a Complex Lift/ <u>Critical non-crane rigging operation</u> ? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Location:		Weather:	
Crane Capacity:	Hook Capacity:	Weight of Load on Hook:	
Fatality or Permanent Disability?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Material/Property Cost Estimate:	
Reported to NAVSAFECEN?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Accident Type:			
<input type="checkbox"/> Personal Injury	<input type="checkbox"/> Overload	<input type="checkbox"/> Derail	<input type="checkbox"/> Damaged Rigging Gear
<input type="checkbox"/> Load Collision	<input type="checkbox"/> Two Blocked	<input type="checkbox"/> Dropped Load	<input type="checkbox"/> Damaged Crane
<input type="checkbox"/> Crane Collision	<input type="checkbox"/> Damaged Load	<input type="checkbox"/> Other Specify	
Cause of Accident:			
<input type="checkbox"/> Improper Operation	<input type="checkbox"/> Equipment Failure	<input type="checkbox"/> Inadequate Visibility	
<input type="checkbox"/> Improper Rigging	<input type="checkbox"/> Switch Alignment	<input type="checkbox"/> Inadequate Communication	
<input type="checkbox"/> Track Condition	<input type="checkbox"/> Procedural Failure	<input type="checkbox"/> Other Specify	
Chargeable to:			
<input type="checkbox"/> Crane Walker	<input type="checkbox"/> Rigger	<input type="checkbox"/> Operator	
<input type="checkbox"/> Maintenance	<input type="checkbox"/> Management/Supervision	<input type="checkbox"/> Other Specify	
Crane Function:			
<input type="checkbox"/> Travel	<input type="checkbox"/> Hoist	<input type="checkbox"/> Rotate	<input type="checkbox"/> Luffing <input type="checkbox"/> Telescoping <input type="checkbox"/> Other <input type="checkbox"/> N/A
Is this accident indicative of a recurring problem? <input type="checkbox"/> Yes <input type="checkbox"/> No			
If yes, list Accident Report Nos.:			
ATTACH COMPLETE AND CONCISE SITUATION DESCRIPTION AND CORRECTIVE/PREVENTIVE ACTIONS TAKEN AS ENCLOSURE (1). Include probable cause and contributing factors. Assess damages and define responsibility. For equipment malfunction or failure, include specific description of the component and the resulting effect or problem caused by the malfunction or failure. List immediate and long term corrective/preventive actions assigned and respective codes.			
Preparer:	Phone and email	Code	Date
Concurrences:			
Prime contractor management	Print and sign	Code	Date
NAVFAC Project manager		Code	Date
FEAD/ROICC Officer		Code	Date
		Code PWO	Date
For concurrence and serialization		Code PW 7.4	Date

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APPENDIX P - CONTRACTOR CRANE (OR ALTERNATE MACHINE USED TO LIFT
SUSPENDED LOAD) AND RIGGING GEAR REQUIREMENTS

DECEMBER 2009
VERSION

CERTIFICATE OF COMPLIANCE コンプライアンス証書		
This certificate shall be signed by an official of the company that provides cranes (or multi-purpose machines, material handling equipment, or construction equipment used to lift loads suspended by rigging gear) for any application under this contract. Post a completed certificate on each crane or alternate machine (or in the contractor's on-site office for rigging operations) brought onto Navy property. 本証明書は本契約の下、あらゆる目的のためにクレーン(又は玉掛け用具で荷物を吊上げる事に使用される多目的機器・フォークリフト・建設機器)を用意する会社の役員の署名を必要とする。記入済み証書を海軍施設内に持ち込む各クレーン又はクレーンに代わる機器(当該機器が関与しない玉掛けのみの作業については業者の現場事務所内)に掲示すること。		
CONTRACTING OFFICER'S POINT OF CONTACT (Government Representative): 契約担当官の連絡先(アメリカ政府代表者):	PHONE : 電話番号:	
PRIME CONTRACTOR / PHONE: 主契約業者/電話番号:	CONTRACT NUMBER : 契約番号:	
LOCATION (To include building / pier number or specific information to identify work location. In case a contract involves multiple work locations, list all of them) 作業現場 (建物/岸壁番号、もしくは作業現場を特定できる具体的な情報を記入。複数の場所で作業を行う場合は全ての現場名を記入)	CRANE/RIGGING OPERATION PERIOD クレーン/玉掛け作業期間	
	<table border="1"> <tr> <td>START DATE 開始日</td> <td>END DATE 終了日</td> </tr> </table>	START DATE 開始日
START DATE 開始日	END DATE 終了日	
CRANE OR ALTERNATE MACHINE SUPPLIER/PHONE (if different from prime contractor): クレーン又はクレーンに代わる機器の供給業者/電話番号(主契約業者と異なる場合):	CRANE OR ALTERNATE MACHINE NUMBER (i.e., ID number): クレーン又はクレーンに代わる機器の番号(例 識別番号等):	
CRANE OR ALTERNATE MACHINE MANUFACTURER/TYPE/CAPACITY : クレーン又はクレーンに代わる機器の製造者/形式/容量:		
CRANE OR ALTERNATE MACHINE OPERATOR'S NAME (S) / LICENSE NUMBER : クレーン又はクレーンに代わる機器の運転士名(複数可) / 免許証番号:		
I certify that 私は下記を証明します。 1. The above noted crane or alternate machine and associated rigging gear conform to applicable OSHA regulations (<u>host country regulations for naval activities in foreign countries</u>) and applicable ASME B30 standards. The following OSHA regulations and ASME standards apply: _____ 1. 上記のクレーン又はクレーンに代わる機器および付属の玉掛け用具は該当するOSHA(アメリカ労働省労働安全保健局)の規則(アメリカ国外に駐留する海軍基地においては現地の法令および規則)および該当するASME B30規格に準拠している。 次のOSHA規則およびASME規格を適用する: _____ 2. The operators noted above have been trained and are qualified for the operation of the above noted crane(s) or alternate machine(s). 2. 上記の運転士は本記載のクレーン又はクレーンに代わる機器を運転する訓練を受け運転資格を所持している。 3. The operators noted above have been trained not to bypass safety devices during lifting operations. 3. 上記の運転士はクレーン作業中に安全装置を解除しないよう教育を受けている。 4. The operators, riggers and company officials are aware of the actions required in the event of an accident as specified in the contract. 4. 上記の運転士・玉掛け作業員・会社役員は当該契約中に規定する事故発生時の処置を承知している。		
COMPANY OFFICIAL SIGNATURE : 会社役員の署名:	DATE : 日付:	
COMPANY OFFICIAL NAME/TITLE : 会社役員の氏名/役職名:		
POST ON CRANE (OR ALTERNATE MACHINE) (IN CAB OR VEHICLE) クレーン(又はクレーンに代わる機器)に掲示 (運転室または車両) (or in the contractor's on-site office for rigging operations) (当該機器が関与しない玉掛けのみの作業については業者の現場事務所内に掲示)		

FIGURE P-1

CONTRACTOR CRANE OR RIGGING OPERATION CHECKLIST 契約業者クレーン及び玉掛け作業チェックリスト			
		YES はい	NO いいえ
1	Is the Certificate of Compliance, P-1, in the operator's cab (or in the contractor's on-site office for rigging operations) with the current operator's name listed? 運転室内(玉掛け作業については業者の現場事務所内)に現在操作している運転士の名前が記載されたコンプライアンス証書(P-1)があるか?		
2	Is the crane/machine transited to and from the job site correctly? Are the OEM instructions for travel being followed? クレーン/機器は作業現場へ(から)正しく搬送されているか? 製造メーカーの走行手順が順守されているか?		
3	Does the operator know the weight of the load to be lifted? 運転士は吊り上げる荷物の重量を知っているか?		
4	Is the load to be lifted within the crane/machine manufacturer's rated capacity in its present configuration? 荷物の重量は現在のクレーン/機器のセッティングにおいて製造メーカーの定める定格容量以内にあるか?		
5	Are outriggers or stabilizers required? アウトリガー又はスタビライザーは必要か?		
6	If outriggers are required, are outriggers fully extended and down, and the crane load off the wheels? アウトリガーが必要な場合、完全に張り出されて接地しているか? クレーンの車輪が地面から離れているか?		
7	If the crane/machine level and on firm ground, if the ground is not firm is the crane/machine blocked? クレーン/機器は水平で堅固な地面にあるか? もし地面が堅固でないならば、クレーン/機器に敷板が使用されているか?		
8	If blocking is required, is the entire surface of the outrigger pad supported and is the blocking material of sufficient strength to safely support the loaded outrigger pad? 敷板が必要な場合、アウトリガーパッドの全面が敷板によって支持されているか? 十分な強度を持つ敷板が荷重が掛かったアウトリガーパッドを安全に支持しているか?		
9	If outriggers are not used, is the crane/machine rated for on-rubber lifts by the manufacturer's load chart? If stabilizers are used and not outriggers and the wheels are not off the ground is this the correct setup in accordance with the OEM? アウトリガーが使用されない場合、クレーン/機器は製造メーカーの荷重表でタイヤ接地状態による吊り上げが定められているか? アウトリガーが装備されていない機器でスタビライザーが使用され車輪が地面から離れていない場合、それは製造メーカーの手順に従う正しいセットアップか?		
10	Is the swing radius of the crane counterweight clear of people and obstructions and accessible areas within the swing area barricaded to prevent injury or damage? クレーンのカウンターウエイト旋回範囲内に人や障害物がないか? 旋回範囲内の立ち入り可能な区域はケガや損傷を防止するためにバリケードでふさがれているか?		
11	Has the hook been centered over the load in such a manner to minimize swing? フックは荷振れを最小限にするために荷物の中心の真上に置かれているか?		
12	Is the load well secured and balanced in the sling or lifting device before it is lifted more than a few inches? 荷物が数インチ以上吊り上げられる前にスリングや吊具で十分に締められてバランスを取られているか?		
13	Is the lift and swing path clear of obstructions? 吊り上げ及び旋回経路に障害物がないか?		
14	If rotation of the load being lifted is hazardous, is a tag or restraint line being used? 吊り上げられている荷物の回転が危険な場合、タグライン(介錯ロープ)、引き綱が使用されているか?		
15	Are personnel prevented from standing or passing under a suspended load? 人員が吊荷の下に立つことや通行するのを防止されているか?		
16	Is the operator's attention diverted? 運転士の注意がそれているか?		
17	Are proper signals being used at all times? Is the operator responding properly to the signals? Are radios used for blind lifts? 常に適切な合図が使われているか? 運転士は適切に合図に反応しているか? 運転士から荷物が見えない吊上げ(ブラインドリフト)には無線機が使用されているか?		
18	Is the load lifted a few inches to ensure it is secure and balanced? 荷物が適切に締結されてバランス状態を確実にする為に地切り時に数インチ吊り上げられて確認されているか?		
19	Are empty hooks lashed or otherwise secured during travel to prevent swinging? 走行時の振れを防止する為に空のフックは紐等で固定されるか、もしくは別の方法で固定されているか?		
20	Does the operator remain at the controls while the load is suspended? 荷物が吊られている間、運転士は操作場所(操縦席)に留まっているか?		
21	Do the operations ensure that side loading is prohibited? 荷物の横引きが禁止されていることを徹底しているか?		
22	Are personnel prevented from riding on a load? 人員が荷物の上に乗ることを防止されているか?		
23	Are start and stop motions in a smooth fluid motion (no sudden acceleration or deceleration)? クレーン操作において始動と停止の動きはスムーズであるか? (急加速又は急減速は禁止)		
24	If operating near electric power lines, are the rules and guidelines understood and adhered to? 送電線付近での作業の場合、規則や指針が理解され順守されているか?		
25	Is the lift a critical lift? 実施する吊り上げ作業は危険度が高い作業か?		

FIGURE P-2 (1 of 2)

CONTRACTOR CRANE OR RIGGING OPERATION CHECKLIST 契約業者クレーン及び玉掛け作業チェックリスト		YES はい	NO いいえ
26	If so, are all regulations understood and check-off sheets initialed and signed off? 上記の場合、全ての規則が理解されチェックシート(コンプレックス/クリティカルリフトプラン)にイニシャルと署名が記入されてあるか?		
26.1	Are any overhead power lines in the vicinity? 周囲に頭上の送電線があるか?		
26.2	If so, are complex lift rules and 1926.550(a)(15) being followed? 上記の場合、コンプレックスリフトの規則と1926.550(a)(15)が順守されているか?		
27	If pick and carry operations are allowed and performed, are OEM directions followed? (e.g. rotation lock engaged, boom centered over front or rear, etc.)? もしクレーン/機器の走行吊り作業が許可されていて実行される場合、製造メーカーの手順が順守されているか? (例えば旋回ブレーキロックが掛けられる、ブームが前方もしくは後方の中心に来る様に合わせる、等)		
28	When the crane / machine is left unattended, is it in a safe condition? クレーン/機器は運転士が離れている時、安全な状態にあるか?		
29	Is rigging gear undamaged and acceptable for the application? 玉掛け用具は損傷なく使用用途に適しているか?		
30	Does rigging gear meet applicable ASME or host country standards (e.g. ASME B30.9 for slings, B30.10 for hooks, B30.26 for hardware such as shackles, safety hoist rings, eyebolts, etc. B30.20 for below the hook lifting devices, etc.)? 玉掛け用具は適用可能なASME、又は現地の法令及び規則を満たしているか? (例えばASME B30.9 スリング、B30.10 フック、B30.26 シャックル、安全吊上リング、アイボルト等の様な金属製品、B30.20 フック下の吊上装置、等)		
31	Is the rigging gear inspected prior to use? 玉掛け用具は使用前に検査されているか?		
32	Is chafing gear used to protect slings (especially synthetic slings) and equipment from damage due to sharp corners and edges? スリング(特に繊維スリング)や器具を鋭い角や端部の損傷から保護するために当て物用具が使用されているか?		
33	Is the rigging gear used in accordance with its working load limit? Is the load limit visible? 玉掛け用具はその作業制限荷重に従って使用されているか? その制限荷重は明白に表示されているか?		
34	Are positive latching devices used on crane and rigging hooks, or are the hooks "moused"? クレーンと玉掛け用具のフックに確実な掛け金装置が使用されているか? 又はフックの開口部が他の方法で閉じられているか?		
Contractor : 契約業者名 :		Subcontractor : 下請け業者名 :	
Location (To include building / pier number or specific information to identify work location) : 作業現場 (建物/岸壁番号、もしくは作業現場を特定できる具体的な情報を記入)			
Notes : 注記 :			
Signature of Contracting Officer's Representative : 契約担当官の代表者の署名 :		Date : 日付 :	

FIGURE P-2 (2 of 2)

CONTRACTOR CRANE OPERATOR'S DAILY CHECKLIST 契約業者クレーン日常点検表			
	Check Items 確認項目	YES	NO
		はい	いいえ
1	Is the Certification of Compliance, P-1, in the operator's cab with the current operator's name listed? 運転室内のコンプライアンス証書には最新の運転者名が記載されてあるか?		
2	Does the operator know the weight of the load to be lifted? 運転士は吊り上げる品物の重量を把握しているか?		
3	Is the load to be lifted on the plan within the crane manufacturer's rated capacity in its present configuration? 作業計画での吊荷の重量は、現状のクレーン構成においてクレーン製造者の定める定格容量の範囲内であるか?		
4	Is the crane level and on firm ground? クレーンは水平で堅固な地面に設置されているか?		
5	Are outriggers required? アウトリガーは必要か?		
6	If so, are outriggers fully extended and down, and the crane load off the wheels? アウトリガーが必要な場合、完全に張り出されて接地しているか。クレーンのタイヤが地面から浮いているか?		
7	Is Outrigger block the entire surface of the outrigger pad supported and is the blocking material of sufficient strength to safely support the loaded outrigger pad? 敷板は、アウトリガーパッド全面が受けられているか? 敷板の材質の強度は、荷重が加わったアウトリガーパッドを安全に支えられるか?		
8	If outriggers are not used, is the crane rated for on-rubber lifts by the manufacturer's load chart? アウトリガーを使用しない場合、当該クレーンはクレーン製造者の定格総荷重表にタイヤ接地状態で吊り上げが定められているか?		
9	Is the swing radius of the crane counterweight clear of people and obstructions and accessible areas within the swing area barricaded to prevent injury or damage? クレーンのカウンターウエイト旋回範囲内に人や障害物がないか。旋回範囲内への立ち入り可能な区域は、ケガや損傷を防止するために閉鎖されているか?		
10	Is the lift and swing path clear of obstructions? 吊り上げ、及び旋回経路に障害物はないか?		
11	Are personnel prevented from standing or passing under a suspended load? 吊荷の下に立つ、又は通行が出来ないよう安全対策が施されているか?		
12	If operating near electric power lines, are the rules and guidelines understood and adhered to? 送配電線付近で作業する場合、規則や指針を理解し順守しているか?		
13	Is the lift a critical lift? クレーン作業は危険度の高い(または重要な)作業であるか?		
14	If so, are all regulations understood and check-off sheets initialed and signed off? 上記の場合、全ての規則が周知されてチェックシートにイニシャルと署名が記入されてあるか?		
15	Is rigging gear undamaged and acceptable for the application? 玉掛け用具に損傷が無く、使用用途に適したものか?		
I certify obeying about the following check items during crane operation. 私はクレーン作業の間、以下の確認項目に付いて遵守する事を証明します。			
16	To ensure that the hook is set at center of the load for minimizing swing. フックは荷振れを最小限にするために吊荷の中心にセットされていることを確実にすること。		
17	To confirm whether the load will be being secured and balanced well before lifting more than a few inches. 数インチ以上吊り上げる前に、吊荷は固縛されており、又バランスが保たれているかどうかを確認すること。		
18	To use a tag line. If rotation of the load being lifted is hazardous. 吊り上げ中の荷が回転して危険な場合、誘導ロープを使用すること。		
19	To pay attention always, while the crane operator is controlling the crane. クレーン運転者がクレーンを操作している間、常に注意を払うこと。		
20	To ensure that proper signals are used at all times. 適切な合図が常に使われることを確実にすること。		
21	To ensure that side loading is prohibited at crane operation. 吊荷の横引きが禁じられていることを確実にすること。		
22	To prevent that a personnel ride on a load. 人が吊荷の上に乗ることを禁止すること。		
23	To ensure that the start and stop of crane operation is performed smoothly (no sudden acceleration or deceleration). クレーン作業の始動と停止がスムーズに行われる事を徹底すること。(急加速または急減速は禁止)?		
チェック実施者名(ローマ字):		所属会社名(ローマ字):	Date日付:
Location (To include the building number, pier number, etcetera location's information) 作業現場 (建物/岸壁番号、もしくは作業現場を特定できる具体的な情報を記入):			
Notes 注記:			
現場責任者署名(ローマ字):		所属会社名(ローマ字):	Date日付:

CATEGORY 2 & 3 NON CAB OPERATED CRANE OPERATOR'S PRE-USE / MONTHLY CHECKLIST
カネゴリー 2 & 3 運転室無しクレーン 始業前 / 月例点検表

CRANE NO. クレーン番号	TYPE/CAPACITY 形式/容量	LOCATION 場所	CERTIFICATION EXPIRATION DATE 使用許可証有効期限	SHOP / CODE ショップ/コード	DATE 日付
OPERATORS 運転士					
LEGEND 凡例 S = SATISFACTORY 良 U = UNSATISFACTORY 不良 NA = NOT APPLICABLE 適用外					
3 OPERATIONAL TEST 操作点検					
2 MACHINERY HOUSE 機械室点検					
1 WALK AROUND CHECK 周回点検					
a	Safety Guards and Plates 安全ガードとプレート	House Keeping 清掃状態	S	U	N A
b	General hardware 外観	Leaks 漏れ	a	b	c
c	Wire Rope ワイヤロープ	Lubrication 潤滑	d	e	f
d	Reeving ワイヤロープの巻きかけ状態	Clutch and Brakes クラッチとブレーキ	g	h	i
e	Block/Blocks ブロック	Electric Motors 電動機	j	k	l
f	Hook / Hooks フック	Danger/ Caution Tags 危険警告札	m	n	o
g	Sheaves シーブ	Hoist Drum Pawl/ratchet Locks ホイスドラムの爪/ラチェットロック	p	q	r
h	Rail / Bumpers stop レール、バンパー止め	Certification tag 認証札	s	t	u
i	Leaks 漏れ	Warning / Indicator lights 警告灯/表示灯	v	w	x
j	Load chain on chain hoist チェーンホイストのロードチェーン		y	z	aa
k	Area Safety 周囲の安全性		ab	ac	ad
			ae	af	ag
			ah	ai	aj
			ak	al	am
			an	ao	ap
			aq	ar	as
			at	au	av
			aw	ax	ay
			az	ba	bb
			bc	bd	be
			bf	bg	bh
			bi	bj	bk
			bl	bm	bn
			bo	bp	bq
			br	bs	bt
			bu	bv	bw
			bx	by	bz
			ca	cb	cc
			cd	ce	cf
			cg	ch	ci
			cj	ck	cl
			cm	cn	co
			cp	cq	cr
			cs	ct	cu
			cv	cw	cx
			cy	cz	ca
			cb	cc	cd
			ce	cf	cg
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			cv	cw	cx
			cw	cx	

Activity Hazard Analysis (AHA)

Activity/Work Task:	Overall Risk Assessment Code (RAC) (Use highest code)																														
Project Location:	Risk Assessment Code (RAC) Matrix																														
Contract Number:																															
Date Prepared:																															
Prepared by (Name/Title):																															
Reviewed by (Name/Title):																															
Notes: (Field Notes, Review Comments, etc.)	Step 1: Review each "Hazard" with identified safety "Controls" and determine RAC (See above)																														
"Probability" is the likelihood to cause an incident, near miss, or accident and identified as: Frequent, Likely, Occasional, Seldom or Unlikely. "Severity" is the outcome/degree if an incident, near miss, or accident did occur and identified as: Catastrophic, Critical, Marginal, or Negligible Step 2: Identify the RAC (Probability/Severity) as E, H, M, or L for each "Hazard" on AHA. Annotate the overall highest RAC at the top of AHA.																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"></td> <td style="width: 10%;">Frequent</td> <td style="width: 10%;">Likely</td> <td style="width: 10%;">Occasional</td> <td style="width: 10%;">Seldom</td> <td style="width: 10%;">Unlikely</td> <td colspan="2" style="text-align: center;">RAC Chart</td> </tr> <tr> <td style="text-align: center;">E</td> <td style="text-align: center;">H</td> <td style="text-align: center;">M</td> <td style="text-align: center;">L</td> <td style="text-align: center;">L</td> <td style="text-align: center;">L</td> <td style="text-align: center;">E = Extremely High Risk</td> <td style="text-align: center;">H = High Risk</td> </tr> <tr> <td style="text-align: center;">H</td> <td style="text-align: center;">M</td> <td style="text-align: center;">L</td> <td style="text-align: center;">L</td> <td style="text-align: center;">L</td> <td style="text-align: center;">L</td> <td style="text-align: center;">M = Moderate Risk</td> <td style="text-align: center;">L = Low Risk</td> </tr> </table>									Frequent	Likely	Occasional	Seldom	Unlikely	RAC Chart		E	H	M	L	L	L	E = Extremely High Risk	H = High Risk	H	M	L	L	L	L	M = Moderate Risk	L = Low Risk
	Frequent	Likely	Occasional	Seldom	Unlikely	RAC Chart																									
E	H	M	L	L	L	E = Extremely High Risk	H = High Risk																								
H	M	L	L	L	L	M = Moderate Risk	L = Low Risk																								
Job Steps	Hazards																														
Controls																															
RAC																															

Inspection Requirements	
Training Requirements/Competent or Qualified Personnel name(s)	
Equipment to be Used	



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND FAR EAST
PSC 473 BOX 13
FPO AP 96349-0013

5100
Ser 09SF/ 0159
13 Apr 10

From: Commanding Officer, Naval Facilities Engineering Command Far East
To: Distribution

Subj: ELECTRICAL SAFETY

Ref: (a) Electrical Safety Field Guide, OPNAV P-45-117-6-98, dated 30 Jun 98
(b) Electrical SAFE SOP/JSA PWBL 003, Working On or Near Exposed and Enclosed Energized Electrical Systems
(c) Safety and Health Requirements Manual, EM 385-1-1, Section 11, dated 15 Sep 08
(d) Electrical SAFE SOP/JSA PWBL 004, Measuring/Testing Parameters of Energized Electrical Systems (High and Low Voltage)

Encl: (1) NAVFAC Far East Energized Electrical Work Permit

1. References (a), (b) and (c) establish minimum standards to prevent hazardous electrical exposures to personnel and ensure compliance with regulatory requirements applicable to electrical systems. Working on electrical equipment in a de-energized state is **required** unless de-energizing introduces an increased hazard or is infeasible. When energized electrical work is to be performed due to aforementioned reasons, it shall be conducted by qualified electrical workers, who are trained and provided with the appropriate safe work procedures, protective equipment and other necessary controls. All energized work **REQUIRES MY PERSONAL APPROVAL** utilizing the work permit provided as enclosure (1) for both in-house workforce and contractor employees. This work permit is to be submitted by PWOs/ROICCs to my attention via the Operations Officer. There will be no energized electrical work performed unless the work permits are approved. The only exception to this requirement is when measuring and/or testing electrical parameters is performed per reference (d).

2. When work is to be conducted within ten feet of exposed energized electrical systems, I expect everyone to apply the Operational Risk Management (ORM) process to determine the degree of potential risks involved. If personnel are at risk as a result of the hazard assessment, the work permit system will apply.

3. We have the responsibility to comply with the established standards and policy in meeting this requirement in addition to any local installation requirements. I solicit your support to help create and sustain a safe work environment for our personnel.


R. A. MCLEAN



NAVFAC INITIAL MISHAP NOTIFICATION

Navy Civilian Employee Contract Employee Military

- 1) Name of activity and exact location where mishap occurred:

- 2) Type of work being performed:

- 3) Date and Time of Mishap:

- 4) If contractor mishap - also identify Contractor name and type of contract:

- 5) Name of injured person, if known:

- 6) Brief description of mishap, including extent of injuries:

- 7) Extent of property damage if applicable:

- 8) Corrective action taken at initial notification and indicate if and when follow up information will be provided:

- 9) Safety investigator assigned if known at this time:

10) Employee immediate supervisor or responsible person:

11) A summary of initial lessons learned:

12) Mishap Review Board anticipated date:

SECTION 01 45 00.00 20

QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest version of the publication at time of award shall be used.

JAPANESE SCIENCE AND TECHNOLOGY AGENCY PUBLICATION

List of Testing Laboratories (Zen-koku Shiken Kenkyu Kikan Meikan)

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety -- Safety and Health Requirements

1.2 SUBMITTALS

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

SD-01 Preconstruction Submittals

Construction Quality Control (QC) Plan; G (CME)

Submit a Construction QC Plan prior to start of construction.

Indoor Air Quality (IAQ) Management Plan; G (CME)

1.3 INFORMATION FOR THE CONTRACTING OFFICER

Prior to commencing work on construction, the Contractor can obtain a single copy set of the current report forms from the Contracting Officer. The report forms will consist of the Contractor Production Report, Contractor Production Report (Continuation Sheet), Contractor Quality Control (CQC) Report, (CQC) Report (Continuation Sheet), Preparatory Phase Checklist, Initial Phase Checklist, Rework Items List, and Testing Plan and Log.

Deliver the following to the Contracting Officer during Construction:

- a. CQC Report: Mail or hand-carry the original (wet signatures) and one copy by 10:00 AM the next working day after each day that work is performed and for every seven consecutive calendar days of no-work

- b. Contractor Production Report: Submit as directed by the Contracting Officer by 10:00 AM the next working day after each day that work is performed and for every seven consecutive calendar days of no-work, attached to the CQC Report. Mail or hand-carry the original (wet signatures) and one copy by 10:00 AM the next working day after each day that work is performed and for every seven consecutive calendar days of no-work, attached to the CQC Report.
- c. Preparatory Phase Checklist:
Submit preparatory phase checklist attached to each QC Report copy.
- d. Initial Phase Checklist:
Submit initial phase checklist attached to each QC Report copy.
- e. Field Test Reports:
Submit as directed by the Contracting Officer, the original within two working days after the test is performed, attached to the original CQC Report and one copy attached to each QC Report copy.
- f. Monthly Summary Report of Tests:
Submit monthly summary report of test attached to the last QC Report of the month.
- g. Testing Plan and Log:
Submit testing plan and log attached to the last CQC Report of each month and one copy attached to each CQC Report copy. A copy of the final Testing Plan and Log shall be provided to the Operation and Maintenance Support Information (OMSI) preparer for inclusion into the OMSI documentation.
- h. Rework Items List:
Submit rework items list attached to the last CQC Report of each month and one copy attached to each CQC Report copy.
- i. CQC Meeting Minutes:
Submit as directed by the Contracting Officer within two working days after the meeting is held, attached to the original CQC Report and one copy attached to each CQC Report copy.
- j. QC Certifications: As required by the paragraph entitled "QC Certifications."
- k. The Contractor shall maintain a photographic record of the project throughout the duration of construction. Photographs shall be digital in nature and be kept electronically for a period of one year past the projects completion. A printed copy of each photograph shall be submitted when requested. Photographs shall be taken as follows;
 - (1) Before construction starts, take enough photographs to accurately document existing conditions.

