

LIST OF ACRONYMS

ABC	Associated Builders and Contractors
ACO	Administering Contracting Officer (NAVFAC)
AE	Area Engineer
A-E	Architect-Engineer
AGC	Associated General Contractors
AHA	Activity Hazard Analysis
ALnO	Activity Liaison Officer (NAVFAC)
AREICC	Assistant Resident Engineer in Charge of Construction (NAVFAC)
AROICC	Assistant Resident Officer in Charge of Construction (NAVFAC)
CADD	Computer-Aided Drafting and Design
CC	Contract Clauses
CCNCN	Construction Contract Non-Compliance Notice
CEFMS	Corps of Engineers Financial Management System
CO	Contracting Officer
COAR	Contracting Officer's Authorized Representative (NAVFAC)
COR	Contracting Officer's Representative
COTR	Contracting Officer's Technical Representative (NAVFAC)
CQC	Contractor Quality Control
CQM	Construction Quality Management
CSI	Construction Specifications Institute
DACA	Department of the Army Construction Army
DACW	Department of the Army Civil Works
DALTS	Duct Air Leakage Tests
DFOW	Definable Feature of Work (NAVFAC)
DoD	Department of Defense
EFA	Engineering Field Activity (NAVFAC)
EFD	Engineering Field Division (NAVFAC)
ENG Form	Engineer Form
EM	Engineer Manual
EP	Engineer Pamphlet
ER	Engineer Regulation
FAR	Federal Acquisition Regulations
FIO	For Information Only
FOIA	Freedom of Information Act
GA	Government Approved

HQUSACE	Headquarters U.S. Army Corps of Engineers
HVAC	Heating, Ventilating, and Air Conditioning
ISO	International Organization for Standardization
ITR	Independent Technical Review
NAS	Network Analysis System
NAVFAC	Naval Facilities Engineering Command (NAVFAC)
OICC	Officer in Charge of Construction (NAVFAC)
O&M	Operations and Maintenance
P	Publication (NAVFAC)
P2	Promise 2
PCO	Procuring Contracting Officer (NAVFAC)
PL	Project Leader (NAVFAC)
PWC	Public Works Center (NAVFAC)
PWD	Public Works Department (NAVFAC)
PWO	Public Works Officer (NAVFAC)
QA	Quality Assurance
QA REP	Quality Assurance Representative (NAVFAC)
QAR	Quality Assurance Report
QC	Quality Control
QCM	Quality Control Manager
QCS	Quality Control System
RE	Resident Engineer
RFI	Request For Information
RMS	Resident Management System
ROICC	Resident Officer in Charge of Construction (ROICC)
SCS	Supervisory Contract Specialist (NAVFAC)
SD	Submittal (Description) Identification
SDEF	Standard Data Exchange
SGE	Supervisory General Engineer (NAVFAC)
TABS	Testing, Adjusting, and Balancing System
UFGS	Unified Facilities Guide Specifications
USACE	U.S. Army corps of Engineers

VE	Value Engineering
VECP	Value Engineering Change Proposal
WebCM	Web-based Construction Management System (NAVFAC)

REFERENCES

The following references are applicable to this course. You are encouraged to have current copies available for students to use during the course. Reference websites:

Contract Clauses: <http://www.arnet.gov/far/>

UFGS: <http://www.ccb.org/docs/ufgshome/UFGSToc.htm>

Corps: <http://www.usace.army.mil/publications/>

Navy: <http://navfacilitator.navfac.navy.mil/projects/p-445.pdf>

CONTRACT CLAUSE, ACCIDENT PREVENTION, FAR 52.236-13.

CONTRACT CLAUSE, BUY AMERICAN ACT -- CONSTRUCTION MATERIALS, FAR 52.225-5 AND 52.225-9.

CONTRACT CLAUSE, DEFAULT (FIXED PRICE CONSTRUCTION), FAR 52.249-10.

CONTRACT CLAUSE, INSPECTION OF CONSTRUCTION, FAR 52.246-12.

CONTRACT CLAUSE, MATERIAL & WORKMANSHIP, FAR 52.236-5.

CONTRACT CLAUSE, PRECONSTRUCTION CONFERENCE, FAR 52.236-26.

CONTRACT CLAUSE, SITE INVESTIGATION & CONDITIONS AFFECTING THE WORK, FAR 52.236-3.

CONTRACT CLAUSE, SPECIFICATIONS & DRAWINGS FOR CONSTRUCTION, FAR 52.236-21.

CONTRACT CLAUSE, SUPERINTENDENCE BY THE CONTRACTOR, FAR 52.236-6.

CONTRACT CLAUSE, VE -- CONSTRUCTION, FAR 52.248-3.

UFGS 01330, SUBMITTAL PROCEDURES.

UFGS 01450N, CONSTRUCTION QUALITY CONTROL.

UFGS 01451A, CONTRACTOR QUALITY CONTROL.

UFGS 01451N, DESIGN AND CONSTRUCTION QUALITY CONTROL.

EM 385-1-1, SAFETY AND HEALTH REQUIREMENTS MANUAL.

EP 11-1-4, VE BENEFITS AND THE CONSTRUCTION CONTRACTOR.

EP 415-1-261, QUALITY ASSURANCE REPRESENTATIVE'S GUIDE.

EP 715-1-2, A GUIDE TO EFFECTIVE CONTRACTOR QUALITY CONTROL.

ER 1180-1-6, CONSTRUCTION QUALITY MANAGEMENT.

CORPS OF ENGINEERS FORMS

The Forms in this Section are for training purposes only. Your Facilitator will provide you with information on how to obtain current forms.

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- | | | | |
|------|--|-------|---|
| A -- | Approved as submitted. | E -- | Disapproved (See attached). |
| B -- | Approved, except as noted on drawings. | F -- | Receipt acknowledged. |
| C -- | Approved, except as noted on drawings.
Refer to attached sheet resubmission required. | FX -- | Receipt acknowledged, does not comply
as noted with contract requirements. |
| D -- | Will be returned by separate correspondence. | G -- | Other (Specify) |
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

NAVFAC FORMS

The Forms in this Section are for training purposes only. Your Facilitator will provide you with information on how to obtain current forms.

REQUEST FOR INFORMATION (RFI) TRANSMITTAL AND REPLY: RFI# _____

The RFI system is intended to provide an efficient and formal mechanism for responding to contractor's request for information. It is NOT an authority to proceed with a changed condition. If you consider the RFI response a changed condition, written notice to the ROICC is required in accordance with contract provisions.

From: (Contractor) _____ Date: _____

To: (ROICC) _____

Subj: Contract N _____ -C- _____, _____
Specification Section _____ Paragraph _____

Drawing _____ Details _____

Information Required: _____

A response to this RFI is required by _____

Schedule Activities being effected, by order of most impact: _____

_____ QC Manager

.....
From: (Designer) _____ Date: _____

To: (ROICC) _____

Recommendation: _____

_____ Designer

.....
From: (ROICC) _____

To: (Contractor) _____

Reply: _____

Clarification Only (No additional time or costs)

Project Engineer

REQUEST FOR INFORMATION (RFI)

I. BACKGROUND

Requests for information represent a convenient, formal procedure to record, track and monitor contractor questions concerning a particular construction contract. The use of the three-part Request for Information (RFI) format encourage the contractor to submit questions in writing and research the questions prior to submission by requiring the contractor to reference specifications and drawing numbers as part of the question. Secondly, the three-part format encourages the use of the designer in the RFI process to clarify the intent and interpretation of the plans and specifications and to provide advice on questions that arise during construction. Finally, the RFI three-part form provides a convenient mechanism for a written ROICC response, assuring clear and concise answers to a contractor questions. Rapid and correct responses to RFIs keep contract work moving smoothly and provide one of the best chances to resolve a question before letting it grow into a change or dispute.

II. RFI FORM

The use of the standard RFI format should be encouraged by the ROICC at all pre-construction conferences and a supply of the RFI forms should be made available to the contractor. On larger and more complex projects, the government often provides specific contract provisions relating form and processing of RFIs. The status of all outstanding RFIs should be discussed at the quality control meeting and recorded into the minutes.

