
USACE / CESAJ

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS

CESAJ 01 78 02 (Apr 2006)

JACKSONVILLE DISTRICT LOCAL MASTER GUIDE SPECIFICATION

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11/13

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JACKSONVILLE DISTRICT LOCAL MASTER GUIDE SPECIFICATION

SECTION 01 78 02

CLOSEOUT SUBMITTALS
11/13

NOTE: This guide specification covers the requirements for closeout submittals including: revised project documents, warranty management, testing, adjusting and balancing, O & M manuals, and final cleaning.

Comments and suggestions are welcome. Using E-mail for feedback is encouraged. Comments should be directed to:

Engineering Division, Design Branch, Specifications Section.

ALL COMMENTS RECEIVED WILL BE DISSEMINATED TO THE PROPER OFFICE FOR RESPONSE.

PART 1 GENERAL

NOTE TO SPEC WRITER: Coordinate with the designer/customer regarding special warranty requirements and options.

1.1 REFERENCES

NOTE: Delete this paragraph if Paragraph 1.3 PROJECT RECORD DOCUMENTS is deleted (dredging projects at the Project Engineer's discretion).

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. DEPARTMENT OF DEFENSE (DOD)

ERDC/ITL TR-12-2

(2012) A/E/C CADD Standard, Release 4.0

Obtain from the following web site:
https://cadbim.usace.army.mil/CAD

U.S. ARMY CORPS OF ENGINEERS (USACE)

District PPM

(2010) Plans Preparation Manual,
Jacksonville District, Design Branch;
Obtain from the following web site:
http://www.saj.usace.army.mil/About/
DivisionsOffices/Engineering/
DesignBranch/CADDManagementSupport.aspx

1.2 SUBMITTALS

NOTE: Delete this paragraph if no submittals are
required. Submittals must be limited to those
necessary for adequate quality control. The
importance of an item in the project should be one
of the primary factors in determining if a submittal
for the item should be required.

Government approval is required for submittals with a "G" designation;
submittals not having a "G" designation are for information only. When
used, a designation following the "G" designation identifies the office
that will review the submittal for the Government. For each submittal
identified in this section an equal number of electronic copies shall be
submitted on CD-ROM media in Adobe Acrobat format, most recent version.
The following shall be submitted in accordance with Section 01 33 00
SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

As-Builts; G, RO

NOTE: Delete this paragraph if Paragraph 1.3
PROJECT RECORD DOCUMENTS is deleted (dredging
projects at the Project Engineer's discretion).

Submit as indicated in paragraph PROJECT RECORD DOCUMENTS
below. All drawing revisions and as-builts will be checked for
compliance with ERDC/ITL TR-12-2 and District PPM.

SD-03 Product Data

As-Built Record of Equipment and Materials; [G,]

NOTE: Delete if not applicable to project. FILL IN
BLANK WITH APPROPRIATE APPROVING OFFICE AND DELETE
BRACKETS. ALSO, DELETE SEMICOLON AND REFERENCE TO
"G" IF TO BE USED FOR "FIO" ONLY. WE NO LONGER SHOW
"FIO".

[Six] [_____] copies of the record listing the as-built

materials and equipment as approved during shop drawing submittal, review and approval process, incorporated into the construction of the project.

Warranty Management Plan; [G,]

NOTE: For use with projects requiring extended warranties. Delete if not applicable to project. FILL IN BLANK WITH APPROPRIATE APPROVING OFFICE AND DELETE BRACKETS. ALSO, DELETE SEMICOLON AND REFERENCE TO "G" IF TO BE USED FOR "FIO" ONLY. WE NO LONGER SHOW "FIO".

[Six] [_____] sets of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of warranty of construction. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

Warranty Tags; [G,]

NOTE: For use with projects requiring extended warranties. Delete if not applicable to project. FILL IN BLANK WITH APPROPRIATE APPROVING OFFICE AND DELETE BRACKETS. ALSO, DELETE SEMICOLON AND REFERENCE TO "G" IF TO BE USED FOR "FIO" ONLY. WE NO LONGER SHOW "FIO".

