

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE PAGE OF PAGES
1 12

2. AMENDMENT/MODIFICATION NO. 0003
3. EFFECTIVE DATE 06 JULY 2004
4. REQUISITION/PURCHASE REQ. NO.
5. PROJECT NO. (If applicable)
6. ISSUED BY CODE W912EP
7. ADMINISTERED BY (If other than Item 6) CODE W912EP

USA ENGINEER DISTRICT JACKSONVILLE
PRUDENTIAL OFFICE BUILDING
701 SAN MARCO BLVD.
ATTN: CESAJ-CT
JACKSONVILLE, FL 32207-8175

GULF COAST AREA OFFICE
CONOPS-GULF COAST OFFICE
P.O. BOX 19247
TAMPA, FL 33686-9247

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)
9A. AMENDMENT OF SOLICITATION NO. W912EP-04-R-0004
9B. DATED (SEE ITEM 11) 07 JUNE 2004
10A. MODIFICATION OF CONTRACTS/ORDER NO.
10B. DATED (SEE ITEM 13)
CODE FACILITY CODE

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

- A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
- B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
- C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
- D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

S-65D, KISSIMMEE RIVER RESTORATION PROJECT, HIGHLANDS COUNTY, FLORIDA

ANY ENCLOSURES ACCOMPANYING THIS AMENDMENT SHOULD BE INSERTED IN THE PLANS AND SPECIFICATIONS AS APPLICABLE. ALL SUPERSEDED MATERIALS SHOULD BE REMOVED OR ADEQUATELY MARKED TO INDICATE THEY HAVE BEEN SUPERSEDED.

THE DATE FOR RECEIPT OF OFFERS IS CHANGED FROM 08 JULY 2004 TO 16 JULY 2004.

SEE ATTACHED CONTINUATION SHEET

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)
15B. CONTRACTOR/OFFEROR
15C. DATE SIGNED
16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
16B. UNITED STATES OF AMERICA
BY
16C. DATE SIGNED

SF 30 CONTINUATION SHEET

1. SPECIFICATIONS:

- A. The text changes have been updated with additions noted with underlined text and deletions noted with line/cross-outs, and pertain only to changes made by this amendment.
- B. The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not marked with asterisks or underlined text and line/cross-outs.

1.A. SPECIFICATION CHANGES:

SECTION: Delete Section 02380 and replace with attached Revised Section 02380.

2. DRAWINGS:

There are no changes to the drawings.

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DIVISION 02 - SITE WORK

SECTION 02380

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SECTION 02380

STONE PROTECTION FOR STRUCTURES

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 33	(2001a) Concrete Aggregates
<u>ASTM C 88</u>	<u>(1990) Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate</u>
ASTM C 127	(1988; R 1993e1) Specific Gravity and Absorption of Coarse Aggregate
ASTM C 136	(1996a) Sieve Analysis of Fine and Coarse Aggregates
ASTM C 295	(1998) Petrographic Examination of Aggregates for Concrete
<u>ASTM C 535</u>	<u>(1989) Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine</u>
ASTM D 5312	(1992) Evaluation of Durability of Rock for Erosion Control Under Freezing and Thawing Conditions
ASTM D 5313	(1992; R 1997) Evaluation of Durability of Rock for Erosion Control Under Wetting and Drying Conditions

1.2 SUBMITTALS

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. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Samples

Riprap; G, COR
Bedding Material; G, COR

Representative samples of all stone to be used shall be submitted for approval prior to delivery of any such material to the work site. The source or sources from which the Contractor proposes to obtain the material shall be selected well in advance of the time when the material will be required in the work. The cost of obtaining and delivering the samples shall be at the expense of the Contractor.

SD-07 Certificates

Riprap; G, ED
Bedding Material; G, ED

Quality test on the stone in accordance with paragraph EVALUATION TESTING OF STONE below shall be the responsibility of the Contractor. Prior to delivery of such material to the worksite, submit certificates of compliance attesting that the materials meet specification requirements.

1.3 STONE SOURCES

Stone shall be furnished from any source designated by the Contractor and accepted by the Contracting Officer, subject to the conditions herein stated.