III. RFI PROCEDURES

RFIs are processed in a manner similar to the procedures established for processing of contractor submittals. The contractor should transmit the original and three copies of all RFIs to the designer and send one copy (5th) to the ROICC directly. The ROICC copy assures that the RFI will be tracked and expedited, as necessary, by the ROICC. A written response for all RFIs is expected in an average of seven working days, but more complex questions may require a longer time. RFIs requiring a response in less than seven working days may be expedited through facsimile and electronic mail. These should be managed by exception to ensure they are answered as quickly as possible.

ROICC responses to RFIs must be carefully considered and drafted to preclude misinterpretation, misdirection or contract change. The ROICC should review the content of the designer's recommendation to assure contractual adequacy. If an answer to an RFI clearly indicates that the contractor is due an equitable adjustment for any direction given, the ROICC should send a Request for Proposal (RFP) with an RFI response. The ROICC should also set up a Proposed Change Order (PCO) number and file for this change. A RFI response in NOT intended to be an authority to proceed with a changed condition. If the contractor considers the RFI response a changed condition, written notice is required in accordance with contract provisions.

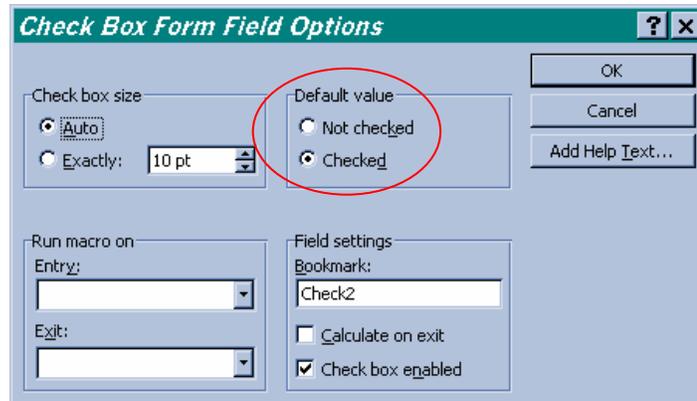
(back side)

CONTRACTOR'S SUBMITTAL TRANSMITTAL				CONTRACT NO			DATE	
				TRANSMITTAL/RESUBMITTAL NO.			PREVIOUS SUBMITTAL NO (if applicable).	
FROM CONTRACTOR				PROJECT TITLE AND LOCATION				
TO								
CONTRACTOR USE ONLY				REVIEWER USE ONLY			GOVT USE ONLY	
List only one specification division per form <i>List only one of the following categories on each transmittal form and indicate which is being submitted</i> <input type="checkbox"/> Contractor Approval <input type="checkbox"/> Govt Approval <input type="checkbox"/> Variance Request (Govt Approval)				ACTION CODES A – Approved RR – Revise and Resubmit (Disapproved) AN – Approved As Noted ANR – Approved As Noted Resubmit RA – Receipt Acknowledged			ACTION CODES A – Approved RR – Revise and Resubmit (Disapproved) AN – Approved As Noted ANR – Approved As Noted Resubmit RA – Receipt Acknowledged	
I T E M	SPEC. SECT. & PARA. And/or DWG. NO.	ITEM IDENTIFICATION (Type, size, model no., Mfg. Name, drawing or brochure number)	NO. OF COPIES	RECOMMENDED ACTION	REVIEWER'S INITIALS AND DATE	ACTION	GOVERNMENT REPRESENTATIVE INITIALS, CODE AND DATE	
CONTRACTOR'S CERTIFICATION AND COMMENTS: IT IS HEREBY CERTIFIED THAT THE EQUIPMENT AND/OR MATERIAL SHOWN AND MARKED IN THIS SUBMITTAL IS THAT PROPOSED TO BE INCORPORATED INTO THIS CONTRACT, IS IN COMPLIANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS, AND CAN BE INSTALLED IN THE ALLOCATED SPACES.			DATE RECEIVED BY REVIEWER			DATE RECEIVED BY GOVT		
			NOTE: APPROVAL BY THE GOVERNMENT OF SUBMITTED ITEMS DOESN NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH ALL THE REQUIREMENTS OF THE CONTRACT PLANS AND SPECIFICATIONS			REVIEWER'S COMMENTS		
CONTRACTOR'S QC REP (SIGNATURE)		DATE	REVIEWER'S SIGNATURE		DATE	GOVT REP SIGNATURE		

Instructions for Using Report Forms in MS-Word

In the Report Header, fields that have instructional text such as “Enter Title and Location of Construction Contract Here” Prompt the user to enter the information in a specific location, governed by the field. Single mouse click anywhere in the field and the field will darken. Entry of text/data at this point will delete the instructional text in the field and will be replaced with entered text/data.

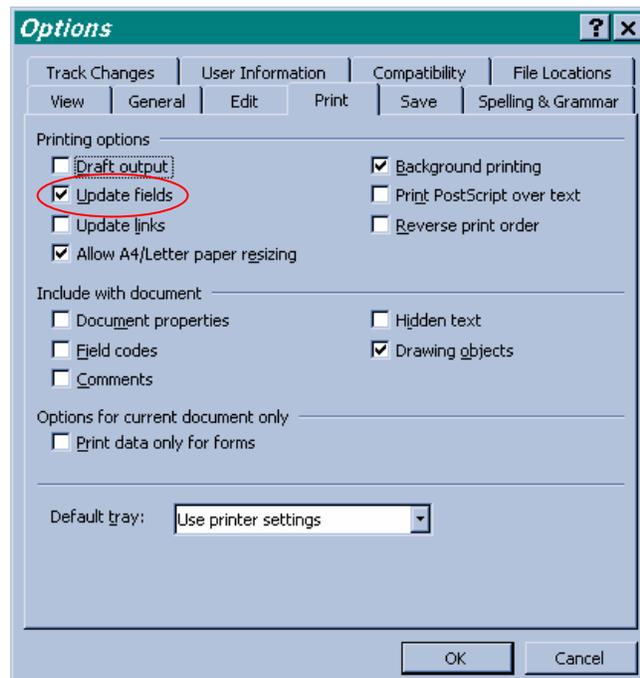
All check boxes are all defaulted as unchecked (i.e.;). To check the box (i.e.;) , double click the box and the “Check Box Form Field Options” box will appear. In the “Default value” section of the box, click in the Radio Button for “Checked”, then click on the “OK” button and the box will be checked.



The “Hour” fields were intentionally not programmed to total. If the Contractor deleted the formula in a field within the range that was to be totaled, the total would be wrong.

With the ability to [unlimitedly] expand the Contractor Production Report and Contractor Quality Control Representative Report, their Continuation Sheets are obsolete.

In the footer of each form are data fields for the Sheet number and the total number of sheets in the report (Sheet 1 of 2). The first number will generate itself when pages of the report are added. But MS-Word will not automatically update the second number. To update the NumPages field, click the field or the field results and then press F9. You can also click **Options** in the **Tools** menu, click the **Print** tab, and then select the **Update fields** check box.



PREPARATORY PHASE CHECKLIST

(CONTINUED ON SECOND PAGE)

SPEC SECTION
Enter Spec Section # Here

DATE
Enter Date (DD/MMM/YY)

CONTRACT NO
Enter Cnt# Here

DEFINABLE FEATURE OF WORK
Enter DFOW Here

SCHEDULE ACT NO.
Enter Sched Act ID Here

INDEX #
Enter Index# Here

PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>	
	NAME	POSITION
	COMPANY/GOVERNMENT	

SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____
	ARE ALL MATERIALS ON HAND? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF NO, WHAT ITEMS ARE MISSING? _____
	CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.)

