

PROJECT DOCUMENTS

FOR

DRILL TWO WELLS
Cape Cod National Seashore
Eastham, Massachusetts

IFB-NARO-7-0055

Bids will be accepted until 3:00 p.m.
Local Prevailing Time

September 10, 1987

at

National Park Service
North Atlantic Regional Office
Seventh Floor
15 State Street
Boston, Massachusetts 02109-3572

**U. S. Department of the Interior
National Park Service
North Atlantic Regional Office
15 State Street
Boston, MA 02109**




DRILL TWO WELLS
Cape Cod National Seashore
Eastham, Massachusetts

RFP-NARO-7-0057
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NOTE: IT IS THE OFFEROR'S RESPONSIBILITY TO VERIFY THAT THE PROJECT
DOCUMENTS ARE COMPLETE AS LISTED.



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INVITATION, INFORMATION AND INSTRUCTIONS

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>		1. SOLICITATION NO. IFB-NARO-7-0055	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 8/10/87	PAGE 1 OF 1 PAGES
IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.					
CONTRACT NO.		5. REQUISITION PURCHASE REQUEST NO.		6. PROJECT NO.	
ISSUED BY National Park Service North Atlantic Regional Office 15 State Street Boston, Massachusetts 02109-3572		CODE		8. ADDRESS OFFER TO Same as Item #7 Attn: 7th Floor Contracting Division	
FOR INFORMATION CALL		A. NAME Lorna M. Gunning Contract Specialist		B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) (617) 565-8897	

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title identifying no., date).

DRILL TWO NEW WELLS, Cape Cod National Seashore, Eastham, Massachusetts dated August 10, 1987. The work of this project consists of the construction of a new domestic water well at the Doane Roack, abandon an existing well at Doane Roack, and construct an irrigation water well at Little Creek Parking Lot.

BID SUBMITTAL: Three (3) copies of Bid Documents (blue copies provided) must be submitted to the issuing office no later than the time and date specified in item 13A below.

ESTIMATED PRICE RANGE: Under \$25,000.

This procurement is totally set aside for small business.

See attached Technical Specification for additional information.

Standard Industrial Classification (SIC) Code for small business concerns applicable to this solicitation is 1781 with an annual average revenue of \$7.0 million.

SEE ATTACHMENT FOR ADDITIONAL REQUIREMENTS AND INFORMATION

The Contractor shall begin performance within <u>10</u> calendar days and complete it within <u>30</u> calendar days after receiving award. <input checked="" type="checkbox"/> notice to proceed. This performance period is <input checked="" type="checkbox"/> mandatory. <input type="checkbox"/> negotiable. (See _____)	
A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO See attachment to SF-1442	12B. CALENDAR DAYS Within 15 Calendar Days after Award

ADDITIONAL SOLICITATION REQUIREMENTS:

Sealed offers in original and 2 copies to perform the work required are due at the place specified in Item 8 by 3:00 pm (hour) local time 9/10/87 (date). If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

An offer guarantee ☐ is, ☒ is not required.

All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

Offers providing less than 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

4. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

15. TELEPHONE NO. (Include area code)

16. REMITTANCE ADDRESS (Include only if different than Item 14)

CODE FACILITY CODE

7. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)

AMOUNTS

See Attached Bid Schedule

8. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation — give number and date of each)

AMENDMENT NO.

DATE

19A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER
(Type or print)

20B. SIGNATURE

20C. OFFER DATE

AWARD (To be completed by Government)

1. ITEMS ACCEPTED:

2. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

4. SUBMIT INVOICES TO ADDRESS SHOWN IN
(4 copies unless otherwise specified)

ITEM

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO
☐ 10 U.S.C. 2304(c) () ☐ 41 U.S.C. 253(c) ()

6. ADMINISTERED BY

CODE

27. PAYMENT WILL BE MADE BY

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, presentations, certifications, and specifications incorporated by reference or attached to this contract.

☐ 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

19A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)

31A. NAME OF CONTRACTING OFFICER (Type or print)

20B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA

31C. AWARD DATE

BY

Bid Schedule

Well Drilling

Cape Cod National Seashore

<u>Item</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Total Price</u>
01010/1	Mobilization (not to exceed \$2000)	Lump Sum		\$ _____	\$ _____
02670/1	Pilot hole	500	linear foot	\$ _____	\$ _____
2670/2	Cased 4" well	190	linear foot	\$ _____	\$ _____
02670/3	Well screen	2	each	\$ _____	\$ _____
02670/4	Well development	4	hour	\$ _____	\$ _____
02670/5	Stand by	24	hour	\$ _____	\$ _____
02672/1	Water pump	1	lump sum	\$ _____	\$ _____
02674/1	Well testing	16	hour	\$ _____	\$ _____
02676/1	Abandonment of existing well	1	each	\$ _____	\$ _____
02676/2	Abandonment of new wells and pilot holes	5	each	\$ _____	\$ _____
Total				\$ _____	\$ _____

ATTACHMENT TO STANDARD FORM 1442
Sealed Bid IFB-NARO-7-0055

Drill Two Wells
Cape Cod National Seashore
Eastham, Massachusetts

Each Bidder will be held to have examined the work site and to have satisfied himself as to the existing conditions under which he will be pledged to operate or that in any manner will affect the work under a Contract awarded as a result of this Solicitation.

Bidders should contact Park Superintendent, Cape Cod National Seashore, telephone (617) 255-3421 to arrange an on-site inspection.

The following provisions form a part of and supplement the project documents as indexed:

TIME FOR COMPLETION: All work shall be completed within 30 calendar days from the date of receipt of Notice to Proceed. However, the time for completion of the work will be reduced by one calendar day for each day in excess of fifteen (15) calendar days (or any extensions thereof) elapsing between the Contractor's receipt of contract and return of properly executed performance and payment bonds, if required.

BID, PERFORMANCE AND PAYMENT BONDS:

(a) For bids exceeding \$25,000, Bid Bonds are required to be submitted with the bid amount of 20% of the bid. Bid Bonds must be accompanied by a "Power of Attorney".

(b) For contracts not exceeding \$25,000, the bidder to whom award is made is not required to furnish performance and payment bonds.

(c) For contracts in excess of \$25,000, or modified to exceed \$25,000, the bidder, or Contractor to whom award is made is required to furnish Performance and Payment Bonds in accordance with the following:

1. Within fifteen (15) days after the prescribed forms are presented to the bidder to whom award is made for signature, a written contract on the forms prescribed by the specifications shall be executed and two bonds, each with good and sufficient surety or sureties acceptable to the Government, furnished: Namely a Performance Bond (Standard Form 25) and Payment Bond (Standard Form 25-A). The penal sums of such will be as follows:

(i) PERFORMANCE BOND: The penal sum of the performance bonds shall equal one hundred percent (100%) of the contract price. The Performance Bond shall specifically provide coverage for taxes imposed by the United States which is collected, deducted, or withheld from wages paid by the contractor in carrying out the contract with respect to which bond is furnished.

(ii) PAYMENT BOND: When the Contract price is \$1,000,000 or less, the penal sum will be fifty percent (50%) of the Contract Price.

ANY BONDS FURNISHED WILL BE FURNISHED BY THE CONTRACTOR TO THE GOVERNMENT PRIOR TO COMMENCEMENT OF CONTRACT PERFORMANCE.

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GENERAL SUBMITTALS

A. Insurance - A Certificate of Insurance shall be submitted by the Contractor within 10 calendar days following Notice of Award. Refer to Clause 52.228-5, and Clause 1452.228-70.

B. Subcontracts - A list of all subcontractors who will be engaged in the execution of the work shall be submitted within 10 calendar days following Notice of Award.

C. Schedule of Construction - A written schedule of construction and a separate schedule of prices shall be submitted within 10 calendar days following Notice of Award. Refer to Clause 52.236-15.

D. Superintendence by Contractor - The Contractor shall submit the name of his designated Project Supervisor within 10 calendar days following Notice Of Award. Refer to Clause 52.236-6.

Bidders are urged to note the inclusion of the following:

Payment Due Dates, Public Law 97-177, The Prompt Payment Act

Payment Information Form, (Treasury Financial Communication System (TFCS))

Lobbying with Appropriated Funds, 18 U.S.C. 1913

Construction

Payment Due Dates

- (a) The Prompt Payment Act, Public Law 97-177 (96 Stat. 85, 31 USC 1801) is applicable to payments under this contract and requires the payment to contractors of interest on overdue payments and improperly taken discounts. Contracts with progress payments are exempt from coverage under this Act.
- (b) Determinations of interest will be made in accordance with the provisions of the Prompt Payment Act and Office of Management and Budget Circular A-125.
- (c) Final Payment under this Contract will be due on the 30th calendar day after the date of actual receipt of invoice and Release subsequent to acceptance as required by Clause 27, Payments under Fixed-Price Construction Contract, 52.232-5.
- (d) Invoices shall be submitted in an original and 2 copies to the Issuing Officer identified on Standard Form 1442, Solicitation, Offer and Award, attn: Contracting Officer. To constitute a proper invoice, the invoice must include the following information and/or attached documentation:
 - 1). Name of business concern and invoice date.
 - 2). Contract number, e.g., CX1600-4-0030.
 - 3). Description, quantity, or percentage of completed contract services, and requested amounts.
 - 4). Name, title, phone number and complete mailing address of responsible official to whom payment is to be sent.
- (e) The date of the check issued shall be considered to be the date payment is made.

18 U.S.C. 1913 - Lobbying with Appropriated Moneys

No part of the money appropriated by any enactment of Congress shall, in the absence of express authorization by Congress, be used directly or indirectly to pay for any personal service, advertisement, telegram, telephone, letter, printed or written matter, or other device, intended or designed to influence in any manner a Member of Congress, to favor or oppose, by vote or otherwise, any legislation or appropriation by Congress, whether before or after the introduction of any bill or resolution proposing such legislation or appropriation: but this shall not prevent officers or employees of the United States or its departments or agencies from communicating to Members of Congress on the request of any Member of Congress, through the proper official channels, requests for legislation or appropriations which they deem necessary for the efficient conduct of the public business.

Whoever, being an officer or employee of the United States or any department or agency thereof, violates or attempts to violate this section, shall be fined not more than \$500 or imprisoned not more than one year, or both; and after notice and hearing by the superior officer vested with the power of removing him, shall be removed from office or employment.

(June 25, 1948, ch. 645, 62 Stat. 792.)

SOLICITATION PROVISIONS

52.252-1 SOLICITATION-PROVISIONS INCORPORATED BY REFERENCE (APR 1984)

This solicitation incorporates by reference the following solicitation provisions, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

1. FEDERAL ACQUISITION REGULATION (APR 1984)(48 CFR CHAPTER 1) SOLICITATION PROVISIONS.
2. AVAILABILITY OF SPECIFICATIONS LISTED IN THE INDEX OF FEDERAL SPECIFICATIONS AND STANDARDS (APR (1984)48 CFR CHAPTER 1 PART 52.210-1) SOLICITATION PROVISIONS.
3. SOLICITATIONS DEFINITIONS - SEALED BIDDING (JUL 198&)(48 CFR CHAPTER 1 PART 52.214-1)SOLICITATION PROVISIONS.
4. ACKNOWLEDGEMENT OF AMENDMENTS TO INVITATIONS FOR BIDS (APR 1984)(48 CFR CHAPTER 1 PART 52.214-3) SOLICITATION PROVISIONS.
5. FALSE STATEMENT IN BIDS (APR 1984)(48 CFR CHAPTER 1 PART 52.214-4) SOLICITATION PROVISIONS.
6. SUBMISSION OF BIDS (APR 1984)(48 CFR CHAPTER 1 PART 52.214-5) SOLICITATION PROVISIONS.
7. EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984)(48 CFR CHAPTER 1 PART 52.214-6) SOLICITATION PROVISIONS.
8. LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (APR 1984)(48 CFR CHAPTER 1 PART 52.214-7)SOLICITATION PROVISIONS.
9. FAILURE TO SUBMIT BID (APR 1984) (48 CFR CHAPTER 1 PART 52.214-9) SOLICITATION PROVISIONS
10. ORDER OF PRECEDENCE - FORMAL ADVERTISEMENT (APR 1984) (48 CFR CHAPTER 1 PART 52.214-11) SOLICITATION PROVISIONS
11. AFFILIATED BIDDERS (APR 1984)(48 CFR CHAPTER 1 PART 52.214-17) SOLICITATION PROVISIONS.
12. PREPARATION OF BIDS - CONSTRUCTION (APR 1984)(48 CFR CHAPTER 1 PART 52.214-18) SOLICITATION PROVISIONS.
13. CONTRACT AWARD - SEALED BIDDING - CONSTRUCTION (FEB 1986)(48 CFR CHAPTER 1 PART 52.214-19) SOLICITATION PROVISIONS.
14. CERTIFICATION OF NON-SEGREGATED FACILITIES (APR 1984)(48 CFR CHAPTER 1 PART 52.222-21) SOLICITATION PROVISIONS.
15. NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (APR 1984)(48 CFR CHAPTER 1 PART 52.222-23) SOLICITATION PROVISIONS.

Goals for minority
participation for
each trade

Goals for female
participation for
each trade

004

Boston, MA;
non-SMSA County:
MA Barnstable

3.6%

6.9%

16. AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)(48 CFR CHAPTER 1 PART 52.252-5) SOLICITATION PROVISIONS.

-
52.233-2 SERVICE OF PROTEST (JAN 1985)
(DEVIATION)

Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, shall be served on the Contracting Officer by obtaining written and dated acknowledgement of receipt from:

Contracting Officer
National Park Service
North Atlantic Regional Office
15 State Street
Boston, Massachusetts 02109-3572

A copy of the protest served on the Contracting Officer shall be simultaneously furnished by the protester to the Assistant Solicitor for Procurement and Patents, Office of the Solicitor, Room 6511, U.S. Department of the Interior, 18th and C Streets, N.W., Washington, DC 20240.

(End of Provision)

REPRESENTATIONS AND CERTIFICATIONS

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that--

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, or agreement with any other offeror or competitor relating to (i) those prices, (ii) the intention to submit an offer, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraph (a)(1) through (a)(3) above; or

(2)(i) Has been authorized in writing, to act as an agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above(insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization).

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above.

(c) If the offeror deletes or modifies subparagraph (a)(2) above, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of Provision)

52.214-2 TYPE OF BUSINESS ORGANIZATION--SEALED BIDDING (JUL 1967)

The Bidder, by checking the applicable box, represents that -

(a) it operates as / / a corporation incorporated under the laws of the State of....., / / an individual, / / a partnership, or / / a joint venture; or

(b) If the bidder is a foreign entity, it operates as / / an individual, / / a partnership, / / a nonprofit organization, / / a joint venture. or / / a corporation, registered for business in _____ (Country).