- (2) Before the start of each definable feature of work, take photographs of that definable feature of work.
- (3) After the completion of each definable feature of work, take photographs of that definable feature of work.
- (4) Take photographs to document significant events. Significant events may include, but are not limited to, inspections, tests, defective materials, construction deficiencies, and accidents that result in injury or damage.
- (5) Take photographs as directed by the Contracting Officer.

A digital copy of all photographs taken shall be submitted with the final invoice.

1.4 QC PROGRAM REQUIREMENTS

Establish and maintain a QC program as described in this section. This QC program is a key element in meeting the objectives of NAVFAC Commissioning. The QC program consists of a QC Organization, QC Plan, QC Plan Meeting(s), a Coordination and Mutual Understanding Meeting, QC meetings, three phases of control, submittal review and approval, testing, completion inspections, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this Contract. The QC program shall cover on-site and off-site work and shall be keyed to the work sequence. No construction work or testing may be performed unless the QC Manager is on the work site. The QC Manager shall report to the Project Superintendent. The QC Manager, Project Superintendent and Project Manager must work together effectively. Although the QC Manager is the primary individual responsible for quality control, all individuals will be held responsible for the quality of work on the job.

1.4.1 Acceptance of the Construction Quality Control (QC) Plan

Acceptance of the QC Plan is required prior to the start of construction. The Contracting Officer reserves the right to require changes in the QC Plan and operations as necessary, including removal of personnel, to ensure the specified quality of work. The Contracting Officer reserves the right to interview any member of the QC organization at any time in order to verify the submitted qualifications. All QC organization personnel shall be subject to acceptance by the Contracting Officer. The Contracting Officer may require the removal of any individual for non-compliance with quality requirements specified in the Contract.

1.4.2 Preliminary Construction Work Authorized Prior to Acceptance

The only construction work that is authorized to proceed prior to the acceptance of the QC Plan is mobilization of storage and office trailers, temporary utilities, and surveying.

1.4.3 Notification of Changes

Notify the Contracting Officer, in writing, of any proposed changes in the QC Plan or changes to the QC organization personnel, a minimum of 10 work

days prior to a proposed change. Proposed changes shall be subject to acceptance by the Contracting Officer.

1.5 QC ORGANIZATION

1.5.1 QC Manager

1.5.1.1 Duties

Provide a QC Manager at the work site to implement and manage the QC program. The only duties and responsibilities of the QC Manager are to manage and implement the QC program on this Contract. The QC Manager shall not be designated as the safety competent person as described in Section 01 35 26 "Governmental Safety Requirements." The QC Manager is required to attend the partnering meetings, QC Plan Meetings, Coordination and Mutual Understanding Meeting, conduct the QC meetings, perform the three phases of control, perform submittal review and approval, ensure testing is performed and provide QC certifications and documentation required in this Contract. The QC Manager is responsible for managing and coordinating the three phases of control and documentation performed by testing laboratory personnel and any other inspection and testing personnel required by this Contract. The QC Manager is the manager of all QC activities.

1.5.1.2 Qualifications

A graduate of a four year accredited college or university program in one of the following disciplines: Engineering, Architecture, Construction Management, Engineering Technology, Building Construction, or Building Science, with a minimum of 10 years experience as a Project Superintendent, QC Manager, Project Manager, Project Engineer or Construction Manager on similar size and type construction contracts which included the major trades that are part of this Contract. The individual must have at least two years experience as a QC Manager. The individual must be familiar with the requirements of EM 385-1-1, and have experience in the areas of hazard identification, safety compliance, and sustainability.

The individual must have the Japanese license of Construction Quality Management Technician ("Kanri Gijyutsu-sha Shikaku-sha Shou") and

1st Class Civil Engineering Works Execution Managing Engineer
"1 Kyu, Doboku sekou kanri gishi"

1.5.2 Construction Quality Management Training

In addition to the above experience and education requirements, the QC Manager shall have completed the course entitled "Construction Quality Management (CQM) for Contractors." If the QC Manager does not have a current certification, they shall obtain the CQM for Contractors course or equivalent course certification. This course is periodically offered by the Naval Facilities Engineering Command and the Army Corps of Engineers. Contact the Contracting Officer for information on the next scheduled class.

1.5.3 Alternate QC Manager Duties and Qualifications

Designate an alternate for the QC Manager at the work site to serve in the event of the designated QC Manager's absence. The period of absence may not exceed two weeks at one time, and not more than 30 workdays during a

calendar year. The qualification requirements for the Alternate QC Manager shall be the same as for the QC Manager. **The individual shall have successfully completed the Construction Quality Management class, sponsored by NAVFACNGCOM within the last five years.**

1.5.4 Submittal Reviewers Duties and Qualifications

Provide Submittal Reviewers, other than the QC Manager, qualified in the disciplines being reviewed, to review and certify that the submittals meet the requirements of this Contract prior to certification or approval by the QC Manager.

1.6 QUALITY CONTROL (QC) PLAN

1.6.1 Construction Quality Control (QC) Plan

1.6.1.1 Requirements

Provide, for acceptance by the Contracting Officer, a Construction QC Plan submitted in a three-ring binder that includes a table of contents, with major sections identified with tabs, with pages numbered sequentially, and that documents the proposed methods and responsibilities for accomplishing commissioning activities during the construction of the project:

I. QC ORGANIZATION: A chart showing the QC organizational structure.

II. NAMES AND QUALIFICATIONS: Names and qualifications, in resume format, for each person in the QC organization. Include the CQM for Contractors course certifications for the QC Manager and Alternate QC Manager as required by the paragraphs entitled "Construction Quality Management Training" and "Alternate QC Manager Duties and Qualifications".

III. DUTIES, RESPONSIBILITY AND AUTHORITY OF QC PERSONNEL: Duties, responsibilities, and authorities of each person in the QC organization.

IV. OUTSIDE ORGANIZATIONS: A listing of outside organizations, such as architectural and consulting engineering firms, that will be employed by the Contractor and a description of the services these firms will provide.

V. APPOINTMENT LETTERS: Letters signed by an officer of the firm appointing the QC Manager and Alternate QC Manager and stating that they are responsible for implementing and managing the QC program as described in this Contract. Include in this letter the responsibility of the QC Manager and Alternate QC Manager to implement and manage the three phases of control, and their authority to stop work which is not in compliance with the Contract. The QC Manager shall issue letters of direction to authorities, and responsibilities. Copies of the letters shall be included in the QC Plan.

VI. SUBMITTAL PROCEDURES AND INITIAL SUBMITTAL REGISTER: Procedures for reviewing, approving, and managing submittals. Provide the name(s) of the person(s) in the QC organization authorized to review and certify submittals prior to approval. Provide the initial submittal of the Submittal Register as specified in section 01 33 00 SUBMITTAL PROCEDURES.

VII. TESTING LABORATORY INFORMATION: Testing laboratory information required by the paragraphs entitled "Accreditation Requirements", as applicable.

VIII. TESTING PLAN AND LOG: A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test. Use Government forms to log and track tests.

IX. PROCEDURES TO COMPLETE REWORK ITEMS: Procedures to identify, record, track, and complete rework items. Use Government forms to record and track rework items.

X. DOCUMENTATION PROCEDURES: Use Government form.

XI. LIST OF DEFINABLE FEATURES: A Definable Feature of Work (DFOW) is a task that is separate and distinct from other tasks and has control requirements and work crews unique to that task. A DFOW is identified by different trades or disciplines and is an item or activity on the construction schedule. The list of DFOWs shall include, but not be limited to, all critical path activities on the NAS. Include all activities for which this specification requires specialty inspection personnel. Each design development stage and submittal package shall have separate DFOWs in the Network Analysis Schedule.

XII. PROCEDURES FOR PERFORMING THE THREE PHASES OF CONTROL: Identify procedures you will use to ensure the three phases of control are used to manage the quality on this project. For each DFOW, a Preparatory and Initial phase checklist will be filled out during the Preparatory and Initial phase meetings. The Preparatory and Initial Phases and meetings shall be conducted with a view towards obtaining quality construction by planning ahead and identifying potential problems for each DFOW.

XIII. PERSONNEL MATRIX: Not Applicable.

XIV. PROCEDURES FOR COMPLETION INSPECTION: Procedures for identifying and documenting the completion inspection process. Include in these procedures the responsible party for punch out inspection, pre-final inspection, and final acceptance inspection.

XV. TRAINING PROCEDURES AND TRAINING LOG: Not Applicable

XVI. ORGANIZATION AND PERSONNEL CERTIFICATIONS LOG: Procedures for coordinating, tracking and documenting all certifications on subcontractors, testing laboratories, suppliers, personnel, etc. QC Manager will ensure that certification are current, appropriate for the work being performed, and will not lapse during any period of the contract that the work is being performed.

1.7 QC PLAN MEETINGS

Prior to submission of the QC Plan, the QC Manager will meet with the Contracting Officer to discuss the QC Plan requirements of this Contract. The purpose of this meeting is to develop a mutual understanding of the QC Plan requirements prior to plan development and submission and to agree on the Contractor's list of DFOWs.

1.8 COORDINATION AND MUTUAL UNDERSTANDING MEETING

After submission of the QC Plan, and prior to the start of construction, the QC Manager will meet with the Contracting Officer to present the QC program required by this Contract. When a new QC Manager is appointed, the coordination and mutual understanding meeting shall be repeated.

1.8.1 Purpose

The purpose of this meeting is to develop a mutual understanding of the QC details, including documentation, administration for on-site and off-site work, design intent, environmental requirements and procedures, coordination of activities to be performed, and the coordination of the Contractor's management, production, and QC personnel. At the meeting, the Contractor will be required to explain in detail how three phases of control will be implemented for each DFO, as well as how each DFO will be affected by each management plan or requirement as listed below:

- a. Waste Management Plan.
- b. IAQ Management Plan.
- c. Procedures for noise and acoustics management.
- d. Environmental Protection Plan.
- e. Environmental regulatory requirements.

1.8.2 Coordination of Activities

Activities included in various sections shall be coordinated to assure efficient and orderly installation of each component. Coordinate operations included under different sections that are dependent on each other for proper installation and operation. Schedule construction operations with consideration for indoor air quality as specified in the IAQ Management Plan.

1.8.3 Attendees

As a minimum, the Contractor's personnel required to attend shall include an officer of the firm, the Project Manager, Project Superintendent, QC Manager, Alternate QC Manager, and subcontractor representatives. Each subcontractor who will be assigned QC responsibilities shall have a principal of the firm at the meeting. Minutes of the meeting will be prepared by the QC Manager and signed by the Contractor and the Contracting Officer. The Contractor shall provide a copy of the signed minutes to all attendees and shall be included in the QC Plan.

1.9 QC MEETINGS

After the start of construction, the QC Manager shall conduct weekly QC meetings at the work site with the Project Superintendent, and the foremen who are performing the work of the DFOs. The QC Manager shall prepare the minutes of the meeting and provide a copy to the Contracting Officer within two working days after the meeting. The Contracting Officer may attend these meetings. As a minimum, the following shall be accomplished at each meeting:

- a. Review the minutes of the previous meeting;

- b. Review the schedule and the status of work and rework;
- c. Review the status of submittals;
- d. Review the work to be accomplished in the next two weeks and documentation required;
- e. Resolve QC and production problems (RFI, etc.);
- f. Address items that may require revising the QC Plan;
- g. Review Accident Prevention Plan (APP);
- h. Review environmental requirements and procedures;
- i. Review Waste Management Plan;
- j. Review IAQ Management Plan;
- k. Review Environmental Management Plan;
- l. Review the status of training completion;

1.10 THREE PHASES OF CONTROL

The Three Phases of Control shall adequately cover both on-site and off-site work and shall include the following for each DFOV.

1.10.1 Preparatory Phase

Notify the Contracting Officer at least two work days in advance of each preparatory phase meeting. The meeting shall be conducted by the QC Manager and attended by the Project Superintendent, and the foreman responsible for the DFOV. When the DFOV will be accomplished by a subcontractor, that subcontractor's foreman shall attend the preparatory phase meeting. Document the results of the preparatory phase actions in the Preparatory Phase Checklist. Perform the following prior to beginning work on each DFOV:

- a. Review each paragraph of the applicable specification sections;
- b. Review the Contract drawings;
- c. Verify that field measurements are as indicated on construction and/or shop drawings before confirming product orders, in order to minimize waste due to excessive materials;
- d. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;
- e. Review the testing plan and ensure that provisions have been made to provide the required QC testing;
- f. Examine the work area to ensure that the required preliminary work has been completed;

- g. Coordinate the schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials;
- h. Arrange for the return of shipping/packaging materials, such as wood pallets, where economically feasible;
- i. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;
- j. Discuss construction methods, construction tolerances, workmanship standards, and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each DFW;
- k. Review the APP and appropriate Activity Hazard Analysis (AHA) to ensure that applicable safety requirements are met, and that required Material Safety Data Sheets (MSDS) are submitted; and

1.10.2 Initial Phase

Notify the Contracting Officer at least five work days in advance of each initial phase. When construction crews are ready to start work on a DFW, conduct the initial phase with the Project Superintendent, and the foreman responsible for that DFW. Observe the initial segment of the DFW to ensure that the work complies with Contract requirements. Document the results of the initial phase in the daily CQC Report and in the Initial Phase Checklist. Repeat the initial phase for each new crew to work on-site, or when acceptable levels of specified quality are not being met. Perform the following for each DFW:

- a. Establish the quality of workmanship required;
- b. Resolve conflicts;
- c. Ensure that testing is performed by the approved laboratory;
- d. Check work procedures for compliance with the APP and the appropriate AHA to ensure that applicable safety requirements are met;

1.10.3 Follow-Up Phase

Perform the following for on-going work daily, or more frequently as necessary, until the completion of each DFW and document in the daily CQC Report:

- a. Ensure the work is in compliance with Contract requirements;
- b. Maintain the quality of workmanship required;
- c. Ensure that testing is performed by the approved laboratory;
- d. Ensure that rework items are being corrected;
- e. Perform safety inspections;

1.10.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same DFOW if the quality of on-going work is unacceptable, if there are changes in the applicable QC organization, if there are changes in the on-site production supervision or work crew, if work on a DFOW is resumed after substantial period of inactivity, or if other problems develop.

1.10.5 Notification of Three Phases of Control for Off-Site Work

Notify the Contracting Officer at least two weeks prior to the start of the preparatory and initial phases.

1.11 SUBMITTAL REVIEW AND APPROVAL

Procedures for submission, review and approval of submittals are described in Section 01 33 00 SUBMITTAL PROCEDURES.

1.12 TESTING

Except as stated otherwise in the specification sections, perform sampling and testing required under this Contract.

1.12.1 Accreditation Requirements

Construction materials testing laboratories must be accredited by a laboratory accreditation authority and will be required to submit a copy of the Certificate of Accreditation and Scope of Accreditation. The laboratory's scope of accreditation must include the appropriate Japanese Standards (ie; JIS, JASS) or ASTM standards (E 329, C 1077, D 3666, D 3740, A 880, E 543) listed in the technical sections of the specifications. Laboratories engaged in Hazardous Materials Testing shall meet the requirements of Japanese Laws, OSHA and EPA. The policy applies to the specific laboratory performing the actual testing, not just the Corporate Office.

1.12.2 Laboratory Accreditation Authorities

Laboratory Accreditation Authorities include the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology, the American Association of State Highway and Transportation Officials (AASHTO), International Accreditation Services, Inc. (IAS), U. S. Army Corps of Engineers Materials Testing Center (MTC), the American Association for Laboratory Accreditation (A2LA, or Japanese Equivalent testing laboratory listed in "List of Testing Laboratories (Zen-koku Shiken Kenkyu Kikan Meikan).

1.12.3 Capability Check

The Contracting Officer retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this Contract.

1.12.4 Test Results

Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, notify the Contracting Officer immediately. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results shall be signed by a testing laboratory representative authorized to sign certified test reports. Furnish the signed reports, certifications, and other documentation to the Contracting Officer via the QC Manager. Furnish a summary report of field tests at the end of each month, per the paragraph entitled "INFORMATION FOR THE CONTRACTING OFFICER".

1.12.5 Test Reports and Monthly Summary Report of Tests

The QC Manager shall furnish the signed reports, certifications, and a summary report of field tests at the end of each month to the Contracting Officer. Attach a copy of the summary report to the last daily Contractor Quality Control Report of each month. A copy of the signed test reports and certifications shall be provided to the OMSI preparer for inclusion into the OMSI documentation.

1.13 QC CERTIFICATIONS

1.13.1 CQC Report Certification

Each CQC Report shall contain the following statement: "On behalf of the Contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report."

1.13.2 Invoice Certification

Furnish a certificate to the Contracting Officer with each payment request, signed by the QC Manager, attesting that as-built drawings are current, coordinated and attesting that the work for which payment is requested, including stored material, is in compliance with Contract requirements.

1.13.3 Completion Certification

Upon completion of work under this Contract, the QC Manager shall furnish a certificate to the Contracting Officer attesting that "the work has been completed, inspected, tested and is in compliance with the Contract." A copy of this final QC Certification for completion shall be provided to the OMSI preparer for inclusion into the OMSI documentation.

1.14 COMPLETION INSPECTIONS

1.14.1 Punch-Out Inspection

Near the completion of all work or any increment thereof, established by a completion time stated in the Contract Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the QC Manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved drawings, specifications and Contract. Include in the punch list any

remaining items on the "Rework Items List", which were not corrected prior to the Punch-Out Inspection. The punch list shall include the estimated date by which the deficiencies will be corrected. A copy of the punch list shall be provided to the Contracting Officer. The QC Manager, or staff, shall make follow-on inspections to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government "Pre-Final Inspection".

1.14.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete and ready to be occupied. A Government "Pre-Final Punch List" may be developed as a result of this inspection. The QC Manager shall ensure that all items on this list are corrected prior to notifying the Government that a "Final" inspection with the Client can be scheduled. Any items noted on the "Pre-Final" inspection shall be corrected in a timely manner and shall be accomplished before the contract completion date for the work, or any particular increment thereof, if the project is divided into increments by separate completion dates.

1.14.3 Final Acceptance Inspection

The Contractor shall notify the Contracting Officer at least 14 calendar days prior to the date a final acceptance inspection can be held. The notice shall state that all items previously identified on the pre-final punch list will be corrected and acceptable, along with any other unfinished Contract work, by the date of the final acceptance inspection. The Contractor shall be represented by the QC Manager, the Project Superintendent, and others deemed necessary. Attendees for the Government will include the Contracting Officer, other CME, and personnel representing the Client. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the Contract Clause entitled "Inspection of Construction."

1.15 DOCUMENTATION

Maintain current and complete records of on-site and off-site QC program operations and activities. The Contractor shall submit all documentation.

1.15.1 Construction Documentation

Reports are required for each day that work is performed and shall be attached to the Contractor Quality Control Report prepared for the same day. Maintain current and complete records of on-site and off-site QC program operations and activities. The forms identified under the paragraph "INFORMATION FOR THE CONTRACTING OFFICER" shall be used. Reports are required for each day work is performed. Account for each calendar day throughout the life of the Contract. Every space on the forms must be filled in. Use N/A if nothing can be reported in one of the spaces. The Project Superintendent and the QC Manager must prepare and sign the Contractor Production and CQC Reports, respectively. The reporting of work shall be identified by terminology consistent with the construction schedule. In the "remarks" sections of the reports, enter pertinent information including directions received, problems encountered during construction, work progress and delays, conflicts or errors in the drawings

or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site, quality control problem areas, deviations from the QC Plan, construction deficiencies encountered, meetings held. For each entry in the report(s), identify the Schedule Activity No. that is associated with the entered remark.

1.15.1.1 Contractor Production Report

Reports are to be prepared, signed and dated by the project superintendent and shall contain the following information:

- a. Date of report, report number, name of contractor, Contract number, title and location of Contract and superintendent present.
- b. Weather conditions in the morning and in the afternoon including maximum and minimum temperatures.
- c. A list of Contractor and subcontractor personnel on the work site, their trades, employer, work location, description of work performed and hours worked.
- d. A list of job safety actions taken and safety inspections conducted. Indicate that safety requirements have been met including the results on the following:
 - (1) Was a job safety meeting held? (If YES, attach a copy of the meeting minutes.)
 - (2) Were there any lost time accidents? (If YES, attach a copy of the completed OSHA report.)
 - (3) Was crane/trenching/scaffold/high voltage electrical/high work done? (If YES, attach a statement or checklist showing inspection performed.)
 - (4) Was hazardous material/waste released into the environment? (If YES, attach a description of meetings held and accidents that happened.)
- e. A list of equipment/material received each day that is incorporated into the job.
- f. A list of construction and plant equipment on the work site including the number of hours used, idle and down for repair.
- g. Include a "remarks" section in this report which will contain pertinent information including directions received, problems encountered during construction, work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site.

1.15.1.2 Contractor Quality Control Report

Reports are required for each day that work is performed and for every seven consecutive calendar days of no-work and on the last day of a no-work

period. Account for each calendar day throughout the life of the Contract. The reporting of work shall be identified by terminology consistent with the construction schedule. Contractor Quality Control Reports are to be prepared, signed and dated by the QC Manager and shall contain the following information:

- a. Identify the control phase and the definable feature of work.
- b. Results of the Preparatory Phase meetings held including the location of the definable feature of work and a list of personnel present at the meeting. Indicate in the report that for this definable feature of work, the drawings and specifications have been reviewed, submittals have been approved, materials comply with approved submittals, materials are stored properly, preliminary work was done correctly, the testing plan has been reviewed, and work methods and schedule have been discussed.
- c. Results of the Initial Phase meetings held including the location of the definable feature of work and a list of personnel present at the meeting. Indicate in the report that for this definable feature of work the preliminary work was done correctly, samples have been prepared and approved, the workmanship is satisfactory, test results are acceptable, work is in compliance with the Contract, and the required testing has been performed and include a list of who performed the tests.
- d. Results of the Follow-up Phase inspections held including the location of the definable feature of work. Indicate in the report for this definable feature of work that the work complies with the Contract as approved in the Initial Phase, and that required testing has been performed and include a list of who performed the tests.
- e. Results of the three phases of control for off-site work, if applicable, including actions taken.
- f. List the rework items identified, but not corrected by close of business.
- g. List the rework items corrected from the rework items list along with the corrective action taken.
- h. Include a "remarks" section in this report which will contain pertinent information including directions received, quality control problem areas, deviations from the QC plan, construction deficiencies encountered, QC meetings held, acknowledgement that as-built drawings have been updated, corrective direction given by the QC Organization and corrective action taken by the Contractor.
- i. Contractor Quality Control Report certification.

1.15.2 Quality Control Validation

Establish and maintain the following in a series of three ring binders. Binders shall be divided and tabbed as shown below. These binders shall be readily available to the Contracting Officer during all business hours.

- a. All completed Preparatory and Initial Phase Checklists, arranged by specification section.
- b. All milestone inspections, arranged by Activity Number.

- c. c. An up-to-date copy of the Testing Plan and Log with supporting field test reports, arranged by specification section.
- d. Copies of all contract modifications, arranged in numerical order. Also include documentation that modified work was accomplished.
- e. An up-to-date copy of the Rework Items List.
- f. Maintain up-to-date copies of all punch lists issued by the QC staff to the Contractor and Sub-Contractors and all punch lists issued by the Government.

1.15.3 Testing Plan and Log

As tests are performed, the QC Manager shall record on the "Testing Plan and Log" the date the test was performed and the date the test results were forwarded to the Contracting Officer. Attach a copy of the updated "Testing Plan and Log" to the last daily CQC Report of each month, per the paragraph "INFORMATION FOR THE CONTRACTING OFFICER". A copy of the final "Testing Plan and Log" shall be provided to the OMSI preparer for inclusion into the OMSI documentation.

1.15.4 Rework Items List

The QC Manager shall maintain a list of work that does not comply with the Contract, identifying what items need to be reworked, the date the item was originally discovered, the date the item will be corrected by, and the date the item was corrected. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of the "Contractor Rework Items List" to the last daily CQC Report of each month. The Contractor shall be responsible for including those items identified by the Contracting Officer.

1.15.5 As-Built Drawings

The QC Manager is required to ensure the as-built drawings, required by Section 01 78 00 CLOSEOUT SUBMITTALS are kept current on a daily basis and marked to show deviations which have been made from the Contract drawings. Ensure each deviation has been identified with the appropriate modifying documentation (e.g. PC No., Modification No., Request for Information No., etc.). The QC Manager shall initial each revision. Upon completion of work, the QC Manager shall furnish a certificate attesting to the accuracy of the as-built drawings prior to submission to the Contracting Officer.

1.15.6 Report Forms

All reports shall be provided to the Contracting Officer in computer-generated or typewriter written. Electronic copies of these forms are available upon request from the CME Office. No hand-written reports will be accepted. The following forms, which are attached at the end of this section, are acceptable for providing the information required by the paragraph entitled "Documentation". While use of these specific formats are not required, any other format used shall contain the same information:

- a. Combined Contractor Production Report and Contractor Quality Control Report (1 sheet), with separate continuation sheet.
- b. Testing Plan and Log.
- c. Deficiency Status Log (Rework Items List).

1.16 NOTIFICATION ON NON-COMPLIANCE

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

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 PREPARATION

Designate receiving/storage areas for incoming material to be delivered according to installation schedule and to be placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. Store and handle materials in a manner as to prevent loss from weather and other damage. Keep materials, products, and accessories covered and off the ground, and store in a dry, secure area. Prevent contact with material that may cause corrosion, discoloration, or staining. Protect all materials and installations from damage by the activities of other trades.