[Six] [_____] record copies of the warranty tags showing the layout and design.

Final Cleaning; [G|]

NOTE: Delete if not applicable to project. FILL IN BLANK WITH APPROPRIATE APPROVING OFFICE AND DELETE BRACKETS. ALSO, DELETE SEMICOLON AND REFERENCE TO "G" IF TO BE USED FOR "FIO" ONLY. WE NO LONGER SHOW "FIO".

[Six] [_____] copies of the listing of completed final clean-up items.

1.3 PROJECT RECORD DOCUMENTS

NOTE: For dredging projects, delete this paragraph if requested by the Project Engineer.

1.3.1 Definitions

1.3.1.1 Design Files

Design files are the latest version electronic CADD files.

1.3.1.2 Working As-Built Drawings

Working as-built drawings are full-sized contract drawings (hard copy) marked up in red to indicate as-built conditions.

1.3.1.3 Completed As-Built Drawings

Completed as-built drawings are the final full-sized contract drawings (hard copy) prepared by the Contractor. They show, in red ink, on-site changes to the original construction documents.

1.3.1.4 Record Drawings

Record drawings are corrected design files (CADD) showing the as-constructed condition and reflect on-site changes the Contractor noted in the completed as-built drawings. Record drawings are produced by making changes to the design files using CADD and are prepared by the Architect-Engineer or Contractor.

1.3.1.5 As-Built Shop Drawings

As-built shop drawings are detailed shop drawings of components incorporated into the completed work indicating as-built conditions.

1.3.2 Preparation of As-Built and Record Drawings

NOTE: The USACE policy on as-built and record drawings is as follows:

a. Method of Preparation for Military Projects. The construction Contractor will prepare the completed as-built and record drawings. The record drawings are prepared and provided in CADD format.

b. Method of Preparation for Civil Works Projects. The preferred method of preparing the completed as-built and record drawings is by the construction Contractor. The record drawings are prepared in CADD format and provided in Portable Document Format (PDF). The management plan for the project must justify the preparation of the record drawings by any other method, such as by in-house personnel. Two such exceptions are "emergency construction" and operations work performed with hired labor. Revise the following specification paragraphs if as-builts and/or record drawings are not to be done by the Contractor.

c. Customer Coordination. The method of producing the record drawings and their format will be discussed with the customer at the beginning of a project, reflected in the Memorandum of

Understanding with the customer (if applicable) and the management plan for the project, and confirmed with the customer before issuing the construction solicitation.

This paragraph covers obtaining completed as-built drawings and record drawings (CADD), as a requirement of the contract. These as-builts are part of the permanent records of this project and will be retained by the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.3.2.1 Government-Furnished Materials

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

1.3.2.2 Working As-Built and Completed As-Built Drawings

NOTE: Select appropriate reference.

The Contractor shall revise [2] [_____] sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. All mechanical and electrical changes due to field Request for Information (RFI) process, equipment shop drawings reflecting modified data due to submittal and approval process, and contract field and design modifications shall be incorporated in the working as-built drawings. Completed as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built drawings and completed as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. The working as-built drawings and completed as-built drawings shall show, but shall not be limited to, the following information:

- a. The actual location, kinds and sizes of all subsurface utility lines.
- b. Drawings shall depict actual location of all underground and above ground water, wastewater, and reclaimed water improvements and related appurtenances.
- c. Drawings shall clearly depict all details not on the original contract drawings, but constructed in the field. The location of all equipment and piping relocation shall be accurately depicted to scale.
- d. The location of existing utilities where crossed or uncovered during the course of the work shall be depicted.

e. Dimensions between all manholes shall be field verified and depicted. The inverts and grade elevations of all lines entering and leaving manholes shall be depicted. Sewer laterals shall be accurately located and depicted.