(End of Provision)

52.214-8 PARENT COMPANY AND IDENTIFYING DATA (APR 1984)

(a) a "parent" company, for the purpose of this provision, is one that owns or controls the activities and basic business policies of the bidder. To own the bidding company means that the parent company must own more than 50 percent of the voting rights in that company. A company may control a bidder as a parent even though not meeting the requirement for such ownership if the parent company is able to formulate, determine, or veto basic policy decisions of the offeror through the use of dominant minority voting rights, use of proxy voting, or otherwise.

(b) the bidder / / is, / / is not [check applicable box] owned or controlled by a parent company.

(c) If the bidder checked "is" in paragraph (b) above, it shall provide the following information:

Name and Main Office Address
of Parent Company (Include
Zip Code)

Parent Company's
Employer's
Identification
Number

.....

.....

(d) If the bidder checked "is not" in paragraph (b) above, it shall insert its own Employer's Identification Number on the following line
.....

(End of provision)

(R SF 33, Part 2, Para 6 1977 MAR)

(R SF 33A, Para 16 and 17 1969 MAR)

52.219-1 SMALL BUSINESS CONCERN REPRESENTATION (MAY 1986)

The offeror represents and certifies as part of its offer that it / / is, / / is not a small business concern and that / / all, / / not all end items to be furnished will be manufactured or produced by a small business concern in the United States, its territories or possessions, Puerto Rico, or the Trust Territory of the Pacific Islands. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the size standards in this solicitation.

(End of provision)

52.219-2 SMALL DISADVANTAGED BUSINESS CONCERN REPRESENTATION (APR 1984)

(a) Representation. The offeror represents that it / /is, / /is not a small disadvantaged business concern.

(b) Definitions.

"Asian-Indian American," as used in this provision, means a United States citizen whose origins are in India, Pakistan, or Bangladesh.

"Asian-Pacific American," as used in this provision, means a United States citizen whose origins are in Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the U.S. Trust Territory of the Pacific Islands, the Northern Mariana Islands, Laos, Cambodia, or Taiwan.

"Native Americans," as used in this provision, means American Indians, Eskimos, Aleuts, and Native Hawaiians.

"Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria and size standards in 13 CFR 121.

"Small disadvantaged business concern," as used in this provision, means a small business concern that (1) is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged, or a publicly owned business having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals and (2) has its management and daily business controlled by one or more such individuals.

(c) Qualified Groups. The offeror shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Asian-Indian Americans, and other individuals found to be qualified by the SBA under 13 CFR 124.1.

(End of Provision)

(R 7-2003.74 1980 AUG)

(R 3-501(b)(3), Part IV, Section K, (i)(B) 1980 AUG)

52.219-3 WOMEN-OWNED SMALL BUSINESS REPRESENTATION (APR 1984)

(a) Representation. The offeror represents that it / /is, / /is not a women-owned small business concern.

(b) Definition. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria and size standards in 13 CFR 121.

"Women-owned" as used in this provision, means a small business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business

(End of Provision)

(R FPR Temp. Reg. 48 1978 DEC)

(a) The Buy American Act (41 U.S.C. 10) generally required that only domestic construction material be used in the performance of this contract (see the clause titled "Buy American Act-Construction Materials"). This requirement does not apply to the following construction materials:

(List excepted material or indicate "none")

(b) Offers based on the use of other foreign construction material may be acceptable for award if the Government determines that--

(1) comparable domestic construction material in sufficient and reasonably available quantities, of a satisfactory quality, is unavailable; or
(2) use of comparable domestic construction material is impracticable or would unreasonably increase the cost.

(c) Any offer based on the use of one or more other foreign construction materials shall include data, in the format listed in paragraph (3) below, clearly demonstrating that the cost of each foreign construction material, plus 6 percent, is less than the cost of each comparable domestic construction material. The cost of construction material shall be computed to include all delivery costs to the construction material and shall also include any applicable duty (whether or not a duty-free entry certificate may be issued).

(d) For evaluation purposes, the Government shall add to the offer 6 percent of the cost of foreign material which qualifies for acceptance under paragraph (c) above.

(e) For foreign construction material which does not qualify for acceptance under paragraph (c) above, the Government shall evaluate the offer on the basis of the stated price for comparable domestic construction material, and the offeror shall be required to furnish such domestic construction material at that price. Therefore, if the offer does not state a price for a comparable domestic construction material, and the foreign construction material does not qualify for acceptance under paragraph (c) above, the offer shall be rejected as nonresponsive.

(f) For evaluation purposes under paragraph (c) above, the following information shall be included in the offer for the use of one or more foreign construction materials:

FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS COST COMPARISON

Construction Material Description	Unit	Quantity	Cost including all delivery costs to construction site (dollars)
Item 1:			
Foreign Construction material	\$
Comparable domestic construction material	\$
Item 2:			
Foreign Construction material	\$
Comparable domestic construction material	\$

1. Also include applicable duty for foreign material
(End of Provision)

CONTRACT CLAUSES

52.252-2 CONTRACT CLAUSES INCORPORATED BY REFERENCE (APR 1984)

This contract incorporates the following clauses by reference with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

1. FEDERAL ACQUISITION REGULATION (APR 1984)(48 CFR CHAPTER 1) CLAUSES.
2. DEFINITIONS (APR 1984)(48 CFR, CHAPTER 1, PART 52.202-01) CLAUSES.
3. OFFICIALS NOT TO BENEFIT (APR 1984)(48 CFR, CHAPTER 1, PART 52.203-01) CLAUSES.
4. GRATUITIES (APR 1984)(48 CFR, CHAPTER 1, PART 52.203-03) CLAUSES.
5. COVENANT AGAINST CONTINGENT FEES (APR 1984)(48 CFR, CHAPTER 1, PART 52.203-05) CLAUSES.
6. COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)(48 CFR, CHAPTER 1, PART 52.212-03) CLAUSES. "...30 calendar days.."
7. LIQUIDATED DAMAGES (APR 1984)(48 CFR, CHAPTER 1, PART 52.212-5) CLAUSES. ".....the sum of \$80.00 for each day of delay"
8. SUSPENSION OF WORK (APR 1984)(48 CFR, CHAPTER 1, PART 52.212-12) CLAUSES.
9. ORDER OF PRECEDENCE - SEALED BIDDING (JAN 1986)(48 CFR, CHAPTER 1, PART 52.214-29) CLAUSES
10. NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE (APR 1984)(48 CFR, CHAPTER 1, PART 52.219-06) CLAUSES.
11. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL DISADVANTAGED BUSINESS CONCERNS (JUN 1985)(48 CFR, CHAPTER 1, PART 52.219-08) CLAUSES.
12. UTILIZATION OF WOMEN-OWNED SMALL BUSINESSES (AUG 1986)(48 CFR, CHAPTER 1, PART 52.219-13) CLAUSES.
13. PREFERENCE FOR LABOR SURPLUS AREA CONCERNS (APR 1984)(48 CFR CHAPTER 1 PART 52.220-01) CLAUSES.
14. UTILIZATION OF LABOR SURPLUS AREA CONCERNS (APR 1984)(48 CFR CHAPTER 1 PART 52.220-03)CLAUSES.
15. NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (APR 1984)(48 CFR CHAPTER 1 PART 52.222-1)CLAUSES.
16. CONVICT LABOR (APR 1984)(48 CFR CHAPTER 1 PART 52.222-03)CLAUSES.
17. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION - GENERAL (MAR 1986)(48 CFR CHAPTER 1 PART 52.222-04)CLAUSES.
18. EQUAL OPPORTUNITY (APR 1984)(48 CFR CHAPTER 1 PART 52.222-26)CLAUSES.
19. AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (APR 1984)(48 CFR CHAPTER 1 PART 52.222-27)CLAUSES.
20. AFFIRMATIVE ACTION FOR SPECIAL DISABLED AND VIETNAM ERA VETERANS (APR 1984)(48 CFR CHAPTER 1 PART 52.222-35)CLAUSES.
21. AFFIRMATIVE ACTION HANDICAPPED WORKERS (APR 1984)(48 CFR CHAPTER 1 PART 52.222-36)CLAUSES.
22. BUY AMERICAN ACT - CONSTRUCTION MATERIALS (APR 1984)(48 CFR CHAPTER 1 PART 52.225-05)CLAUSES.

23. INSURANCE - WORK ON A GOVERNMENT INSTALLATION (APR 1984)(48 CFR CHAPTER 1 PART 52.228-05)CLAUSES.
24. FEDERAL, STATE AND LOCAL TAXES (APR 1984)(48 CFR CHAPTER 1 PART 52.229-03)CLAUSES.
25. TAXES - CONTRACTS PERFORMED IN U.S. POSSESSIONS AND PUERTO RICO (APR 1984)(48 CFR CHAPTER 1 PART 52.229-05)CLAUSES.
26. PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 1986)(48 CFR CHAPTER 1 PART 52.232-05)CLAUSES.
27. INTEREST (APR 1984)(48 CFR CHAPTER 1 PART 52.232-17)CLAUSES.
28. ASSIGNMENT OF CLAIMS (JAN 1986)(48 CFR CHAPTER 1 PART 52.232-23)CLAUSES.
29. DISPUTES (APR 1984)(48 CFR CHAPTER 1 PART 52.233-01)CLAUSES.
30. PERFORMANCE OF WORK BY CONTRACTOR (APR 1984)(48 CFR, CHAPTER 1, PART 52.236-01) CLAUSES. "...30%"
31. DIFFERING SITE CONDITIONS (APR 1984)(48 CFR CHAPTER 1 PART 52.236-02)CLAUSES.
32. SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)(48 CFR CHAPTER 1 PART 52.236-03)CLAUSES.
33. SUPERINTENDENCE BY CONTRACTOR (APR 1984)(48 CFR CHAPTER 1 PART 52.236-06)CLAUSES.
34. PERMITS AND RESPONSIBILITIES (APR 1984)(48 CFR CHAPTER 1 PART 52.236-07)CLAUSES.
35. OTHER CONTRACTS (APR 1984)(48 CFR CHAPTER 1 PART 52.236-08)CLAUSES.
36. PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)(48 CFR CHAPTER 1 PART 52.236-09)CLAUSES.
37. OPERATIONS AND STORAGE AREAS (APR 1984)(48 CFR CHAPTER 1 PART 52.236-10)CLAUSES.
38. USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)(48 CFR CHAPTER 1 PART 52.236-11)CLAUSES.
39. CLEANING UP (APR 1984)(48 CFR CHAPTER 1 PART 52.236-12)CLAUSES.
40. ACCIDENT PREVENTION (APR 1984)(48 CFR CHAPTER 1 PART 52.236-13)CLAUSES.
41. AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)(48 CFR CHAPTER 1 PART 52.236-14)CLAUSES.
42. SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)(48 CFR CHAPTER 1 PART 52.236-15)CLAUSES.
43. LAYOUT OF WORK (APR 1984)(48 CFR CHAPTER 1 PART 52.236-17)CLAUSES.
44. SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (APR 1984)(48 CFR CHAPTER 1 PART 52.236-21)CLAUSES.
45. CHANGES (APR 1984)(48 CFR CHAPTER 1 PART 52.243-4)CLAUSES.
46. INSPECTION OF CONSTRUCTION (JUL 1986)(48 CFR CHAPTER 1 PART 52.246-12)CLAUSES.
47. WARRANTY OF CONSTRUCTION (APR 1984)(48 CFR CHAPTER 1 PART 52.246-21)CLAUSES.
48. TERMINATION FOR THE CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)(ALTERNATE 1) (APR 1984)(48 CFR CHAPTER 1 PART 52.249-02)CLAUSES.
49. DEFAULT (APR 1984)(48 CFR CHAPTER 1 PART 52.249-10)CLAUSES.
50. RELEASE OF CLAIMS (APR 1984)(48 CFR CHAPTER 1 PART 1452.204-70)CLAUSES.

52.236-5 MATERIAL AND WORKMANSHIP (APR 1984) (DEVIATION)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgement of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the materials or articles which the Contractor contemplates incorporating into his work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

"The Government's evaluation of "equal" product requests will be made after contract award as part of the shop drawing review process. The contractor's Requests For Approval to use an "equal" product to that named in the specification shall be made in writing to the Contracting Officer. To assure that sufficient information is available, the Contractor must furnish as part of its request all descriptive material (such as cuts, illustration, drawings, or other information) necessary for the contracting activity to (a) determine whether the product offered meets the salient characteristics requirement of the specifications, and (b) establish what the Government would be binding itself to purchase by approving the request.

The evaluation of the request and the determination as to equality of the product offered shall be the responsibility of the Government and will be based on the information reasonably available to the contracting activity. The Contractor is cautioned that the contracting activity is not responsible for locating or securing any information which is not included with the request and reasonably available to the contracting activity."

(End of Clause)

(R 7-602.9 1964 JUN)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of Clause)

(NM)

1452.228-70 LIABILITY INSURANCE - DEPARTMENT OF THE INTERIOR (JUL 1985)

(a) The Contractor shall procure and maintain during the term of this contract and any extension thereof liability insurance in form satisfactory to the Contracting Officer by an insurance company which is acceptable to the Contracting Officer. The name insured under the policy shall be the Contractor and the United States of America. The amounts of the insurance shall not be less than follows:

Insurance Schedule

1. Workman's Compensation and Employer's Liability Insurance. Compliance with applicable Federal and State worker's compensation and occupational disease statutes shall be required. Employer's liability coverage in the minimum amount of \$100,000.
2. General Liability Insurance. Bodily injury liability insurance in the minimum amount of \$500,000 per occurrence.
3. Automobile Liability Insurance. This insurance shall be required on the comprehensive form of policy and shall provide for bodily injury and property damage liability covering the operation of all automobiles used in connection with performing the contract. The minimum limits of \$200,000 per person and \$500,000 per occurrence for bodily injury and \$20,000 per occurrence for property damage shall be required.

(b) Each policy or certificate evidencing the insurance shall contain an endorsement which provides that the insurance company will notify the Contracting Officer 30 days prior to the effective date of any cancellation or termination of the policy or certificate or any modification of the policy or certificate which adversely affects the interest of the Government in such insurance. The notice shall be sent by registered mail and shall identify this contract, the name and address of the contracting office, the policy and the insured.

(c) Prior to the commencement of work hereunder the Contractor shall furnish the Contracting Officer with acceptable evidence that the insurance coverage described in this clause has been obtained.