-- End of Section --

CONTRACTOR PRODUCTION REPORT						DATE	
(ATTACH ADDITIONAL SHEETS IF NECESSARY)							
CONTRACT NO Enter Cnt # Here		TITLE AND LOCATION Enter Title and Location of Construction Contract Here			REPORT NO Enter Rpt # Here		
CONTRACTOR Enter Title and Location of Construction Contract Here				SUPERINTENDENT Enter Title and Location of Construction Contract Here			
AM WEATHER Enter AM Weather Data Here		PM WEATHER Enter PM Weather Data Here		MAX TEMP (F) Enter Max Temp Here	MIN TEMP (F) Enter Min Temp Here		
WORK PERFORMED TODAY						Add	
Schedule Activity No	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS	Del	
JOB SAFETY		WAS A JOB SAFETY MEETING HELD THIS DATE? (IF YES attach copy of the meeting minutes) <input type="radio"/> YES <input type="radio"/> NO		TOTAL WORK HOURS ON JOB SITE THIS DATE, INCL. CON'T SHEETS CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT TOTAL WORK HOURS FROM START OF CONSTRUCTION			
		WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? (IF YES attach copy of completed OSHA report) <input type="radio"/> YES <input type="radio"/> NO					
		WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/HAZMAT WORK DONE? (IF YES attach statement or checklist showing inspection performed) <input type="radio"/> YES <input type="radio"/> NO					
Schedule Activity No		LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET		
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)						Add	
						Del	
Schedule Activity No	Submittal #	Description of Equipment/Material Received					
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.						Add	
						Del	
Schedule Activity No	Owner	Description of Construction Equipment Used Today (incl. Make and Model)			Hours Used		
Schedule Activity No		REMARKS					Add
							Del
<div style="border: 1px solid black; width: 100%; height: 20px; background-color: #e0e0e0;"></div> CONTRACTOR/SUPERINTENDENT				<div style="border: 1px solid black; width: 100%; height: 20px; background-color: #e0e0e0;"></div> DATE			

CONTRACTOR QUALITY CONTROL REPORT <small>(ATTACH ADDITIONAL SHEETS IF NECESSARY)</small>		DATE
		REPORT NO Enter Rpt # Here
PHASE	CONTRACT NO Enter Cnt # Here	CONTRACT TITLE Enter Title and Location of Construction Contract Here
PREPARATORY	WAS PREPARATORY PHASE WORK PERFORMED TODAY? <input type="radio"/> YES <input type="radio"/> NO IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.	<input type="button" value="Add"/> <input type="button" value="Del"/>
Schedule Activity No	Definable Feature of Work	Index #
INITIAL	WAS INITIAL PHASE WORK PERFORMED TODAY? <input type="radio"/> YES <input type="radio"/> NO IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.	<input type="button" value="Add"/> <input type="button" value="Del"/>
Schedule Activity No	Definable Feature of Work	Index #
FOLLOW-UP	WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? <input type="radio"/> YES <input type="radio"/> NO WORK COMPLIES WITH SAFETY REQUIREMENTS AND INSPECTION COMPLIES WITH EM385-1-1? <input type="radio"/> YES <input type="radio"/> NO	<input type="button" value="Add"/> <input type="button" value="Del"/>
Schedule Activity No	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present	
REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)		REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)
Schedule Activity No	Description	<input type="button" value="Add"/> <input type="button" value="Del"/>
Schedule Activity No	Description	<input type="button" value="Add"/> <input type="button" value="Del"/>
REMARKS (Also Explain Any Follow-Up Phase checklist Item From Above That Was Answered "NO"; Work Deficiency, Safety Deficiency.) Manuf. Rep On-Site, etc.		<input type="button" value="Add"/> <input type="button" value="Del"/>
Schedule Activity No	Description	
On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.		
AUTHORIZED QC MANAGER AT SITE		DATE
GOVERNMENT QUALITY ASSURANCE REPORT		
		DATE
QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT		<input type="button" value="Add"/> <input type="button" value="Del"/>
Schedule Activity No	Description	
GOVERNMENT QUALITY ASSURANCE MANAGER		DATE

PREPARATORY PHASE CHECKLIST		SPEC SECTION Enter Spec Section # Here	DATE
(CONTINUED ON SECOND PAGE)			
CONTRACT NO. Enter Cnt# Here	DEFINABLE FEATURE OF WORK Enter DFW Here	SCHEDULE ACT NO. Enter Sched Act ID Here	INDEX # Enter Index # Here
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED	HOURS IN ADVANCE:	<input type="radio"/> YES <input type="radio"/> NO Add Del
NAME	POSITION	COMPANY/GOVERNMENT	
SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? (IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE)	<input type="radio"/> YES <input type="radio"/> NO	Add Del
	ARE ALL MATERIALS ON HAND? IF NO, WHAT ITEMS ARE MISSING.	<input type="radio"/> YES <input type="radio"/> NO	Add Del
	CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.) COMMENTS:		Add Del
MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? IF NO, WHAT ACTION IS TAKEN?	<input type="radio"/> YES <input type="radio"/> NO	Add Del
SPECIFICATIONS	REVIEW EACH PARAGRAPH OF SPECIFICATIONS.		Add Del
	DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK.		Add Del
	CLARIFY ANY DIFFERENCES.		Add Del
PRELIMINARY WORK & PERMITS	ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE. IF NOT, WHAT ACTION IS TAKEN?		Add Del
TESTING	IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM.		Add Del
	WHEN REQUIRED?		Add Del
	WHERE REQUIRED?		Add Del
	REVIEW TESTING PLAN.		Add Del
	HAS TEST FACILITIES BEEN APPROVED?		Add Del
SAFETY	ACTIVITY HAZARD ANALYSIS APPROVED? REVIEW APPLICABLE PORTION OF EM 385-1-1.	<input type="radio"/> YES <input type="radio"/> NO	Add Del
MEETING COMMENTS	NAVY/ROCC COMMENTS DURING MEETING.		Add Del
OTHER ITEMS OR REMARKS	OTHER ITEMS OR REMARKS.		Add Del
		QC MANAGER	DATE

INITIAL PHASE CHECKLIST			SPEC SECTION Enter Spec Section # Here	DATE _____
CONTRACT NO Enter Cnt# Here	DEFINABLE FEATURE OF WORK Enter DFWO Here	SCHEDULE ACT NO. Enter Sched Act ID Here	INDEX # Enter Spec Section # Here	
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED <input type="checkbox"/> HOURS IN ADVANCE: _____	<input type="radio"/> YES <input type="radio"/> NO		<input type="button" value="Add"/> <input type="button" value="Del"/>
NAME	POSITION	COMPANY/GOVERNMENT		
PROCEDURE COMPLIANCE	IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY, COORDINATE PLANS, SPECIFICATIONS AND SUBMITTALS			<input type="button" value="Add"/> <input type="button" value="Del"/>
COMMENTS:				
PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN?			<input type="button" value="Add"/> <input type="button" value="Del"/>
WORKMANSHIP	ESTABLISH LEVEL OF WORKMANSHIP WHERE IS WORK LOCATED?			<input type="button" value="Add"/> <input type="button" value="Del"/>
IS SAMPLE PANEL REQUIRED? WILL THE INITIAL WORK BE CONSIDERED A SAMPLE?		<input type="radio"/> YES <input type="radio"/> NO <input type="radio"/> YES <input type="radio"/> NO		<input type="button" value="Add"/> <input type="button" value="Del"/>
(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE)				
RESOLUTION	RESOLVE ANY DIFFERENCES.			<input type="button" value="Add"/> <input type="button" value="Del"/>
COMMENTS:				
CHECK SAFETY	REVIEW JOB CONDITIONS USING EM 385-1-1 ACTIVITY HAZARD ANALYSIS AND MSDS			<input type="button" value="Add"/> <input type="button" value="Del"/>
COMMENTS:				
OTHER	OTHER ITEMS OR REMARKS			<input type="button" value="Add"/> <input type="button" value="Del"/>
			<div style="background-color: #e0e0e0; width: 150px; height: 20px; margin: 0 auto;"></div> QC MANAGER	<div style="background-color: #e0e0e0; width: 100px; height: 20px; margin: 0 auto;"></div> DATE

CONSTRUCTION CONTRACT NON-COMPLIANCE NOTICE

NAVFAC 4330/36 (Rev. 7-87)

This is prepared on CARBONLESS paper.
Tear off a complete set before filling in.
See additional instructions on reverse side.

1. CONTRACTOR/RESPONSIBLE INDIVIDUAL	3. NOTICE NUMBER		
2. CONTRACT NUMBER, PROJECT AND ACTIVITY	4. DATE		
5. SPEC PARAGRAPH AND/OR DRAWING NUMBER	6. REFERENCE (Shop Drawing, Certification, CQC Report Number)		
7. DEFICIENCY IN WORKMANSHIP AND/OR MATERIAL/REPLY DATE	<input type="button" value="Add"/> <input type="button" value="Del"/>		
8. CORRECTIVE ACTION ACCOMPLISHED	<input type="button" value="Add"/> <input type="button" value="Del"/>		
9A. NAVY QA REPRESENTATIVE			
<p style="font-size: small;">This notice does NOT authorize any work not included in the Contract and shall not constitute a basis for additional payment or time.</p> <p style="font-size: small;">If you are in disagreement with this Notice, contact the Resident Officer in Charge of Construction immediately.</p>	DATE NOTED		
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;">Signature</td> <td style="width:50%; padding: 2px;">Title</td> </tr> </table>	Signature	Title
	Signature	Title	
9B. ROICC/ROICC REPRESENTATIVE			
DATE NOTED	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;">Signature</td> <td style="width:50%; padding: 2px;">Title</td> </tr> </table>	Signature	Title
Signature	Title		
10. CONTRACTOR'S ACKNOWLEDGEMENT			
DATE NOTED	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;">Signature</td> <td style="width:50%; padding: 2px;">Title</td> </tr> </table>	Signature	Title
Signature	Title		

INSTRUCTIONS

General

This form is applicable to construction contracts accomplished under the cognizance of the Commander, Naval Facilities Engineering Command.

Distribution of completed form

- Superintendent of CQC Representative (White) (Original and first copy)
- Contractor's home office (Pink)
- ROICC designated representative (Blue)
- ROICC Office (Yellow)

Item No. 1, Contractor/Responsible Individual

Individual responsible - superintendent, foreman, or sub-foreman

Item No. 3, Notice Number

Number consecutively for each job with only ONE DEFICIENCY noted.

Item No. 7, Deficiency in workmanship and/or material - reply date.

Briefly describe the deficiency and include the date that RETURN of white copy with Item No. 8 completed to the OICC/ROICC is required.

Item No. 10, Contractor's Acknowledgement

For completion by contractor as appropriate. If this is a CQC job, indicate corrective action on daily CQC report and post in the non-compliance check-off list.

Appendix P-2

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SUMMARY

Requirements of this Section apply to, and are a component of, each section of the specifications.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

FCCCHR List List of Approved Backflow Prevention Assemblies

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 241 Safeguarding Construction, Alteration, and Demolition Operations

NFPA 70 National Electrical Code

1.3 SUBMITTALS

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

SD-01 Preconstruction Submittals

Construction site plan; G (CME)

Traffic control plan; G (CME)

Fence plan; G (CME)

Field-type sanitary facility;

SD-03 Product Data

Backflow preventers;

SD-06 Test Reports

Backflow Preventer Tests;

SD-07 Certificates

Backflow Tester Certification;

Backflow Preventers Certificate;

1.4 CONSTRUCTION SITE PLAN

Prior to the start of work, submit a site plan showing the locations and dimensions of temporary facilities (including layouts and details, equipment and material storage area (onsite and offsite), and access and haul routes, avenues of ingress/egress to the fenced area and details of the fence installation. Identify any areas which may have to be graveled to prevent the tracking of mud. Indicate if the use of a supplemental or other staging area is desired. Show locations of safety and construction fences, site trailers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas.

1.5 BACKFLOW PREVENTERS CERTIFICATE

1.5.1 Backflow Tester Certificate

Prior to testing, submit to the Contracting Officer certification issued by the local regulatory agency attesting that the backflow tester has successfully completed a certification course sponsored by the regulatory agency. Tester must not be affiliated with any company participating in any other phase of this Contract.

1.5.2 Backflow Prevention Training Certificate

Submit a certificate recognized by the local authority that states the Contractor has completed training in backflow preventer installations. The certificate must be current.

PART 2 PRODUCTS

2.1 TEMPORARY SIGNAGE

2.1.1 Project and Safety Signs

The requirements for the signs, their content, and location are as specified in Section 01 58 00 PROJECT IDENTIFICATION. Erect signs within 15 days after receipt of the notice to proceed. Correct the data required by the safety sign daily, with light colored metallic or non-metallic numerals.

2.2 TEMPORARY TRAFFIC CONTROL

2.2.1 Barricades

Erect and maintain temporary barricades to limit public access to hazardous areas. Whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise

necessary to ensure the safety of both pedestrian and vehicular traffic barricades will be required. Securely place barricades clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

2.2.2 Fencing

- a. Provide fencing along the construction site and at all open excavations and tunnels to control access by unauthorized people. Fencing must be installed to be able to restrain a force of at least 114.00 kg against it. Colored traffic cones will not be used in lieu of fencing, when it is determined necessary by the Government designated authority. For pedestrian walkways, and other areas as determined by the Government designated authority, a minimum of one meter high plastic interlocking fence is required.
- b. Enclose the project work area and Contractor lay-down area with 1.8 m height steel safety fence, steel tube framing with steel plate lower half and steel mesh upper half, interlocking type fence. Provide anchor blocks of fence manufacturer's standard accessories for anchoring. Provide gate with lock.
- c. Fence in public areas shall be clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.
- d. Signs warning of the presence of construction hazards and requiring unauthorized persons to keep out of the construction area shall be posted on the fencing. At minimum, signs shall be posted every 150 ft (45.7 m). Fenced sides of projects that are less than 150 ft (45.7 m) shall, at minimum, have at least one warning sign.

2.2.3 Backflow Preventers

Temporary backflow preventing device shall be provided to all temporary connections used for construction, to protect existing potable water system from contamination. The particular make, model/design, and size of backflow preventers to be installed shall be included in the latest edition of the List of Approved Backflow Prevention Assemblies issued by the FCCCHR List or Local Code.

PART 3 EXECUTION

3.1 EMPLOYEE PARKING

Contractor employees will park contractor's vehicles in an area designated by the Contracting Officer. This area will be within reasonable walking distance of the construction site. Contractor employee parking must not interfere with existing and established parking requirements of the government installation.

3.2 AVAILABILITY OF UTILITIES SERVICES

3.2.1 Payment of Utilities Services

Pursuant to the Contract Clauses entitled "Availability and Use of Utilities Services," reasonable amounts of the electricity and potable water will be made available to the Contractor without charge. The point at which the Government will deliver such utilities or services and the quantity available is to be designated by the Contracting Officer. The Contractor shall pay costs incurred in connecting, disconnecting converting, and transferring the utilities to the work. The Contractor shall provide and furnish meters including necessary accessories at the Contractor's own expense, and shall make disconnections of meters at the time the utilities are not needed anymore. The Contractor shall make all necessary work required to connections and disconnections, including restoration work. The Contractor shall report monthly consumption as directed by the Contracting Officer.

3.2.2 Sanitation

The Contractor is not available to provide sanitary conveniences; therefore, Public Toilet (Bldg.153 & 485) is available to use for the Contractor.

3.2.3 Fire Protection

Provide temporary fire protection equipment for the protection of personnel and property during construction. Remove debris and flammable materials daily to minimize potential hazards.

3.3 TRAFFIC PROVISIONS

3.3.1 Maintenance of Traffic

- a. Conduct operations in a manner that will not close any thoroughfare or interfere in any way with traffic except with written permission of the Contracting Officer at least 15 calendar days prior to the proposed modification date, and provide a Traffic Control Plan detailing the proposed controls to traffic movement for approval. Contractor may move oversized and slow-moving vehicles to the worksite provided requirements of the highway authority have been met.
- b. Conduct work so as to minimize obstruction of traffic, and maintain traffic on at least half of the roadway width at all times. Obtain approval from the Contracting Officer prior to starting any activity that will obstruct traffic.
- c. Provide, erect, and maintain, at contractors expense, lights, barriers, signals, passageways, detours, and other items, that may be required by the Life Safety Signage, overhead protection authority having jurisdiction.

3.3.2 Protection of Traffic

Maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment the work, and the erection and maintenance of adequate warning, danger, and direction signs, will be as required by the

State and local authorities having jurisdiction. Protect the traveling public from damage to person and property. Minimize the interference with public traffic on roads selected for hauling material to and from the site. Investigate the adequacy of existing roads and their allowable load limit. Contractor is responsible for the repair of any damage to roads caused by construction operations.

3.3.3 Rush Hour Restrictions

Do not interfere with the peak traffic flows preceding without notification to and approval by the Contracting Officer.

3.3.4 Dust Control

Dust control methods and procedures must be approved by the Contracting Officer. Treat dust abatement on access roads with applications of calcium chloride, water sprinklers, or similar methods or treatment.

3.4 CONTRACTOR'S TEMPORARY FACILITIES

3.4.1 Safety

Protect the integrity of any installed safety systems or personnel safety devices. If entrance into systems serving safety devices is required, the Contractor must obtain prior approval from the Contracting Officer. If it is temporarily necessary to remove or disable personnel safety devices in order to accomplish contract requirements, provide alternative means of protection prior to removing or disabling any permanently installed safety devices or equipment and obtain approval from the Contracting Officer.

3.4.2 Administrative Field Offices (Contractor's Facility)

Not available.

3.4.3 Storage Area

Not available.

3.4.4 Weather Protection of Temporary Facilities and Stored Materials

3.4.4.1 Site Storm Protection

When a warning of gale force winds is issued, take precautions to minimize danger to persons, and protect the work and nearby Government property. Precautions must include, but are not limited to, closing openings; removing loose materials, tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the work when storms of lesser intensity pose a threat to the work or any nearby Government property.

3.4.4.2 Tropical Cyclone Condition of Readiness

Unless directed otherwise, comply with:

- a. Condition FOUR (Sustained winds of 50 knots or greater expected within 72 hours): Normal daily jobsite cleanup and good housekeeping practices. Collect and store in piles or containers scrap lumber, waste material,

and rubbish for removal and disposal at the close of each work day. Maintain the construction site including storage areas, free of accumulation of debris. Stack form lumber in neat piles less than 4 feet high. Remove all debris, trash, or objects that could become missile hazards. Contact Contracting Officer for Condition of Readiness (COR) updates and completion of required actions.

- b. Condition THREE (Sustained winds of 50 knots or greater expected within 48 hours): Maintain "Condition FOUR" requirements and commence securing operations necessary for "Condition ONE" which cannot be completed within 18 hours. Cease all routine activities which might interfere with securing operations. Commence securing and stow all gear and portable equipment. Make preparations for securing buildings. Review requirements pertaining to "Condition TWO" and continue action as necessary to attain "Condition THREE" readiness. Contact Contracting Officer for weather and COR updates and completion of required actions.
- c. Condition TWO (Sustained winds of 50 knots or greater expected within 24 hours): Curtail or cease routine activities until securing operation is complete. Reinforce or remove form work and scaffolding. Secure machinery, tools, equipment, materials, or remove from the jobsite. Expend every effort to clear all missile hazards and loose equipment from general base areas. Contact Contracting Officer for weather and Condition of Readiness (COR) updates and completion of required actions.
- d. Condition ONE. (Sustained winds of 50 knots or greater expected within 12 hours): Secure the jobsite, and leave Government premises.

3.5 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, furnish and erect temporary project safety fencing at the work site. Maintain the safety fencing during the life of the contract and, upon completion and acceptance of the work, will become the property of the Contractor and be removed from the work site.

3.6 CLEANUP

Remove construction debris, waste materials, packaging material and the like from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways must be cleaned away. Store within the fenced area described above or at the supplemental storage area any materials resulting from demolition activities which are salvageable. Neatly stacked stored materials not in trailers, whether new or salvaged.

3.7 RESTORATION OF STORAGE AREA

Upon completion of the project remove the bulletinboard, signs, barricades, haulroads, and any other temporary products from the site. After removal of trailers, materials, and equipment from within the fenced area, remove the fence that will become the property of the Contractor. Restore to the original or better condition, areas used by the Contractor for the storage of equipment or material, or other use. Gravel used to traverse grassed areas must be removed and the area restored to its original condition, including top soil and seeding as necessary.

3.8 TEMPORARY WIRING

Provide temporary wiring in accordance with NFPA 241 and NFPA 70, Assured Equipment Grounding Conductor Program. Program shall include frequent inspection of all equipment and apparatus.

-- End of Section --

SECTION 01 57 19.00 20

TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

Japanese Law (JL)

No. 64	The Oscillation (Vibration) Control Act.
No. 53	The Soil Contamination Countermeasures.
No. 85	Nature Conservation Law
No. 91	The Basic Environment Law.
No. 97	The Air Pollution Control Act (Clean Air Act)
No. 98	The Noise Control Act.
No. 137	The Waste Management and Public Cleansing Act
No. 138	The Water Pollution Prevention Act

Notification of the Environment Agency, Japan

No. 13	Detection Method for the Presence of Toxicity
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Nagasaki Prefectural Office's Publication

"Nagasaki-ken Miraini Tsunagaru Kankyō wo Mamori-Sodateru Jyorei" (Nagasaki Prefectural Conservation and Development ordinance of Sustainable Environmental)

HEADQUARTERS, US FORCES JAPAN, DEPARTMENT OF DEFENSE (DOD)

JEGS	Japan Environmental Governing Standards
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DEPARTMENT OF DEFENSE (DOD)

DOD 4715.05-G	OEBGD Overseas Environmental Baseline Guidance Document
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Ozone Depleting Substances Turn-In Procedures (Sep 2012)

OPNAVINST 5090.1C	Environmental Readiness Program Manual
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1.2 DEFINITIONS

1.2.1 Sediment

Soil and other debris that have eroded and have been transported by runoff water or wind.

1.2.2 Solid Waste

Garbage, refuse, debris, sludge, or other discharged material, including solid, liquid, semisolid, or contained gaseous materials resulting from domestic, industrial, commercial, mining, or agricultural operations. Types of solid waste typically generated at construction sites may include:

- a. Green waste: The vegetative matter from landscaping, land clearing and grubbing, including, but not limited to, grass, bushes, scrubs, small trees and saplings, tree stumps and plant roots. Marketable trees, grasses and plants that are indicated to remain, be re-located, or be re-used are not included.
- b. Surplus soil: Existing soil that is in excess of what is required for this work, including aggregates intended, but not used, for on-site mixing of concrete, mortars and paving. Contaminated soil meeting the definition of hazardous material or hazardous waste is not included.
- c. Debris: Non-hazardous solid material generated during the construction, demolition, or renovation of a structure which exceeds 60 mm (2.5 inch) 2.5 inch particle size that is: a manufactured object; plant or animal matter; or natural geologic material (e.g. cobbles and boulders), broken or removed concrete, masonry, and rock asphalt paving; ceramics; roofing paper and shingles. Inert materials may be reinforced with or contain ferrous wire, rods, accessories and weldments. A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.
- d. Wood: Dimension and non-dimension lumber, plywood, chipboard, hardboard. Treated and/or painted wood that meets the definition of lead contaminated or lead based contaminated paint is not included.
- e. Scrap metal: Scrap and excess ferrous and non-ferrous metals such as reinforcing steel, structural shapes, pipe and wire that are recovered or collected and disposed of as scrap. Scrap metal meeting the definition of hazardous material or hazardous waste is not included.
- f. Paint cans: Metal cans that are empty of paints, solvents, thinners and adhesives. If permitted by the paint can label, a thin dry film may remain in the can.
- g. Recyclables: Materials, equipment and assemblies such as doors, windows, door and window frames, plumbing fixtures, glazing and mirrors that are recovered and sold as recyclable. Metal meeting the definition of lead contaminated or lead based paint contaminated may be included as recyclable if sold to a scrap metal company. Paint cans may be included.

- h. Hazardous Waste: By definition, to be a hazardous waste a material must first meet the definition of a solid waste. Hazardous waste and hazardous debris are special cases of solid waste. They have additional regulatory controls and must be handled separately. They are thus defined separately in this document.

Material not regulated as solid waste are: nuclear source or byproduct materials regulated under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production.

1.2.3 Hazardous Debris

As defined in Solid Waste paragraph, debris that contains listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) per JEGS; or debris that exhibits a characteristic of hazardous waste per JEGS.

1.2.4 Chemical Wastes

This includes salts, acids, alkalizes, herbicides, pesticides, and organic chemicals.

1.2.5 Garbage

Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

1.2.6 Hazardous Waste

Any discarded material, liquid, solid, semi-solid, gas, or contained gas, which meets the definition of hazardous material specified below or is designated hazardous waste by JEGS. Hazardous waste include any waste material which because of its quantity, concentration, or physical, chemical, or infectious characteristics may pose a substantial hazard to human health or the environment and which has been so designated.

1.2.7 Hazardous Materials

Hazardous material is any material that:

- a. Hazardous materials as defined in JEGS, or
- b. Requires a Material Safety Data Sheet (MSDS),
- c. During end use, treatment, handling, packaging, storage, transpiration, or disposal meets or has components that meet or have potential to meet the definition of a hazardous waste as defined by JEGS or prefectual regulations.

Designation of a material by this definition, when separately regulated or controlled by other instructions or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this instruction for "control" purposes. Such material include ammunition,

weapons, explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos, mercury, and polychlorinated biphenyls (PCBs). Nonetheless, the exposure may occur incident to manufacture, storage, use and demilitarization of these items.

1.2.8 Oily Waste

Those materials which are, or were, mixed with used oil and have become separated from that used oil. Oily wastes also means materials, including wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents which have come into contact with and have been contaminated by, used oil and may be appropriately tested and discarded in a manner which is in compliance with other Japanese and local requirements.

This definition includes materials such as oily rags, "kitty litter" sorbent clay and organic sorbent material. These materials may be land filled provided that:

- a. It is not prohibited in local prefectural regulations/ordinances

Large quantities of this material, generated as a result of a major spill or in lieu of proper maintenance of the processing equipment, are a solid waste. As a solid waste, a hazardous waste determination must be performed prior to disposal. As this can be an expensive process, it is recommended that this type of waste be minimized through good housekeeping practices and employee education.

1.2.9 Regulated Waste

Those solid waste that have specific additional local controls for handling, storage, or disposal.

1.3 SUBMITTALS

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

SD-01 Preconstruction Submittals

Preconstruction Survey;

Solid Waste Management Plan and Permit; G (Environmental Office)

Environmental Protection Plan; G (Environmental Office)

Contractor Hazardous Material Inventory Log; G (Environmental Office)

SD-11 Closeout Submittals

Some of the records listed below are also required as part of other submittals. For the "Records" submittal, maintain on-site a separate

three-ring Environmental Records binder and submit at the completion of the project. Make separate parts to the binder corresponding to each of the applicable sub items listed below.

Waste determination documentation; G (Environmental Office)

Bill of lading for regulated solid waste; G (Environmental Office)

Contractor Hazardous Material Inventory Log; G (Environmental Office)

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with JEGS, station requirements, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

The Contractor may be required to promptly conduct tests and procedures for the purpose of assessing whether construction operations are in compliance with Applicable Environmental Laws. Analytical work shall be done by qualified laboratories; and where required by law, the laboratories shall be certified.

1.4.1 Environmental Compliance Assessment Training and Tracking System (ECATTS)

The QC Manager is responsible for environmental compliance on projects unless an Environmental Manager is named. The QC Manager (and alternative QC Manager) or Environmental Manager shall complete ECATTS training prior to starting respective portions of on-site work under this contract. If personnel changes occur for any of these positions after starting work, replacement personnel shall complete ECATTS training within 14 days of assignment to the project.

Submit an ECATTS certificate of completion for personnel who have completed the required "Environmental Compliance Assessment Training and Tracking System (ECATTS)" training. This training is web-based and can be accessed from any computer with Internet access using the following instructions.

Register for NAVFAC Environmental Compliance Training and Tracking System, by logging on to <http://navfac.ecatts.com/>. Obtain the password for registration from the Contracting Officer.

This training has been structured to allow contractor personnel to receive credit under this contract and also to carry forward credit to future contracts. Contractors shall ensure that the QC Manager (and alternate QC Manager) or Environmental Manager review their training plans for new modules or updated training requirements prior to beginning work. Some training modules are tailored for specific State regulatory requirements; therefore, Contractors working in multiple states will be requires to re-take modules tailored to the state where the contract work is being performed.

ECATTS is available for use by all contractor and subcontractor personnel associated with this project. These other personnel are encouraged (but not required) to take the training and may do so at their discretion.

1.4.2 Conformance with the Environmental Management System

The Contractor shall perform work under this contract consistent with the policy and objectives identified in the "Conformance with CFAS Environmental Management System (EMS)". Refer to Section 01 57 19.01 20, SUPPLEMENTAL TEMPORARY ENVIRONMENTAL CONTROLS for additional site specific EMS requirements related to construction.

1.5 QUALITY ASSURANCE

1.5.1 Preconstruction Survey

Perform a [Preconstruction Survey](#) of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the site. Submit a report for the record.

1.5.2 Environmental Brief

Attend an environmental brief to be included in the preconstruction meeting. Provide the following information: types, quantities, and use of hazardous materials that will be brought onto the activity; types and quantities of wastes/wastewater that may be generated during the contract. Discuss the results of the Preconstruction Survey at this time.

Prior to initiating any work on site, meet with the Contracting Officer and activity environmental staff to discuss the proposed Environmental Management Plan. Develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural/cultural/historical resources, required reports, required permits, permit requirements, and other measures to be taken.

1.5.3 Contractor Employee Training Records

Prepare and maintain employee training records throughout the term of the contract meeting applicable station's EMS requirements. The Contractor will ensure every employee completes a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures compliance with [JEGS](#), Japanese law, and local regulatory requirements. Submit these training records to the Contracting Officer at the conclusion of the project, unless otherwise directed.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 ENVIRONMENTAL PROTECTION PLAN

Prior to initiating any work on site, the Contractor will meet with the Contracting Officer to discuss the proposed Environmental Protection Plan and develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural/cultural/historical resources, required reports, and other measures to be taken. The Environmental Protection Plan will be submitted in the following format and shall include the elements specified below.

a. Description of the Environmental Protection Plan

(1) General overview and purpose

- (a). A brief description of each specific plan required by environmental permit or elsewhere in this contract.
- (b). The duties and level of authority assigned to the person(s) on the job site that oversee environmental compliance.
- (c). A copy of any standard or project specific operating procedures that will be used to effectively manage and protect the environment on the project site.
- (d). Communication and training procedures that will be used to convey environmental management requirements to contractor employees and subcontractors.
- (e). Emergency contact information contact information (office phone number, cell phone number, and e-mail address).

(2) General site information

b. Management of Natural Resources

- (1) Land resources
- (2) Tree protection
- (3) Replacement of damaged landscape features
- (4) Temporary construction
- (5) Stream crossings
- (6) Fish and wildlife resources
- (7) Wetland areas

c. Protection of Historical and Archaeological Resources

- (1) Objectives
- (2) Methods

d. Storm Water Management and Control

- (1) Ground cover

- (2) Erodible soils
- (3) Temporary measures
 - (a) Mechanical retardation and control of runoff
 - (b) Vegetation and mulch
- (4) Effective selection, implementation and maintenance of Best Management Practices (BMPs)

e. Protection of the Environment from Waste Derived from Contractor Operations

- (1) Control and disposal of non-hazardous solid and sanitary waste
- (2) Control and disposal of hazardous waste (Hazardous Waste Management Section)

This item will consist of the management procedures for all hazardous waste to be generated. The elements of those procedures will coincide with the Activity Hazardous Waste Management Plan. A copy of the Activity Hazardous Waste Management Plan will be provided by the Contracting Officer. As a minimum, include the following:

- (a). Procedures to be employed to ensure a written waste determination is made for appropriate wastes which are to be generated;
- (b). Sampling/analysis plan;
- (c). Methods of hazardous waste accumulation/storage (i.e., in tanks and/or containers);
- (d). Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted);
- (e). Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Japanese laws, local government regulations and **JEGS**;
- (f). Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and the like;
- (g). Used oil management procedures in accordance with local government regulations and **JEGS**;
- (h). Pollution prevention\hazardous waste minimization procedures;
- (i). Plans for the disposal of hazardous waste by permitted facilities;
- (j). Procedures to be employed to ensure all required employee training records are maintained.

f. Prevention of Releases to the Environment

- (1) Procedures to prevent releases to the environment
- (2) Notifications in the event of a release to the environment

3.1.1 Environmental Protection Plan Review

Fourteen days after the environmental protection meeting, submit the proposed Environmental Protection Plan for further discussion, review, and approval. Commencement of work will not begin until the environmental Protection Plan has been approved.

