



**DEPARTMENT OF THE NAVY**  
NAVAL FACILITIES ENGINEERING COMMAND, MID-ATLANTIC

IN REPLY REFER TO:  
ROICC  
PSC Box 8006  
Cherry Point, NC 28533-006

N40085-see below  
6 APRIL 2011

**VIA ELECTRONIC MAIL**

N40085-10-D-0257  
Alderman Building Company, Inc.  
339 Center Street  
Jacksonville, NC 28546

N40085-10-D-0261  
Quadrant Construction, Inc.  
166 Center Street  
Jacksonville, NC 28546

N40085-10-D-0258  
TEAM Construction LLC  
101 A Middle Street  
Jacksonville, NC 28546

N40085-10-D-0262  
Daniels & Daniels Construction, Inc.  
P. O. Box 10337  
Goldsboro, NC 27534

N40085-10-D-0259  
Joyce & Associates Construction, Inc.  
P. O. Box 190  
Newport, NC 28570

N40085-10-D-0263  
Abbott General Construction, Inc.  
2503 58th Street, Suite A  
Hampton, VA 23661

N40085-10-D-0260  
Blue Rock Structures, Inc.  
10689 Highway 17  
Pollocksville, NC 28573

Re: Contract Numbers: See Above, Multiple Award Construction Contract (MACC), Cherry Point, North Carolina

Gentlemen:

In accordance with the contract clause entitled "Ordering of Work" contained in the reference contracts, it is intended to issue a contract task order to the successful offeror for the following project:

**5811501, REPAIR ENGINEERING OFFICE SPACE, B-163/4033/4470, MCAS CHERRY POINT, NORTH CAROLINA**

A ONE-TIME site visit conference will be conducted for this project on **12 APRIL 2011 at 1030**. Contractors are to meet at ROICC Office, Cherry Point. Your proposal, to include your cost estimate shall be submitted to the attention of the undersigned at this office by not later than **1400 on 5 MAY 2011**. Electronic submission of proposals are to be sent to: **roicc\_chpt\_ktr\_bids@navy.mil and must include company name and project number in subject line of email**. Receipt of your proposal is subject to FAR 52.215-1, Instruction to Offerors - Competitive Acquisition (JAN 2004) contained in Document 00201. Please note that no bid bond is required.

Your proposal will be reviewed and evaluated based on price and past performance. You will be contacted to discuss minor clarifications or questions concerning your proposal and to establish a specific time if negotiations are conducted. We intend to evaluate proposals and issue a task order without discussions (except communications conducted for the purpose of minor clarification). Therefore, each initial offer should contain the offeror's best terms from a price standpoint. However, the Government reserves the right to conduct discussions if later determined by the Contracting Officer to be necessary.

**The Contract Completion Date (CCD) is (ALL WORK MUST BE COMPLETE BY 30 SEPT 2011) days.**

**Incorporate the attached Bid Sheet into the project/contract.**

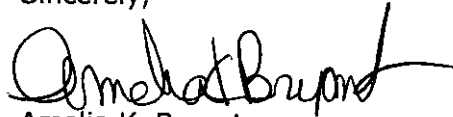
**Liquidated Damages will be \$800.00 a day.**

You may contact the ROICC at (252) 466-4751 to inspect site conditions, review available as-built drawings (if applicable), or inquire about other on-site technical details. Any changes to the scope of work or technical specifications will be effected on a Standard Form (SF) 30.

This request does not constitute notice to proceed nor shall it be considered as a commitment on the part of the Government. Any costs incurred prior to issuance of a task order cannot be reimbursed. Costs of such nature are considered to be for the benefit of the Contractor and are incurred at his discretion. The successful offeror will be issued a task order, which will take the form of Department of Defense (DD) Form 1155, under their contract as set forth in FAC 5252.216-9306, Procedures for Issuing Orders (NOV 1998). Direction to proceed for each task order issued will be provided upon receipt and approval of an acceptable performance bond and payment bond under each task order.

We appreciate your cooperation in preparing and submitting your proposal. If you have any questions, **send electronic to address: roicc\_chpt\_ktr\_bids@navy.mil and must include company name and project number in subject line of email.**

Sincerely,



Amelia K. Bryant  
Contracting Officer

# Company Name and Address

DATE:

ROICC

PSC Box 8006

Cherry Point, NC 28533-0006

**Proposal for Project Number/Title: 5811501, Repair Engineering Office Space, B-163/4033/4470, Marine Corps Air Station Cherry Point, NC**

Amendments Acknowledged:  No Amendments Issued or  Amendments

Subcontractors to be used:	
Subcontractor	Discipline

Proposal amounts:			
Item #	Amount	Item #	Amount
Base Bid:			
Additive Bid Item #1:			
Additive Bid Item #2:			
Additive Bid Item #3:			
Additive Bid Item #4:			
<b>Total Base and Additives 1 – 4:</b>			

Comments:

**252.236-7007 ADDITIVE OR DEDUCTIVE ITEMS (DEC 1991)**

(a) The low offeror and the items to be awarded shall be determined as follows—

(1) Prior to the opening of bids, the Government will determine the amount of funds available for the project.

(2) The low offeror shall be the Offeror that—

(i) Is otherwise eligible for award; and

(ii) Offers the lowest aggregate amount for the first or base bid item, plus or minus (in the order stated in the list of priorities in the bid schedule) those additive or deductive items that provide the most features within the funds determined available.

(3) The Contracting Officer shall evaluate all bids on the basis of the same additive or deductive items.

(i) If adding another item from the bid schedule list of priorities would make the award exceed the available funds for all offerors, the Contracting Officer will skip that item and go to the next item from the bid schedule of priorities; and

(ii) Add that next item if an award may be made that includes that item and is within the available funds.

(b) The Contracting Officer will use the list of priorities in the bid schedule only to determine the low offeror. After determining the low offeror, an award may be made on any combination of items if—

(1) It is in the best interest of the Government;

(2) Funds are available at the time of award; and

(3) The low offeror's price for the combination to be awarded is less than the price offered by any other responsive, responsible offeror.

(c) *Example.* The amount available is \$100,000. Offeror A's base bid and four additives (in the order stated in the list of priorities in the bid Schedule) are \$85,000, \$10,000, \$8,000, \$6,000, and \$4,000. Offeror B's base bid and four additives are \$80,000, \$16,000, \$9,000, \$7,000, and \$4,000. Offeror A is the low offeror. The aggregate amount of offeror A's bid for purposes of award would be \$99,000, which includes a base bid plus the first and fourth additives. The second and third additives were skipped because each of them would cause the aggregate bid to exceed \$100,000.



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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

DEPARTMENT OF THE NAVY  
ATLANTIC DIVISION, NAVAL FACILITIES ENGINEERING COMMAND  
MARINE CORPS AIR STATION, CHERRY POINT, NORTH CAROLINA

REPAIR ENGINEERING OFFICE SPACE, BUILDINGS 163, 4033 AND 4470

FEMA NO. 57556

AT THE  
FLEET READINESS CENTER – EAST,  
MARINE CORPS AIR STATION  
CHERRY POINT, NORTH CAROLINA

DESIGNED BY:

FLEET READINESS CENTER - EAST

SPECIFICATION PREPARED BY:

PAUL E. CLINE, P.E.

SPECIFICATION APPROVED BY:

Design Director:

  
JOHN FLEMING, P.E.

Date:

4/4/11

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DOCUMENT 00 01 15

LIST OF DRAWINGS

04/06

PART 1 GENERAL

1.1 SUMMARY

This document lists the drawings for the project pursuant to contract clause "DFARS 252.236-7001, Contract Drawings, Maps and Specifications."

1.2 DFARS 252.236.7001, CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall-

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies;
- (4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
- (5) Reproduce and print contract drawings and specifications as needed.

(c) In general-

- (1) Large-scale drawings shall govern small-scale drawings; and
- (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

<PGE/>(e) The work shall conform to the specifications and the contract drawings.

Contract drawings are as follows:

DRAWING NO.	FRC-E DWG NO.	TITLE
	PE-21037F	FRC EAST CHERRY POINT NC FACILITIES DRAWING - B4033 Sheets 1-7

DRAWING NO.	FRC-E DWG NO.	TITLE
	PE-21037M	FRC EAST CHERRY POINT NC MECHANICAL DRAWING - B4033 Sheets 1-20
	PE-21037P	FRC EAST CHERRY POINT NC ELECTRICAL DRAWING - B4033 Sheets 1-12
	PE-21042F	FRC EAST CHERRY POINT NC FACILITIES DRAWING - B163 Sheets 1-6
	PE-21042M	FRC EAST CHERRY POINT NC MECHANICAL DRAWING - B163 Sheets 1-4
	PE-21042P	FRC EAST CHERRY POINT NC ELECTRICAL DRAWING - B163 Sheets 1-8

[1.3 SUPPLEMENTARY DRAWINGS

These supplementary drawings may not be a part of the contract but are included with the drawings for information.

1.3.1 Reference Drawings

The following reference drawings are intended only to show the original construction. Drawings are the property of the Government and shall not be used for any purpose other than that intended by the contract.

NAVFAC DRAWING NO.	TITLE
4419966	POWER RENOVATION PLAN

-- End of Document --

SECTION 01 11 00

SUMMARY OF WORK

07/06

PART 1 GENERAL

1.1 WORK COVERED BY CONTRACT DOCUMENTS

1.1.1 Project Description

The work includes general building renovations to include walls, ceilings, furniture, HVAC, electrical and incidental related work.

1.1.2 Location

The work shall be located at the Fleet Readiness Center East, Marine Corps Air Station, Cherry Point, approximately as indicated. The exact location will be shown by the Contracting Officer.

1.2 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.

1.3 PHASED CONSTRUCTION SCHEDULE

Within the overall project schedule, commence and complete the work in phases, as indicated on the plans.

All work on this project must be complete before September 30, 2011

1.4 LOCATION OF UNDERGROUND FACILITIES

It shall be the responsibility of the contractor to locate all existing underground utilities that are within the limits of work, prior to any excavation activities. These include but are not limited to the following buried utilities: water lines, sanitary and storm sewers, steam condensate, fuel lines, gas lines, electrical ducts and direct buried conductors, commercial telephone, Base telephone, commercial cable TV, Base instructional cable TV, EMCS and fire alarm. The contractor shall employ the services of a qualified Utility locating company to locate, identify, and mark all underground utilities. The entire construction limits shall be thoroughly scanned and researched to determine existing utility locations. Any existing utilities that are indicated on the project drawings shall be considered for reference use by the locating company and shall be verified. All underground utilities shall be clearly marked with flags, paint or stakes prior to any digging operation except that required to determine exact utility location and depth. CAUTION shall be used when

trenching or excavating around or near buried utilities. The contractor shall be responsible for the timely repair and/or replacement of direct and collateral damage on any and all underground utilities that are severed, crushed, broken, displaced or otherwise disturbed by the construction operation. The Government shall not incur any additional cost for such repair or replacement. The contractor shall notify the ROICC a minimum of three working days prior to utility location. Do not continue with excavation or installation of new work without resolving elevation discrepancies and conflicts.

1.5 Notification Prior to Excavation

Notify the Contracting Officer at least 48 hours prior to starting excavation work.

1.6 Navy and Marine Corps (NMCI) Coordination Requirements

1.6.1 NMCI Contractor Access

The NMCI Contractor must be allowed access to the facility towards the end of construction (finishes 90% complete, rough-in 100% complete, Inside Plant (ISP)/Outside Plant (OSP) infrastructure in place) to provide equipment in the telecommunications rooms and make final connections. The construction contractor will be required to coordinate his efforts with the NMCI contractor to facilitate joint use of building spaces during the final phases of construction. After the Contracting Officer has facilitated coordination meetings between the two contractors, the construction contractor must, within one week, incorporate the effort of additional contractor coordination into his construction schedule to demonstrate his plan for maintaining the contract duration.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

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SECTION 01 14 00

WORK RESTRICTIONS

07/10

PART 1 GENERAL

1.1 SPECIAL SCHEDULING REQUIREMENTS

- c. The facilities will remain in operation during the entire construction period. The Contractor shall conduct his operations so as to cause the least possible interference with normal operations of the activities.

1.2 CONTRACTOR ACCESS AND USE OF PREMISES

1.3 Regulations

Ensure that Contractor personnel employed on the Activity become familiar with and obey Activity regulations. Keep within the limits of the work and avenues of ingress and egress. Wear hard hats in 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 Working Hours

Regular working hours shall consist of an 8 1/2 hour period normally between the hours of 7:00 am to 4:30 pm, Monday through Friday, excluding Government holidays.

1.5 Work Outside Regular Hours

Work outside regular working hours requires Contracting Officer approval. Make application 15 calendar days prior to such work to allow arrangements to be made by the Government for inspecting the work in progress. During periods of darkness, the different parts of the work shall be lighted in a manner approved by the Contracting Officer.

1.6 Occupied Buildings

The Contractor shall be working in existing buildings which are occupied. Do not enter the buildings without prior approval of the Contracting Officer.

The existing buildings and their contents shall be kept secure at all times. Provide temporary closures as required to maintain security as directed by the Contracting Officer.

Provide dust covers or protective enclosures to protect existing work that remains and Government material located in the buildings during the construction period.

Relocate movable furniture as required to perform the work, protect the

furniture, and replace the furniture in its original location upon completion of the work. Leave attached equipment in place, and protect it against damage, or temporarily disconnect, relocate, protect, and reinstall it at the completion of the work.

1.7 Utility Cutovers and Interruptions

- a. Permission to interrupt any Activity utility service shall be requested in writing a minimum of 15 calendar days prior to desired date of interruption.
- b. Make utility cutovers and interruptions after normal working hours or on Saturdays, Sundays, and Government holidays. Conform to procedures required in the paragraph "Work Outside Regular Hours."
- c. Ensure that new utility lines are complete, except for the connection, before interrupting existing service.
- d. Interruption to water, sanitary sewer, storm sewer, telephone service, electric service, air conditioning, heating, fire alarm, compressed air, and computer network access shall be considered utility cutovers pursuant to the paragraph entitled "Work Outside Regular Hours."
- e. 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. The Contractor shall notify the Contracting Officer giving reasonable advance notice when such operation is required.

1.8 SECURITY REQUIREMENTS

1.8.1 Station Regulations

No employee or representative of the contractor will be admitted to the work site without an Identification Badge or is specifically authorized admittance to the work site by the OIC, NAVFAC Contracts.

1.8.2 Contractor Access to MCAS Cherry Point and Outlying Areas

DOCUMENTATION REQUIRED TO GRANT ACCESS TO COMMERCIAL AND CONTRACT EMPLOYEES  
(THIS DOCUMENT IS AN AID IN MEETING AIR STATION ORDER 5500.14B REQUIREMENTS  
AND IS NOT A SUBSTITUTE FOR THE ORDER)

1. The initial approved contract letter from the authorized military contracting agency. The letter must contain the following before being sent to Pass & ID:

- A) The employer's company/business name
- B) Contract number and work location
- C) Contract expiration/termination date
- D) Flightline access: Vehicle gate access (must be gate specific) and/or turnstile access (Normal contractor access is turnstiles only.)
- E) FRC-East access (if required)

2. Employers must provide a letter (on company letterhead) to the Pass & ID

office. This may be by e-mailed to [chpt\\_pass-id\\_omb@usmc.mil](mailto:chpt_pass-id_omb@usmc.mil), or fax (252-466-2626) or it may be hand carried, listing all employees (to include date and place of birth) who will be requiring access to the installation. Contractors hired for more than 30 days will be issued a contractor's badge after the conditions outlined in this document are met. The badge must be carried or readily accessible at all times while on Station. All badges will be issued for a period NOT TO EXCEED ONE YEAR regardless of the length of the contract. Upon the expiration of the badge, the company/employee will provide a new 50 state/national criminal record check prior to being re-badged.

3. Any access from 1 day to less than 30 days, employers will provide the same documentation as stated above. In place of a badge, a copy of this letter with the worker's name highlighted, stamped with the "Pass & ID" stamp, "Criminal Records Check (CRC) Sighted", and we will also annotate below the stamps the following statement: "Valid until (expiration date) then date and initial it." This document will be issued to each worker and IS their authorization to be aboard the installation. This letter must be carried on their person or readily accessible at all times while on Station.

4. All employers/employees must provide a CRC from any internet investigative service or any other investigative service company that provides a 50 state/national criminal records check and a check of the Sexual Offenders List. (Local county/state checks are not authorized and will not be accepted.) This record check must be a "complete" check covering the period from at the minimum their 18th birthday to present. The CRC must also contain a statement that this is a "national records check" or the terminology the agency uses to indicate such. Please be sure of what you are requesting. If it is anything less than a national check, it will be rejected. The CRC can not be more than 30 days old at the time it is presented to Pass & ID personnel. CRCs may be obtained from, but not limited to the following sources (\*):

- A) [WWW.INTEGRASCAN.COM](http://WWW.INTEGRASCAN.COM)
- B) [WWW.SENTRYLINK.COM](http://WWW.SENTRYLINK.COM)
- C) [WWW.CRIMINALWATCHDOG.COM](http://WWW.CRIMINALWATCHDOG.COM)
- D) [WWW.CASTLEBRANCH.COM](http://WWW.CASTLEBRANCH.COM)
- E) [WWW.PEOPLESCANNER.COM](http://WWW.PEOPLESCANNER.COM)
- F) [WWW.KROLLBACKGROUNDSCREENING.COM](http://WWW.KROLLBACKGROUNDSCREENING.COM)
- G) [WWW.BACKGROUNDCHECKS.COM](http://WWW.BACKGROUNDCHECKS.COM)
- H) [WWW.INSTANTPEOPLECHECK.COM](http://WWW.INSTANTPEOPLECHECK.COM)
- I) [WWW.AMERICANBACKGROUND.COM](http://WWW.AMERICANBACKGROUND.COM)
- J) [WWW.LEXISNEXIS.COM](http://WWW.LEXISNEXIS.COM)

Cost of a background check can vary anywhere from \$19 to \$60 based on the type or amount of services requested. Minimum information required for a background check is the individual's Last Name, First Name, Middle name (optional) and Date of Birth. A social security number verification is also available at an additional cost.

5. In accordance with ASO 5500.14B (not an all inclusive list), access will be denied if the individual:

- A) Is on the National Terrorist Watch List.
- B) Is illegally present in the United States.
- C) Is currently debarred or banned from military installations.
- D) Is a registered sex offender or been convicted of any child abuse or related offense(s).

- E) Is a convicted felon within the past 5 years.
  - F) Convicted of any drug offense within the past 5 years.
  - G) Is subject to an outstanding warrant or is currently pending trial.
  - H) Has knowingly submitted a false/fraudulent employment questionnaire.
  - I) Any reason the Installation Commander deems reasonable for good order & discipline.
  - J) Individuals convicted of a DUI/DWI within the past year will be allowed aboard but not be permitted to drive.
6. Picture ID from a state or federal agency (i.e., valid driver's license or state identification card).
  7. Social Security Card or any official document listing the SSN (letter from Social Security Administration listing the SSN, W-2 (tax form), DD-214, pay stub listing complete SSN). An additional source may be through the internet with E-Verify
  8. Birth certificates and passports are used when necessary to verify citizenship and are never used as a means to verify social security numbers.
  9. If the employee is not a U.S. Citizen, PROOF OF IMMIGRATION STATUS must be provided and carried on their person or be readily accessible at all times while on station. Proof must also be provided if an individual is a naturalized U.S. citizen.
  10. Due to recent changes with Privacy laws, please do not include social security numbers or DOBs in the company letters being faxed or emailed to this office. Additionally, all criminal record checks must be hand carried by the individual worker or brought in by the supervisor.
  11. As of 19 Dec 07 security clearances are no longer valid as a means for requesting access to the installation. All personnel hired as commercial or contractor employees to work for a company aboard the installation will be required to provide a 50 state/national criminal check.
  12. The changes in this document are effective as of 1 June 2010.

Note: Until further notice, ID cards and vehicle passes issued to contractors at Camp Lejeune and New River are currently not valid at Cherry Point without a 50 state/national CRC in their possession at the time they are requesting access at MCAS Cherry Point.

(\*) The United States Government and the United States Marine Corps does not endorse nor are they affiliated with any of the screening services provided above. We must be able to verify/validate the information contained in the CRC via telephone. If we are unable to validate the CRC the clearance information will not be accepted.

(\*\*) Due to recent developments concerning the screening services of Criminal CBS and Net Detective, they are no longer authorized as a means for entry at MCAS Cherry Point.

PART 2 EXECUTION

Not Used

-- End of Section --

SECTION 01 20 00.00 20

PRICE AND PAYMENT PROCEDURES

07/06

PART 1 GENERAL

1.1 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EP-1110-1-8 (2003) Construction Equipment Ownership and Operating Expense Schedule, Vol 1-12

1.2 SUBMITTALS

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

SD-01 Preconstruction Submittals

Schedule of prices; G

1.3 SCHEDULE OF PRICES

1.3.1 Data Required

Within 15 calendar days of notice of award, prepare and deliver to the Contracting Officer a schedule of prices (construction contract) on the forms furnished by the Government. Provide a detailed breakdown of the contract price, giving quantities for each of the various kinds of work, unit prices, and extended prices therefore.

1.3.2 Schedule Instructions

Payments will not be made until the Schedule of Prices has been submitted to and accepted by the Contracting Officer. Identify the cost for site work, and include incidental work to the 5 foot line. Identify costs for the building(s), and include work out to the 5 foot line. Work out to the 5 foot line shall include construction encompassed within a theoretical line 5 feet from the face of exterior walls and shall include attendant construction, such as cooling towers, placed beyond the 5 foot line.

1.3.3 Schedule Requirements for HVAC TAB

The field work for "HVAC Testing/Adjusting/Balancing" shall be broken down in the Schedule of Prices and in the Construction Progress Documentation by separate line items which reflect measurable deliverables. Specific payment percentages for each line item shall be determined on a case by case basis for each contract. The line items shall be as follows:

- a. Approval of Design Review Report: The TABS Agency is required to conduct a review of the project plans and specifications to identify any feature, or the lack thereof, that would preclude

successful testing and balancing of the project HVAC systems. The resulting findings shall be submitted to the Government to allow correction of the design. The progress payment shall be issued after review and approval of the report.

- b. Approval of the pre-field engineering report: The TABS Agency submits a report which outlines the scope of field work. The report shall contain details of what systems will be tested, procedures to be used, sample report forms for reporting test results and a quality control checklist of work items that must be completed before TABS field work commences.
- c. Season I field work: Incremental payments are issued as the TABS field work progresses. The TABS Agency mobilizes to the project site and executes the field work as outlined in the pre-field engineering report. The HVAC water and air systems are balanced and operational data shall be collected for one seasonal condition (either summer or winter depending on project timing).
- d. Approval of Season I report: On completion of the Season I field work, the data is compiled into a report and submitted to the Government. The report is reviewed, and approved, after ensuring compliance with the pre-field engineering report scope of work.
- e. Completion of Season I field QA check: Contract QC and Government representatives meet the TABS Agency at the jobsite to retest portions of the systems reported in the Season I report. The purpose of these tests are to validate the accuracy and completeness of the previously submitted Season I report.
- f. Approval of Season II report: The TABS Agency completes all Season II field work, which is normally comprised mainly of taking heat transfer temperature readings, in the season opposite of that under which Season I performance data was compiled. This data shall be compiled into a report and submitted to the Government. On completion of submittal review to ensure compliance with the pre-field engineering report scope, progress payment is issued. Progress payment is less than that issued for the Season I report since most of the water and air balancing work effort is completed under Season I.