(End of Clause)

52.233-3 PROTEST AFTER AWARD (JUN 1985)

(a) Upon receipt of a notice of protest (as defined in 33.101 of the Federal Acquisition Regulation) the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either -

(1) Cancel the stop work order; or -

(2) Terminate the work covered by the order as provided in the Default or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing accordingly if -

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract and -

(2) The Contractor requests an adjustment within 30 days after the end of the period of work stoppage; provided that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the request at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(End of Clause)

LABOR STANDARDS PROVISIONS

The following provisions replace and
are in addition to those of
Standard Form 19A, Labor Standards Provisions,
dated 1-79

(FPR Temp. Reg. 70 dated June 28, 1983)

LABOR STANDARDS PROVISIONS

DAVIS-BACON ACT (40 U.S.C. 276a-276a-7)

(a) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which over the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled "Apprentices and Trainees." Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator of the Wage and Hour Division, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator for determination. The Administrator of the Wage and Hour Division, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (b)(2) or (b)(3) of this clause, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(d) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the Contractor, that applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(e) Paragraphs (a) through (d) of the clause shall apply to this contract to the extent that it is (1) a prime contract with the Government subject to the Davis-Bacon Act, or (2) a subcontract also subject to the Davis-Bacon Act under such prime contract.

52.222-04 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT
OVERTIME COMPENSATION (MAR 1986)

This contract is subject to the Contract Work Hours and Safety Standards Act and to the applicable rules, regulations, and interpretations of the Secretary of Labor.

(a) OVERTIME REQUIREMENTS. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics (see Federal Acquisition Regulation (FAR) 22.300) shall require or permit any such laborers or mechanics in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(b) VIOLATION; LIABILITY FOR UNPAID WAGES: LIQUIDATED DAMAGES. In the event of any violation of the provisions set forth in paragraph (a) of this clause, the Contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Contractor and subcontractors shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic employed in violation of the provisions set forth in paragraph (a) of this clause in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by provisions set forth in paragraph (a) of this clause.

(c) WITHHOLDING FOR UNPAID WAGES AND LIQUIDATED DAMAGES. The Contracting Officer shall upon his or her own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under such contract or any other Federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same Prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in paragraph (b) of this clause.

(d) PAYROLLS AND BASIC RECORDS. (1) The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of contract work and shall preserve them for a period of 3 years from the completion of the contract for all laborers and mechanics working on the contract. Such records shall contain the name and address of such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Nothing in this paragraph shall require the duplication of records required to be maintained for construction work by Department of Labor regulations at 29 CFR 5.5(a) (3) implementing the Davis-Bacon Act. (2) The records to be maintained under paragraph (d)(1) of this clause shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit such representatives to interview employees during work hours on the job.

(e) SUBCONTRACTS. The Contractor or subcontractor shall insert in any subcontracts the provisions set forth in paragraph (a) through (e) of this clause and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the provisions set forth in paragraph (a) through (e) of this clause.

(End of Clause)

APPRENTICES AND TRAINEES

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program

associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination of the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved

(c) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

PAYROLLS AND BASIC RECORDS

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Wherever the Secretary of Labor has found under paragraph (d) of the clause entitled "Davis-Bacon Act" that the wage of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer if the agency is a party to the contract, but if the agency is not such part, the Contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraphs (a) of this clause. The information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be

purchased from the Superintendent of Documents, Government Printing Office. The Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be maintained under of paragraph (a) of this clause entitled "Payrolls and Basic Records" and that such information is correct and complete:

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or case equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certifications set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (b)(2) of this clause.

(4) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or the Department of Labor or their authorized representatives. The Contractor and subcontractors shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

COMPLIANCE WITH COPELAND ACT REQUIREMENT

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

WITHHOLDING

The Contracting Officer shall upon his/her own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Prime Contractor, sponsor, applicant, or owner, take such action as maybe necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

SUBCONTRACTS

The Contractor or subcontractor shall insert in any subcontracts the clauses entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act - Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," "Compliance with Copeland Act Requirements," "Withholding," "Subcontracts," "Contract Termination-Debarment," "Disputes Concerning Labor Standards," "Compliance with Davis-Bacon and Related Act Requirements," "and "Certification of Eligibility," and such other clauses as the Contracting Officer may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited above.

CONTRACT TERMINATION; DEBARMENT

A breach of the contract clauses entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act-Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," " Compliance with Copeland Act Requirements," "Subcontracts," "Compliance with Davis-Bacon and Related Act Requirements," and "Certification of Eligibility," may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

DISPUTES CONCERNING LABOR STANDARDS

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set

for in 29 CFR Parts 5, 6 and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REQUIREMENTS

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

CERTIFICATION OF ELIGIBILITY

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 20 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

LABOR STANDARDS PROVISIONS (Continued)

(Construction Contract)

The provisions of Clauses 1 through 9 of Standard Form 19A are modified and enlarged as follows:

10. LOCAL LABOR PROVISIONS

The wage rates listed in the schedule are the minimum hourly rates which may be paid under the contract. It is the responsibility of the Contractor to inform himself as to local labor conditions such as length of work-day and work-week, overtime compensation, fringe benefits payments, labor supply, and prospective changes or adjustment of wage rates; no increase in the contract price will be allowed on account of the payment of wages at rates in excess of those specified in the schedule, or of those added thereto by agreement or by determination of the Secretary of Labor.

11. SELECTION OF LABOR

(a) Insofar as possible, the Contractor should utilize the services of the United States Employment Service for obtaining labor of the unskilled, intermediate, and skilled classes.

(b) The Contractor is encouraged to participate in those bona fide apprenticeship programs of State Apprenticeship Councils recognized by the United States Department of Labor, and other training programs financed in whole or part by the Government.

12. COMPLIANCE WITH LABOR PROVISIONS

Except upon submission of evidence of an honest dispute with respect to labor provisions herein, payments under the contract may be delayed until receipt of payroll records containing required information and statements assuring compliance with labor provisions.

13. PAYROLLS, COPELAND ACT, AND FRINGE BENEFIT STATEMENTS

The Department of Labor has developed a weekly payroll form, Form WH-347, "Payroll (For Contractors' Optional Use)"; a corresponding instruction sheet, Form WH-347 Inst.; and a Form WH-348 Statement of Compliance. The data on the face of Form WH-348 appears on the reverse side of Form WH-347. The contractor, or subcontractors, may use the new payroll form or an appropriate substitute payroll form of his own choice. If a substitute payroll form is used, a copy of the weekly statement must be included or attached using either new Form WH-348, on which the weekly statement is printed separately, or any form with the identical wording. The WH forms are available for purchase from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

14. SUBCONTRACTOR LABOR STANDARD STATEMENTS

The Contractor shall submit statements from all subcontractors that the Labor Standard Provisions of the contract have been inserted in all subcontracts, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that in turn be made.

15. EQUIPMENT RENTAL

(a) No individual shall be employed as a laborer or mechanic on this contract except on a wage basis, but this shall not be construed to prohibit the rental of teams, trucks, or other equipment from individuals. No such rental equipment, or any charges for feed, fuel, supplies, or repairs on account of such agreement, shall cause any deduction from the wages accruing to any employee.

(b) All of the above provisions shall also apply where work is to be performed by piece work, station work, or by subcontract. The minimum wage shall be exclusive of equipment rental or any equipment which the Contractor's employee may furnish for accomplishing this work.

(c) In accordance with a decision of the Solicitor of Labor, dated September 13 and 26, 1961, the provisions of the Davis-Bacon Act and other related Acts will not be applied to bona fide owner-operators of trucks or other similar construction hauling equipment who are independent Contractors. Owner-Operator status shall be evidenced by a statement signed by BOTH the owner-operator and the contractor and submitted with the contractor's first payroll after the agreement becomes effective. Only one submission will be required for each owner-operator regardless of the number of pay periods worked and this one statement shall be considered as being continuously valid unless cancelled in writing by either or both of the signers. Subsequent payrolls shall include the names of the bona fide owner-operators noted as such, but need not show hours worked nor rates paid. These provisions pertain only to trucks and similar construction hauling equipment and the validity of owner-operator status for other types of equipment shall be subject to separate investigation, determination, and approval by the Contracting Officer.

16. MINIMUM WAGE RATES

The Secretary of Labor has made a determination of the minimum prevailing wage rates which may be paid to the classes of labor to be employed on this project. The decision number and date with minimum rates for this project are as follows on the succeeding pages.

If the following pages of minimum wage rates contain only one schedule, that schedule will apply to all the work described therein.

If the following pages of minimum wage rates contain two or more schedules, designating the work as "Building Construction," "Heavy Construction," and/or "Highway Construction" (singly or in any combination) the wage rate schedules will be applied in accordance with the following definitions:

Building Construction: Construction of build-structures, including modifications thereof, or additions or repairs thereto, intended for use for shelter, protection, maintenance, operations, comfort or convenience. Building construction shall include the demolition, excavation, and foundations for building construction.

Highway Construction: Construction of highways, roads, streets, alleys, sidewalks, guard rails, fences, parkways, parking areas, airports, trails, athletic fields, highway bridges, grade separations involving highways, cattle guards, cattle passes, light construction, drainage structures and culverts, sewage and waterworks improvements, incidental to street and highway improvements.

Heavy Construction: Construction of railroad projects, heavy construction and railroad bridges, heavy construction sewers and water mains, grade separations involving a railroad, foundations, pile driving, piers, abutments, retaining walls, viaducts, tunnels, subways, track elevation, elevated highways, drainage projects (other than for highways), sanitation projects, aqueducts, irrigation projects, flood control projects, reclamation projects, reservoirs, water

supply projects, water power development, hydro-electric development, transmission lines, pipe lines, locks, dams, dikes, levees, revetments, channels, channel cut-offs, intakes, dredging projects, jetties, breakwaters, launching ramps, docks, harbors, industrial sites (excluding paving operations), excavation and disposal by contract of overburden and the loading by contract of all materials from which the overburden has been removed (other than for highways), including the operation, maintenance and repair of all land and floating plant, equipment, vehicles and other facilities used in connection with and serving the aforementioned work and services, not including building construction.

However, it is the responsibility of the Contractor to use the proper rates in accordance with the local area practice for each wage classification involved. If the local area practice differs from or modifies the above definitions in any way, the local practice shall prevail. When a question arises as to whether or not the schedule used complies with local practice, it will be the responsibility of the Contractor to furnish proof that his actions do conform to local practice; however, the decision of the Contracting Officer shall be final. Any failure on the part of the Contractor to comply with the above stipulations will constitute a violation of the Labor Standards Provisions of the contract.

-

Drill Two New Wells
Cape Cod National Seashore
Eastham, Massachusetts

IFB-NARO-7-0055

BARNSTABLE COUNTY

WAGE RATE DETERMINATION

Number: MA87-1

Dated: Jan. 16, 1987

Feb. 6, 1987

Apr. 3, 1987

Apr. 10, 1987

July 6, 1987

Applicable Schedule: Heavy

Construction

(consisting of 16 pages)



GENERAL WAGE DECISION NO. MA87-1

Supersedes General Wage Decision No. MA86-1

State: MASSACHUSETTS

County(ies): ESSEX, SUFFOLK, MIDDLESEX, NORFOLK, BRISTOL, PLYMOUTH, BARNSTABLE, DUKES, NANTUCKET

Construction
Type: Building, Residential, Heavy, Highway & Marine

Construction
Description: Building Projects (including Residential), Heavy and Highway Project, and Marine Projects.

Modification Record:

No.	Publication Date	Page No.(s)
1	Jan. 16, 1987	372-386
2	Feb. 6, 1987	373, 383-386
3	Apr. 3, 1987	373
4	Apr. 10, 1987	401
5	July 6, 1987	372-374



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	Basic Hourly Rates	Fringe Benefits
ASBESTOS WORKERS		
Area 1	20.56	4.33
Area 2	17.63	4.13
BOILERMAKERS	18.93	4.59
BRICKLAYERS; CEMENT MASONS (except in areas 2,3,4,5,7 & 8); PLASTERERS; STONE MASONS; POINTERS; CAULKERS & CLEANERS:		
Areas 1, 2 & 3	19.63	4.87
Area 4		
Except Plasterers	20.21	4.27
Plasterers	18.40	6.03
Area 5, 6, 7	20.66	3.82
Area 8 & 9	21.51	2.97
Area 10	19.51	4.97
Area 11	19.71	4.77
Area 12	20.20	4.22
Area 13	20.46	4.02
Area 14	18.16	6.32
*CARPENTERS		
Area 1	18.86	5.90
Soft Floor Layers	18.96	5.47
Area 2	17.16	5.32
Area 3	16.83	5.62
Areas 4 & 5	16.68	5.77
Area 6	16.43	6.02
Area 7	16.58	5.82
Area 8	17.13	5.27
Areas 9, 10 & 11	17.13	5.27
Area 12	16.18	4.67
Total project not exceeding \$2 million	13.75	4.67
Total project not exceeding \$1 million	12.94	4.67
Residential	10.52	4.67
Area 13	16.00	4.77
Total project not exceeding \$2 million	13.60	4.77
Total project not exceeding \$1 million	12.80	4.77
Residential	10.40	4.77
CEMENT MASONS:		
Areas 1, 6, 9, 10, 11, 12, 13, 14, 15 & 16 - See BRICKLAYERS		
Area 2	19.25	3.53
Area 3, 4 & 5	20.00	2.85
Area 7 & 8:		
Projects \$1 million and over	16.55	2.77
Projects \$250,000 to \$1 million	14.90	2.77
Projects less than \$250,000	13.24	2.77
Residential	13.24	2.77
DIVERS	24.11	4.40
DIVERS' TENDERS:		
Area 1	17.90	4.40
Areas 2, 3, & 5	17.85	4.40
Areas 4 & 6	17.825	4.40
Area 7	17.00	4.40
Area 8	16.745	4.40



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ELECTRICIANS: -

Areas 1,2,3,4,5,6,8,9,& 10
Telephone Systems Installers

14.00 3.68+ 10%

Area 1:

Contracts over \$40,000
Contracts under \$40,000

18.30 3.65+ 3%

15.95 3.65+ 3%

Area 2

17.87 5.10+ 3%

Residential (Single Family Housing)

12.00 2.50+ 3%

Area 3

18.35 5.60+ 3%

Residential (Single Family Housing)

12.25 3.10+ 3%

Area 4

18.05 2.12+ 3%

Residential (Single Family Housing)

11.75 2.27+ 3%

Area 5

18.21 2.55+ 11%

Residential (Single Family Housing)

12.00 2.34+ 3%

Area 6

19.95 7.22+ 3%

Residential (Single Family Housing)

