

DEPARTMENT OF TRANSPORTATION

DES-OE MS #43
1727 30TH Street, 2ND Floor
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**** WARNING ** WARNING ** WARNING ** WARNING ****
This document is intended for informational purposes only.

Users are cautioned that California Department of Transportation (Department) does not assume any liability or responsibility based on these electronic files or for any defective or incomplete copying, excerpting, scanning, faxing or downloading of the contract documents. As always, for the official paper versions of the bidders packages and non-bidder packages, including addenda write to the California Department of Transportation, Plans and Bid Documents, Room 0200, P.O. Box 942874, Sacramento, CA 94272-0001, telephone (916) 654-4490 or fax (916) 654-7028. Office hours are 7:30 a.m. to 4:15 p.m. When ordering bidder or non-bidder packages it is important that you include a telephone number and fax number, P.O. Box and street address so that you can receive addenda.

February 8, 2002

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Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in ALAMEDA COUNTY IN ALAMEDA AND OAKLAND AT WEBSTER STREET TUBE AND POSEY TUBE.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on February 26, 2002. The original bid opening date was previously postponed until later in February 2002 under Addendum No. 1 dated 1-25-02.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, the Proposal and Contract and the Federal Minimum Wages with Modification Number 19 dated 12-28-01. A copy of the modified wage rates are available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

Project Plan Sheets 2, 3, 4, 5, 11, 19, 22, 23, 24, 25, 26, 27, 32, 35, 36, 37, 38, 39, 48, 49, 50, 51, 54, 55, 56, 58, 60, 66, 67, 68, 89, 90, 92, 95, 100, 104, 105, 107, 113 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheet 18A is added. Half-sized copies of the added sheet is attached for addition to the project plans.

In the Special Provisions, "NOTICE TO CONTRACTORS," the following is added to the end of the section:

"Bidder inquiries may be made as follows:

The Department will consider bidder inquiries only when a completed "Bidder Inquiry" form is submitted. A copy of the "Bidder Inquiry" form is available at the Internet address shown below. The bidder inquiry shall include the bidder's name and telephone number. Submit "Bidder Inquiry" forms to:

Construction Program Duty Senior
111 Grand Ave
Oakland, CA 94612

Fax No.: (510) 622-1805

E-mail: DUTY_SENIOR_DISTRICT04@dot.ca.gov

Tel. No.: (510) 286-5209

To expedite processing, submittal of "Bidder Inquiry" forms via Fax or E-mail is preferred.

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To the extent feasible and at the discretion of the Department, completed "Bidder Inquiry" forms submitted for consideration will be investigated, and responses will be posted on the Internet at:

http://www.dot.ca.gov/hq/esc/oe/project_status/bid_inq.html

The responses to bidders' inquiries, unless incorporated into formal addenda to the contract, are not a part of the contract, and are provided for the bidder's convenience only. In some instances, the question and answer may represent a summary of the matters discussed rather than a word-for-word recitation. The availability or use of information provided in the responses to bidders' inquiries is not to be construed in any way as a waiver of the provisions of Section 2-1.03 of the Standard Specifications or any other provision of the contract, the plans, Standard Specifications or Special Provisions, nor to excuse the contractor from full compliance with those contract requirements. Bidders are cautioned that subsequent responses or contract addenda may affect or vary a response previously given."

In the Special Provisions, Section 4 "BEGINNING OF WORK, TIME OF COMPLETION, AND LIQUIDATED DAMAGES," is revised as follows:

"Attention is directed to the provisions in Section 8-1.03, "Beginning of Work," in Section 8-1.06, "Time of Completion," and in Section 8-1.07, "Liquidated Damages," of the Standard Specifications and these special provisions.

The Contractor shall diligently prosecute the work beginning on the fifteenth calendar day after approval of the contract, by the Attorney General or the attorney appointed and authorized to represent the Department of Transportation, to completion before the expiration of the number of working days that follows:

Phase I, Stage 1 shall be completed within 60 working days after approval of the contract. In the event satisfactory progress is not maintained, the Engineer may order suspension of such non-conflicting work.

All work within the geographical boundaries of Phase I shall be completed prior to January 31, 2003. For each and every calendar day delay in completing Phase I work the Contractor shall pay the State of California liquidated damages in the amount of \$5000 per day. For purposes of determining liquidated damages for Phase I, "all work" shall be defined as all contract item work, including the completion of all permanent pavement delineation with no further lane restrictions, lane and shoulder closures in place.

All Phase II work shall be completed before the expiration of 600 WORKING DAYS beginning on the fifteenth calendar day after approval of the contract.

The work shall be diligently prosecuted to completion before the expiration of **600 WORKING DAYS** beginning on the fifteenth calendar day after approval of the contract.

The Contractor shall complete all work that impacts public traffic in Phase II, Stages 3, 4, 5, 6, and 8 within 62 working days. For each and every calendar day delay in completing the work in these stages the Contractor shall pay the State of California liquidated damages in the amount of \$250 per day. For purposes of determining liquidated damages for work in Stages 3 and 4, "impacts to public traffic" shall be defined as all traffic lanes and shoulders available to public traffic. For Stages 5, 6, and 8, "impacts to public traffic" shall be defined as all points available to public motor and pedestrian traffic within the intersection of Mariner Square Drive and Marina Village Parkway, bordered by the outer limits of the existing cross walks.

