

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NO. <b>0001</b>			4. REQUISITION/PURCHASE REQ. NO. W13G86-2255-8174		5. PROJECT NO.(If applicable)
6. ISSUED BY CODE DEPT. OF THE ARMY N E DISTRICT, CORPS OF ENGINEERS 696 VIRGINIA ROAD CONCORD MA 01742-2751		3. EFFECTIVE DATE <b>21-Oct-2002</b>	7. ADMINISTERED BY (If other than item 6) CODE <b>See Item 6</b>		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)			<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO. DACW33-03-B-0001	
			<input checked="" type="checkbox"/>	9B. DATED (SEE ITEM 11) 01-Oct-2002	
				10A. MOD. OF CONTRACT/ORDER NO.	
				10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offer 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 <u>2</u> 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 <input type="checkbox"/> is not, <input type="checkbox"/> 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.) (Amendment necessary to revise and replace various specification sections and drawings.)					
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)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
			TEL: _____ EMAIL: _____		
15B. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)		15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 21-Oct-2002

AMENDMENT NO. 0001 OF SOLICITATION DACW33-03-B-0001

**New Haven Harbor, Maintenance Dredging 35-Foot Channel and Turning Basin New Haven, Connecticut**

**1.1 CHANGES TO SPECIFICATIONS**

1.1.1 Revised Sections

The sections listed below are deleted and replaced with revised sections of the same section number as indicated. Changes in the text are indicated by additions and deletions. Added text is identified by underscoring and deleted text is identified by overstrike.

DELETE SECTION:

REPLACE WITH SECTION (DATED):

Section 00800	Section 00800 10/17/02
Section 01723	Section 01723 10/17/02
Section 02325	Section 02325 10/17/02
Submittal Register	Submittal Register 10/17/02*

\* Additions and deletions are not identified by underscoring and overstrike in the Submittal Register.

**1.2 CHANGES TO DRAWINGS**

1.2.1 Revised and Reissued Drawings

The drawing sheets listed below are deleted and are replaced by revised drawings of the same sheet number and dated as indicated on each sheet. Copies of the revised drawings accompany this amendment:

<u>Drawing No.</u>	<u>Ref. No.</u>	<u>Title</u>
		New Haven Harbor, Maintenance Dredging 35-Foot Channel and Turning Basin New Haven, Connecticut
3	C-1	Plan No. 1 and Section A-A (Typical)
4	C-2	Plan No. 2
5	C-3	Plan No. 3
6	C-4	Plan No. 4

END OF AMENDMENT NO. 0001

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- 1.4 DESIGNATED BILLING OFFICE
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- 1.6 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1
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- 1.8 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991) DFARS 252.236-7004.
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SECTION 00800

SPECIAL CONTRACT REQUIREMENTS

1.1 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (APR 1984) FAR 52.211-10

The Contractor shall be required to--

(1) commence work under this contract within 15 calendar days after the date the Contractor receives the notice to proceed,

(2) prosecute the work diligently, and maintain a dredging production and disposal rate of not less than 200,000 cubic yards for each 30 calendar day period, and

(3) complete the entire work ready for use not later than 110 calendar days after the date the Contractor receives notice to proceed, exclusive of environmental restrictions. The time stated for completion shall include final cleanup of the premises.

(4) No dredging work will be permitted at the site during the time periods listed below in article "Environmental Criteria Relative to Dredging" and such time periods have not been considered in computing the time allowed for completion.

(5) The excavation of material shall be from within the areas indicated on the drawings. ~~Excavation of material shall be conducted to maintain a required production rate of 200,000 cubic yards of material for each 30 calendar day period.~~

1.1.1 Environmental Criteria Relative to Dredging

a. Dredging activities will not be permitted from February 1 through May 15 inclusive, of any year in order to protect winter flounder early life-stage development in the area.

b. Dredging activities will not be permitted from June 1 through September 30 inclusive, of any year in order to protect spawning shellfish in the area.

c. Dredging activities will not be permitted north of the pier identified at the "Koppeerg Wharf" from April 1 through June 30 inclusive, of any year in order to protect anadromous fish migration in the area.

1.2 LIQUIDATED DAMAGES - CONSTRUCTION (Sept 2000) FAR 52.211-12

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$1,270.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed,

liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

1.3 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000) DFARS 252.236-7001

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

(b) The Contractor shall-

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

(c) In general--

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

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

(e) The work shall conform to the specifications, and the contract drawings identified below:

Drawing No.	Ref. No.	Title
		New Haven Harbor, Maintenance Dredging 35-Foot Channel and Turning Basin New Haven, Connecticut
<del>1</del>	<del>C 1</del>	<del>Cover Sheet</del>
<del>2</del>	<del>C 1</del>	<del>Plan No. 1 and Index</del>
<del>3</del>	<del>C 2</del>	<del>Plan No. 2 and Section A-A (Typical)</del>
<del>4</del>	<del>C 3</del>	<del>Plan No. 3</del>
<del>5</del>	<del>C 4</del>	<del>Plan No. 4</del>
1	G-1	Cover Sheet

2	G-2	Vicinity Map, Index and Legend
3	C-1	Plan No. 1 and Section A-A (Typical)
4	C-2	Plan No. 2
5	C-3	Plan No. 3
6	C-4	Plan No. 4

#### 1.4 DESIGNATED BILLING OFFICE

Reference Contract Clause titled "PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS" located in SECTION 00700, CONTRACT CLAUSES. The "designated billing office" will be the Construction Area Engineer, Resident Engineer or project office where the Contracting Officer Representative for this contract is located. The Contractor will be notified of the exact location of this office at the project preconstruction conference specified in Section 01110 SUMMARY OF WORK.