12.50 3.68+ 10%

Area 7

18.40 30%

Residential

12.00 11%

Area 8

16.50 3.50+ 3.5%

Residential

11.00 3.75+ 3.5%

Area 9

16.50 2.60+ 18.5%

Residential

10.00 1.00+ 10%

Area 10

17.40 1.10+ 30%

Residential

10.65 21%

Area 11

19.73 23.5%

Residential (Single Family Housing)

10.50 2.60+ 3%

ELEVATOR CONSTRUCTORS:

Elevator Constructors

22.36 3.87+ a+b

Helpers

15.65 3.87+ a+b

Probationary helpers

11.18

GLAZIERS:

Area 1

19.40 4.80

Area 2

16.83 4.15+ f

*IRONWORKERS:

Area 1

16.48 7.46

Area 2

18.75 6.25

Area 3

19.75 5.25

Area 4

17.23 6.95

LABORERS (BUILDING):

Class I

14.55 4.30

Class II

14.80 4.30

Class III

15.30 4.30

Class IV

15.55 4.30

Class V

15.30 4.30

LABORERS (WRECKING):

Area 1:

Class I

11.30 3.95

Class II

14.40 3.95

Class III

14.50 3.95

Class IV

14.65 3.95

Class V

14.90 3.95

Class VI

15.15 3.95

Class VII

15.40 3.95

Area 2

14.30 3.95

LABORERS (HEAVY & HIGHWAY):

Class I

14.55 3.95

Class II

14.80 3.95



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Class III	15.30	3.95	
Class IV	15.55	3.95	
Tunnels, caisson and Cylinder Work in Compressed Air:			
Class V-A	20.50	3.95	
Class V-B	22.00	3.95	
Class V-C	22.17	3.95	
Class V-D	22.23	3.95	
Class V-E	22.73	3.95	
Free Air Operation:			
Shield driven and liner plate in free air:			
Class VI-A	15.85	3.95	
Class VI-B	15.00	3.95	
Cleaning concrete and caulking tunnel (both new and existing):			
Class VI-C	15.00	3.95	
Class VI-D	15.325	3.95	
Rock shaft, concrete lining of same and tunnel in free air:			
Class VI-E	14.75	3.95	
Class VI-F	14.90	3.95	
Class VI-G	15.00	3.95	
Class VI-H	15.85	3.95	
LABORERS (OPEN AIR CAISSONS, UNDER- PINNING AND TEST BORING INDUSTRIES):			
Open Air Caisson, Underpinning Work and Boring Crew:			
Class I-A	14.55	3.95	
Class I-B	15.30	3.95	
Test Boring:			
Class II-A	14.55	3.95	
Class II-B	15.42	3.95	
LINE CONSTRUCTION:			
Lineman	19.16	3.05+c+	4.375%
Equipment Operators & Cablemen	16.29	3.05+c+	4.375%
Driver Groundmen	15.33	3.05+c+	4.375%
Groundman	10.54	3.05+c+	4.375%
MARBLE, TILE AND TERRAZZO WORKERS	19.00	4.77	
*MILLWRIGHTS	18.30	5.70	
PAINTERS:			
Sign Painters (State-wide)	14.44	2.50	
Area 1:			
New Construction:			
Brush; Taper	18.90	6.32	
Spray; Sandblast	19.90	6.32	
Steel	22.11	6.32	
Repaint:			
Brush; Taper	16.96	6.32	
Spray; Sandblast	17.96	6.32	
Steel	22.11	6.32	
Area 2:			
Brush; Taper; Paperhanging	19.31	6.28	
Sandblasting; swing stage	20.31	6.28	
Spray; Steel	20.81	6.28	
Repaint up to 3 stories (inclu-			



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ding basements and sub-basements)
and new housing 2 stories and
less:

Brush; Taper; Paperhanging	16.41	6.28
Sandblasting; Swing stage	17.26	6.28
Spray; Sandblast; Steel	17.69	6.28

Area 3:

Brush	16.08	3.55
Wall Coverings	16.33	3.55
Spray; Sandblast	17.08	3.55
Steel	18.20	3.55
Repaint	13.67	3.55
Residential	12.06	3.55

Area 4:

New Construction:

Brush	16.10	3.38
Spray; Sandblasting	17.10	3.38
Steel	17.35	3.38

Repaint & Residential:

Brush	15.55	3.38
Spray; Sandblasting	16.55	3.38
Steel	16.80	3.38

Area 5:

Brush; Roller	15.63	3.58
Taping	15.73	3.58
Paperhangers; Vinyl Installers	16.13	3.58
Spray	17.13	3.58
Sandblast; chipping; hammer; power brush	17.38	3.58
Steel	18.88	3.58
Steel Spray	20.38	3.58
Steel: sandblast; chipping; ham- mers; power tools	20.63	3.58

Interior repaint (except power
plants):

Brush; Roller	14.07	3.58
Sprayers	15.57	3.58
Sandblasters; chipping; hammers; power tools	15.82	3.58

*PILED RIVERMEN:

Area 1	17.90	4.40
Areas 2, 3 & 5	17.85	4.40
Areas 4 & 6	17.825	4.40
Area 7	17.00	4.40
Area 8	16.745	4.40

PLASTERERS - SEE BRICKLAYERS, ETC.

*PLASTERERS TENDERS

14.80	3.95
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*PLUMBERS, PIPEFITTERS & STEAMFITTERS:

Area 1

Plumbers	19.55	6.25
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Repairs: Replacing defective fix-
tures, appliances and defective
piping, valves or fittings serving
same (which means the fixtures and
appliances in a single family
house, one apartment, or not more
than one group of fixtures in same



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building that tie into the same soil or waste stack. Replacing of piping limited to piping in the same immediate area of items served by the piping.)	15.65	6.25
Pipefitters	20.47	5.83
Area 2	18.50	5.97
Area 3	19.37	3.55
Area 4		
Plumbers & pipefitters	21.02	5.04
Area 5		
Plumbers & Pipefitters	16.38	4.01
Area 6		
Plumbers & pipefitters	18.70	6.88
Area 7		
Plumbers & pipefitters	19.15	3.85
Area 8:		
Plumbers & steamfitters	19.64	3.68
Nursing homes and rest homes that do not exceed 4 stories; Repair or renovation in an existing building without change in exterior dimension by way of addition thereto:	12.83	3.13
Residential	12.83	3.13
*POWER EQUIPMENT OPERATORS (BUILDING, HEAVY & HIGHWAY, & MARINE CONSTRUCTION)		
Class I	20.41	4.18+d
Hourly premium for boom lengths including jib:		
Over 150 ft. + .70		
Over 185 ft. + 1.24		
Over 210 ft. + 1.73		
Over 250 ft. + 2.63		
Over 295 ft. + 3.65		
Class II	22.33	4.18+d
Class III	17.01	4.18+d
Class IV	18.56	4.18+d
Class V	15.04	4.18+d
Class VI	15.99	4.18+d
*ROOFERS:		
Roofers	18.56	5.52
Slaters	18.81	5.52
Hot Pitch	19.56	5.52
SHEET METAL WORKERS		
Area 1	20.85	6.94
Area 2	14.38	3.65+ 3%
SPRINKLER FITTERS		
Area 1	22.75	3.36
Area 2	18.00	3.40
TILE & MARBLE FINISHERS	16.40	4.25
TERRAZZO FINISHERS	19.25	1.50
*TRUCK DRIVERS (BUILDING, HEAVY & HIGHWAY CONSTRUCTION):		
Class I	15.63	3.23+ d+e
Class II	15.80	3.23+ d+e
Class III	15.87	3.23+ d+e
Class IV	15.99	3.23+ d+e



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Class V	16.09	3.23+ d+e
Class VI	16.38	3.23+ d+e
Class VII	16.67	3.23+ d+e

WELDERS - Rate for craft to which the welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(11)).

FOOTNOTES:

PAID HOLIDAYS: A-New Year's Day; B-Memorial Day; C-Independence Day; D-Labor Day; E-Thanksgiving Day F-Christmas Day.

- a. Paid holidays: A through F and the day after Thanksgiving Day.
- b. Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.
- c. Paid Holidays: A through F and Bunker Hill Day, provided the employee has been employed 5 working days prior to any one of the listed holidays.
- d. Paid holidays: A through F, Washington's Birthday, Patriots Day, Columbus Day and Veterans Day.
- e. Paid Vacation: 4 months to 1 year - 8 day's pay per month; 1-5 years - 1 week; 5-10 years - 2 weeks; 10 years or more - 3 weeks. Employee must have received pay for 120 days during last year of employment.
- f. Paid Holiday: Labor Day; provided the employee has worked any part of the week prior to Labor Day and part of the week after Labor Day.

AREA DESCRIPTIONS

ASBESTOS WORKERS:

AREA 1: ESSEX; SUFFOLK; MIDDLESEX; BARNSTABLE (except Barnstable, Borne, Falmouth, Mashpee, Sandwich).

AREA 2: NORFOLK (Bellingham, Franklin, Plainville, Wrenham); BRISTOL (except Easton); PLYMOUTH (Lakeville, Mattapoisett, Middleboro, Rochester, Wareham); BARNSTABLE (Barnstable, Borne, Falmouth, Mashpee, Sandwich); DUKES: NATUCKET.

BRICKLAYERS; CEMENT MASONS; PLASTERERS; STONE MASONS; POINTER, CAULKERS AND CLEANERS:

AREA 1: ESSEX (Beverly, Manchester, Gloucester, Rockport, Wenham, Hamilton, Essex, Ipswich, Rowley, Newbury, Newburyport,



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Lynn, Lynnfield, Wakefield, Saugus, Swampscott, Nahant, Marblehead, Salem, Peabody, Danvers, Middleton, Topsfield).

AREA 2: ESSEX (Amesbury, Andover, Boxford, Georgetown, Groveland, Haverhill, Lawrence, Merrimac, Methuen, North Andover, Salisbury, West Newbury); MIDDLESEX (Reading, North Reading).

AREA 3: MIDDLESEX (Wakefield).

AREA 4: SUFFOLK; MIDDLESEX (Arlington, Cambridge, Everett, Malden, Medford, Melrose, Somerville); NORFOLK (Brookline, Milton).

AREA 5: MIDDLESEX (Stoneham, Winchester, Woburn).

AREA 6: MIDDLESEX (Belmont, Concord, Lexington, Lincoln, Sudbury, Waltham, Watertown, Wayland, Weston).

AREA 7: MIDDLESEX (Burlington).

AREA 8: MIDDLESEX (Acton, Bedford, Billerica, Carlisle, Chemsford, Dracut, Dunstable, Littleton, Lowell, Tewksbury, Tyngsboro, Westford, Wilmington).

AREA 9: MIDDLESEX (Ashby, Ayer, Boxboro, Ft. Devens, Groton, North Acton, Pepperell, South Acton, Townsend, Shirley, West Acton).

AREA 10: MIDDLESEX (Ashland, Framingham, Holliston, Hopkinton, Hudson, Maynard, Natick, Sherborn, Stow); NORFOLK (Medfield, Medway, Millis).

AREA 11: MIDDLESEX (Newton only); NORFOLK (Dover, Needham, Wellesley).

AREA 12: NORFOLK (Bellingham, Canton, Dedham, Foxboro, Franklin, Norfolk, Norwood, Plainville, Sharon, Walpole, Westwood, Wrentham); PLYMOUTH (Lakeville only); BRISTOL (Attleboro, North Attleboro, Mansfield, Raynham, Taunton, Berkley, Norton, Dighton, Rehoboth, Seekonk).

AREA 13: NORFOLK (Avon, Braintree, Cohasset, Holbrook, Quincy, Randolph, Soughton, Weymouth); PLYMOUTH (Abington, Bridgewater, Brockton, Carver, Duxbury, East Bridgewater, Halifax, Hanover, Hanson, Hingham, Hull, Kingston, Marshfield, Middleboro, Norwell, Pembroke, Plymouth, Rockland, Scituate, West Bridgewater, Whitman).

AREA 14: BRISTOL (Acushnet, Dartmouth, Fairhaven, Fall River, Freetown, New Bedford, Somerset, Swansea, Westport); PLYMOUTH (Marion, Mattapoisett, Rochester, Wareham); BARNSTABLE, DUKES, NANTUCKET.

*CARPENTERS:

AREA 1: SUFFOLK; MIDDLESEX (Belmont, Cambridge, Everett, Malden, Medford, Somerville); NORFOLK (Brookline, Dedham, Milton).



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- AREA 2: ESSEX (Ipswich, Essex, Gloucester, Rockport, Topsfield, Hamilton, Wendham, Middleton, Danvers, Beverly, Manchester, Peabody, Salem, Marblehead).
- AREA 3: ESSEX (Amesbury, Boxford, Georgetown, Groveland, Haverhill, Merrimack, Newbury, Newburyport, Rowley, Salisbury, West Newbury, Andover, Lawrence, Methuen, North Andover, West Andover).
- AREA 4: ESSEX (Lynn, Lynnfield, Nahant, Saugus, Swampscott).
- AREA 5: MIDDLESEX (Arlington, Burlington, Lexington, Melrose, North Reading, Reading, Stoneham, Wakefield, Wilmington, Winchester, Woburn).
- AREA 6: MIDDLESEX (Acton, Billerica, Boxboro, Carlisle, Chelmsford, Dracut, Dunstable, Littleton, Lowell, Tewksbury, Tyngsboro, Westford).
- AREA 7: MIDDLESEX (Ashby, Ayer, Pepperell, Shirley, Townsend).
- AREA 8: MIDDLESEX (Ashland, Holliston, Hopkinton, Hudson, Framingham, Marlboro, Maynard, Sherborn, Stow).
- AREA 9: MIDDLESEX (Bedford, Concord, Lincoln, Natick, Newton, Sudbury, Waltham, Watertown, Wayland, Weston); NORFOLK (Dover, Needham, Wellesley).
- AREA 10: NORFOLK (Bellingham, Canton, Foxboro, Franklin, Medfield, Medway, Millis, Norfolk, Norwood, Plainville, Sharon, Walpole, Westwood, Wrentham); BRISTOL (Attleborough, North Attleborough).
- AREA 11: NORFOLK (Braintree, Cohasset, Quincy, Weymouth); PLYMOUTH (Duxbury, Hanover, Hingham, Hull, Marshfield, Norwell, Pembroke, Rockland, Scituate).
- AREA 12: PLYMOUTH (Lakeville, Marion, Mattapoisett, Middleboro, Rochester); BRISTOL (Except Attleboro, North Attleboro and Easton); DUKES & NANTUCKET.
- AREA 13: NORFOLK (Avon, Holbrook, Randolph, Stoughton); BRISTOL (Easton, North Easton, South Easton); PLYMOUTH (Remainder of County); BARNSTABLE.

DIVERS' TENDERS: See area listings for piledrivermen.