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Delays due to actions required by the Engineer performing normal inspection, testing and review duties shall be considered as included in the number of working days for the completion of the contract and no extensions of time will be allowed for such actions in determining liquidated damages.

The Contractor shall pay to the State of California the sum of \$1400.00 per day, for each and every calendar day's delay in finishing the work in excess of the number of working days described above."

In the Special Provisions, Section 5-1.28, "HAZARDOUS MATERIAL, GENERAL," the second paragraph is revised as follows:

Hazardous materials has been discovered through testing within the project limits. The complete report entitled "Hazardous Waste Preliminary Site Investigation, Posey/Webster Tubes, Alameda/Oakland, California" is available for inspection at the Department of Transportation, Duty Senior's Desk, 111 Grand Avenue, Oakland, California, (510) 286-5209. Requests to review the reports must be made with the Duty Senior at least 24 hours in advance.

In the Special Provisions, Section 5-1.29 "RELATIONS WITH U.S. ARMY CORPS OF ENGINEERS," the second paragraph is revised as follows:

"A copy of the Permit may be obtained and is available for inspection at the Duty Senior Desk, 111 Grand Ave, Oakland, CA 94612. Please call the Construction Office Duty Senior at (510) 286-5209 at least 24 hours in advance to reserve your copy."

In the Special Provisions, Section 5-1.30 "RELATIONS WITH BAY CONSERVATION AND DEVELOPMENT COMMISSION," the second paragraph is revised as follows:

"A copy of the Permit may be obtained and is available for inspection at the Duty Senior Desk, 111 Grand Ave, Oakland, CA 94612. Please call the Construction Office Duty Senior at (510) 286-5209 at least 24 hours in advance to reserve your copy."

In the Special Provisions, Section 5-1.31 "RELATIONS WITH U.S. COAST GUARD" is added as attached.

In the Special Provisions, Section 8-1.04 "MISCELLANEOUS METAL" is added as attached.

In the Special Provisions, Section 10-1.01 "ORDER OF WORK," the following paragraph is added after the seventh paragraph:

"On the Alameda side of the Oakland Estuary, no work shall be done concurrently over the Webster Street Tube between Sta N 141+63 and 143+28 and over the Posey Tube between Sta WA 27+15 and 30+20."

In the Special Provision, Section 10-1.02, "INSTRUMENTATION AND MONITORING," in subsection "GENERAL," subheading "Required Monitoring," Table 1, the heading description is revised as follows:

"Instrumentation Schedule – Jet Grout Column Test and Production Site".

In the Special Provisions, Section 10-1.02, "INSTRUMENTATION AND MONITORING," in subsection "GENERAL," Table 2 under subheading "Required Monitoring," Table 2, the heading description is revised as follows:

"Instrumentation Schedule – Stone Column Test and Production Site".

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In the Special Provisions, Section 10-1.02, "INSTRUMENTATION AND MONITORING," in subsection "TUBE MOVEMENTS MONITORING," the following paragraph is added after the last paragraph:

"On-call" is defined as being available when pressure grouting is needed".

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," the second paragraph is revised as follows:

"This project lies within the boundaries of the Region 2 – San Francisco Bay Regional Water Quality Control Board and shall conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit for General Construction Activities No. CAS000002, Order No. 99-08-DWQ, including State Water Resources Control Board (SWRCB) Resolution No. 2001-046 and the NPDES Permit for the State of California Department of Transportation Properties, Facilities, and Activities, No. CAS000003, Order No. 99-06-DWQ issued by the State Water Resources Control Board. These permits, hereafter referred to as the "Permits," regulate storm water discharges associated with construction activities."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," the third paragraph is revised as follows:

"Water pollution control work shall conform to the requirements in the "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" and the "Construction Site Best Management Practices (BMPs) Manual," and addenda thereto issued up to, and including, the date of advertisement of the project, hereafter referred to respectively as the "Preparation Manual" and the "Construction Site BMP Manual" and collectively as the "Manuals." In addition, water pollution control work shall conform to the requirements in the Sampling and Analysis Bulletin. Copies of the Manuals and the Permits may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520. Copies of the Manuals and the Sampling and Analysis Bulletin may also be obtained from the Department's Internet Web Site at: <http://www.dot.ca.gov/hq/construc/stormwater.html>."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," the fourth paragraph is deleted.

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," the seventh paragraph is revised as follows:

"The Contractor shall be responsible for the costs and for liabilities imposed by law as a result of the Contractor's failure to comply with the provisions set forth in this section "Water Pollution Control (Storm Water Pollution Prevention Plan)", including but not limited to, compliance with the applicable provisions of the Manuals, Permits and Federal, State and local regulations. Costs and liabilities include, but are not limited to, fines, penalties, and damages whether assessed against the State or the Contractor, including those levied under the Federal Clean Water Act and the State Porter Cologne Water Quality Act."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," the tenth paragraph is revised as follows:

"Conformance with the provisions of this section "Water Pollution Control (Storm Water Pollution Prevention Plan)" shall not relieve the Contractor from the Contractor's responsibilities, as provided in Section 7, "Legal Relations and Responsibilities," of the Standard Specifications.