3.1.2 Permits

Obtain permits necessary to perform this project. No permits will be obtained by the contracting Officer.

3.2 PROTECTION OF NATURAL RESOURCES

Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work. Confine construction activities to within the limits of the work indicated or specified.

When the Contractor encounter any species listed in Table C13.T1 and C13.T2 of JEGS, and listed in Red Data Book issued by Nagasaki Prefectural Government, notify CHNRM (Cultural/Historical/Natural Resources Manager) in Environment Office immediately through Contracting Officer.

Do not disturb fish and wildlife. Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife, except as indicated or specified.

Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs without the Contracting Officer's permission. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages unless authorized by the Contracting Officer. Where such use of attached ropes, cables, or guys is authorized, the Contractor will be responsible for any resultant damage.

Protect existing trees which are to remain and which may be injured, bruised, defaced, or otherwise damaged by construction operations. Remove displaced rocks from uncleared areas. By approved excavation, remove trees with 30 percent or more of their root systems destroyed. Remove trees and other landscape features scarred or damaged by equipment operations, and replace with equivalent, undamaged trees and landscape features. Obtain Contracting Officer's approval before replacement.

The Contracting Officer's approval is required before any equipment will be permitted to ford live streams. In areas where frequent crossings are required, install temporary culverts or bridges. Obtain Contracting Officer's approval prior to installation. Remove temporary culverts or bridges upon completion of work, and repair the area to its original condition.

3.2.1 Erosion and Sediment Control Measures

3.2.1.1 Protection of Excavated Soil

Protect excavated soil material from rain and wind erosions.

3.2.1.2 Burnoff

Burnoff of the ground cover is not permitted.

3.2.2 Storm water Drainage and Construction Dewatering

There will be no discharge of excavation ground water to the sanitary sewer, storm drains, or to the river without prior specific authorization of the Environmental Division in writing. Discharge of hazardous substances will not be permitted under any circumstances.

Construction site runoff will be prevented from entering any storm drain or the river directly by the use of silt fence, straw bales, or other method suitable to the Environmental Division. Contractor will provide erosion protection of the surrounding soils.

Construction Dewatering shall not be discharged to the sanitary sewer. If the construction dewatering is noted or suspected of being contaminated, it may only be released to the storm drain system if the discharge is specifically permitted. Authorization for any contaminated groundwater release shall be obtained in advance from the base Environmental Officer. Discharge of hazardous substances will not be permitted under any circumstances.

Water pumped from the trenches shall be filtered using an appropriate dewatering devices, such as a weir tank or other suitable devices, before discharging into any storm drain/ditch. Filtration shall be capable of treating the water to meet the allowable limit of total suspended solids (TSS) as listed in the JEGS (200 mg/L). Discharging and dumping of wastewaters and waste materials into storm drains, ditches, canals, and local bodies of water are forbidden; this includes mop water, cleaning/stripping solutions and solvents, paint related wastes (including water-borne paints), pesticides (insecticide, herbicide, and/or fungicide), herbicides, fire extinguishing agents, fuels, oils, hazardous materials, hazardous substances, and hazardous wastes.

3.3 HISTORICAL AND ARCHAEOLOGICAL RESOURCES

If any cultural/historical artifacts/assets are discovered during work, notify the PWD Environmental Cultural Resources Manager through the Contracting Officer, secure the discovery area, and continue to work around the secured area until further direction from the PWD Environmental Cultural Resources Manager through the Contracting Officer.

If the items need to be temporarily removed, carefully protect them from disturbance, including weather conditions, unforeseen traffic, and pilfering. The PWD Environmental Cultural Resources Manager through the Contracting Officer will provide further direction/guidance on how to protect the items. The Government retains ownership and control over historical and archaeological resources.

3.4 SOLID WASTE MANAGEMENT PLAN AND PERMIT

Provide to the contracting officer written notification of the quantity of solid waste/ debris that is anticipated to be generated by construction. Include in the report the locations where various types of waste will be disposed, turned in, or recycled. Submit a copy of the applicable Japanese local permits and licenses for transportation, treatment, storage and disposal of solid waste ("Sangyou Haikibutsu") by permitted facilities.

3.4.1 Solid Waste Management Report

Monthly the Contractor will submit a solid waste disposal/recycle management report to the Contracting Officer. For each waste, the report will state the classification (using the definitions provided in this section), method of dispose/recycle, amount, location, and name of the business receiving the solid waste.

The Contractor shall submit all waste disposal manifests. For each solid waste retained by the Contractor for his own use, the Contractor will submit on the solid waste disposal report the information previously described in this paragraph. Prices paid or received will not be reported to the Contracting Officer unless required by other provisions or specifications of this Contract or public law.

3.4.2 Control and Management of Solid Wastes

Pick up solid wastes, and place in covered containers which are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Recycling is encouraged and can be coordinated with the Contracting Officer and the activity recycling coordinator. Remove all solid waste (including non-hazardous debris) from Government property and dispose off-site at an approved landfill. Solid waste disposal off-site must comply with most stringent JEGS, Japanese law, local regulations, and codes.

Manage spent hazardous material used in construction, including but not limited to, aerosol cans, waste paint, cleaning solvents, contaminated brushes, and used rags, as per Japanese law, local prefectural regulations, and JEGS.

Submit Disposal manifests and QRP (Qualifying Recycling Program) Tonnage form and manifest as specified in Section 01 74 19 "Construction and Demolition Waste Management".

3.5 WASTE DETERMINATION DOCUMENTATION

Complete a waste determination form (provided at the pre-construction conference) for all contractor derived wastes to be generated. Base the waste determination upon either a constituent listing from the manufacturer used in conjunction with consideration of the process by which the waste was generated, or laboratory analysis (Material Safety Data Sheets (MSDS) by themselves are not adequate). Attach all support documentation to the Waste Determination form. As a minimum, a Waste Determination form must be provided for the following wastes (this listing is not all inclusive): oil

and latex based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and all containers of the original materials.

3.6 CONTRACTOR HAZARDOUS MATERIAL INVENTORY LOG

Submit the "Contractor Hazardous Material Inventory Log" (found at: <http://www.wbdg.org/ccb/NAVGRAPH/graphdoc.pdf>), which provides information required by (EPCRA Sections 312 and 313) along with corresponding Material Safety Data Sheets (MSDS) to the Contracting Officer at the start and at the end of construction (30 days from final acceptance), and update no later than January 31 of each calendar year during the life of the contract. Documentation for any spills/releases, environmental reports or off-site transfers may be requested by the Contracting Officer.

3.6.1 Disposal Documentation for Regulated Waste

Manifest, pack, ship and dispose of Regulated Waste that is generated as a result of construction in accordance with the generating facilities generator status under the Resource Conservation and Recovery Act. Contact the Contracting Officer for the facility RCRA identification number that is to be used on each manifest.

Submit a copy of the applicable permit(s), manifest(s), or license(s) for transportation, treatment, storage, and disposal of hazardous and regulated waste by permitted facilities. Hazardous or toxic waste manifest must be reviewed, signed, and approved by the Navy before the Contractor may ship waste. To obtain specific disposal instructions the Contractor must coordinate with the Activity environmental office.

3.7 POLLUTION PREVENTION/HAZARDOUS WASTE MINIMIZATION

Minimize the use of hazardous materials and the generation of hazardous waste. Include procedures for pollution prevention/ hazardous waste minimization in the Hazardous Waste Management Section of the Environmental Protection Plan. Consult with the activity Environmental Office for suggestions and to obtain a copy of the installation's pollution prevention/hazardous waste minimization plan for reference material when preparing this part of the plan. If no written plan exists, obtain information by contacting the Contracting Officer. Describe the types of the hazardous materials expected to be used in the construction when requesting information.

3.8 HAZARDOUS MATERIALS AND HAZARDOUS WASTES PROHIBITION

No hazardous materials and hazardous waste shall be abandoned on government property. The Contractor shall transport and turn in hazardous wastes that exist in the Government facility asbestos contaminated waste, LBP contaminated waste, to designated Hazardous Waste Facility on Base in accordance with Government's direction and with an established Job Order Number (JON) from the contracting officer/project manager. No hazardous material shall be brought onto the government properties that are not directly related to requirements for the performance of this contract. The government is not responsible for the disposals of Contractor's wastes/materials brought on the job site which are not required in the performance of this contract. The intent of "hazardous wastes that exist in the Government facility" is hazardous wastes that is generated as part of this contract, and is existed within the boundary of the Contract limits and

not brought in from offsite by the Contractor. The disposal of incidental materials used to accomplish the work including, but not limited to aerosol cans, waste paint, cleaning solvents, contaminated brushes, rags, clothing, etc. are the responsibility of the Contractor, except the incidental hazardous waste specified in elsewhere of this contract.

3.9 HAZARDOUS MATERIAL MANAGEMENT

No hazardous material shall be brought onto government property that does not directly relate to requirements for the performance of this contract.

Include hazardous material control procedures in the Safety Plan. Address procedures and proper handling of hazardous materials, including the appropriate transportation requirements. Submit a MSDS and estimated quantities to be used for each hazardous material to the Contracting Officer prior to bringing the material on base. Typical materials requiring MSDS and quantity reporting include, but are not limited to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. At the end of the project, provide the Contracting Officer with the maximum quantity of each material that was present at the site at any one time, the dates the material was present, the amount of each material that was used during the project, and how the material was used. Ensure that hazardous materials are utilized in a manner that will minimize the amount of hazardous waste that is generated. Ensure that all containers of hazardous materials have NFPA labels or their equivalent. Keep copies of the MSDS for hazardous materials on site at all times and provide them to the Contracting Officer at the end of the project. Certify that all hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste per JEGS.

3.9.1 Licenses and Permits for Construction Waste

Obtain necessary licenses and permits in conjunction with treatment and disposition of construction wastes defined in all applicable Japanese laws and prefectural regulations; and submit the licenses and/or permits to the Contracting Officer.

3.10 PETROLEUM PRODUCTS

a. Petroleum Products Used For Contractor's Own Equipment And Motor Vehicles

Conduct the fueling and lubricating of equipment and motor vehicles in a manner that protects against spills and evaporation. Manage all used oil generated on site in accordance with JEGS. Determine if any used oil generated while on-site exhibits a characteristic of hazardous waste. Used oil containing solvents will be considered a hazardous waste as defined Japanese laws and local Government regulation; and disposed of at Contractor's expense. Used oil mixed with a hazardous waste will also be considered a hazardous waste.

b. Petroleum Product Used or Remained In Existing Facility

Turn-in petroleum products generated from existing facilities which is defined as a hazardous waste. Turn-in to Government's storage facility in accordance with Section 01 74 19 "Construction and Demolition Waste Management".

3.10.1 Oily and Hazardous Substances

Prevent oil or hazardous substances from entering the ground, drainage areas, or navigable waters.

Spill preventive measures shall be taken. A secondary containment system shall be applied. Appropriate and compatible spill kits shall be readily available at a job site. Further guidance on spill prevention measures is available; contact Station Environmental Office.

3.11 FUEL TANKS

If temporary petroleum products and lubricants containing tanks/containers are to be stored at a job site, spill preventive measures shall be taken. A secondary containment system shall be applied. Appropriate and compatible spill kits shall be readily available at a job site. Further guidance on spill prevention measures is available; contact Station's Environmental Office.

3.12 RELEASES/SPILLS OF OIL AND HAZARDOUS SUBSTANCES

Exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated by environmental law. Maintain spill cleanup equipment and materials at the work site. In the event of a spill, take prompt, effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of the spill/release. In the event of any releases of oil and hazardous substances, chemicals, or gases; immediately (within 15 minutes) notify the Activity Fire Department at 911, the activity's Command Duty Officer, and the Contracting Officer. If the contractor's response is inadequate, the Navy may respond. If this should occur, the contractor will be required to reimburse the government for spill response assistance and analysis.

The Contractor is responsible for verbal and written notifications as required by the JEGS, local regulations and Navy Instructions. Spill response will be in accordance with JEGS and spill response procedures. Contain and clean up these spills without cost to the Government. If Government assistance is requested or required, the Contractor will reimburse the Government for such assistance. Provide copies of the written notification and documentation that a verbal notification was made within 20 days.

Maintain spill cleanup equipment and materials at the work site. Clean up all hazardous and non-hazardous waste spills. The Contractor shall reimburse the government for all material, equipment, and clothing generated during any spill cleanup. The Contractor shall reimburse the government for all costs incurred including sample analysis materials, equipment, and labor if the government must initiate its own spill cleanup procedures, for Contractor responsible spills, when:

- a. The Contractor has not begun spill cleanup procedure within one hour of spill discovery/occurrence, or

- b. If, in the government's judgment, the Contractor's spill cleanup is not adequately abating life threatening situation and/or is a threat to any body of water or environmentally sensitive areas.

3.13 DISPOSAL OF HAZARDOUS WASTES

3.13.1 Hazardous Waste/Debris Management

The Contractor shall not dispose of any materials which classified as hazardous waste, .

Identify all construction activities which will generate hazardous waste/debris. Provide a documented waste determination for all resultant waste streams.

Hazardous waste/debris that brought in from offsite by the Contractor will be identified, labeled, handled, stored, and disposed of in accordance with all Japanese laws, **JEGS** and prefectural regulations.

Hazardous waste generated within the confines of Government facilities will be identified as being generated by the Government and will be labeled, handled, stored, and transport to designated Government facility specified in Section 01 74 19 "Construction and Demolition Waste Management".

Hazardous waste will also be managed in accordance with the approved Hazardous Waste Management Section of the Environmental Protection Plan. Store hazardous wastes in approved containers in accordance with **JEGS**. Prior to removal of any hazardous waste from Government property, all hazardous waste manifests must be signed by waste transporter and disposal facility. If hazardous wastes are turned into the Government, submit Hazardous Waste turn-in document instead of manifest. No hazardous waste will be brought onto Government property. Provide to the Contracting Officer a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in **JEGS**. For hazardous wastes spills, verbally notify the Contracting Officer immediately.

3.13.1.1 Materials to be removed

If materials to be removed, that may be hazardous waste or hazardous to human health during construction operations is encountered, stop that portion of work and immediately notify the Contracting Officer and request sampling to the Government. The Government will sample the material to determine if it is HW. Within 35 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.13.1.2 Excavated Soil or Other Excavated Materials

If excavated soil or other excavated materials, not indicated, that may be hazardous waste or hazardous to human health during construction operations is encountered, stop that portion of work and notify the Contracting Officer

immediately as specified in Paragraph "Notification and Permission Prior to Excavation" in Section 01 11 00 entitled "Summary of work."
Any test results from the excavated soil shall be forwarded environment office. Case by case situation for special soil excavations i.e. soil with asbestos, PCB and heavy-metal. For further soil excavation/disposal guidance, contact environment office.

3.13.1.3 Regulated Waste Storage/Satellite Accumulation/90 Day Storage Areas

If the work requires the temporary storage/collection of regulated or hazardous wastes, the Contractor will request the establishment of a Regulated Waste Storage Area, a Satellite Accumulation Area, or a 90 Day Storage Area at the point of generation. The Contractor must submit a request in writing to the Contracting Officer providing the following information:

<u>Contract Number</u>	_____	<u>Contractor</u>	_____
<u>Haz/Waste or Regulated Waste POC</u>	_____	<u>Phone Number</u>	_____
<u>Type of Waste</u>	_____	<u>Source of Waste</u>	_____
<u>Emergency POC</u>	_____	<u>Phone Number</u>	_____

Location of the Site: _____
(Attach Site Plan to the Request)

Attach a waste determination form. Allow ten working days for processing this request.

3.14 HANDLING AND DISPOSAL OF REGULATED MATERIALS

3.14.1 Class I and II ODS Prohibition

Class I and II ODS in pure or blended form as defined and identified herein must not be used in the performance of this contract, nor be provided as part of the equipment except for the use of servicing existing government owned equipment. This prohibition will be considered to prevail over any other provision, specification, drawing, or referenced documents.

3.15 DUST CONTROL

Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster. Do not discharge any construction waste water or surface cleaning water into the storm drain or on-base sewer line directly without authorization of Base utility department and Environmental Office. Keep sediment leaves, and construction debris away from storm drains (use barriers).

3.15.1 Dirt and Dust Control Plan

Submit truck and material haul routes along with a plan for controlling dirt, debris, and dust on base roadways. As a minimum, identify in the plan the subcontractor and equipment for cleaning along the haul route and measures to reduce dirt, dust, and debris from roadways.

3.16 LEAD BASED PAINT CONTAMINATED WASTE

As specified in Section 02 83 13.00 20 "Lead in Construction".

3.17 CHEMICAL PAINT REMOVER

Chemical paint removers that exceed the limit defined in JEGS Chapter-5, shall be disposed as Hazardous Waste and turn-in to the Government. Non hazardous waste shall be disposed off-base in accordance with all applicable JEGS, Japanese local laws and regulations. When the chemical paint remover is not included any hazardous elements, submit evidence of non-hazardous to the CFAY PWD Environment Office. Station Environment Office.

-- End of Section --

SECTION 01 57 19.01 20

SUPPLEMENTAL TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 GENERAL

ENVIRONMENTAL REQUIREMENTS

This section shall take precedence over section 01 57 19.00 20, Temporary Environmental Controls, if any conflicts arise on environmental requirements.

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

HEADQUARTERS, US FORCES JAPAN, DEPARTMENT OF DEFENSE (DOD)

JEGS

Japan Environmental Governing Standards

1.2 CONFORMANCE WITH CFAS ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

The Contractor shall perform work under this contract consistent with the policy and procedures identified in the CFAS Environmental Policy Statement which outlines the objectives of the Environmental Management System (EMS) program

The Contractor shall perform work under this contract consistent with the following EMS goals and policy.

Goals:

- Reduce purchase and use of toxic and hazardous materials;
- Expand purchase of green products and services; increase recycling;
- Reduce energy and water use;
- Increase use of alternative fuels and renewable energy;
- Integrate green building concepts in major renovations and new construction;
- Prevent pollution at the source; and
- Continual improvement

Policy:

- Protect public health and the environment by being an environmentally responsible member of Sasebo's community;
- Preserve natural, historic and cultural resources;
- Conserve natural resources by reducing what we discard, reusing items, and recycling materials, which includes purchasing products made from recycled materials;

- Integrate sound environmental practices into all operations and business decisions; Integrate environmental protection requirements and pollution prevention initiatives into the early planning, design and procurement of facilities, equipment and material;
- Prevent or minimize pollution at its source and seek out ways to eliminate or further minimize use of hazardous materials and generation of hazardous waste;
- Maintain a sound partnership with regulatory agencies to sustain compliance with existing and new environmental laws and regulations;
- Enhance our program as we develop and implement an Environmental Management System; and
- Adhere to this policy, remind one another to do so, and ensure that our entire community knows this is our policy by our actions as well as our words.

In addition to compliance with the Japan Environmental Governing Standards (JEGS), the Contractor shall perform work in a manner that conforms to the CFAS Environmental Policy Statement and operational controls identified by the EMS awareness training. The Contractor shall provide monitoring and measurement information, as necessary, to address environmental performance relative to environmental, energy and transportation management goals.

In the event an EMS nonconformance or environmental noncompliance occurs, which is associated with the contracted services, tasks or actions, the Contractor shall take corrective and/or preventive actions. In the case of a noncompliance, the Contractor shall assume legal and financial liability for the noncompliance and immediately take corrective action and document the root cause. In the case of a nonconformance, the Contractor shall respond and take corrective action based on the time schedule established by the COR. In addition, the contractor shall ensure that its employees are aware of their roles and responsibilities under the EMS program and how their performance affects work performed under the contract.

The Contractor is responsible for ensuring that their employees receive applicable environmental and occupational health and safety training and remains current on regulatory required specific training for the type of work to be conducted onsite. All on-site contractor personnel, and their subcontractor personnel, performing tasks that have the potential to cause a significant environmental impact shall be competent on the basis of appropriate education, training or experience.

The Contractor shall provide a list of employees who are expected to perform work or services on CFAS property to the Contracting Officer before the notice to proceed is issued.

All contractor personnel who perform work at CFAS must complete the EMS Awareness Training using the Environmental Compliance, Training and Tracking System (ECATTS). The COR/PAR will verify completion of training through the ECATTS database.

Instructions for completing EMS Awareness Training:

Go to <http://navfac.ecatts.com> home page and click "enter". Register as a new user by entering "navfac" (all lower case with no quotation marks) in the Registration Password dialog box. Click the "Create an Account" link to establish an account. Enter the employee's name, email, login ID (pick any

ID you choose to use), password (pick any password you choose to use), training type (i.e. Other Construction Contractor or Contract Employee Working on Installation) and work location (Japan, COMFLEACT Sasebo JA). Click the "register" button and the website will generate a password to log into the training site.

Go to the home page and login with the user name and password generated by the website. Click "Japanese language" button, click "Go To Your Training", click "Go To My Training Modules". Open "Environmental Management System Awareness Training", complete the training, take the test and print a certificate for your records. The training takes approximately 20 minutes to complete.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

SECTION 01 58 00

PROJECT IDENTIFICATION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

JAPANESE AGRICULTURAL STANDARD (JAS) PUBLICATIONS

SP-86 Special Plywood

SL-86 Sawn Lumber

JAPANESE INDUSTRIAL STANDARDS (JIS)

A 5508 Nails

AMERICAN WOOD-PRESERVERS' ASSOCIATION (AWPA)

AWPA C1 All Timber Products - Preservative Treatment by Pressure Processes

AWPA C2 Lumber, Timber, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes

1.2 SUBMITTALS

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

SD-02 Shop Drawings

Preliminary drawing indicating layout and text content;

1.3 PROJECT SIGN

Prior to initiating any work on site, provide one project identification sign at the location designated. Construct the sign in accordance with project sign detail attached at the end of this section. Maintain sign throughout the life of the project. Upon completion of the project, remove the sign from the site.

1.3.1 Project Identification Signboard (Navy)

A project identification signboard shall be provided in accordance with attached page 1, 2 and 3 at the end of this Section. Provide preliminary drawing indicating layout and text content. The signboard shall be provided at a conspicuous location on the job site where directed by the Contracting Officer. The dimensions on the sketch can be proportional sized to fit on a single sheet of Japanese plywood (910 x 1820 mm).

- a. The field of the sign shall consist of Grade B-B medium density overlaid exterior plywood or JAS grade Type-1 "1-rui" waterproof exterior plywood. Lumber shall be B or better Southern pine, pressure-resrvative treated in accordance with AWPA C1 and AWPA C2 or JAS sawn lumber no-knot "Mubushi" grade. Nails shall be of flat head galvanized steel screw nail conforming to JIS A 5508.
- b. The entire signboard and supports shall be given one coat of exterior alkyd primer and two coats of exterior alkyd enamel paint. The lettering and sign work shall be performed by a skilled sign painter using paint known in the trade as bulletin colors. The colors, lettering sizes, and lettering styles shall be as indicated. Where preservative-treated lumber is required, utilize only cured pressure-treated wood which has had the chemicals leached from the surface of the wood prior to painting.
- c. Use spray applied automotive quality high gloss acrylic white enamel paint as background for the NAVFAC logo. NAVFAC logo shall be an applied 2 millimeter film sticker/decal with either transparent or white background or paint the logo by stencil onto the sign. The weather resistant sticker/decal film shall be rated for a minimum of 2-year exterior vertical exposure. The self-adhering sticker shall be mounted to the sign with pressure sensitive, permanent acrylic adhesive. Shop cut sticker/decal to rectangular shape and provide pull-off backing sheet on adhesive side of design sticker for shipping.
- d. Sign paint colors (manufacturer's numbers/types listed below for color identification only)
 - (1) Blue = To match dark blue color in the NAVFAC logo.
 - (2) White = To match Brilliant White color in the NAVFAC logo.
- e. NAVFAC logo must retain proportions and design integrity. NAVFAC logos in electronic format may be obtained from the NAVFAC web portal via the following link:

https://portal.navy.mil/portal/page/portal/navfac/navfac_formedia_pp/navfac_presskits_pp

Use the following to choose color values for the paint to be used:

- (1) Dark Blue = equivalent to CMYK values 100, 72, 0, 8 .
- (2) Light Blue = equivalent to CMYK values 69, 34, 0, 0.
- (3) Cyan = equivalent to CMYK values 100, 9, 0, 6.
- (4) Yellow = equivalent to CMYK values 0.9,94, 0.

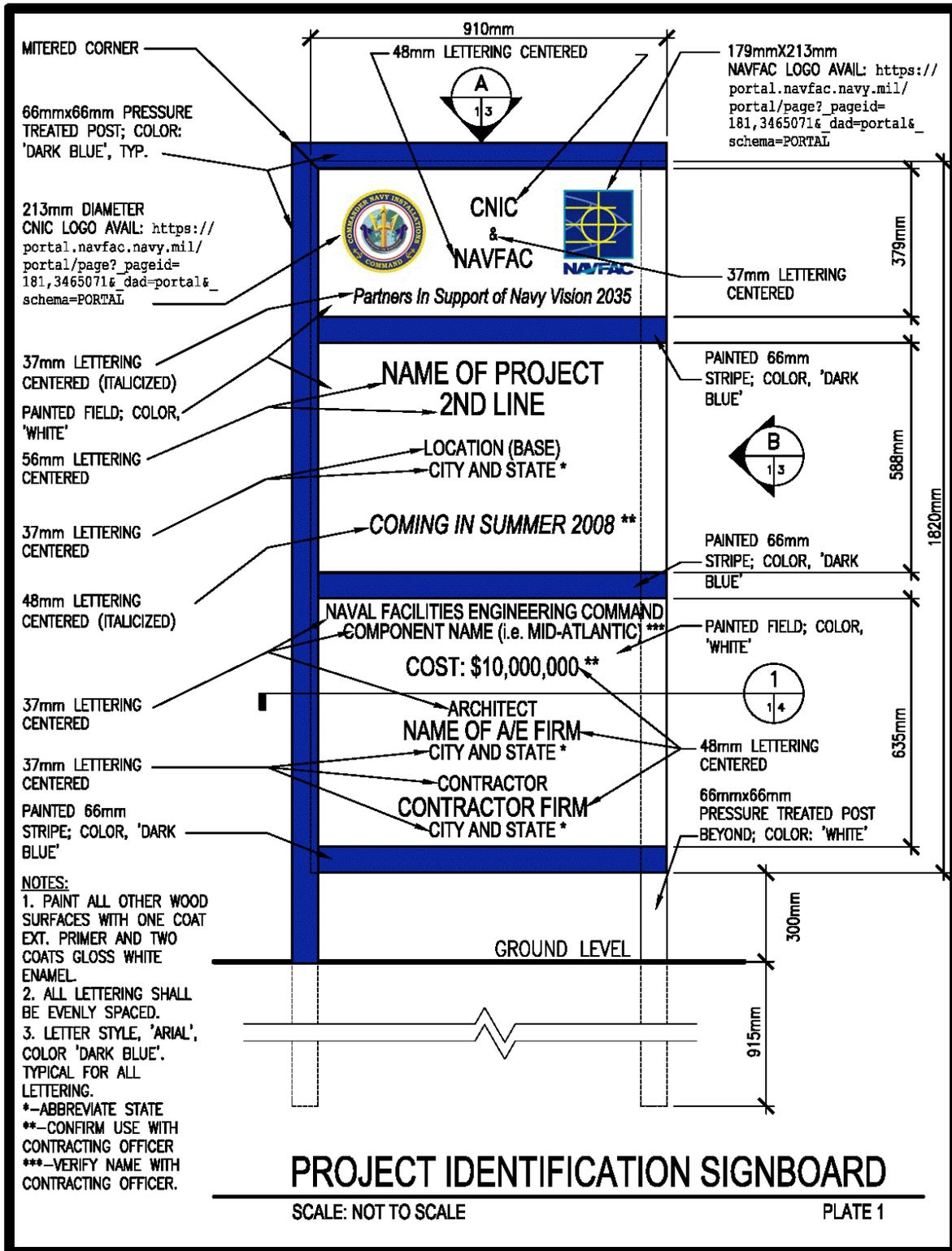
PART 2 PRODUCTS

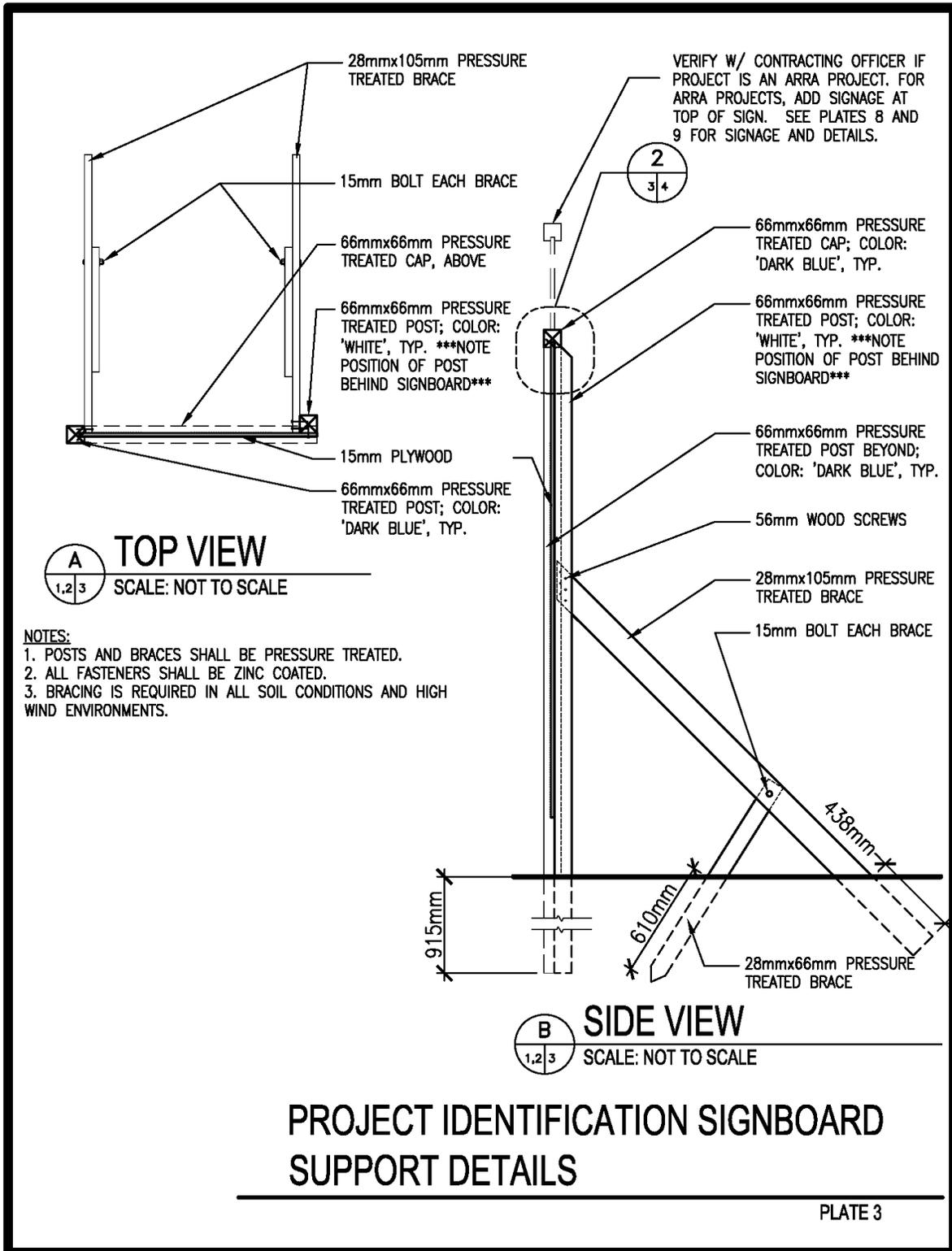
Not used.