1.3.1 Selection of Source

The Contractor shall designate in writing only one source or one combination of sources from which he proposes to furnish stone. It is the Contractor's responsibility to determine that the stone source or combination of sources selected is capable of providing the quality, quantities and gradation needed and at the rate needed to maintain the scheduled progress of the work.

1.3.2 Acceptance of Materials

Acceptance of a source of stone is not to be construed as acceptance of all material from that source. During the contract period, both prior to and after materials are delivered to the job site, visual inspections and measurements of the stone materials may be performed by the Contracting Officer. If the Contracting Officer, during the inspections, finds that the stone quality, gradation or weights of stone being furnished are not as specified or are questionable, re-sampling and re-testing by the Contractor shall be required. Sampling of the delivered stone for testing and the manner in which the testing is to be performed shall be as directed by the Contracting Officer. This additional sampling and testing shall be performed at the Contractor's expense when test results indicate that the materials do not meet specified requirements. When test results indicate that materials meet specified requirements, an equitable adjustment in the

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contract price will be made for the sampling and testing. Any material rejected shall be removed or disposed of as specified and at the Contractor's expense.

PART 2 PRODUCTS

2.1 BEDDING MATERIAL

Bedding material shall be composed of tough, durable particles, adequately free from thin, flat and elongated pieces, and shall contain no organic matter nor soft, friable particles in quantities considered objectionable by the Contracting Officer. The stone shall weigh not less than 140 pounds per cubic foot (saturated surface dry) and shall meet the quality requirements of ASTM C 33. Gradation shall conform to the following requirements:

BEDDING STONE

U.S. STANDARD SIEVE	PERCENT BY WEIGHT, PASSING
4 in.	100
3-1/2 in.	90 - 100
2-1/2 in.	25 - 60
1-1/2 in.	0 - 15
3/4 in.	0 - 5

The bedding material shall be well-graded between the limits shown. At least one test shall be performed on each 1000 tons placed in accordance with ASTM C 136. All points on individual grading curves obtained from representative samples of bedding material shall lie between the boundary limits as defined by smooth curves drawn through the tabulated gradation limits plotted on ENG FORM 2087 or similar form. The individual gradation curves within these limits shall not exhibit abrupt changes in slope denoting either gap grading or scalping of certain sizes or other irregularities which would be detrimental to the proper functioning of the bedding layers.

2.2 RIPRAP

Riprap shall be of a suitable quality to ensure permanence in the structure. It shall be free from cracks, blast fractures, bedding, seams and other defects that would tend to increase its deterioration from natural causes. The stone shall be clean and adequately free from all foreign matter. Stone shall be well graded and shall conform to the tables below.

RIPRAP GRADATION NO. 1

PERCENT LIGHTER BY WEIGHT (SSD)	LIMITS OF STONE WEIGHT, LB.
100	3704-1482
50	1098- 741
15	549- 232

RIPRAP GRADATION NO. 1

PERCENT LIGHTER BY WEIGHT (SSD)	LIMITS OF STONE WEIGHT, LB.
------------------------------------	--------------------------------

RIPRAP GRADATION NO. 2

PERCENT LIGHTER BY WEIGHT (SSD)	LIMITS OF STONE WEIGHT, LB.
------------------------------------	--------------------------------

100	691-276
50	205-138
15	102- 43

2.2.1 Evaluation Testing of Stone

The Contractor shall have evaluation tests performed on stone samples collected from the proposed source or sources selected to supply the stone. The tests to which the stone shall be subjected include petrographic examination (ASTM C 295), unit weight and absorption (ASTM C 127), sulfate soundness (ASTM C 88), LA abrasion (ASTM C 535), resistance of stone to freezing and thawing (ASTM D 5312), and resistance to wetting and drying (ASTM D 5313). The tests shall be conducted by the Contractor in accordance with applicable ASTM methods of tests, and shall be performed at a laboratory validated by the government. The cost of testing shall be borne by the Contractor.

2.2.1.1 Unit Weight and Absorption

Stone shall weigh not less than 165 pounds per cubic foot. The stone shall have an absorption less than 1 percent. The method of test for unit weight and absorption shall be ASTM C 127, except the unit weight shall be calculated in accordance with Note No. 5 using bulk specific gravity, saturated surface dry.