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In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "STORM WATER POLLUTION PREVENTION PLAN PREPARATION, APPROVAL AND AMENDMENTS", the table titled, "SPECIAL REQUIREMENT(S)" is revised as follows:"

SPECIAL REQUIREMENT(S)	
Category	BMP, location and quantity
Non Storm Water Control	NS-3 Paving and Grinding Operation, NS-2 Dewatering Operations

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "COST BREAK-DOWN", the table titled, "WATER POLLUTION CONTROL COST BREAK-DOWN," is revised as follows:

WATER POLLUTION CONTROL COST BREAK-DOWN

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UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
SS-1 Scheduling	LS	Lump Sum		
SS-2 Preservation of Existing Vegetation	LS	Lump Sum		
SC-1 Silt Fence	LS	Lump Sum		
SC-6 Gravel Bag Berm	M	20		
SC-7 Street Sweeping and Vacuuming	LS	Lump Sum		
TC-1 Stabilized Construction Entrance/Exit	EA	3		
WE-1 Wind Erosion Control				
NS-2 Dewatering Operations	LS	Lump Sum		
NS-3 Paving and Grinding Operation,	LS	Lump Sum		
NS-6 Illicit Connection/Illegal Discharge Detection and Reporting	LS	Lump Sum		
NS-8 Vehicle and Equipment Cleaning	LS	Lump Sum		
NS-9 Vehicle and Equipment Fueling	LS	Lump Sum		
NS-10 Vehicle and Equipment Maintenance	LS	Lump Sum		
WM-1 Material Delivery and Storage	LS	Lump Sum		
WM-2 Material Use	LS	Lump Sum		
WM-3 Stockpile Management	LS	Lump Sum		
WM-4 Spill Prevention and Control	LS	Lump Sum		
WM-5 Solid Waste Management	LS	Lump Sum		
WM-9 Sanitary/Septic Waste Management	LS	Lump Sum		

TOTAL _____

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In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," SUBSECTION "SWPPP IMPLEMENTATION", the third paragraph is revised as follows:

"If the Contractor fails to conform to the provisions of "Water Pollution Control (Storm Water Pollution Prevention Plan)," the Engineer may order the suspension of construction operations which create water pollution."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "SWPPP IMPLEMENTATION" subheading "Year-Round Implementation Requirements," the following paragraph is added after the third paragraph:

"In order to provide effective erosion control, the Contractor may be directed to apply permanent erosion control in small or multiple units, as disturbed soil areas are deemed substantially complete by the Engineer."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "SWPPP IMPLEMENTATION", subheading "Year-Round Implementation Requirements," the Year-Round Sediment Control Practices in the table in paragraph four is deleted.

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "MAINTENANCE," the second paragraph is revised as follows:

"The Contractor shall use the Storm Water Quality Construction Site Inspection Checklist provided in the Preparation Manual or an alternative inspection checklist provided by the Engineer. One copy of each site inspection record shall be submitted to the Engineer within 24 hours of completing the inspect."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "REPORTING REQUIREMENTS," subheading "Report of Discharges, Notices or Orders", is revised as follows:

"If the Contractor identifies any discharge into receiving waters in a manner causing, or potentially causing, a condition of pollution, or if the project receives a written notice or order from any regulatory agency, the Contractor shall immediately inform the Engineer. The Contractor shall submit a written report to the Engineer within 7 days of the discharge event, notice, or order. The report shall include the following information:

- A. The date, time, location, nature of the operation, and type of discharge, including the cause or nature of the notice or order.
- B. The water pollution control practices deployed before the discharge event, or prior to receiving the notice or order.
- C. The date of deployment and type of water pollution control practices deployed after the discharge event, or after receiving the notice, or order, including additional measures installed or planned to reduce or prevent reoccurrence.
- D. An implementation and maintenance schedule for any affected water pollution control practices."

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In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "PAYMENT," the first paragraph is revised as follows:

"The contract lump sum price paid for prepare storm water pollution prevention plan shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in developing, preparing, obtaining approval of, revising, and amending the SWPPP, including the sampling and analysis plan, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "PAYMENT," the following is added after the third paragraph:

"Storm water sampling and analysis will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications."

In the Special Provisions, Section 10-1.03 "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," subsection "PAYMENT," the ninth paragraph is revised as follows:

"The Engineer will retain an amount equal to 25 percent of the estimated value of the contract work performed during estimate periods in which the Contractor fails to conform to the provisions of this section "Water Pollution Control (Storm Water Pollution Prevention Plan)," as determined by the Engineer."

In the Special Provisions, Section 10-1.03A "TURBIDITY CONTROL" is added as attached.

In the Special Provisions, Section 10-1.11 "OBSTRUCTIONS," the fourth paragraph is deleted.

In the Special Provisions, Section 10-1.11 "OBSTRUCTIONS," the fifth paragraph is deleted.