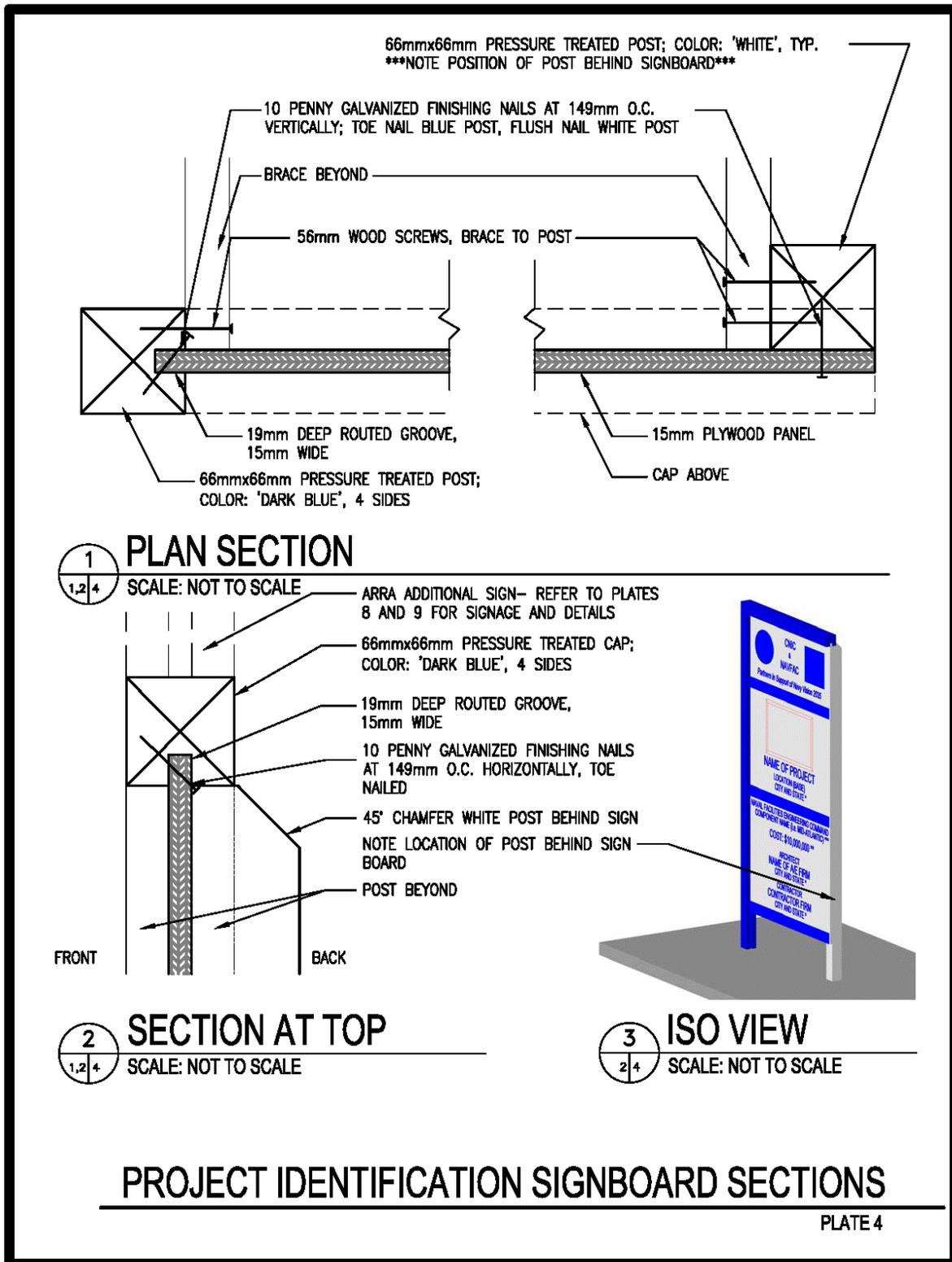
PART 3 EXECUTION

Not used.

-- End of Section --







SECTION 01 74 19

CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

Headquarters, US Forces Japan, Department of Defense (DOD)

JEGS

Japan Environmental Governing Standards

1.2 GOVERNMENT POLICY

Government policy is to apply sound environmental principles in the construction and use of facilities. As part of the implementation of that policy the Contractor shall: (1) practice efficient waste management when sizing, cutting, and installing products and materials and (2) use all reasonable means to divert construction and demolition waste from landfills and incinerators and to facilitate their recycling or reuse.

a. Hazardous Waste/Material

All hazardous waste/material defined in JEGS, shall be turned in to the Storage Facility (Bldg. 1653) as directed by Environment Office. Contact the CFAS Environment Office before transport.

b. Scrap Metal

All recyclable scrap metals shall remain the property of the Government unless indicated, and deliver to the recycling Storage Facility (Bldg. 323). Before delivering the scrap metal, submit "CONTRACTOR TURN-IN OF RIPPED OUT MATERIAL" filled with blanks and contact to Solid Waste/QRP dept of Environment Office. Scrap metals include pipes, metal supports, valves, radiators, ducts, conduits, electrical cables, metal siding, metal roofing, metal windows, metal doors, handrails, used welding rods, and structural steels. Do not include any thermal insulation, glass, or PCB containing items in turn-in scrap metals.

1.3 MANAGEMENT

Develop and implement a waste management program in accordance with Japanese laws and local government regulations and as specified. Take a pro-active, responsible role in the management of construction and demolition waste and require all subcontractors, vendors, and suppliers to participate in the effort.

Construction and demolition waste includes products of demolition or removal, excess or unusable construction materials, packaging materials for

construction products, and other materials generated during the construction process but not incorporated into the work. In the management of waste consideration shall be given to the availability of viable markets, the condition of the material, the ability to provide the material in suitable condition and in a quantity acceptable to available markets, and time constraints imposed by internal project completion mandates. The Contractor is responsible for implementation of any special programs involving rebates or similar incentives related to recycling of waste. Revenues or other savings obtained for salvage, or recycling accrue to the Contractor. Appropriately permit firms and facilities used for recycling, reuse, and disposal for the intended use to the extent required by federal, state, and local regulations. Also, provide on-site instruction of appropriate separation, handling, recycling, salvage, reuse, and return methods to be used by all parties at the appropriate stages of the project.

1.4 SUBMITTALS

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

SD-01 Preconstruction Submittals

Waste Management Plan; G (Environmental Office)

SD-11 Closeout Submittals

Records with manifests; G (Environmental Office)

1.5 MEETINGS

Conduct Construction Waste Management meetings. After award of the Contract and prior to commencement of work, schedule and conduct a meeting with the Contracting Officer to discuss the proposed Waste Management Plan and to develop a mutual understanding relative to the details of waste management. The requirements for this meeting may be fulfilled during the coordination and mutual understanding meeting outlined in Section 01 45 01.00 20 QUALITY CONTROL (QC)- MINOR CONSTRUCTION. At a minimum, environmental and waste management goals and issues shall be discussed at the following additional meetings:

- a. Preconstruction meeting.
- b. Regular QC meetings.
- c. Work safety meetings.

1.6 WASTE MANAGEMENT PLAN

A waste management plan shall be submitted within 15 days after contract award and prior to initiating any site preparation work. A sample format is attached at end of this section. The plan shall be approved by Environment Office (contact to the Solid Waste/QRP dept) via CME and shall include the following:

- a. Name of individuals on the Contractor's staff responsible for waste prevention and management.
- b. Actions that will be taken to reduce solid waste generation, including coordination with subcontractors to ensure awareness and participation.
- c. Description of the regular meetings to be held to address waste management.
- d. Description of the specific approaches to be used in recycling/reuse of the various materials generated, including the areas on site and equipment to be used for processing, sorting, and temporary storage of wastes.
- e. Characterization, including estimated types and quantities, of the waste to be generated.
- f. Name of landfill and/or incinerator to be used and the estimated costs for use, assuming that there would be no salvage or recycling on the project.
- g. Identification of local and regional reuse programs. Include the name, location, and phone number for each reuse facility to be used, and provide a copy of the permit or license for each facility.
- h. List of specific waste materials that will be salvaged for resale, salvaged and reused on the current project, salvaged and stored for reuse on a future project, or recycled. Recycling facilities that will be used shall be identified by name, location, and phone number, including a copy of the permit or license for each facility.
- i. Identification of materials that cannot be recycled/reused with an explanation or justification, to be approved by the Contracting Officer.
- j. Description of the means by which any waste materials identified in item (h) above will be protected from contamination.
- k. Description of the means of transportation of the recyclable materials (whether materials will be site-separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site).
- l. Anticipated net cost savings determined by subtracting Contractor program management costs and the cost of disposal from the revenue generated by sale of the materials and the incineration and/or landfill cost avoidance.
- m. If the Contractor store construction waste at the contractor's premises to accumulate the waste until adequate volume to transport to a treatment facility, submit a copy of *Waste Accumulation Point Registration* which is submitted to the local government where the contractor's premises located.

Revise and resubmit Plan as required by the Contracting Officer. Approval of Contractor's Plan will not relieve the Contractor of responsibility for compliance with applicable environmental regulations or meeting project

cumulative waste diversion requirement. Distribute copies of the Waste Management Plan to each subcontractor, the Quality Control Manager, and the Contracting Officer.

1.7 RECORDS

Records shall be maintained to document the quantity of waste generated; the quantity of waste diverted through sale, reuse, or recycling; and the quantity of waste disposed by landfill or incineration. Quantities may be measured by weight or by volume, but must be consistent throughout. List each type of waste separately noting the disposal or diversion date. Identify the landfill, recycling center, waste processor, or other organizations used to process or receive the solid waste. Provide explanations for any waste not recycled or reused. With each application for payment, submit updated documentation for solid waste disposal and diversion, and submit manifests, weight tickets, receipts, and invoices specifically identifying the project and waste material. The records shall be made available to the Contracting Officer during construction, and a copy of the records with manifests and receipt shall be delivered to the Contracting Officer and Environmental Office upon completion of the construction. A sample form is attached end of this Section.

1.8 COLLECTION

Separate, store, protect, and handle at the site identified recyclable and salvageable waste products in a manner that maximizes recyclability and salvagability of identified materials. Provide the necessary containers, bins and storage areas to facilitate effective waste management and clearly and appropriately identify them. Provide materials for barriers and enclosures around recyclable material storage areas which are nonhazardous and recyclable or reusable. Locate out of the way of construction traffic. Provide adequate space or pick-up and delivery and convenience to subcontractors. Recycling and waste bin areas are to be kept neat and clean, and recyclable materials shall be handled to prevent contamination of materials from incompatible products and materials. Clean contaminated materials prior to placing in collection containers. Use cleaning materials that are nonhazardous and biodegradable. Handle hazardous waste and hazardous materials in accordance with applicable regulations and coordinate with Section 01 57 19.00 20 TEMPORARY ENVIRONMENTAL CONTROLS. Separate materials by one of the following methods:

1.8.1 Source Separated Method.

Waste products and materials that are recyclable shall be separated from trash and sorted as described below into appropriately marked separate containers and then transported to the respective recycling facility for further processing. Deliver materials in accordance with recycling or reuse facility requirements (e.g., free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process). Separate materials into the following category types as appropriate to the project waste and to the available recycling and reuse programs in the project area:

- a. Land clearing debris.
- b. Asphalt.

- c. Concrete and masonry.
- d. Metal (e.g. banding, stud trim, ductwork, piping, re-bar, roofing, other trim, steel, iron, galvanized, stainless steel, aluminum, copper, zinc, lead brass, bronze).
 - (1) Ferrous.
 - (2) Non-ferrous.
- e. Wood (ferrous nails and staples allowed).
- f. Debris.
- g. Glass (colored glass shall be followed by recycling facility's capability).
- h. Paper.
 - (1) Bond.
 - (2) Newsprint.
 - (3) Cardboard and paper packaging materials.
- i. Plastic. (separate method shall be followed by recycling facility's capability)
 - (1) Type 1: Polyethylene Terephthalate (PET, PETE).
 - (2) Type 2: High Density Polyethylene (HDPE).
 - (3) Type 3: Vinyl (Polyvinyl Chloride or PVC).
 - (4) Type 4: Low Density Polyethylene (LDPE).
 - (5) Type 5: Polypropylene (PP).
 - (6) Type 6: Polystyrene (PS).
 - (7) Type 7: Other. Use of this code indicates that the package in question is made with a resin other than the six listed above, or is made of more than one resin listed above, and used in a multi-layer combination.
- j. Non-asbestos gypsum.
- k. Non-hazardous paint and paint cans.
- l. Carpet.
- m. Non-asbestos ceiling tiles.
- n. Non-asbestos insulation.
- o. Beverage containers.

1.8.2 Co-Mingled Method.

Waste products and recyclable materials shall be placed into a single container and then transported to a recycling facility where the recyclable materials are sorted and processed.

1.8.3 Other Methods.

Other methods proposed by the Contractor may be used when approved by the Contracting Officer.

1.9 DISPOSAL

Control accumulation of waste materials and trash. Recycle or dispose of collected materials off-site at intervals approved by the Contracting Officer and in compliance with waste management procedures. Except as otherwise specified in other sections of the specifications, disposal shall be in accordance with the following:

1.9.1 Reuse

First consideration shall be given to salvage for reuse since little or no re-processing is necessary for this method, and less pollution is created when items are reused in their original form. Sale of waste suitable for reuse shall be in accordance with Japanese law.

1.9.2 Recycle

Waste materials not suitable for reuse, but having value as being recyclable, shall be made available for recycling whenever economically feasible. Recycle concrete aggregate, asphalt paving, soil materials, wood, lumber and etc, in accordance with latest guide-line of JAPAN MINISTRY OF LAND, INFRASTRUCTURE AND TRANSPORT.

1.9.3 Turn-in

As specified in Paragraph GOVERNMENT POLICY.

1.9.4 Waste

Materials with no practical use or economic benefit shall be disposed at a landfill or incinerator in accordance with JEGS.

1.9.5 Return

Set aside and protect mis-delivered and substandard products and materials and return to supplier for credit.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section ----

Solid Waste Operations Information

Solid Waste (FSC)	Tons	Cost (\$)	Revenue (\$)		
Landfill					
Incinerator					
Composted					
Landfill Tipping Fee (yen):					
Incineration Tipping Fee (yen):					
Other Selected Waste (?)					
	Disposal (Tons)	Disposal Cost (\$)	Recycle (Tons)	Recycle Cost (\$)	# of Projects
Construction					
Demolition					
Other selected Waste (HWB)					
	Disposal (Tons)	Disposal Cost (\$)	Recycle (Tons)	Recycle Cost (\$)	
Oils					
Antifreeze			1.2	1,539.00	
Lead Acid Batteries			34	No Cost	

Frank Floros
 P:\OPS\OPCI\SPEC\STANDARD\Plan & Spec\D01\Japan Yokosuka, Sasebo, Misawa, Atsugi, Iwakuni\fig\Solid Waste Disposal\F2ADS Data Collection
 Form (FY08) (2).xls\F2ADS Data Collection Form (FY08) (2).xls
 SW Operations

SAMPLE FORM OF RECORDS

CONTRACTOR TURN-IN OF RIPPED OUT MATERIAL
コントラクターに依る取り外した資材の返却

Date: _____
日付

From: Contractor _____
発: コントラクター名
To: PWT Environmental Recycling Branch
宛: PWT 環境課リサイクル部

Ref: Job Order No. _____, Title _____
参照: ジョブオーダー番号 工事名

Ship or Project: _____
艦名又はプロジェクト名

Contract No. _____
契約番号

1. The following items listed below were ripped out material from the above project and are herewith returned for disposition:

上記の工事修了の結果、下記の品名を取り外しましたので、返却します。
処分をお願い致します。

<u>Nomenclature</u> 品名	<u>Quantity</u> 数量
_____	_____
_____	_____
_____	_____
_____	_____

2. It is understood that all loose items are to be secured or packed in proper containers and properly marked prior to turn-in.

総てのばらばらにした品目は、品目ごとにまとめるか、又は適切な容器に詰めて返却前に正しくマークすることを理解しています。

SIGNED _____
署名 CONTRACTOR/REPRESENTATIVE PHONE #
コントラクター/責任者 電話番号

CFAY 5090/5 (2-04)

SECTION 01 78 00

CLOSEOUT SUBMITTALS
08/11

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only. The latest version of the publication at time of award shall be used.

ASTM INTERNATIONAL (ASTM)

ASTM E 1971 Stewardship for the Cleaning of Commercial and Institutional Buildings

GREEN SEAL (GS)

GS-37 Industrial and Institutional Cleaners

1.2 SUBMITTALS

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

SD-03 Product Data

As-Built Record of Equipment and Materials; G (CME)

Warranty Management Plan; G (CME)

Warranty Tags; G (CME)

Final Cleaning; G (CME)

Spare Parts Data; G (CME)

SD-08 Manufacturer's Instructions

Preventative Maintenance; G (CME)

Condition Monitoring (Predictive Testing); G (CME)

Inspection; G (CME)

SD-11 Closeout Submittals

Record Drawings; G (CME)

Certification of lead free, asbestos free and PCB free materials; G
(CME)

1.3 PROJECT RECORD DOCUMENTS

1.3.1 Record Drawings

Drawings showing final as-built conditions of the project, including shop drawing level detail drawings drawn by the Contractor. This paragraph covers record drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working record drawings" and "final record drawings" refer to contract drawings which are revised to be used for final record drawings showing as-built conditions. The final CADD record drawings must consist of one set of electronic CADD drawing files in the specified format, 2 sets of prints, and one set of the approved working Record drawings.

1.3.1.1 Government Furnished Materials

One set of electronic CADD files in the specified software and format revised to reflect all bid amendments will be provided by the Government at the preconstruction conference for projects requiring CADD file record drawings.

1.3.1.2 Working Record and Final Record Drawings

Revise 2 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. Keep these working as-built marked drawings current on a weekly basis and at least one set available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction must be accurately and neatly recorded as they occur by means of details and notes. Prepare final record (as-built) drawings after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built marked prints and final record (as-built) drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final record drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the record drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. Show on the working and final record drawings, but not limited to, the following information:

- a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, show by offset dimensions to two permanently fixed surface features the end of each run including each change in direction on the record drawings. Locate valves, splice boxes and similar appurtenances by dimensioning along the utility run from a

reference point. Also record the average depth below the surface of each run.

- b. The location and dimensions of any changes within the building structure.
- c. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.
- d. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
- e. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.
- f. Changes or modifications which result from the final inspection.
- g. Where contract drawings or specifications present options, show only the option selected for construction on the final as-built prints.
- h. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, furnish a contour map of the final borrow pit/spoil area elevations.
- i. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.
- j. Modifications (include within change order price the cost to change working and final record drawings to reflect modifications) and compliance with the following procedures.
 - (1) Follow directions in the modification for posting descriptive changes.
 - (2) Place a Modification Delta at the location of each deletion.
 - (3) For new details or sections which are added to a drawing, place a Modification Delta by the detail or section title.
 - (4) For minor changes, place a Modification Delta by the area changed on the drawing (each location).
 - (5) For major changes to a drawing, place a Modification Delta by the title of the affected plan, section, or detail at each location.
 - (6) For changes to schedules or drawings, place a Modification Delta either by the schedule heading or by the change in the schedule.
 - (7) The Modification Delta size shall be 13 mm (1/2 inch) diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.3.1.3 Drawing Preparation

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

1.3.1.4 Computer Aided Design and Drafting (CADD) Drawings

Only employ personnel proficient in the preparation of CADD drawings to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings must be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols must be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, prepare them using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final record drawings must be identical to that used on the contract drawings. Accomplish additions and corrections to the contract drawings using CADD files with an additional layer. The Contractor will be furnished "as-designed" drawings in AUTOCADD 2004 U.S file format version for drawings prepared before March 2014, AUTOCADD 2010 U.S file format version for drawings prepared after April 2014, compatible with a Windows operating system. The electronic files will be supplied on compact disc, read-only memory (CD-ROM). Provide all program files and hardware necessary to prepare final record drawings. The Contracting Officer will review final record drawings for accuracy and return them to the Contractor for required corrections, changes, additions, and deletions.

- a. Provide CADD "base" colors of red, green, and blue. Color code for changes as follows:
 - (1) Deletions (Red) - Over-strike deleted graphic items (lines), lettering in notes and leaders.
 - (2) Additions (Green) - Added items, lettering in notes and leaders.
 - (3) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes.
- b. Rename the Contract Drawing files in a manner related to the contract number (i.e., 98-C-10.DGN) as instructed in the Pre-Construction conference. Use only those renamed files for the Marked-up changes. All changes shall be made on the layer/level as the original item.
- c. When final revisions have been completed, show the wording "RECORD DRAWINGS / AS-BUILT CONDITIONS" followed by the name of the Contractor in letters at least 5 mm(3/16 inch) high on the cover sheet drawing. Mark all other contract drawings either "Record" drawing denoting no revisions on the sheet or "Revised Record" denoting one or more revisions. Date original contract drawings in the revision block.

- d. Within 10 days for contracts less than \$5 million after Government approval of all of the working record drawings for a phase of work, prepare the final CADD record drawings for that phase of work and submit two sets of blue-lined prints of these drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 7 days for contracts less than \$5 million revise the CADD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. Within 10 days for contracts less than \$5 million of substantial completion of all phases of work, submit the final record drawing package for the entire project. Submit one set of electronic files on optical disk, one set of mylars, two sets of blue-line prints and one set of the approved working record drawings. They must be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CADD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final record drawing files and marked prints as specified will be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final record drawings must be accomplished before final payment is made to the Contractor.

1.3.1.5 Payment

No separate payment will be made for record drawings required under this contract, and all costs accrued in connection with such drawings are considered a subsidiary obligation of the Contractor.

1.3.2 As-Built Record of Equipment and Materials

Furnish one copy of preliminary record of equipment and materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 4 days after final inspection with Government comments. Submit Two sets of final record of equipment and materials 10 days after final inspection. Key the designations to the related area depicted on the contract drawings. List the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA				
Description	Specification Section	Manufacturer and Catalog, Model, and Serial Number	Composition and Size	Where Used

1.3.3 Final Approved Shop Drawings

Furnish final approved project shop drawings 30 days after transfer of the completed facility.

1.3.4 Construction Contract Specifications

Furnish final record (as-built) construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

1.3.5 Real Property Equipment

Furnish a list of installed equipment furnished under this contract. Include all information usually listed on manufacturer's name plate. In the "EQUIPMENT-IN-PLACE LIST" include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. Furnish a draft list at time of transfer. Furnish the final list 30 days after transfer of the completed facility.

1.4 SPARE PARTS DATA

Submit two copies of the Spare Parts Data list.

- a. Indicate manufacturer's name, part number, nomenclature, and stock level required for maintenance and repair. List those items that may be standard to the normal maintenance of the system.
- b. Supply items of each part for spare parts inventory. Provision of spare parts does not relieve the Contractor of responsibilities listed under the contract guarantee provisions.

1.5 PREVENTATIVE MAINTENANCE

Submit Preventative Maintenance, Condition Monitoring (Predictive Testing) and Inspection schedules with instructions that state when systems should be retested.

- a. Define the anticipated length of each test, test apparatus, number of personnel identified by responsibility, and a testing validation procedure permitting the record operation capability requirements within the schedule. Provide a signoff blank for the Contractor and Contracting Officer for each test feature; e.g., liter per second, rpm, kilopascal (gpm, rpm, psi). Include a remarks column for the testing validation procedure referencing operating limits of time, pressure, temperature, volume, voltage, current, acceleration, velocity, alignment, calibration, adjustments, cleaning, or special system notes. Delineate procedures for preventative maintenance, inspection, adjustment, lubrication and cleaning necessary to minimize corrective maintenance and repair.
- b. Repair requirements must inform operators how to check out, troubleshoot, repair, and replace components of the system. Include electrical and mechanical schematics and diagrams and diagnostic techniques necessary to enable operation and troubleshooting of the system after acceptance.

1.6 CERTIFICATION OF LEAD FREE, ASBESTOS FREE, AND PCB FREE MATERIALS

Submit the Certification of Lead Free, Asbestos Free, and PCB Free Materials. Include on the certification form the following information: project name, project number, Contractor name, license number, Contractor address, and certification. The certification will read as follows and be signed and dated by the Contractor. "I hereby certify the information provided herein is accurate and that the requisition/procurement of all

materials listed on this form comply with current JEGS requirement of Lead Based Paint, Asbestos, and Polychlorinated Biphenyls."

1.7 WARRANTY MANAGEMENT

1.7.1 Warranty Management Plan

Develop a warranty management plan which contains information relevant to the clause Warranty of Construction in FAR. At least 30 days before the planned pre-warranty conference, submit one set of the warranty management plan. Include within the warranty management plan all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan must be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below must include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase must be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Assemble approved information in a binder and turn over to the Government upon acceptance of the work. The construction warranty period will begin on the date of project acceptance and continue for the full product warranty period. A joint 4 month and 9 month warranty inspection will be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Include within the warranty management plan, but not limited to, the following:

- a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subContractors, manufacturers or suppliers involved.
- b. Furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.
- c. 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.
- d. A list for each warranted equipment, item, feature of construction or system indicating:
 - (1) Name of item.
 - (2) Model and serial numbers.
 - (3) Location where installed.
 - (4) Name and phone numbers of manufacturers or suppliers.
 - (5) Names, addresses and telephone numbers of sources of spare parts.
 - (6) Warranties and terms of warranty. Include one-year overall warranty of construction, including the starting date of warranty of construction. Items which have extended warranties must be indicated with separate warranty expiration dates.
 - (7) Cross-reference to warranty certificates as applicable.
 - (8) Starting point and duration of warranty period.
 - (9) Summary of maintenance procedures required to continue the warranty in force.

- (10) Cross-reference to specific pertinent Operation and Maintenance manuals.
 - (11) Organization, names and phone numbers of persons to call for warranty service.
 - (12) Typical response time and repair time expected for various warranted equipment.
- e. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.
 - f. Procedure and status of tagging of all equipment covered by extended warranties.