#### 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

##### 1.5.1 Content of Invoice

Requests for payment in accordance with the terms of the contract shall consist of the following:

- a. Contractor's Invoice on NAVFAC Form 7300/30, which shall show, in summary form, the basis for arriving at the amount of the invoice.

- b. Contractor's Monthly Estimate for Voucher (LANTNAVFACENGCOM Form 4-4330/110 (New 7/84)), with subcontractor and supplier payment certification.
- c. Affidavit to accompany invoice (LANTDIV NORVA Form 4-4235/4 (Rev. 5/81)).
- d. Updated copy of submittal register.
- e. Updated copy of progress schedule. Furnish as specified in "FAR 52.236-15, Schedules for Construction Contracts."

#### 1.5.2 Monthly Invoices and Supporting Forms

Forms will be furnished by the Contracting Officer. Requests for payment shall be processed in accordance with "FAR 52.232-5, Payments Under Fixed-Price Construction Contracts." Monthly invoices and supporting forms for work performed through the anniversary award date of the contract shall be submitted to the Contracting Officer between the 1st - 7th if contract's last digit is 0, 1, 2; 8th - 14th if contract's last digit is 3 or 4; 15th - 21st if contract's last digit is 5, 6, or 7; 22nd and last if the contract's last digit is 8th or 9th day of the month. Payments will be using Wide Area Workflow (WAWF). Submit the following documents with invoice WAWF:

- a. Contractor's invoice
- b. Contractor's monthly estimate for voucher
- c. Affidavit
- d. Updated submittal register
- e. Progress schedule
- f. Certificate of Progress Payments
- g. Contractor Safety Self Evaluation Checklist

#### 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;

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- 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."

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 30 00  
ADMINISTRATIVE REQUIREMENTS  
04/06

PART 1 GENERAL

1.1 SUBMITTALS

The following shall be submitted per Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

List of contact personnel

1.2 MINIMUM INSURANCE REQUIREMENTS

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

- a. Comprehensive general liability: \$500,000 per occurrence
- b. Automobile liability: \$200,000 per person, \$500,000 per occurrence for bodily injury, \$20,000 per occurrence for property damage
- c. Workmen's compensation as required by Federal and State workers' compensation and occupational disease laws.
- d. Employer's liability coverage of \$100,000, except in States where workers compensation may not be written by private carriers,
- e. Others as required by North Carolina State law.
- f. The Cancellation clause on the insurance certificate should read:

"Cancellation or any material change in the policies adversely affecting the interest of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than **thirty (30)** days after written notice thereof to the Contracting Officer."

1.3 CONTRACTOR PERSONNEL REQUIREMENTS

1.3.1 Subcontractors and Personnel

Furnish a list of contact personnel of the Contractor and subcontractors including 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.

1.3.2 Identification Badges

Identification badges will be furnished without charge. Application for and use of badges will be as directed. Immediately report instances of lost or

stolen badges to the Contracting Officer.

Commercial and contract employees will be issued a contractor's badge good for one year. Commercial and contract employees are required to resubmit a complete 50 state criminal records check in order to renew their contractor's badge.

If an employee is terminated prior to end of the contract, the contractor shall return the base identification card to the Contracting Officer. This requirement also applies to all sub-contract employees.

In no event will a contractor employee be permitted access to the US Marine Corps Air Station for the purpose of on-site performance without the documentation.

### 1.3.3 Subcontractor Special Requirements

#### 1.3.3.1 Asbestos Containing Material

All contract requirements assigned to the Private Qualified Person (PQP) shall be accomplished directly by a first tier subcontractor.

#### 1.3.4 Contractor Personnel Requirements

Follow Security requirements addressed in 01 14 00 WORK RESTRICTIONS.

### 1.4 SUPERVISION

Have at least one qualified supervisor capable of reading, writing, and conversing fluently in the English language on the job site during working hours. In addition, if a Quality Control (QC) representative is required on the contract, then that individual shall also have fluent English communication skills.

### 1.5 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.

### 1.6 LEVEL "C" PARTNERING

To most effectively accomplish the contract, the Government requires the formation of a cohesive partnership with the contractor and its subcontractors. The partnering relationship is based upon trust, dedication to common goals, an understanding of each other's expectations and values, and a commitment to success. The goals of the partnering process are improved communication, efficiency and cost effectiveness, increased opportunity for innovation, and the continuous improvement of product quality. The partnership will strive to draw in the strength of each organization in an effort to achieve a quality project done right the first time, within budget, on schedule, and without any safety mishaps, thereby providing the opportunity for the contractor to make a reasonable profit. This level of partnering is an introduction to partnering concepts and benefits and should become a part of the preconstruction conference. The senior ROICC and contract persons present will jointly host the initial

session. The partners will determine the frequency of the follow-on sessions. Partnering sessions should be held at or near the location of the ROICC office.

1.7 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 contractor 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 e-mail to notify the Contractor of base access conditions when emergency conditions warrant, such as hurricanes, terrorist threats, etc. Multiple e-mail addresses 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 the field office(s). The Contractor shall promptly notify the Contracting Officer, in writing, of any changes to this e-mail address.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 33 00

SUBMITTAL PROCEDURES

07/10

PART 1 GENERAL

1.1 DEFINITIONS

1.1.1 Submittal

Contract Clauses "FAR 52.236-5, Material and Workmanship," paragraph (b) and "FAR 52.236-21, Specifications and Drawings for Construction," paragraphs (d), (e), and (f) apply to all "submittals."

1.1.2 Submittal Descriptions (SD)

Submittals requirements are specified in the technical sections. Submittals are identified by SD numbers and titles as follows.

SD-01 Preconstruction Submittals

Certificates of insurance.  
Surety bonds.  
List of proposed subcontractors.  
List of proposed products.  
Construction Progress Schedule.  
Submittal register.  
Schedule of prices.  
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-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-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

1.1.3 Approving Authority

Office or designated person authorized to approve submittal.

1.1.4 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

1.2.1 Submittal information applying to the entire contract

The Contractor is cautioned that symbols used in the "SUBMITTALS" paragraph of each Section may not always be consistent from one Section to another. For example, in one Section a "G" symbol may indicate that the submittal should go to the Engineer Of Record; whereas in another Section the single letter "G" may indicate that the submittal should go directly to the Government, with a "GA" or "A" symbol used for submittals intended for the Engineer of Record. In the event of any such inconsistency, the provisions of the particular Section shall govern submittals required by that Section.

1.2.2 Submittal information applying only to this Section (Section 01 33 00, SUBMITTAL PROCEDURES)

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control review and certification prior to being sent to the Architect-Engineer of Record for approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Submittal register; G

1.3 USE OF SUBMITTAL REGISTER

Submittal register will be delivered to the Contractor and will have 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-04 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. A "G" indicates approval by Contracting Officer; a blank indicates approval by other agency.

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.

1.3.1 Submittal Register

Submit submittal register. Submit with quality control plan and project schedule required by Section 01 45 00.00 20 CONSTRUCTION QUALITY CONTROL. Verify that all submittals required for project are listed and add missing submittals. Complete the following on the register:

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.

1.3.2 Contractor Use of Submittal Register

Update the following fields in the Government-furnished submittal register program. .

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.

1.3.3 Approving Authority Use of Submittal Register

Update the following fields in the Government-furnished submittal register program. .

Column (b).

Column (l) List date of submittal receipt.

Column (m) through (p).

Column (q) List date returned to Contractor.

1.3.4 Contractor Action Code and Action Code

Entries used shall be as follows (others may be prescribed by Transmittal Form):

NR - Not Received

AN - Approved as noted

A - Approved

RR - Disapproved, Revise, and Resubmit

#### 1.3.5 Copies Delivered to the Government

Deliver one copy of submittal register updated by Contractor to Government with each invoice request. Deliver in electronic format, unless a paper copy is requested by Contracting Officer.

#### 1.4 PROCEDURES FOR SUBMITTALS

##### 1.4.1 Reviewing, Certifying, Approving Authority

QC organization shall be responsible for reviewing and certifying that submittals are in compliance with contract requirements. 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. A blank indicates the Architect-Engineer of Record or other agency is the approving authority.

##### 1.4.2 Constraints

- a. Submittals listed or specified in this contract shall conform to provisions of this section, unless explicitly stated otherwise.
- b. Submittals shall be complete for each definable feature of work; components of definable feature interrelated as a system shall be submitted at same time.
- 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.

##### 1.4.3 Scheduling

- 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 requirements to resubmit.
- b. Except as specified otherwise, allow review period, beginning with receipt by approving authority, that includes at least 15 working days for submittals for QC Manager approval and 20 working days for submittals for Contracting Officer approval. Period of review for submittals with Contracting Officer approval begins when Government receives submittal from QC organization. Period of review for each resubmittal is the same as for initial submittal.
- c. For submittals requiring review by fire protection engineer, allow review period, beginning when Government receives submittal from QC organization, of 30 working days for return of submittal to the Contractor. Period of review for each resubmittal is the same as for initial submittal.

##### 1.4.4 Variations

Variations from contract requirements require Government approval pursuant to contract Clause entitled "FAR 52.236-21, Specifications and Drawings for Construction" and will be considered where advantageous to Government.

#### 1.4.4.1 Considering Variations

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

#### 1.4.4.2 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 saving. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation.

#### 1.4.4.3 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.

#### 1.4.4.4 Review Schedule Is Modified

In addition to normal submittal review period, a period of 10 working days will be allowed for consideration by the Government of submittals with variations.

#### 1.4.5 Contractor's Responsibilities

- a. Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and contract documents.
- b. Transmit submittals to QC organization in accordance with schedule on approved Submittal Register, and to prevent delays in the work, delays to Government, or delays to separate Contractors.
- c. Advise Contracting Officer of variation, as required by paragraph entitled "Variations."
- d. Correct and resubmit submittal as directed by approving authority. When resubmitting disapproved transmittals or transmittals noted for resubmittal, the Contractor shall provide copy of that previously submitted transmittal including all reviewer comments for use by approving authority. Direct specific attention in writing or on resubmitted submittal, to revisions not requested by approving authority on previous submissions.
- e. Furnish additional copies of submittal when requested by Contracting Officer, to a limit of 20 copies per submittal.
- f. Complete work which must be accomplished as basis of a submittal in time to allow submittal to occur as scheduled.
- g. Ensure no work has begun until submittals for that work have been

returned as "approved," or "approved as noted", except to the extent that a portion of work must be accomplished as basis of submittal.

1.4.6 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 Architect-Engineer of Record is approving authority, forward the submittal to the A&E with the certifying statement or return submittal marked "not reviewed" or "revise and resubmit" as appropriate.

(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. T

- 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)

- g. Sign certifying statement or approval statement. The person signing certifying statements shall be QC organization member designated in the approved QC plan. The signatures shall be in original ink. 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.

#### 1.4.7 Government's Responsibilities

When approving authority is Contracting Officer or Architect-Engineer, , the approving authority will:

- a. Note date on which submittal was received from QC manager, on each submittal for which the Contracting Officer is approving authority.
- 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 "Actions Possible" and with markings appropriate for action indicated.

#### 1.4.8 Actions Possible

Submittals will be returned with one of the following notations:

- a. 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.
- b. Submittals marked "approved" "approved as submitted" authorize Contractor to proceed with work covered.
- c. Submittals marked "approved as noted" or "approval except as noted; resubmission not required" authorize Contractor to proceed with work as noted provided Contractor takes no exception to the notations.
- d. Submittals marked "revise and resubmit" or "disapproved" indicate submittal is incomplete or does not comply with design concept or requirements of the contract documents and shall be resubmitted with appropriate changes. No work shall proceed for this item until resubmittal is approved.

#### 1.5 FORMAT OF SUBMITTALS

##### 1.5.1 Transmittal Form

Transmit each submittal, except sample installations and sample panels, to office of approving authority. Transmit submittals with transmittal form prescribed by Contracting Officer and standard for project. The transmittal form shall 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 sample panels and sample installations.

### 1.5.2 Identifying Submittals

Identify submittals, except sample panel and sample installation, 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. Section number of the specification section by which submittal is required.
- d. Submittal description (SD) number of each component of submittal.
- e. When a resubmission, add alphabetic suffix on submittal description, for example, SD-10A, to indicate resubmission.
- f. Name, address, and telephone number of subcontractor, supplier, manufacturer and any other second tier Contractor associated with submittal.
- g. Product identification and location in project.

### 1.5.3 Format for SD-02 Shop Drawings

- a. Shop drawings shall not be less than 8 1/2 by 11 inches nor more than 30 by 42 inches.
- b. Present 8 1/2 by 11 inches 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. Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Shop drawing dimensions shall be the same unit of measure as indicated on the contract drawings. Identify materials and products for work shown.
- e. Drawings shall include the nameplate data, size and capacity. Also include applicable federal, military, industry and technical society publication references.

### 1.5.4 Format of SD-03 Product Data and SD-08 Manufacturer's Instruction

- 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.

- e. Product data shall include the manufacturer's name, trade name, place of manufacture, and catalog model or number. Submittals shall also include applicable federal, military, industry and technical society publication references. Should manufacturer's data require supplemental information for clarification, the supplemental information shall be submitted 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 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. The certificate shall state 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. Submit manufacturer's instruction prior to installation.

#### 1.5.5 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 2 by 3 inches: Built up to 8 1/2 by 11 inches.
  - (3) Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to 8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.
  - (4) Sample of Linear Devices or Materials: 10 inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.
  - (5) Sample of Non-Solid Materials: Pint. Examples of non-solid materials are sand and paint.
  - (6) Color Selection Samples: 2 by 4 inches.
  - (7) Sample Panel: 4 by 4 feet.
  - (8) Sample Installation: 100 square feet.
- b. Samples Showing Range of Variation: Where variations are unavoidable due to nature of the materials, submit sets of samples

of not less than three units showing extremes and middle of range.

- c. Reusable Samples: Incorporate returned samples into work only if so specified or indicated. Incorporated samples shall 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.
- e. When color, texture or pattern is specified by naming a particular manufacturer and style, include one sample of that manufacturer and style, for comparison.

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

- a. Provide design data and certificates on 8 1/2 by 11 inches paper. Provide a bound volume for submittals containing numerous pages.

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

- a. Provide reports on 8 1/2 by 11 inches 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.

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

- a. O&M Data format shall comply with the requirements specified in Section 01 78 23 OPERATION AND MAINTENANCE DATA

1.5.9 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.

1.6 QUANTITY OF SUBMITTALS

1.6.1 Number of Copies of SD-02 Shop Drawings

- a. Submit six copies of submittals of shop drawings requiring review and approval only by QC organization and seven copies of shop drawings requiring review and approval by Contracting Officer.

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

Submit in compliance with quantity requirements specified for shop drawings.

1.6.3 Number of Samples SD-04 Samples

- a. Submit one sample showing range of variation, of each required item. One approved sample or set of samples will be retained by

approving authority and one will be returned to Contractor.

- b. Submit one sample panel. Include components listed in technical section or as directed.
- c. Submit one sample installation, where directed.
- d. Submit one sample of non-solid materials.

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

- a. Submit in compliance with quantity requirements specified for shop drawings.

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

- b. Submit in compliance with quantity with quality requirements specified for shop drawings.

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

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

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

- a. Unless otherwise specified, submit administrative submittals compliance with quantity requirements specified for shop drawings.

1.7 FORWARDING SUBMITTALS

1.7.1 Submittals Required from the Contractor

As soon as practicable after award of contract, and before procurement of fabrication, forward to the Contracting Officer, submittals required of this specification, including shop drawings, product data and samples to the following address: Resident Officer in Charge of Construction, NAVFAC MIDLANT, PSC Box 8006, Cherry Point, North Carolina 28533-0006..

1.7.1.1 O&M Data

The Contracting Officer will review and approve O&M Data to verify the submittals comply with the contract requirements; submit data specified for a given item within 30 calendar days after the item is delivered to the contract site.

- a. In the event the Contractor fails to deliver O&M Data within the time limits specified, the Contracting Officer may withhold from progress payments 50 percent of the price of the item with which such O&M Data are applicable.

1.7.1.2 Submittals Reserved for NAVFAC MIDLANT Approval

As an exception to the standard submittal procedure specified above, submit the following to the Commander, NAVFAC MIDLANT 9742 Maryland Avenue, Bldg. Z-140 Room 219, Norfolk, VA 23511-3095, ATTN: CODE COFP.

- a. Section 21 13 13.00 20, "WET PIPE SPRINKLER SYSTEM, FIRE PROTECTION": All fire protection system submittals

#### 1.8 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

##### 1.9 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. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

##### 1.10 Information Only

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

##### 1.10.1 APPROVED SUBMITTALS

The Contracting Officer's and Architect-Engineer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval 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 by the approving authority, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

##### 1.10.1.1 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

##### 1.11 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

##### 1.12 GENERAL

The contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each

submittal shall be complete and in sufficient details to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test report; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

#### 1.13 SUBMITTAL REGISTER

At the end of this section is a submittal register showing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Government will provide the initial submittal register. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall track all submittals.

#### 1.14 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 14 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

#### 1.15 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each time submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

#### 1.16 SUBMITTAL PROCEDURES

Submittals shall be made as follows:

##### 1.16.1 Procedures

The Government will further discuss detailed submittal procedures with the contractor at the Preconstruction Conference.

1.16.1.1 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.17 CONTROL OF SUBMITTALS

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

1.18 GOVERNMENT AND ARCHITECT-ENGINEER

Upon completion of review of submittals requiring Government approval, the submittal will be identified as having received approval by being so stamped and dated. One copy of the submittal will be retained by the Architect-Engineer, three copies will be retained by the Contracting Officer and three copies will be returned to the Contractor.

1.19 INFORMATION ONLY

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

1.20 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR  (Firm Name)
_____ Approved
_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE:	_____
TITLE:	_____
DATE:	_____

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

## SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION  
Repair Engineering Office Space, Bldgs. 163, 4033 & 4470

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION REVIEW	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				REMARKS		
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE		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)
		01 20 00.00 20	SD-01 Preconstruction Submittals														
			Schedule of prices	1.3	G												
		01 30 00	SD-01 Preconstruction Submittals														
			List of contact personnel	1.3.1													
		01 33 00	SD-01 Preconstruction Submittals														
			Submittal register	1.3.1	G												
		01 35 29	SD-01 Preconstruction Submittals														
			Accident Prevention Plan (APP)	1.7													
			Activity Hazard Analysis (AHA)	1.8													
			Crane Critical Lift Plan	1.7.1													
			Crane Operators	1.6.1.3													
			SD-06 Test Reports														
			Reports	1.12													
			Accident Reports	1.12.1													
			Monthly Exposure Reports	1.12.3													
			Crane Reports	1.12.4													
			SD-07 Certificates														
			Confined Space Entry Permit	1.9													
			Hot work permit	1.9													
			Contractor Safety Self-Evaluation Checklist	1.4	G A												
			Certificate of Compliance	1.12.5													
		01 45 00.00 20	SD-01 Preconstruction Submittals														
			Construction Quality Control (QC) Plan	1.6.1													
		01 57 19.00 20	SD-01 Preconstruction Submittals														

# SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION  
Repair Engineering Office Space, Bldgs. 163, 4033 & 4470

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				REMARKS		
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE		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)
		01 57 19.00 20	Preconstruction Survey	1.5.1													
			Solid Waste Management Plan and Permit	3.4													
			Regulatory Notification	1.5.2													
			Environmental Protection Plan	3.1													
			Contractor/Vendor Environmental Service Agreement	1.5.5	G												
			SD-06 Test Reports														
			Laboratory Analysis	3.5.2													
			Disposal Requirements	3.15.2													
			SD-11 Closeout Submittals														
			Waste Determination Documentation	3.5													
			Disposal Documentation for Hazardous and Regulated Waste	3.6.1													
			Contractor 40 CFR Employee Training Records	1.5.4													
			Solid Waste Management Report	3.4.1													
			Contractor Hazardous Material Inventory Log	3.5.1													
			Contractor Hazardous Material Inventory Log	3.6													
			Hazardous Waste/Debris Management	3.13.1													
		01 77 00.00 20	SD-10 Operation and Maintenance Data														

# SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION

Repair Engineering Office Space, Bldgs. 163, 4033 & 4470

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT OR CLASSIFICATION REVIEW	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				REMARKS		
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE		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)
		01 77 00.00 20	Equipment/Product Warranty List	1.4.1													
			SD-11 Closeout Submittals														
			As-Built Drawings	1.3.1													
			Record Of Materials	1.3.3													
			Equipment/Product Warranty Tag	1.4.2													
			Nameplate Data	1.3.2													
			Certification of EPA Designated Items	1.2													
			Form DD1354	1.6	G												
			Checklist for Form DD1354	1.6	G												
		21 13 13.00 20	SD-02 Shop Drawings														
			Shop Drawings	1.5.2	G												
			SD-03 Product Data														
			Pipe	2.1.1	G												
			Fittings	2.1.1	G												
			Valves	2.1.5	G												
			Sprinklers	2.1.4	G												
			Pipe hangars and supports	2.1.6	G												
			SD-05 Design Data														
			Hydraulic Calculations	1.3	G												
			SD-06 Test Reports														
			request to schedule Preliminary Tests	3.4	G												
			Preliminary Test Report	3.4	G												
			Request to schedule Final Acceptance Test	3.5	G												

# SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION

Repair Engineering Office Space, Bldgs. 163, 4033 & 4470

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION REVIEW	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE			DATE OF ACTION
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		21 13 13.00 20	Final Acceptance Test Report	3.5	G												
			SD-07 Certificates														
			Inspection by Fire Protection Engineer	3.1	G												
			Fire Protection Engineer	1.5.1	G												
			Sprinkler System Installer	1.5.2	G												
			SD-10 Operation and Maintenance Data														
			Operating and Maintenance Instructions														
			SD-11 Closeout Submittals														
			As-built drawings	3.5													
			On-site training														

SECTION 01 35 29

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

04/06

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.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

- |                  |  |
|------------------|--|
| ANSI A10.32      | Personal Fall Protection - Safety Requirements for Construction and Demolition Operations      |
| ANSI Z359.1      | (1992; R 1999) Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components |
| ANSI/ASSE A10.34 | (2001) Protection of the Public on or Adjacent to Construction Sites                           |

ASME INTERNATIONAL (ASME)

- |             |  |
|-------------|--|
| ASME B30.22 | (2005) Articulating Boom Cranes              |
| ASME B30.3  | (1996) Construction Tower Cranes             |
| ASME B30.5  | (2004) Mobile and Locomotive Cranes          |
| ASME B30.8  | (2004) Floating Cranes and Floating Derricks |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

- |          |   |
|----------|---|
| NFPA 10  | (2002) Portable Fire Extinguishers                                      |
| NFPA 241 | (2004) Safeguarding Construction, Alteration, and Demolition Operations |
| NFPA 51B | (2003) Fire Prevention During Welding, Cutting, and Other Hot Work      |
| NFPA 70  | (2005) National Electrical Code   |
| NFPA 70E | (2004) Electrical Safety in the Workplace                               |

U.S. ARMY CORPS OF ENGINEERS (USACE)

- |            |   |
|------------|---|
| EM 385-1-1 | (2003) Safety -- Safety and Health Requirements |
|------------|---|

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 1926	Safety and Health Regulations for Construction
29 CFR 1926.500	Fall Protection

1.2 SUBMITTALS

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

SD-01 Preconstruction Submittals

- Accident Prevention Plan (APP)
- Activity Hazard Analysis (AHA)
- Crane Critical Lift Plan
- Proof of qualification for Crane Operators

SD-06 Test Reports

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

- Confined Space Entry Permit
- Hot work permit
- Contractor Safety Self-Evaluation Checklist; G, A
- Certificate of Compliance (Crane)

Submit one copy of each permit/certificate attached to each Daily Production 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. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

c. 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.

d. 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.).

e. 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.

f. 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.

g. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

h. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the six elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; 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 occurs. 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, roll over, 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. 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)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The Contractor Quality Control (QC) person can be the SSHO on this project. The SSHO shall meet the following requirements:

###### Level 1:

- Worked on similar projects.
- 10-hour OSHA construction safety class or equivalent within last 3 years.
- Competent person training as needed.