#### 1.5 BID GUARANTEE (SEP 1996) FAR 52.228-1

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be twenty percent of the bid price or \$3,000,000, whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

#### 1.6 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984) FAR 52.236-1

The Contractor shall perform on the site, and with its own organization, work equivalent to at least forty percent (40%) of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

#### 1.7 OBSTRUCTION OF NAVIGABLE WATERWAYS DFAR 252.236-7002(DEC 1991)

(a) The Contractor shall-

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may-

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et.seq.).

1.8 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION  
(DEC 1991) DFARS 252.236-7004.

a. The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) Sixty percent of the lump sum price upon completion of the Contractor's mobilization at the work site.

(2) The remaining 40 percent upon completion of demobilization.

b. The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs a(1) and a(2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of --

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization;  
and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph b(1) of this clause is not subject to appeal.

## 1.9 QUANTITY SURVEYS. (APR 1 FAR 52.236-16)

(a) Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

(b) The Government will conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

(c) Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer.

## 1.10 LAYOUT OF WORK (APR 1984) 52.236-17

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

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## SECTION 01723

## FIELD ENGINEERING FOR DREDGING

## PART 1 GENERAL

## 1.1 SUMMARY

## 1.1.1 Engineering Services

The Contractor shall furnish the required personnel, equipment, instruments, and transportation, as necessary to accomplish the required surveys. Reports and other data together with supporting material developed during the prosecution of the work shall be furnished to the Government. The Contractor shall also provide adequate professional supervision and quality control to assure the accuracy, quality, completeness, and progress of the work.

The Contractor shall provide and pay for the following field engineering services for the project:

- a. Hydrographic and other survey work specified or required in execution of this project, except for surveys performed by the Government, as indicated in these specifications.
- b. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.

## 1.2 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referenced in the text by basic designation only. The Army Corps of Engineers references below may be viewed or downloaded free of charge via the Internet (<http://www.hnd.usace.army.mil/techinfo/>).

## U.S. ARMY CORPS OF ENGINEERS

EM 1110-1-1002	(1996) SURVEY MARKERS AND MONUMENTATIONS
EM 1110-2-1003	(2002) HYDRGGRAPHIC SURVEYING
EM 1110-1-2909	(1998; Chg 2) Geospatial Data and Systems

## 1.3 DEFINITIONS

## 1.3.1 Survey Datum

The contract drawings refer to Mean Lower Low Water (MLLW). The Government will and the Contractor shall perform all surveys using the Mean Lower Low Water (MLLW) datum. The Contractor shall calibrate GPS equipment to the Corps of Engineers existing horizontal control net indicated on the drawings.

#### 1.4 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-01 Preconstruction Submittals

Survey Plans; G, C.

The Contractor shall submit, as part of the Quality Control Plan, a detailed plan describing the survey methods to be used during the work. The plan shall include the equipment to be utilized, tidal data, general site plan map, line designation map, calibration procedures to be used, expected horizontal and vertical accuracies, and pertinent information to describe the methods, and results to be obtained. Field surveys shall not begin until these plans are approved.

Layout Plan; G, C.

A complete plan of the dredging areas showing the horizontal layout of all physical and electronic ranges to be used for horizontal control. The drawings shall be drawn at a scale sufficiently large to show all pertinent details. The drawings shall be submitted as blue or black lines on a white background.

Charts..

Current and tide charts to be used for the area(s) being dredged shall be submitted.

Survey Personnel.

Furnish a listing of the personnel who will perform the survey work required by this contract. The listing shall include a brief summary of the hydrographic survey experience of each person. The list shall be submitted prior to the preconstruction conference.

##### SD-05 Design Data

Field Survey Data.

Submit field data; depth sounder rolls, corrected for tide, and corresponding boat plots; daily logs; and quantity computations. Submit data sufficient for the Government to reproduce the Contractor's survey plot by referring only to this field data.

The electronic field data, including XY coordinates (points), and Z depths (elevations) in ASCII file format, shall be submitted on a daily basis with the CQC reports. Deficiencies shall be corrected and a re-survey of the area shall be performed, as necessary to ensure correction has been achieved. Data shall be submitted in a readable and usable format, utilizing industry recognized standard file formats and extensions. Data shall be submitted with a commercially available software program and technical support to provide the on-site capability to read and print the data.