2.2.1.2 Petrographic Examination

Stone shall be evaluated in accordance with ASTM C 295. Stone must be fresh, have interlocking crystalline structure, have no clay or silt minerals present, and have no soluble minerals present.

2.2.1.3 Sulfate Soundness

Stone shall have a maximum loss of 5 percent when determining the durability of stone when subject to sulfate soundness testing in accordance with ASTM C 88.

2.2.1.4 LA Abrasion

Stone shall have a maximum loss of 40 percent when determining the durability of stone when subject to LA abrasion testing in accordance with ASTM C 535.

2.2.1.5 Resistance to Freezing and Thawing

Stone shall have a maximum loss of 10 percent after the number of cycles specified in ASTM D 5312, Figure 1, when determining the durability of stone when subjected to freezing and thawing in accordance with ASTM D 5312.

2.2.1.6 Resistance of Rock to Wetting and Drying

Stone shall have a maximum loss of 1 percent when determining the durability of stone when subject to wetting and drying in accordance with ASTM D 5313.

2.2.2 Gradation Test

The Contractor shall perform a gradation test or tests on the riprap at the quarry in accordance with paragraph GRADATION TEST METHOD FOR RIPRAP. At least one gradation test shall be performed per 25,000 tons of each size of riprap placed, but not less than one test shall be performed. The gradation tests shall be reported using the form GRADATION TEST DATA SHEET, attached at end of this section. The sample shall consist of not less than 25 tons of riprap, and shall be collected in a random manner which will provide a sample which accurately reflects the actual gradation arriving at the jobsite. Failure of the test on the initial sample and on an additional sample will be considered cause for rejection of the quarry and/or quarry process, and all riprap represented by the failed tests shall be set aside and not incorporated into the work. Any additional tests required because of the failure of an initial test sample will not be considered as one of the other required tests. If collected by the truckload, each truckload shall be representative of the gradation requirements. The Contracting Officer may direct additional testing of the riprap at the project site if the riprap appears, by visual inspection, to be out of gradation. The additional tests shall be performed on in-place materials at the locations directed, or on random loads selected by the Contracting Officer. The Contracting Officer may direct this testing under the Contract Clause INSPECTION OF CONSTRUCTION. The Contractor shall provide all necessary screens, scales and other equipment, and operating personnel, and shall grade the sample. Certification and test results shall represent riprap shipped from the quarry. Certification and test results must be received by the Contracting Officer at the jobsite before the riprap is used in the work.

PART 3 EXECUTION

3.1 BASE PREPARATION

Areas on which geotextile, bedding material, and riprap are to be placed shall be graded and/or dressed to conform to cross sections shown on the contract drawings within an allowable tolerance of plus or minus 6 inches from the theoretical lines and grades. The prepared base shall be approved by the Contracting Officer. Where such areas are below the allowable minus tolerance limit they shall be brought to grade by fill with earth similar to the adjacent material and then compacted to a density equal to the adjacent in place material. Immediately prior to placing the geotextile, the prepared base will be inspected by the Contracting Officer

and no material shall be placed thereon until that area has been approved.

3.2 PLACEMENT OF FILTER LAYERS

3.2.1 General

Filter layers, composed of geotextile and a layer of bedding stone shall be placed on the prepared base as described below, in accordance with the details shown on the contract drawings, and within the limits shown on the contract drawings.

A tolerance of plus or minus 2 inches from the thickness shown on the contract drawings will be allowed in the finished filter layers, except that the extreme of this tolerance shall not be continuous over an area greater than 200 square feet.

3.2.2 Geotextile

Installation of geotextile shall be as specified in Section 02378
GEOTEXTILES USED AS FILTERS.

3.2.3 Placement of Bedding Material on Geotextile

Bedding material shall be spread uniformly on the geotextile to the lines and grades as indicated on the contract drawings and in such manner as to avoid damage to the geotextile. Placement shall begin at the bottom of the area to be covered and continue up slope. Subsequent loads of material shall be placed against previously placed material in such a manner as to ensure a relatively homogenous mass. Placing of stone by methods which tend to segregate the particle sizes within the bedding layer will not be permitted. Any damage to the surface of the geotextile during placement of stone shall be repaired before proceeding with the work. Compaction of material placed on the geotextile will not be required, but shall be finished to present an adequately even surface, free from mounds or windrows.