##### 1.6.1.2 Competent Person for Confined Space Entry

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

##### 1.6.1.3 Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16 and Appendix G. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacities of 50,000 pounds or greater, crane operators shall be designated as qualified by a source that qualifies crane operators (i.e., union, a government agency, or an organization that tests and qualifies crane operators). Proof of current qualification shall be provided.

## 1.6.2 Personnel Duties

### 1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

- 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. Safety inspection logs shall be attached to the Contractors' daily production report.
- b. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.
- c. Maintain applicable safety reference material on the job site.
- d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- e. Implement and enforce accepted APPS and AHAs.
- f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.
- g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, 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

Shall be conducted and documented as required by EM 385-1-1. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily production report.

#### 1.7 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall 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 shall 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. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included 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 any designated CSP and/or CIH.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference 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, SSSHO 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 ANSI/ASSE 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 APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan 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 personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel to be used such as CSPs, CIHs, STSs, CHSTs. The duties of each position shall be specified.

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; 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 USACE EM 385-1-1, paragraph 16.C.18. and the following:

- (1) For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29 CFR 1926.550(g).

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. It shall 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. The plan shall 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. Fall Protection and Prevention Plan shall be revised for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept

and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included 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 DEMOLITION and referenced sources.

#### 1.8 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1. Submit the AHA for review at least 15 calendar days prior to the start of each phase. 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.

The activity hazard analyses shall be developed using the project schedule as the basis for the activities performed. Any activities 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.

#### 1.9 DISPLAY OF SAFETY INFORMATION

Within 1 calendar days after commencement of work, erect a safety bulletin board at the job site. The safety bulletin board shall include information and be maintained 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.

#### 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 Reports

- a. For recordable injuries and illnesses, and property damage accidents resulting in at least \$2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the Navy Contractor Significant Incident

Report (CSIR) form and provide the report to the Contracting Officer within 5 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

b. For any weight handling equipment accident (including rigging gear accidents) the Prime Contractor shall conduct an accident investigation 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 30 calendar days of the accident. Crane operations shall not proceed 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.

#### 1.12.2 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. Information shall 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.

#### 1.12.3 Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

#### 1.12.4 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

#### 1.12.5 Certificate of Compliance

The Contractor shall provide a Certificate of Compliance for each crane entering an activity under this contract (see Contracting Officer for a blank certificate). Certificate shall state 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 shall comply with 29 CFR 1926 and USACE EM 385-1-1 section 16 and Appendix H. Certify on the Certificate of Compliance that the crane operator(s) is qualified and trained in the operation of the crane to be used. These certifications shall be posted on the crane.

#### 1.13 HOT WORK

Prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, a written permit shall be

requested 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 30 minutes after completion of the task or as specified on the hot work permit.

When starting work in the facility, Contractors shall 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.

## 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 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

Fall protection anchorage, conforming to ANSI Z359.1, installed under the supervision of a qualified person in fall protection, shall be left in place 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

The Contractor shall 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 shall prevail.

#### 3.1.1 Hazardous Material Use

Each hazardous material must receive approval 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.

### 3.1.3 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If 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 14 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."

## 3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages at least 15 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 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

The Contractor shall establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. The program shall 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.

### 3.3.1 Training

The Contractor shall institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, the Contractor shall provide training for each employee who might be exposed to fall hazards. A competent person for fall protection shall provide the training. Training requirements shall be in accordance with USACE EM 385-1-1, section 21.A.16.

### 3.3.2 Fall Protection Equipment and Systems

The Contractor shall 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. Employees shall be protected 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 05.H. and 05.I. 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 ANSI A10.32.

### 3.3.2.1 Personal Fall Arrest Equipment

Personal fall arrest equipment, systems, subsystems, and components shall meet ANSI Z359.1. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed 1.8 m (6 feet). The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

### 3.3.3 Fall Protection for Roofing Work

Fall protection controls shall be implemented based on the type of roof being constructed and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

#### a. Low Sloped Roofs:

(1) For work within 1.8 m (6 feet) of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized.

(2) For work greater than 1.8 m (6 feet) from an edge, warning lines shall be erected and installed in accordance with 29 CFR 1926.500 and USACE EM 385-1-1.

b. Steep-Sloped Roofs: Work on steep-sloped roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

### 3.3.4 Existing Anchorage

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

### 3.3.5 Horizontal Lifelines

Horizontal lifelines shall be designed, installed, certified and used under the supervision of a qualified person for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 ( 29 CFR 1926.500).

### 3.3.6 Guardrails and Safety Nets

Guardrails and safety nets shall be designed, installed and used in accordance with EM 385-1-1 and 29 CFR 1926 Subpart M.

### 3.3.7 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. A Rescue and Evacuation Plan shall be prepared by the contractor 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. The Rescue and Evacuation Plan shall be included in 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).

## 3.4 SCAFFOLDING

Employees shall be provided 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 to scaffold platforms greater than 6 m (20 feet) in height shall be accessed by use of a scaffold stair system. Vertical ladders commonly provided by scaffold system manufacturers shall not be used for accessing scaffold platforms greater than 6 m (20 feet) in height. The use of an adequate gate is required. Contractor shall 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. Special care shall be given 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. Work platforms shall be placed 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.

## 3.5 EQUIPMENT

### 3.5.1 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.
- c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

### 3.5.2 Weight Handling Equipment

- a. Cranes and derricks shall be equipped as specified in EM 385-1-1, section 16.
- b. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Prior to cranes entering federal activities, a Crane Access Permit must be obtained from the Contracting Officer. A copy of the permitting process will be provided at the Preconstruction Conference. Contractor's operator shall remain with the crane during the spot check.
- c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person (as defined in ASME B30.5). All testing shall be performed in accordance with the manufacturer's recommended procedures.
- d. The Contractor shall 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.
- e. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.
- f. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.
- g. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.
- h. Portable fire extinguishers shall be inspected, maintained, and recharged as specified in NFPA 10, Standard for Portable Fire Extinguishers.
- i. All employees shall be kept clear of loads about to be lifted and of suspended loads.
- j. The Contractor shall use cribbing when performing lifts on outriggers.
- k. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

- l. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.
- m. 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.
- n. 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.
- o. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
- p. 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 the contractor shall 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.

### 3.5.3 Equipment 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.

### 3.6 EXCAVATIONS

The competent person shall perform soil classification in accordance with 29 CFR 1926.

#### 3.6.1 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.

#### 3.6.2 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 0.061 m (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 the utility shall be exposed by hand digging every 30.5 m (100 feet) if parallel within 1.5 m (5 feet) of the excavation.

### 3.6.3 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 shall have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

### 3.6.4 Trenching Machinery

Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided 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. Documentation of the training shall be kept on file at the project site.

## 3.7 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 shall 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.

## 3.8 ELECTRICAL

### 3.8.1 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 shall 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.

### 3.8.2 Portable Extension Cords

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered and protected from damage. All damaged extension cords shall be immediately removed from service. Portable extension cords shall meet the requirements of NFPA 70.

### 3.9 WORK IN CONFINED SPACES

The Contractor shall comply with the requirements in Section 06.I 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 06.I.06 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.

-- End of Section --

SECTION 01 45 00.00 20

CONSTRUCTION QUALITY CONTROL

05/10

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 (2008) Safety -- Safety and Health Requirements

1.2 SUBMITTALS

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

SD-01 Preconstruction Submittals

Construction Quality Control (QC) Plan

Submit a Construction QC Plan within 20 calendar days after receipt of Notice of Award.

The QC Plan shall include a preliminary submittal of the list of definable features of work that shall cover the first 90 days of construction.

1.3 INFORMATION FOR THE CONTRACTING OFFICER

At the Preconstruction Conference, 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 Report, Contractor Quality Control Report (Continuation Sheet), Preparatory Phase Checklist, Initial Phase Checklist, Rework Items List, and Testing Plan and Log, Other reports referenced below may be in formats customarily used by the Contractor, Testing laboratories, etc. and will contain the information required by this specification.

Deliver the following to the Contracting Officer during Construction:

- a. Combined Contractor Production Report/Contractor Quality Control Report; original and 1 copy by 10:00AM the next working day after each day that work is performed.
- b. Preparatory Phase Checklist: Original attached to the original Contractor Quality Control Report and 1 copy attached to each copy.
- c. Initial Phase Checklist: Original attached to the original Contractor Quality Control Report and 1 copy attached to each copy.
- d. Field Test Reports: Within two working days after the test is

performed, submit 2 copies, with 2 working days after the test is performed, attached to the Contractor Quality Control Report.

e. Monthly Summary Report of Tests: Submit 2 copies attached to the Contractor Quality Control Report.

f. Testing Plan and Log: Submit 2 copies at the end of each month.

g. Rework Items List: Submit 2 copies, by the last working day of the month.

h. CQC Meeting Minutes: Within two working days after the meeting is held, submit 2 copies, within 2 working days after the meeting.

i. QC Certifications: As required by the paragraph entitled "QC Certifications."

#### 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 an officer of the firm and shall not be subordinate to the Project Superintendent or the Project Manager. 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.

###### 1.4.2.1 Approval

Approval 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 Contacting 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.

#### 1.4.3 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 7 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. In addition to implementing and managing the QC program, the QC Manager may perform the duties of Project Superintendent. The QC Manager shall not be designated as the safety competent person as defined by EM 385-1-1. 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

An individual with a minimum of 10 years combined experience in the following positions: 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 shall 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.

#### 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 certification within 90 days of award. 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.

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 that covers both on-site and off-site work and includes the following:

- 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 all other QC Specialists outlining their duties, 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.

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. 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: A personnel matrix showing for each section of the specification who will review and approve submittals, who will perform and document the three phases of control, and who will perform and document the testing.

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 certifications 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, , 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 DFOW, as well as how each DFOW will be affected by each management plan or requirement as listed below:

### 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. Coordinate prefunctional tests and startup testing with Cx.

### 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.

## 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 DFOWs. 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 the status of training completion; and

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 daily Contractor Quality Control Report and 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 DFOV;
- 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 two work days in advance of each initial phase. When construction crews are ready to start work on a DFOW, conduct the initial phase with the Project Superintendent, and the foreman responsible for that DFOW. Observe the initial segment of the DFOW 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 DFOW:

- 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; and

#### 1.10.3 Follow-Up Phase

Perform the following for on-going work daily, or more frequently as necessary, until the completion of each DFOW 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; and

#### 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 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 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 at <http://ts.nist.gov/ts/htdocs/210/214/214.htm>, the American Association of State Highway and Transportation Officials (AASHTO) program at <http://www.transportation.org/aashto/home.nsf/frontpage>, International Accreditation Services, Inc. (IAS) at <http://www.iasonline.org>, U. S. Army Corps of Engineers Materials Testing Center (MTC) at <http://www.wes.army.mil/SL/MTC/>, the American Association for Laboratory Accreditation (A2LA) program at <http://www.a2la.org/>, the Washington Association of Building Officials (WABO) at <http://www.wabo.org/> (Approval authority for WABO is limited to projects within Washington State), and the Washington Area Council of Engineering Laboratories (WACEL) at <http://www.wacel.org/labaccred.html> (Approval authority by WACEL is limited to projects within Facilities Engineering Command (FEC) Washington geographical area).

### 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."

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 and the CA 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, the CA, and others deemed necessary. Attendees for the Government will include the Contracting Officer, other ROICC personnel, 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.

##### 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.

##### 1.15.2 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. 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.

#### 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 "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 77 00.00 20 CLOSEOUT PROCEDURES 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.

#### 1.16 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 --

SECTION 01 50 00.00 20

TEMPORARY FACILITIES AND CONTROLS

07/10

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.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 241 (2004) Safeguarding Construction, Alteration, and Demolition Operations

NFPA 70 (2005) National Electrical Code

1.2 Utilities at Special Locations

Reasonable amounts of utilities will be made available to the Contractor at the prevailing Government rates. These rates may be obtained upon application to the Commanding Officer, by way of the Contracting Officer. The Contractor will be responsible for making connections, providing transformers and meters, (THE CONTRACTOR MUST CERTIFY THAT ALL TRANSFORMERS INSTALLED ARE TEMPORARY POWER DURING THIS CONTRACT ARE PCB FREE), and making disconnections; and for providing backflow preventer devices on connections to domestic water lines. Under no circumstances will taps to base fire hydrants be allowed for obtaining domestic water. Neither potable water nor sanitary facilities will be available at the main Contractor laydown area at Marine Corps Air Station (MCAS), Cherry Point, NC.

1.3 WEATHER PROTECTION

Take necessary precautions to ensure that roof openings and other critical openings in the building are monitored carefully. Take immediate actions required to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday. Ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.

1.3.1 Building and 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 shall 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.

1.3.1.1 Hurricane 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.

#### 1.4 TEMPORARY BUILDINGS

If required, a laydown site will be provided within five miles of the construction site and will be identified at the preconstruction conference. If a material storage trailer is used at the laydown site, it shall be anchored to resist high winds and must meet applicable state or local standards for anchoring mobile trailers. All trailers and storage buildings shall be suitably painted, kept in a good state of repair, and clearly identified with the Contractor's name and telephone number. Space for an office trailer will not be provided at the construction site. A staging area will be provided immediately adjacent to the construction site. The staging area will be the minimum amount of area necessary for maneuverability of equipment and temporary placement of materials intended for immediate incorporation into the work. All laydown sites, staging area, and construction sites shall be kept free of debris and trash, fences maintained, and all vegetation trimmed.

##### 1.4.1 Maintenance of Temporary Facilities

Suitably paint and maintain the temporary facilities. Failure to do so will be sufficient reason to require their removal.

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 TEMPORARY PHYSICAL CONTROLS

3.1.1 Access Controls

3.1.1.1 Temporary Barricades

Contractor shall provide for barricading around all work areas to prevent public access.

3.1.1.2 Signs

Place warning signs at the construction area perimeter designating the presence of construction hazards requiring unauthorized persons to keep out. Signs must be placed on all sides of the project, with at least one sign every 300 feet. All points of entry shall have signs designating the construction site as a hard hat area.

3.2 TEMPORARY WIRING

Provide temporary wiring in accordance with NFPA 241 and NFPA 70, Article 305-6(b), 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

03/11

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.

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

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
40 CFR 112	Oil Pollution Prevention
40 CFR 241	Guidelines for Disposal of Solid Waste
40 CFR 243	Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste
40 CFR 258	Subtitle D Landfill Requirements
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 279	Standards for the Management of Used Oil
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan

40 CFR 355	Emergency Planning and Notification
40 CFR 372-SUBPART D	Specific Toxic Chemical Listings
49 CFR 173	Shippers - General Requirements for Shipments and Packaging
49 CFR 178	Specifications for Packaging

## 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 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 as recyclable if sold to a scrap metal company.
- 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 40 CFR 261; or debris that exhibits a characteristic of hazardous waste per 40 CFR 261.

#### 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 (Including Universal Hazardous Waste)

Hazardous Wastes are defined by the Resource Conservation and Recovery Act (RCRA - Subtitle C) as wastes which first meet the definition of "solid" wastes and are then further defined in 40CFR Parts 261.21, 261.22, 261.23, 261.24, 261.31, 261.32, 261.33(e), and 261.33(f) with regard to their hazardous waste properties and / or characteristics (to include U.S. EPA's lists of Hazardous Wastes. These regulations cover a wide range of process and product generated wastes, and discarded (including materials intended to be discarded) or unusable materials in solid, liquid, and gaseous forms.

Universal (Hazardous) Wastes are a subset of Hazardous Waste, and are defined in 40CFR Part 273.2, 273.3, 273.4, and 273.5 and include batteries, pesticides, mercury containing equipment, and lamps.

Contractors must be intimately familiar with the above-detailed Hazardous

Waste regulations to ensure compliance with section 1.4.1.

#### 1.2.7 Hazardous Materials

Hazardous material is any material that:

- a. Is regulated as a hazardous material per 49 CFR 173, or
- b. Requires a Material Safety Data Sheet (MSDS) per 29 CFR 1910.120, or
- 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 40 CFR 261 Subparts A, B, C, or D.

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 Waste Hazardous Material and Substances

Waste hazardous materials and substances are those materials which do not meet any of the regulatory definitions of either Hazardous Waste or Universal (Hazardous) Waste, but which still may pose a threat to human health or the environment or cause significant legal liabilities under CERCLA if not properly managed. In general, such materials may be defined as those which pose a threat to human health and / or the environment due to their quantity, concentration, or their physical, chemical, or infectious characteristics and which have been so designated by federal, state, or local agencies.

#### 1.2.9 Used Oil and Oily Wastes

Used Oil is defined in 40CFR Part 279 to include a wide variety of oils and fuels and how they must be properly managed to ensure proper disposal, reclamation, and / or recycling. Animal and vegetable oils do not fall under this regulatory classification. Grease does not fall under this regulatory classification

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 State 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 other State regulations or local ordinances
- b. The amount generated is "de minimus" (a small amount)
- c. It is the result of minor leaks or spills resulting from normal process operations
- d. All free-flowing oil has been removed to the practical extent possible

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.

#### 1.2.10 Regulated Waste

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

#### 1.2.11 Class I Ozone Depleting Substance (ODS)

Class I ODS is defined in Section 602(a) of The Clean Air Act and includes the following chemicals:

chlorofluorocarbon-11 (CFC-11)	chlorofluorocarbon-213 (CFC-213)
chlorofluorocarbon-12 (CFC-12)	chlorofluorocarbon-214 (CFC-214)
chlorofluorocarbon-13 (CFC-13)	chlorofluorocarbon-215 (CFC-215)
chlorofluorocarbon-111 (CFC-111)	chlorofluorocarbon-216 (CFC-216)
chlorofluorocarbon-112 (CFC-112)	chlorofluorocarbon-217 (CFC-217)
chlorofluorocarbon-113 (CFC-113)	halon-1211
chlorofluorocarbon-114 (CFC-114)	halon-1301
chlorofluorocarbon-115 (CFC-115)	halon-2402
chlorofluorocarbon-211 (CFC-211)	carbon tetrachloride
chlorofluorocarbon-212 (CFC-212)	methyl chloroform

#### 1.3 SUBMITTALS

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

Regulatory Notification

Environmental Protection Plan

Contractor/Vendor Environmental Service Agreement; G

##### SD-06 Test Reports

Laboratory Analysis

## Disposal Requirements

### 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

Disposal Documentation for Hazardous and Regulated Waste

Contractor 40 CFR Employee Training Records

Solid Waste Management Report

Contractor Hazardous Material Inventory Log

Hazardous Waste/Debris Management

### 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 Federal, State, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

Marine Corps Air Station, Cherry Point is listed on the National Priorities List pursuant to the Comprehensive Environmental Response, Compensation and Liabilities Act 42 USCA, Section 9601 et seq. as amended April 15, 1996 (CERCLA). Bogue Field, Oakgrove, BT-11 and Atlantic Field are not listed on the National Priorities List. The Contractor shall immediately bring to the Contracting Officer's attention any unanticipated site condition which may involve hazardous materials or hazardous waste and the Contractor shall not disturb such conditions without the Contracting Officer's prior written documentation as to whether such conditions are outside the contract requirements.

#### 1.4.1 Facility Hazardous Waste Generator Status

Marine Corps Air Station Cherry Point is designated as a Large Quantity Generator (LQG) of Hazardous Waste, a Large Quantity Handler of Universal (Hazardous) Waste, and maintains a Treatment, Storage, and Disposal facility. Accordingly, MCAS Cherry Point is required to actively maintain and comply with a RCRA Part "B" operating permit issued by the State of North Carolina. All work conducted within the boundaries of this activity must be in compliance with the Part B permit, and the generator's various designations and operational requirements. Contractors will comply with all federal, state, and local regulatory requirements governing the proper training of personnel, and proper identification, generation, management, storage, handling, manifesting, transportation, and disposal of any

Hazardous Waste(s) which they may cause to be generated in the course of the execution of their contract(s).

## 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 Regulatory Notification

The Contractor is responsible for all Regulatory Notification requirements in accordance with Federal, State and local regulations. In cases where the Navy must also provide public notification (such as stormwater permitting), the Contractor must coordinate with the Contracting Officer. The Contractor shall submit copies of all regulatory notifications to the Contracting Officer prior to commencement of work activities. Typically, regulatory notifications must be provided for the following (this listing is not all inclusive): demolition, renovation, NPDES defined site work, remediation of controlled substances (asbestos, hazardous waste, lead paint).

### 1.5.3 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 Protection Plan. Develop a mutual understanding relative to the details of environmental protection, including measures for protecting natural resources, required reports, required permits, permit requirements, and other measures to be taken.

### 1.5.4 Contractor 40 CFR Employee Training Records

Prepare and maintain employee training records throughout the term of the contract meeting applicable 40 CFR 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 Federal, State and local regulatory requirements for RCRA Large Quantity Generator. The Contractor will provide a Position Description for each employee, by subcontractor, based on the Davis-Bacon Wage Rate designation or other equivalent method, evaluating the employee's association with hazardous and regulated wastes. This Position Description will include training requirements as defined in 40 CFR 265 for a Large Quantity Generator facility. Submit these training records to the Contracting Officer at the conclusion of the project, unless otherwise directed.