Electronic Tracking System Data.

The Contractor shall furnish required discs, CD-ROM, and charts to the Contracting Officer.

## 1.5 GENERAL HYDROGRAPHIC SURVEY REQUIREMENTS

All hydrographic surveys for this project shall follow the mandatory criteria given in EM 1110-2-1003 for the "Navigation and Dredging Support Surveys" class of survey as a minimum.

Survey lines may be run either perpendicular to the channel limits at 50 foot offsets or longitudinal at 25 foot offsets. The lines shall clearly identify the toe and extend out to a minimum of three times the project depth to accurately depict the side slope.

## 1.6 HORIZONTAL POSITIONING PROCEDURES AND ACCURACIES

Vessel positioning systems utilized on this contract shall conform with the allowable horizontal positioning criteria in EM 1110-2-1003. The positioning system used shall be capable of meeting or exceeding the accuracy requirements and shall not exceed the allowable ranges where indicated. The Contractor may be required to demonstrate to the Government that its positioning system is capable of meeting or exceeding the accuracy requirements in EM 1110-2-1003.

1.7 ELECTRONIC TRACKING SYSTEM (ETS) FOR DREDGING AND OCEAN DISPOSAL VESSELS

The Contractor shall furnish an Electronic Tracking System (ETS) for surveillance of the movement and disposition of dredged material during excavation, ocean transit and disposal. This ETS shall be established, operated and maintained by the Contractor to continuously track in real-time the horizontal location and draft condition of the disposal vessels for the entire dredging cycle, including dredging area and disposal area. The ETS shall be capable of displaying and recording in real-time the disposal vessel's draft and location in an acceptable coordinate system which can be related to, or is directly based on the appropriate state plane coordinate system every 500 feet (at least) during loading cycle and during travel to disposal area, and every minute (at least) or every 200 feet of travel, whichever is smaller, while approaching within 1000 feet and within limits of disposal area.

1.7.1 ETS Standards

The Contractor shall provide an automated (computer) system and components to perform in accordance with EM 1110-1-2909. A copy of the EM can be downloaded at <http://www.usace.army.mil/inet/usace-docs/eng-manuals>. Horizontal location shall have an accuracy equal to +/- 10 feet (horizontal repeatability). Vertical (draft) data shall have an accuracy of +/- 0.5 foot. Horizontal location and vertical data shall be collected in sets and each data set shall be referenced in real-time to date and local time (to nearest minute), and shall be referenced to the same state plane coordinate system used for the survey(s) shown in the contract plans. The ETS shall be calibrated as required, in the presence of the COR at the work location before disposal operations have started, and at 30-day intervals while work is in progress. The Contracting Officer shall have access to the ETS in order to observe its operation. Disposal operations will not commence until the ETS to be used by the Contractor is certified by the COR to be

operational and within acceptable accuracy. It is the Contractor's responsibility to select a system that will operate properly at the work location. The complete system shall be subject to the Contracting Officer's approval.

#### 1.7.2 Data Requirements and Submissions

All data shall be collected and stored on 3-1/2 inch disks or CD-ROM in ASCII format using IBM-compatible MS-DOS 5.0 or later version. Data shall include date, time, trip ID number, vessel name and name of vessel's captain, location and draft of disposal vessel every 500 feet (at least) during loading cycle and during travel to disposal area, and every minute (at least) or every 200 feet of travel, whichever is smaller, while approaching within 1000 feet and within limits of disposal area. Data collected while the disposal vessel is in the vicinity of the disposal area shall also be plotted in chart form, in 200-foot intervals, to show the track and draft of the disposal vessel approaching, traversing, and leaving the disposal area. More than one disposal area trip may be stored on a single disk or CD ROM as long as trip data is indexed and clearly identifiable. The completed, original disk or CD-ROM shall be furnished to the COR within 24 hours. Plotted charts shall be organized and maintained at a central work location for inspection on a daily basis by the COR. Plotted charts shall be organized as directed, bound and submitted weekly to COR for permanent file record.

#### 1.7.3 ETS

The ETS for each disposal vessel shall be in operation for all dredging and disposal activities and shall record the full round trip for each loading and disposal cycle. The Contracting Officer shall be notified immediately in the event of ETS failure and all dredging operations for the vessel shall cease until the ETS is fully operational. Any delays resulting from ETS failure shall be at the Contractor's expense.

#### 1.8 REFERENCE HORIZONTAL CONTROL DATA

At the preconstruction conference, the Government will provide project control from which hydrographic surveys may be extended. This control shall be presumed to meet the accuracy requirements in EM 1110-2-1003. The Contractor shall immediately notify the Contracting Officer if existing control points have been disturbed. In the event new station monumentation is required to perform the work, new stations shall be monumenteted in accordance with EM 1110-1-1002 criteria, and an equitable adjustment will be made to the contract.