COMMENTS: _____

MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? YES <input type="checkbox"/> NO <input type="checkbox"/>
	IF NO, WHAT ACTION IS TAKEN? _____

SPECIFICATIONS	REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____

	DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____

	CLARIFY ANY DIFFERENCES. _____

PRELIMINARY WORK & PERMITS	ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE.
	IF NOT, WHAT ACTION IS TAKEN? _____

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

CONTRACTOR PRODUCTION REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)				DATE Enter Date (DD/MMM/YY)		
CONTRACT NO Enter Cnt# Here		TITLE AND LOCATION Enter Title and Location of Construction Contract Here		REPORT NO Enter Report # Here		
CONTRACTOR Enter The Contractor's Company Name Here			SUPERINTENDENT Enter Superintendent's Name Here			
AM WEATHER Enter AM Weather Data Here		PM WEATHER Enter PM Weather Data Here		MAX TEMP (F) Enter Max Temp Here	MIN TEMP (F) Enter Min Temp Here	
WORK PERFORMED TODAY						
Schedule Activity No.	WORK LOCATION AND DESCRIPTION		EMPLOYER	NUMBER	TRADE	HRS
JOB SAFETY	WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach copy of the meeting minutes) <input type="checkbox"/> YES <input type="checkbox"/> NO WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? (If YES attach copy of completed OSHA report) <input type="checkbox"/> YES <input type="checkbox"/> NO WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/HAZMAT WORK DONE? (If YES attach statement or checklist showing inspection performed.) <input type="checkbox"/> YES <input type="checkbox"/> NO WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? (If YES attach description of incident and proposed action.) <input type="checkbox"/> YES <input type="checkbox"/> NO			TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CONT SHEETS CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT TOTAL WORK HOURS FROM START OF CONSTRUCTION		
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED <input type="checkbox"/>				SAFETY REQUIREMENTS HAVE BEEN MET.	
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)						
Schedule Activity No.	Submittal #	Description of Equipment/Material Received				
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.						
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (incl Make and Model)			Hours Used	
Schedule Activity No.	REMARKS					
CONTRACTOR/SUPERINTENDENT			DATE			

ASSESSMENT WORKSHEET OF CONTRACTOR QUALITY CONTROL PROGRAM

ROICC OFFICE: _____ DATE: _____
 CONTRACT TITLE: _____
 CONTRACTOR: _____ CONTRACT % COMPLETE: _____
 SUPERINTENDENT: _____ QC MANAGER: _____

CATEGORY	Checklist Items	Yes	No	N/A	Date Corrected
1. CONTRACT QC SPECIFICATION 01450	1. Is the approved QC Plan maintained at the job site?				
	2. Was the QC Plan presented in a 3-ring Binder w/ Tabs to each section?				
	3. If interim QC Plan was submitted, has the final QC Plan been submitted & approved?				
	4. Does the QC Manager have a CQM Certificate?				
2. QUALITY CONTROL ORGANIZATION	5. Is there a Chart showing the Contractor's QC organization structure?				
	6. Does chart show relationship of QC organization to other elements of the company?				
	7. Does it show the relationship to subcontractors, suppliers, outside organizations?				
	8. Is the QCM responsible for conducting safety inspections?				
	9. Is the alternate QC M working on site in any other capacity at this time?				
3. NAMES & QUALIFICATIONS	10. Is there an approved resume of the QC Manager on file with the QC Plan?				
	11. Is there a resume of Alternate QCM?				
	12. Is acceptance of the above match qualifications & past experience / specifications?				
	13. Is the QCM aware of the requirement to be on site at all times when work / production is in progress?				
4. DUTIES & RESPONSIBILITIES	14. Are the duties, responsibilities and authority of the QC Manager in writing?				
	15. Is the Alternate QC Manager / other QC Specialists responsibilities in writing?				
	16. Is the QC organization as written in the specifications to be run by Prime Contractor and QCM works for prime?				
	17. Are the only duties/responsibilities of QC M is manage and implement QC program?				
	18. Does the QCM understand he is responsible for managing/coordinating 3-Phase control & documentation performed by any QC Specialists, testing Laboratory personnel, and other inspection and testing personnel required by this contract?				
5. OUTSIDE ORGANIZATIONS	19. Is there a list of Outside Organizations: design agents, consultants, subcontractors that will perform work or services for the prime?				
	20. Does this list indicate the general scope of the work and services to be performed?				
6. APPOINTMENT LETTER (S)	21. Is there an appointment letter, signed by an officer of the firm, appointing the QC M and outlining his/her duties, responsibilities and authority?				
	22. Does this letter include the authority to immediately stop any segment of work not complying with plan/spec, and the removal and replacement of any defective work?				
	23. Does this letter provide the authority for the QCM to act as the agent of the contractor?				
	24. Does the CQM certify material/equipment delivered/installed on and off site comply with plan/spec? Reports any deficiencies and what remedial action was taken?				
	25. Does he supervise/coordinate inspection/tests made by other members of the QC Organization?				
	26. Does the QCM insure the QC Staff is adequate to meet its responsibilities?				
	27. Is the QCM responsible for all testing required in the contract, and that the results are reported correctly?				
	28. Does the QCM have the authority to remove any individual from the site who fails to perform work in skillful, safe, and workmanlike manner or whose work do not comply with plans/specs?				
	29. Does the letter state QCM has no authority to deviate from plans/specs without prior approval, in writing, from the Contracting Officer or designated representative?				
	30. Does the letter state the QC Organization will be adequately staffed with qualified personnel to perform all the detailed inspections and testing specified in plans/specs?				
	31. Is a copy of the approved QC Plan in the job site file complete with up to date approved, revisions/ filled in log of submittals?				
	32. Is it also written that As-Built Drawings will be kept current by the QCM showing all deviations made from the contract drawings on a daily/weekly basis.				

OVERALL RATING = LOWEST RATING FOR ANY CATEGORY: _____
OVERALL COMPOSITE SCORE = (ALL "YES" answers/All applicable answers (%): _____

CONSTRUCTION CONTRACT NON-COMPLIANCE NOTICE

CONTRACTOR/RESPONSIBLE INDIVIDUAL	NOTICE NUMBER
CONTRACT NUMBER AND TITLE	DATE
SPECIFICATION PARAGRAPH AND/OR DRAWING NUMBER	CONTRACTOR REPLY BY DATE
REFERENCE (Shop Drawing, Certification, CQC Report Number, etc.)	
DEFICIENCY IN WORKMANSHIP AND/OR MATERIAL	
CORRECTIVE ACTION ACCOMPLISHED (This block filled in by Contractor)	
<p>QA REPRESENTATIVE</p> <p style="text-align: center;">NAME: _____ TITLE: _____</p> <p style="text-align: center;">DATE NOTED: _____ SIGNATURE: _____</p>	
<p>TEAM LEADER</p> <p style="text-align: center;">NAME: _____ TITLE: _____</p> <p style="text-align: center;">DATE ISSUED: _____ SIGNATURE: _____</p>	
<p>CONTRACTOR'S ACKNOWLEDGMENT</p> <p style="text-align: center;">NAME: _____ TITLE: _____</p> <p style="text-align: center;">DATE RCV'D: _____ SIGNATURE: _____</p>	
<p>This Notice does NOT authorize any work not included in the contract and shall not constitute a basis for additional payment or time. If you are in disagreement with this Notice, contact the Resident Officer in Charge of Construction immediately.</p>	

DISTRIBUTION

Original - QC Manager (Original)
 Copies to - Contractor's Home Office, QA Representative, Contract File

This is an example of a NAVY QC Plan, but it is not complete. Review this plan and comment on how it could be improved to meet the contract requirements.

CHADWICK

CONSTRUCTION COMPANY

QUALITY CONTROL (QC) PLAN

FOR CONTRACT #N63470-99-D-5555

BOSS Headquarters Building
Cheatham Annex
Williamsburg, Virginia

Table of Contents

Subject	Tab Location
Quality Control Organization	I
Names and Qualifications	II
Duties, Responsibilities, and Authorities of the Quality Control Personnel	III
Outside Organizations	IV
Appointment Letters	V
Submittal Procedures and Initial Submittal Register	VI
Testing Laboratory Information	VII
Testing Plan and Log	VIII
Procedures To Complete Rework Items	IX
Documentation Procedures	X
List of Definable Features of Work (DFOW)	XI
Three Phase Control Checklist	XII
Personnel Matrix	XIII
Procedures for Completion Inspection	XIV

TAB I. Quality Control (QC) Organization

The specific personnel assigned to this project are provided as follows:

Danny Jones - Quality Control (QC) Manager

Bobbi Turner – Alternate QC Manager

Linda Kindman – QC Assistant

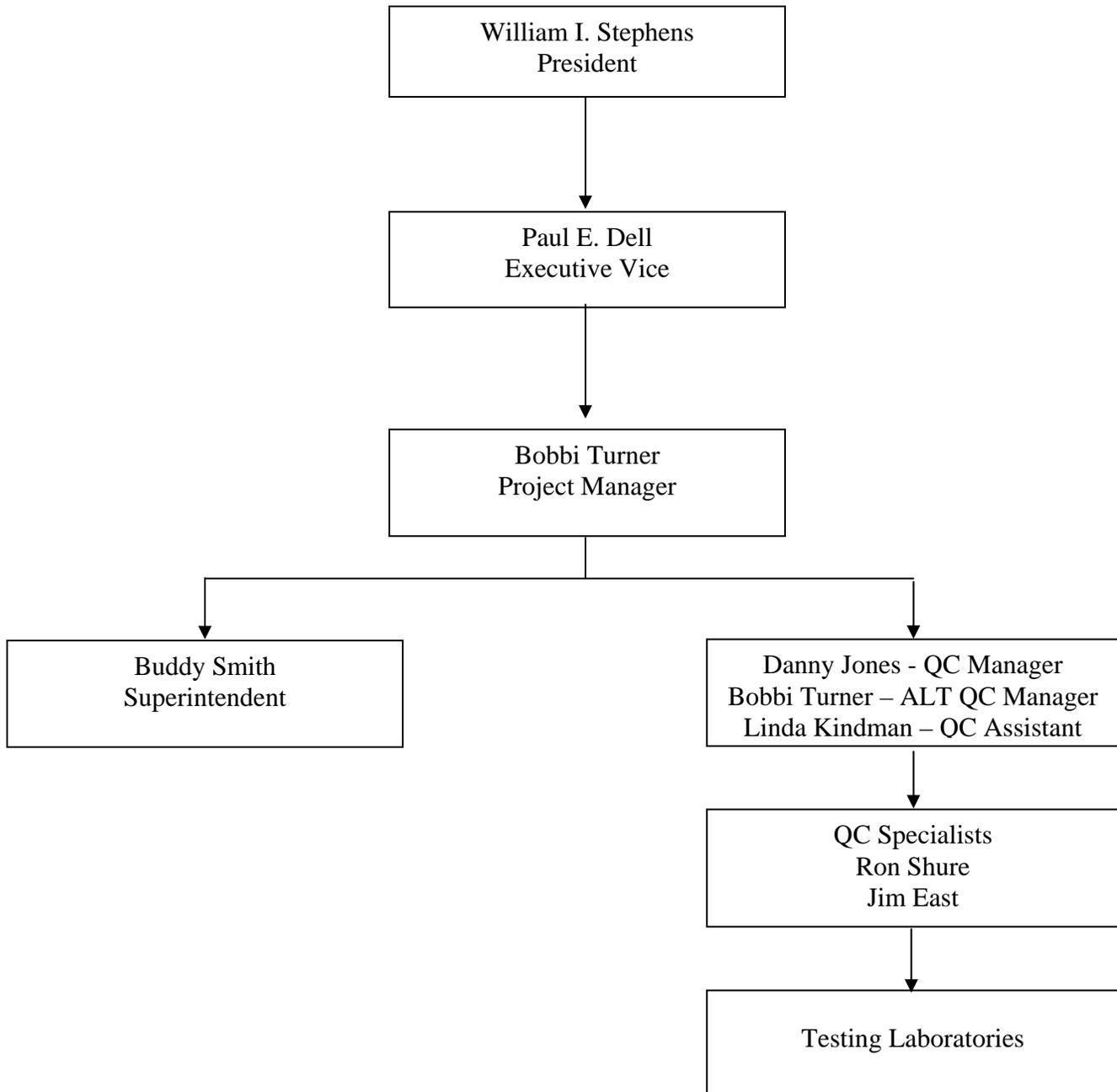
QC Specialists:

Ron Shure – Concrete Placements

Jim East – HVAC, DALT, TAB, Controls

CHADWICK CONSTRUCTION COMPANY

Quality Control Organization Chart



TAB II. Names and Qualifications

Chadwick Construction Company proposes that the following individuals be approved as the Quality Control Organization members for this project. Their resumes have been included for your review and approval.

Vice President – Paul E. Dell

QC Manager – Danny Jones

Alternate QC Manager – Bobbi Turner

Danny Jones

QC Manager

Work History:

6/00 - Present

Chadwick Construction Company, Hampton, VA *QC Manager*

QC Manager for various projects in the Hampton, Norfolk and Virginia Beach, Virginia areas.

Camp Allen Phase 3, Norfolk, VA. Renovation of Navy Family Housing, 119 units total. Work included: demolition and reconstruct building exterior façade, interior finishes, underground utilities, asbestos and lead abatement, and site finishes.

120 Unit Barracks Renovation, Langley AFB, Hampton, VA. Work included: demolition and reconstruct building exterior finish, interior walls, floors and toiletries, underground utilities and site finishes.

8/90 – 6/00

Milton Construction Company *Superintendent and QC Manager*

Repairs to Hangar 122, NAS Oceana, Virginia Beach, VA
Compressed Air Supply/Retrofit Test Cell, NAS Oceana, Virginia Beach, VA

1000 member Army Reserve Center, Fort Eustis, Virginia
Renovation to Warehouse Bay 52-65, Defense Supply Center, Richmond, VA

All renovations work included: demolition and reconstruction of Government Facilities; exteriors, interiors, floors, toiletries, utilities and Roofing.

Education/Qualifications:

- AAS in Building Construction, University of Maryland, June 1989
- AAS in Business Management, Commonwealth College, Virginia Beach, VA, 1992
- Army Corps of Engineers / Naval Facilities Engineering Command (LANTDIV), Construction Quality Management for Contractors, September 1999
- Additional Studies, Project Management, Construction Management and Safety classes.

Bobbi Turner

Alternate QC Manager

Work History:

8/98 to Present

Chadwick Construction Company, Hampton, VA

Project Manager

Project Manager for Renovation of the BEQ, 52, Naval Station, Norfolk, VA

Responsible for numerous repair, renovation, and construction contracts. Work includes concrete installations, roof repairs, electrical repairs and renovations, and demolition and installation of heating units.

7/97 – 6/98

Assistant Project Manager for the renovation of 33 buildings containing 119 housing units, Camp Allen Phase II, Norfolk, VA

Responsible for cost control, purchasing and contract administration.

Assist Project Manager for the Re-Construction of 117 townhouse units at the Joint Forces Staff College, Norfolk, VA. Work included demolition and reconstruction.

9/91- 7/97

Waterfront Marine Specialists, Hampton, VA

Contract Specialist

Prepared estimates, takeoffs, bids and proposals. Prepared contract submittals for Government and commercial projects, including vouchers and schedules of prices. Coordinated with Owners and General Contractors on keeping project schedules. Assisted QC Manager with preparation of QC Plans.

Education/Qualifications:

- AAS in Building Construction, Virginia Tech, June 1991
- AAS in Business Management, Commonwealth College, Virginia Beach, VA, 1993
- Army Corps of Engineers / Naval Facilities Engineering Command (LANTDIV) Construction Quality Management for Contractors, 7/99
- Additional Studies, Project Management Classes (Tidewater Community College)
- Completely functional with Window 2000 programs, Word, Excel, PowerPoint and MS Project 2000.

TAB III. Duties, Responsibilities, and Authorities of the Quality Control Personnel

Paul Dell	Will perform the duties of the Vice President during the course of this contract. He will provide oversight and leadership and will coordinate the efforts of the Construction Schedule and the approval process of Quality Control staff.
Danny Jones	Will perform the duties of the QC Manager, as outlined in Section UFGS 01450, Quality Control. He will be responsible for administering and implementing the Quality Control Program as approved by the Contracting Officer. He will review all submittals, maintain an active QC Plan, perform the three phases of control on each DFOW (Preparatory, Initial and Follow-up activities), is responsible for all QC documentation, Contractor Production and QC reports, and Testing Plan and Log.
Bobbi Turner	Will perform the duties of the Alternate QC Manager, as outlined in Section UFGS 01450, Quality Control. In the absence of the QC Manager, she will perform the duties of the QC Manager. When in the QC Manager position, her duties will be the same as those listed for the QC Manager, above.