### 1.5.5 Contractor Environmental Management System (EMS) Requirements

The Contractor shall perform work under this contract consistent with the policy, objectives, and targets identified in Marine Corps Air Station

Cherry Point's Environmental Management System (EMS). Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management and Marine Corps Order P5090.2A, Environmental Compliance and Protection Manual require that all Federal agencies implement, utilize, and maintain an EMS. The Contractor shall perform work in a manner that does not circumvent objectives and targets, environmental programs goals, and operational controls identified by the EMS. The Contractor is also required not to impede compliance with the provisions of Executive Order 13423. The work performed under this contract affects practices that have been identified as significant, and requires more stringent requirements to adhere to the objectives and targets identified for MCAS Cherry Point.

The Contractor shall assume liability for nonconformances and noncompliances resulting from the Contractor's activities and work with Air Station personnel to conduct corrective and preventive actions. The Contractor is responsible for ensuring that their employees receive applicable environmental training, along with any applicable environmental management systems training, and are knowledgeable of current regulatory required specific training for the type of work to be conducted on-site. The Contractor personnel and their subcontractor personnel shall have the appropriate education, training, and experience in order to perform the work specified under this contract. Upon contract award, the Contractor shall review the Contractor Environmental Training Binder and Training Presentation and sign the Contractor/Vendor Environmental Service Agreement. Training and Service Agreement Documents are located on-line at <http://www.marines.mil/unit/mcascherrypoint/Pages/EA/EA.aspx>

## 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 resources, required reports, and other measures to be taken. The Environmental Protection Plan will be submitted in the following format and will, at a minimum, address the following elements:

- a. Description of the Environmental Protection Plan
  - (1) General overview and purpose
  - (2) General site information
- b. Protection 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
- e. Protection of the Environment from Waste Derived from Contractor Operations
  - (1) Control and disposal of 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 Land Disposal Restrictions (40 CFR 268);
- (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 40 CFR 279;

(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

g. Regulatory Notification and Permits

(1) List what notifications and permit applications must be made. Include copies of all applicable, environmental permits.

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 Facility Hazardous Waste Generator Status

Cherry Point is designated as a Large Quantity Generator. All work conducted within the boundaries of this activity must meet the regulatory requirements of this generator designation. The Contractor will comply with all provisions of Federal, State and local regulatory requirements applicable to this generator status regarding training and storage, handling, and disposal of all construction derived wastes.

3.1.3 Licenses and Permits

Where required by the State regulatory authority, the inspections and certifications will be provided through the services of a Professional Engineer (PE), registered in the State where the work is being performed. Where a PE is not required, the individual must be otherwise qualified by other current State licensure, specific training and prior experience (minimum 5 years). As a part of the quality control plan, which is required to be submitted for approval by the quality control section, provide a sub item containing the name, appropriate professional registration or licence number, address, and telephone number of the professionals or other qualified persons who will be performing the inspections and certifications for each permit.

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. Conform to the

national permitting requirements of the Clean Water Act.

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.

### 3.3 HISTORICAL AND ARCHAEOLOGICAL RESOURCES

Carefully protect in-place and report immediately to the Contracting Officer historical and archaeological items or human skeletal remains discovered in the course of work. Upon discovery, notify the Contracting Officer. Stop work in the immediate area of the discovery until directed by the Contracting Officer to resume work. 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 or recycled. Include letters of acceptance or as applicable, submit one copy of a State and local permit or license showing such agencies' approval of the disposal plan before transporting wastes off Government property.

#### 3.4.1 Solid Waste management Report

Monthly, submit a solid waste disposal report to the Contracting Officer. For each waste, the report will state the classification (using the definitions provided in this section), amount, location, and name of the business receiving the solid waste. Include copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, the Contractor may submit a statement indicating the disposal location for the solid waste which is signed by an officer of the Contractor firm authorized to legally obligate or bind the firm. The sales documentation or Contractor certification will

include the receiver's tax identification number and business, EPA or State registration number, along with the receiver's delivery and business addresses and telephone numbers. 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 Disposal 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 local, State, and Federal requirements including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

#### 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, EPA approved analytical data, 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.

##### 3.5.1 Contractor Hazardous Material Inventory Log

Submit the Contractor Hazardous Material Inventory Log (found at: <http://www.wbdg.org/ccb/NAVGRAPH/01575n.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.

##### 3.5.2 Laboratory Analysis

Submit a copy of a Laboratory Analysis of solid waste and debris with the potential of becoming classified as a hazardous waste (i.e., abrasive/sand blasting debris, etc.). Waste stream determinations are required at the point of generation and must sufficiently document whether the waste will be a solid waste, hazardous waste, or Resource Conservation and Recovery Act (RCRA) exempt waste. Determinations must use EPA approved methods and provide written rational for whether the waste is classified as hazardous or non-hazardous. The Contractor will bear the cost of the waste stream determinations, and the Contracting Officer reserves the right to request waste stream determinations on questionable waste streams.

### 3.6 CONTRACTOR HAZARDOUS MATERIAL INVENTORY LOG

Submit the "Contractor Hazardous Material Inventory Log" (found at: <http://www.lantdiv.navy.mil/pls/lantdiv/docs/FOLDER/EICO/UFGS/GRAPHICS/01575.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 Hazardous and Regulated Waste

Manifest, pack, ship and dispose of hazardous or toxic waste and universal 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 EPA and State permits, manifests, or licenses 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 WHM/HW MATERIALS PROHIBITION

No waste hazardous material or hazardous waste shall be disposed of on government property. No hazardous material shall be brought onto government property that does not directly relate to requirements for the performance of this contract. The government is not responsible for disposal of Contractor's waste material brought on the job site and not required in the performance of this contract. The intent of this provision is to dispose of that waste identified as waste hazardous material/hazardous waste as defined herein that was generated as part of this contract and existed within the boundary of the Contract limits and not brought in from offsite by the Contractor. Incidental materials used to support the contract including, but not limited to aerosol cans, waste paint, cleaning solvents, contaminated brushes, rags, clothing, etc. are the responsibility of the Contractor. The list is illustrative rather than inclusive. The Contractor is not authorized to discharge any materials to sanitary sewer, storm drain, or to the river or conduct waste treatment or disposal on government property without written approval of the Contracting

Officer.

### 3.9 HAZARDOUS MATERIAL CONTROL

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 40 CFR 261.

### 3.10 PETROLEUM PRODUCTS

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 40 CFR 279. Determine if any used oil generated while on-site exhibits a characteristic of hazardous waste. Used oil containing 1000 parts per million of solvents will be considered a hazardous waste and disposed of at Contractor's expense. Used oil mixed with a hazardous waste will also be considered a hazardous waste.

#### 3.10.1 Oily and Hazardous Substances

Prevent oil or hazardous substances from entering the ground, drainage areas, or navigable waters. In accordance with 40 CFR 112, surround all temporary fuel oil or petroleum storage tanks with a temporary berm or containment of sufficient size and strength to contain the contents of the tanks, plus 10 percent freeboard for precipitation. The berm will be impervious to oil for 72 hours and be constructed so that any discharge will not permeate, drain, infiltrate, or otherwise escape before cleanup occurs.

### 3.11 FUEL TANKS

Petroleum products and lubricants required to sustain up to 30 days of construction activity may be kept on site. Storage and refilling practices shall comply with 40 CFR Part 112. Secondary containment shall be provided and be no less than 110 percent of the tank volume plus five inches of free-board. If a secondary berm is used for containment then the berm shall be impervious to oil for 72 hours and be constructed so that any discharge will not permeate, drain, infiltrate, or otherwise escape before cleanup occurs. Drips pans are required and the tanks must be covered during inclement weather.

### 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 Base or Activity Fire Department, 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 federal 40 CFR 355, State, local regulations and Navy Instructions. Spill response will be in accordance with 40 CFR 300 and applicable State and local regulations. 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 (WHM) 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 CONTROL AND DISPOSAL OF HAZARDOUS WASTES

#### 3.13.1 Hazardous Waste/Debris Management

Identify all construction activities which will generate hazardous waste/debris. Provide a documented waste determination for all resultant waste streams. Hazardous waste/debris will be identified, labeled, handled, stored, and disposed of in accordance with all Federal, State, and local regulations including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268. 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 49 CFR 173 and 49 CFR 178. Hazardous waste generated within the confines of Government facilities will be identified as being generated by the Government. Prior to removal of any hazardous waste from Government property, all hazardous waste manifests must be signed by activity personnel from the Station Environmental Office. 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 40 CFR 372-SUBPART D. For hazardous wastes spills, verbally notify the Contracting Officer immediately.

3.13.1.1 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.

3.13.2 Class I ODS Prohibition

Class I and II ODS as defined and identified herein will not be used in the performance of this contract, nor be provided as part of the equipment. This prohibition will be considered to prevail over any other provision, specification, drawing, or referenced documents.

3.14 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.

3.15 ABRASIVE BLASTING

3.15.1 Blasting Operations

The use of silica sand is prohibited in sandblasting.

Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting operations to confine and collect dust, abrasive, agent, paint chips, and other debris. Perform work involving removal of hazardous material in accordance with 29 CFR 1910.

### 3.15.2 Disposal Requirements

Submit analytical results of the debris generated from abrasive blasting operations per paragraph entitled Laboratory Analysis of this section. Hazardous waste generated from blasting operations will be managed in accordance with paragraph entitled "Hazardous Waste\Debris Management" of this section and with the approved HWMP.

### 3.16 NOISE

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives will not be permitted without written permission from the Contracting Officer, and then only during the designated times.

### 3.17 Soil

Soils encountered during project activities shall be managed per Air Station soil management polices in affect for the duration of the project. If soil is encountered during construction operations that may be contaminated (as indicated by odor, color, or unusual appearance) that was not previously indicated as contaminated, stop the portion of work immediately and notify the Contracting Officer immediately.

#### 3.17.1 Quarantne for Imported Fire Ants

Onslow, Jones, and Carteret Counties and portions of Duplin and Craven Counties have been declared a generally infested area by the United States Department of Agriculture (USDA) for the imported fire ant. Compliance with the quarantine regulations established by this authority as set forth is USDA Publication 301.81 of 31 December 1992, is required for operations hereunder. Pertinent requirements of quarantine for materials originating on the Camp Lejeune reservation, the Marine Corps Air Station (Helicopter), New River and the Marine Corps Air Station, Cherry Point, which are to be transported outside Onslow County or adjacent suppression areas, include the following:

a. Certification is required for the following articles and theu shall not be moved from the reservation to any point outside Onslow County and adjacent designated areas unless accompanied by a valid inspection certificate issued by an Officer of the Plant Protection and AQuarantine Program (PPQ) of the U.S. Department of Agriculture.

(1) Bulk soil

(2) Used Mechanized soil-moving equipment. (Used mechanized soil-moving equipment is exempt if cleaned of loose non compacted soil).

(3) Other products, articles, or means of conveyances, if it is determined by an inspector that they present a hazard of transporting spread of the imported fire ant and the person in possession thereof has been so notified.

b. Authorization for movement of equipment outside the imported fire and regulated area shall be obtained from USDA, APHIS, PPQ, Attn: JB Perry, C/o NCSPA, 113 Arendell St. Room 216, Morehead City, NC 28557, telephone (252) 726-4358, fax (252) 726-5713. Requests for

inspection shall be made sufficiently in advance of the date of movement to permit arrangement for the services of authorized inspectors. The equipment shall be prepared and assembled so that it may be readily inspected. Soil on or attached to equipment, supplies, and materials shall be removed by washing with water or such other means as necessary to accomplish complete removal. Resulting spoil shall be wasted as necessary and as directed.

-- End of Section --

SECTION 01 62 35

RECYCLED / RECOVERED MATERIALS

07/06

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. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

40 CFR 247

Comprehensive Procurement Guideline for  
Products Containing Recovered Materials

1.2 OBJECTIVES

Government procurement policy is to acquire, in a cost effective manner, items containing the highest percentage of recycled and recovered materials practicable consistent with maintaining a satisfactory level of competition without adversely affecting performance requirements or exposing suppliers' employees to undue hazards from the recovered materials. The Environmental Protection Agency (EPA) has designated certain items which must contain a specified percent range of recovered or recycled materials. EPA designated products specified in this contract comply with the stated policy and with the EPA guidelines. The Contractor shall make all reasonable efforts to use recycled and recovered materials in providing the EPA designated products and in otherwise utilizing recycled and recovered materials in the execution of the work.

EPA maintains a Database of Manufacturers and Suppliers for each designated item at <http://www.epa.gov/cpg/database.htm>. Use of sources from this database is not required. It is intended as a tool to assist purchasers in locating products with recycled content.

1.3 EPA DESIGNATED ITEMS INCORPORATED IN THE WORK

Various sections of the specifications contain requirements for materials that have been designated by EPA as being products which are or can be made with recovered or recycled materials. These items, when incorporated into the work under this contract, shall contain at least the specified percentage of recycled or recovered materials unless adequate justification for non-use is provided. The following are considered adequate justifications for non-use:

- a. The product does not meet appropriate performance standards.
- b. The product is not available within a reasonable time frame.
- c. The product is not available competitively (from two or more sources).
- d. The product is only available at an unreasonable price (compared

with a comparable non-recycled content product).

When a designated item is specified as an option to a non-designated item, the designated item requirements apply only if the designated item is used in the work.

#### 1.4 EPA PROPOSED ITEMS INCORPORATED IN THE WORK

Products other than those designated by EPA are still being researched and are being considered for future Comprehensive Procurement Guideline (CPG) designation. It is recommended that these items, when incorporated in the work under this contract, contain the highest practicable percentage of recycled or recovered materials, provided specified requirements are also met.

#### 1.5 EPA LISTED ITEMS USED IN CONDUCT OF THE WORK BUT NOT INCORPORATED IN THE WORK

There are many products listed in 40 CFR 247 which have been designated or proposed by EPA to include recycled or recovered materials that may be used by the Contractor in performing the work but will not be incorporated into the work. These products include office products, temporary traffic control products, and pallets. It is recommended that these non-construction products, when used in the conduct of the work, contain the highest practicable percentage of recycled or recovered materials and that these products be recycled when no longer needed.

-- End of Section --

SECTION 01 77 00.00 20

CLOSEOUT PROCEDURES

07/06

PART 1 GENERAL

1.1 SUBMITTALS

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

SD-10 Operation and Maintenance Data

Equipment/Product Warranty List

Submit Data Package 1 in accordance with Section 01 78 23  
OPERATION AND MAINTENANCE DATA.

SD-11 Closeout Submittals

As-Built Drawings

Record Of Materials

Equipment/Product Warranty Tag

Nameplate Data

Certification of EPA Designated Items

Form DD1354; G

Checklist for Form DD1354; G

1.2 CERTIFICATION OF EPA DESIGNATED ITEMS

Submit the Certification of EPA Designated Items as required by FAR 52.223-9, "Certification and Estimate of Percentage of Recovered Material Content for EPA Designated Items". The certification form shall include the following information: project name, project number, Contractor name, license number, Contractor address, and certification. The certification shall read as follows and shall be signed and dated by the Contractor. Each product used in the project that has a requirement or option of containing recycled or biobased content in accordance with Section 01 62 35 RECYCLED/RECOVERED MATERIALS shall be recorded, noting total price, total value of post-industrial recycled content, total value of post-consumer recycled content, total value of biobased content, exemptions (1, 2, 3, or 4, as indicated), and comments. Recycled and biobased content values may be determined by weight or volume percent, but must be consistent throughout.

1.3 PROJECT RECORD DOCUMENTS

1.3.1 As-Built Drawings

"NFAS 5252.236-9310, Record Drawings."

1.3.2 Nameplate Data

Provide manufacturer's nameplate data for all equipment (condensate pumps, flash tanks, etc.) installed under this contract. In addition provide data from equipment installed under Phase 1 contract.

1.3.3 As-Built Record of Materials

Furnish a record of materials.

Where several manufacturers' brands, types, or classes of the item listed have been used in the project, designate specific areas where each item was used. Designations shall be keyed to the areas and spaces depicted on the contract drawing. Furnish the record of materials used in the following format:

MATERIALS DESIGNATION	SPECIFICATION	MANUFACTURER	MATERIALS USED (MANUFACTURER'S DESIGNATION)	WHERE USED
Roofing	_____	_____	_____	_____
(_____)	_____	_____	_____	_____

1.4 EQUIPMENT/PRODUCT WARRANTIES

1.4.1 Equipment/Product Warranty List

Furnish to the Contracting Officer a bound and indexed notebook containing written warranties for equipment/products furnished under the contract, and prepare a complete listing of such equipment/products. The equipment/products list shall state the specification section applicable to the equipment/product, duration of the warranty therefore, start date of the warranty, ending date of the warranty, and the point of contact for fulfillment of the warranty. The warranty period shall begin on the same date as project acceptance and shall continue for the full product warranty period. Execute the full list and deliver to the Contracting Officer prior to final acceptance of the facility.

1.4.2 Equipment Warranty Tags and Guarantor's Local Representative

Furnish with each warranty the name, address, and telephone number of the guarantor's representative nearest to the location where the equipment and appliances are installed. The guarantor's representative, upon request of the station representative, shall honor the warranty during the warranty period, and shall provide the services prescribed by the terms of the warranty. At the time of installation, tag each item of warranted equipment with a durable, oil- and water-resistant tag approved by the Contracting Officer. Attach tag with copper wire and spray with a clear silicone waterproof coating. Leave the date of acceptance and QC's signature blank until project is accepted for beneficial occupancy. Tag shall show the following information:

EQUIPMENT/PRODUCT WARRANTY TAG

Type of Equipment/Product \_\_\_\_\_  
Warranty Period \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
Contract No. \_\_\_\_\_

Inspector's Signature \_\_\_\_\_ Date Accepted \_\_\_\_\_

Construction Contractor:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Warranty Contact: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

STATION PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE

1.5 CLEANUP

Leave premises "broom clean." Clean interior and exterior glass surfaces exposed to view; remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces. Clean equipment and fixtures to a sanitary condition. Replace filters of operating equipment. Clean debris from roofs, gutters, downspouts and drainage systems. Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the site.

1.6 REAL PROPERTY RECORD

Near the completion of Project, but a minimum of 60 days prior to final acceptance of the work, complete, update draft attached to this section, and submit an accounting of all installed property on Form DD1354 "Transfer and Acceptance of Military Real Property." Contact the Contracting Officer for any project specific information necessary to complete the DD Form 1354. For information purposes, a blank DD Form 1354 (fill-able) in ADOBE (PDF) may be obtained at the following web site:

<http://www.dtic.mil/whs/directives/infomgt/forms/eforms/dd1354.pdf>

Submit the completed Checklist for Form DD1354 of Government-Furnished and Contractor-Furnished/Contractor Installed items. Attach this list to the updated DD Form 1354. Instructions for completing the form and a blank checklist (fill-able) in ADOBE (PDF) may be obtained at the following web site:

<http://www.hnd.usace.army.mil/techinfo/UFC/UFC1-300-08/UFC1-300-08.pdf>  
See Appendix D of this pdf for the checklist.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 78 23

OPERATION AND MAINTENANCE DATA

07/10

PART 1 GENERAL

1.1 SUBMISSION OF OPERATION AND MAINTENANCE DATA

Submit Operation and Maintenance (O&M) Data specifically applicable to this contract and a complete and concise depiction of the provided equipment, product, or system, stressing and enhancing the importance of system interactions, troubleshooting, and long-term preventative maintenance and operation. The subcontractors shall compile and prepare data and deliver to the Contractor prior to the training of Government personnel. The Contractor shall compile and prepare aggregate O&M data including clarifying and updating the original sequences of operation to as-built conditions. Organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with this section and Section 01 33 00 SUBMITTAL PROCEDURES.

1.1.1 Package Quality

Documents must be fully legible. Poor quality copies and material with hole punches obliterating the text or drawings will not be accepted.

1.1.2 Package Content

Data package content shall be as shown in the paragraph titled "Schedule of Operation and Maintenance Data Packages." Comply with the data package requirements specified in the individual technical sections, including the content of the packages and addressing each product, component, and system designated for data package submission, except as follows. Commissioned items without a specified data package requirement in the individual technical sections shall use Data Package 3. Commissioned items with a Data Package 1 or 2 requirement shall use instead Data Package 3.

1.1.3 Changes to Submittals

Manufacturer-originated changes or revisions to submitted data shall be furnished by the Contractor if a component of an item is so affected subsequent to acceptance of the O&M Data. Changes, additions, or revisions required by the Contracting Officer for final acceptance of submitted data, shall be submitted by the Contractor within 30 calendar days of the notification of this change requirement.

1.2 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

1.2.1 Operating Instructions

Include specific instructions, procedures, and illustrations for the following phases of operation for the installed model and features of each system:

1.2.1.1 Safety Precautions

List personnel hazards and equipment or product safety precautions for all

operating conditions.

1.2.1.2 Operator Prestart

Include procedures required to install, set up, and prepare each system for use.

1.2.1.3 Startup, Shutdown, and Post-Shutdown Procedures

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

1.2.1.4 Normal Operations

Provide narrative description of Normal Operating Procedures. Include Control Diagrams with data to explain operation and control of systems and specific equipment.

1.2.1.5 Emergency Operations

Include Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of all utility systems including required valve positions, valve locations and zones or portions of systems controlled.

1.2.1.6 Operator Service Requirements

Include instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gage readings.

1.2.1.7 Environmental Conditions

Include a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to run.

1.2.2 Preventive Maintenance

Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair for the installed model and features of each system. Include potential environmental and indoor air quality impacts of recommended maintenance procedures and materials.

1.2.2.1 Lubrication Data

Include preventative maintenance lubrication data, in addition to instructions for lubrication provided under paragraph titled "Operator Service Requirements":

- a. A table showing recommended lubricants for specific temperature ranges and applications.
- b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.

c. A Lubrication Schedule showing service interval frequency.

#### 1.2.2.2 Preventive Maintenance Plan and Schedule

Include manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance. Provide manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.

#### 1.2.2.3 Equipment Replacement Cost

For all equipment requiring preventive maintenance, provide length of useful life information and current equipment replacement costs for each piece of equipment. Contractor is required to complete items 20 through 30 on the attached FRC East 13700/202 (Rev. MAR 2010) Asset Checklist found at the end of this specification section. The following list should not be considered all inclusive, but provides examples of typical equipment requiring preventive maintenance:

- Generator set
- Air compressor
- Air conditioner-condensing unit
- Air conditioner-chiller
- Air conditioner-air handler
- Air conditioner-package unit
- Compressed air dryer
- Air washer/dryer
- Vacuum pump
- Air diffuser system
- Air purifier
- Dust collector/recovery unit
- Down draft system
- Hangar door motor
- Dumbwaiter (vertical platform lift)
- Ventilation/exhaust fan
- Automatic gate opener
- Heat pump
- Make-up air unit
- Hydraulic system
- Pit pump
- Oxygen breathing regulator
- Scrubber
- Distilled water system still
- Drinking water fountain
- Automatic roll-up door motor

#### 1.2.3 Corrective Maintenance (Repair)

Include manufacturer's recommended procedures and instructions for correcting problems and making repairs.

##### 1.2.3.1 Troubleshooting Guides and Diagnostic Techniques

Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what

conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

#### 1.2.3.2 Wiring Diagrams and Control Diagrams

Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.