#### 1.9 DEPTH MEASUREMENT PROCEDURES AND CALIBRATION

##### 1.9.1 Depth Measurement Precision and Accuracy

Depth measurements including depth observation precision and resolution shall meet the vertical accuracy standards prescribed in EM 1110-2-1003.

##### 1.10 VERTICAL REFERENCE DATUMS

Depth measurements shall be reduced to the specified datum using concurrent staff/gage readings, as described in EM 1110-2-1003. Tide staffs/gages shall be constructed, referenced, maintained, stilled, and read in accordance with the criteria in EM 1110-2-1003.

### 1.11 FIELD DATA RECORDING, REDUCTIONS, ARCHIVING, AND PLOTTING REQUIREMENTS.

The data format fields for submitting reduced hydrographic data to the District is x y z. The topographic and feature data shall conform to the intergraph general 3D design file formats specified in the reference. Digital data shall be contained on a 3.5 inch floppy disk or CD-ROM.

### 1.12 VOLUME COMPUTATIONS

The Contractor shall have the capability to compute excavation quantities from work performed under this contract. The Government will furnish construction templates and limits from which volumes are to be computed using any of the techniques given in EM 1110-2-1003. Section drawings shall be made at the horizontal and vertical scales given in EM 1110-2-1003.

### 1.13 MISCELLANEOUS QUALITY CONTROL PROCEDURES

#### 1.13.1 Automated System Synchronization Checks

Each automated hydrographic survey system shall be checked to insure adequacy of correlation between position and depth. Methods for performing this check are given in EM 1110-2-1003.

## PART 2 PRODUCTS (NOT USED)

## PART 3 EXECUTION

### 3.1 CONTRACTOR SURVEYS

#### 3.1.1 Personnel

#### 3.1.2 Contractor Quality Control Surveys

The Contractor shall examine his work by conducting hydrographic surveys at no more than 30-day intervals, upon completion of separable portions of the work, and upon completion of the entire work. Contractor quality control surveys shall also be performed and submitted to the Contracting Officer prior to any request for a Government survey for final acceptance. The Contractor shall prepare survey maps based on the results of these surveys.

These maps shall be used, by the Contractor, to satisfy himself of the effectiveness of his operations. Attainment of contract depth shall be verified, and a comparison of actual progress and in-place quantities dredged with scheduled progress shall be performed. Contractor surveys will not be used for final payment or acceptance. See Section 02325 DREDGING for additional Contractor survey requirements.

#### 3.1.3 Contractor Progress Payment Surveys

The Contractor shall conduct surveys for any periods for which progress payments are requested. The Contractor will make the computations based on these surveys. All surveys accomplished by the Contractor shall be conducted under the direction of the Contracting Officer, unless the Contracting Officer waives this requirement for each specific instance. Promptly upon completing a survey, the Contractor shall furnish all data relating to the survey to the Contracting Officer, who will use the data as necessary to determine the amount of progress payments.

### 3.2 GOVERNMENT SURVEYS

### 3.2.1 Government Quantity Surveys

The Contracting Officer will conduct the original and final surveys for all dredging areas and make all quantity computations based on those surveys. The surveys will be performed at no expense to the Contractor, except as noted in paragraph "Final Examination and Acceptance" below and as specified in Section 02325 DREDGING. The Contractor shall give a minimum of 3 days notice before completion of a portion of the work requiring a post-dredge survey. A minimum of 2 days will be required by the Government for completion of each of the post-dredge surveys at the site and another 10 to 15 days for calculation of quantities removed and verification of completion of work.

### 3.2.2 Government Quantity Calculations

~~All quantity estimates for dredged material removed will be determined using all edited sounding information obtained from Government pre and post dredge surveys. A Digital Terrain Model (DTM) will be created from each of the pre and post dredge surveys. A channel design template will be created at the required dredging depth and at the total allowable overdepth. Each of the channel design templates will be compared with the pre dredge DTM to determine the available quantity of required dredge material and available quantity of overdepth material. The same channel design templates will be compared to the post dredge DTM to determine the quantity of material remaining above the required dredging depth and the quantity of material remaining above the total allowable overdepth. The quantity of required dredged material removed will be derived from these comparisons. If the "box cutting method of dredging is used to remove dredge material contained in side slopes where "box cutting is permitted, the channel design templates will be modified to include a "box cut" width. In all cases, the same channel design templates will be used to determine both the pre and post dredge quantities. Material removed below the total allowable overdepth will not be included in the payable quantity of material.~~