1.7.2 Performance Bond

The Contractor's Performance Bond must remain effective throughout the construction period.

- a. In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.
- b. In the event sufficient funds are not available to cover the construction warranty work performed by the Government at the Contractor's expense, the Contracting Officer will have the right to recoup expenses from the bonding company.
- c. Following oral or written notification of required construction warranty repair work, respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.7.3 Pre-Warranty Conference

Within 30 days prior to the start of on site work, the Contractor shall meet with Government's construction management engineer (CME) to discuss all warranties applicable under the task order, including but not limited to spec items, water proofing membrane, joint sealing for exterior wall panels, roofing, and equipments. Nothing discussed in the pre-warranty conference shall be construed as authorizing the Contractor to deviate from the requirements of FAR 52.246 (warranty of construction) or Subpart 46.7 (warranties), nor limiting the Government's rights with respect to latent defects, gross mistakes or fraud. The pre-warranty conference does not relieve the Contractor of any of its responsibilities in other portions of the contract or task order.

1.8 CLEANUP

Provide final cleaning in accordance with [ASTM E 1971](#) and submit two copies of the listing of completed final clean-up items. Leave premises "broom clean." Comply with [GS-37](#) for general purpose cleaning and bathroom cleaning. Use only nonhazardous cleaning materials, including natural cleaning materials, in the final cleanup. Clean interior and exterior glass

surfaces exposed to view; remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces. Clean equipment and fixtures to a sanitary condition. Replace filters of operating equipment and comply with the Indoor Air Quality (IAQ) Management Plan. Clean debris from roofs, gutters, downspouts and drainage systems. Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the site. Recycle, salvage, and return construction and demolition waste from project in accordance with the Waste Management Plan. Promptly and legally transport and dispose of any trash. Do not burn, bury, or otherwise dispose of trash on the project site.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

SECTION 02 41 00.00 20

DEMOLITION

PART 1 GENERAL

1.1 REFERENCES

The following publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest version of the publication at time of award shall be used.

Nagasaki Prefectural Waste Management Division ("Nagasaki-Ken Haikibutsu Taisaku-ka")

List of Certified Industrial Waste Treatment/Landfill Company ("Sangyo Haikibutsu Shori Gyosha Kyoka Gaiyou")

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 Safety and Health Requirements Manual

JAPANESE INDUSTRIAL STANDARD (JIS)

JIS B 2301 Screwed Type Malleable Cast Iron Pipe Fittings

HEADQUARTERS, US FORCES JAPAN, DEPARTMENT OF DEFENSE (DOD)

JEGS Japan Environmental Governing Standards

1.2 GENERAL REQUIREMENTS

Do not begin demolition until authorization is received from the Contracting Officer. Remove rubbish and debris from the project site; do not allow accumulations inside or outside the buildings. Store materials that cannot be removed daily in areas specified by the Contracting Officer.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 "SUBMITTAL PROCEDURES":

SD-01, Preconstruction submittals

Demolition Plan; G (CME)

Existing Conditions;

Submit demolition and removal procedures for approval before work is started.

SD-07, Certificates

Disposal manifest for Solid Waste; G (CME and Environmental Office)

1.4 REGULATORY AND SAFETY REQUIREMENTS

Comply with federal, GOJ, prefectural, local, and Japan Environmental Governing Standards (JEGS) regarding hauling and disposal regulations.

1.5 DUST AND DEBRIS CONTROL

Prevent the spread of dust and debris to occupied portions of the building and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution. Vacuum and dust the work area daily.

1.6 PROTECTION

1.6.1 Traffic Control Signs

Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Provide signal person if necessary. Notify the Contracting Officer prior to beginning such work.

1.6.2 Existing Conditions Documentation

Before beginning any demolition or deconstruction work, survey the site and examine the drawings and specifications to determine the extent of the work. Record existing conditions in the presence of the Contracting Officer showing the condition of structures and other facilities adjacent to areas of alteration or removal. Photographs sized 100 mm (4 inch) will be acceptable as a record of existing conditions. Include in the record the elevation of the top of foundation walls, finish floor elevations, possible conflicting electrical conduits, plumbing lines, alarms systems, the location and extent of existing cracks and other damage and description of surface conditions that exist before starting work. It is the Contractor's responsibility to verify and document all required outages which will be required during the course of work, and to note these outages on the record document.

1.6.3 Items to Remain in Place

Take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the Government. Repair or replace damaged items as approved by the Contracting Officer. Coordinate the work of this section with all other work indicated. Construct and maintain shoring, bracing, and supports as required. Ensure that structural elements are not overloaded. Increase structural supports or add new supports as may be required as a result of any cutting, removal, demolition work performed under this contract. Do not overload structural elements and pavements to remain. Provide new supports and reinforcement for existing construction weakened by demolition or removal work. Repair, reinforcement,

or structural replacement require approval by the Contracting Officer prior to performing such work.

1.6.4 Existing Construction

Do not disturb existing construction beyond the extent indicated or necessary for installation of new construction. Provide temporary shoring and bracing for support of building components to prevent settlement or migration of dust and dirt in all work areas. Remove dust, dirt, and debris from work areas daily.

1.6.5 Trees

Conform to Section 01 57 19.00 20, "Temporally Environmental Controls" for protection of natural resources. Protect trees within the project site that might be damaged during demolition and that are indicated to be left in place, by a 1.8 m high fence. Erect fence a minimum of 1.5 m from the trunks of individual trees or follow the outer perimeter of branches or clumps of trees. Replace any trees designated to remain that is damaged during the work under this contract with like-kind or as approved by the Contracting Officer.

1.6.6 Utility Services

Maintain existing utilities indicated to stay in service and protect against damage during demolition operations. Prior to start of works, the Contractor shall shut off utilities serving each area of removal as directed by the Government and disconnect and seal.

1.6.7 Facilities

Protect electrical and mechanical services and utilities. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical and mechanical utilities. Floors, roofs, walls, columns, plasters, and other structural components that are designated and constructed to stand without lateral support or shoring, and are determined to be in stable condition, shall remain standing without additional bracing, shoring, or lateral support until demolished, unless directed otherwise by the Contracting Officer. Ensure that any elements deemed unstable are not left unsupported. Place secure bracing, shoring, or lateral supports as required on any cutting, removal, or demolition work performed under this contract that may become unstable.

1.6.8 Protection of Personnel

Before, during and after the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the project site. No area, section, or component of floors, roofs, walls, columns, pilasters, or other structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate area.

1.7 BURNING

Burning will not be permitted.

1.8 REQUIRED DATA

The demolition plan shall include procedures for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress, a disconnection schedule of utility services, and a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Provide procedures for safe conduct of the work in accordance with EM 385-1-1.

1.9 ENVIRONMENTAL PROTECTION

As specified in Section 01 57 19.00 20, "Temporary Environmental Controls."

1.10 USE OF EXPLOSIVES

Use of explosives will not be permitted.

PART 2 PRODUCTS

2.1 FILL MATERIAL

Comply with excavating, backfilling, and compacting procedures for soils used as backfill material to fill basements, voids, depressions or excavations resulting from demolition of structures, as specified in Section 31 23 00.00 20, "Excavation and Fill".

2.2 PLASTIC TAG

Provide plastic tag sized not less than 200 by 60 mm. Engrave "NOT USED" with block-letters and fill with visible color paint.

PART 3 EXECUTION

3.1 EXISTING FACILITIES TO BE REMOVED

As indicated on drawings. Abandon indicated existing salt water piping.

3.1.1 Related Materials

While removing existing materials as indicated on drawings, also remove the materials which are made no use for remaining materials or new works, unless otherwise indicated or specified.

3.1.2 Lead-based Paint (LBP)

Paint or other surface coatings that contain lead equal to or exceeding 1.0 milligram per cm² or 0.5 percent by weight or 5,000 ppm by weight are defined as Lead-based Paint (LBP). Material that is the same color and used for same subject shall be assumed as homogeneous material. The Government assumes that Contractor will encounter LBP.

3.1.2.1 Lead-based Paint (LBP) Removal Work

Remove LBP which are encountered in this project. Conduct removal work as specified in Section 02 83 13.00 20 "Lead in Construction."

3.1.3 Asbestos Containing Materials

Any material containing more than 0.1 percent asbestos by weight is defined as Asbestos Containing Material (ACM). Material that is the same color and used for same subject shall be assumed as homogeneous material. The Government assumes that Contractor will not encounter ACM.

3.2 BLOCK-OFF

Cap the existing compressed air piping to be abandoned. Threaded cap shall conform to JIS B 2301.

3.3 DISPOSITION OF MATERIAL

3.3.1 Title to Materials

Except where specified, all materials and equipment removed (except the materials and equipment to be reused, salvaged, and turn-in) shall become the property of the Contractor and shall be removed from Government property. Title to materials resulting from demolition, and materials and equipment to be removed, is vested in the Contractor upon approval by the Contracting Officer of the Contractor's demolition and removal procedures, and authorization by the Contracting Officer to begin demolition. The Government will not be responsible for the condition or loss of, or damage to, such property after notice to proceed. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.

3.3.2 Reuse of Materials and Equipment

Verify normal operations of materials and equipments to be reused. Remove, clean up and store materials and equipment of indicated flow meter system and outlets to be reused to prevent damage, and reinstall as the work progresses.

3.3.3 Hazardous and Regulated Materials and Equipment

3.3.3.1 Disposal of Hazardous Waste and Regulated Materials

As specified in Section 01 57 19.00 20, "Temporary Environmental Controls."

3.4 CLEANUP

3.4.1 Debris and Rubbish

Remove and transport debris and rubbish in a manner that will prevent spillage on pavements, streets or adjacent areas. Clean up spillage from pavements, streets and adjacent areas .

-- End of Section --

SECTION 02 83 13.00 20

LEAD IN CONSTRUCTION

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred within the text by the basic designation only. The latest version of the publication at time of award shall be used.

CFAS SASEBO INSTRUCTION

CFAS SAFETY SOP U.S. Fleet Activities Sasebo Japan Standard Operation Procedures for NAVOSH Program

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z88.2 Respiratory Protection

CODE of Federal Regulations (CFR)

29 CFR 1926.21 Safety Training and Education

29 CFR 1926.55 Gases, Vapors, Fumes, Dusts, and Mists

29 CFR 1926.59 Hazard Communication

29 CFR 1926.62 Lead Exposure in Construction

29 CFR 1926.65 Hazardous Waste Operations and Emergency Response

29 CFR 1926.103 Respiratory Protection

40 CFR 745 Lead; Requirements for Lead-Based Paint Activities

UNDERWRITERS LABORATORIES INC. (UL)

UL 586 High-Efficiency, Particulate, Air Filter Units

Department of Defense (DOD)

Japan Environmental Governing Standards (JEKS), by US Forces Japan

1.2 DEFINITIONS

1.2.1 Action Level

Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8 hour period in an occupational/industrial environment.

1.2.2 Area Sampling

Sampling of lead concentrations within the lead control area and inside the physical boundaries which is representative of the airborne lead concentrations but is not collected in the breathing zone of personnel.

1.2.3 Competent Person (CP)

As used in this section, refers to a person employed by the Contractor who is trained in the recognition and control of lead hazards in accordance with current federal regulations. An industrial hygienist or safety professional certified for comprehensive practice by the American Board of Industrial Hygiene or by the Board of Certified Safety Professionals is the best choice.

1.2.4 Contaminated Room

Refer to a room for removal of contaminated personal protective equipment (PPE).

1.2.5 Decontamination (Decon) Area

Decontamination area is for changing clothes and cleaning-up tools and equipment.

1.2.6 Decontamination Shower Facility

That facility that encompasses a clean clothing storage room, and a contaminated clothing storage and disposal rooms, with a shower facility in between.

1.2.7 Eight-Hour Time Weighted Average (TWA)

Airborne concentration of lead to which an employee is exposed, averaged over an 8 hour workday as indicated in [29 CFR 1926.62](#).

1.2.8 High Efficiency Particulate Air (HEPA) Filter Equipment

HEPA filtered vacuuming equipment with a [UL 586](#) filter system capable of collecting and retaining lead-contaminated paint dust. A high efficiency particulate filter means 99.97 percent efficient against 0.3 micron or larger size particles.

1.2.9 Lead

Metallic lead, inorganic lead compounds, and organic lead soaps. Excludes other forms of organic lead compounds.

1.2.10 Lead Based Paint (LBP)

Protective or decorative coating which contains lead.

1.2.11 Lead Control Area

A system of control methods to prevent the spread of lead dust, paint chips or debris to adjacent areas that may include temporary containment, floor or ground cover protection, physical boundaries, and warning signs to prevent unauthorized entry of personnel. HEPA filtered local exhaust equipment may be used as engineering controls to further reduce personnel exposures or building/outdoor environmental contamination.

1.2.12 Lead Permissible Exposure Limit (PEL)

Fifty micrograms per cubic meter of air as an 8 hour time weighted average as determined by 29 CFR 1926.62. If an employee is exposed for more than eight hours in a work day, the PEL shall be determined by the following formula:

$$\text{PEL (micrograms/cubic meter of air)} = 400/\text{No. hrs worked per day}$$

1.2.13 Material Containing Lead/Paint with Lead (MCL/PWL)

Any material, including paint, which contains lead as determined by the testing laboratory using a valid test method. The requirements of this section does not apply if no detectable levels of lead are found using a quantitative method for analyzing paint or MCL using laboratory instruments with specified limits of detection (usually 0.0%). An X-Ray Fluorescent (XRF) instrument is not considered a valid test method.

1.2.14 Personal Sampling

Sampling of airborne lead concentrations within the breathing zone of an employee to determine the 8 hour time weighted average concentration in accordance with 29 CFR 1926.62. Samples shall be representative of the employees' work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of 150 to 225 mm (six to nine inches) and centered at the nose or mouth of an employee.

1.2.15 Physical Boundary

Area physically roped or partitioned off around lead control area to limit unauthorized entry of personnel.

1.3 DESCRIPTION

1.3.1 Description of Work

Construction activities impacting PWL or material containing lead which are covered by this specification include the demolition and/or removal of material containing lead in following condition.

Location of material	Condition
Salt water piping	Well adhered

1.3.2 Coordination with Other Work

The contractor shall coordinate with work being performed in adjacent areas. Coordination procedures shall be explained in the Plan and shall describe how the Contractor will prevent lead exposure to other contractors and/or Government personnel performing work unrelated to lead activities.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval and are submitted for information only. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

For the items with "*" submit a copy to NAVFACFE Environment Office.

SD-01 Preconstruction Submittals

Lead Compliance Plan including CP approval (signature, date, and certification number); G (CME)*

Competent Person qualifications; G (CME)*

Training Certification of workers and supervisors; G (CME)

Lead waste management plan; G (CME)*

Material safety data sheets for all chemicals; G (CME)*

Certification of Medical Examinations; G (CME)

SD-03 Manufacturer's Catalog Data

Vacuum filters; G (CME)

Respirators; G (CME)

Material for chemical removal method; G (CME)

SD-06 Test Reports

Sampling results; G (CME)

Occupational and Environmental Assessment Data Report; G (CME)

SD-07 Certificates

Testing laboratory qualifications; G (CME)*

Clearance Certification; G (CME)

SD-08 Instructions

Chemicals removal method;

1.5 QUALITY ASSURANCE

1.5.1 Qualifications

1.5.1.1 Competent Person (CP)

Submit name, address, and telephone number of the CP selected to perform responsibilities specified in paragraph titled "Competent Person (CP) Responsibilities." Provide previous experience of the CP. Submit proper documentation that the CP is trained and licensed in accordance with federal, or local laws.

1.5.1.2 Training Certification

Submit a certificate for each employee, signed and dated by the approved training source, stating that the employee has received the required lead training.

1.5.1.3 Testing Laboratory

Submit the name, address, and telephone number of the testing laboratory selected to perform the air and wipe analysis, testing, and reporting of airborne concentrations of lead. Use a laboratory participating in the EPA National Lead Laboratory Accreditation Program (NLLAP) by being accredited by either the American Association for Laboratory Accreditation (A2LA) or the American Industrial Hygiene Association (AIHA) and that is successfully participating in the Environmental Lead Proficiency Analytical Testing (ELPAT) program to perform sample analysis. Laboratories selected to perform blood lead analysis shall be OSHA approved.

1.5.2 Requirements

1.5.2.1 Competent Person (CP) Responsibilities

- a. Verify training meets all federal, and local requirements.
- b. Review and approve Lead Compliance Plan for conformance to the applicable referenced standards.
- c. Continuously inspect PWL or MCL work for conformance with the approved plan.
- d. Perform (or oversee performance of) air and wipe sampling. Recommend upgrades or downgrades (whichever is appropriate based on exposure) on the use of PPE (respirators included) and engineering controls.
- e. Ensure work is performed in strict accordance with specifications at all times.
- f. Control work to prevent hazardous exposure to human beings and to the environment at all times.
- g. Supervise final cleaning of the lead control area, take clearance wipe samples if necessary; review clearance sample results and make recommendations for further cleaning.
- h. Certify the conditions of the work as called for elsewhere in this specification.

1.5.2.2 Lead Compliance Plan

Prior to initiating LBP abatement work on site, submit a detailed job-specific plan of the work procedures to be used in the disturbance of PWL or MCL for approval. Perform the work in accordance with approved lead compliance plan. The plan shall include a sketch showing the location, size, and details of lead control areas, critical barriers, physical boundaries, location and details of decontamination facilities, viewing ports, and mechanical ventilation system. Include a description of equipment and materials, work practices, controls and job responsibilities for each activity from which lead is emitted. Include in the plan, eating, drinking, smoking, hygiene facilities and sanitary procedures, interface of trades, sequencing of lead related work, collected waste water and dust containing lead and debris, air sampling, respirators, personal protective equipment, and a detailed description of the method of containment of the operation to ensure that lead is not released outside of the lead control area. Include site preparation, cleanup and clearance procedures. Include occupational and environmental sampling, training and strategy, sampling and analysis strategy and methodology, frequency of sampling, duration of sampling, and qualifications of sampling personnel in the air sampling portion of the plan. Include a description of arrangements made among contractors on multicontractor worksites to inform affected employees and to clarify responsibilities to control exposures.

1.5.2.3 Occupational and Environmental Assessment Data Report

If initial monitoring is necessary, submit occupational and environmental [sampling results](#) to the Contracting Officer within three working days of collection, signed by the testing laboratory employee performing the analysis, the employee that performed the sampling, and the CP.

In order to reduce the full implementation of [29 CFR 1926.62](#), the Contractor shall provide documentation. Submit a report that supports the determination to reduce full implementation of the requirements of [29 CFR 1926.62](#) and supporting the Lead Compliance Plan.

- a. The initial monitoring shall represent each job classification, or if working conditions are similar to previous jobs by the same employer, provide previously collected exposure data that can be used to estimate worker exposures per [29 CFR 1926.62](#). The data shall represent the worker's regular daily exposure to lead for stated work.
- b. Submit worker exposure data gathered during the task based trigger operations of [29 CFR 1926.62](#) with a complete process description. This includes manual demolition, manual scraping, manual sanding, heat gun, power tool cleaning, rivet busting, cleanup of dry expendable abrasives, abrasive blast enclosure removal, abrasive blasting, welding, cutting and torch burning where lead containing coatings are present.
- c. The initial assessment shall determine the requirement for further monitoring and the need to fully implement the control and protective requirements including the lead compliance plan per [29 CFR 1926.62](#).

1.5.3 Medical Examinations

Before exposure to lead-contaminated dust, provide workers with a comprehensive medical examination to check blood lead levels under 40µg/dl.

The examination will not be required if adequate records show that employees have been examined within the last year. Maintain complete and accurate medical records of employees for a period of at least 30 years or for the duration of employment plus 30 years, whichever is longer.

1.5.3.1 Training

Train each employee performing work that disturbs lead, who performs MCL/PWL disposal, and air sampling operations prior to the time of initial job assignment and annually thereafter, in accordance with 29 CFR 1926.21, 29 CFR 1926.62, and local regulations where appropriate.

1.5.3.2 Respiratory Protection Program

- a. Provide each employee required to wear a respirator a respirator fit test at the time of initial fitting and at least annually thereafter as required by 29 CFR 1926.62.
- b. Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1926.103, 29 CFR 1926.62, and 29 CFR 1926.55.

1.5.3.3 Hazard Communication Program

Establish and implement a Hazard Communication Program as required by 29 CFR 1926.59.

1.5.3.4 Lead Waste Management

The Lead Waste Management Plan shall comply with applicable requirements of federal, and local regulations. and address:

- a. Identification and classification of LBP wastes associated with the work.
- b. Estimated quantities of wastes to be generated and disposed of.

Names and qualifications of each contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location and operator and a 24-hour point of contact. Furnish two copies of local industrial waste permits and Identification numbers.

- c. Names and qualifications (experience and training) of personnel who will be working on-site with industrial wastes.
- d. List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.
- e. Spill prevention, containment, and cleanup contingency measures including a health and safety plan to be implemented in accordance with 29 CFR 1926.65.
- f. Work plan and schedule for waste containment, removal and disposal. Wastes shall be cleaned up and containerized daily.
- g. Include any process that may alter or treat waste rendering a hazardous waste non hazardous.
- h. Unit cost for hazardous waste disposal according to this plan.

1.5.4 Pre-Construction Conference

Along with the CP, meet with the Contracting Officer to discuss in detail the Lead Waste Management Plan and the Lead Compliance Plan, including procedures and precautions for the work.

1.6 EQUIPMENT

1.6.1 Respirators

Furnish appropriate respirators approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 29 CFR 1926.62.

1.6.2 Special Protective Clothing

Furnish personnel who will be exposed to lead-contaminated dust with proper disposable uncontaminated, reusable protective whole body clothing, head covering, gloves, and foot coverings as required by 29 CFR 1926.62. Dispose of reusable protective whole body clothing as industrial waste after completion of the project. Furnish proper disposable plastic or rubber gloves to protect hands. Reduce the level of protection only after obtaining approval from the CP.

1.6.3 Rental Equipment Notification

If rental equipment is to be used during lead based paint handling and disposal, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy of the written notification to the Contracting Officer.

1.6.4 Vacuum Filters

UL 586 labeled HEPA filters.

1.6.5 Equipment for Government Personnel

Furnish the Contracting Officer with two complete sets of personal protective equipment (PPE) daily, as required herein, for entry into and inspection of the lead removal work within the lead controlled area. Personal protective equipment shall include disposable whole body covering, including appropriate foot, head, eye, and hand protection. PPE shall remain the property of the Contractor. The Government will provide respiratory protection for the Contracting Officer.

1.7 PROJECT/SITE CONDITIONS

1.7.1 Protection of Existing Work to Remain

Perform work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition or better as determined by the Contracting Officer.

PART 2 PRODUCTS

2.1 CHEMICALS

Submit applicable Material Safety Data Sheets for all chemicals used in paint removal work. Use the least toxic product approved by the Contracting Officer.

2.1.1 Chemical Stripper

Shall consist of chemical stripper and non-phosphate ion detergent for cleaning, in accordance with the approved manufacturer. Chemical stripper shall not contain dichloromethane and methylene chloride, shall not produce harmful fumes for workers, and shall not burn skin of workers.

PART 3 EXECUTION

3.1 PREPARATION

3.1.1 Protection

3.1.1.1 Notification

- a. Notify the Contracting Officer 20 days prior to the start of any paint removal work.

3.1.1.2 Lead Control Area Requirements

- a. Boundary Requirements - Provide physical boundaries around the lead control area by roping off the area designated in the work plan or providing curtains, portable partitions or other enclosures to ensure that lead will not escape outside of the lead control area.
- b. Warning Signs - Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 29 CFR 1926.62.

3.1.1.3 Decontamination Shower Facility

Provide clean and contaminated change rooms and shower facilities in accordance with this specification.

3.1.1.4 Decontamination Area

Provide two layers of vinyl sheet area or plastic room next to the control area and provide HEPA filtered vacuuming equipment. Rope off at the perimeter of the decontamination area and post with warning signs.

3.1.1.5 Eye Wash Station

Where eyes may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes shall be provided within the work area.

3.1.1.6 Personnel Protection

Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking or application of cosmetics is not permitted in the lead control area. No one will be permitted in the lead control area unless they have been appropriately trained and provided with protective equipment.

3.2 ERECTION

3.2.1 Lead Control Area Requirements

Establish a lead control area by completely establishing barriers and physical boundaries around the area or structure where PWL or MCL removal operations will be performed.

3.3 APPLICATION

3.3.1 Lead Work

Perform lead work in accordance with approved Lead Compliance Plan. Use procedures and equipment required to limit occupational exposure and environmental contamination with lead when the work is performed in accordance with 29 CFR 1926.62 or 40 CFR 745, and as specified herein. Dispose of all PWL or MCL and associated waste in compliance with federal, State, and local requirements.

3.3.2 Paint with Lead or Material Containing Lead Removal

Manual or power sanding or grinding of lead surfaces or materials is not permitted unless tools are equipped with HEPA attachments or wet methods. The dry sanding or grinding of surfaces that contain lead is prohibited. Provide methodology for removing lead in the Lead Compliance Plan. Select lead removal processes to minimize contamination of work areas outside the control area with lead-contaminated dust or other lead-contaminated debris or waste and to ensure that unprotected personnel are not exposed to hazardous concentrations of lead. Describe this removal process in the Lead Compliance Plan.

3.3.2.1 Paint with Lead or Material Containing Lead - Indoor Removal

Perform manual removal in the lead control areas using enclosures, barriers or containments and powered locally exhausted tools. Collect residue debris for disposal in accordance with federal, State, and local requirements.

3.3.2.2 Paint with Lead or Material Containing Lead - Outdoor Removal

Perform outdoor removal as indicated in federal, State, and local regulations and in the Lead Compliance Plan. The worksite preparation (barriers or containments) shall be job dependent and presented in the Lead Compliance Plan.

3.3.2.3 Paint with Lead or Material Containing Lead - Minor Removal

Perform LBP removal work, no LBP scattering are expected, by provision of drop cloth to catch paint chips/dust and wrap those LBP and drop cloth to dispose as a Hazardous Waste. Do not let the removed paint and chemical waste go down the sewer system, into water or onto soil.

- a. Loosening bolt (well adhered): Do not give any damage on the surface to become the cause of LBP scattering. Lose the mounting screw/bolt and remove items.
- b. Saw cutting (well adhered): Lap the cutting spot with duct tape and keep the spot wet condition with spraying penetrating lubricant agent while cutting. Cut to short pieces for handling. Each short piece shall be less than two meters. Do not gas-cut LBP coated materials and do not give any damage on the surface to become the cause of LBP scattering.
- c. Saw cutting (not well adhered): For existing LBP surface and is partially not well adhered. Before removal, apply paint coating over the existing LBP to fix to prevent scattering of the deteriorated LBP. For saw cutting work, lap the cutting spot with duct tape and keep the spot wet condition with spraying penetrating lubricant agent while cutting. Cut to short pieces for handling. Each short piece shall be less than two meters. Do not gas-cut LBP coated materials and do not give any damage on the surface to become the cause of LBP scattering.
- d. Gas cutting: Remove existing LBP on steel surface to be gas cutting by applying chemical stripper, within 150 mm of the cut line on all side, in accordance with the approved chemical stripping methodology. After completion of removal work of LBP, surfaces shall be cleaned with wet rag including approved non-phosphate ion detergent for cleaning that shall bind residual lead particle. Surfaces bare by chemical stripping shall be neutralized.
- e. Drilling: Prior to drilling on surface, provide fine spray of water and remove existing LBP with wet type sanding paper at least 30 mm around for preventing LBP scattering. After completion of LBP removal, surfaces shall be cleaned with wet rag. Touch up damaged paint as specified in Section 09 90 00, "Paints and Coatings".

3.3.2.4 Paint with Lead or Material Containing Lead - Over Coat on Lead-based Painted Surface

Existing paint on existing steel surface is lead-based paint(LBP) and well adhered condition. Paint over-coat paint on lead-based painted surface as specified in Section 09 90 00, "Paints and Coatings", and do not give any damage on existing surface to be caused of LBP scattering.

Submit Lead Compliance Plan to obtain the Contracting Officer's approval before starting paint work.

3.3.3 Personnel Exiting Procedures

Whenever personnel exit the lead-controlled area, they shall perform the following procedures and shall not leave the work place wearing any clothing or equipment worn in the control area:

- a. Vacuum all clothing before entering the decontamination area or contaminated change room.
- b. Remove protective clothing in the contaminated change room, and place them in an approved impermeable disposal bag.
- c. Change to clean clothes prior to leaving the clean clothes storage area.

3.4 FIELD QUALITY CONTROL

3.4.1 Tests

3.4.1.1 Air and Wipe Sampling

Conduct sampling for lead in accordance with 29 CFR 1926.62 and as specified herein. Air and wipe sampling shall be directed or performed by the CP.