#### 1.2.3.3 Maintenance and Repair Procedures

Include instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.

#### 1.2.3.4 Removal and Replacement Instructions

Include step-by-step procedures and a list required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Instructions shall include a combination of text and illustrations.

#### 1.2.3.5 Spare Parts and Supply Lists

Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.

#### 1.2.4 Corrective Maintenance Work-Hours

Include manufacturer's projection of corrective maintenance work-hours including requirements by type of craft. Corrective maintenance that requires completion or participation of the equipment manufacturer shall be identified and tabulated separately.

#### 1.2.5 Appendices

Provide information required below and information not specified in the preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

##### 1.2.5.1 Product Submittal Data

Provide a copy of all SD-03 Product Data submittals required in the applicable technical sections.

##### 1.2.5.2 Manufacturer's Instructions

Provide a copy of all SD-08 Manufacturer's Instructions submittals required in the applicable technical sections.

#### 1.2.5.3 O&M Submittal Data

Provide a copy of all SD-10 Operation and Maintenance Data submittals required in the applicable technical sections.

#### 1.2.5.4 Parts Identification

Provide identification and coverage for all parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing shall show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Parts shown in the listings shall be grouped by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog

#### 1.2.5.5 Warranty Information

List and explain the various warranties and clearly identify the servicing and technical precautions prescribed by the manufacturers or contract documents in order to keep warranties in force. Include warranty information for primary components such as the compressor of air conditioning system.

#### 1.2.5.6 Personnel Training Requirements

Provide information available from the manufacturers that is needed for use in training designated personnel to properly operate and maintain the equipment and systems.

#### 1.2.5.7 Testing Equipment and Special Tool Information

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components.

#### 1.2.5.8 Testing and Performance Data

Include completed prefunctional checklists, functional performance test forms, and monitoring reports. Include recommended schedule for retesting and blank test forms.

#### 1.2.5.9 Contractor Information

Provide a list that includes the name, address, and telephone number of the General Contractor and each Subcontractor who installed the product or equipment, or system. For each item, also provide the name address and telephone number of the manufacturer's representative and service organization that can provide replacements most convenient to the project site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

### 1.3 SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES

Furnish the O&M data packages specified in individual technical sections. The required information for each O&M data package is as follows:

#### 1.3.1 Data Package 1

- a. Safety precautions
- b. Cleaning recommendations
- c. Maintenance and repair procedures
- d. Warranty information
- e. Contractor information
- f. Spare parts and supply list

#### 1.3.2 Data Package 2

- a. Safety precautions
- b. Normal operations
- c. Environmental conditions
- d. Lubrication data
- e. Preventive maintenance plan and schedule
- f. Cleaning recommendations
- g. Maintenance and repair procedures
- h. Removal and replacement instructions
- i. Spare parts and supply list
- j. Parts identification
- k. Warranty information
- l. Contractor information

#### 1.3.3 Data Package 3

- a. Safety precautions
- b. Operator prestart
- c. Startup, shutdown, and post-shutdown procedures
- d. Normal operations
- e. Emergency operations
- f. Environmental conditions

- g. Lubrication data
- h. Preventive maintenance plan and schedule
- i. Cleaning recommendations
- j. Troubleshooting guides and diagnostic techniques
- k. Wiring diagrams and control diagrams
- l. Maintenance and repair procedures
- m. Removal and replacement instructions
- n. Spare parts and supply list
- o. Product submittal data
- p. O&M submittal data
- q. Parts identification
- r. Warranty information
- s. Testing equipment and special tool information
- t. Testing and performance data
- u. Contractor information

1.3.4 Data Package 4

- a. Safety precautions
- b. Operator prestart
- c. Startup, shutdown, and post-shutdown procedures
- d. Normal operations
- e. Emergency operations
- f. Operator service requirements
- g. Environmental conditions
- h. Lubrication data
- i. Preventive maintenance plan and schedule
- j. Cleaning recommendations
- k. Troubleshooting guides and diagnostic techniques
- l. Wiring diagrams and control diagrams
- m. Maintenance and repair procedures
- n. Removal and replacement instructions

- o. Spare parts and supply list
- p. Corrective maintenance man-hours
- q. Product submittal data
- r. O&M submittal data
- s. Parts identification
- t. Warranty information
- u. Personnel training requirements
- v. Testing equipment and special tool information
- w. Testing and performance data
- x. Contractor information

1.3.5 Data Package 5

- a. Safety precautions
- b. Operator prestart
- c. Start-up, shutdown, and post-shutdown procedures
- d. Normal operations
- e. Environmental conditions
- f. Preventive maintenance plan and schedule
- g. Troubleshooting guides and diagnostic techniques
- h. Wiring and control diagrams
- i. Maintenance and repair procedures
- j. Removal and replacement instructions
- k. Spare parts and supply list
- l. Product submittal data
- m. Manufacturer's instructions
- n. O&M submittal data
- o. Parts identification
- p. Testing equipment and special tool information
- q. Warranty information
- r. Testing and performance data

Repair Engineering Office Space, Bldgs. 163, 4033 & 4470

s. Contractor information

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

DOCUMENT 01 90 00

SCOPE OF WORK

02/11

PART 1 PROJECT REQUIREMENTS

**STATEMENT OF WORK**

**MODIFY ADMINISTRATIVE AREAS, BUILDINGS 4033, 163, AND 4470  
FLEET READINESS CENTER EAST, CHERRY POINT, N.C.**

1.0 SCOPE. This statement of work (SOW) requires a Contractor to perform building modifications and procure furniture for administrative facilities including Building 4033, 163, and 4470 located at the Fleet Readiness Center East (FRC-East), Cherry Point, NC. Services shall include: demolition of existing modular wall systems and doors to achieve requested layout, construction of new conference room and break room, new carpet and paint, demolition of existing furniture and procurement and installation of new furniture, as outlined below. Additionally, there are modifications to Bldg. 4033 variable air volume (VAV) terminal units, sprinklers & fire alarm systems, ceiling grid/tiles, and related electrical requirements.

2.0 APPLICABLE DOCUMENTS. The following documents, or the issue in effect on date of invitation for bids or request for proposals, form a part of the SOW to the extent specified herein. Documents listed below are referenced in the SOW by alphanumeric code only.

2.1 Government Documents.

DEPARTMENT OF DEFENSE

Unified Facilities Criteria

UFC 1-200-01 General Building Requirements

UFC 3-300-10N Structural Engineering

UFC 3-310-01 Structural Load Data

UFC 3-310-02A Structural Design Criteria for Buildings

UFC 3-600-01 Design: Fire Protection engineering for Facilities

UFGS-01331 Design Submittal Procedures

DEPARTMENT OF THE NAVY

OPNAVINST 5100.23E Hearing Conservation and Noise  
Chapter 18 Abatement

2.1.1 Drawings.

PE-21037F FRC East Cherry Point NC Facilities Drawing - B4033  
PE-21037F (7 Sheets)

PE-21042F FRC East Cherry Point NC Facilities Drawing - B163  
PE-21042F (6 Sheets)

PE-21037M FRC East Cherry Point NC Mechanical Drawing - B4033  
PE-21037M (20 Sheets)

PE-21042M FRC East Cherry Point NC Mechanical Drawing - B163  
PE-21042M (4 Sheets)

PE-21037P FRC East Cherry Point NC Electrical Drawing - B4033  
PE-21037P (12 Sheets)

PE-21042P FRC East Cherry Point NC Electrical Drawing - B163  
PE-21042P (8 Sheets)

4419966-E4 MCAS NAVFAC Cherry Point NC Electrical Drawing  
4419966-E4 (Sheet 24 of 31 Only)

### 2.1.2 Documentation of Additional Reference.

Telecommunication Enclosure Package

2.2 Order of Precedence. In the event of a conflict between the text of this SOW and the references cited herein, contact the Government for clarification. This SOW shall not supersede applicable laws and regulations.

### 3.0 REQUIREMENTS.

#### 3.1 General Requirements.

3.1.1 Materials. All materials provided by the Contractor shall be new. New materials are materials that have never been used. All demolished materials, and scrap materials remaining after construction, shall be removed and disposed of by the Contractor.

3.1.2 Securing the Work-site. The Contractor shall be responsible for insuring that a temporary construction barrier is in place around the respective construction zone at the beginning of each work shift. This barrier, along with other necessary materials shall be used to cordon off the work-site, (i.e. yellow warning tape) to ensure the safety of employees remaining in the building.

3.2 Work To Be Performed. The Contractor shall provide all supervision, labor (mechanical, electrical, welding, engineering, etc.), tools, parts, materials, equipment, freight, and transportation required to complete all the work in this SOW and shown on FRC East Drawings PE-21037F, PE-21042F, PE-21037M, PE-21042M, PE-21037P, PE-21042P and 4419966. The following is a general description of the type of information provided in each drawing:

a. PE-21037F & PE-21042F: outlines project phases and provides the existing and new layout of wall locations/construction, construction of break room, furniture arrangement (with specification and personnel relocations for Buildings 4033 and 163).

b. PE-21037M & PE-21042M: provides the mechanical details (fire protection/sprinkler, HVAC, ceiling grid work, etc.) required to accomplish the building modifications (i.e. - wall locations, furniture arrangement, and personnel relocations) identified in PE-21037F and PE-21042F.

c. PE-21037P & PE-21042P: provides the electrical power details required to accomplish the modifications (i.e. - wall locations, furniture arrangement, and personnel relocations) identified in PE-21037F & PE-21042F.

d. 4419966-E4: provides historical electrical information for Building 163.

3.2.1 Project Phases. All work shall be performed in the phase sequence outlined in this SOW. (Note: Both phase and zone numbers correlate with one another.)

There are eight - (8) work zones within Buildings 4033 and 163 outlined in this SOW. Due to the limited amount of staging space available for personnel, the occupants will continue operations in Buildings 4033 and 163 while the work is accomplished.

The Contractor shall schedule work to be accomplished in each phase in a manner that will minimize the impact on operations within the building. Prior to initiating any work, the Contractor shall provide a schedule for that phase to the Contracting Officer or the Contracting Office Representative. Any subsequent changes to this schedule shall be approved by the Contracting Officer to start work. The Contractor shall be responsible for moving and covering Government equipment to access work areas. The Contractor shall schedule an inspection and test with the Government at the end of Phases 1 through 8. The Contractor shall not begin work on the next phase within the same building until the current phase has been accepted by the Government; unless otherwise agreed upon. Work is accepted when the Government confirms relocated equipment is fully operational and the completed demolition and/or construction have been accomplished per this SOW. The eight phases are as follows:

NOTE: THE CONTRACTOR SHALL COORDINATE ALL WORK PER THE ZONES LISTED BELOW AND SHOWN ON PE-21037(F) (P) (M) AND PE-21042F(F) (P) (M) .

- a. Zone 1 - Renovation of Conference Room and Logistics (6.0) Office Area, BLDG 4033.
- b. Zone 2 - Renovations to New R&E GROUP (4.0) Office Area, BLDG 4033.
- c. Zone 3 - Renovations to New Program Management (1.0) Office Area, BLDG 4033.
- d. Zone 4 (A, B, & C) - Renovations to the SUPPORT EQUIPMENT TEAM Office Area, BLDG 163.
- e. Zone 5 (A&B) - Renovations to R&M/INC Office Area, BLDG 163.
- f. Zone 6 - Renovations to AERO/MECH JETT TEAM Area, BLDG 163.
- g. Zone 7 - Renovations to New R&E Group Heads (4.0) Office Area, BLDG 4033.
- h. Zone 8 - Construction of Break Area, BLDG 4033.

Zones 1 - 8: Building Renovations.

All applicable work shown on PE-21037(F) (P) (M) AND PE-21042F(F) (P) (M) shall be completed during this contract.

This work includes the following major tasks:

- a. Removal/Installation of ceiling grid. (All of B4033 and small a

portion of B163)

- b. Relocation of personnel and belongings to and from staging area; per zone.
- c. Removal of existing carpeting and cove molding and installation of new carpeted tiles, trimmed with vinyl cove molding; per zone.
- d. Removal of specified windows and doors and modify existing door opening as denoted in drawings.
- e. Procurement, delivery, and installation of demountable wall systems and modular furniture, per zone.
- f. Relocation of power receptacles and temperature sensors as necessary, as noted.
- g. Demolition and Construction of new walls and doors as identified; per zone.
- h. Installation of new cabinetry, countertop, double sink, water heater, ceramic tile flooring, etc., in new break room.
- i. Demo old and install new wiring for all power, voice, and data.
- j. Modify Sprinklers, Fire Alarm System and HVAC, as detailed per phase.
- k. Making necessary repairs and painting walls in both buildings. Paint and/or glues used through out both buildings shall be low odor/volatile organic compounds to help minimize exposing building occupants to harsh fumes during construction.

3.2.1.1 SPECIFIC CONTRACT INSTALLATION REQUIREMENTS:

The Contractor shall perform all work and incorporate the intent of this project as stated. Equipment not covered in this scope, or in manufacturer's instructions, shall be installed as recommended by the manufacturer's representative. In addition, the Contractor shall provide mechanical and electrical training to FRC-E maintenance personnel in the operation and maintenance of the newly installed equipment, four (4) copies of the Operation and Maintenance manuals, and a control schematic for the new installation. The installation of all material and equipment shall comply with the North Carolina Building Codes and Statutes as it applies to this project. All discarded debris shall become the property of the Contractor and be disposed off Government property by the Contractor at no additional cost to the Government. The Contractor shall be responsible for any damages to Government property during the performance of this contract. The Contractor shall not rely on any given dimensions, quantities, or items; field verification is required. It is the Contractor's responsibility to seek clarification from the Government whenever necessary.

A. Building Modifications/Office Furniture Requirements:

**(1) Demountable Partitions/Wall System-Solid/Glass.** (Building 4033 only)

(a) Must accommodate Three-(3) Private Offices (Zone 7) and One-(1) Media wall in Conference Room (Zone 1).

(b) Wall system shall extend from floor to ceiling and be a minimum of 4" thick to achieve required structural integrity and STC rating.

(c) Manufacturing and Delivery times for the first phase of system installs, at least, shall not exceed more than 6 weeks from the date of the award of contract.

(d) Stack panels for private office walls shall have the following: Two-(2) panels of Wood Veneer and Two-(2) panes of glazed glass

(e) Demountable media wall shall extend the full width of room, as shown in drawing. This wall must be able to support and accommodate Government furnished equipment such as a SMART Board and Video Teleconferencing (VTC) Equipment, as well as other electrical components such as DVD Players. Two-(2) media shelves and One-(1) sliding door (4' Opening Clearance) shall be incorporated into this wall. (Note: Contractor will be responsible for mounting Government Furnished Equipment, with the exception of the VTC.)

(f) The panels for conference room media wall shall have the following: Three-(3) wood veneer panels, extending from floor to ceiling.

(g) All parts integrated into the wall systems shall be provided from one source. These parts are inclusive of, but not limited to: frames, finishes/glazing, acoustic insulation, panels, horizontal "rails" to allow for mounting of cabinets, doors and hardware, conduit and boxes for electrical and data, flexible steel conduit "whips" for each circuit, and other components as specified.

(h) All Panels shall be fabricated with concealed fastening devices and pressure-fit members that will not damage ceiling or floor coverings; exceptions: drywall ceilings and doors against building-requiring screw holes for proper fastening.

(i) Fabricate wall panels with continuous seals for light and sound at floor, ceiling and other locations where panels adjoin fixed construction.

(j) Demountable Partitions/Wall Systems shall be like/similar to those products made available through DIRTT Environmental Solutions Ltd. ®

**(2) Contemporary Buffet Credenza**

(a) Quantity: 1.

Finish: Autumn maple-veneer, matte chrome-metal (to match conference table)

Additional Features: Locking drawers, adjustable shelving, vented back, and cable access grommets.

Similar to: Prominence Buffet Credenza by Paoli®

**(3) Typical Power-Integrated Modular Furniture** (Open Areas - Buildings: 4033)

(a) Must accommodate 24 cubicles. (Actual cubicles size varies in some areas)

(b) Each cubicle shall be furnished with the following:

Two-(2) locking perforated metal flipper overheads. Shelves and doors shall be made of steel; Shelves-powder coat finish, Doors-painted steel and fabric covered (one-14"h x 12"d x 36"w and one-14"h x 12"d x 30"w; with some exceptions-see drawing PE-21037)

(1)-Box/box/file structural pedestal on coasters; must contain a pencil tray and be constructed of 20 gauge steel or better and have a powder coat finish. (27 1/2"h x 24"d)

(1)-File/file structural pedestal on coasters; must contain a pencil tray and be constructed of 20 gauge steel or better and have a

powder coat finish. (27 1/2"h x 24"d)

All storage to be keyed alike

2 electronic ballast task lighting 36"W

Work surfaces to be 24"d; High pressure laminate with PVC; grommets must be located in each corner work surface; edge banding; height adjustable in increments of 1"; all work surfaces are to include support end panels, cantilever brackets, and corner support brackets.

Segmented tile panels for all cubicles shall come: Three-(3) frames high tackable acoustical tiles and One-(1) panel of glazed glass; Fabric selection TBD through submittals. Typical panel frames are to be 66" in height, unless noted otherwise on furniture layout. Use Frames must be constructed of roll formed steel. Panels must be UL listed. Must be available in a variety of widths.

Office furniture shall be like/similar to the Terrace DNA<sup>®</sup> line made available through Allsteel<sup>®</sup>

**(4) Typical Power-Integrated Modular Furniture** (Open Areas - Buildings: 163)

(a) Must accommodate 83 cubicles.

(b) Each cubicle shall be furnished with the following:

Two-(2) locking perforated metal flipper overheads. Shelves and doors shall be made of steel; Shelves-powder coat finish, Doors-painted steel and fabric covered (one-14"h x 12"d x 36"w and one-14"h x 12"d x 30"w; with some exceptions-see drawing PE-21042)

(1)-Box/box/file structural pedestal on coasters; must contain a pencil tray and be constructed of 20 gauge steel or better and have a powder coat finish. (27 1/2"h x 24"d)

(1)-File/file structural pedestal on coasters; must contain a pencil tray and be constructed of 20 gauge steel or better and have a powder coat finish. (27 1/2"h x 24"d)

All storage to be keyed alike

2 electronic ballast task lighting 36"W

Work surfaces to be 24"d; High pressure laminate with PVC; grommets must be located in each corner work surface; edge banding; height adjustable in increments of 1"; all work surfaces are to include support end panels, cantilever brackets, and corner support brackets.

Segmented tile panel frames with tackable acoustical tiles; Fabric grade TBD with submittals. Typical panel frames are to be 66" in height, unless noted otherwise on furniture layout. Frames must be constructed of roll formed steel. Panels must be UL listed. Must be available in a variety of widths.

Office furniture shall be like/similar to the Terrace DNA<sup>®</sup> line made available through Allsteel<sup>®</sup>.

**(5) Typical Office Furniture** (Typical Private Office Areas - Buildings: 163 only)

(a) Full pedestal, wooden desk must accommodate four-(4) private offices in B.163.

(b) Dimensions: not to exceed 66 (W) x 96 (D); cove edge. Field verify measurements for each private office space. Autumn maple veneer finish.

(c) Hardware style: Slot pull handles; Finish: matte chrome

(d) "L" shape executive unit with: a bow shape front work surface, side (return) work surface, with upper bookcase.

(e) Cable access grommets shall come standard

Upper bookcase shall also have adjustable shelving, hidden-hinge doors and have a glass (frosted) material in the view pane of doors. Fabric selection for tackboard to be determined in submittals.

Units shall have both lockable box and file drawers and task lighting.

Selection must be similar to the Executive Task Unit from Paoli®'s Revolve® Casegood Line.

**(6) Typical Office Furniture** (Private Office Areas - Building 4033 Only)

(a) Full pedestal, wooden desk must accommodate 10 private offices

(b) Dimensions: not to exceed 72 (W) x 114 (D); cove edge. Field verify measurements for each private office space. Autumn maple veneer finish.

(c) Hardware style: Slot pull handles; Finish: matte chrome

(d) "U" shape executive unit with: a bow shape front work surface, side (bridge) work surface, rear work surface with upper bookcase and single wardrobe armoire.

Wardrobe shall have adjustable shelves and coat bar

(e) Cable access grommets shall come standard

Upper bookcase shall also have adjustable shelving, hidden-hinge doors and have a glass (frosted) material in the view pane of doors. Fabric selection for tackboard to be determined in submittals.

Units shall have both lockable box and file drawers and task lighting.

Selection must be similar to the Executive Task Unit from Paoli®'s Revolve® Casegood Line.

**(7) 4.0 Dept Receptionist Area** (Private Office Areas - Building 4033 Only)

(a) Full pedestal, "L" shaped receptionist station must accommodate 2 people.

(b) Dimensions: not to exceed 120 (W) x 147 (D). Field verify measurements for each private office space. Autumn maple veneer finish.

(c) Hardware style: Slot pull handles; Finish: matte chrome

(d) This area shall contain: a service transaction top, built-in desktop file system, two-(2) Box/Box/File mobile filing (lockable), two-(2) 5 drawer lateral files and one-(1) 5 drawer lateral file with recessed flipper doors. (As specified in line item (11)-Additive bid option "a".)

Selection must be similar to the Receptionist Stations available in the Paoli®'s Casewood Line.

**(8) 4.0 Dept Receptionist Area** (Private Office Areas - Building 4033 Only)

(a) Full pedestal, "L" shaped receptionist station must accommodate 1 person.

(b) Dimensions: not to exceed 78 (W) x 114 (D). Field verify measurements for each private office space. Autumn maple veneer finish.

(c) Hardware style: Slot pull handles; Finish: matte chrome

(d) This area shall contain: a split-level service transaction top, built-in desktop file system, one-(1) Box/Box/File mobile filing (lockable), one-(1) 5 drawer lateral file. (As specified in line item (11)-Additive bid item "1".)

Selection must be similar to the Receptionist Stations available in the Paoli®'s Casewood Line.

**(9) Conference Room Table** (Building 4033 only)

(a) Table must accommodate a minimum of 12 people

(b) Dimensions: 168 (W) x 54 (D); 2 pieces.

(c) Top/Base Style: Boat-Shape top with knife corners and technology grommets available on surface. Grommets are to be 8"x 8" and house accessories for power, voice, and data connections. Three coordinating vertical structures shall also accommodate the technology trough that accompanies the table top. Conference table base(s) are to be curved (half-drum shaped) with a hinged door.

(d) Inlay face veneer; Autumn Maple Wood Finish; Standard Sheen.

(e) Table shall be similar to Fuse, P-OV19254BT by Paoli®.

**(10) Seating**

**(a) Conference Room Seating** (Building 4033 only)

(1) 30 Mid-Back Conference Chairs with fixed backs

(2) Items shall be equal or similar in nature to Paoli R5

Midback Conference Chair (Model P-1721).