All quantity estimates for dredged material removed will be determined using either single beam or multi-beam survey technology. If single beam technology is used, all edited sounding information obtained from Government pre and post dredge surveys will be used in determining the payable quantity of dredged material removed. If multi-beam survey technology is used, then a 3-foot by 3-foot matrix using the sounding closest to cell center (shot depth) will be generated from the edited multi-beam data and used in determining the payable quantity of dredged material removed. A Digital Terrain Model (DTM) will be created from each of the pre and post dredge surveys. A channel design template will be created at the required dredging depth and at the total allowable overdepth. Each of the channel design templates will be compared with the pre dredge DTM to determine the available quantity of required dredge material and available quantity of overdepth material. The same channel design templates will be compared to the post dredge DTM to determine the quantity of material remaining above the required dredging depth and the quantity of material remaining above the total allowable overdepth. The quantity of required dredged material removed will be derived from these comparisons. If the "box-cutting method of dredging is used to remove dredge material contained in side slopes where "box-cutting is permitted, the channel design templates will be modified to include a "box-cut" width. In all cases, the same channel design templates will be used to determine both the pre and post dredge quantities. Material removed below the total allowable overdepth will not be included in the payable quantity of material

### 3.2.3 Final Examination by the Government

a. Submission of all Contractor quality control survey data, including plots, is required prior to performance of final examination and acceptance surveys by the Government.

b. As soon as practicable after completion of the entire work or any section thereof such work will be thoroughly examined at the cost and expense of the Government by sounding or sweeping, or both, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination the Contractor will be required to remove same ~~by dragging the bottom or~~ by dredging at the contract rate for dredging, but if the bottom is soft and the shoal areas are small and form no material obstruction to navigation, the removal of such shoal may be waived by the discretion of the Contracting Officer. Dragging the bottom to remove lack of contract depth will not be permitted.

The Contractor will be notified when soundings and/or sweepings are to be made, and may be permitted to accompany the survey party if approved by the Contracting Officer. When the area is found to be in a satisfactory condition, it will be accepted finally. Should more than two sounding or sweeping operations by the Government over an area be necessary by reason of work for removal of shoals disclosed by a prior sounding or sweeping, the cost of such third and any subsequent sounding or sweeping operations will be charged against the Contractor. The rate for each day in which the Government survey plant is engaged in such sounding or sweeping operations and/or is en route to or from the site, or is held, for the Contractor's convenience at or near the site for these operations, shall be \$2,400.00.

### 3.2.4 Final Acceptance by the Government

Final acceptance of the whole or any part of the work, and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error.

-- End of Section --

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## SECTION 02325

## DREDGING

## PART 1 GENERAL

## 1.1 REFERENCES

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

## CORPS OF ENGINEERS (COE)

COE EM-385-1-1 (1996) Safety and Health Requirements Manual

## 1.2 DEFINITIONS

## 1.2.1 Maintenance Material

Maintenance material is defined as the accumulated shoals that have accumulated within the New Haven Federal Channel and Turning Basin since completion of the last maintenance dredging project.

## 1.3 RELATED WORK SPECIFIED ELSEWHERE

## 1.3.1 Environmental Protection Requirements

Provide and maintain during the life of the contract, environmental protective measures. Also, provide environmental protective measures required to correct conditions, such as oil spills or debris, that occur during the dredging operations. Comply with Federal, State, and local regulations pertaining to water, air, and noise pollution. See Section 01355 ENVIRONMENTAL PROTECTION.

## 1.3.2 Underwater Diving Operations

In the event that underwater diving operations become necessary due to the work of this contract, such operations shall be conducted in accordance with CORPS OF ENGINEERS (COE) COE EM-385-1-1 Section 30.

## 1.4 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-01 Preconstruction Submittals

Work Plan; G, C.

The Contractor shall submit a work plan for accomplishing the dredging work of this contract. The following items shall be considered, at a minimum, for inclusion in the work plan:

- a. Anticipated plant and equipment,
- b. expected coordination requirements,
- c. survey requirements,
- d. proposed measures for avoiding damage to adjacent structures and banks of the Harbor, and
- e. proposed measures to avoid overdredging.

Debris Management Plan; G, C.

A debris management plan shall be developed and submitted to the Contracting Officer for approval.

Inspection of Disposal.

Submit names of inspectors certified by the Corps of Engineers to be used for monitoring disposal activities for the Government.

Scow Cards.

Submit scow cards for each scow to be used for contract work. Scow cards shall have information specified in paragraph "Scows."

~~SD-05 Design Data~~

~~Electronic Tracking System Data.~~

~~The Contractor shall furnish required discs, CD-ROM, and charts to the Contracting Officer.~~

Equipment and Performance Data.

The Contractor shall furnish proof of electronic positioning equipment calibration to the Contracting Officer.

Daily/Monthly Report of Operations.

The Contractor shall prepare and submit two (2) copies of the Daily Report of Operations, using ENG Form No. 4267, for each dredge working. This report shall be submitted on a daily basis. A copy of this form is appended to the end of this Section.

Additionally, one copy of these shall be maintained by the Contractor on the dredge(s) for the Contracting Officer's inspection purpose. Further instructions on the preparation of the reports will be furnished at the Preconstruction Conference.

## 1.5 NOTIFICATIONS

### 1.5.1 Notice of Misplaced Material

The Contractor shall notify the Contracting Officer and the U.S. Coast Guard Marine Safety Office of any misplaced material.