In the Special Provisions, Section 10-1.11 "OBSTRUCTIONS," the following paragraphs are added at the end of the section:

"Installation of the following utility facilities will require coordination with the Contractor's operations. The Contractor shall make necessary arrangements with the utility company, through the Engineer, and shall submit a schedule of work, verified by a representative of the utility company, to the Engineer. The schedule of work shall provide not less than the following number of working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications for the utility company to complete their work.

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Utility (Address)	Location	Working Days
Alameda Power & Telecom c/o Juan Ulloa 2000 Grand St P.O. Box H Alameda, CA 94501-0263	Two transformers to be relocated: Webster St Tube Sta N 139+00 TO N 141+00 (70-ft Lt, 150-ft Rt)	30
Pacific Bell c/o Diane Scofield 2410 Camino Ramon Rm 350 "O" San Ramon, CA 94583	Telephone line to be undergrounded: Webster St Tube Sta N 139+00 TO N 141+00 (70-ft Lt, 150-ft Rt)	30
Alameda Power & Telecom c/o Juan Ulloa 2000 Grand St P.O. Box H Alameda, CA 94501-0263	Install two transformers back to their original locations: Webster St Tube Sta N 139+00 TO N 141+00 (70-ft Lt, 150-ft Rt)	30

The following facilities as identified as locations A through G on the contact plans will be relocated during the progress of the contract. The contractor shall notify the engineer in writing prior to doing any work in the vicinity of the facility. The facility will be relocated within the listed working days, as defined in section 8-1.06, "Time of Completion," of the Standard Specifications, after said notification is received by the Engineer. All contract work within the locations listed below must be performed and completed within the working window.

Location	Description	Advanced Notification	Working Window	
		To the Engineer (Working Days)	From	To
A. WA Line between Stations 30+20 to 33+50	Private Lots	60	Dec. 1	May 31
B. WA Line between Stations 30+20 to 33+50	Private Lots	60	Dec. 1	May 31
C. WA Line between Stations 18+20 to 20+50	Boat Docks	120	June 1	Nov. 30
D. WA Line between Stations 27+20 to 30+20	House Boats, Docks	180	June 1	Nov. 30
E. WA Line Station 30+20 +/-	Building	180	12-01-02	End of Contract
F. N Line between Stations 149+30 to 1149+30 to 152+80	Boat Docks	120	June 1	Nov. 30
G. N Line between Stations 141+60 to 143+30	Boat Docks	120	June 1	Nov. 30"

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ACSTP-S260(004)E In the Special Provisions, Section 10-1.21S "RECONSTRUCT BOAT MARINA FACILITIES" is added as attached.

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," the following is added after the second paragraph:

"Once the method is selected, the Contractor shall use the same method throughout the entire construction. The Contractor shall not be allowed to change the method of constructing stone columns during construction."

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," subsection "TEST STONE COLUMNS," the second paragraph is revised as follows:

"Test stone columns shall be installed at the west side of the tube between Station 145+95 and Station 146+55 (between Joint Nos. 8 and 9). "

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," subsection "CONSTRUCTION," subheading "General," is revised as attached.

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," subsection "CONSTRUCTION," subheading "Pipe Pile Installation," the second paragraph is deleted.

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," sub-section "CONSTRUCTION," subheading "Vibrofloatation Installation," the following is added after the second paragraph:

"Installation Requirement for Pipe Pile and Vibrofloatation Method.

The vibrofloatation installation shall use compressed air to assist delivery of the stone aggregate. The volume of airflow shall not penetrate the in-place soil and a quick soil condition shall be avoided. Where airflow through the existing soils is observed, the pressure shall be reduced immediately and the Contractor shall modify the installation procedures."

In the Special Provisions, Section 10-1.26, "STONE COLUMNS," in subsection "CONSTRUCTION," subheading "Construction Sequence," is revised as follows:

"The drainage blanket trench may be excavated prior to or after construction of the stone columns. The row of stone columns closest to the tube first shall be installed first. Additional rows shall be installed in the order moving away from the tube, with the most distant columns being installed last. The stone column installation shall be performed simultaneously on both sides of the Tube to prevent unbalanced loading. Stone column installation shall not be advanced on one side of the Tube more than 50 feet beyond columns on the opposite side of the Tube".

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," subsection "MEASUREMENT AND PAYMENT," the first paragraph is revised as follows:

"The length of each stone column to be paid for shall be the length as shown on the plans for vibro or pipe pile stone columns. No change in quantities to be paid for will be made because of the use of the pipe pile stone columns."

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In the Special Provisions, Section 10-1.26 "STONE COLUMNS," subsection "MEASUREMENT AND PAYMENT," the third paragraph is revised as follows:

"The contract price paid per linear foot for stone column over water shall include full compensation for furnishing all labor, materials (including stone backfill), tools, equipment, and incidentals and for doing all the work involved in installing stone columns over water, complete in place, including predrilling and disposing of drilled materials, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer."

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," subsection "MEASUREMENT AND PAYMENT," the following paragraphs are added after the last paragraph:

"Full compensation for surveying the stone column work shall be considered as included in the contract prices paid per linear foot for stone column over land and stone column over water.
Removal of the concrete slab/footing at Station N 136+66 will be paid for as remove concrete."