(3) Seating ordered must reflect the following attributes:

i. Frame: Must be composed of recycled aluminum; Base is to be a 5 star base composed of die cast aluminum and had casters; Standard synchro control shall contain a swivel tilt with tilt tension, swivel, and tilt lock.

ii. Fabric: TBD with submittals

**(b) Typical Seating** (Private Office - Buildings: 4033 & 163)

(1) Must accommodate 2 guest per private office; Total 28.

(2) Items shall be equal or similar in nature to Paoli Modrian Model P-1671 with Back Option "B"; ¾ upholstered back with one wood rail and open wood arms.

(3) Seating ordered must reflect the following attributes:

i. Frame: Must be a Select grade hardwood; constructed using mortise and tenon joints and corner blocks for reinforcement. Joints shall also be glued and screwed in place for durability.

ii. Arms: Hardwood veneer finish; Java Cherry-Color.

iii. Fabric: Grade/Style-TBD

**(11) Additive Bid Items.** While considering the following items please note that there will be no additional completion time granted for any of the task listed.

**(a) Additive Bid Item 1:** Procurement and installation of Additional Filing in Bldgs 4033 & 163

**5-drawer lateral files - Qty. (51)**

Various sizes 20-Guage steel outer case, full steel construction

Painted metal finish, to match color selection of other metal finishes.

Front to Back and Side to Side filing capability

Includes counterweight and are to be keyed alike; 2 master keys

**5-drawer lateral files with recessed flipper doors - Qty. (15)**

Various sizes 20-Guage steel outer case, full steel construction

Painted metal finish, to match color selection of other metal finishes.

15" Flipper doors with dividers to support binders

Includes counterweight and are to be keyed alike; 2 master keys

**(b) Additive Bid Item 2:** Replace light fixtures through out building 4033, as noted on Sheet 12 of electrical drawing PE-21037(P).

**(c) Additive Bid Item 3:** Remove all unused electrical component above the ceiling in building 4033; see electrical drawing for details (PE-21037(P)-Sheet 12).

**(d) Additive Bid Item 4:** Additional Furniture B. 4470

Must accommodate 10 cubicles.

Each cubicle shall be furnished with the following:

Two-(2) locking perforated metal flipper overheads. Shelves and doors shall be made of steel; Shelves-powder coat finish, Doors-painted steel and fabric covered (one-14"h x 12"d x 36w and one-14"h x 12"d x 30w; with some exceptions-see layout)

One (1)-Box/box/file structural pedestal on coasters; must contain a pencil tray and be constructed of 20 gauge steel or better and have a powder coat finish. (27 1/2"h x 24"d)

(1)-File/file structural pedestal on coasters; must contain a pencil tray and be constructed of 20 gauge steel or better and have a powder coat finish. (27 1/2"h x 24"d)

All storage to be keyed alike

2 electronic ballast task lighting 36"W

Work surfaces to be 24"d; High pressure laminate with PVC; grommets must be located in each corner work surface; edge banding; height adjustable in increments of 1"; all work surfaces are to include support end panels, cantilever brackets, and corner support brackets.

Segmented tile panel frames with tackable acoustical tiles; Fabric. All panel frames to be 66" in height, unless noted otherwise on furniture layout. Frames must be constructed of roll formed steel. Panels must be UL listed. Must be available in a variety of widths.

Office furniture shall be like/similar to the Terrace DNA<sup>®</sup> line made available through Allsteel<sup>®</sup>

B. 4470 Conference Area

One (1) - Conference table - 36" (W) X 72" (L) with laminate top and silver post legs.

Six (6) - Nesting Sleek poly chairs with casters.

3 Lab workstations 24" X 72" rectangular work surfaces; 78" high segmented panel tiles; one (1) open shelf and one (1) locking overhead in each station

Office furniture shall be like/similar to the Terrace DNA<sup>®</sup> line made available through Allsteel<sup>®</sup>

**B. Electrical :**

**Demountable Wall System (Electrical Requirements):**

**1. Outlets (Receptacles, 1 per location)**

120VAC, 20AMP, 60HZ, 3 wire (including ground)

#12 AWG copper stranded wire

Wiring inside wall: In conduit

Wiring whip from top of wall: In armored gable, six (6) feet long  
w/ connector

Single gang deep device box

Device: 120VAC, 20AMP, duplex receptacle, white

Copper wiring device P/N: DR20W (Like/Similar)

Stainless steel, mid-size (if possible), device cover (single gang)

**2. Switches (2 per location)**

120/277 VAC, 20 AMP, Single Pole, 60 Hz

Single pole wiring, w/ separate equipment grounding conductor

#12 AWG copper stranded wire

Wiring inside wall: In Conduit

Wiring whip from top of wall: In armored cable, six (6) feet long  
w/ connector

Double gang deep device box

Device: 120/277 VAC, 20AMP, single pole switch, white

Copper wiring device P/N: CS120W (Like/Similar)

Stainless steel, mid-size (if possible) ), device cover (single  
gang)

**3. Communications Conduit/Box (1 per location)**

Single gang deep box

Conduit from box, stubbed up through suspended ceiling

Plastic bushings on both ends of conduit

4. All Conduit, electrical and communications shall be ¾" EMT,  
properly supported, with steel compression fittings.

5. General locations are shown on Sheet 11 of PE-21037(P)

**Cubicle Walls (Electrical Requirements):**

1. Must be ceiling feed for both pre-wired electrical and customer

installed communications cabling; a riser pole shall be used for ceiling feeds. (Refer to sheet 8 of electrical drawing)

2. Riser pole must accommodate fifty (50) category 6 cables plus the flexible armored electrical conduit.

3. An integrated pole shall be used for both electrical wiring and communications cabling.

4. Riser poles extend one-(1) foot above the suspended ceiling.

120VAC, 20AMP, 60HZ, 3 wire (including ground)

5. Electrical wiring shall be in a flexible armored type conduit, not only to isolate but also to protect wire. Flexible armored cable shall extend six-(6) feet from the top of the riser pole.

6. Wiring system shall be a minimum 4-4-2 120/208Y type system:

4 - Current carrying conductors

4 - Neutral (grounded) conductors

1 - Isolated equipment grounding conductor

7. Both Current Carrying and neutral (grounded) conductors shall be minimum # 12 AWG (total 8 conductors). Both equipment grounding conductors shall be #10 AWG (total 2 conductors). All wire shall be a THHN/THWN type wire rated for 600 VAC and have a minimum temperature rating of 90° C.

8. Wiring system computers shall all be compatible with one another and in multiple configurations.

9. A minimum of four (4) separately configured duplex receptacles shall be provided for each cubicle.

10. Spare receptacle and wiring system components shall be provided

11. A pathway for communications category 6 cabling (25 minimum) shall be provided throughout the cubicle walls. Base plates shall accommodate standard single gang faceplates.

12. General locations are shown on sheet 11 of PE-21037P and sheet 8 of PE-21042P.

13. All modular cubicle wall receptacles shall be fully operational at the completion of this project.

**C. Mechanical Equipment:** For all mechanical specifications, please refer to drawings PE-21037(M) and PE-21042(M).

Testing and Inspection: Testing and balancing shall be done by an ABBC certified contractor. Perform TAB in accordance with the requirements of ABBC MN-1, NEBB PROCEDURAL STANDARDS, or SMACNA 1143.

3.3 Warranty. A minimum of one year warranty shall be provided by the Contractor on all material and labor provided by this statement of work. The warranty shall start after satisfactory completion and acceptance of the work. The warranty shall cover all costs (labor, travel, meals, hotel,

parts, materials, equipment, supervision and transportation expenses), associated with repairing any discrepancies. Upon notification of a discrepancy, the Contractor shall arrive at the Fleet Readiness Center East, Cherry Point, NC, within 48 hours and repair the discrepancy within five calendar days after arrival.

3.4 Lay Down Site. During the period of this construction, a temporary lay down site will be provided to the Contractor for on-site storage of tools and equipment. The Contractor shall keep tools and equipment in the designated lay down site to limit additional impacts to this area. If additional space is required during the duration of the construction the Contractor shall contact the Project Manager (Ms. Melissa (Missy) C. Oden, 252-464-8448).

3.5 Clean the Work Site. The Contractor shall keep the installation/modification work sites clean of trash and debris. At a minimum, daily work site cleaning is required. The Government will inspect the work area at its discretion. Any cleaning or trash problems not corrected by the Contractor in a timely manner will result in payment being withheld until the problem is corrected.

3.6 System Shutdown. The Contractor shall request in writing, at least 15 days in advance, a Government shutdown of existing equipment and/or utility systems (power, water, HVAC, compressed air, fire protection, etc) to allow the Contractor to perform required system modifications. The Government and the Contractor shall mutually agree upon shutdown dates and times. The Contractor's request should include a specific day for the system to be shutdown and how long the shutdown will last. The Government will coordinate these shutdowns with the affected shops.

3.7 Environmental Requirements. The Contractor shall manage all hazardous material brought on site in accordance with 29 CFR 1910.1200. Material Safety Data Sheet (MSDS) for all hazardous material being used shall be submitted to FRCEAST Hazardous Material Program Manager, Michelle Burroughs (252.464.8051) or alternate Pat Lake (252.464.7264). The Contractor shall maintain the MSDS on-site for all hazardous materials being used. The Contractor shall ensure that their employees understand how to locate a MSDS. The Contractor shall complete a Hazardous Material Inventory Sheet (FRCEAST FORM 5090/20) and provide them to the Hazardous Material Program Manager. Absolutely no hazardous material will be left on-site at the completion of the contract.

All furniture, wiring, scrap metal, etc. being demolished in association with this project, shall be transported by the Contractor to the Defense Reutilization and Marketing Office (DRMO) for assessment.

3.8 Asbestos and Lead Paint Inspection and Sampling. The Contractor shall be responsible for inspecting the portions of the building that are affected by this project for the presence of suspected asbestos and lead contaminated material. This inspection shall be performed by a North Carolina Accredited Asbestos Inspector and shall identify any suspected material that appears to be involved in the project. Assume the presence of asbestos and lead paint is a possibility and be prepared to do some sampling and analysis during the inspection.

1) Provide a signed report of the inspection. State the findings of the inspection and state if the area appears to be asbestos free or present the results of the sampling and analysis. The report shall be certified by the Asbestos Inspector and shall include the Inspector's certification

number.

**4.0 ACCEPTANCE OF WORK.** After completing all work, the Contractor shall notify the Government that they are ready for the Government's inspection. The inspection will occur Monday - Friday, between 7:00 am and 3:30 pm. The Government will perform the following visual inspections and functional tests. The inspections and tests shall be conducted and identified to be "complete" by the FRC East's Project Manager (Code 6.3.1) and shop personnel, with the Contractor present, before work under this contract is considered complete. All punch list items shall be resolved two weeks or less after completing the Government inspection.

4.1 Visual Inspection. A visual inspection shall be made to ensure all work has been accomplished as shown in Drawings PE-21037 (F)(M)(P) as well as PE-21042 (F)(M)(P).

4.2 Functional Test. Shop personnel will operate all relocated equipment to ensure each piece is in satisfactory working condition and has the same functionality found during testing conducted in paragraph 3.2.1 "Government Property/Furnishings".

**5.0 WORK SCHEDULE.**

5.1 Duration of Contract. All work associated with this contract (demolition, construction/modifications, installation, and acceptance of work) shall be completed within 150 calendar days or less from the time of contract award. On-site work shall be completed no later than 30 September 2011.

5.2 On-Site Work Hours. The performance of all on-site (FRC-East) work associated with this contract shall be accomplished during first shift (7:00am to 3:30 pm), second shift (3:30pm to 12:00am) and/or third shift (12:00am to 7:00am), Monday through Sunday. Weekend work is expected to ensure the timely completion of this project. Any deviation from these hours must be approved in writing by the Fleet Readiness Center East Security Office (POC: David Knapp, 252.464.7243).

5.3 Suggested Source for Furniture Suppliers:

- 1.) MINC Interior Design - POC: Holly Scott, (910) 689-0171
- 2.) Carolina Business Interiors - POC: Stacey Kinney, (704) 522-7630 ext. 222

**6.0 BID INSTRUCTIONS.** The Contractor shall bid a firm fixed price for all expenses associated with the statement of work.

6.1 Response To Statement Of Work. The Contractor's bid shall include a response to each paragraph and subparagraph in this statement of work with one of the following terms, "comply" or "exception".

- a. Comply shall be used when quoting exactly what is specified.
- b. Exception shall be used when the Contractors quoted work (labor and/or parts) differs from a specific paragraph or subparagraph. The Contractor shall provide written detail of all exceptions.

**7.0 Submittals.** The Contractor shall provide all required submittals to the Contracting Officer Representative (Mrs. Amber S. Willis) for FRC-East review and approval. Submittals shall include: color and manufacturer paint samples, tile/carpet samples and cove base molding colors, ceiling

tiles and grid selections, layout of office furniture/demountable wall selections with finish samples, samples for cabinetry/counter tops in break room, HVAC equipment (VAV Terminal Units), Direct Digital Controls (DDC), Test and Balance (TAB) Plans and reports, hot water heater, balance valves, Air Distribution, double bowl sink, sink faucet, and electrical panel(s).

-- End of Section --

DOCUMENT 01 90 10

SCOPE OF WORK - TELECOMMUNICATIONS

04/11

PART 1 PROJECT REQUIREMENTS

**1.1 FLEET READINESS CENTER EAST  
STATEMENT OF WORK  
INSTALLATION OF TELECOMMUNICATIONS  
NETWORK(S), BLDG. 4033**

Introduction

This document describes the functional requirements to provide labor, material and technical expertise to relocate an existing telecommunications network and to install, test and deliver a new fully functional telecommunications cable system for Fleet Readiness Center (FRC) East, located at Marine Corps Air Station Cherry Point, NC. The system as delivered shall provide telecommunications services for data and voice communications as specified in this Statement of Work. The FRC East requires the utilization of current industry infrastructure, support services and commercial off-the-shelf (COTS) technologies to remedy this request as stated in this document. The primary purpose of the Local Area Network (LAN) is to provide a comprehensive Information Technology (IT) infrastructure. This infrastructure is expected to enhance the FRC East business process and make most efficient use of IT resources. The Government requires that a structured cabling system be installed to support existing data and voice requirements and that it shall support existing and evolving standards for the transmission of low voltage signals including data rates of 155 Mbps Asynchronous Transfer Mode (ATM) and GIGABIT Ethernet for future requirements. The cabling system shall be designed to utilize a single, structured and integrated cabling system approach allowing the distributed system to support equipment provided by more than one vendor. The contractor shall be responsible for all phases of installation and testing of the system and shall supply Government personnel with all requisite data to fully operate and support the system. The contractor shall provide a warranty for the wiring system, and all contractors supplied parts thereof supplied under this contract for a period of a minimum one year taking effect from the date of government acceptance. In this document Information Outlets shall be referred to as I/O's and Category 6 Cables as UTP's (Unshielded Twisted Pairs).  
NOTE: \* An initial site visit is required prior to bidding and installation of the system.

Requirements

The following documents and drawings shall be applicable to the extent stipulated herein.

-Drawings:

FRC East drawings showing relative source location for wiring and furniture layout drawings for termination locations for Telecommunication and NMCI standards:

-UFC-3-580-01: Unified Facilities Criteria, Telecommunications, Building Cabling Systems, Planning and Design

-UFC-3-580-10: Unified Facilities Criteria, Navy and Marine Corps Intranet

(NMCI), Standard Construction Practices.

-NFPA 70, National Electrical Code, Current Edition

-NFPA 70E, Standards for Electrical Safety In The Workplace, Current Edition

-EM 385-1-1, Safety and Health Requirements Manual, Current Edition

-Occupational Safety and Health Standards, OSHA 29 CFR Part 1910 - General Industry, OSHA 29 CFR Part 1926 - Construction, Current Editions

1. In the event of a conflict between the text of this document and the reference cited herein, the text of this document shall take precedence.
2. Nothing in this document however, shall undermine applicable laws and regulations unless a specific exemption has been obtained. The FRC EAST and its representatives shall reserve the right supersede any applicable laws and regulations and act as "The Authority Having Jurisdiction" (AHJ).
3. The contractor shall purchase and utilize only material stipulated by the government representative. This does not include conduit, hangars and related cable support hardware.
4. All UTP cabling termination shall conform to UFC-3-580-01 standards.
5. The contractor shall provide alphanumeric/numeric-printed labels for all cables, cords, distribution frames, and I/O jack locations, according to the NMCI standards.
6. A government representative shall label the 66E phone block in the information closet.  
The contractor shall label the data modular blocks in the information closet.
7. The contractor shall run the telephone and data cables in a star topology format from the I/O outlets to the telephone information closet(s) and the data information closet(s) both of which shall be identified at the site visit.
8. The length of each individual run of UTP cable from the information closet to the I/O shall not exceed 295 ft.
9. The contractor shall adhere to standard bending radius and pulling strength requirements.
10. Each run of UTP cable between the data modular panel or 66E voice blocks within the information closet and the I/O shall be continuous without any joints or splices.
11. The contractor shall make all the necessary penetrations and install all the necessary sleeves, properly bushed and bonded to the buildings grounding system, in and through walls to facilitate the routing of the UTP cables from the I/O locations to Cabinets and Racks with the information closet(s) and or area(s). Cabinets shall require chase ways, conduits or walker ducts, properly supported, from above suspended ceilings and below accessible floors. All cabinets and racks shall be properly bonded to the buildings grounding system.
12. In suspended ceilings, accessible floors and open areas walker duct, cable trays, ladder racks, conduits, and/or "J" hooks, no farther than four (4) feet apart from on another, may be used unless specifically stipulated to route UTP cables. UTP cables shall be bundled using Velcro straps at three (3) foot intervals when using "J" hooks or on vertical ladder rack

installations. Conduits shall be used inside wall cavities. Power and riser poles shall be utilized when stipulated. All means shall always be properly supported.

13. The I/O's shall be installed in locations indicated on the FRC EAST PE-21037P drawing(s). Drawings provide approximate termination points and positions. Each I/O shall have a 6 port RJ45 capability, with the top two ports being data, the middle two ports being spares, and the bottom two ports being voice. The contractor is required to purchase and install any non-standard items.

14. All Data cabling shall be Plenum Rated and wired using one (1) Category 6 cable terminating on one (1) individual RJ45 jack, two (2) each shall be provided per I/O. Cabling shall utilize cross-over lead technology to address data circuit applications up to 100 mhz and meet or exceed electrical, mechanical and NEXT specifications.

15. All Voice cabling shall be Plenum Rated and wired using one (1) Category 6 cable terminated on two (2) RJ45 jacks within a single I/O.

16. There will be an estimated forty (40) I/O locations. These requirements shall be field verified and clarified during the site visit.

17. The contractor shall install all hardware, T-racks, and modular panels with the exception of the data switch within the information closet.

18. Any revisions requested by the government or contractor shall be reviewed and incorporated within a reasonable timeframe and shall be resubmitted for review.

19. The contractor shall not make any cross connects for voice or data terminations located in the information closet.

20. Testing of the cable plant shall be performed prior to system acceptance with 100 percent of all UTP cables being tested for opens, shorts, polarity reversals, transposition and presence of AC or DC voltages. In addition, the data cables shall be tested for conformance to the specifications of EIA-TIA 568A. Tests shall include mutual capacitance, characteristic impedance, attenuation and near-end crosstalk. Test Results, Wire Run List(s) and Floor Plans/As-Builts (Red Line Drawings), which shall require detailed cable routes, shall be provided, in triplicate, to the Government representative in hard copy and electronic (CD) format.

21. The contractor shall provide a fully functional and operational telecommunications system consisting of, but not limited to, a Cable Plant, Patch Panels, Connection Blocks and Information Outlets to meet all requirements in all documents pertaining to the specified project, upon system installation, testing and acceptance (by a Government Representative) .

22. The contractor shall provide an approved labeling plan for all I/O's, Patch Panels and connection blocks.

23. In addition the following items shall be required in this project:

1.) The UTP cabling shall utilize the same power/riser poles and channels as the flexible armored conduits and interconnecting harnesses within the cubicles. All UTP cabling within walls or surface mounted shall

be required to be in the appropriate type of conduit for the application as stated in PE-21037P.

2.) Reorganize the NMCI cabinet by replacing the existing five (5) Cable Managers with five (5) new Cable Managers, contractor provided, Hubbell P/N: HC119MS1N. Replacing the existing Cable Managers will allow for the two (2) new Patch Panels to be installed within the NMCI cabinet. Special care shall be taken not to disconnect or disrupt existing Data UTP cabling within the NMCI cabinet.

3.) Provide, install and terminate two (2) new Patch Panels, Hubbell P/N: P6E48U and two (2) new Cable Managers, Hubbell P/N: HC119MS1N in the existing NMCI cabinet to accommodate the new I/O's to be installed throughout the building. Chaseway(s) shall be installed from the NMCI cabinet to up above the suspended ceiling to route UTP cables into the cabinet.

4.) Provide, install and terminate four (4) new Modular 66 Cross Connect Blocks on the existing Voice Board to accommodate the new I/O's to be installed throughout the building. Chaseways shall be installed from the Voice Board to up above the suspended ceiling to route UTP cables down to the board.

**Contract Duration:**

All work shall be executed and completed in conjunction with FRC EAST Telecom Standards, Labeling Schemes and FRC EAST drawings PE-21037P and PE-21037F, ensuring special attention is paid to phase completion. Test results shall be turned over to the government at the completion of each phase.

**1.2 FLEET READINESS CENTER EAST  
STATEMENT OF WORK  
INSTALLATION OF TELECOMMUNICATIONS  
NETWORK(S), BLDG. 163**

**Introduction**

This document describes the functional requirements to provide labor, material and technical expertise to relocate an existing telecommunications network and to install, test and deliver a new fully functional telecommunications cable system for Fleet Readiness Center (FRC) East, located at Marine Corps Air Station Cherry Point, NC. The system as delivered shall provide telecommunications services for data and voice communications as specified in this Statement of Work. The FRC East requires the utilization of current industry infrastructure, support services and commercial off-the-shelf (COTS) technologies to remedy this request as stated in this document. The primary purpose of the Local Area Network (LAN) is to provide a comprehensive Information Technology (IT) infrastructure. This infrastructure is expected to enhance the FRC East business process and make most efficient use of IT resources. The Government requires that a structured cabling system be installed to support existing data and voice requirements and that it shall support existing and evolving standards for the transmission of low voltage signals including data rates of 155 Mbps Asynchronous Transfer Mode (ATM) and GIGABIT Ethernet for future requirements. The cabling system shall be designed to utilize a single, structured and integrated cabling system approach allowing the distributed system to support equipment provided by more than one vendor. The contractor shall be responsible for all phases of installation and testing of the system and shall supply Government personnel with all requisite data to fully operate and support the system. The contractor shall provide a warranty for the wiring system, and all

contractors supplied parts thereof supplied under this contract for a period of a minimum one year taking effect from the date of government acceptance. In this document Information Outlets shall be referred to as I/O's and Category 6 Cables as UTP's (Unshielded Twisted Pairs).

NOTE: \* An initial site visit is required prior to bidding and installation of the system.