f. The depth from finish grade to the top of potable water mains, reclaimed water mains and sewer force mains shall be indicated at all valve and fitting locations.

g. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, these drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point.

h. The location, dimensions, and finished floor elevations of the building structures installed or affected as part of the project construction.

i. As-built grade, elevations, cross sections, or alignment of canals, levees, roads, earthwork, structures or utilities, including any changes that were made from contract plans. Cross sections shall be provided at increments of 100 feet.

j. Changes in details of design or additional information obtained from shop drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

k. The topography, invert elevations, pipe sizes, and grades of drainage installed or affected as part of the project construction.

l. The invert elevations for all water control structures (including weir crest elevations, culverts, etc.). The completed as-built drawings shall depict all elevations at NAVD 88 and NGVD 29. The NGVD 29 elevation shall be italicized, bracketed and underscored.

m. Changes or modifications which result from the final inspection.

n. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the completed working as-built drawings, or as an alternative, options not constructed shall be boxed, drawn over with an "X" (corner to corner), and labeled with a note stating "Option Not Exercised".

o. Systems designed or enhanced by the Contractor; such as, but not limited to, HVAC controls, fire alarm, fire sprinkler, irrigation systems, pumping equipment, hydraulic operating system, fuel system, electrical controls, one-line diagram telemetry and SCADA system, conduit and piping layout, etc.

p. Modifications (change order price shall include the Contractor's cost to change working as-built drawings and completed as-built drawings to reflect modifications) and compliance with the following procedures.

- (1) Directions in the modification for posting descriptive changes shall be followed.
- (2) A revision symbol shall be placed at the location of each deletion.
- (3) For new details or sections which are added to a drawing, a revision symbol shall be placed by the detail or section title.
- (4) For minor changes, a revision symbol shall be placed by the area changed on the drawing (each location).
- (5) For major changes to a drawing, a revision symbol shall be placed by the title of the affected plan, section, or detail at each location.
- (6) For changes to schedules or drawings, a revision symbol shall be placed either by the schedule heading or by the change in the schedule.
- (7) The revision symbol shown on plan shall be 1.5 times larger than the corresponding revision symbol shown in the revision block.

NOTE: Delete the paragraph below if as-built borrow area survey is not required.

[g. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.]

1.3.2.3 Record Drawing Preparation

The record drawings (CADD) shall correctly show the features of the project as it has been constructed by bringing the contract design files into agreement with approved completed as-built drawings, and adding such additional drawings as may be necessary. The completed as-built drawings and record drawing shall be neat, legible and accurate. Record drawings (CADD) shall remain in the originally provided design file digital file format.

1.3.2.4 Electronic Record Drawings

NOTE: Choose tailored alternative between providing electronic record drawings to the customer in PDF format or CADD program format.

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the design files and prepare additional new drawings files when preparing the record drawings.

- a. All drawing revisions shall be performed and conform to ERDC/ITL TR-12-2 and District PPM.

b. Additions and corrections to the record drawings shall be equal in quality and detail to that of the original design files. Line colors, line weights, lettering, and symbols shall be the same as the original line colors, line weights, lettering, and symbols. If additional drawings are required in the record drawings, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new drawings in the record drawings shall be identical to that used on the design file drawings. Additions and corrections to the record drawings shall be accomplished using CADD program/system to prepare the design files. The Contractor will be furnished Microstation design files. The electronic files will be supplied on compact disc, read-only memory (CD-ROM). The Contractor shall use the electronic design files provided by the Government at the Preconstruction Conference to prepare changes and additions to the electronic record drawings. New drawings added to the original set of drawings shall be prepared in CADD format. The Contractor shall be responsible for providing all programs and hardware necessary to prepare the record drawings. The Contractor shall provide a digital to-scale version of the record drawings in Portable Document Format (PDF) to the Contracting Officer for review. The Contractor shall make required corrections, changes, additions, and deletions as indicated by the Contracting Officer.