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," sub-section "MEASUREMENT AND PAYMENT," the fourth paragraph is deleted.

In the Special Provisions, Section 10-1.26 "STONE COLUMNS," sub-section "MEASUREMENT AND PAYMENT," the following is added after the third paragraph:

"Test stone columns between the test area Station 145+95 and Station 146+95 will be paid for on the lump sum basis as test stone columns over water.

The contract lump sum price paid for test stone columns over water shall include full compensation for furnishing all labor, materials (including stone backfill), tools, equipment, and incidentals, and for doing all the work involved in installing test stone columns over water, complete in place, including predrilling and disposing of drilled materials, as shown on the plans, as specified in the Standard Specifications and these special provisions.

Attention is directed to the Section, "Instrumentation and Monitoring," elsewhere in these special provisions for payment of instrumentation and monitoring of test stone columns over water.

Attention is directed to the Section, "Testing," elsewhere in these special provisions for payment of testing requirements for test stone columns over water."

In the Special Provisions, Section 10-1.27, "JET GROUTING," in subsection "GENERAL," the fifth paragraph is revised as follows:

"The Contractor shall locate all underground utilities in the area to be jet grouted prior to commencing grouting operations and maintain a minimum clearance of one foot between the edge of the drill rod and any utilities."

In the Special Provisions, Section 10-1.27, "JET GROUTING," in subsection "CONSTRUCTION," subheading "Installation of Production Jet Grout Columns," the second paragraph is revised as follows:

"The Contractor shall install overlapping jet grout columns to form a continuous 6 feet thick minimum soilcrete wall to the lines and grades as shown on the plans. The Contractor shall demonstrate to the Engineer that full penetration of the grout column has penetrated into the native soil at least 2 feet by collecting and logging soil cuttings from the predrilled hole."

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In the Special Provisions, Section 10-1.27 "JET GROUTING," subsection "CONSTRUCTION," subheading "General," the following paragraph is added after the last paragraph:

"Surveying shall conform to the requirements in Section 10-1.26 "Stone Columns," subsection "Construction," subheading "General," of these special provisions."

In the Special Provisions, Section 10-1.27 "JET GROUTING," subsection "CONSTRUCTION," subheading "Installation of Production Jet Grout Columns," the third paragraph is revised as follows:

"Difficult pile installation is anticipated due to the presence of obstructions. Where obstructions are encountered, the Contractor shall drill through the obstruction. Where obstructions do not permit construction of continuous jet grout walls using vertical columns, inclined columns may be installed with overlap as determined by the Engineer."

In the Special Provisions, Section 10-1.27 "JET GROUTING," subsection "PROTOTYPE TESTS," subheading "Prototype Testing," the first paragraph is revised as follows:

"Prototype Testing.-To evaluate the Contractor's proposed methods and the grout mix to produce grout columns meeting the depth, diameter, overlapping, and soilcrete property requirements shown and specified herein, the Contractor shall develop and execute a prototype test in each of the following selected sites before starting the jet grouting production work:

1. Posey Tube: Area between Station 17+39 and Station 17+99 (West side of the tube - Jet Grout Column Test Section No. 1).
2. Posey Tube: Area between Station 23+82 and Station 24+42 (West side of the tube - Jet Grout Column Test Section No. 2).
3. Webster Street Tube: Area between Station 153+84 and Station 154+44 (East side of the tube - Jet Grout Column Test Section No. 3).

Test Section No. 1 prototype test shall be performed prior to any over land jet grouting production work at the Posey Tube. Test Section No. 2 prototype test shall be performed prior to any over water jet grouting production work at the Posey Tube. Test Section No. 3 prototype test shall be performed prior to any jet grouting production work at the Webster Street Tube."

In the Special Provisions, Section 10-1.27 "JET GROUTING," subsection "PROTOTYPE TESTS," the following is added after the second paragraph:

"Jet grout columns over water in the test program shall be performed in the following manner:

At the top five feet of column, the jet grout pumping pressure and rotation speed of the monitor shall be reduced in such a manner that the turbidity of the overlying soils is not more than the maximum level specified in Section "Turbidity Control" of these special provisions.

An anti-washout admixture shall be added to the grout to mitigate cement washout.

Back flushing the drill pipe and casing prior to removal of drill pipe and monitor shall be required."

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In the Special Provisions, Section 10-1.27, "JET GROUTING," in subsection "PAYMENT," the third paragraph is revised as follows:

"The contract lump sum price paid for jet grouting at tremie platform (Posey Tube) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in jet grouting at tremie platform (Posey Tube), complete in place, including drilling through the tremie platform, as shown on the plans, as specified in the Standard Specifications and these special provisions and as directed by the Engineer".

In the Special Provisions, Section 10-1.27, "JET GROUTING," subsection "PAYMENT," the following is added after the second paragraph:

"Full compensation for marine surveys shall be considered as included in the contract price paid per linear foot for jet grouting (over water) and no additional compensation will be allowed therefor.