#### Requirements

The following documents and drawings shall be applicable to the extent stipulated herein.

#### -Drawings:

FRC East drawings showing relative source location for wiring and furniture layout drawings for termination locations for Telecommunication and NMCI standards:

-UFC-3-580-01: Unified Facilities Criteria, Telecommunications, Building Cabling Systems, Planning and Design

-UFC-3-580-10: Unified Facilities Criteria, Navy and Marine Corps Intranet (NMCI), Standard Construction Practices.

-NFPA 70, National Electrical Code, Current Edition

-NFPA 70E, Standards for Electrical Safety In The Workplace, Current Edition

-EM 385-1-1, Safety and Health Requirements Manual, Current Edition

-Occupational Safety and Health Standards, OSHA 29 CFR Part 1910 - General Industry, OSHA 29 CFR Part 1926 - Construction, Current Editions

1. In the event of a conflict between the text of this document and the reference cited herein, the text of this document shall take precedence.

2. Nothing in this document however, shall undermine applicable laws and regulations unless a specific exemption has been obtained. The FRC EAST and its representatives shall reserve the right supersede any applicable laws and regulations and act as "The Authority Having Jurisdiction" (AHJ).

3. The contractor shall purchase and utilize only material stipulated by the government representative. This does not include conduit, hangars and related cable support hardware.

4. All UTP cabling termination shall conform to UFC-3-580-01 standards.

5. The contractor shall provide alphanumeric/numeric-printed labels for all cables, cords, distribution frames, and I/O jack locations, according to the NMCI standards.

6. A government representative shall label the 66E phone block in the information closet.

The contractor shall label the data modular blocks in the information closet.

7. The contractor shall run the telephone and data cables in a star topology format from the I/O outlets to the telephone information closet(s) and the data information closet(s) both of which shall be identified at the site visit.

8. The length of each individual run of UTP cable from the information closet to the I/O shall not exceed 295 ft.

9. The contractor shall adhere to standard bending radius and pulling strength requirements.

10. Each run of UTP cable between the data modular panel or 66E voice blocks within the information closet and the I/O shall be continuous without any joints or splices.

11. The contractor shall make all the necessary penetrations and install all the necessary sleeves, properly bushed and bonded to the buildings grounding system, in and through walls to facilitate the routing of the UTP cables from the I/O locations to Cabinets and Racks with the information closet(s) and or area(s). Cabinets shall require chase ways, conduits or walker ducts, properly supported, from above suspended ceilings and below accessible floors. All cabinets and racks shall be properly bonded to the buildings grounding system.

12. In suspended ceilings, accessible floors and open areas walker duct, cable trays, ladder racks, conduits, and/or "J" hooks, no farther than four (4) feet apart from one another, may be used unless specifically stipulated to route UTP cables. UTP cables shall be bundled using Velcro straps at three (3) foot intervals when using "J" hooks or on vertical ladder rack installations. Conduits shall be used inside wall cavities. Power and riser poles shall be utilized when stipulated. All means shall always be properly supported.

13. The I/O's shall be installed in locations indicated on the FRC EAST PE-21042P drawing(s). Drawings provide approximate termination points and positions. Each I/O shall have a 6 port RJ45 capability, with the top two ports being data, the middle two ports being spares, and the bottom two ports being voice. The contractor is required to purchase and install any non-standard items.

14. All Data cabling shall be Plenum Rated and wired using one (1) Category 6 cable terminating on one (1) individual RJ45 jack, two (2) each shall be provided per I/O. Cabling shall utilize cross-over lead technology to address data circuit applications up to 100 mhz and meet or exceed electrical, mechanical and NEXT specifications.

15. All Voice cabling shall be Plenum Rated and wired using one (1) Category 6 cable terminated on two (2) RJ45 jacks within a single I/O.

16. There will be an estimated ninety-one (91) I/O locations. These requirements shall be field verified and clarified during the site visit.

17. The contractor shall install all hardware, T-racks, and modular panels with the exception of the data switch within the information closet.

18. Any revisions requested by the government or contractor shall be reviewed and incorporated within a reasonable timeframe and shall be resubmitted for review.

19. The contractor shall not make any cross connects for voice or data terminations located in the information closet.

20. Testing of the cable plant shall be performed prior to system acceptance with 100 percent of all UTP cables being tested for opens, shorts, polarity reversals, transposition and presence of AC or DC voltages. In addition, the data cables shall be tested for conformance to the specifications of EIA-TIA 568A. Tests shall include mutual capacitance, characteristic impedance, attenuation and near-end crosstalk. Test Results, Wire Run List(s) and Floor Plans/As-Builts (Red Line

Drawings), which shall require detailed cable routes, shall be provided, in triplicate, to the Government representative in hard copy and electronic (CD) format.

21. The contractor shall provide a fully functional and operational telecommunications system consisting of, but not limited to, a Cable Plant, Patch Panels, Connection Blocks and Information Outlets to meet all requirements in all documents pertaining to the specified project, upon system installation, testing and acceptance (by a Government Representative) .

22. The contractor shall provide an approved labeling plan for all I/O's, Patch Panels and connection blocks.

23. In addition the following items shall be required in this project:

1.) The UTP cabling shall utilize the same power/riser poles and channels as the flexible armored conduits and interconnecting harnesses within the cubicles. All UTP cabling within walls or surface mounted shall be required to be in the appropriate type of conduit for the application as stated in PE-21042P.

2.) Install the customer provided NMCI/Data rack alongside the existing NMCI/Data rack to provide an additional location to mount Data Patch Panels. Ensure Rack is properly bonded to the buildings grounding system.

3.) Provide, install and terminate four (4) new Patch Panels, Hubbell P/N: P6E48U and four (4) new Cable Managers, Hubbell P/N: HC119MS1N in the new NMCI rack to accommodate the new I/O's to be installed throughout the building. Chaseway(s) shall be installed from the NMCI rack to up above the suspended ceiling to route UTP cables to the rack.

4.) Provide, install and terminate eight (8) new Modular 66 Cross Connect Blocks on the existing Voice Board to accommodate the new I/O's to be installed throughout the building. Chaseways shall be installed from the Voice Board to up above the suspended ceiling to route UTP cables down to the board.

Contract Duration:

All work shall be executed and completed in conjunction with FRC EAST Telecom Standards, Labeling Schemes and FRC EAST drawings PE-21042P and PE-21042F, ensuring special attention is paid to phase completion. Test results shall be turned over to the government at the completion of each phase.

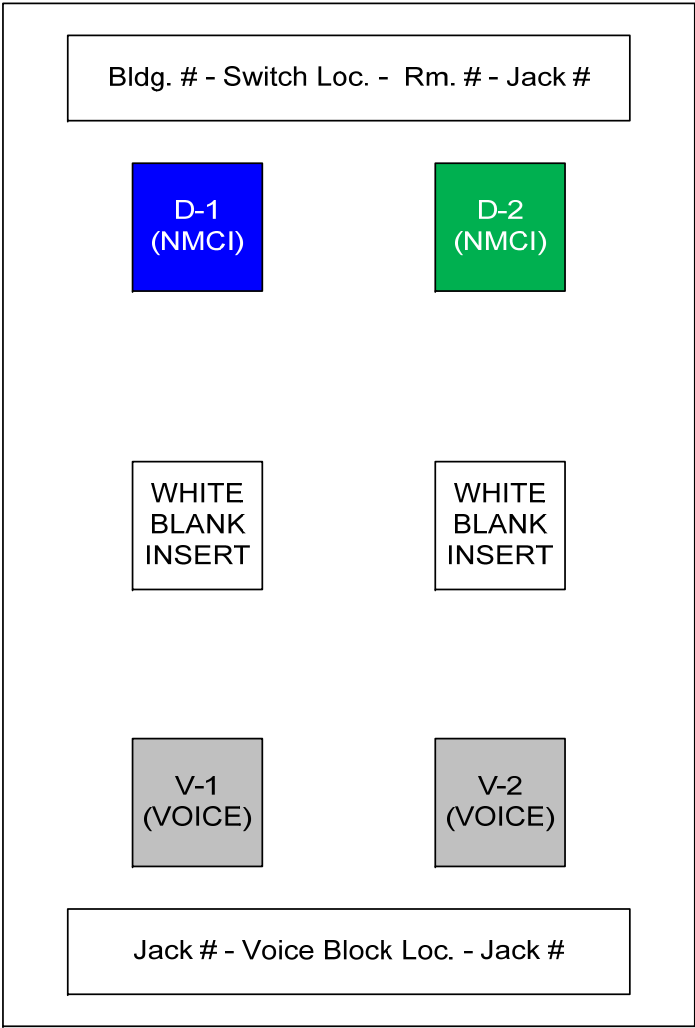
-- End of Section --

**Category 6 Information Outlet (I/O)  
and Data Patch Panel Wiring Standard  
with Hubbell part numbers, along with  
layout of typical telecom closet.**

FRC EAST  
MCAS  
CHERRY POINT

REV. 03-29-2011

# Face Plate Labeling Scheme



# WireScope 350

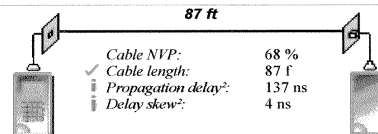
Site: **BLD-137**  
 Cable Label: **B137-C172-R235-J2A**



**PASS**

## Cable Certification Report (Pair-to-pair data)

Limit: TIA-568-A Category 5 Channel  
 Tested: 11/03/2003 07:44 AM  
 Cable: UTP CAT DA (custom)  
 WS 155 07309704306 with Generic 5E Link  
 DR 155 07309702907 with Generic 5E Channel



Attenuation (dB)	Value	@MHz	Limit	Margin	Wiremap (pairing T568A)
Pair 1 (4,5)	5.0	100.00	24.0	19.0	P11 4-4 P11
Pair 2 (3,6)	5.2	99.00	23.9	18.7	P12 3-3 P12
Pair 3 (1,2)	5.0	100.00	24.0	19.0	P13 1-1 P13
Pair 4 (7,8)	5.1	100.00	24.0	18.9	P14 2-2 P14

NEXT (dB)	Local	@MHz	Limit	Margin	Remote	@MHz	Limit	Margin
Combo 1-2	34.6	82.00	28.6	6.0	35.6	93.75	27.6	8.0
Combo 2-3	38.5	94.75	27.5	11.0	36.0	94.50	27.5	8.5
Combo 3-4	41.5	61.75	30.7	10.8	41.5	88.50	28.0	13.5
Combo 1-4	43.7	90.00	27.9	15.8	40.5	89.25	28.0	12.5
Combo 1-3	44.5	86.50	28.2	16.3	40.4	97.75	27.3	13.1
Combo 2-4	42.7	76.25	29.1	13.6	41.3	76.00	29.2	12.1

ACR <sup>2</sup> (dB)	Local	@MHz	Remote	@MHz
Combo 1-2	29.9	100.00	30.7	93.00
Combo 2-3	33.5	94.00	31.0	94.00
Combo 3-4	37.6	61.00	36.7	88.00
Combo 1-4	38.9	90.00	35.7	89.00
Combo 1-3	39.8	86.00	35.4	97.00
Combo 2-4	38.1	89.00	36.9	76.00

<sup>2</sup> Not required for selected limit

### Sample Testing Sheet:

**\*\*All testing results must be in printed and electronic form.\*\***

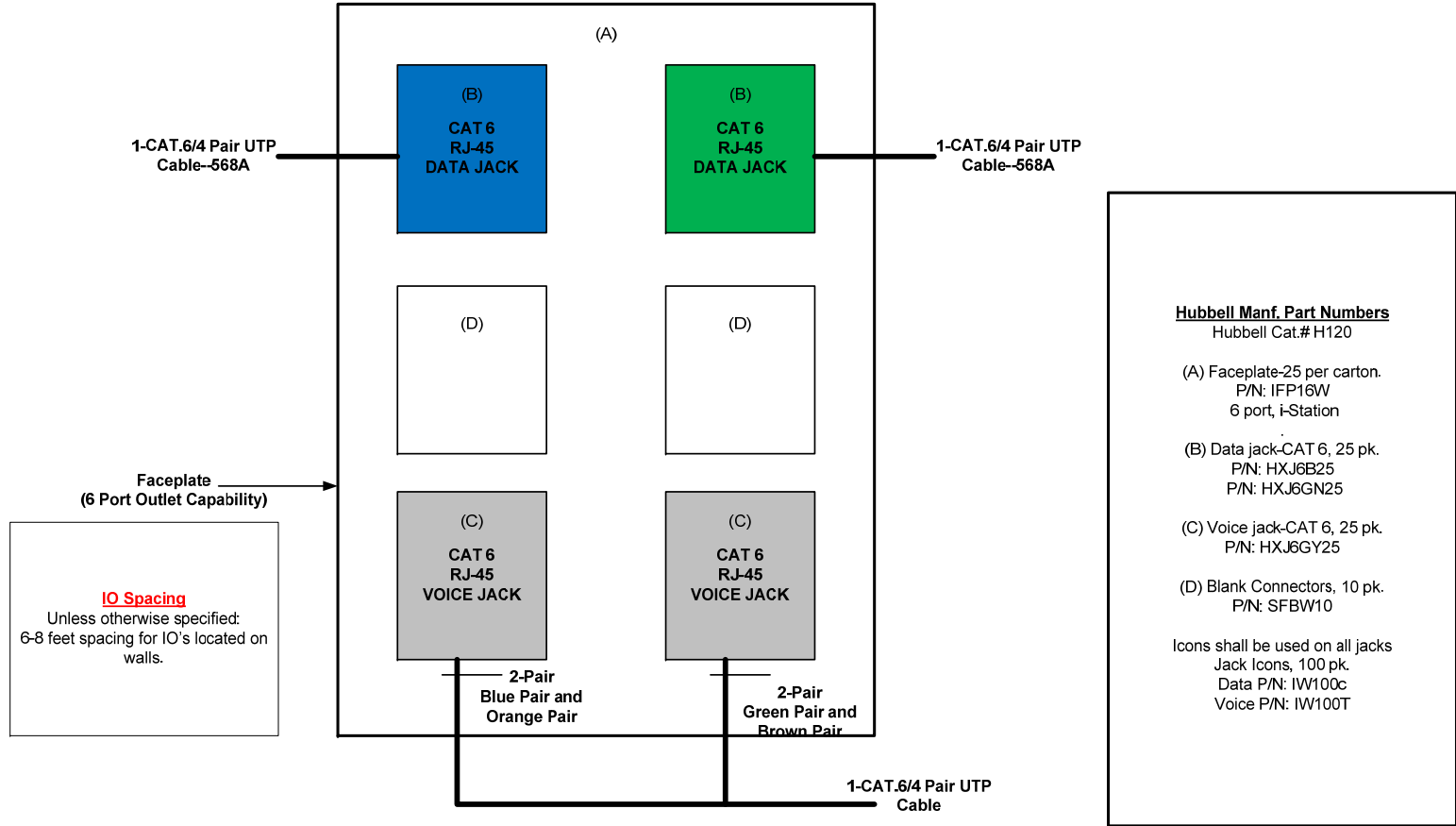
**Wire Run List**  
**MCAS NADEP CHERRY POINT, NC - Room: 400**  
**Cabinet 1 Patch Panel 2F**      **Building Number: 163**

Patch Panel	Port	Bldg/Room/Jack#	Floor	Patch Panel	Port	Bldg/Room/Jack#	Floor
2F	1	163-421-001 D1	1	2F	25	163-421-001 D2	1
2F	2	163-421-002 D1	1	2F	26	163-421-002 D2	1
2F	3	163-421-003 D1	1	2F	27	163-421-003 D2	1
2F	4	163-421-004 D1	1	2F	28	163-421-004 D2	1
2F	5	163-421-005 D1	1	2F	29	163-421-005 D2	1
2F	6	163-421-006 D1	1	2F	30	163-421-006 D2	1
2F	7	163-421-007 D1	1	2F	31	163-421-007 D2	1
2F	8	163-421-008 D1	1	2F	32	163-421-008 D2	1
2F	9	163-421-009 D1	1	2F	33	163-421-009 D2	1
2F	10	163-421-010 D1	1	2F	34	163-421-010 D2	1
2F	11	163-421-011 D1	1	2F	35	163-421-011 D2	1
2F	12	163-421-012 D1	1	2F	36	163-421-012 D2	1
2F	13	163-421A-013 D1	1	2F	37	163-421A-013 D2	1
2F	14	163-421A-014 D1	1	2F	38	163-421A-014 D2	1
2F	15	163-442-015 D1	1	2F	39	163-442-015 D2	1
2F	16	163-442-016 D1	1	2F	40	163-442-016 D2	1
2F	17	163-438-017 D1	1	2F	41	163-438-017 D2	1
2F	18	163-438-018 D1	1	2F	42	163-438-018 D2	1
2F	19	163-438-019 D1	1	2F	43	163-438-019 D2	1
2F	20	163-421A-020 D1	1	2F	44	163-421A-020 D2	1
2F	21	021 D1	1	2F	45	021 D2	1
2F	22	022 D1	1	2F	46	022 D2	1
2F	23	023 D1	1	2F	47	023 D2	1
2F	24	024 D1	1	2F	48	024 D2	1

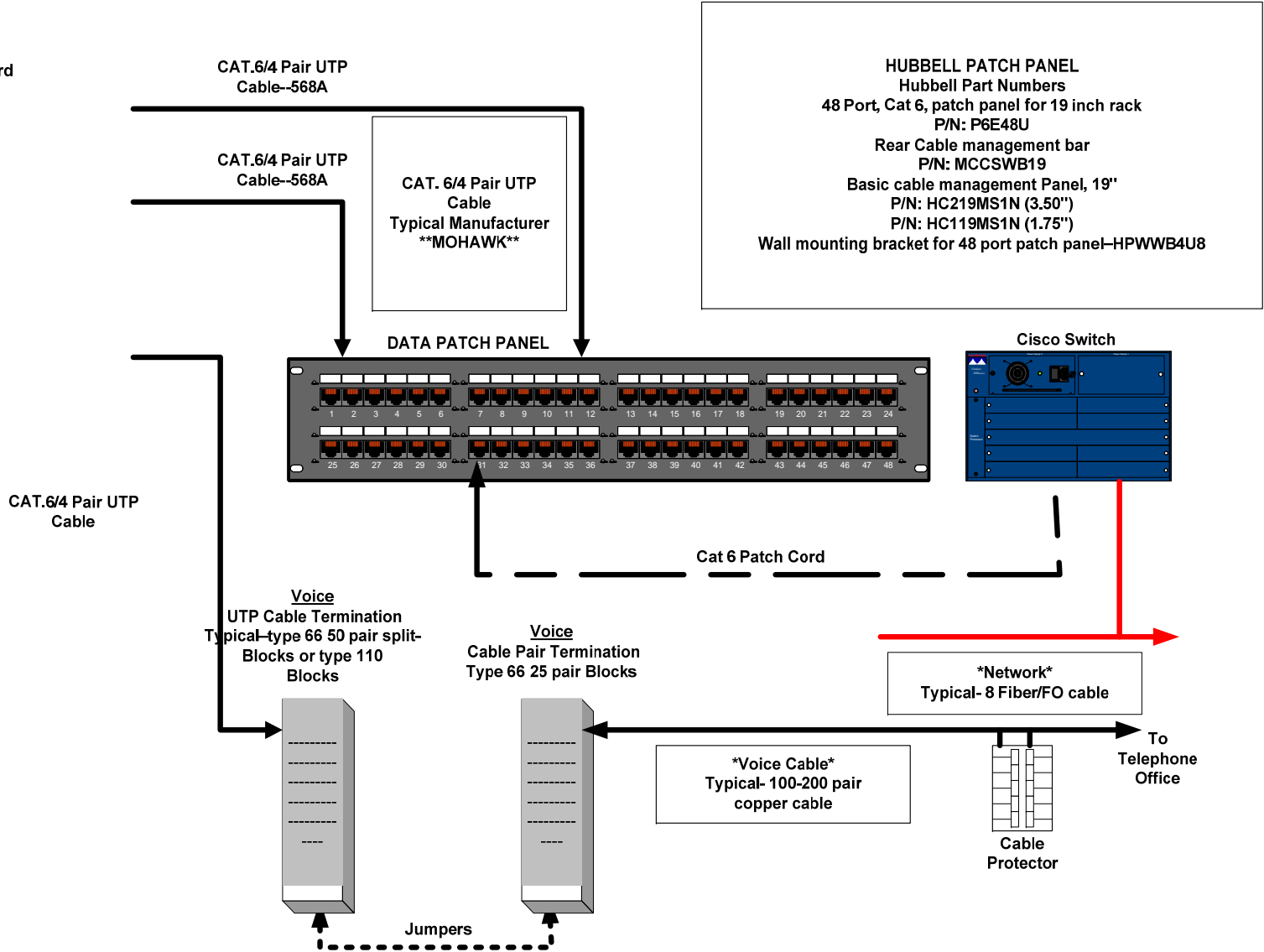
**Sample:**  
**Wire Run List**

FRC EAST Cherry Point  
Information Outlet(I/O)  
Wiring Standard

Telecommunications  
Information Outlet Detail



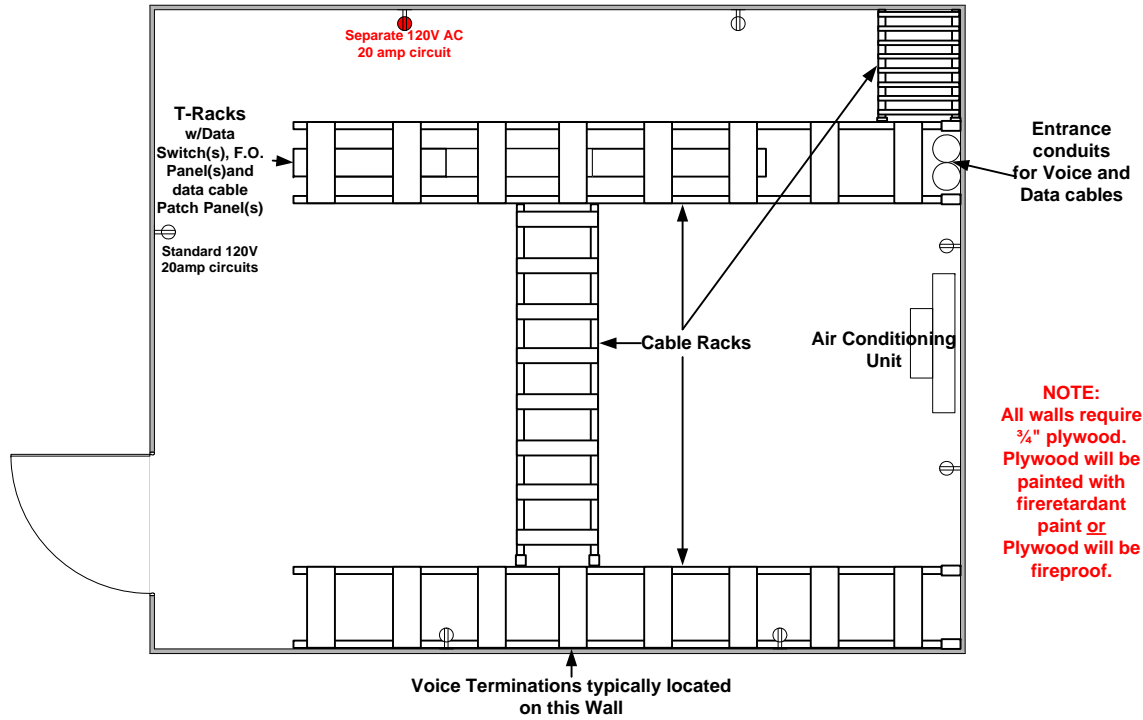
FRC EAST  
Cherry Point  
Data Patch Panel  
Cat 6 Wiring Standard