c. CADD drawings shall utilize Computer Aided Design named levels to add text, redlines and revision areas to the CADD drawings. The first character of the levels shall start with the discipline designator of the sheet type as listed on Table 2-1 of the AEC CADD Standard. The next set of characters is ANNO to represent the annotation field. The final characters represent the type of information TEXT (text), REDL (redlines), and REVS (revisions). An example for an architectural discipline sheet level is A-ANNO-TEXT, A-ANNO-REDL, and A-ANNO-REVS.

d. Record drawings shall be created by appending an uppercase R to the design file name in the first user definable character. For a previously amended or modified design file, replace an existing A identifier or M identifier user defined character in the design file name with an uppercase R in the first user definable character. Completed as-built drawing changes shall be made only to those renamed files. The renamed files corrected to reflect the "as-built" condition are hereafter referred to as "record drawings".

NOTE: Use the paragraph below at the discretion of the project team based on size of the contract and ability of prospective contractors to subcontract or perform CADD work.

[e. As an alternative, the Government may exercise the option of preparing the record drawings (CADD) with their own resources, and reduce the contract amount to cover the cost of this work.]

1.3.2.5 Completion of As-Builts

The completed as-built drawings (hard copy) and record drawings (CADD) shall be completed as follows:

a. When final revisions have been completed, the cover sheet drawing shall show the wording "COMPLETED AS-BUILT" followed by the name of the Contractor in letters at least 3/16 inch high. All other completed as-built drawings and record drawings shall be marked either "AS-BUILT" drawing denoting no revisions on the sheet or "REVISED AS-BUILT" denoting one or more revisions. All completed as-built drawings and record drawings requiring revisions on the sheet shall have an entry entered into the revision block. The Contractor shall sign the cover sheet of the marked-up completed as-built drawings in the following manner: "I CERTIFY THAT THESE CORRECTED AS-BUILT DRAWINGS INDICATE CONSTRUCTION AS ACTUALLY PERFORMED AND ARE AN ACCURATE REPRESENTATION OF THE SPECIFIED WORK. THESE CORRECTED AS-BUILT DRAWINGS ARE APPROVED FOR PREPARATION OF RECORD CONSTRUCTION DRAWINGS."

NOTE for next paragraph: In the first set of bracketed numbers, the first two choices are for contracts less than five million dollars, the third and fourth choices are for contracts worth at least five million dollars, and the blank brackets are for a discretionary choice. In the second and third set of bracketed numbers, the first choice is for contracts less than five million dollars, the second choice is for contracts worth at least five million dollars, and the blank brackets are for a discretionary choice.

b. Within [10] [20] [30] [____] days after Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the record drawings (CADD) for that phase of work and submit two sets of prints of these drawings along with a digital copy in PDF format on a CD for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within [7] [10] [____] days, the Contractor shall revise the record drawings accordingly at no additional cost and submit one set of final prints and one digital copy in PDF format on a CD for the completed phase of work to the Government. Within [10] [20] [____] days of substantial completion of all phases of work, the Contractor shall submit the final record drawings for the entire project. The submittal shall consist of 4 sets of CADD-generated record drawings in PDF format on compact disc(s), 4 sets of record drawing CADD files on compact disc(s); 2 sets of full size record drawing prints, 2 sets of the completed approved working as-built drawings; and 2 sets of the completed approved working as-built drawings scanned and saved into PDF format on compact disc(s). Compact discs shall be read-only memory (CD-ROM). They shall be complete in all details and identical in form and function to the design files supplied by the Government. The .PDF files produced from the approved completed working as-built drawings shall be of high resolution and quality, and easily readable. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible. Paper prints and storage media submitted will become the property of the Government upon final approval. Failure to submit as-builts and record drawings as specified shall be cause for withholding any payment due the Contractor as retainage under the clause PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES in Volume 1. Approval and acceptance of

as-builts and record drawings shall be accomplished before final payment is made to the Contractor.