TAB IV. Outside Organizations

Chesapeake Steel Company
100 Steel Lane
Hampton, VA

XYZ Controls
100 Ridgeway Road
Virginia Beach, VA

Hampton Roads Mechanical
100 Corporate Lane
Hampton, VA

Soils Testing, Inc.
100 Dirt Lane
Virginia Beach, VA

Stevens Electric
100 Bainbridge Road
Norfolk, VA

TAB V. Appoint Letters

The following letters appoint the QC Manager and the Alternate QC Manager for this project. These letters outline their responsibilities and authorities relative to work on this project as pointed out by the QC Plan requirements in Section UFGS 01450N, Quality Control.

CHADWICK Construction Company

100 Demo Blvd, Hampton, Virginia

Phone: (757) 123-4567

Date

Danny Jones
Chadwick Construction Company
100 Demo Blvd.
Hampton, VA

Subj: APPOINTMENT LETTER; QUALITY CONTROL MANAGER

Re: N62470-99-D-5555, BOSS Headquarters Building, Cheatham Annex, Williamsburg,
Virginia

Dear Danny:

Please allow this letter to serve as notification of corporate appointment for you to serve as the QC Manager for the above referenced project. Your responsibilities and authorities are outlined below:

- Responsible for implementing and managing the QC program as described in the contract.
- Authorized to stop any production work that is not in compliance with the contract and direct removal/replace of all non-compliant work.
- Ensuring that construction activities are performed according to plans and specifications.
- Responsible for developing and maintaining an effective QC Plan and system.
- Responsible for the preparation of acceptable documentation of all QC activities.
- Responsible to identify, schedule and perform the three phases of control on all Definable Features of Work (DFOW) as identified in the construction schedule and cross referenced in the QC Plan.

Sincerely,

William I. Stephens
President

CHADWICK Construction Company

100 Demo Blvd, Hampton, Virginia

Phone: (757) 123-4567

Date

Bobbi Turner
Chadwick Construction Company
100 Demo Blvd.
Hampton, VA

Subj: APPOINTMENT LETTER; ALTERNATE QUALITY CONTROL MANAGER

Re: N62470-99-D-5555, BOSS Headquarters Building, Cheatham Annex, Williamsburg, Virginia

Dear Bobbi:

Please allow this letter to serve as notification of corporate appointment for you to serve as the Alternate QC Manager, for the above referenced project. Your responsibilities and authorities are outlined below:

- Responsible for implementing and managing the QC program as described in the contract.
- Authorized to stop any production work that is not in compliance with the contract and direct removal/replace of all non-compliant work.
- Ensuring that construction activities are performed according to plans and specifications.
- Responsible for developing and maintaining an effective QC Plan and system.
- Responsible for the preparation of acceptable documentation of all QC activities.
- Responsible to identify, schedule and perform the three phases of control on all Definable Features of Work (DFOW) as identified in the construction schedule and cross referenced in the QC Plan.

Sincerely,

William I. Stephens
President

TAB VI. Submittal Procedures and Initial Submittal Register

QC Manager's Submittal Duties

The QC Manager will be responsible for reviewing and certifying that all submittals are in compliance with the contract requirements as described in the specification section UFGS 01330, Submittal Procedures, of this contract. The QC Manager is the approving authority on all submittals unless otherwise specified in the submittal log. A copy of the submittal log is provided herein. The QC Manager is responsible for ensuring that all submittals are submitted on time and to the proper authority.

Chadwick Construction Company will plan for a review period of not less than fifteen working days for submittals that are approved by the QC Manager, twenty working days for submittals that are approved by the Contracting Officer, and thirty working days for submittals that are approved by the fire protection engineer.

The QC Manager will verify all field measurements prior to approval of any submittal for equipment and/or materials to be incorporated in this project. He/she will inspect all material deliveries and assure that the materials comply with the approved submittal. He/she will review all submittals and will verify that each submittal is in accordance with the requirements of the contract documents.

The QC Manager will be responsible for the following tasks regarding submittals.

1. Note date on which submittal was received from contractor on each submittal.
2. Review each submittal and check and coordinate each submittal with requirements of work and contract documents.
3. Review submittals for conformance with project design concepts and compliance with contract documents.
4. Act on submittals, determining appropriate action based on QC organization's review of submittal.
 - (1) When QC manager is approving authority, take appropriate action on submittal from the possible actions defined in paragraph entitled, "Actions Possible."
 - (2) When Contracting Officer is approving authority or when variation has been proposed, forward submittal to Government with certifying statement or return submittal to the contractor marked "not reviewed" or "review and resubmit" as appropriate.
5. Ensure that material is clearly legible.
6. Stamp each sheet of each submittal with QC certifying statement or approving statement except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only.
 - (1) When approving authority is Contracting Officer, QC organization will certify submittals forwarded to Contracting Officer with the following certifying statement:

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

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

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

- (2) When approving authority is QC Manager, QC Manger will use the following approval statement when returning submittals to contractor as “Approved” or “Approved as Noted”::

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

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

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

7. Sign certifying statement or approval statement. The person signing certifying statements shall be QC organization member designated in the approved QC plan.
8. Update submittal register [database] as submittal actions occur and maintain the submittal register at project site until final acceptance of all work by contracting officer.
9. Retain a copy of approved submittals at project site, including contractor’s copy of approved samples.

TAB VII. Testing Laboratory Information

Construction materials testing laboratories performing work for Navy construction contracts will be required to submit the following:

- a. A copy of the Certificate of Accreditation and Scope of Accreditation by an acceptable laboratory accreditation authority.

Construction materials testing laboratories performing work for Navy construction contracts must be accredited by one of the laboratory accreditation authorities. The laboratory's scope of accreditation must include the ASTM standards listed in the paragraph titled "Construction Materials Testing Laboratory Requirements" as appropriate to the testing field. The policy applies to the specific laboratory performing the actual testing, not just the "Corporate Office".

Soils Testing, Inc. will perform all testing in accordance with the specifications for the following areas:

- Excavation and Fill
- Water Distribution
- Bituminous Concrete Pavement
- Concrete

Chesapeake Steel Company will perform testing in accordance with the specifications for the following areas:

- Cold-formed metal framing

Hampton Roads Mechanical will perform testing in the following areas:

- Mechanical Insulation
- Plumbing System
- Heating, Ventilating & Air Conditioning System

XYZ Controls will perform testing in the following areas:

- Space Temperature Control Systems
- HVAC Testing/Adjusting/Balancing

Stevens Electric will perform testing in the following areas:

- Apparatus Inspection and Testing
- Three-Phase Pad-Mounted Transformer
- Overhead Transmission & Distribution
- Underground Electrical Work
- Interior Distribution System
- Automatic Transfer Switches
- Structural Telecommunications cabling and Pathway Systems
- Telephone Distribution System

TAB VIII. Testing Plan and Log

Chadwick Construction Company will provide in the Testing Plan and Log all tests required by the contract in a sequence following the construction production schedule.

The QC Manager will ensure that:

- all appropriate control procedures will be used when performing testing for this project. Such testing will include operation and/or acceptance tests, as specified in the contract documents.
- the testing procedures comply with the contract requirements.
- the facilities and testing equipment to be used are available and comply with all applicable testing standards. Labs that are to be certified will provide their accreditation letter.
- the recording forms and test identification control number system including all of the test documentation requirements have been correctly prepared.
- the results of all tests taken, both passing and failing, will be recorded in the Contractor Quality Control Report for that date. The specification paragraph reference, location of the test, and the sequential control number identifying the test will be shown on the test results.

A copy of all tests performed by a commercial testing laboratory will be provided to the Contracting Officer, turned in with the daily report. All testing to be performed will be recorded on the Testing Plan and Log.

The Testing Plan and Log (copy attached) shall be submitted as a separate submittal at the end of each month with the invoice. The Testing Plan and Log will be used/discussed at each QC Meeting.

TAB IX. Procedures to Complete Rework Items

The QC Manager will conduct daily inspections during the Follow-up phase to ensure compliance of the work with the contract. Any work that does not comply with the contract will be noted on the Rework Items List. The Rework Items List will identify the items that require rework and the date that the item was originally discovered. This list of deficiencies will be included in the quality control documentation, as required, and will include the estimated date by which the deficiencies will be corrected. Once the rework items have been corrected, the QC Manager will make a second inspection to ensure that all deficiencies have been corrected.

The QC Manager and the subcontractor's foreman will inspect the work activity while the work is in progress and again upon its completion.