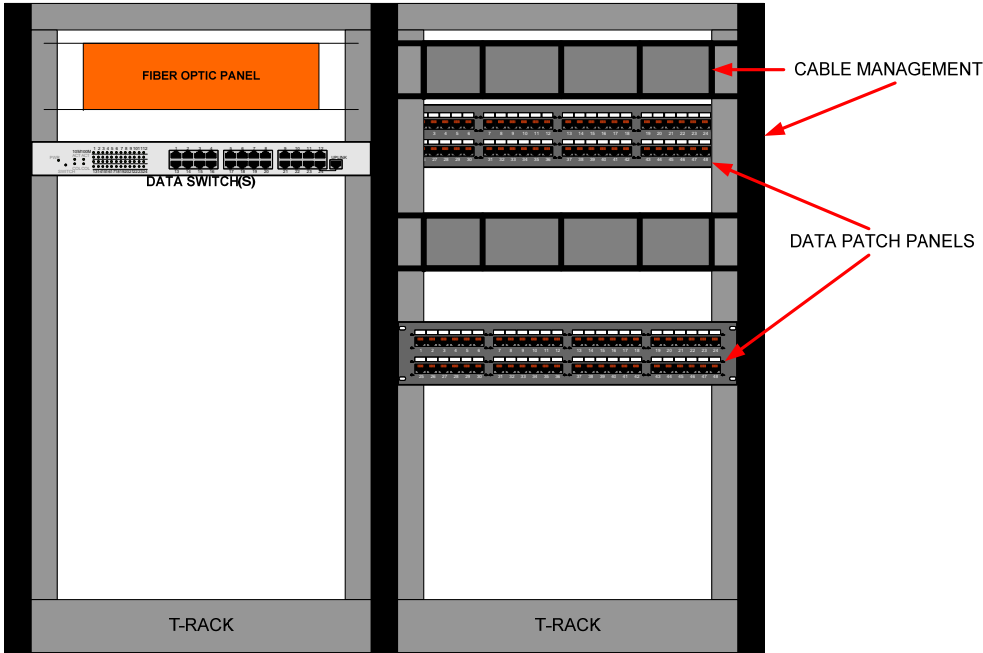
# NADEP Cherry Point

Typical Telecommunications Closet

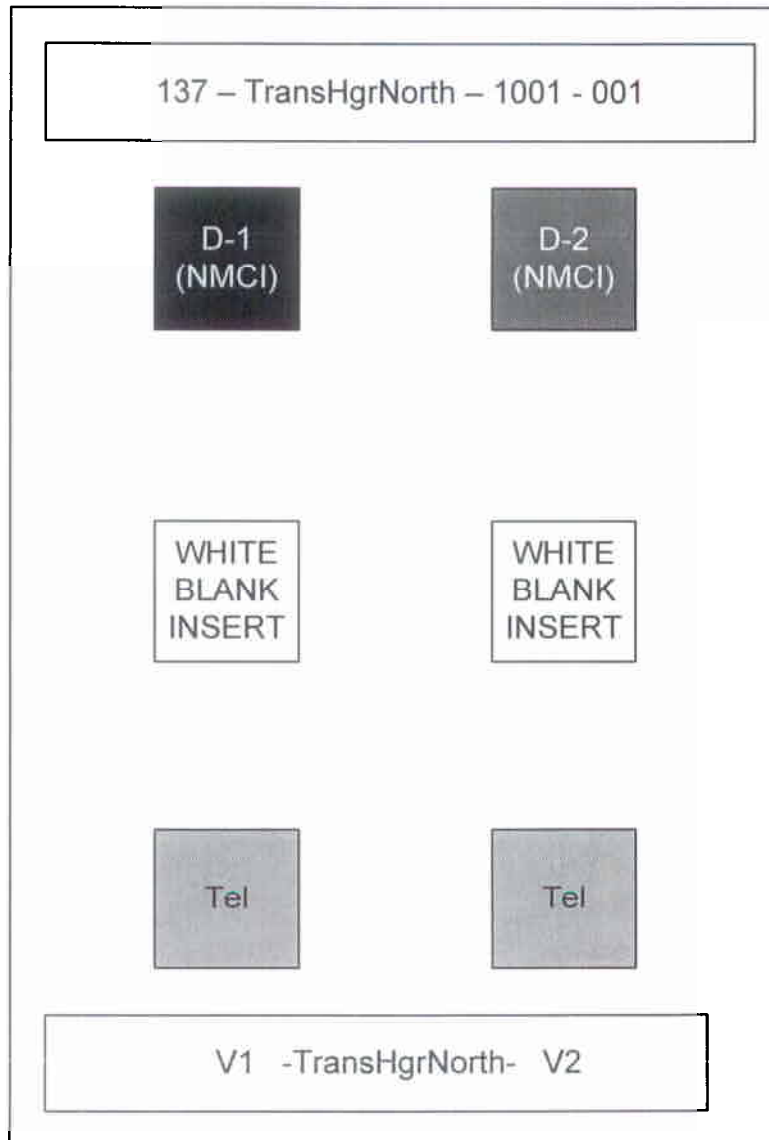
12/04/2002



<b>NADEP Cherry Point</b>	
<u>Typical</u> T-Rack Equipment Layout	3/30/2011



## Example: Face Plate Labeling Scheme



Note - Each Face Plate will contain:

- 1 Blue cable and jack : NMCI D1
- 1 Green cable and jack : NMCI D2
- 1 Gray cable(split pair) and 2 Gray jacks : Telephone

V1 : WB/W & OW/O

V2 : GW/G & BW/B

**\*\*\*ALL CABLES AND JACKS SHALL BE RATED  
CATEGORY 6\*\*\***

SECTION 21 13 13.00 20

WET PIPE SPRINKLER SYSTEM, FIRE PROTECTION  
04/08

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.

ASME INTERNATIONAL (ASME)

ASME A13.1 (2007) Scheme for the Identification of Piping Systems

ASTM INTERNATIONAL (ASTM)

ASTM D 709 (2001; R 2007) Laminated Thermosetting Materials

FM GLOBAL (FM)

FM P7825 (2005) Approval Guide

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 13 (2010) Installation of Sprinkler Systems

NFPA 24 (2010) Standard for the Installation of Private Fire Service Mains and Their Appurtenances

UNDERWRITERS LABORATORIES (UL)

UL Fire Prot Dir (2009) Fire Protection Equipment Directory

1.2 SYSTEM DESCRIPTION

Design and modify existing automatic wet pipe fire extinguishing sprinkler systems for complete fire protection coverage throughout the entire buildings.

1.3 SPRINKLER SYSTEM DESIGN

Except as modified herein, design automatic wet pipe fire extinguishing sprinkler systems in accordance with the required and advisory provisions of NFPA 13, including all recommendations and advisory portions, which shall be considered mandatory; this includes advisory provisions listed in the appendices of such standard(s), as though the word "shall" had been substituted for the word "should" wherever it appears. Design system by hydraulic calculations for uniform distribution of water over the design area. Locate sprinklers in a consistent pattern with ceiling grid, lights, and air supply diffusers. Provide sprinklers and piping system layout. All Devices and equipment for fire protection service shall be

UL Fire Prot Dir listed or FM P7825 approved for use in wet pipe sprinkler systems.

#### 1.3.1 Location of Sprinklers

Sprinklers in relation to the ceiling and the spacing of sprinklers shall not exceed that permitted by NFPA 13 for ordinary hazard occupancy. Uniformly space sprinklers on the branch piping. Sprinklers shall provide coverage throughout 100 percent of the building. This includes, but is not limited to, telephone rooms, electrical equipment rooms, boiler rooms, switchgear rooms, transformer rooms, and other electrical and mechanical spaces.

#### 1.3.2 Water Distribution

Distribution shall be uniform throughout the area in which the sprinklers will open. Discharge from individual sprinklers in hydraulically most remote area shall be between 100 percent and 120 percent of the specified density.

#### 1.3.3 Density of Application of Water

Size pipe to provide the specified density when the system is discharging the specified total maximum required flow. Application to horizontal surfaces below the sprinklers shall be 0.15 gpm per sq ft for Ordinary Hazard Group 1 Occupancies.

#### 1.3.4 Sprinkler Discharge Area

Permissible decreases and required increases from NFPA 13 shall be applied to an initial hydraulically most remote area of 3000 sq ft.

#### 1.3.5 Outside Hose Allowances

Hydraulic calculations shall include a hose allowance of 500 gpm for outside hose streams

#### 1.3.6 Water Supply

contractor/Designer shall be responsible for performing appropriate hydrant flow tests to determine water supply available to the existing fire protection system. Base modification calculations on this data.

### 1.4 SUBMITTALS

Partial submittals and submittals not fully complying with the requirements and recommended practices of NFPA 13 and this specification section shall be returned disapproved without review. This contract stipulation is non-negotiable.

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

SD-02 Shop Drawings

Shop Drawings; G

Prepare 24 by 36 inch detail working drawings of sprinklers and piping. Floor plans shall be drawn to a scale not less than 1/8" = 1'-0". Show data essential for proper installation of each

system. Show details, plan view, elevations and sections of the systems supply and piping. Show piping schematic of systems supply, devices, valves, pipe and fittings. Show point to point electrical wiring diagrams. Submit drawings signed by a registered fire protection engineer. Provide five copies of the Sprinkler System Shop Drawings, no later than 21 days prior to the start of sprinkler system installation.

SD-03 Product Data

Pipe; G  
Fittings; G  
Valves, including gate, check, and globe; G  
Sprinklers ; G  
Pipe hangars and supports ; G

Annotate descriptive data to show the specific model, type, and size of each item. Catalog cuts shall also indicate UL Listing/FM Approval and country of manufacture.

SD-05 Design Data

Hydraulic Calculations; G

Submit computer program generated hydraulic calculations to substantiate compliance with hydraulic design requirements. Calculations shall be performed by computer using software intended specifically for fire protection system design. Submit name of software program used.

SD-06 Test Reports

request to schedule Preliminary Tests[; G][; G, [\_\_\_\_\_]]

Preliminary Test Report[; G][; G, [\_\_\_\_\_]]

Three copies of the completed Preliminary Test Report, no later than 7 days after the completion of the Preliminary Tests. The Preliminary Tests Report shall include both the Contractor's Material and Test Certificate for Underground Piping and the Contractor's Material and Test Certificate for Aboveground Piping. All items in the Preliminary Tests Report shall be signed by the Fire Protection Engineer.

Request to schedule Final Acceptance Test; G

Final Acceptance Test Report; G

Three copies of the completed Final Acceptance Tests Reports, no later than 7 days after the completion of the Final Acceptance Tests. All items in the Final Acceptance Report shall be signed by the Fire Protection Engineer.

SD-07 Certificates

Inspection by Fire Protection Engineer; G

Concurrent with the Final Acceptance Test Report, certification by the Fire Protection Engineer that the sprinkler system is

installed in accordance with the contract requirements, including signed approval of the Preliminary and Final Acceptance Test Reports.

Fire Protection Engineer; G

The name and documentation of certification of the proposed Fire Protection Engineer, no later than 14 days after the Notice to Proceed and prior to the submittal of the sprinkler system drawings and hydraulic calculations.

Sprinkler System Installer; G

Submit data showing the Sprinkler System Installer has successfully installed systems of the same type and design as specified herein, Data shall include names and locations of at least two installations where the Contractor, or the subcontractor referred to above, has installed such systems. Indicate type and design of each system and certify that each system has performed satisfactorily in the manner intended for not less than 18 months. Provide NICET certification of the system technician. Contractor shall submit data along with submittal of the Fire Protection Engineer Qualifications.

#### SD-10 Operation and Maintenance Data

Operating and Maintenance Instructions

Submit in accordance with Section 01 78 23 OPERATION AND MAINTENANCE DATA as supplemented and modifies by this specification section.

Provide six manuals in accordance with NFPA 13. The manuals shall include the manufacturer's name, model number, parts list, list of parts and tools that should be kept in stock by the owner for routine maintenance including the name of a local supplier, simplified wiring and controls diagrams, troubleshooting guide, and recommended service organization (including address and telephone number) for each item of equipment.

#### SD-11 Closeout Submittals

As-built drawings

As-built shop drawings, at no later than 14 days after completion of the Final Tests. The Sprinkler System Drawings shall be updated to reflect as-built conditions after all related work is completed. Provide electronic drawings in dwg or pdf format.

On-site training

### 1.5 QUALIFICATIONS

#### 1.5.1 Fire Protection Engineer

A Fire Protection Engineer is a registered professional engineer (P.E.) who has passed the fire protection engineering written examination administered by the National Council of Examiners for Engineering and Surveys (NCEES) or a registered P.E. in a related engineering discipline with a minimum of 5

years experience, dedicated to fire protection engineering that can be verified with documentation.

#### 1.5.2 Sprinkler System Installer

The Sprinkler System Installer shall be regularly engaged in the installation of the type and complexity of system specified in the Contract documents, and shall have served in a similar capacity for at least three systems that have performed in the manner intended for a period of not less than 6 months. Installation drawings, shop drawings and as-built drawings shall be prepared, by or under the supervision of, an system technician who is experienced with the types of works specified herein, and is currently certified by the National Institute for Certification in Engineering Technologies (NICET) as an engineering technician with minimum Level III certification in Automatic Sprinkler System program or by a fire protection engineer.

### 1.6 QUALITY ASSURANCE

#### 1.6.1 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.

#### 1.6.2 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.

#### 1.6.3 Manufacturer's Nameplate

Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

#### 1.6.4 Field Fabricated Nameplates

ASTM D 709. Provide laminated plastic nameplates for each equipment enclosure, relay, switch, and device; as specified in the technical sections or as indicated on the drawings. Each nameplate inscription shall identify the function and, when applicable, the position. Nameplates shall be melamine plastic, 0.125 inch thick, white with black center core. Surface shall be matte finish. Corners shall be square. Accurately align lettering and engrave into the core. Minimum size of nameplates shall be one by 2.5 inches. Lettering shall be a minimum of 0.25 inch high normal block style.

### 1.7 ACCESSIBILITY

Install all work so that parts requiring periodic inspection, operation,

maintenance, and repair are readily accessible. Install concealed valves, expansion joints, controls, dampers, and equipment requiring access, in locations freely accessible through access doors.

#### 1.8 DELIVERY, STORAGE AND HANDLING

All equipment delivered and placed in storage shall be housed in a manner to preclude any damage from the weather, humidity and temperature variations, dirt and dust, or other contaminants. Additionally, all pipes shall either be capped or plugged until installed.

### PART 2 PRODUCTS

#### 2.1 ABOVEGROUND PIPING COMPONENTS

All components of the aboveground piping shall fully comply with the requirements and recommended practices of NFPA 13 and this specification section. Aboveground piping shall be steel.

##### 2.1.1 Steel Pipe

Pipe shall be black steel. Steel piping shall be Schedule 40 for sizes less than 8 inches and Schedule 40 for sizes 8 inches or larger. Fittings into which sprinklers, sprinkler riser nipples, or drop nipples are threaded shall be welded, threaded, or grooved-end type. Plain-end fittings with mechanical couplings, fittings that use steel gripping devices to bite into the pipe and segmented welded fittings shall not be permitted. Rubber gasketed grooved-end pipe and fittings with mechanical couplings shall be permitted in pipe sizes 1.5 inches and larger. Fittings, mechanical couplings, and rubber gaskets shall be supplied by the same manufacturer. Steel piping with wall thickness less than Schedule 30 shall not be threaded. Side outlet tees using rubber gasketed fittings shall not be permitted. Sprinkler pipe and fittings shall be metal.

##### 2.1.2 Grooved Mechanical Joints and Fittings

Grooved couplings, fittings and grooving tools shall be products of the same manufacturer.

##### 2.1.3 Flexible Sprinkler Hose

The use of flexible sprinkler hose is permissible.

##### 2.1.4 Sprinklers

Provide nominal 0.50 inch or 0.53 inch orifice sprinklers. Sprinklers with internal O-rings shall not be used. Sprinklers shall be used in accordance with their listed coverage limitations. Provide Pendent sprinklers. Sprinklers shall have a polished chrome finish. Temperature classification shall be ordinary. Sprinklers in high heat areas including attic spaces or in close proximity to unit heaters shall have temperature classification in accordance with NFPA 13. Extended coverage sprinklers shall not be used. Deflector shall not be more than 3 inches below suspended ceilings. Ceiling plates shall not be more than 0.5 inch deep. Ceiling cups shall not be permitted.

##### 2.1.5 Valves

Provide valves of types approved for fire service. Valves shall open by

counterclockwise rotation. Check valves shall be clear opening swing-check type with inspection and access cover plate for sizes 8 inches and larger. Each control valve shall be electrically supervised; minimum contact ratings shall be 2.5 amps at 24 volts DC. Provide supervision against valve closure or tampering of valve.

#### 2.1.6 Pipe Supports

Provide Pipe hangars and supports in accordance with NFPA 13.

### 2.2 ALARM INITIATING AND SUPERVISORY DEVICES

#### 2.2.1 Valve Supervisory (Tamper) Switch

Switch shall be suitable for mounting to the type of control valve to be supervised open. The switch shall be tamper resistant and contain one set of SPDT (Form C) contacts arranged to transfer upon removal of the housing cover or closure of the valve of more than two rotations of the valve stem.

### 2.3 ACCESSORIES

#### 2.3.1 Pipe Escutcheon

Provide split hinge metal plates for piping entering walls, floors, and ceilings in exposed spaces. Provide polished stainless steel plates or chromium-plated finish on copper alloy plates in finished spaces. Provide paint finish on metal plates in unfinished spaces.

## PART 3 EXECUTION

### 3.1 INSPECTION BY FIRE PROTECTION ENGINEER

The Fire Protection Engineer shall inspect the sprinkler system periodically during the installation to assure the sprinkler system is being provided and installed in accordance with the contract requirements and the approved sprinkler system submittal(s). The Fire Protection Engineer shall attend both the preliminary and final tests, and shall sign the test results. After the preliminary testing has been completed, the Fire Protection Engineer, shall certify in writing the system is ready for the final inspections and tests. This report shall document any discrepancies found and what actions will be taken to correct. Any discrepancy noted during the periodic site visits or the preliminary testing shall be brought to the attention of the Contracting Officer in writing, no later than three working days after the discrepancy is discovered.

### 3.2 ABOVEGROUND PIPING INSTALLATION

The methods of fabrication and installation of the aboveground piping shall fully comply with the requirements and recommended practices of NFPA 13 and this specification section.

#### 3.2.1 Piping in Finished Areas

In areas with suspended or dropped ceilings and in areas with concealed spaces above the ceiling, piping shall be concealed above ceilings. Piping shall be inspected, tested and approved before being concealed. Risers and similar vertical runs of piping in finished areas shall be concealed.

### 3.2.2 Pendent Sprinklers

Where sprinklers are installed below suspended or dropped ceilings, drop nipples shall be cut such that sprinkler ceiling plates or escutcheons are of a uniform depth throughout the finished space. The outlet of the reducing coupling shall not extend more than 1 inch below the underside of the ceiling. Pendent sprinklers in suspended ceilings shall be a minimum of 6 inches from ceiling grids.

### 3.2.3 Reducers

Reductions in pipe sizes shall be made with one-piece tapered reducing fittings. Bushings are prohibited.

### 3.2.4 Pipe Penetrations

Cutting structural members 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 and provided with pipe sleeves. Each sleeve shall be Schedule 40 galvanized steel, ductile iron or cast iron 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 per NFPA 13. The space between the sleeve and the pipe shall be firmly packed with mineral wool insulation. Where pipes penetrate fire walls, fire partitions, or floors, pipes shall be fire stopped in accordance with Section 07 84 00 FIRESTOPPING. In penetrations that are not fire-rated or not a floor penetration, the space between the sleeve and the pipe shall be sealed at both ends with plastic waterproof cement that will dry to a firm but pliable mass or with a mechanically adjustable segmented elastomer seal.

### 3.2.5 Identification Signs

Signs shall be affixed to each control valve, inspector test valve, main drain, auxiliary drain, test valve, and similar valves as appropriate or as required by NFPA 13. Valve identification signs shall be minimum 6 inches wide x 2 inches high with enamel baked finish on minimum 18 gauge steel or 0.024 inch aluminum with red letters on a white background or white letters on red background. Hydraulic design data nameplates shall be permanently affixed to each sprinkler riser as specified in NFPA 13.

### 3.3 PIPE PAINTING AND COLOR CODE MARKING

Paint and color code mark sprinkler piping system in accordance with ASME A13.1

### 3.4 PRELIMINARY TESTS

The system, including the underground water mains, and the aboveground piping and system components, shall be tested to assure that equipment and components function as intended. The underground and aboveground interior piping systems and attached appurtenances subjected to system working pressure shall be tested in accordance with NFPA 13 and NFPA 24. Submit request to schedule Preliminary Tests, no later than 14 days prior to the proposed start of the tests. Upon completion of specified tests, the Contractor shall submit for approval a Preliminary Test Report.

### 3.4.1 Aboveground Piping

#### 3.4.1.1 Hydrostatic Testing

Aboveground piping shall be hydrostatically tested in accordance with NFPA 13.

### 3.5 FINAL ACCEPTANCE TEST

Final Acceptance Test shall begin only when the Preliminary Test Report has been approved. Submit request to schedule Final Acceptance Test, no later than 14 days prior to the proposed start of the tests. Notification shall include a copy of the Contractor's Material & Test Certificates.

This shall include operation of control valves and flowing of inspector's test connections to verify operation of associated waterflow alarm switches. After operation of control valves has been completed, the main drain test shall be repeated to assure that control valves are in the open position. In addition, the representative shall have available copies of as-built drawings and certificates of tests previously conducted. The installation shall not be considered accepted until identified discrepancies have been corrected and test documentation is properly completed and received. The Contractor shall submit the Final Acceptance Test Report as specified in the Submittals paragraph.

An experienced technician regularly employed by the system installer shall be present during the inspection. The Fire Protection Engineer shall attend the final inspections and tests. At this inspection, repeat any or all of the required tests as directed. Correct defects in work provided by the Contractor, and make additional tests until the systems comply with contract requirements. Furnish appliances, equipment, electricity, instruments, connecting devices, and personnel for the tests. The MidLant Division, Naval Facilities Engineering Command, Fire Protection Engineer, will witness formal tests and approve systems before they are accepted.

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