ELECTRICIANS:

- AREA 1: ESSEX (Salem, Marblehead, Peabody, Danvers, Beverly, Hamilton, Wenham, Topsfield, Ipswich, Essex, Manchester, Gloucester, Rockport).
- AREA 2: ESSEX (Andover, Lawrence, Methuen, North Andover, Salisbury, West Newbury, Amesbury, Boxford, Georgetown,



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Groveland, Haverhill, Merrimac, Newbury, Newburyport, Rowley).

- AREA 3: MIDDLESEX (Bedford, Billerica, Boxboro, Burlington, Carlisle, Chelmsford, Dracut, Dunstable, Littleton, Lowell, Tewksbury, Tyngsboro, Westford, Wilmington).
- AREA 4: MIDDLESEX (Asby, Ayer, Ft. Devens, Groton, Pepperell, Shirley, Townsend).
- AREA 5: MIDDLESEX (Ashland, Hopkinton, Hudson, Marlboro, Stow).
- AREA 6: ESSEX (Lynn, Lynnfield, Nahant, Saugus, Swampscott); SUFFOLK; MIDDLESEX (Remainder of County); NORFOLK (except Avon, Holbrook, Randolph, Stoughton, Plainville); PLYMOUTH (Hingham, Hull).
- AREA 7: NORFOLK (Plainville); BRISTOL (Attleboro, North Attleboro, Seekonk).
- AREA 8: BRISTOL (Mansfield, Norton, Taunton, Raynham, Rehoboth, Dighton, Berkley); PLYMOUTH (Lakeville, Middleboro).
- AREA 9: BRISTOL (Fall River, Freetown, Somerset, Sawnsea, Westport).
- AREA 10: BRISTOL (Acushnet, Dartmouth, Fairhaven, New Bedford, North Dartmouth, South Dartmouth); PLYMOUTH (Mattapoissett, Rochester, Wareham); BARNSTABLE; DUKES; NANTUCKET.
- AREA 11: NORFOLK (Avon, Holbrook, Randolph, Stoughton); BRISTOL (Easton); PLYMOUTH (Remainder of County).

GLAZIERS:

- AREA 1: ESSEX; SUFFOLK; MIDDLESEX; NORFOLK; PLYMOUTH (except Carver, Lakeville, Middleboro, Marion, Mattapoissett, Rochester, Wareham); DUKES; NANTUCKET.
- AREA 2: BRISTOL; PLYMOUTH (Carver, Lakeville, Middleboro, Marion, Mattapoissett, Rochester, Wareham); BARNSTABLE.

IRONWORKERS:

- AREA 1: ESSEX (Lawrence, Methuen, North Andover, Andover, Haverhill, Boxford, Danvers, Georgetown, West Newbury, Merrimac, Rowley, Topsfield, Gloucester, Newburyport, Salisbury, Amesbury, Hamilton, Ipswich, Newbury, Wenham, Essex, Rockport); MIDDLESEX (Groveland, Lowell, Tewksbury, Dracut, Billerica, Chelmsford, Dunstable, Tyngsboro, North Reading, Wilmington, Middleton, Acton, Groton, Pepperell, Carlisle, Littleton, Townsend, Westford).
- AREA 2: ESSEX (Beverly, Swampscott, Lynn, Lynnfield, Manchester, Marblehead, Nahant, Salem, Saugus, Swampscott); SUFFOLK; MIDDLESEX (Arlington, Bedford, Belmont, Burlington,



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Holliston, Hopkington, Lexington, Lincoln, Marlboro, Maynard, Natick, Sherborn, Sudbury, Stow, Waltham, Wayland, Weston, Hudson); NORFOLK (Medway, Medfield, Dover, Wellesley).

AREA 7: NORFOLK (Avon, Holbrook, Randolph, Stoughton); BRISTOL (Attleboro, Berkley, Dighton, Easton, Mansfield, North Attleboro, Norton, Rayham, Rehoboth, Taunton; PLYMOUTH (except Marion, Mattapoissett, Rochester, Wareham).

AREA 8: BRISTOL (Acushnet, Dartmouth, Fairhaven, Fall River, Freetown, New Bedford, Somerset, Swansea, Westport, Seekonk); PLYMOUTH (Marion, Mattapoissett, Rochester, Wareham); BARNSTABLE; DUKES; NANTUCKET

SHEET METAL WORKERS:

AREA 1: ESSEX; SUFFOLK; MIDDLESEX; NORFOLK; BRISTOL (Attleboro, North Attleboro, Mansfield, Easton, Norton, Taunton, Raynham Berkley); PLYMOUTH (except Marion, Mattapoissett, Rochester, Wareham).

AREA 2: BRISTOL (Acushnet, Dartmouth, Dighton, Fairhaven, Fall River, Freetown, Rehoboth, Seekonk, Somerset, Swansea, Westport, New Bedford); PLYMOUTH (Marion, Mattapoissett, Rochester, Wareham); BARNSTABLE; DUKES; NANTUCKET.

SPRINKLER FITTERS:

AREA 1: ESSEX; SUFFOLK; MIDDLESEX (except Ashby, Townsend, and portions of Pepperell and Shirley beyond 35 mile radius from Boston City Hall); NORFOLK; BRISTOL (portion within 35 mile radius of Boston City Hall); PLYMOUTH (portion within 35 mile radius of Boston City Hall).

AREA 2: MIDDLESEX (Ashby, Townsend, portions of Pepperell and Shirley beyond 35 mile radius of Boston City Hall); NORFOLK (beyond 35 mile radius of Boston City Hall); PLYMOUTH (beyond 35 mile radius of Boston City Hall); BARNSTABLE; DUKES; NANTUCKET.

* CLASSIFICATION DESCRIPTIONS

LABORERS (BUILDING):

CLASS I: Laborers, carpenters tenders.

CLASS II: Jackhammer operator, pavement breakers, asphalt rakers, carbide core drilling machine, chain saw operator, pipelayer, barco type jumping tampers, laser beam, concrete pump, mason tenders, motorized mixers, ride-on motorized buggy, fence and beam rail erectors.

CLASS III: Air track, block pavers, rammers, curb setter.

CLASS IV: Blasters, powdermen.

CLASS V: Pre-cast floor and roof plank erectors.

LABORERS (WRECKING - AREA 1):

CLASS I: Yardmen laborers.



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CLASS II: Yardmen burners, sawyers.
CLASS III: Wrecking laborers.
CLASS IV: Adzeman.
CLASS V: Burners, Jackhammers.
CLASS VI: Small front loaders on tracks and bobcat operators.
CLASS VII: Asbestos Workers

LABORERS (HEAVY & HIGHWAY):

CLASS I: Laborers, carpenter tenders, cement finisher tenders.
CLASS II: Asphalt rakers, fence and guard rail erector, laser beam operator, mason tender, pipelayer, pneumatic drill operator, pneumatic drill operator, pneumatic tool operator, wagon drill operator.
CLASS III: Air track operator, block pavers, rammer, curb setters.
CLASS IV: Blasters, powdermen.

Tunnels, Caisson and Cylinder Work in Compressed Air:

CLASS V-A: Powder watchmen, top men on iron bolt, change house attendant.
CLASS V-B: Brakeman, trackman, groutman, laborer, outside lock tender, lock tender, guage tenders.
CLASS V-C: Motormen.
CLASS V-D: Blaster.
CLASS V-E: Mucking machine operator.

LABORERS (HEAVY & HIGHWAY):

Free Air Operation:

Shield driven and liner plate tunnel in free air:

CLASS VI-A: Miners, miner welder, conveyor operator, motormen, mucking machine operator, nozzle men, grout men, shaft and tunnel steel and rodmen, shield and erector arm operators.
CLASS VI-B: Brakemen, trackmen.

Cleaning concrete and caulking tunnel (both new and existing):

CLASS VI-C: Concrete workers, strippers and form movers (wood & steel)

Rock shaft, concrete lining of same and tunnel in free air:

CLASS VI-E: Change house attendants.
CLASS VI-F: Laborers, topside.
CLASS VI-G: Brakeman, trackman, tunnel laborers, shaft laborers.
CLASS VI-H: Miner, cage tender, bellman.

LABORERS (OPEN AIR CAISSONS, UNDERPINNING AND TEST BORING INDUSTRIES)

Includes installation and performance of caissons of all types, underpinning, soil test borings, core borings, diamond drill soundings, wash borings, auger borings, shot drilling, grouting (cement, chemical, etc.), installation of earth and rock anchors, tiebacks, ground water observation wells and monitoring wells, installation of instrumentation, drilling and installation of horizontal drains, lagging (carrying of bands and settling bands in place), installation and extraction of grout pipes, pit work, hand excavation and labor required in pile driving and related work,



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Cambridge, Concord, Everett, Framingham, Lexington, Lincoln, Malden, Maynard, Medford, Melrose, Natick, Newton, Reading, Sherborn, Somerville, Stoneham, Sudbury, Wakefield, Waltham, Watertown, Wayland, Weston, Winchester, Woburn); NORFOLK (Avon, Braintree, Brookline, Canton, Cohasset, Dedham, Dover, Foxboro, Holbrook, Medfield, Millis, Milton, Needham, Norfolk, Norwood, Quincy, Randolph, Sharon, Stoughton, Walpole, Wellesley, Westwood, Weymouth); BRISTOL (Easton); PLYMOUTH (Abington, Bridgewater, Brockton, Duxbury, East Bridgewater, Halifax, Hanover, Hanson, Hingham, Hull, Kingston, Marshfield, Norwell, Pembroke, Plymouth, Plymton, Rockland, Scituate, West Bridgewater, Whitman).

AREA 3: MIDDLESEX (Ashby, Shirley, Ayer, Boxboro, Stow, Hudson, Marlborough, Ashland, Hopkinton, Holliston); NORFOLK (Medway).

AREA 4: NORFOLK (Bellingham, Franklin, Plainville, Wrentham); BRISTOL (Acushnet, Attleboro, Berkley, Dartmouth, Dighton, Fairhaven, Fall River, Freetown, Mansfield, New Bedford, North Attleboro, Norton, Raynham, Rehoboth, Seekonk, Somerset, Swansea, Taunton, Westport); PLYMOUTH (Lakeville, Marion, Mattapoisett, Middleboro, Rochester, Wareham); BARNSTABLE; DUKES; NANTUCKET.

LABORERS (WRECKING):

AREA 1: ESSEX; SUFFOLK; MIDDLESEX; NORFOLK; PLYMOUTH.

AREA 2: BRISTOL; BARNSTABLE; DUKES; NANTUCKET.

PAINTERS:

AREA 1: ESSEX; SUFFOLK; MIDDLESEX (Arlington, Belmont, Cambridge, Everett, Malden, Medford, Melrose, North Reading, Reading, Somerville, Stoneham, Wakefield, Winchester, Woburn); NORFOLK (Except Dover, Medfield, Medway, Millis, Needham, Wellesley); BRISTOL (except Acushnet, Dartmouth, Fairhaven, New Bedford); PLYMOUTH (except Marion, Mattapoisett, Rochester, Wareham).

AREA 2: MIDDLESEX (Bedford, Billerica, Burlington, Carlisle, Chelmsford, Dracut, Dunstable, Littleton, Lowell, Tewksbury, Tyngsboro, Westford, Wilmington).

AREA 3: MIDDLESEX (Ashby, Townsend, Pepperell, Groton, Shirley, Ayer)

AREA 4: MIDDLESEX (Boxboro, Acton, Concord, Stow, Manyard, Lincoln, Lexington, Hudson, Sudbury, Wayland, Weston, Waltham, Watertown, Newton, Marlboro, Framingham, Natick, Ashland, Sherborn, Hopkinton, Holliston); NORFOLK (Dover, Medfield, Medway, Millis, Needham, Wellesley).

AREA 5: BRISTOL (Acushnet, Dartmouth, Fairhaven, New Bedford);



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PLYMOUTH (Marion, Mattapoisett, Rochester, Wareham);
BARNSTABLE; DUKES; NANTUCKET.

***PILEDRIVMEN:**

- AREA 1: Inside Boston Beltway, Interstate Route 495.
- AREA 2: Portions of carpenters' area 3 outside the Boston Beltway Interstate Route 495.
- AREA 3: Portions of carpenters' area 6 outside the Boston Beltway Interstate Route 495.
- AREA 4: Portions of carpenters' area 7 outside the Boston Beltway Interstate Route 495.
- AREA 5: Portions of carpenters' area 8 outside the Boston Beltway Interstate Route 495.
- AREA 6: Portions of carpenters' area 10 outside the Boston Beltway Interstate Route 495.
- AREA 7: Portions of carpenters' area 12 outside the Boston Beltway Interstate Route 495.
- AREA 8: Portions of carpenters' area 13 outside the Boston Beltway Interstate Route 495.

PLUMBERS, PIPEFITTERS & STEAMFITTERS:

- AREA 1: ESSEX (Lynn, Lynnfield, Nantant, Saugus, Swampscott); SUFFOLK; MIDDLESEX (Arlington, Cambridge, Everett, Malden, Medford, Melrose, Newton, North Reading, Reading, Somerville, Stoneham, Wakefield, Watertown, Winchester, Woburn); NORFOLK (Bellingham, Braintree, Brookline, Canton, Cohasset, Dedham, Foxboro, Franklin, Millis, Milton, Needham, Norfolk, Norwood, Plainville, Quincy, Sharon, Walpole, Westwood, Weymouth, Wrentham); PLYMOUTH (Hingham, Hull, Scituate).
- AREA 2: ESSEX (Methuen, Lawrence, Groveland, Georgetown, Andover, North Andover).
- AREA 3: ESSEX (Remainder of County).
- AREA 4: MIDDLESEX (Acton, Ayer - except West of Greenville branch of the Boston and Maine Railroad, Bedford, Billerica, Boxboro, Burlington, Carlisle, Chelmsford, Dracut, Dunstable, Littleton, Lowell, Pepperell, Tewksbury, Tyngsboro, Westford, Wilmington).
- AREA 5: MIDDLESEX (Ashby, Townsend, Groton, Shirley, Ft. Devens, Ayer - West of Greenville branch of the Boston and Maine Railroad).
- AREA 6: MIDDLESEX (Ashland, Belmont, Concord, Framington,



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welding of caissons not driven by pile driving equipment, pouring of concrete piles and caissons of all types, cutting-off concrete piles and clean-up:

Open Air Caisson, Underpinning Work and Boring Crew:

CLASS I-A: Laborers, top man.

CLASS I-B: Bottom man.

Test Boring:

CLASS II-A: Laborer.

CLASS II-B: Driller.