1.3.3 As-Built Record of Equipment and Materials

NOTE: This paragraph is intended to provide data on equipment and materials incorporated in the construction of the project that cannot readily be determined after completion of construction. The data is expected to be of value for future maintenance, alteration, and repair work. The designer should predetermine the items on which data is required and list them in the DESCRIPTION column of the following form. A typical list of items would include such things as: roofing, insulation, and special wall coverings.

NOTE TO SPEC WRITER: DELETE IF NOT APPLICABLE.

The Contractor shall furnish [Two] [_____] copies of preliminary record of equipment and materials used on the project [15] [_____] days prior to final inspection. This preliminary submittal will be reviewed and returned [2] [_____] days after final inspection with Government comments. [Six] [_____] sets of final record of equipment and materials shall be submitted [10] [_____] days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings. The record shall list the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA

Description	Specification Section	Manufacturer and Catalog, Model, and Serial Number	Composition and Size	Where Used
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1.3.4 As-Built Shop Drawings

NOTE: DELETE IF NOT APPLICABLE.

The Contractor shall furnish final approved as-built shop drawings [30] [_____] days after transfer of the completed facility.

1.3.5 Real Property Equipment

NOTE: DELETE IF NOT APPLICABLE.

The Contractor shall furnish a list of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "EQUIPMENT-IN-PLACE LIST" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of

equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list shall be furnished [30] [_____] days after transfer of the completed facility.

1.4 WARRANTY MANAGEMENT

NOTE: A warranty package based on a cost/benefit determination will be established with the customer at the beginning of a project.

NOTE TO SPEC WRITER: FOR PROJECTS WITH EXTENDED WARRANTIES; DELETE PARAGRAPH IN ITS ENTIRETY IF NOT APPLICABLE. HOWEVER, IF PARAGRAPH IS USED, BE SURE TO CHECK WARRANTY OF CONSTRUCTION CLAUSE ON CT-C CHECKLIST WHEN FRONTS PACKAGE IS REQUESTED. EDIT PARAGRAPH ACCORDINGLY TO MEET SITE SPECIFIC CONTRACT NEEDS.

1.4.1 Warranty Management Plan

The Contractor shall develop a Warranty Management Plan which shall contain information relevant to the Clause WARRANTY OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES in Volume 1. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the Warranty Management Plan for Government approval. The Warranty Management Plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The Plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the Warranty Management Plan shall include, but shall not be limited to, the following:

- a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.
- b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.
- c. A list for each warranted equipment, item, feature of construction or system indicating:

1. Name of item.
 2. Model and serial numbers.
 3. Location where installed.
 4. Name and phone numbers of manufacturers or suppliers.
 5. Names, addresses and telephone numbers of sources of spare parts.
 6. Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
 7. Cross-reference to warranty certificates as applicable.
 8. Starting point and duration of warranty period.
 9. Summary of maintenance procedures required to continue the warranty in force.
 10. Cross-reference to specific pertinent Operation and Maintenance Manuals.
 11. Organization, names and phone numbers of persons to call for warranty service.
 12. Typical response time and repair time expected for various warranted equipment.
- d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.
- e. Procedure and status of tagging of all equipment covered by extended warranties.
- f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.
- g. The Contractor shall maintain QCS capabilities during the warranty period to correspond with the Government regarding the correction of warranty items.

1.4.2 Performance Bond

The Contractor's Performance Bond [shall remain effective throughout the construction period] [_____].

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

1.4.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.4.4 Contractor's Response to Construction Warranty Service Requirements

Following oral or written notification by the Contracting Officer, the Contractor shall respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the construction warranty within the time frames specified, the Government will perform the work and back charge the construction warranty payment item established.