### 1.5.2 Notice of Need for Dredging Survey

The Contractor shall give 14 days advance notice, in writing, to the Contracting Officer of the need for a pre-dredging survey or after-dredging survey for final acceptance for each acceptance section.

#### 1.5.3 Relocation of Navigation Aids

The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. The Contractor shall notify the Coast Guard District Commander, in writing, with a copy to the Contracting Officer, 14 days in advance of the time he plans to dredge adjacent to any aids which require relocation to facilitate the dredging operation. A copy of the notification shall be provided to the Contracting Officer.

The Coast Guard point of contact is John Mauro, (617) 223-8355, jmauro@dl.uscg.mil.

#### 1.6 MATERIAL TO BE REMOVED

##### 1.6.1 Character of Materials to be Removed

The material to be removed to accomplish the specified dredging work is expected to be primarily silt. The Contractor is expected to examine the site of the work and determine the character of the materials to be dredged.

##### 1.6.2 Results of Explorations

Explorations to determine the character of materials to be removed, have been made by the Government. Physical analysis data is attached at the end of this section. Although the results of such explorations are representative of conditions at their respective locations, local variations in the materials are to be expected and, if encountered, will not be considered materially different within the purview of the contract.

#### 1.7 WORK AREA

##### 1.7.1 Access

The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site, mooring area, and disposal area. The Contractor shall ascertain the environmental conditions which can affect the access such as climate, winds, currents, waves, depths, shoaling, and scouring tendencies.

##### 1.7.2 Protection of Existing Waterways

The Contractor shall conduct his operations in such a manner that material or other debris are not pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas being utilized by vessels. The Contractor will be required to change his method of operations as may be required to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the Contractor's operations, the material must be promptly removed.

##### 1.7.3 Adjacent Property and Structures

The Contractor shall conduct the dredging operation such that it does not

undermine, weaken or otherwise impair existing structures located in or near the areas to be dredged. The Contractor shall investigate the existing structures at the site and plan the dredging work accordingly.

Damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the Contractor at his expense. Damage to structures resulting from the Contractor's negligence will result in suspension of dredging and require prompt repair at the Contractor's expense as a prerequisite to the resumption of dredging.

#### 1.7.4 Artificial Obstructions

The Contractor may encounter bottom debris such as, but not limited to, pieces of broken cable, rope, and miscellaneous metal objects. The Government has no knowledge of existing wrecks, wreckage, or other artificial obstructions of such size or character as to require the use of explosives for its removal. During dredging operations, the Contractor shall remove all debris encountered. Debris, unsuitable for disposal at the disposal site, removed from the dredging area shall be separated and stockpiled for upland disposal. Disposal in accordance with local, Federal, and State laws and regulations shall be the responsibility of the Contractor. In case the actual conditions differ from those stated or shown, or both, an adjustment in contract price or time of completion, or both, will be made in accordance with "FAR 52.236-2, Differing Site Conditions."

#### 1.7.5 Protection of Utility Lines

Existing utility lines that are shown on the drawings or the locations of which are made known to the Contractor prior to dredging, and that are to be retained, shall be protected from damage during dredging, and if damaged, shall be satisfactorily repaired by the Contractor at no additional cost to the Government. Prior to commencement of dredging, the Contractor shall coordinate with the Contracting Officer and the applicable utility company to mark the exact locations of existing utilities, and establish in detail the proposed method of protecting the existing utilities. In the event that the Contractor damages any existing utility lines that are not shown on the drawings or the locations of which are not known to the Contractor, report thereof shall be made immediately to the Contracting Officer. If the Contracting Officer determines that repairs shall be made by the Contractor, such repairs will be ordered under the Contract Clause entitled "DIFFERING SITE CONDITIONS."

### 1.8 OVERDEPTH AND SIDE SLOPES

#### 1.8.1 Overdepth

To cover inaccuracies of the dredging process, material actually removed from within the specific areas to be dredged to a depth of not more than two feet below the required depth will be estimated and paid for at the contract price.

#### 1.8.2 Side Slopes

Material dredged to provide for final indicated side slopes will be measured and paid for at the applicable unit price. The material may be dredged from the original position or by dredging the space below the pay slope plane at the bottom of the slope for upslope material capable of

falling into the cut. Payment will not be made for material in excess of the amount originally lying above the pay slope plane. The limiting amount of side-slope overdepth will be measured vertically.

### 1.8.3 Excessive Dredging

Material taken from beyond the limits as specified in the Article "OVERDEPTH AND SIDE SLOPES" above will be deducted from the total amount dredged as excessive overdepth dredging, or excessive side-slope dredging for which payment will not be made.

## 1.9 QUANTITY OF MATERIAL

The total estimated amount of material to be removed from within the specified limits, including side slopes and allowable overdepths is shown on the Bidding schedule. The estimated quantity for bidding purposes and for application of the "FAR 52.212-11, Variation in Estimated Quantity" shall be the total quantity, including overdepth. The quantities listed are estimates only.