***POWER EQUIPMENT OPERATORS (BUILDING CONSTRUCTION):**

CLASS I: Cranes, shovels, truck cranes, cherry pickers, draglines, trench hoes, backhoes, three drum machines, derricks, pile drivers, elevator towers, hoists, gradalls, shovel dozers, front end loaders, fork lifts, augers, boring machines, rotary drills, post hole hammers, post hole diggers, pumpcrete machines, asphalt plant (on site), concrete batching and/or mixing plant (on site), crusher plant (on site), paving concrete mixers, timber jacks.

CLASS II: Sonic or vibratory hammers, graders, scrapers, tandem scrapers, concrete pumps, bulldozers, tractors, york rakes, mulching machines, portable steam boilers, portable steam generators, rollers, spreaders, tampers (self-propelled or tractor-drawn), asphalt pavers, mechanics - maintenance, paving screed machines, stationary steam boilers, paving concrete finishing machines, cal trucks, ballast regulators, switch tampers, rail anchor machines, tire trucks.

CLASS III: Pumps (1-3 grouped), compressors, welding machines (1-3 grouped), generators, concrete vibrators, heaters (power driven 1-5), well-point systems (operating), syphons-pulsometers, concrete mixers, valves controlling permanent plant air or steam, conveyors, Jackson type tampers, single diaphragm pump, lighting plants.

CLASS IV: Assistant engineers (firemen).

CLASS V: Oilers (other than truck cranes and gradalls).

CLASS VI: Oilers (on truck cranes and gradalls).

***POWER EQUIPMENT OPERATORS (HEAVY & HIGHWAY CONSTRUCTION):**

CLASS I: Power shovels, cranes, truck cranes, derricks, pile drivers, trenching machines, mechanical hoist pavement breakers, cement concrete pavers, draglines, hoisting engines, three drum machines, pumpcrete machines, uke loaders, shovel dozers, front end loaders, mucking machines, shaft hoists, steam engines, backhoes, gradalls, cable ways, fork lifts, cherry pickers, boring machines, rotary drills, post hole hammers, port hole diggers, asphalt plant on job site, concrete batching and/or mixing plant on job site, crusher plant on job site, paving concrete mixers, timber jacks.

CLASS II: Sonic or vibratory hammers, graders, scrapers, tandem scrapers, bulldozers, tractors, mechanic - maintenance, York rakes, mulching machines, paving screed machines, stationary steam boilers, paving concrete finishing machines, grout pumps, portable



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steam boilers, portable steam generators, rollers, spreaders, asphalt pavers, locomotives or machines used in place thereof, tampers (self-propelled or tractor-drawn), cal tracks, ballast regulators, rail anchor machines, switch tampers, tire trucks.
 CLASS III: Pumps (1-3 grouped), compressors, welding machines (1-3 grouped), generators, lighting plants, heaters (power driven, 1-5), syphons-pulsometers, concrete mixers, valves controlling permanent plant air steam, conveyors, wellpoint system (operating).
 CLASS IV: Assistant engineers (firemen).
 CLASS V: Oilers (other than truck cranes and gradalls).
 CLASS VI: Oilers (on truck cranes and gradalls).

***POWER EQUIPMENT OPERATOR (MARINE CONSTRUCTION):**

CLASS I: Shovels, cranes, truck cranes, cherry pickers, derricks, pile drivers, two or more drum machines, lighters, derrick boats, trenching machines, mechanic hoist pavement breakers, cement concrete pavers, draglines, hoisting engines, pumpcrete machines, elevating graders, shovel dozers, front end loaders, backhoe, gradalls, cable ways, boring machines, rotary drills, post hole hammers, post hole diggers, fork lifts, timber jacks, asphalt plants (on site), concrete batching and/or mixing plant (on site), crusher plants (on site), paving concrete mixers.
 CLASS II: Portable steam boilers, portable steam generators, sonic or vibratory hammer, graders, scrapers, tandem scrapers, concrete pumps, bulldozers, tractors, york rakes, mulching machines, rollers, spreaders, tamper (self-propelled or tractor-drawn), asphalt pavers, concrete mixers with side loaders, mechanics - maintenance, cal tracks, ballast regulators, switch tampers, rail anchor machines, tire trucks.
 CLASS III: Pumps (1-3 grouped), compressors, welding machines (1-3 grouped), generators, lighting plants, heaters (power-driven, 1-5), syphons-pulsometers, concrete mixers, valves controlling permanent plant air or steam, conveyors, wellpoint systems, augers (powered by independent engines and attached to pile drivers), hydraulic saws.
 CLASS IV: Firemen.
 CLASS V: Assistant engineers (other than truck cranes and gradalls).
 CLASS VI: Assistant engineers (on truck cranes and gradalls).

TRUCK DRIVERS (HEAVY & HIGHWAY CONSTRUCTION):

CLASS I: Station wagons, panel trucks and pickup trucks.
 CLASS II: Two axle equipment; helpers on low bed when assigned at the discretion of the employer, warehousemen, forklift operators.
 CLASS III: Three axle equipment and tiremen.
 CLASS IV: Four and five axle equipment.
 CLASS V: Specialized earth moving equipment under 35 tons other than conventional type trucks, low bed, vachual, mechanics, paving restoration equipment, mechanics.
 CLASS VI: Specialized earth moving equipment over 35 tons.
 CLASS VII: Trailers for earth moving equipment (double hookup).

TECHNICAL SPECIFICATIONS

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DRILL TWO NEW WELLS
Cape Cod National Seashore
Eastham, Massachusetts

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Division 3 - 16 - Not Used for this Project

PART 1: GENERAL

1-1 DESCRIPTION: The work of this contract consists of the following:

- A. Construct a domestic water well at the Doane Rock picnic area. The well is estimated at about 90 feet deep, with 4 inch casing and a yield of less than 12 gallons per minute.
- B. Abandon an existing 6 inch well constructed in 1964 in the Doane Rock parking lot.
- C. Construct an irrigation water well at the Little Creek parking lot. The well is estimated at about 100 feet, with 4" casing and a yield of about 15 gallons per minute.
- D. Provide and install a submersible water pump in the Little Creek parking lot well.
- E. All work will be performed under a single contract.

1-2 LOCATION: Doane Rock Picnic Area and Little Creek parking lot are adjacent facilities located within the Cape Cod National Seashore, Eastham, MA.

The project is reached by traveling north on state route 6. Proceed 3 miles north of the Orleans rotary to the Doane Road traffic light and the Salt Pond Visitor Center. Then proceed east 1 mile to the entrance of Doane Rock Picnic Area and the Little Creek Parking Lot.

1-3 QUALITY ASSURANCE: The Contractor shall have documented experience drilling similar wells, 3 minimum within last 2 years, on Cape Cod or similar terrain.

1-4 CONTRACTOR'S USE OF PREMISES:

- A. Construction camps are not permitted within the Cape Cod National Seashore.
- B. The Doane Rock Picnic Area, and Little Creek Parking Lot will be open to the public during the contract. Small portions of both sites may be restricted to the Contractor's use. Two parking spaces at each site may be reserved for Contractor's use. No other spaces may be used by the Contractor. Coordinate with the Park Superintendent and the Contracting Officer with regard to any and all closures.

There will be another Contractor working in the area after 1 October. This Contractor will build a comfort station and trails at Doane Rock and a shelter and tree planting at Little Creek. Coordinate your actions so as not to interfere with this other Contractor.

C. Contractor shall at all times conduct his operations to ensure the least inconvenience to the public.

D. Confine stored materials to designated park spaces and within work area.

E. Confine all operations within the work limits of the project. Exercise special care to maintain the natural area undamaged. Restore damaged areas at no additional expense to the Government.

F. Tree and Plant Protection:

1. Preserve and protect existing trees and plants. Do not injure, remove, or destroy trees or other plants without prior approval. Consult with the Contracting Officer concerning removal of roots and branches that interfere with construction.

2. It is assumed that ground cover plants and mulch will be disturbed during this construction. No restoration is required by the Contractor for ground cover disturbance within the approved work area.

3. Provide temporary barriers around trees within the work area as directed by the Contracting Officer.

G. Existing Utilities:

1. Known existing utilities are shown on the drawing. Contractor is responsible for locating and preventing damage to known utilities. If damage occurs to known utilities, cost of approved repairs will be the responsibility of the Contractor.

2. Contact the Massachusetts dig safe number, 1-800-322-4844, before proceeding with any excavation in accordance with state and federal law.

H. Hauling Restrictions: Comply with all legal load restrictions in the hauling of materials. Load restrictions on park roads are identical to the state load restrictions with such additional regulations as may be imposed by the Park Superintendent. Information regarding rules and regulations for vehicular traffic on park roads may be obtained from the Park Superintendent at Park Headquarters. A special permit will not relieve Contractor of liability for damage which may result from moving of equipment.

I. Work Period: Work shall not be performed on weekends or holidays, not before 7:30 A.M., nor after 4:00 P.M.

1-5 CONTRACTOR-FURNISHED ITEMS:

All materials, including sand, but excepting top soil, shall be Contractor furnished from outside the park.

The Contractor is responsible for all state and local permits required to do the work. This project has been reviewed by the Eastham town officials.

1-6 GOVERNMENT-FURNISHED ITEMS: Top soil is provided for site restoration from a park stockpile within 1/2 mile of the project site.

1-7 GOVERNMENT INSPECTION: At all times the Contracting Officer or his representative will be on site during this contract or within reach by telephone. See general provisions clauses 52.246-12 and 52.202-1.

1-8 LAYOUT OF THE WORK: The proposed well sites, the existing well to be abandoned, vehicle access, and work areas are shown on the attached site plan and staked on the ground.

1-9 ABBREVIATIONS AND NAMES: The following acronyms or abbreviations as referenced in contract documents are defined to mean the associated names. Both names and addresses are subject to change, and are believed to be accurate and up-to-date:

ACI American Concrete Institute
P.O. Box 19150; Detroit, MI 48219
313/532-2600

ANSI American National Standards Institute
1430 Broadway; New York, NY 10018
212/354-3300

ASSE American Society of Sanitary Engineering
P.O. Box 9712; Bay Village, OH 44140
216/835-3040

ASTM American Society for Testing and Materials
1916 Race Street; Philadelphia, PA 19103
215/299-5400

AWWA American Water Works Association
6666 W. Quincy Avenue, Denver, CO 80235
303/794-7711

CFR Code of Federal Regulations
Available from Government Printing Office; Washington, DC
20402 (usually first published in Federal Register)

CS Commercial Standard of NBS (U.S. Dept. of Commerce)
Government Printing Office; Washington, DC 20402

EPA Environmental Protection Agency
Office of Water Supply
401 M Street, S.W.
Washington, D.C. 20460

FS Federal Specification (General Services Administration)
Obtain from your Regional GSA Office, or purchase from GSA
Specifications Unit, 7th and 9 Streets, SW, Washington, DC 20406
202/472-2206 or 2146

MUTCD Manual on Uniform Traffic Control Devices
U.S. Department of Transportation
Federal Highway Administration

NECA National Electrical Contractors Association
7315 Wisconsin Avenue; Bethesda, MD 20814
301/657-3110

OSHA Occupational Safety Health Administration
(U.S. Dept. of Labor)
Government Printing Office; Washington, DC 20402

1-10 PROJECT MEETINGS

Before the start of construction, the Contracting Officer will arrange an on-site meeting with the Contractor to discuss the following items: Both the Contractor and his drill foremen should be present.

Claim procedures
Designation of responsible personnel
Payments
Payroll reports
Changes
Park regulations
Accident reporting
Sanitary facilities
Work schedule
Submittals
Correspondence
Labor provisions

1-11 SUBMITTAL PROCEDURES

A. Within 10 days after award of contract, or as agreed to by the Contracting Officer, the Contractor shall forward all submittals to the Contracting Officer. Submit four copies of each submittal; one copy will be returned within 5 days with the Contracting Officer's approval or disapproval on each submittal.

B. Submittals shall include sufficient literature to demonstrate that proposed materials fully meet the contract specifications.

C. Work done involving submitted materials before approval is received is at the Contractor's own risk.

D. Provide submittals for the following items:

1. PVC Well casing
2. Well screen
3. Submersible pump and controls
4. Pump drop pipe
5. Sanitary well seal
6. Test pumping equipment and procedure
7. Well air line and gauge

E. Additional submittals may be required by the Contracting Officer.

1-12 SANITARY FACILITIES: Portable toilets are provided and serviced by the park and are located in the Doane Rock picnic area.

1-13 WATER AND ELECTRICITY

A. There is no drinking or construction water available at either construction site.

Drinking water may be obtained at Coast Guard Beach or Salt Pond Visitor Center.

B. There is no electricity available at either site.

1-14 FIRE PROTECTION:

A. Provide a minimum 15 pound, type BC, carbon dioxide extinguisher within 50 feet of all gasoline or diesel equipment.

B. Equip all gasoline or diesel powered equipment with a U.S. Forest Service approved spark arrester.

1-15 BARRIERS:

Provide and maintain construction barrier tape around the entire construction area. Tape may be secured to wood or metal stakes or to natural trees in place for more than 3 years.

Provide lighted traffic barriers around all equipment blocking Doane Rock Road or normal traffic flow into the parking lots. Traffic barriers shall be in accordance with ANSI D6.1-78, Part VI, (MUTCD).

1-16 AIR AND WATER POLLUTION CONTROLS:

A. Take all necessary measures to reduce air and water pollution by any material or equipment used during construction. Follow all Federal, State and Local laws and regulations concerning air and water pollution and waste disposal.

B. Do not allow oil to drip or be wasted onto the ground.

1-17 ARTIFACTS AND REMAINS OF EARLIER STRUCTURES: If during the work articles of unusual value, or of historical or archeological significance, are encountered, ownership of such articles by the National Park Service is retained, and information regarding their discovery shall be immediately furnished to the National Park Service. If the nature of the article is such that work cannot proceed without danger of damaging same, work in the area shall be immediately discontinued until the National Park Service has decided the proper procedure to be followed. Any time lost thereby shall be a condition for which the time of the Contract may be extended. All costs incurred after the discovery in the salvaging of such articles shall be borne by the National Park Service.

1-18 PROJECT CLOSEOUT

A. Remove all tools, equipment, surplus materials, and rubbish from the project sites. Rake out all vehicle tracks and repair any damage required by this contract. -

Dispose of all excess material and debris off park land at a State approved disposal area

B. Provide drillers logs and materials descriptions as required by this contract and State regulations.

C. Provide all manufacturers operation and maintenance manuals and warranty on the submersible pump.

D. When the Contracting Officer determines that the work is substantially complete he will prepare a list of deficiencies to be corrected before final acceptance and issue a letter of substantial completion.

After all deficiencies have been corrected, a Letter of Acceptance will be issued and final payment made.