3.3 PLACEMENT OF RIPRAP

3.3.1 General

Riprap shall be placed on the bedding layer specified in paragraph BEDDING MATERIAL within the limits shown on the contract drawings.

3.3.2 Placement

Riprap shall be placed in such manner as to produce a well graded mass of rock with the minimum practicable percentage of voids, and shall be constructed within the specified tolerances to the lines and grades shown on the drawings. Placement shall begin at the bottom of the area to be covered and continue up slope. Subsequent loads of material shall be placed against previously placed material in such a manner as to ensure a relatively homogenous mass. A tolerance of plus or minus 6 inches from the thickness shown on the contract drawings will be allowed in the finished riprap, except that either extreme of such tolerance shall not be

continuous over an area greater than 200 square feet. The average tolerance of the entire job shall have no more than 50 percent of the tolerance specified above. No stone shall be dropped through air from a height greater than 1 foot. The larger stones shall be well distributed and the entire mass of stones in their final position shall be roughly graded to conform to the gradation specified in paragraph RIPRAP. The finished riprap shall be free from objectionable pockets of small stones and clusters of larger stones. Placing riprap in layers will not be permitted. Placing riprap by dumping into chutes or by similar methods likely to cause segregation of the various sizes will not be permitted. Placing riprap by dumping it at the top of the slope and pushing it down the slope will not be permitted. No equipment shall be operated directly on the completed stone protection system. The desired distribution of the various sizes of stones throughout the mass shall be obtained by selective loading of the material at the quarry or other source, by controlled dumping of successive loads during final placing, or by other methods of placement which will produce the specified results. Rearranging of individual stones will be required to the extent necessary to obtain a well-graded distribution of stone sizes as specified above. The Contractor shall maintain the stone protection until accepted by the Contracting Officer and any material displaced by any cause shall be replaced at his expense to the lines and grades shown on the drawings.

3.4 GRADATION TEST METHOD FOR RIPRAP

- a. Select a representative sample (Note No. 1), weigh and dump on hard stand.
- b. Select specific sizes (see example) on which to run "individual weight larger than" test. (See Note No. 2). Procedure is similar to the standard aggregate gradation test for "individual weight retained".
- c. Determine the largest size stone in the sample. (100 percent size)
- d. Separate by "size larger than" the selected weights, starting with the larger sizes. Use reference stones, with identified weights, for visual comparison in separating the obviously "larger than" stones. Stones that appear close to the specific weight must be individually weighed to determine size grouping. Weigh each size group, either individually or cumulatively.
- e. Paragraph d above will result in "individual weight retained" figures. Calculate individual percent retained (heavier than), cumulative percent retained, and cumulative percent passing (lighter than). Plot percent passing, along with the specification curve on ENG Form 4794-R.

NOTE NO. 1: Sample Selection: The most important part of the test and the least precise is the selection of a representative sample. No "standard" can be devised; larger quarry run stone is best sampled at the shot or stockpile by given direction to the loader; small graded stone is best sampled by random selection from the transporting vehicles. If possible, all parties should

take part in the sample selection and agree before the sample is run that the sample is representative.

NOTE NO. 2: Selection of Size for Separation: It is quite possible and accurate to run a gradation using any convenient sizes for the separation, without reference to the specifications. After the test is plotted on a curve, then the gradation limits may be plotted. Overlapping gradations with this method are no problem. However, it is usually more convenient to select points from the gradation limits, such as the minimum 50 percent size, the minimum 15 percent size, and one or two others, as separation points. For these types of stone gradations the separation points need to be selected as the smallest size stone at each break in the gradation specified.

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G R A D A T I O N T E S T D A T A S H E E T

Quarry _____ Type of Stone Tested _____

Date of Test _____ Testing Rate _____

T E S T R E P R E S E N T S

Contract No.	District	Tons
TOTAL		

G R A D A T I O N

Stone Size (lbs)	Weight Retained	Individual % Retained	Cumulative % Ret.	Cumulative % Pass	Specification % Finer by wt
Total Weight					
Max Size Stone =					

Remarks: _____

I certify that the above stone sample is representative of the

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total tonnage covered by this test report.

Contractor Representative _____
Government Representative _____

-- End of Section --