## 1.10 INSPECTION OF DISPOSAL

No disposal shall be done unless an inspector, approved by the Contracting Officer is present. The inspector shall be available on a full-time basis to cover all phases of operations in connection with disposal of the dredged materials.

The Contractor shall be responsible for and provide qualified disposal inspection services at no additional cost to the Government. The Contractor shall notify the Contracting Officer of the names of the Corps of Engineers Certified inspectors to be used prior to commencement of work.

Every discharge of dredge material must be officially witnessed and properly documented by an onboard inspector who has been trained by, and who holds a current certification from the New England District, Army Corps of Engineers. Failure to adhere to this requirement will be considered a serious violation of this contract and cause for an immediate stop-work order by the Contracting Officer and which could precipitate substantial penalties including but not necessarily limited to fines, withholding of funds and non-payment due to misplaced materials.

### 1.10.1 Communication

The Contractor shall provide the Contracting Officer with 2 hand-held VHF radios capable of communicating with the Contractor's marine plant for the duration of the contract.

### 1.10.2 Transportation

The Contractor shall furnish, on the request of the Contracting Officer or federal biologist, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the equipment or marine plant as may be reasonably necessary in inspecting and monitoring the work. The Contractor shall furnish, on request, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and the work site.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

### 3.1 CONDUCT OF DREDGING WORK

#### 3.1.1 Method OF Dredging

All dredging under this contract shall be performed using a mechanical type of dredge and scows.

#### 3.1.2 Order of Work

a. The Contractor shall start and complete the work in the order of precedence as prescribed below or as otherwise approved by the Contracting Officer. Environmental and operational criteria relative to the preparation of a work sequence and time schedule are listed below. The Government reserves the right to change the order of work at any time. See Section 01110 for additional requirements relative to project coordination and sequence of work.

The work shall be performed by commencing at the north end of the project and continually work toward the south end of the Channel.

b. The Contractor shall prepare and submit to the Contracting Officer for review and approval a progress schedule in accordance with Section 01110, Paragraph "Work Sequence."

#### 3.1.3 Environmental Criteria Relative to Dredging

a. Dredging activities will not be permitted from February 1 through May 15 inclusive, of any year in order to protect winter flounder early life-stage development in the area.

b. Dredging activities will not be permitted from June 1 through September 30 inclusive, of any year in order to protect spawning shellfish in the area.

c. Dredging activities will not be permitted north of the pier identified at the "Koppeerg Wharf" from April 1 through June 30 inclusive, of any year in order to protect anadromous fish migration in the area.

#### 3.1.4 Operational Criteria Relative to Dredging

The excavation of material shall be from within the areas indicated on the drawings. Excavation of material shall be conducted to maintain a required production rate of 200,000 cubic yards of material for each 30 calendar day period.

#### 3.1.5 Method of Disposal

Provide for safe transportation and disposal of dredged materials. Transport and dispose of dredged material at Central Long Island Sound Disposal Area. Dispose the dredge material at a taut wire buoy. The location of the disposal site is shown on the drawing attached at the end of this section. The maximum distance to which material will have to be transported will not exceed 9 nautical miles. Except as otherwise authorized by the Contracting Officer in writing, no dumping shall be done unless an inspector appointed by the Contracting Officer is present at the time.

### 3.1.6 Alternative Disposal Sites

Bids received shall be based on utilizing only the above described disposal area. Alternate areas will not be considered until after the award of the contract. If, after the award of the contract, a disposal area other than that stipulated in these specifications is proposed, its acceptance will be subject to the approval of the Contracting Officer after an adjustment of the contract price if found necessary by the Contracting Officer to protect the Government's interest. The Contractor shall obtain the written consent of the owners of the substitute grounds and furnish evidence thereof to the Contracting Officer. All expenses incurred in connection with providing and making available such disposal areas shall be borne by the Contractor, and all materials deposited thereon, and all operations in connection therewith, shall be at the Contractor's risk. Comply with rules and regulations of local port and harbor governing authorities.

### 3.1.7 Misplaced Material Disposal

Material that is deposited elsewhere than in locations designated or approved by the Contracting Officer will not be paid for and the Contractor shall be required to remove such misplaced material and deposit it where directed at his expense.

### 3.1.8 Interference with Navigation

Minimize interference with the use of channels and passages. The Contracting Officer will direct the shifting or moving of dredges or the interruption of dredging operations to accommodate the movement of vessels and floating equipment, if necessary. The Contractor shall comply with all requests from the Contracting Officer to move or interrupt dredging operations for a reasonable time period at no additional cost to the Government.

### 3.1.9 Ranges, Gages, and Lines

Furnish, set, and maintain ranges, buoys, and markers needed to define the work and to facilitate inspection. Establish and maintain gages in locations observable from each part of the work so that the depth may be determined. Suspend dredging when the gages or ranges cannot be seen or followed. The Contracting Officer will furnish, upon request by the Contractor, survey lines, points, and elevations necessary for the setting of ranges, gages, and buoys.