This Rework Items List will be filed by the QC Manager. This list will state the deficient item, the date it was found, the corrective action necessary, the date the work was corrected, and the name of the person verifying that the work has been satisfactorily completed.

Follow-up actions on those discrepancies that cannot be corrected at the time of discovery will be the responsibility of the QC Manager. These types of discrepancies may be contributed to faulty equipment, weather, or time restrictions.

The Rework Items List will be maintained by the QC Manager and discussed at each QC meeting. The QC Manager and superintendent will agree on a reasonable time line for correction.

Deficiencies that have been identified since the last meeting will be discussed and proposed correction dates will be scheduled.

The QC Manager shall be responsible for listing items needing rework, including those identified by the Contracting Officer. The results of all quality control inspections, including those deficiencies noted and corrected on the spot, will be recorded by the QC Manager.

A copy of this report, with results and corrective actions taken, will be forwarded to the Contracting Officer. The original report will be filed at the job site trailer and will be made available as required.

Attached is the Standard NAVFAC Rework Items List or Deficiency Log.

TAB X. Documentation Procedures

Location of Documents: The documents listed in the following paragraphs shall be maintained by the QC Manager at the job site.

1. An approved copy of the QC Plan.
2. An up-to-date Submittal Register. A maintained submittal file providing all submittal data and warranties.
3. A maintained active list of definable features of work (DFOW) from TAB XI of the CQ Plan.
4. A maintained file on all Preparatory Phase items for each DFOW.
5. A maintained file on all Initial Phase item for each DFOW.
6. A maintained file on construction deficiencies by the Rework Items List.
7. A daily report file for both Contractor Quality Control Reports and Production Reports as identified in the quality control specification section.
8. A maintained file on all testing by the Testing Plan and Log as described in the specifications including a complete copy of all tests results.
9. The QC Manager and Superintendent will maintain the RFI Log and file. They will provide monthly updates with their invoice.
10. QC Validation: The QC Manager shall maintain a file on all QC activities, and all milestone inspections arranged by activity number and construction sequence.
11. Maintain a file of all contract modifications, arranged in numerical order.
12. The QC Manager will maintain As-Built Drawings at the job site. This file will be checked monthly.

All quality control documents will be available for review by the Government QA Reps and/or Contracting Officer.

Each designated QC Specialist is required to prepare a daily Quality Control Inspection Report. A copy of this report will be submitted to the QC Manager.

The QC Manager will summarize and consolidate these reports into a single report to be provided to the Contracting Officer daily.

Attached are the Standard NAVFAC daily reports (Contractor Production Report and Contractor Quality Control Report).

CONTRACTOR PRODUCTION REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)				DATE	Enter Date (DD/MMM/YY)
CONTRACT NO	TITLE AND LOCATION			REPORT NO	Enter Report # Here
Enter Cnt# Here		Enter Title and Location of Construction Contract Here			
CONTRACTOR	Enter The Contractor's Company Name Here			SUPERINTENDENT	Enter Superintendent's Name Here
AM WEATHER		PM WEATHER		MAX TEMP (F)	MIN TEMP (F)
Enter AM Weather Data Here		Enter PM Weather Data Here		Enter Max Temp Here	Enter Min Temp Here
WORK PERFORMED TODAY					
Schedule Activity No.	WORK LOCATION AND DESCRIPTION	EMPLOYER	NUMBER	TRADE	HRS
JOB SAFETY	WAS A JOB SAFETY MEETING HELD THIS DATE? (If YES attach copy of the meeting minutes)	<input type="checkbox"/> YES	<input type="checkbox"/> NO	TOTAL WORK HOURS ON JOB SITE, THIS DATE, INCL CON'T SHEETS	
	WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? (If YES attach copy of completed OSHA report)	<input type="checkbox"/> YES	<input type="checkbox"/> NO	CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT	
WAS CRANE/MANLIFT/TRENCHING/SCAFFOLD/HV ELEC/HIGH WORK/ HAZMAT WORK DONE? (If YES attach statement or checklist showing inspection performed.)	<input type="checkbox"/> YES	<input type="checkbox"/> NO	TOTAL WORK HOURS FROM START OF CONSTRUCTION		
WAS HAZARDOUS MATERIAL/WASTE RELEASED INTO THE ENVIRONMENT? (If YES attach description of incident and proposed action.)	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
Schedule Activity No.	LIST SAFETY ACTIONS TAKEN TODAY/SAFETY INSPECTIONS CONDUCTED			<input type="checkbox"/> SAFETY REQUIREMENTS HAVE BEEN MET.	
EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (INDICATE SCHEDULE ACTIVITY NUMBER)					
Schedule Activity No.	Submittal #	Description of Equipment/Material Received			
CONSTRUCTION AND PLANT EQUIPMENT ON JOB SITE TODAY. INDICATE HOURS USED AND SCHEDULE ACTIVITY NUMBER.					
Schedule Activity No.	Owner	Description of Construction Equipment Used Today (incl Make and Model)			Hours Used
Schedule Activity No.	REMARKS				
			CONTRACTOR/SUPERINTENDENT	DATE	

CONTRACTOR QUALITY CONTROL REPORT

DATE Enter (DD/MMM/YY)

REPORT NO Enter Rpt # Here

(ATTACH ADDITIONAL SHEETS IF NECESSARY)

PHASE CONTRACT NO Enter Cnt# Here CONTRACT TITLE Enter Title and Location of Construction Contract Here

PREPARATORY	WAS PREPARATORY PHASE WORK PERFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/>	
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.	
	Schedule Activity No.	Definable Feature of Work
		Index #

INITIAL	WAS INITIAL PHASE WORK PERFORMED TODAY? YES <input type="checkbox"/> NO <input type="checkbox"/>	
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.	
	Schedule Activity No.	Definable Feature of Work
		Index #

FOLLOW-UP	WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? YES <input type="checkbox"/> NO <input type="checkbox"/>	
	WORK COMPLIES WITH SAFETY REQUIREMENTS? YES <input type="checkbox"/> NO <input type="checkbox"/>	
	Schedule Activity No.	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present

REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)		REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)	
Schedule Activity No.	Description	Schedule Activity No.	Description

REMARKS (Also Explain Any Follow-Up Phase Checklist Item From Above That Was Answered "NO"), Manuf. Rep On-Site, etc.	
Schedule Activity No.	Description

On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.
DATE

AUTHORIZED QC MANAGER AT SITE

GOVERNMENT QUALITY ASSURANCE REPORT

DATE

QUALITY ASSURANCE REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THE REPORT	
Schedule Activity No.	Description

GOVERNMENT QUALITY ASSURANCE MANAGER

DATE

TAB XI. List of Definable Features of Work (DFOW)

Activity Number	Trans. No.	Item Number	Section Number	Description	Prep Date	Initial Date	Comments
			02	Site Work			
			02220	Demolition			
			022231	Clearing and Grubbing			
			02315	Excavation & Fill			
			02361	Soil Treatment			
			02510	Water Distribution			
			02530	Sanitary Sewerage			
			02630	Storm Drainage			
			02741	Bituminous Concrete Pavement			
			02921	Turf			
			02930	Exterior Plants			
			02935	Landscape Maintenance			
			03	Concrete			
			03300	Cast-in-place-Concrete			
			03450	Plant pre-cast architectural concrete			
			04	Masonry			
			04200	Unit masonry			
			05	Metals			
			05400	Cold-formed metal framing and Roof Trusses			
			05500	Metal fabrications			
			06	Wood & Plastics			
			06100	Rough Carpentry			
			06200	Finish Carpentry			
			06650	Solid Polymer Fabrications			
			07	Thermal & Moisture Protection			
			07212	Mineral Fiber Blanket Insulation			
			07214	Board & Block Insulation			
			07311	Asphalt Shingles			
			07600	Flashing and Sheet Metal			
			07840	Fire stopping			
			07920	Joint Sealants			
			08	Doors and Windows			
			08110	Steel Doors and Frames			
			08210	Wood Doors			
			08410	Aluminum Entrances			
			08520	Aluminum Windows			
			08710	Door Hardware			
			08800	Glazing			
			09	Finishes			
			09100	Metal Support Assemblies			
			09250	Gypsum Board			
			09310	Ceramic Tile			
			09510	Acoustical Ceilings			
			09651	Resilient Tile Flooring			
			09655	Resilient Sheet Flooring			
			09680	Carpet			
			09721	Vinyl coated Fabric Wall Covering			
			09900	Paints and Coatings			