Full compensation for surveying the jet grouting work shall be considered as included in the contract prices paid per linear foot for jet grouting (over land) and jet grouting (over water) and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.28, "TESTING," the item 2 in the second paragraph is revised as follows:

"2. Coring through selected jet grout columns shall be done by rotary coring method."

In the Special Provisions, Section 10-1.30A "PILING" is added as attached.

In the Special Provisions, Section 10-1.30B "PLASTIC PIPE" is added as attached.

In the Special Provisions, Section 10-3.01 "DESCRIPTION," the first paragraph is revised as follows:

"Removing and reinstalling existing lighting, automatic parking gate equipment, automatic gate operator equipment, lighting and electrical receptacles shall conform to the provisions in Section 86, "Signals, Lighting and Electrical Systems," of the Standard Specifications and these special provisions.

In the Special Provisions, Section 10-3.03 "MAINTAINING EXISTING AND TEMPORARY ELECTRICAL SYSTEMS," the third paragraph is revised as follows:

"At least three working days prior to performing any work on the Port of Oakland parking lot lighting, promenade lighting, automatic parking gate equipment and electrical receptacles, the Contractor shall notify the Engineer and the Port of Oakland, , telephone (510) 627-1488.

In the Special Provisions, Section 10-3.05, "FOUNDATIONS," the following is added after paragraph five:

"The quantity of excavation and backfill to be paid for shall be the quantity shown on the plans for the installation of the vibro stone columns. No change in quantities to be paid for will be made because of the use of the pipe pile stone columns."

In the Special Provisions, Section 10-3.11 "REMOVING, REINSTALLING OR SALVAGING ELECTRICAL EQUIPMENT," the first and second paragraphs are deleted.

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In the Special Provisions, Section 10-3.12 "PAYMENT," the second paragraph is revised as follows:

"Full compensation for removing and reinstalling automatic parking gate equipment shall be considered as included in the contract lump sum price paid for lighting and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-3.12 "PAYMENT," the following is added after the third paragraph:

"Full compensation for removing and reinstalling automatic gate operator equipment shall be considered as included in the contract lump sum price paid for lighting and no additional compensation will be allowed therefor."

In the Proposal and Contract, the Engineer's Estimate Items 38, 42, 44, 45, 46, 47, 48, 49, 52, 53 are revised, Items 71, 72, 73, 74 are added and Items 54, 70 are deleted as attached.

To Proposal and Contract book holders:

Replace pages 4, 5, and 6 of the Engineer's Estimate in the Proposal with the attached revised pages 4, 5, and 6 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Attached is a copy of the San Francisco Bay Conservation and Development Commission Permit No. M01-9.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the proposal.

Submit bids in the Proposal and Contract book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

This office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it.

If you are not a Proposal and Contract book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Office Engineer

Attachments

5-1.31 RELATIONS WITH U.S. COAST GUARD

An anchorage waiver will need to be obtained by the Contractor from the U.S. Coast Guard. The anchorage waiver application must be submitted 30-days in advance of any work done in the estuary.

The following information is needed when requesting an anchorage waiver:

1. The letter should be on company letterhead addressed to:

Commanding Officer
MSO San Francisco Bay
Attn: Waterways Management Branch
Coast Guard Island, Bldg 14
Alameda CA 94501-5100

2. A full description of the existing condition/situation to be followed up with a detailed drawing of the area showing large and small scale coverage, in the drawing it should also show the locations of equipment and resources clearly marked and spelled out and well defined
3. A statement and similar description on the work to be done and why
4. A time schedule. When work will start (date and time), how many hours a day operations will be conducted and an estimated date and time of project completion
5. Listing of all persons involved in the operation, their title and job description (person in charge of operations or operations manager/site manager) and information on how to contact this person and their availability
6. A barge break-away contingency plan, if applicable
7. Listing of on-site communications cellular phone numbers and radio frequencies that are monitored (must include VHF-FM Marine Channels 13 and 14)
8. Listing of any other companies, agencies, or groups involved in the operation

Full compensation for conforming to the requirements of the anchorage waiver shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

8-1.04 MISCELLANEOUS METAL

The table in the tenth paragraph of Section 75-1.02, "Miscellaneous Iron and Steel," of the Standard Specifications is amended to read:

Material	Specification
Steel bars, plates and shapes	ASTM Designation: A 36/A 36M or A 575, A 576 (AISI or M Grades 1016 through 1030 except Grade 1017)
Steel fastener components for general applications:	
Bolts and studs	ASTM Designation: A 307
Headed anchor bolts	ASTM Designation: A 307, Grade B, including S1 supplementary requirements
Nonheaded anchor bolts	ASTM Designation: A 307, Grade C, including S1 supplementary requirements and S1.6 of AASHTO Designation: M 314 supplementary requirements or AASHTO Designation: M 314, Grade 36 or 55, including S1 supplementary requirements
High-strength bolts and studs, threaded rods, and nonheaded anchor bolts	ASTM Designation: A 449, Type 1
Nuts	ASTM Designation: A 563, including Appendix X1*
Washers	ASTM Designation: F 844
Components of high-strength steel fastener assemblies for use in structural steel joints:	
Bolts	ASTM Designation: A 325, Type 1
Tension control bolts	ASTM Designation: F 1852, Type 1
Nuts	ASTM Designation: A 563, including Appendix X1*
Hardened washers	ASTM Designation: F 436, Type 1, Circular, including S1 supplementary requirements
Direct tension indicators	ASTM Designation: F 959, Type 325, zinc-coated
Stainless steel fasteners (Alloys 304 & 316) for general applications:	
Bolts, screws, studs, threaded rods, and nonheaded anchor bolts	ASTM Designation: F 593 or F 738M
Nuts	ASTM Designation: F 594 or F 836M
Washers	ASTM Designation: A 240/A 240M and ANSI B 18.22M
Carbon-steel castings	ASTM Designation: A 27/A 27M, Grade 65-35 [450-240], Class 1
Malleable iron castings	ASTM Designation: A 47, Grade 32510 or A 47M, Grade 22010
Gray iron castings	ASTM Designation: A 48, Class 30B
Ductile iron castings	ASTM Designation: A 536, Grade 65-45-12
Cast iron pipe	Commercial quality
Steel pipe	Commercial quality, welded or extruded
Other parts for general applications	Commercial quality

* Zinc-coated nuts that will be tightened beyond snug or wrench tight shall be furnished with a dyed dry lubricant conforming to Supplementary Requirement S2 in ASTM Designation: A 563.

The table in the eighteenth paragraph of Section 75-1.03, "Miscellaneous Bridge Metal," of the Standard Specifications is amended to read:

Stud Diameter (inches)	Sustained Tension Test Load (pounds)
1.14-1.30	31,000
0.91-1.14	17,900
0.83-0.91	14,400
*0.71-0.83	5,000
0.59-0.71	4,100
0.47-0.59	3,200
0.35-0.47	2,100
0.24-0.35	950

* Maximum stud diameter permitted for mechanical expansion anchors.

The table in the nineteenth paragraph of Section 75-1.03, "Miscellaneous Bridge Metal," of the Standard Specifications is amended to read:

Stud Diameter (inches)	Ultimate Tensile Load (pounds)
1.18-1.30	25,200
1.06-1.18	19,800
0.91-1.06	16,000
0.79-0.91	11,600
0.63-0.79	7,200
0.55-0.63	6,600
0.47-0.55	4,200

The table in the twenty-second paragraph of Section 75-1.03, "Miscellaneous Bridge Metal," of the Standard Specifications is amended to read:

Stud Diameter (inches)	Shell Type Mechanical Expansion Anchors	Integral Stud Type Mechanical Expansion Anchors	Resin Capsule Anchors and Cast-in-Place Inserts
1.14-1.30	—	—	398
0.91-1.14	—	—	232
0.83-0.91	—	—	173
0.71-0.83	81	173	147
0.59-0.71	33	88	74
0.47-0.59	22	48	29
0.35-0.47	11	26	18
0.24-0.35	4	7	—

10-1.03A TURBIDITY CONTROL

Turbidity control work shall conform to the Standard Specifications, the plans, these special provisions, and with all regulatory permits and waste discharge requirements pertaining to any work that has the potential to cause turbidity within the project limits. Turbidity control work shall consist of implementing control measures to limit transport of disturbed sediment into aquatic environment. Except as specified in the Standard Specifications and these special provisions, compliance monitoring for turbidity will be performed by the Engineer in conformance with regulatory permits, waste discharge requirements and a turbidity monitoring program developed by the Department.

Attention is directed to "Aquatic Environment (General)" of these special provisions.

The Contractor shall be responsible for the costs and for liabilities imposed by law as a result of the Contractor's failure to comply with the provisions set forth in this section "Turbidity Control", including but not limited to, compliance with the applicable provisions of Permits, and Federal, State and local regulations. Costs and liabilities include, but are not limited to, fines, penalties, and damages whether assessed against the State or the Contractor, including those levied under the Federal Clean Water Act and the State Porter Cologne Water Quality Act.

In addition to the remedies authorized by law, money due the Contractor under the contract, in an amount determined by the Department, may be retained by the State of California until disposition has been made of the costs and liabilities.

When a regulatory agency or other third party identifies a failure to comply with the permit or any other local, State, or federal requirement, the Engineer may retain money due the Contractor, subject to the following:

- A. The Department will give the Contractor 30 days notice of the Department's intention to retain funds from partial payments which may become due to the Contractor prior to acceptance of the contract. Retention of funds from payments made after acceptance of the contract may be made without prior notice to the Contractor.
- B. No retention of additional amounts out of partial payments will be made if the amount to be retained does not exceed the amount being withheld from partial payments pursuant to Section 9-1.06, "Partial Payments," of the Standard Specifications.
- C. If the Department has retained funds and it is subsequently determined that the State is not subject to the costs and liabilities in connection with the matter for which the retention was made, the Department shall be liable for interest on the amount retained for the period of the retention, and the rate of interest payable shall be 6 percent per annum.

Conformance with the provisions of this section "Turbidity Control" shall not relieve the Contractor from the Contractor's responsibilities, as provided in Section 7, "Legal Relations and Responsibilities," of the Standard Specifications.