### 3.1.10 Debris Management Plan

Debris removed from the bottom during dredging operations, which is not suitable for disposal at the Central Long Island Sound Disposal site, shall be collected and removed from the work site. Unsuitable materials include large items such as timbers, pilings, sections of piers, and metallic debris. Generally, all floating debris and bottom debris larger than 10 feet in any dimension will be considered unsuitable for ocean disposal. A debris management plan shall be developed, accepted by the Contracting Officer and followed by the Contractor. Each day during dredging operations, the Contractor shall use a boat to collect and remove floating debris resulting from project activities. Floating debris shall also be removed from within barges. Containers for temporary storage of the collected debris shall be maintained on the dredge or support barge.

### 3.1.11 Lights

Each night, between sunset and sunrise and during periods of restricted visibility, provide lights for floating plants, pipelines, ranges, and markers. Also, provide lights for buoys that could endanger or obstruct navigation. When night work is in progress, maintain lights from sunset to sunrise for the observation of dredging operations. Lighting shall conform to United States Coast Guard requirements for visibility and color.

### 3.2 PLANT

#### 3.2.1 Tow Boats

All tow boats used for towing to disposal areas shall be equipped with DGPS navigational equipment, radar, corrected compass, marine radio, and depth sounding equipment which is to be maintained in operating condition during each tow. The tow boats utilized by the Contractor for this purpose shall be of a size adequate for towing in heavy seas and shall have necessary reserve power for maneuvering with scows in rough seas and under emergency conditions as well as for control of scows at the disposal point.

#### 3.2.2 Scows

The Contractor shall provide and maintain markings on all scows clearly indicating the draft of the scow and shall provide scow cards for each scow used on the contract work. The scow cards shall show dimensions and volumes of individual pockets of scows and total volumes for varying depths below coaming or top of pockets. This is to enable Government personnel to make a determination of scow volume and corresponding drafts under partial and full load conditions. These measurements are to be made at the time of initial use of each scow. This information will then be furnished to disposal inspectors to enable them to estimate scow volume from draft of scows for each scow being towed to the disposal area. The scow volume estimates are for use in connection with disposal area monitoring studies and are not intended to be used in determining quantities dredged. At the beginning of the work and as additional scows arrive on the project, sufficient time shall be allowed by the Contractor and assistance of Contractor personnel shall be made available by the Contractor for the purpose of obtaining the measurements of each scow under various partial and full load conditions. During the entire period of contract work, the Contractor shall provide and maintain sufficient spot or floodlights to permit the reading of the draft on the sides of scows at bow and stern from the tow boat at night and when visibility is impaired. The draft readings and each pocket/compartments measurement will be required for each scow towed to the disposal area and will be made by the disposal inspector. Measurements are to be taken and recorded prior to departure from the dredge site and upon arrival at the immediate disposal location. The Contractor shall ensure that adequate time is allowed by the tow boat captain for these readings to be obtained.

##### 3.2.2.1 Scow Pocket Doors

Due to the fine nature of the dredged material, the Contractor shall achieve proper closure and watertightness of pocket doors to eliminate seepage or leakage of material. The use of plastic material to cover cracks in scow pockets will not be allowed.

### 3.3 FINAL CLEANUP

Final cleanup shall include the removal of all the Contractor's plant and

equipment either for disposal or reuse. Plant, equipment, and materials to be disposed of shall only be disposed in a manner and at locations approved by the Contracting Officer. Unless otherwise approved by the Contracting Officer, the Contractor will not be permitted to abandon any equipment in the disposal area or other areas adjacent to the worksite.

Failure to promptly remove all plant, equipment, and materials upon completion of the dredging will be considered a delay in the completion of the final cleanup and demobilization work. In such case, the Government will exercise its right to remove any plant, equipment, and materials at the Contractor's expense.

-- End of Section --

# SUBMITTAL REGISTER

CONTRACT NO.  
DACW33-03-B-0001

TITLE AND LOCATION						CONTRACTOR											
New Haven Harbor Maintenance Dredging Amended 10/17/02																	
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01110	SD-01 Preconstruction Submittals														
			Progress Schedule	1.4.2	G C												
		01270	SD-05 Design Data														
			Quantity Surveys	1.4													
		01355	SD-01 Preconstruction Submittals														
			Environmental Protection Plan	1.7	G E												
		01500	SD-01 Preconstruction Submittals														
			Site Plan		G C												
			SD-02 Shop Drawings														
			Temporary Electrical System		G C												
		01545	SD-01 Preconstruction Submittals														
			Plant and Equipment														
		01723	SD-01 Preconstruction Submittals														
			Survey Plans		G C												
			Layout Plan		G C												
			Charts														
			Survey Personnel														
			SD-05 Design Data														
			Field Survey Data														
			Electronic Tracking System Data														
		02325	SD-01 Preconstruction Submittals														
			Work Plan		G C												
			Debris Management Plan	3.1.10	G C												
			Inspection of Disposal	1.10													
			Scow Cards														
			Equipment and Performance Data														