Activity Number	Trans. No.	Item Number	Section Number	Description	Prep Date	Initial Date	Comments
			10	Specialties			
			10201	Metal Wall and door lowers			
			10260	Wall and Corner Guards			
			10400	Identification Devices and Directions			
			10522	Fire Extinguishers and Cabinets			
			10675	Steel Shelving			
			10800	Toilet and Bath accessories			
			11	Equipment			
			11175	Linen Chute			
			11312	Packaged Lift Station			
			11458	Disappearing Metal Stairway			
			12	Not Used			
			13	Special Construction			
			13855	Analog/Addressable Interior Fire Alarm System			
			13931	Fire Extinguishing Sprinkler Systems (residential)			
			14	Conveying Systems			
			14100	Dumbwaiters			
			15	Mechanical			
			15050	Basic Mechanical Materials and Methods			
			15080	Mechanical Insulation			
			15400	Plumbing System			
			15700	Heating, Ventilating, and Cooling System			
			15901	Space Temperature Control System			
			15949	HVAC Testing/Adjusting/Balancing for small systems			
			16	Electrical			
			16050	Basic Electrical Materials and Methods			
			16081	Apparatus Inspection and Testing			
			16237	Single Operation Generator Set			
			16272	Three-Phase Pad-Mounted Transformer			
			16301	Overhead Transmission and Distribution			
			16303	Underground Electrical Work			
			16402	Interior Distribution System			
			16410	Automatic Transfer Switches			
			16510	Interior Lighting			
			16520	Exterior Lighting			
			16710	Structured Telecommunications Cabling & Pathway System			
			16721	Telephone Distribution System			

TAB XII. Three Phase Control Checklist

The Quality Control System and the Three Phases of Control are the means by which we will ensure that all of the members of this construction project, including subcontractors and suppliers, comply with the requirements of this contract.

Preparatory and Initial Phase Meetings will be conducted on each DFOW to ensure that all construction operations, including both on site and off site fabrication, will be keyed to the proposed construction sequence.

These meetings will include the Three Phases of Control shown below.

These phase meetings are to be conducted by the QC Manager and shall be used for each DFOW.

Preparatory Phase

This phase will be performed prior to beginning each DFOW, and will consist of the following steps:

1. A review of each paragraph of the applicable specifications.
2. A review of each of the applicable drawing sheets.
3. Verification that all materials and/or equipment have been tested.
4. Verification that all provisions to provide the required inspection and testing have been made.
5. An examination of the work area to ensure that all required preliminary work has been completed and is in compliance with the contract documents.
6. A physical examination of the required materials, equipment, and/or samples to ensure that they are on hand, conform to the approved shop drawings and/or submittal data, and have been properly stored.
7. Reviews to ensure that all safety requirements have been and are being met.
8. A discussion of the procedures for the construction of the work.
9. Documentation of the construction tolerances and workmanship standards for that phase of work.

Initial Phase

When construction crews are ready to start work on a DFOW, conduct the initial phase with the QC Manager, the 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 Contractor Quality Control Report and in the Initial Phase Checklist. Perform the following for each DFOW:

1. Establish the quality of workmanship required.
2. Resolve conflicts.
3. Ensure that testing is performed by the approved laboratory.

4. Check work procedures for compliance with the Safety Plan and the appropriate Activity Hazard Analysis to ensure that applicable safety requirements are met.
5. The initial phase will be repeated for each new crew to work on site. The initial phase will also be repeated when the appropriate quality standards are not being met.

Follow-up Phase

Daily follow-up inspections will be performed to ensure continuing compliance with the contract requirements, including control testing, until the completion of that particular DFOW.

These verifications will be recorded in the Quality Control documentation.

Final follow-up inspections will be conducted and all deficiencies will be corrected for each DFOW prior to the start of additional DFOW that may be affected by the prior work.

<h1 style="margin: 0;">PREPARATORY PHASE CHECKLIST</h1> <p style="margin: 0;">(CONTINUED ON SECOND PAGE)</p>		SPEC SECTION Enter Spec Section # Here	DATE Enter Date (DD/MMM/YY)
CONTRACT NO Enter Cnt# Here	DEFINABLE FEATURE OF WORK Enter DFOW Here	SCHEDULE ACT NO. Enter Sched Act ID Here	INDEX # Enter Index# Here
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES <input type="checkbox"/> NO <input type="checkbox"/>		COMPANY/GOVERNMENT
	NAME	POSITION	COMPANY/GOVERNMENT
SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/> IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____		
	ARE ALL MATERIALS ON HAND? YES <input type="checkbox"/> NO <input type="checkbox"/> IF NO, WHAT ITEMS ARE MISSING? _____		
	CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.) COMMENT S: _____		
MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? YES <input type="checkbox"/> NO <input type="checkbox"/> IF NO, WHAT ACTION IS TAKEN? _____		
SPECIFICATIONS	REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____		
	DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____		
	CLARIFY ANY DIFFERENCES. _____		
PRELIMINARY WORK & PERMITS	ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE. IF NOT, WHAT ACTION IS TAKEN? _____		
TESTING	IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM. _____		

	WHEN REQUIRED? _____ _____ _____ WHERE REQUIRED? _____ _____ _____ REVIEW TESTING PLAN. _____ _____ _____ HAS TEST FACILITIES BEEN APPROVED? _____ _____ _____
SAFETY	ACTIVITY HAZARD ANALYSIS APPROVED? YES <input type="checkbox"/> NO <input type="checkbox"/> REVIEW APPLICABLE PORTION OF EM 385-1-1. _____ _____ _____
MEETING COMMENTS	NAVY/ROICC COMMENTS DURING MEETING. _____ _____ _____ _____ _____
OTHER ITEMS OR REMARKS	OTHER ITEMS OR REMARKS: _____ _____ _____ _____ _____
	QC MANAGER _____ DATE _____

INITIAL PHASE CHECKLIST

SPEC SECTION

DATE

Enter Spec Section # Here

Enter Date (DD/MMM/YY)

CONTRACT NO

DEFINABLE FEATURE OF WORK

SCHEDULE ACT NO.

INDEX #

Enter Cnt# Here

Enter DFOW Here

Enter Sched Act ID Here

Enter Index# Here

PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE:		YES <input type="checkbox"/>	NO <input type="checkbox"/>
	NAME	POSITION	COMPANY/GOVERNMENT	

PROCEDURE COMPLIANCE	IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. COORDINATE PLANS, SPECIFICATIONS, AND SUBMITTALS.
	COMMENTS: _____

PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN?

WORKMANSHIP	ESTABLISH LEVEL OF WORKMANSHIP. WHERE IS WORK LOCATED? _____
	IS SAMPLE PANEL REQUIRED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	WILL THE INITIAL WORK BE CONSIDERED AS A SAMPLE? YES <input type="checkbox"/> NO <input type="checkbox"/>
	(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE) _____