1-19 LIQUIDATED DAMAGES: In case of failure on the part of the Contractor to complete the work within the time fixed in the contract for any extension thereof, the Contractor shall pay to the Government liquidated damages, in the sum of \$80 for each calendar day of the delay.

PART 2 MATERIALS - not used

PART 3 EXECUTION - not used

PART 4: MEASUREMENT AND PAYMENT

4-1 GENERAL: Work in this section is covered under bid item 01010-1 Mobilization. It covers all costs related to this project that must necessarily be incurred by the Contractor before he actually begins the work and fixed costs that do not fluctuate with the unit qualities of other items.

4-2 PROGRESS PAYMENTS:

A. Payment for mobilization will be made at the contract lump sum price with progress payments as stated below.

B. When 5 per cent of the total original contract amount has been earned from other items on the bid schedule, 50% of the amount bid for mobilization will be paid.

C. When 10% has been earned as above, the balance will be paid.

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of the construction of two water wells.

1-2 RELATED WORK:

- A. 02676 - WATER WELL ABANDONMENT
- B. 02674 - WATER WELL TESTING

1-3 QUALITY ASSURANCES:

- A. All work shall conform to State and local regulations.
- B. Work shall be in accordance with the Manual of Water Well Construction Practices, EPA, Number 570/9-75-001.

Specific articles of the above manual are referenced in this section. Where conflict exists between this contract and the manual, notify the Contracting Officer and follow the more restrictive specification.

1-4 GENERAL SEQUENCE

- A. Bore pilot hole. Verify depth to water and required well depth. Estimate production rate and characteristics of aquifer.
- B. Obtain approval of Contracting Officer to complete well or abandon the pilot hole.
- C. Bore additional pilot holes as needed and directed by Contracting Officer.
- D. Case and develop the finished wells.
- E. Test pump.

1-5 LIMITS OF WORK: Pilot holes and wells shall not exceed 130 feet.

1-6 SAMPLES AND RECORDS:

- A. In accordance with article 45.001-000-000 and the following, provide a "Driller's Log" for each pilot hole. Record formations at every change of materials and also at a minimum of 20 foot intervals. Collect samples using a split spoon or similar collector.
- B. Provide typed and accurate records of all materials installed in the well, such as casing, well screen, grout, and caps. Records should include complete physical description (size, length, material) and manufacture name and model numbers.

1-7 SANITARY PROTECTION OF THE WELL: See Article 47.000-100-000.

PART 2: MATERIALS

2-1 GENERAL

A. All materials specified shall be new and free from objectionable defects. No used or old material will be accepted. However, if the Contractor deems it necessary or desirable to use temporary casing, the casing may be used or new. The temporary casing shall remain the property of the Contractor and shall be removed by him upon final completion of the well.

B. Approved casing installed under this contract and then abandoned may be reused if the removed casing is again approved by Contracting Officer with an appropriate reduction of unit price.

2-2 WELL CASING: The PVC plastic with NSF logo on pipe, conforming to ASTM Schedule 40, AWWA C 900-81, or ASTM D2241-73 SRD 21 (type 1120-1220).

2-3 STEEL CASING: Galvanized steel pipe, schedule 40.

2-4 WELL SCREEN: The screen shall be 5 feet of 4-inch stainless steel, Article 49.070-000-000, wrapped cage type with a continuous V-slot opening similar to that manufactured by the Johnson Division, St. Paul, Minnesota, or the Howard Smith Screen Co., Houston, Texas, or approved equal.

Screen opening size will be selected after receipt of pilot hole information using the criteria in Article 49.002-000-000.

2-5 GROUTING MATERIAL: Grouting material shall be a neat cement, with a minimum amount of water (not over 6 gallons per sack of cement) required to give a mixture of such consistency that it can be forced through the grout pipes. The mixture method of mixing, and consistency of grout shall be approved by the Contracting Officer.

2-6 TEMPORARY CAP: PVC coupling with 4-inch pipe plug.

2-7 SAND: Clean, free flowing sand with no particle exceeding 1 inch. Excavated material meeting this requirement may be used.

PART 3: EXECUTION

3-1 PILOT HOLES:

A. Pilot hole size and method are at the Contractor's option with approval of the Contracting Officer based on the methods ability to obtain the required information.

B. Bore a pilot hole at the site specified by the Contracting Officer and staked on the ground. Provide the following information from the pilot hole:

1. Depth to water
2. Proposed depth of well
3. Estimated rate of flow
4. Characteristics of the aquifer.

C. Obtain direction from the Contracting Officer to proceed with the well or abandon the pilot hole. If the pilot hole is abandoned, a new site will be selected and additional pilot holes bored and information obtained.

3-2 FINAL WELL:

A. Install the well screen and PVC well casing to the depth approved by the Contracting Officer. Extend the PVC casing to 2 feet above adjacent ground.

B. Backfill the annular space around the casing with sand.

C. The completed casing and screen shall be sufficiently plumb and straight so that there will be no interference with installation, alignment, operation, or future removal of the permanent well pump.

Plumb shall be verified by lowering a 40 foot pipe, 3 1/2 inch OD to the well screen.

D. Little Creek Well only: Install a 6-inch steel casing, 10 feet long, around the PVC casing and extending 20 inches above the adjacent ground.

Fill the area between the two casings with grout.

3-3 WELL DEVELOPMENT:

A. Develop the well by a combination of surging and bailing, Article 52.300-000-000; continuous pumping, Article 52.100-000-000; or as stated below.

Develop by use of a close fitting surge block mounted on a drilling tool or pipe heavy enough to cause the surge block to sink rapidly. Operate assembly in an up and down drilling motion by means of the well drilling machine at the rate of 30 to 40 strokes per minute. Conduct surging operation above the well screen. Periodically, the material pulled into the well shall be bailed out.

B. Continue development until sand reduction has stabilized and as directed by the Contracting Officer.

3-4 WELL DISINFECTION:

- A. Disinfect the well within 24 hours of the completion of the well development.
- B. Disinfection: Thoroughly clean the well of all foreign substances, including tools, timbers, rope, debris of any kind, cement, oil, grease, and scum. The casing pipe shall be thoroughly swabbed using alkalis, if necessary, to remove oil, grease.
- C. Chlorinate the well, well screen, and disturbed aquifer in accordance with Article 54.100-000-000, 54.010-000-000, and Table 12.
- D. Doane Rock Well only: Upon completion of the final test pumping, Section 02674, chlorinate the Doane Rock well to 5 ppm and close the temporary cap.

PART 4: MEASUREMENT AND PAYMENT

4.1 MEASUREMENT:

A. Measurement for linear foot items will be from the surface of the original ground and terminate at the bottom of the work. Measurement will be by weighted measuring tape for open holes and by length of tool for closed holes. Measurements will be to the next higher foot.

Cased well lengths will terminate at the bottom of the well screen.

Separate measurements will be made for both pilot hole and cased well.

B. Time measurements will be for actual work time, not set up of the process. Time will be to the nearest 1/4 hour with no measurement less than 1 hour.

C. Standby time will be measured by the hour and will be for standby of crew and equipment while the Contracting Officer makes a decision concerning the drilling process or equipment.

Standby time will begin when the Contracting Officer is notified of the need for a decision and will terminate when the Contractor receives a decision. Only hours in the normal work day will be measured; measurement will be to the nearest 15 minutes, but not less than 1 hour.

4-2 PAYMENT: Payment will be at the contract unit price in one of the following bid items:

<u>Item</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>
02670/1	pilot hole	500	linear foot
02670/2	cased 4" well	190	linear foot
02670/3	well screen	2	each
02670/4	well development	4	hour
02670/5	standby time	2 4	hour

PART 1: GENERAL-

1-1 DESCRIPTION: The work of this section consists of the furnishing and installing of a submersible water pump in the Little Creek irrigation well.

1-2 WARRANTY: Provide manufacturers standard warranty, minimum of one year, on the pump.

1-3 Enclosure: The Government will provide control mounting and well enclosure upon the completion of this contract.

1-4 RECORDS: Provide accurate records of all materials installed in the well. Include as a minimum the following information:

A. All name plate data on the pump and motor.

B. Distance to nearest inch from top of casing to:

1. centerline pump intake
2. bottom of air line
3. electrical splice
4. drainback coupling

1-5 PUMP DEPTH: Pump depth will be established by the Contracting Officer after development of the well, but not deeper than 90 feet.

PART 2: MATERIALS

2-1 SUBMERSIBLE PUMP:

A. Minimum flow rate 15 gpm at 170 foot TDH.

B. Operating on 230V, 1 phase, 60 cycle, two or three wire system in a 4-inch PVC casing.

C. Motor, bearings, and pump shall be approved by the manufacturer to operate from 90 feet TDH to the lower of shut off head of 230 feet TDH.

D. Motor shall be NEMA standard design for continuous submerged operation.

E. The impeller shaft, motor shaft coupling, pump housing, and motor housing shall be stainless steel. Other components exposed to water shall be corrosion and abrasion resistant.

F. Pump-motor combination shall be able to restart and pump after temporary cavitation induces air into the impellers.

G. Pump discharge head shall be 1 1/4 inch FPT and include a check valve.

2-2 DROP PIPE: Minimum 125 psi, 1 1/4" polyethylene water pipe, National Sanitation Foundation Approved with brass couplings, adapters, and pipe nipples. Use double stainless steel hose clamps on all polyethylene pipe adapters.

2-3 SANITARY WELL SEAL: Cast iron or steel, split type with expanding rubber packer for sealing. Size well seal for 4 inch PVC casing and provide for 1 1/4 inch drop pipe, 3/4 inch conduit, and 1/2 inch vent.

2-4 DROP CABLE: UL approved submersible pump cable, 14 gauge, with a minimum of 10 feet of extra cable beyond well seal.

2-5 DRAIN BACK COUPLING: Brass polyethylene pipe coupling with 1/8 inch street elbow tapped into the center and pointed parallel to the axis of the coupling. Plug the discharge of the elbow and drill the plug to 1/16 inch.

2-6 SPACERS: Plastic spiders designed to hold the drop pipe centered and resist torque in the 4" casing.

2-7 AIR LINE: 1/4 inch ID flexible plastic tubing, minimum 100 psi rated with brass couplings and fittings.

2-8 AIR GAUGE: 3 1/2 inch minimum dial face, graduated in feet of water with maximum scale of 70 feet (may range from 60 to 80 feet). ANSI Grade B, 2% accuracy.

2-9 AIR VALVE: Standard automotive air inlet valve with plastic cap one end and 1/4 inch MPT on the other.

PART 3: EXECUTION

3-1 DROP PIPE: Connect the drop pipe to the pump and provide sufficient pipe to set the pump at the level specified by the Contracting Officer.

Install the drainback coupling at six feet below the top of the casing. Orient the drain back street-elbow so the flow from the drilled plug is directed back down into the well.

3-2 ELECTRICAL SPLICE: Connect the drop wires to the pump leads using an approved under water splice.

3-3 AIR LINE: Secure the air line to the drop pipe just above the pump check valve. Wrap three nylon tie wraps around the pipe and the air line beginning 1/2" from end and then on one-inch centers.

3-4 SPACERS: Install spacers at 30 foot intervals starting at two feet above the check valve.

3-5 WRAPPING: Secure the electrical cable and the air line to the drop pipe with electrical tape. Wrap the tape a minimum of six times around and at a minimum of every 10 feet.

3-6 INSTALLATION AT WELL SEAL: Install the pump assembly terminating the drop pipe with a nipple through the well seal and a tee with the top plugged.

Connect the air line to a 1/2" pipe nipple through the well seal vent. Attach a tee with the pressure gauge and the air valve. Label the gauge with the depth to end of air line in feet and tenths of feet.

Install the drop cable through five foot length of 3/4" flexible conduit. Thread the conduit into the well seal and provide a bushing at the other end.

3-7 TESTING: Deliver the pump control panel to the Contracting Officer.

The Government will test the pump system.

PART 4: MEASUREMENT AND PAYMENT

4-1 MEASUREMENT: Work under this section will be measured as a lump sum.

4-2 PAYMENT: Payment will be under the following bid item:

<u>Item</u>	<u>Description</u>	<u>Unit</u>
02672/1	water pump	lump sum

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of the test pumping of two water wells to determine the production capabilities of the well and aquifer.

1-2 QUALITY ASSURANCES:

A. Work shall be in accordance with the Manual of Water Well Construction Practices, EPA 570/9-75-001.

Specific articles of the Manual are referenced in this section. Where conflict exists between this contract and the Manual, notify the Contracting Officer for resolution.

B. The Contracting Officer shall be notified 24 hours in advance of planned pumping day. The Contracting Officer must be present for all test pumping.

PART 2: MATERIALS

2-1 TEMPORARY EQUIPMENT: Contractor shall supply and install all necessary equipment to complete a drawdown test on the new well. The temporary pump shall be capable of producing a continuous flow of 20 gpm for a 6 hour period. Pump to be supplied in Section 02672, may not be used for testing. The necessary equipment shall include, but not be limited to the following equipment:

A. Electrical Power: Contractor shall supply an electrical generator and all necessary equipment to power the pumps for the testing period.

B. Miscellaneous Valving and Piping: Contractor shall supply all miscellaneous piping, throttle valve, other valving, and hoses to complete the tests. Contractor shall supply enough hose to adequately dispose of the water away from the well location.

C. Miscellaneous Devices: Contractor shall supply a flow meter with a dial reading in gallon increments and a totalizer reading in gallon increments, or a circular orifice weir with a plastic tube to determine the head in the discharge pipe.

D. Water Level Sensing Device: Contractor shall supply a water-sensing electrode for indicating the level of water or an air-line and drawdown gauge. Contractor shall be responsible for all fittings and equipment necessary to verify drawdown depth.

E. Determination of Flow: The rate of flow during the test shall be measured by the use of a circular orifice weir or an in-line flowmeter. If the orifice weir method is used, a plastic tube will be used to determine the head in the discharge pipe. Other methods for measuring the rate of flow can be used only on approval of the Engineer.

PART 3: EXECUTION

3-1 TEST PUMPING RATE: The Contractor shall establish by trial, the maximum pumping rate possible at or below the required maximum rate which can be maintained throughout test period without breaking suction. The selected withdrawal rate shall be maintained within 5% throughout the test.

3-2 DURATION OF TEST: The pump test must start at a full condition of rest in the system. To achieve this, it is advisable not to pump for one day prior to the test. If the static water level is stable for two hours, pumping may proceed.

The duration of the pump test shall be eight hours. Six hours of pumping at a continuous and unvarying rate of flow and two hours of recovery.

The Contracting Officer may shut down the test before the 8 hours are completed.