- a. The CP shall be on the job site directing the air and wipe sampling and inspecting the PWL or MCL removal work to ensure that the requirements of the contract have been satisfied during the entire PWL or MCL operation.
- b. Collect personal air samples on employees who are anticipated to have the greatest risk of exposure as determined by the CP. In addition, collect air samples on at least twenty-five percent of the work crew or a minimum of two employees, whichever is greater, during each work shift.
- c. Submit results of air samples, signed by the CP, within 72 hours after the air samples are taken.
- d. Conduct area air sampling daily, on each shift in which lead-based paint removal operations are performed, in areas immediately adjacent to the lead control area. Sufficient area monitoring shall be conducted to ensure unprotected personnel are not exposed at or above 30 micrograms per cubic meter of air. If 30 micrograms per cubic meter of air is reached or exceeded, stop work, correct the condition(s) causing the increased levels. Notify the Contracting Officer immediately. Determine if condition(s) require any further change in work methods. Removal work shall resume only after the CP and the Contracting Officer give approval.

3.4.1.2 Sampling After Removal

After the visual inspection, collect wipe samples to determine the lead content of settled dust in micrograms per square meter foot of surface area.

3.4.1.3 Testing of Material Containing Lead Residue

Test residue in accordance with JEGS for hazardous waste.

3.5 CLEANING AND DISPOSAL

3.5.1 Cleanup

Maintain surfaces of the lead control area free of accumulations of dust and debris. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use pressurized air to clean up the area. At the end of each shift and when the lead operation has

been completed, clean the controlled area of visible contamination by vacuuming with a HEPA filtered vacuum cleaner, wet mopping the area and wet wiping the area as indicated by the Lead Compliance Plan. Reclean areas showing dust or debris. After visible dust and debris is removed, wet wipe and HEPA vacuum all surfaces in the controlled area. If adjacent areas become contaminated at any time during the work, clean, visually inspect, and then wipe sample all contaminated areas. The CP shall then certify in writing that the area has been cleaned of lead contamination before clearance testing.

3.5.1.1 Clearance Certification

The CP shall certify in writing that air samples collected outside the lead control area during paint removal operations are less than 30 micrograms per cubic meter of air; the respiratory protection used for the employees was adequate; the work procedures were performed in accordance with 29 CFR 1926.62; and that there were no visible accumulations of material and dust containing lead left in the work site. Do not remove the lead control area or roped off boundary and warning signs prior to the Contracting Officer's acknowledgement of receipt of the CP certification.

Clear the lead control area in industrial facilities of all visible dust and debris.

3.5.2 Disposal and Turn-In

LBP and lead-contaminated waste resulting from demolition work, except as specified otherwise, shall become the property of the Government and shall be disposed as specified herein.

- a. Collect LBP, lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing which may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1926.62 and JEGS.
- b. Turn-in the LBP and lead-contaminated waste material in accordance with Section 01 74 19 "Construction and Demolition Waste Management", Section 01 57 19.00 20 "Temporary Environmental Controls", and DOD JEGS.
- c. Store LBP and lead-contaminated waste materials in approved container. The container shall comply with DOD JEGS. Properly label each container to identify the type of waste and the date the container was filled. The Contracting Officer or an authorized representative will assign an area for interim storage of the container.
- d. Handle, store, transport, and turn-in LBP and lead-contaminated waste in accordance with DOD JEGS, local prefectural, and GOJ environmental regulatory agencies.

-- End of Section --

SECTION 03 30 00

CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 REFERENCES

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

JAPANESE INDUSTRIAL STANDARD (JIS)

JIS A 5005	Crushed Stone and Manufactured Sand for Concrete
JIS A 5308	Ready-Mixed Concrete
JIS A 6204	Chemical Admixtures for Concrete
JIS R 5210	Portland Cement

JAPANESE ARCHITECTURAL STANDARD SPECIFICATION (JASS)

JASS 5	Reinforced Concrete Work
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1.2 DEFINITIONS

- a. "Cementitious material" as used herein must include all Portland cement, pozzolan, fly ash, ground granulated blast-furnace slag, and silica fume.
- b. "Exposed to public view" means situated so that it can be seen from eye level from a public location after completion of the building. A public location is accessible to persons not responsible for operation or maintenance of the building.
- c. "Chemical admixtures" are materials in the form of powder or fluids that are added to the concrete to give it certain characteristics not obtainable with plain concrete mixes.
- d. "Workability (or consistence)" is the ability of a fresh (plastic) concrete mix to fill the form/mould properly with the desired work (vibration) and without reducing the concrete's quality. Workability depends on water content, chemical admixtures, aggregate (shape and size distribution), cementitious content and age (level of hydration).

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00
SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Installation drawing of concrete encasement;

SD-05 Design Data

Concrete mix design;

Thirty days minimum prior to concrete placement, submit a mix design for each strength and type of concrete.

1.4 MODIFICATION OF REFERENCES

Accomplish work in accordance with JASS 5 publications except as modified herein. Consider the advisory or recommended provisions to be mandatory. Interpret reference to the "Building Official," the "Structural Engineer," and the "Architect/Engineer" to mean the Contracting Officer.

1.5 DELIVERY, STORAGE, AND HANDLING

Do not deliver concrete until vapor barrier, forms, reinforcement, embedded items, and chamfer strips are in place and ready for concrete placement. JASS 5 for job site storage of materials. Protect materials from contaminants such as grease, oil, and dirt. Ensure materials can be accurately identified after bundles are broken and tags removed. Do not store concrete curing compounds or sealers with materials that have a high capacity to adsorb volatile organic compound (VOC) emissions. Do not store concrete curing compounds or sealers in occupied spaces.

PART 2 PRODUCTS

2.1 MATERIALS FOR FORMS

Provide wood, plywood, plastic, carton, or steel. Use plywood or steel forms where a smooth form finish is required.

2.2 FORM TIES AND ACCESSORIES

The use of wire alone is prohibited. Provide form ties and accessories that do not reduce the effective cover of the reinforcement.

2.3 CONCRETE

2.3.1 Contractor-Furnished Concrete Mix Design

JIS A 5308 and JASS 5, except as otherwise specified. Indicate the compressive strength of the concrete for each portion of the structure(s) as specified below.

Material	28-day Compressive Strength (N/mm ²)	Range of Slump (cm)	Maximum Nominal Aggregate Size (mm)
Normal Concrete (Non-reinforced)	21	18	20

Ready-mixed concrete manufacturer shall provide duplicate delivery tickets

with each load of concrete delivered. Provide delivery tickets with the following information:

- Type and brand cement
- Cement content
- Maximum size of aggregate
- Amount and brand name of admixtures
- Total water content expressed by water/cement ratio

2.3.1.1 Water-Cement Ratio

Shall not exceed 65 percent.

2.3.1.2 Air Content

Normal concrete: 4.5%

2.3.2 Non-shrink Concrete

Consist of concrete and non-shrink agent, suitable to use at piping penetration for sealing. Prepare in accordance with instructions of non-shrink agent manufacturer.

2.3.3 Materials

2.3.3.1 Cement

JIS R 5210, normal Portland cement.

2.3.3.2 Aggregate for Concrete

JIS A 5005

2.3.3.3 Water

JIS A 5308, Appendix-C.

2.3.3.4 Admixtures

JIS A 6204

2.3.3.5 Non-shrink Agent

JIS A 6202.

2.4 MISCELLANEOUS

2.4.1 Non-shrink Waterproof Cement Mortar

Consist of Portland cement (JIS R 5210, normal), aggregate, water, non-shrink agent, and waterproof agent. Provide suitable type material to use at piping penetration for sealing. Prepare in accordance with JASS 15 and instructions of manufacturer.

PART 3 EXECUTION

3.1 WORK PROCEDURE

In accordance with JASS 5, JASS 15, and Standard Specification for Concrete Structures ("Concrete Hyoujun Shihousho").

-- End of Section --

SECTION 07 92 00.00 33

SEALANT

PART 1 GENERAL

1.1 REFERENCES

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

JAPANESE INDUSTRIAL STANDARD (JIS)

JIS A 5758 Sealants for Sealing and Glazing in Buildings

JAPANESE ARCHITECTURAL STANDARD SPECIFICATION (JASS)

JASS 8 Waterproofing and Sealing

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Installation details of sealant at pipe penetration;

SD-03 Product Data

Sealant;

1.3 ENVIRONMENTAL CONDITIONS

Apply sealant when the ambient temperature is between 4 and 32 degrees C (40 and 90 degrees F).

1.4 DELIVERY AND STORAGE

Deliver materials to the job site in unopened manufacturers' external shipping containers, with brand names, date of manufacture, color, and material designation clearly marked thereon. Label elastomeric sealant containers to identify type, class, grade, and use. Carefully handle and store materials to prevent inclusion of foreign materials or subjection to sustained temperatures exceeding 32 degrees C (90 degrees F) or less than 4 degrees C (0 degrees F).

1.5 QUALITY ASSURANCE

1.5.1 Compatibility with Substrate

Verify that each of the sealants are compatible for use with joint substrates.

1.5.2 Joint Tolerance

Provide joint tolerances in accordance with manufacturer's printed instructions.

1.5.3 Mock-Up

Project personnel is responsible for installing sealants in mock-up or prepared by other trades, using materials and techniques approved for use on the project.

1.6 SPECIAL WARRANTY

Guarantee sealant joint against failure of sealant and against water penetration through each sealed joint for five years.

PART 2 PRODUCTS

2.1 SEALANTS

Provide sealant that has been tested and found suitable for the substrates to which it will be applied.

2.1.1 Sealant

JIS A 5758, Type F, modified silicon(MS), and polysulfide(PS).

2.1.2 Primers

Provide a nonstaining, quick-drying type and consistency recommended by the sealant manufacturer for the particular application.

2.1.3 Cleaning Solvents

Provide type(s) recommended by the sealant manufacturer.

PART 3 EXECUTION

3.1 WORK PROCEDURE

In accordance with JASS 8, and each manufacturer's installation instruction.

-- End of Section --

SECTION 09 90 00

PAINTS AND COATINGS

PART 1 GENERAL

1.1 REFERENCES

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

JAPANESE INDUSTRIAL STANDARD (JIS)

JIS K 5516 Ready Mixed Paint (Synthetic Resin Type)

JIS K 5551 Epoxy Resin Paint

JAPANESE ARCHITECTURAL STANDARD SPECIFICATION (JASS)

JASS 18 Paint Work

LAW OF THE GOVERNMENT OF JAPAN

Ordinance on Prevention of Organic Solvent Poisoning

The Japanese Industrial Safety and Health Act

THE SOCIETY FOR PROTECTIVE COATINGS (SSPC)

SSPC PA Guide 3 A Guide to Safety in Paint Application

SSPC SP 1 Solvent Cleaning

JAPAN PAINT MANUFACTURER'S ASSOCIATION (JPMA) PUBLICATION

JPMA Paint Color Samples

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.1000 Air Contaminants

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

FED-STD-595 Colors Used in Government Procurement

ASME INTERNATIONAL (ASME)

ASME A13.1 Scheme for the Identification of Piping System

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Paint materials; G (CI)

SD-07 Certificates

Applicator's qualifications;

SD-08 Manufacturer's Instructions

Manufacturer's safety data sheets (SDS);

1.3 APPLICATOR'S QUALIFICATIONS

1.3.1 Contractor Qualification

Submit the name, address, telephone number, FAX number, and e-mail address of the contractor that will be performing all surface preparation and coating application. Submit evidence that key personnel have successfully performed surface preparation and application of coatings on a minimum of three similar projects within the past three years. List information by individual and include the following:

- a. Name of individual and proposed position for this work.
- b. Information about each previous assignment including:

Position or responsibility
Employer (if other than the Contractor)
Name of facility owner
Mailing address, telephone number, and telex number of facility owner
Name of individual in facility owner's organization who can be contacted as a reference
Location, size and description of structure
Dates work was carried out
Description of work carried out on structure

1.4 REGULATORY REQUIREMENTS

1.4.1 Environmental Protection

In addition to requirements specified elsewhere for environmental protection, provide coating materials that conform to the restrictions of the local Air Pollution Control District and regional jurisdiction. Notify Contracting Officer of any paint specified herein which fails to conform.

1.4.2 Lead Content

Do not use coatings having a lead content over 0.06 percent by weight of nonvolatile content.

1.4.3 Chromate Content

Do not use coatings containing zinc-chromate or strontium-chromate.

1.4.4 Asbestos Content

Materials shall not contain asbestos.

1.4.5 Mercury Content

Materials shall not contain mercury or mercury compounds.

1.4.6 Silica

Abrasive blast media shall not contain free crystalline silica.

1.5 PACKAGING, LABELING, AND STORAGE

Paints shall be in sealed containers that legibly show the contract specification number, designation name, formula or specification number, batch number, color, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name and address of manufacturer. paints shall be furnished in containers not larger than 20 liters (5 gallons). Paints and thinners shall be stored in accordance with the manufacturer's written directions, and as a minimum, stored off the ground, under cover, with sufficient ventilation to prevent the buildup of flammable vapors, and at temperatures between 4 to 35 degrees C (40 to 95 degrees F). Do not store paint, polyurethane, varnish, or wood stain products with materials that have a high capacity to adsorb VOC emissions. Do not store paint, polyurethane, varnish, or wood stain products in occupied spaces.

1.6 SAFETY AND HEALTH

Apply coating materials using safety methods and equipment in accordance with the following:

1.6.1 Safety Methods

Used during Coating Application Comply with the requirements of [SSPC PA Guide 3](#).

1.6.2 Toxic Materials

To protect personnel from overexposure to toxic materials, conform to the most stringent guidance of:

- a. The applicable manufacturer's Safety Data Sheets (SDS) or local regulation.
- b. [29 CFR 1910.1000](#).
- c. [The Japanese Industrial Safety and Health Act](#).
- d. Japanese Regulation of [Ordinance on Prevention of Organic Solvent Poisoning](#)

1.7 ENVIRONMENTAL CONDITIONS

Comply, at minimum, with manufacturer recommendations for space ventilation during and after installation.

1.7.1 Coatings

Do not apply coating when air or substrate conditions are:

- a. Less than 3 degrees C (37.4 degrees F) above dew point;
- b. Below 10 degrees C (50 degrees F) or over 35 degrees C (95 degrees F), unless specifically pre-approved by the Contracting Officer and the product manufacturer. Under no circumstances shall application conditions exceed manufacturer recommendations.

1.7.2 Post-Application

Vacate space for as long as possible after application. Wait a minimum of 48 hours before occupying freshly painted rooms. Maintain one of the following ventilation conditions during the curing period, or for 72 hours after application:

- a. Supply 100 percent outside air 24 hours a day.
- b. Supply airflow at a rate of 6 air changes per hour, when outside temperatures are between 55 degrees F (13 degrees C) and 85 degrees F (29 degrees C) and humidity is between 30 percent and 60 percent.
- c. Supply airflow at a rate of 1.5 air changes per hour, when outside air conditions are not within the range stipulated above.

1.8 SCHEDULING

Allow paint, polyurethane, varnish, and wood stain installations to cure prior to the installation of materials that adsorb VOCs.

1.9 COLOR AND TEXTURE SELECTION

Color and texture of finish coats shall be as indicated or specified. Where not indicated or specified, colors, type of paint (such as gloss, semi-gloss, etc.), and texture shall be selected by the Contracting Officer from samples of JPMA, latest edition.

1.10 LOCATION AND SURFACE TYPE TO BE PAINTED

1.10.1 Painting Included

Where a space or surface is indicated to be painted, include the following unless indicated otherwise.

- a. Flange bolts and nuts, handles of outlet valve, and reused stainless steel support bands.
- b. New factory finished surfaces that require identification or color coding and factory finished surfaces that are damaged during performance of the work.

- c. Existing coated surfaces that are damaged during performance of the work.

1.10.2 Painting Excluded

Do not paint the following unless indicated otherwise.

- a. Surfaces concealed and made inaccessible by panelboards, fixed ductwork, machinery, and equipment fixed in place.
- b. Surfaces in concealed spaces. Concealed spaces are defined as enclosed spaces above suspended ceilings, furred spaces, attic spaces, crawl spaces, elevator shafts and chases.
- c. Steel to be embedded in concrete.
- d. Copper, stainless steel, aluminum, brass, and lead except existing coated surfaces and support bands.
- e. Hardware, fittings, and other factory finished items.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Above Ground Steel Piping (Salt Water)

Primer: Shop applied anti-corrosive paint, in accordance with the top coat manufacturer.

Top Coat: Ready mixed paint, synthetic resin type, JIS K 5516, Type 1.

Anti-corrosive primer: Modified epoxy resin primer, JIS K 5551.

PART 3 EXECUTION

3.1 PROTECTION OF AREAS AND SPACES NOT TO BE PAINTED

Prior to surface preparation and coating applications, remove, mask, or otherwise protect, hardware, hardware accessories, machined surfaces, radiator covers, plates, lighting fixtures, public and private property, and other such items not to be coated that are in contact with surfaces to be coated. Following completion of painting, workmen skilled in the trades involved shall reinstall removed items. Restore surfaces contaminated by coating materials, to original condition and repair damaged items.

3.2 SURFACE PREPARATION

Remove dirt, splinters, loose particles, grease, oil, disintegrated coatings, and other foreign matter and substances deleterious to coating performance as specified for each substrate before application of paint or surface treatments. Oil and grease shall be removed prior to mechanical

cleaning. Cleaning shall be programmed so that dust and other contaminants will not fall on wet, newly painted surfaces. Exposed ferrous metals such as nail heads on or in contact with surfaces to be painted with water-thinned paints, shall be spot-primed with a suitable corrosion-inhibitive primer capable of preventing flash rusting and compatible with the coating specified for the adjacent areas.

Existing paint on steel surface contains lead-based paint(LBP). Handling of LBP which is encountered during surface preparation shall conform to Section 02 82 13.00 20, "LEAD IN CONSTRUCTION".

3.2.1 Steel Piping

Solvent clean in accordance with SSPC SP 1 to remove oil and grease.

3.3 APPLICATION

Apply coating materials in accordance with JASS 18, the each paint and coating manufacturer's instruction, and specified hereinafter. Maintain SDS of all chemicals at the work site.

3.3.1 Steel Piping

Apply anticorrosive paint at shop and two top coats, in accordance with the top coat manufacturer.

Apply anticorrosive paint in accordance with the top coat manufacturer, and two top coats, synthetic resin type ready mixed paint, JIS K 5516, in the rate of 0.08 kg/m² per one coat, in accordance with JASS 18, "Synthetic Resin Type Ready Mixed Paint", Type B.

3.4 IDENTIFICATION SYSTEMS FOR MECHANICAL PIPE

3.4.1 Pipe Color Code and Identification

Color Coding for Shore-To-Ship Utility Connections: Paint hose connection fittings and shut-off valves the designated color. In addition to color coding provide labels to identify contents of pipes and arrows to show direction of flow. Labels shall have color coded background to signify levels of hazard in accordance with ASME A13.1. Legends and type and size of characters shall also conform as ASME A13.1. Make labels of plastic sheet with pressure sensitivity suitable for the intended applications, or they may be premolded of plastic to fit over pipe.

On piping not covered by ASME A13.1, stencil approved names or code letters, in letters a minimum of 13 mm (1/2 inch) high for piping and a minimum of 50 mm (2 inches) high elsewhere. Stencil arrow-shaped markings on piping to indicate direction of flow using black stencil paint.

Color Coding for Shore-to-Ship Utility Connections

<u>Service</u>	<u>Color</u>	<u>FED-STD-595 No.</u>
Water Provided for Fire Protection**	Red	11105

** This includes non-potable salt water or, at some locations, fresh water connections provided for fire protection (may also include flushing and cooling requirements). Note: This does not include waterfront fire hydrants.

-- End of Section --

SECTION 23 03 00.00 20

BASIC MECHANICAL MATERIALS AND METHODS
01/07

PART 1 GENERAL

1.1 RELATED REQUIREMENTS

This section applies to all sections of Division 22, PLUMBING of this project specification, unless specified otherwise in the individual section.

1.2 QUALITY ASSURANCE

1.2.1 Material and Equipment Qualifications

Provide materials and equipment that are standard products of manufacturers regularly engaged in the manufacture of such products, which are of a similar material, design and workmanship. Standard products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year use shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been for sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2 year period.

1.2.2 Alternative Qualifications

Products having less than a two-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturer's factory or laboratory tests, can be shown.

1.2.3 Service Support

The equipment items shall be supported by service organizations. Submit a certified list of qualified permanent service organizations for support of the equipment which includes their addresses and qualifications. These service organizations shall be reasonably convenient to the equipment installation and able to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract. Satisfactory service includes spare parts availability within one week, and able to visit the site of the equipment within 48 hours by service personnel. After the warranty period, the equipment shall be able to receive the repair service with different expense, includes spare parts supply service within one week and repair technician service within 48 hours.

1.2.4 Modification of References

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction", or words of similar meaning, to mean the Contracting Officer.

1.2.4.1 Definitions

For the International Code Council (ICC) Codes referenced in the contract documents, advisory provisions shall be considered mandatory, the word "should" shall be interpreted as "shall." Reference to the "code official" shall be interpreted to mean the "Contracting Officer." For Navy owned property, references to the "owner" shall be interpreted to mean the "Contracting Officer." For leased facilities, references to the "owner" shall be interpreted to mean the "lessor." References to the "permit holder" shall be interpreted to mean the "Contractor."

1.2.4.2 Administrative Interpretations

For ICC Codes referenced in the contract documents, the provisions of Chapter 1, "Administrator," do not apply. These administrative requirements are covered by the applicable Federal Acquisition Regulations (FAR) included in this contract and by the authority granted to the Officer in Charge of Construction to administer the construction of this project. References in the ICC Codes to sections of Chapter 1, shall be applied appropriately by the Contracting Officer as authorized by his administrative cognizance and the FAR.

1.3 DELIVERY, STORAGE, AND HANDLING

Handle, store, and protect equipment and materials to prevent damage before and during installation in accordance with the manufacturer's recommendations, and as approved by the Contracting Officer. Replace damaged or defective items.

1.4 PIPE PENETRATIONS

Cutting structural members and structural walls for passage of pipes or for pipe-hanger fastenings will not be permitted. Pipes that must penetrate concrete or masonry walls or concrete floors shall be core-drilled or use existing hole and provided with pipe sleeves. Each sleeve shall be galvanized steel pipe and shall extend through its respective wall or floor and be cut flush with each wall surface. Sleeves shall provide required clearance between the pipe and the sleeve. The space between the sleeve and the pipe shall be firmly packed with mineral wool insulation and apply sealant at both end of hole; filled by mechanically adjustable segmented elastomer seal; or filled with concrete as indicated. Sealant shall dry to a firm but pliable mass. Where pipes penetrate fire walls, fire partitions, or floors, pipes shall be fire stopped.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 31 23 00.00 20

EXCAVATION AND FILL

PART 1 GENERAL

1.1 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 Safety and Health Requirements Manual

JAPANESE ARCHITECTURAL STANDARD SPECIFICATION (JASS)

JASS 3 Earthwork and Construction of Earth Retaining
for Excavation

JAPAN ROAD ASSOCIATION(JRA) PUBLICATIONS

Pavement Material Testing Methods Handbook ("Hosou Chousa Shiken-Hou
Binran")

EQUIPMENT PROCUREMENT AND CONSTRUCTION OFFICE(EPCO), MINISTRY OF
DEFENSE, GOVERNMENT OF JAPAN

Standard Specification of Civil Engineering Construction ("Doboku Kouji
Kyoutsuu Shiyousho")

1.2 DEFINITIONS

1.2.1 Degree of Compaction

Degree of compaction is expressed as a percentage of the maximum density obtained by the Test Method for Soil Compaction using Rammer of JRA, Pavement Material Testing Methods Handbook ("Hosou Chousa Shiken-Hou Binran").

1.2.2 Hard Materials

Weathered rock, dense consolidated deposits, or conglomerate materials which are not included in the definition of "rock" but which usually require the use of heavy excavation equipment, ripper teeth, or jack hammers for removal.

1.2.3 Rock

Solid homogeneous interlocking crystalline material with firmly cemented, laminated, or foliated masses or conglomerate deposits, neither of which can be removed without systematic drilling and blasting, drilling and the use of expansion jacks or feather wedges, or the use of backhoe-mounted pneumatic

hole punchers or rock breakers; also large boulders, or buried masonry. Removal of hard material will not be considered rock excavation because of intermittent drilling and blasting that is performed merely to increase production.

1.3 SUBMITTALS

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

SD-01 Preconstruction Submittals

Shoring and Sheeting Plan; G (CME)

Dewatering work plan; G (CME and Environmental Office)

Submit 15 days prior to starting work.

1.4 DELIVERY, STORAGE, AND HANDLING

Perform in a manner to prevent contamination or segregation of materials.

1.5 CRITERIA FOR BIDDING

Base bids on the following criteria:

- a. Surface elevations are as indicated.
- b. Pipes or other artificial obstructions, except those indicated, will not be encountered.

1.6 QUALITY ASSURANCE

1.6.1 Dewatering Work Plan

Submit procedures for accomplishing dewatering work.

1.6.2 Utilities

Movement of construction machinery and equipment over pipes and utilities during construction shall be at the Contractor's risk. Excavation made with power-driven equipment is not permitted within 600 mm (two feet) of known Government-owned utility or subsurface construction. For work immediately adjacent to or for excavations exposing a utility or other buried obstruction, excavate by hand. Start hand or light weight power-driven equipment excavation on each side of the indicated obstruction and continue until the obstruction is uncovered or until clearance for the new grade is assured. Support uncovered lines or other existing work affected by the contract excavation until approval for backfill is granted by the Contracting Officer. Report damage to utility lines or subsurface construction immediately to the Contracting Officer.

PART 2 PRODUCTS

2.1 SAND

"Yamazuna".

PART 3 EXECUTION

3.1 WORK PROCEDURES

In accordance with JASS 3 and Standard Specification of Standard Specification of Civil Engineering Construction ("Doboku Kouji Kyoutsuu Shiyousho"), unless otherwise specified hereinafter.

3.2 PROTECTION

3.2.1 Shoring and Sheeting

Provide shoring and sheeting if necessary. In addition to Section 25 A and B of COE EM 385-1-1 and other requirements set forth in this contract, include provisions in the shoring and sheeting plan that will accomplish the following:

- a. Prevent undermining of pavements, foundations and slabs.
- b. Prevent slippage or movement in banks or slopes adjacent to the excavation.
- c. Allow for the abandonment of shoring and sheeting materials in place in critical areas as the work is completed. In these areas, backfill the excavation to within 900 mm (3 feet) of the finished grade and remove the remaining exposed portion of the shoring before completing the backfill.

3.2.2 Drainage and Dewatering

Plan for and provide the structures, equipment, and construction for the collection and disposal of surface and subsurface water encountered in the course of construction.

3.2.2.1 Drainage

Surface water shall be directed away from excavation and construction sites so as to prevent erosion and undermining of foundations. Diversion ditches, dikes and grading shall be provided and maintained as necessary during construction. Excavated slopes and backfill surfaces shall be protected to prevent erosion and sloughing. Excavation shall be performed so that the site and the area immediately surrounding the site and affecting operations at the site shall be continually and effectively drained.

3.2.2.2 Dewatering

Groundwater flowing toward or into excavations shall be controlled to prevent sloughing of excavation slopes and walls, boils, uplift and heave in the excavation and to eliminate interference with orderly progress of construction. French drains, sumps, ditches or trenches will not be permitted within 0.9 m(3 feet) of the foundation of any structure, except

with specific written approval, and after specific contractual provisions for restoration of the foundation area have been made. Control measures shall be taken by the time the excavation reaches the water level in order to maintain the integrity of the in situ material. While the excavation is open, the water level shall be maintained continuously, at least 0.3 m(1 feet) below the working level.

3.2.3 Underground Utilities

Location of the existing utilities indicated is approximate. The Contractor shall physically verify the location and elevation of the existing utilities indicated prior to starting construction. The Contractor shall contact the Public Works Department for assistance in locating existing utilities, or the Contractor shall scan the construction site with electromagnetic and sonic equipment and mark the surface of the ground where existing underground utilities are discovered.

3.2.4 Machinery and Equipment

Movement of construction machinery and equipment over pipes during construction shall be at the Contractor's risk. Repair, or remove and provide new pipe for existing or newly installed pipe that has been displaced or damaged.

3.3 SURFACE PREPARATION

3.3.1 Unsuitable Material

Remove vegetation, debris, decayed vegetable matter, sod, mulch, and rubbish underneath paved areas or concrete slabs.

3.4 EXCAVATION

Excavate to contours, elevation, and dimensions indicated. Reuse excavated materials that meet the specified requirements for the material type required at the intended location. Keep excavations free from water. Excavate soil disturbed or weakened by Contractor's operations, soils softened or made unsuitable for subsequent construction due to exposure to weather. Excavations below indicated depths will not be permitted except to remove unsatisfactory material. Unsatisfactory material encountered below the grades shown shall be removed as directed. Unless specified otherwise, refill excavations cut below indicated depth with backfill and fill material and compact by suitable rollers or compactors. Satisfactory material removed below the depths indicated, without specific direction of the Contracting Officer, shall be replaced with satisfactory materials to the indicated excavation grade. Determination of elevations and measurements of approved overdepth excavation of unsatisfactory material below grades indicated shall be done under the direction of the Contracting Officer.