- a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within 4 hours, initiate work within 6 hours and work continuously to completion or relief.
- b. Second Priority Code 2. Perform onsite inspection to evaluate situation, and determine course of action within 8 hours, initiate work within 24 hours and work continuously to completion or relief.
- c. Third Priority Code 3. All other work to be initiated within 3 work days and work continuously to completion or relief.
- d. The "Construction Warranty Service Priority List" is as follows:

**NOTE: THE FOLLOWING IS A TYPICAL EXAMPLE OF
WARRANTY ITEMS THAT MAY BE NEEDED; EDIT PARAGRAPH
ACCORDINGLY TO BE SITE SPECIFIC FOR CONTRACT.**

- Code 1-Air Conditioning Systems
 - (1) Recreational support.
 - (2) Air conditioning leak in part of building, if causing damage.
 - (3) Air conditioning system not cooling properly.

Code 1-Doors

- (1) Overhead doors not operational, causing a security, fire, or safety problem.
- (2) Interior, exterior personnel doors or hardware, not functioning properly, causing a security, fire, or safety problem.

Code 3-Doors

- (1) Overhead doors not operational.
- (2) Interior/exterior personnel doors or hardware not functioning properly.

Code 1-Electrical

- (1) Power failure (entire area or any building operational after 1600 hours).
- (2) Security lights.
- (3) Smoke detectors.

Code 2-Electrical

- (1) Power failure (no power to a room or part of building).
- (2) Receptacle and lights (in a room or part of building).

Code 3-Electrical

Street lights.

Code 1-Gas

- (1) Leaks and breaks.
- (2) No gas to family housing unit or cantonment area.

Code 1-Heat

- (1) Area power failure affecting heat.
- (2) Heater in unit not working.

Code 2-Kitchen Equipment

- (1) Dishwasher not operating properly.
- (2) All other equipment hampering preparation of a meal.

Code 1-Plumbing

- (1) Hot water heater failure.
- (2) Leaking water supply pipes.

Code 2-Plumbing

- (1) Flush valves not operating properly.
- (2) Fixture drain, supply line to commode, or any water pipe leaking.
- (3) Commode leaking at base.

Code 3-Plumbing

Leaky faucets.

Code 3-Interior

- (1) Floors damaged.
- (2) Paint chipping or peeling.
- (3) Casework.

Code 1-Roof Leaks

Temporary repairs will be made where major damage to property is occurring.

Code 2-Roof Leaks

Where major damage to property is not occurring, check for

location of leak during rain and complete repairs on a Code 2 basis.

Code 2-Water (Exterior)
No water to facility.

Code 2-Water (Hot)
No hot water in portion of building listed.

Code 3-All other work not listed above.

1.4.5 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

- a. Type of product/material_____.
- b. Model number_____.
- c. Serial number_____.
- d. Contract number_____.
- e. Warranty period_____ from_____ to_____.
- f. Inspector's signature_____.
- g. Construction Contractor_____.
- Address_____.
- Telephone number_____.
- h. Warranty contact_____.
- Address_____.
- Telephone number_____.
- i. Warranty response time priority code_____.

j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

1.5 MECHANICAL TESTING, ADJUSTING, BALANCING, AND COMMISSIONING

NOTE: The designer will edit this paragraph as required for projects that include mechanical systems. DELETE IF NOT APPLICABLE.

Prior to final inspection and transfer of the completed facility; all reports, statements, certificates, and completed checklists for testing,

adjusting, balancing, and commissioning of mechanical systems shall be submitted to and approved by the Contracting Officer as specified in applicable technical specification sections.

1.6 OPERATION AND MAINTENANCE MANUALS

NOTE: DELETE IF NOT APPLICABLE.

Operation manuals and maintenance manuals shall be submitted as specified. Operation manuals and maintenance manuals provided in a common volume shall be clearly differentiated and shall be separately indexed. Refer to Section 01 78 23 OPERATION AND MAINTENANCE DATA.

1.7 FINAL CLEANING

NOTE: EDIT ACCORDINGLY TO BE SITE SPECIFIC.

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be [cleaned] [replaced]. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, [____] and construction facilities removed. A list of completed clean-up items shall be submitted on the day of [final inspection] [____].

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section --