3-3 Water Disposal: The waste water should be carried to the nearest body of open water or to a distance of 350 feet from the well, making use of any slope which will carry the water further from the well or its observation points. In all cases, water shall be disposed of so as to guard against damage or property.

3-4 TEST INTERVALS:

A. During pumping, read and record the well drawdown at the following intervals:

- 0 - Record status water level after a minimum of one hour of no pumping or installing the pump.
- 1 - minute intervals to 5 minute elapsed time
- 5 - minute intervals to 30 minutes elapsed time
- 10 - minute intervals to 2 hours elapsed time
- 15 - minute intervals to 6 hours elapsed time

B. During pumping, read and record the well yield every 5 minutes.

C.. During the recovery period, use the same reading schedule as for well drawdown.

3-5 WATER SAMPLES: Water samples shall be collected by the Contracting Officer or the Massachusetts Office of Environmental Affairs for both partial chemical and bacteriological analysis.

PART 4: MEASURE AND PAYMENT

4-1 Measurement: Measurement will be by the hour and will be for actual work time, not the set up of the process. Time will be to the nearest 1/4 hour.

4-2 Payment: Payment will be at the contract unit price in the following bid item.

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>
02674/1	Well testing	hour	16

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of the abandonment of an existing 1964 well and the abandonment of new wells drilled under this contract.

1-2 QUALITY ASSURANCE:

A. All work shall conform to State and local regulations.

Contractor shall complete all required State forms concerning well abandonment.

B. Work shall be in accordance to the Manual of Water Well Construction Practices, EPA, Number 580/9-75-001, Article 56 and State regulations.

1-3 RESPONSIBILITIES:

A. If the Contractor stops work on his own initiative because of drill rig failure, loss of tools, inability of tools and rig to handle the material encountered; the well will be rejected by the Contracting Officer and abandoned at the Contractor's expense.

B. Work performed and material furnished which are ordered abandoned at the written direction of the Contracting Officer will be the responsibility of the Government.

1-4 SALVAGED MATERIALS: Installed and approved casing and well screens removed through abandonment remain the property of the Government. All other materials removed become the property of the Contractor.

PART 2: MATERIALS

2-1 SAND: Native, uniformly graded, 1-inch minus, sand and gravel with less than 2% silt or clay. Excavated material meeting this specification may be used.

2-2 TOP SOIL: Provided by the Government from a Park stockpile.

2-3 GRASS SEED: Cape Cod mix from local nurseries.

PART 3: EXECUTION:

3-1 REMOVAL:

A. Existing Well: Excavate to 5 feet below existing grass and remove concrete, casing, and any other evidence of the well.

B. Newly Drilled Wells: Using existing on site equipment, remove all casing and other materials installed under this contract.

C. Pilot Holes: Remove all tools and casing installed during construction of the pilot hole.

If the materials cannot be removed with existing rigs, remove to 5 feet below grade, as stated in 3.1A.

3-2 BACKFILLING:

A. Backfill the well with sand using a bailer or other device to deliver the sand to the bottom of the well. Compact the sand between loads a minimum of every 5 feet. Continue filling to 5 feet below the surface.

B. Fill the remaining hole with excavated material to within 6 inches of the surface and compact.

C. Complete the backfill with compacted top soil to a slight mounding above existing grades.

3-3 SEEDING: Apply a uniform application of grass seed to the top soil and disturbed ground at the site of the existing well. Cover the seed with 1/2 inch of top soil and compact.

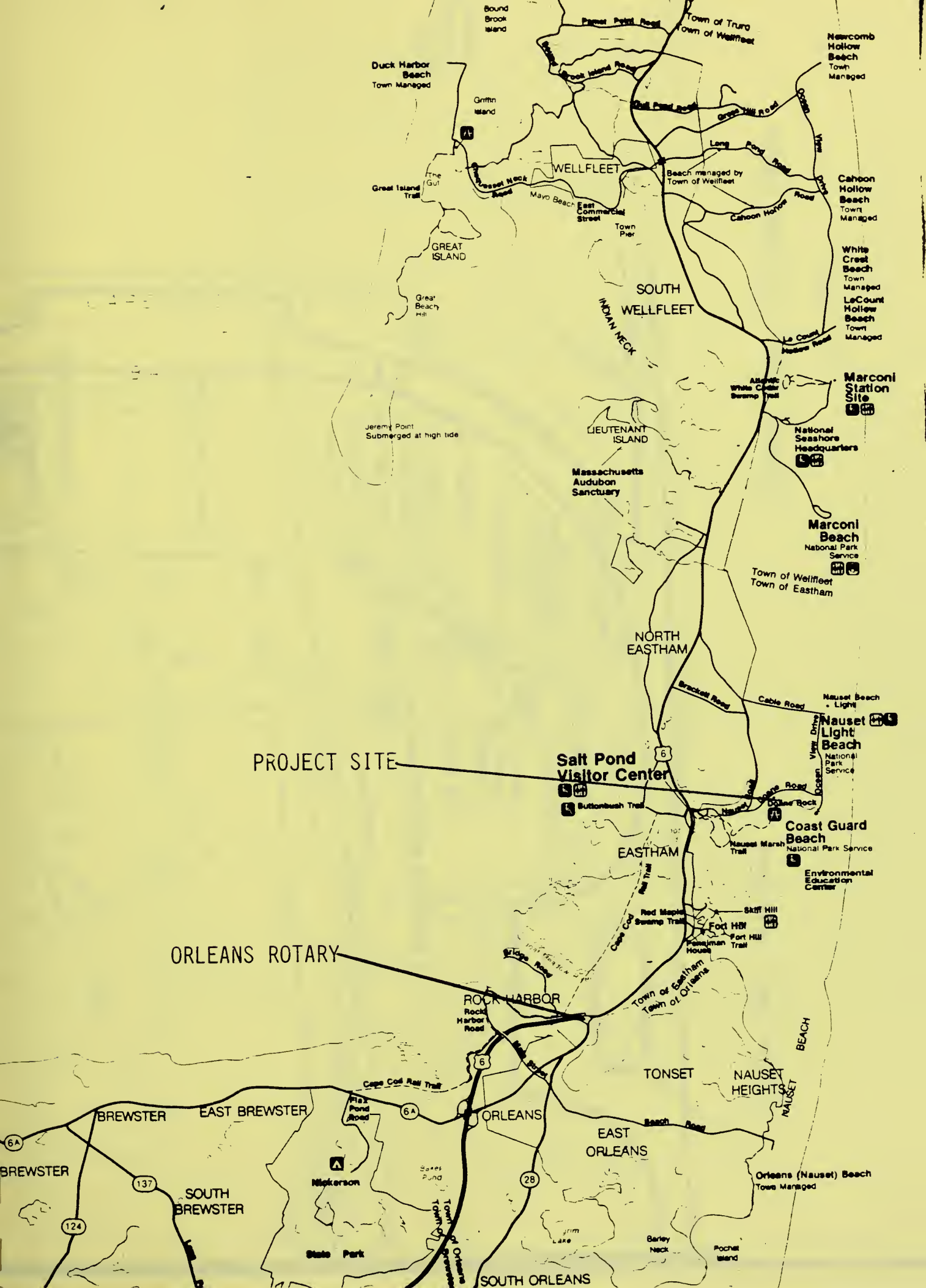
PART 4 MEASUREMENT AND PAYMENT

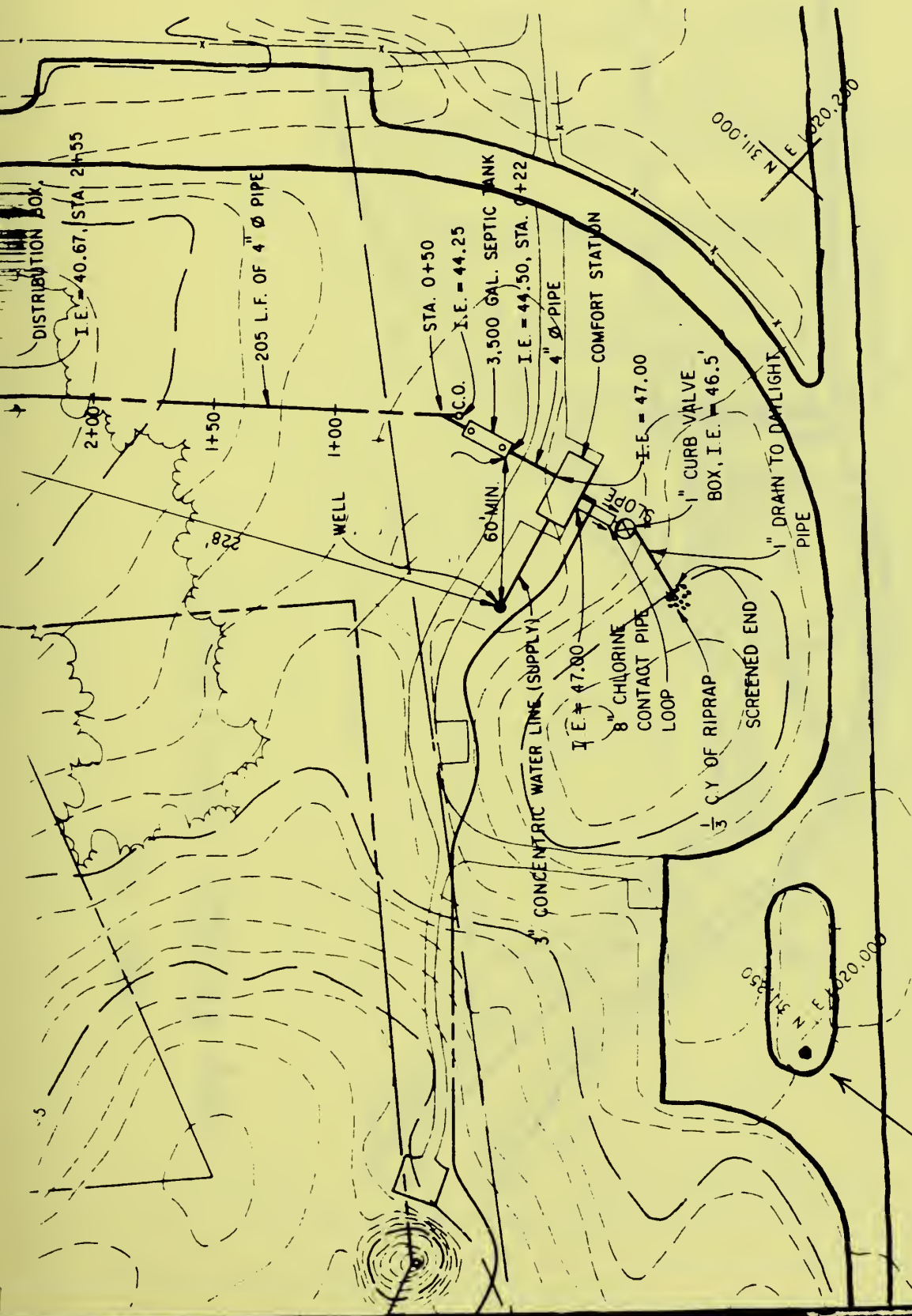
4-1 MEASUREMENT: Payment in this item is to cover all work involved in abandoning a well.

Bid item 02676/2 assumes that the well or pilot hole has been drilled to full depth.

4-2 PAYMENT: Payment for this work will be made under the following lump sum bid items:

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>
02676/1	Abandonment of Existing Well	each	1 each
02676/2	Abandonment of New Wells and Pilot Holes	each	5 each



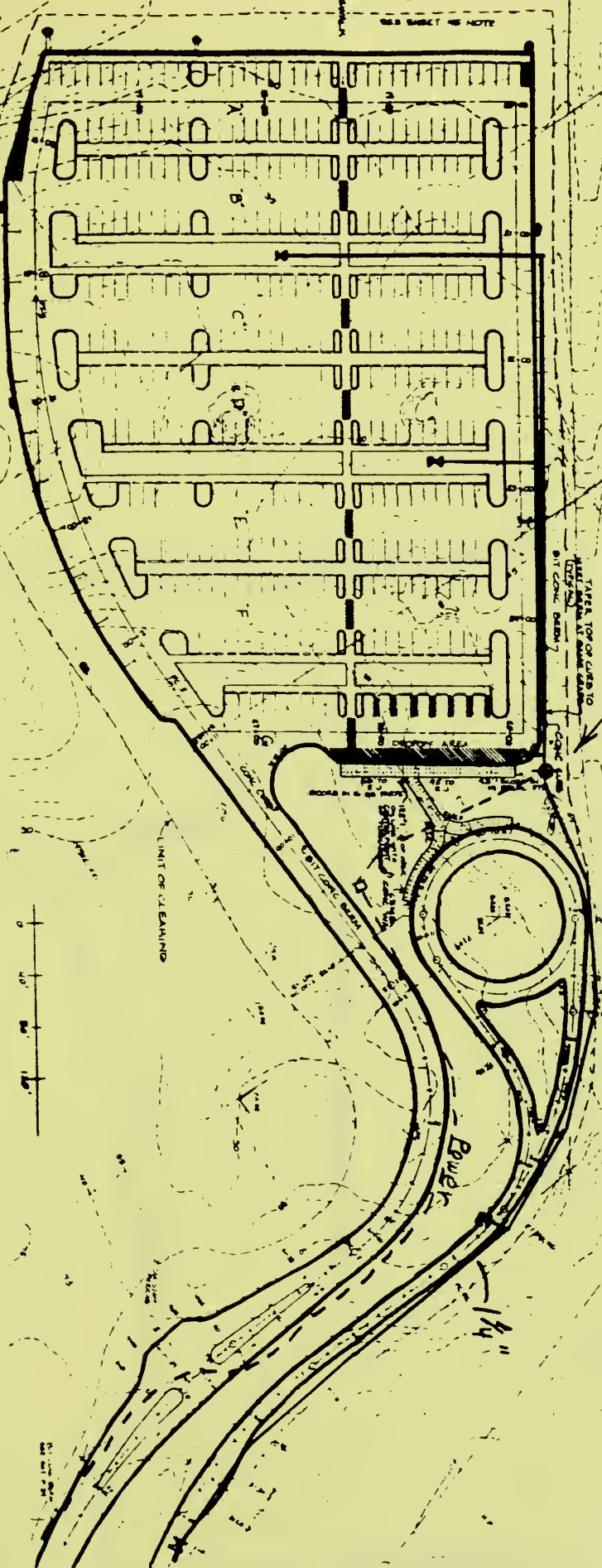


Existing Well, Abandon

Doane Rock Picnic Area

July 1987

Well Site



Little Creek Staging Area

July 1987

Cape Cod National Seashore Eastham Mass.