3.4.1 Excavated Materials

Satisfactory excavated material required for fill or backfill shall be placed in the proper section of the permanent work required or shall be separately stockpiled if it cannot be readily placed. Satisfactory material in excess of that required for the permanent work and all unsatisfactory material shall be disposed of as specified in Paragraph "DISPOSITION OF SURPLUS MATERIAL."

3.5 FILLING AND BACKFILLING

Fill and backfill to contours, elevations, and dimensions indicated. Compact each lift before placing overlaying lift.

3.5.1 Common Fill Placement

Provide for general site. Use satisfactory materials. Place in 150mm (6 inch) lifts. Compact the areas not accessible to larger rollers with suitable hand operated compactors or tampers. Aerate material excessively moistened by rain to a satisfactory moisture content. Finish to a smooth surface by blading, rolling with a smooth roller, or both.

3.5.2 Backfill and Fill Material Placement

Provide for paved areas and under concrete slabs. Place in 150mm (6 inch) lifts. Do not place over wet or frozen areas. Place backfill material adjacent to structures as the structural elements are completed and accepted. Backfill against concrete only when approved. Place and compact material to avoid loading upon or against the structure.

3.6 COMPACTION

Compact backfill and fill materials uniformly under satisfactory moisture content. Use hand-operated, plate-type, vibratory, or other suitable hand tampers in areas not accessible to larger rollers or compactors.

3.6.1 Compaction of Gravel Course

Compact gravel courses to 95 percent of dry maximum density obtained by the Test Method for Soil Compaction using Rammer of JRA, [Pavement Material Testing Methods Handbook \("Hosou Chousa Shiken-Hou Binran"\)](#).

3.7 FINISH OPERATIONS

3.7.1 Grading

Grade areas to drain water away from structures. Maintain areas free of trash and debris. For existing grades that will remain but which were disturbed by Contractor's operations, grade as directed.

3.7.2 Protection of Surfaces

Protect newly backfilled, graded areas from traffic, erosion, and settlements that may occur. Repair or reestablish damaged grades, elevations, or slopes.

3.8 DISPOSITION OF SURPLUS MATERIAL

Remove from Government property surplus or other soil material not required or suitable for filling or backfilling, and brush, refuse, stumps, roots, and timber.

-- End of Section --

SECTION 32 10 00.00 33

ASPHALT CONCRETE PAVEMENT

PART 1 GENERAL

1.1 REFERENCES

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

JAPAN ROAD ASSOCIATION(JRA) PUBLICATIONS

Pavement Construction Handbook ("Hosou Sekou Binran")

Pavement Recycle Handbook ("Hosou Saisei Binran")

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawing

Installation drawings of AC pavement;
Detail drawings of AC pavement;

SD-06 Test Report

Density and thickness test report;

1.3 QUALITY ASSURANCE

1.3.1 Regulatory Requirements

Provide work and materials in accordance with applicable requirements of JRA.

1.4 DELIVERY AND STORAGE

Inspect materials delivered to the site for damage and store with a minimum of handling. Store aggregates in such a manner as to prevent segregation, contamination, or intermixing of the different aggregate sizes.

1.5 TRAFFIC CONTROL

Vehicular traffic, including heavy equipment, shall not be permitted on the pavement until the surface temperature has cooled to at least 48 degrees C. Surface temperature shall be measured by approved surface thermometers or other satisfactory methods.

1.6 ENVIRONMENTAL REQUIREMENTS

Do not produce or place bituminous concrete when the weather is rainy or foggy, when the base course is frozen or has excess moisture, or when the ambient temperature is less than 4.4 degrees C (40 degrees F) in the shade away from artificial heat.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Asphalt Concrete(AC) Pavement

In accordance with JRA "Pavement Construction Handbook ("Hosou Sekou Binran")".

Asphalt:	Petroleum Asphalt for Pavement
AC Wearing Course	Dense Graded Asphalt mixture (13)
Prime Coat:	PK-3
Tack Coat:	PK-4
Grade Aggregate Base Course:	M-30
Sub Base Course:	RC-40 defined in Pavement Recycle Handbook

PART 3 EXECUTION

3.1 PREPARATION

3.1.1.1 Excavation and Filling

Excavation and filling to establish elevation of subgrade is specified in Section 31 23 00.00 20 EXCAVATION AND FILL.

3.2 CONSTRUCTION

Provide construction in accordance with the applicable requirements of JRA "Pavement Construction Handbook ("Hosou Sekou Binran")", except where indicated or specified otherwise.

3.2.1 Existing Surface Treatments

Where surface treatment of any kind exists in excavations to be made in pavement, restore such surface treatment to the same thickness and in the same kind as previously existed, except as otherwise specified. Restored areas shall match and tie into the adjacent and surrounding existing surfaces in a neat and acceptable manner.

3.2.2 Pavement Removal

Make a straight line cut with neat, parallel, 300 mm wider than trench width on each side of trench and 300 mm beyond each edge of pits to permit proper replacement. Removed pavement, debris and spoil material shall be disposed off from the limits of the station.

3.2.3 Backfilling and Tamping

Replace and compact soil materials under pavement in layers.

3.2.4 Bituminous Surface

Provide a stone base course of 150 mm thick, maximum. Apply a prime coat on the base course at the rate of 1.2 liters residual asphalt per square meter. Paint the cut edge of bituminous pavement with a bituminous tack coat and provide bituminous concrete pavement.

3.2.5 Finished Grades

The finish grades of each course placed shall not vary from the finish elevations, profiles and cross sections indicated on the drawings by more than 13 mm. The Contractor shall correct deficient paved areas by removing existing work and replacing with new materials meeting the specifications without additional cost to the Government. Skin patching for correcting low areas will not be permitted.

-- End of Section --

SECTION 32 13 13.06 33

PORTLAND CEMENT CONCRETE PAVEMENT FOR ROADS AND SITE FACILITIES

PART 1 GENERAL

1.1 REFERENCES

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

U.S. DEPARTMENT OF DEFENSE (DOD)

UFC 3-250-01FA Pavement Design for Roads, Streets, Walks,
and Open Storage Areas

JAPANESE INDUSTRIAL STANDARD (JIS)

JIS G 3551 Welded Steel Wire Fabrics

JIS A 5005 Crushed Stone and Manufactured Sand for
Concrete

JIS A 5308 Ready-Mixed Concrete

JIS A 6204 Chemical Admixtures for Concrete

JIS R 5210 Portland Cement

JAPAN SOCIETY OF CIVIL ENGINEERS

Standard Specification for Concrete Structures ("Concrete Hyoujun
Shihousho")

JAPAN ROAD ASSOCIATION (JRA) PUBLICATIONS

Design and Construction Guide for Pavement ("Hosou Sekkei Sekou Shishinn")

Construction Handbook for Pavement ("Hosou Sekou Binran")

1.2 DESIGN

This materials and construction specification is intended to be used on projects where the design was completed using UFC 3-250-01FA, Standard Specification for Concrete Structures ("Concrete Hyoujun Shihousho"), Design and Construction Guide for Pavement ("Hosou Sekkei Sekou Shishinn"), and Construction Handbook for Pavement ("Hosou Sekou Binran").

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Products Data

Reinforcement

Submit a complete list of materials including type, brand and applicable reference specifications.

SD-05 Design Data

Concrete mix design;

Thirty days minimum prior to concrete placement, submit a mix design, with applicable tests, for each strength and type of concrete for approval. Submit a complete list of materials including type; brand; source and amount of cement, fly ash, slag, and admixtures; and applicable reference specifications.

1.4 DELIVERY, STORAGE, AND HANDLING

Do not deliver concrete until vapor barrier, forms, reinforcement, embedded items, and chamfer strips are in place and ready for concrete placement. [Standard Specification for Concrete Structures \("Concrete Hyoujun Shihousho"\)](#) for job site storage of materials. Protect materials from contaminants such as grease, oil, and dirt. Ensure materials can be accurately identified after bundles are broken and tags removed. Do not store concrete curing compounds or sealers with materials that have a high capacity to adsorb volatile organic compound (VOC) emissions. Do not store concrete curing compounds or sealers in occupied spaces.

1.4.1 Reinforcement

Store reinforcement of different sizes and shapes in separate piles or racks raised above the ground to avoid excessive rusting. Protect from contaminants such as grease, oil, and dirt. Ensure bar sizes can be accurately identified after bundles are broken and tags removed.

1.5 QUALITY ASSURANCE

1.5.1 Batch Tickets

Submit mandatory batch ticket information for each load of ready-mixed concrete.

PART 2 PRODUCTS

2.1 MATERIALS FOR FORMS

2.1.1 Cementitious Materials

[JIS A 5308](#) and [Standard Specification for Concrete Structures \("Concrete Hyoujun Shihousho"\)](#), except as otherwise specified.

Material	28-day Compressive Strength (N/mm ²)	Range of Slump (cm)	Maximum Nominal Aggregate Size (mm)
Normal Concrete (Reinforced)	24	15	20

2.1.1.1 Cement

JIS R 5210, normal Portland cement.

2.1.2 Aggregate for Concrete

JIS A 5005

2.1.3 Water

JIS A 5308, Appendix-C.

2.1.4 Admixtures

JIS A 6204

2.1.5 Reinforcement

2.1.5.1 Welded Wire Mesh

JIS G 3551, Type WFP, as indicated on drawing.

2.1.5.2 Tie Bar

Bars shall be billet or axle steel deformed.

2.1.5.3 Chemical Capsule Shield

Shall be a two-part system composed of a sealed glass capsule containing premeasured amounts of epoxy acrylic resin, quartz sand, and a hardener contained in a separate vial within the capsule.

2.2 COMPACTED GRAVEL COURSE

2.2.1 Compacted Gravel Course (Base Course)

Recycled crush stone, RC-40 defined as Engineering Guide for Plant-recycled Pavement ("Puranto Saisei Hosou Gijutsu Shishin").

2.3 SOIL

Provide soil materials free of debris, roots, wood, scrap material, vegetable matter, refuse, soft unsound particles, ice, or other deleterious and objectionable materials.

2.4 MISCELLANEOUS

2.4.1 Expansion Joint

2.4.1.1 Prefomed Joint Filler

Preformed polyethylene, bituminous joint filler, or suitable material for intended purpose.

2.4.2 Adhesive

Epoxy resin type for concrete placing joint. Consider appropriate usable time to select product from application of the adhesive for casting concrete.

PART 3 EXECUTION

3.1 WORK PROCEDURE

In accordance with [Standard Specification for Concrete Structures \("Concrete Hyoujun Shihousho"\)](#), [Design and Construction Guide for Pavement \("Hosou Sekkei Sekou Shishinn"\)](#), [Construction Handbook for Pavement \("Hosou Sekou Binran"\)](#), and each manufacturer's installation instruction.

3.1.1 Compaction

Construction Handbook for Pavement ("Hosou Sekou Binran").

3.1.2 Finish

Wood trowel finish.

-- End of Section --

SECTION 32 17 23.00 20

PAVEMENT MARKINGS

PART 1 GENERAL

1.1 REFERENCES

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

JAPANESE INDUSTRIAL STANDARDS (JIS)

JIS K 5665 Traffic Paint

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Traffic Paint, with safety data sheet (SDS);

1.3 DELIVERY AND STORAGE

Deliver paints, paint materials and thermoplastic compound materials in original sealed containers that plainly show the designated name, specification number, batch number, color, date of manufacture, manufacturer's directions, and name of manufacturer. Provide storage facilities at the job site for maintaining materials at temperatures recommended by the manufacturer.

1.4 WEATHER LIMITATIONS

Apply paint to clean, dry surfaces, and unless otherwise approved, only when the air and pavement surface temperature is at least 2.7 degrees C (5 degrees) above the dew point and the air and pavement temperatures are above 5 degrees C (40 degrees F) and less than 35 degrees C (95 degrees F) for oil-based materials; above 10 degrees C (50 degrees F) and less than 43 degrees C (110 degrees F) for water-based materials. Maintain paint temperature within these same limits.

1.5 EQUIPMENT

Machines, tools, and equipment used in the performance of the work shall be approved by the Contracting Officer and maintained in satisfactory operating condition. Submit construction equipment list for approval by the Contracting Officer.

1.6 MAINTENANCE OF TRAFFIC

1.6.1 Traffic Controls

Suitable warning signs shall be placed near the beginning of the worksite and well ahead of the worksite for alerting approaching traffic from both directions. Small markers shall be placed along newly painted lines or freshly placed raised markers to control traffic and prevent damage to newly painted surfaces or displacement of raised pavement markers. Painting equipment shall be marked with large warning signs indicating slow-moving painting equipment in operation.

1.6.2 Lighting

When night operations are necessary, all necessary lighting and equipment shall be provided. Lighting shall be directed or shaded to prevent interference with base operations. The Government reserves the right to accept or reject night work on the day following night activities by the Contractor.

1.6.3 Roads, Streets, and Parking Areas

When traffic must be rerouted or controlled to accomplish the work, the necessary warning signs, flag persons, and related equipment for the safe passage of vehicles shall be provided.

1.7 WEATHER LIMITATIONS FOR REMOVAL

Pavement surface shall be free of snow, ice, or slush. Surface temperature shall be at least 5 degrees C (40 degrees F) and rising at the beginning of operations, except those involving shot or sand blasting. Operation shall cease during thunderstorms. Operation shall cease during rainfall, except for waterblasting and removal of previously applied chemicals. Waterblasting shall cease where surface water accumulation alters the effectiveness of material removal.

1.8 QUALIFICATIONS

The Contractor shall submit documentation certifying that pertinent personnel are qualified for equipment operation and handling of chemicals.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Traffic Paint

JIS K 5665, Type Type 3-1.

2.1.2 Reflective Media for Pavement Surface

JIS R 3301, Class 1.

2.2 EQUIPMENT

Machines, tools, and equipment used in the performance of the work shall be approved by the Contracting Officer and maintained in satisfactory operating condition.

2.2.1 Paint Applicator

Provide hand-operated push-type applicator machine of a type commonly used for application of paint to pavement surfaces. Paint applicator machine shall be acceptable for marking small street. Applicator machine shall be equipped with the necessary paint tanks and spraying nozzles, and shall be capable of applying paint uniformly at coverage specified.

PART 3 EXECUTION

3.1 SURFACE PREPARATION

Allow new pavement surfaces to cure for a period of not less than 7 days before application of marking materials. Thoroughly clean surfaces to be marked before application of the paint. Remove dust, dirt, and other granular surface deposits by sweeping, blowing with compressed air, rinsing with water, or a combination of these methods as required. Do not commence painting in any area until pavement and concrete curb surfaces are dry and clean.

3.2 APPLICATION

3.2.1 Rate of Application

3.2.1.1 Reflective Markings (Pavement Surface)

Apply paint (including glass spheres) evenly to the pavement surface to be coated at a rate of minimum 1.5 mm (in dry film thickness).

3.2.2 Painting

Apply paint pneumatically with approved equipment at rate of coverage specified herein. Provide guidelines and templates as necessary to control paint application. Take special precautions in marking numbers, letters, and symbols. Manually paint numbers, letters, and symbols. Sharply outline all edges of markings. The maximum drying time requirements of the paint specifications will be strictly enforced, to prevent undue softening of bitumen, and pickup, displacement, or discoloration by tires of traffic. Discontinue painting operations if there is a deficiency in drying of the markings until cause of the slow drying is determined and corrected.

3.2.3 Reflective Media (for Pavement Surface)

Application of reflective media (minimum 165 g/m²) shall immediately follow the application of paint. Accomplish drop-on application of the glass spheres to ensure even distribution at the specified rate of coverage. Should there be malfunction of either paint applicator or reflective media dispenser, discontinue operations until deficiency is corrected.

3.3 INSPECTION AND DEMONSTRATIONS

3.3.1 Inspection

Examine material at the job site to determine that it is the material referenced in the report of test results or certificate of compliance. A certificate of compliance shall be accompanied by test results substantiating conformance to the specified requirements.

3.3.2 Surface Preparations and Application Procedures

Surface preparations and application procedures will be examined by the Contracting Officer to determine conformance with the requirements specified. Approve each separate operation prior to initiation of subsequent operations.

3.4 TRAFFIC CONTROL AND PROTECTION

Place warning signs near the beginning of the work site and well ahead of the work site for alerting approaching traffic from both directions. Place small markers along newly painted lines to control traffic and prevent damage to newly painted surfaces. Mark painting equipment with large warning signs indicating slow-moving painting equipment in operation. Do not use foil-backed material for temporary pavement marking because of its potential to conduct electricity during accidents involving downed power lines.

-- End of Section --

SECTION 33 11 00

WATER DISTRIBUTION
02/11

PART 1 GENERAL

1.1 REFERENCES

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

JAPANESE INDUSTRIAL STANDARD (JIS)

JIS A 5372	Precast reinforced concrete products
JIS B 1181	Hexagon Nuts and Hexagon Thin Nuts
JIS B 1256	Plain Washers
JIS B 2313	Steel Plate Butt-Welding Pipe Fittings
JIS B 7505-1	Aneroid Pressure Gauges-Part 1:Bourdon Tube Pressure Gauges
JIS G 3101	Rolled Steels for General Structure
JIS G 3112	Steel Bars for Concrete Reinforcement
JIS G 3192	Dimensions, Mass and Permissible Variations of Hot Rolled Steel Sections
JIS G 3193	Dimensions, Mass and Permissible Variations of hot Rolled Steel Plates, Sheets and Strips
JIS G 3452	Carbon Steel Pipes for Ordinary Piping
JIS G 3454	Carbon Steel Pipes for Pressure Service
JIS G 3459	Stainless Steel Pipes

JAPANE WATER WORKS ASSOCIATION (AWWA)

JWWA G 122	Ductile Iron Gate Valve for Water Works
JWWA G 126	Maintenance and Repair work for Water Works
JWWA G 137	Maintenance and Repair work for Water Works
JWWA K 158	Polyethylene Sleeve for Ductile Iron Pipe

1.2 DESIGN REQUIREMENTS

1.2.1 Salt Water Distribution

Provide underground salt water distribution piping and above ground salt water piping, and other associated material as specified and where indicated.

1.3 SUBMITTALS

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

SD-02 Shop Drawing

Piping; G (CI)

Plan and profile section of underground piping.

Detail drawings of HDPE Pipe connections;

Concrete pit wall penetration;

Pump house wall penetration;

Underpass of existing utility trench;

Air Mortar, filling plan and details;

SD-03 Product Data

Submit manufacturer's standard drawings or catalog cuts, except submit both drawings and cuts. Include information concerning gaskets with submittal for joints.

HDPE Piping Materials; G (CI)

Including piping, fittings, joints, and adapters.

Polyethylene lining steel Piping Materials; G (CI)

Including piping and fittings.

Valve for outlet; G (CI)

Band for Pipe support;

Joint filler; G (CI)

Air Mortar; G (CI)

SD-06 Test Reports

Field test;

SD-07 Certificates

Training certificate for HDPE pipe;

Piping, fittings, joints, and adapters;

Certificates shall attest that tests set forth in each applicable referenced publication have been performed, whether specified in that publication to be mandatory or otherwise and that production control tests have been performed at the intervals or frequency specified in the publication. Other tests shall have been performed within 3 years of the date of submittal of certificates on the same type, class, grade, and size of material as is being provided for the project.

SD-08 Manufacturer's Instructions

Installation procedures for HDPE piping; G (CI)

1.4 DELIVERY, STORAGE, AND HANDLING

1.4.1 Delivery and Storage

Inspect materials delivered to site for damage. Unload and store with minimum handling. Store materials on site in enclosures or under protective covering. Store High-Density Polyethylene (HDPE) piping, jointing materials and rubber gaskets under cover out of direct sunlight. Do not store materials directly on the ground. Keep inside of pipes, fittings, and valves free of dirt and debris.

1.4.2 Certificate

Worker shall have certificate for pipe connection and installation issued from HDPE pipe manufacturer.

1.4.3 Handling

Handle pipe, fittings, valves, adapters, and other accessories in a manner to ensure delivery to the trench in sound undamaged condition. Take special care to avoid injury to coatings or linings on pipe and fittings; make repairs if coatings or linings are damaged. Do not place any other material or pipe inside a pipe or fitting after the coating or lining has been applied. Carry, do not drag pipe to the trench. Use of pinch bars and tongs for aligning or turning pipe will be permitted only on the bare ends of the pipe. The interior of pipe and accessories shall be thoroughly cleaned of foreign matter before being lowered into the trench and shall be kept clean during laying operations by plugging or other approved method. Before installation, the pipe shall be inspected for defects. Material found to be defective before or after laying shall be replaced with sound material without additional expense to the Government. Store rubber gaskets that are not to be installed immediately, under cover out of direct sunlight.

PART 2 PRODUCTS

2.1 SALT WATER DISTRIBUTION MATERIALS

2.1.1 Piping Materials

2.1.1.1 Reinforced High-Density Polyethylene (HDPE) Piping

Provide fiber reinforced type HDPE pipe. Fitting shall be fiber reinforced type HDPE or inside and outside polyethylene coated composite 316 stainless steel. Provide fittings and flange adapters as recommended by the HDPE pipe manufacturer. Salt water piping system (pipe, fittings, flange adapters and connection method) shall be 2.0 MPa pressure rating.

a. Flange Connection of Fiber Reinforced HDPE Pipe

Provide flange adapter shall be suitable for companion flange to be connected. Provide flange fastening components that will not cause electrolytic corrosion.

b. Fitting for Terminate Point

Provide "T" fitting, fiber reinforced HDPE or inside and outside polyethylene coated composite 316 stainless steel, which have one blind flange end.

2.1.1.2 Above Ground Steel Piping

Above ground steel piping shall conform to JIS G 3454, STPG370, Sch40 seamless pipe with internal polyethylene lining and JIS 20K flange. Apply corrosion resistant paint in "Fire-Red" as specified in Section 09 90 00 "Paints and Coatings".

2.1.1.3 Ductile-Iron Piping

c. Pipe and Fittings: Ductile pipe type K, 1st-class ("1-shu"). Interior of pipe shall be mortar lined and exterior of pipe coated with the manufacturer standard anti corrosive paint.

Joints for pipe and fittings shall be K-type mechanical joints and JIS 20K type flange joints.

2.1.1.3.1 Erosion Protection Polyethylene Sleeve For Ductile Iron Piping.

Provide JWWA K 158.

2.1.2 Valves

2.1.2.1 Valve for Salt Water Outlet

SCS14A stainless steel valve, 20K, flange connection. Bolt holes of flange shall match to existing companion flange to be connected.

2.1.3 Miscellaneous Items

2.1.3.1 Above Ground Piping Support

2.1.3.1.1 Stainless Steel Band for Existing Concrete Support

JIS G 4304, composition 304.

2.1.3.1.2 Chemical Capsule Shield

Shall be a two-part system composed of a threaded SUS304 stainless steel rod stud and a sealed glass capsule containing premeasured amounts of epoxy acrylic resin, quartz sand, and a hardener contained in a separate vial within the capsule.

2.1.3.1.3 Nut and Washer

JIS B 1181 and JIS B 1256 respectively.

2.1.3.1.4 Joint Filler

Weather resistant rubber sheet having flexibility to fit curved clearance gap between piping and existing concrete support. Hardness shall be 30 or greater conforming to JIS K 6253.

2.1.3.2 Wall Penetration Materials

2.1.3.2.1 Sealing Material

See section 07 92 00.00 33 "SEALANT".

2.1.3.2.2 Mechanical Seal

Consist with Ethylene Propylene Diene Monomer (EPDM) rubber segment, plastic pressure plate, and stainless steel bolt and nut. Tightening bolt and nut deforms rubber to fill gap between pipe and hole. Mechanical seal provides watertight seal and yet keeps flexibility to protect pipe from breakage caused by seismic movement.

2.1.3.2.3 Sleeve

JIS G 3452, SGP.

2.1.3.2.4 Cementitious Material

See section 03 30 00 "Cast-in-place Concrete".

2.1.3.3 Warning Tape

White or similar color base with red color character of standard commercial product manufactured specifically for fire protection piping underground construction. Tape shall be printed with integral warning legend repeated continuously throughout entire length of the tape. Warning and identification shall be "caution, fire water line below (Shouka Kan Chuui)" or similar wording, code, and letters. Coloring shall be permanent, unaffected by moisture and other substances contained in trench backfill material. Provide plastic warning tape about 300mm above top of the buried piping to indicate existence of the buried piping.

2.1.3.4 Tracer Wire for Nonmetallic Piping

Provide bare copper or aluminum wire not less than 2.5 mm(0.10 inch) in diameter in sufficient length to be continuous over each separate run of nonmetallic pipe.

2.2 FILLING MATERIAL FOR EXISTING SALT WATER PIPE TO BE ABANDONED

2.2.1 Air Mortar

Provide suitable mixture and method to fill abandoned existing piping.

PART 3 EXECUTION

3.1 INSTALLATION OF PIPELINES

3.1.1 General Requirements for Installation of Pipelines

These requirements shall apply to all pipeline installation except where specific exception is made in the "Special Requirements for installation of salt water piping" paragraphs.

3.1.1.1 Earthwork

Perform earthwork operations in accordance with Section 31 23 00.00 20 "Excavation and Fill".

3.1.1.2 Pipe Laying and Jointing

Pipe laying and jointing shall be performed in accordance with each pipe manufacturer's jointing/installation instruction. Provide HDPE manufacturer certified worker for HDPE pipe laying and jointing work. Remove fins and burrs from ductile iron pipe and fittings. Before placing in position, clean pipe, fittings, and accessories, and maintain in a clean condition. Provide proper facilities for lowering sections of pipe into trenches. Do not under any circumstances drop or dump pipe, fittings, valves, or any other water line material into trenches. Do not cut SST joint fittings at the site. Cut pipe in a neat workmanlike manner accurately to length established at the site and work into place without springing or forcing. Replace by one of the proper length any pipe or fitting that does not allow sufficient space for proper installation of jointing material. Grade the pipeline in straight lines; avoid the formation of dips and low points. Support pipe at proper elevation and grade. Secure firm, uniform support. Wood support blocking will not be permitted. Lay pipe so that the full length of each section of pipe and each fitting will rest solidly on the pipe bedding; excavate recesses to accommodate joints. Provide anchors and supports where indicated and where necessary for fastening work into place. Make proper provision for expansion and contraction of pipelines. At the end of each work day, close open ends of pipe temporarily with wood blocks or bulkheads. Do not lay pipe when conditions of trench or weather prevent installation.

3.1.1.3 Installation of Erosion Protection Polyethylene Sleeve

Install polyethylene sleeves to the ductile iron pipe and joint in accordance with the polyethylene sleeve manufacturer's instruction.

3.1.1.4 Installation of Tracer Wire

Install a continuous length of tracer wire for the full length of each run of nonmetallic pipe. Attach wire to top of pipe in such manner that it will not be displaced during construction operations.

3.1.1.5 Connections to Existing Salt Water Lines

Make connections to existing salt water lines after approval is obtained and with a minimum interruption of service on the existing line. Make connections to existing lines in accordance with the recommended procedures of the manufacturer of the pipe.

3.1.2 Special Requirements for Installation of Salt Water Piping

3.1.2.1 Installation of Pipe and Associated Fittings

Unless otherwise specified, install pipe and fittings in accordance with paragraph entitled "General Requirements for Installation of Pipelines" with the requirements of the pipe manufacturer's instruction.

3.1.2.2 Turning Point Marker

Provide marker for buried pipe on ground surface, right above the points where piping change direction conforming to [Public Building Equipment Work Standard Drawing - Mechanical Equipment Construction \("Kokyo kenchiku setsubi kouji hyojoyun sekouzu - Kikai Setsubi Koji Hen"\)](#). Cast or engrave word "Salt Water" and arrow mark on top of the marker to indicate which direction the piping run.

3.1.2.3 Installation of Valves

Installation of Valves: Install valves in accordance with the requirements valve manufacturer.

3.2 FIELD QUALITY CONTROL

3.2.1 Field Tests and Inspections

Prior to hydrostatic testing, obtain Contracting Officer approval of the proposed method for disposal of waste water from hydrostatic testing. The Contracting Officer will conduct field inspections and witness field tests specified in this section. The Contractor shall perform field tests, and provide labor, equipment, and incidentals required for testing. The Contractor shall produce evidence, when required, that any item of work has been constructed in accordance with the drawings and specifications. Do not begin testing on any section of a pipeline where concrete thrust blocks have been provided until at least 5 days after placing of the concrete.

3.2.2 Testing Procedure

Test salt water lines in accordance with the applicable specified standard., except for the special testing requirements given in paragraph entitled "Special Testing Requirements."

3.2.3 Special Testing Requirements for HDPE Pipe

After visual inspection, blow systems dry with clean, oil-free compressed air, and test with clean, dry air in accordance with the HDPE pipe

manufacturer recommendation. Maintain required test pressure for a sufficient length of time to enable an inspection of joints and connections.

3.2.4 Testing Requirements

For testing, do not discharge cold water to sea. The contractor will be allowed to discharge cold water to sanitary sewer line.

3.3 CLEANUP

Upon completion of the installation of salt water lines, and appurtenances, all debris and surplus materials resulting from the work shall be removed.

-- End of Section --