RESOLUTION	RESOLVE ANY DIFFERENCES.
	COMMENTS: _____

CHECK SAFETY	REVIEW JOB CONDITIONS USING EM 385-1-1 AND JOB HAZARD ANALYSIS
	COMMENTS: _____

OTHER	OTHER ITEMS OR REMARKS

_____ QC MANAGER	_____ DATE
---------------------	---------------

TAB XIII. Personnel Matrix

QUALITY CONTROL PERSONNEL MATRIX					
BOSS Headquarters Bldg.					
	Legend of Abbreviations				
G	Government Agency				
QCM	Quality Control Manager				
Arch	Architect				
CE	Civil Engineering				
SE	Structural Engineer				
ME	Mechanical Engineer				
EE	Electrical Engineer				
FPE	Fire Protection Specialist				
CEL	Consolidated Engineering Laboratory				
SUB CON	Subcontractor				
N/A	Not Applicable				
Section	Description	Approve Submittal	Review/ Certify Submittal	Perform & Document 3 Phases of Control	Perform & Document Testing
	DIVISION 02 SITE WORK	G	QCM	QCM	N/A
02220	Demolition	QCM	QCM	QCM	N/A
022231	Clearing and Grubbing	QCM	CE	QCM	CEL
02315	Excavation & Fill	QCM	QCM	QCM	N/A
02361	Soil Treatment	QCM	CE	QCM	SUB CON
02510	Water Distribution	QCM	CE	QCM	SUB CON
02530	Sanitary Sewerage	QCM	CE	QCM	SUB CON
02630	Storm Drainage	QCM	CE	QCM	CEL
02741	Bituminous Concrete Pavement	QCM	CE	QCM	N/A
02921	Turf	QCM & G	QCM	QCM	N/A
02930	Exterior Plants	QCM	QCM	QCM	N/A
02935	Landscape Maintenance	QCM	QCM	QCM	N/A
	DIVISION 03 CONCRETE				
03300	Cast-in-place-Concrete	QCM	SE	QCM	CEL
03450	Plant-precost architectural concrete	QCM & G	SE	QCM	CEL
	DIVISION 04 MASONRY				
04200	Unit masonry	QCM	SE	QCM	CEL
	DIVISION 05 METALS				
05400	Cold-formed metal framing and Roof Trusses	QCM	SE	QCM	CEL
05500	Metal fabrications	QCM	SE	QCM	N/A
	DIVISION 06 WOODS & PLASTICS				
06100	Rough Carpentry	QCM	ARCH	QCM	N/A
06200	Finish Carpentry	QCM	ARCH	QCM	N/A
06650	Solid Polymer Fabrications	QCM	ARCH	QCM	N/A

Section	Description	Approve Submittal	Review/ Certify Submittal	Perform & Document 3 Phases of Control	Perform & Document Testing
	DIVISION 07 THERMAL & MOISTURE PROTECTION				
07212	Mineral Fiber Blanket Insulation	QCM & G	ARCH	QCM	N/A
07214	Board & Block Insulation	QCM & G	ARCH	QCM	N/A
07311	Asphalt Shingles	QCM	ARCH	QCM	N/A
07600	Flashing and Sheet Metal	QCM	ARCH	QCM	N/A
07840	Fire stopping	QCM	ARCH	QCM	N/A
07920	Joint Sealants	QCM	ARCH	QCM	N/A
	DIVISION 08 DOORS & WINDOWS				
08110	Steel Doors and Frames	QCM	ARCH	QCM	N/A
08210	Wood Doors	QCM	ARCH	QCM	N/A
08410	Aluminum Entrances	QCM	ARCH	QCM	N/A
08520	Aluminum Windows	QCM	ARCH	QCM	N/A
08710	Door Hardware	QCM & G	ARCH	QCM	N/A
08800	Glazing	QCM	ARCH	QCM	N/A
	DIVISION 09 FINISHES				
09100	Metal Support Assemblies	QCM	ARCH	QCM	N/A
09250	Gypsum Board	QCM	ARCH	QCM	N/A
09310	Ceramic Tile	QCH & G	ARCH	QCM	N/A
09510	Acoustical Ceilings	QCM	ARCH	QCM	N/A
09651	Resilient Tile Flooring	QCM & G	ARCH	QCM	SUB CON
09655	Resilient Sheet Flooring	QCM	ARCH	QCM	N/A
09680	Carpet	QCM	ARCH	QCM	N/A
09721	Vinyl coated Fabric Wall Covering	QCM	ARCH	QCM	N/A
09900	Paints and Coatings	QCM & G	ARCH	QCM	N/A
	DIVISION 10 SPECIALTIES				
10201	Metal Wall and door lowers	QCM & G	ARCH	QCM	N/A
10260	Wall and Corner Guards	QCM & G	ARCH	QCM	N/A
10400	Identification Devices and Directions	QCM	ARCH	QCM	N/A
10522	Fire Extinguishers and Cabinets	QCM & G	ARCH	QCM	N/A
10675	Steel Shelving	QCM	ARCH	QCM	N/A
10800	Toilet and Bath accessories	QCM	ARCH	QCM	N/A
	DIVISION 11 EQUIPMENT				
11175	Linen Chute	QCM & G	ARCH	QCM	N/A
11312	Packaged Lift Station	QCM & G	ARCH	QCM	MAN Rep.
11458	Disappearing Metal Stairway	QCM	ARCH	QCM	N/A
	DIVISION 12 NOT USED				
Section	Description	Approve Submittal	Review/ Certify	Perform & Document	Perform & Document

			Submittal	3 Phases of Control	Testing
	DIVISION 13 SPECIAL CONSTRUCTION				
13855	Analog/Addressable Interior Fire Alarm System	QCM	FPE	QCM	FPE
13931	Fire Extinguishing Sprinkler Systems (residential)	QCM	FPE	QCM	FPE
	DIVISION 14 CONVEYING SYSTEMS				
14100	Dumbwaiters	QCM & G	ARCH	QCM	N/A
	DIVISION 15 MECHANICAL				
15050	Basic Mechanical Materials and Methods	QCM	ME	QCM	SUB CON
15080	Mechanical Insulation	QCM & G	ME	QCM	SUB CON
15400	Plumbing System	QCM & G	ME	QCM	SUB CON
15700	Heating, Ventilating, and Cooling System	QCM & G	ME	QCM	SUB CON
15901	Space Temperature Control System	QCM & G	ME	QCM	SUB CON
15949	HVAC Testing/Adjusting/Balancing for small systems	QCM & G	ME	QCM	SUB CON
	DIVISION 16 ELECTRICAL				
16050	Basic Electrical Materials and Methods	QCM	EE	QCM	SUB CON
16081	Apparatus Inspection and Testing	QCM	EE	QCM	SUB CON
16237	Single Operation Generator Set	QCM	EE	QCM	SUB CON
16272	Three-Phase Pad-Mounted Transformer	QCM	EE	QCM	SUB CON
16301	Overhead Transmission and Distribution	QCM	EE	QCM	SUB CON
16303	Underground Electrical Work	QCM	EE	QCM	SUB CON
16402	Interior Distribution System	QCM	EE	QCM	SUB CON
16410	Automatic Transfer Switches	QCM	EE	QCM	SUB CON
16510	Interior Lighting	QCM	EE	QCM	SUB CON
16520	Exterior Lighting	QCM	EE	QCM	SUB CON
16710	Structured Telecommunications Cabling & Pathway System	QCM	EE	QCM	SUB CON
16721	Telephone Distribution System	QCM	EE	QCM	SUB CON

TAB XIV. Completion Inspections

- A. Punch-Out Inspections – Near the completion of all work or any increment thereof established by a completion time stated in the FAR clause entitled “Commencement, Prosecution, and Completion of Work,” or stated elsewhere in the specifications, the QC Manager shall conduct an inspection of the work and develop a “punch list” of items which do not conform to the approved drawings and specifications. Include on the punch list any remaining items on the “Rework Items List” which are not corrected prior to the Punch-Out Inspection. The punch list will include the estimated date by which the deficiencies will be corrected. A copy of the punch list will be provided to the Contracting Officer. The QC Manager shall make follow-on inspections to ascertain that all deficiencies have been corrected. Once this is accomplished the QC Manager shall notify the Government that the facility is ready for the Government “Pre-Final Inspection.”
- B. Pre-Final Inspection – The Government will perform a Pre-Final Inspection to verify that the facility is complete and ready to be occupied. Any deficiencies found by the Government during this inspection will be identified on a written punch-list and forwarded to the Contractor for correction. The QC Manager shall ensure that all items on this list are corrected prior to notifying the Government that a “Final” inspection with the customer can be scheduled. Any items noted during the “Pre-Final” inspection shall be accomplished within the time slated for completion of the entire work, or any particular increment thereof if the project is divided into increments by separate completion dates.
- C. Final Acceptance Inspection – The QC Manager, QC Specialists, Project Superintendent or other primary Contractor management personnel, and the Contracting Officer’s representative will be in attendance at this inspection. Additional Government personnel may also be in attendance. The Contracting Officer, based upon results of the “Pre-Final” inspection, will formally schedule the Final Acceptance Inspection. Notice shall be given to the Contracting Officer at least 14-days prior to the final inspection stating that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all the contract work acceptably complete for this inspection will because for the Contracting Officer to bill the Contractor for the Government’s additional inspection cost in accordance with Contract Clause entitled “Inspection of Construction.”