Turbidity is defined as the condition that prevails when sediment and debris are suspended in water, resulting in diminished water clarity. Turbidity will be measured using an optical backscatter meter providing a minimum of 30-second weighted average turbidity reading in mg/liter or nephelometric turbidity units (NTU).

Forty working days prior to beginning work in marine environments, the Contractor shall submit, for review and approval by the Engineer, a Turbidity Control Plan for all work that has the potential to cause turbidity. The Contractor shall allow 10 working days for the Engineer to review and approve the plan. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the plan within 10 working days of receipt of the Engineer's comments and shall allow 5 working days for the Engineer to review and approve the revisions. The Turbidity Control Plan shall describe equipment used to do work that has the potential to cause turbidity, operation schedule, deployment of turbidity control measures and containment contingency. Plans and working drawings shall be submitted in accordance with "Working Drawings" of these special provisions. Three copies of the plan shall be furnished to the Engineer initially with equal copies furnished following subsequent revisions and updating. Final approval of the plan will be subject to field testing. The Contractor shall demonstrate that the proposed turbidity control measures work as intended under actual working and field conditions.

All work that has the potential to cause turbidity within 300 feet of the aquatic environment boundary as shown on the plans shall have turbidity control measures implemented to conform with regulatory permits and to protect the aquatic environment. The following control measures, as a minimum, shall be installed and maintained within this 300 feet zone:

- A. Install engineered silt curtains; and
- B. Implement the use of piling and grouting equipment and perform in a manner that causes the least amount turbidity; and
- C. The turbidity, measured in Nephelometric Turbidity Units (NTU) shall not be greater than a 10 percent increase of the background turbidity for the areas that silt curtain is not being used.

The contractor shall prepare a Silt Curtain Installation Plan (Plan) to meet the conditions as described in the letter from the National Marine Fisheries Service (NMFS). The Contractor shall submit a copy of the said Plan to the Resident Engineer for approval prior to the beginning of construction. Silt Curtain information handout and the letter from NMFS are available for review at 111 Grand Avenue Oakland, California 94612. Please call the Construction office Duty Senior, telephone number (510) 286-5209 to reserve a copy of the documents at least 24 hours in advance.

In addition, if the control measures fail to adequately control turbidity in accordance with regulatory permits, the following additional control measures shall be implemented in conjunction with those listed above to enhance turbidity control:

- A. Modifying construction practices to minimize sediment disturbance and drift;
- B. Modifying size and type of equipment employed

The tide time period shall be in accordance with the time period and tidal fluctuation outlined in the National Oceanic Atmospheric Administration (NOAA) Tide Station at Yerba Buena Island.

All removed control measures shall be disposed of in accordance with section 7-1.13, "Disposal of Material Outside the Highway right of Way" of the Standard Specifications.

Temporary suspension of work shall conform to the provisions in Section 8-1.05, "Temporary Suspension of Work", of the Standard Specifications. If the Contractor fails to conform to the provisions of "Turbidity Control", the Engineer may order the suspension of specific aquatic construction operations. . No further work shall be performed on the ongoing operation until the turbidity control measures are adequate and, if also required, a revised turbidity control plan has been accepted.

If the Contractor or the Engineer identifies a deficiency in any aspect of the implementation of the approved Turbidity Control plan or amendments, the deficiency shall be corrected immediately. The deficiency may be corrected at a later date and time if requested by the Contractor and approved by the Engineer in writing. If the Contractor fails to correct the identified deficiency by the date agreed upon, the project shall be in noncompliance. The Engineer shall notify the Contractor in writing when the project is out of compliance with the turbidity control plan. Attention is directed to Section 5-1.01, "Authority of the Engineer," of the Standard Specifications and the payment section of these special provisions for possible noncompliance penalties.

The State will not be liable to the Contractor for failure to accept all or any portion of an originally submitted or revised turbidity control plan, nor for any delays to the work due to the Contractor's failure to submit an acceptable turbidity control plan.

MEASUREMENT AND PAYMENT

Attention is directed to Section 9-1.06, "Partial Payments," and Section 9-1.07, "Payment After Acceptance," of the Standard Specifications.

The Engineer will retain an amount equal to 25 percent of the estimated value of the contract work performed during estimate periods in which the Contractor fails to conform to the provisions of this section "Turbidity Control" as determined by the Engineer.

Retention for failure to conform to the provisions in this section "Turbidity control" shall be in addition to the other retention provided for in the contract and to any retentions due to a failure to comply with the permit or any other local, State, or federal requirement.

The amounts retained for failure of the Contractor to conform to the provisions in this section will be released for payment on the next monthly estimate for partial payment following the date that an approved Turbidity control Plan has been implemented and maintained, and turbidity is adequately controlled, as determined by the Engineer.

The contract lump sum price paid for Turbidity Control shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in turbidity control complete in place, including development and submittal of the turbidity control plan and removal and disposal of all measures when no longer necessary, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.21S RECONSTRUCT BOAT MARINA FACILITIES

This work shall consist of reconstructing existing piles, gangways, and floating docks within the limits of "Reconstruct Boat Marina Facilities" as shown on the plans. Reconstruction of existing boat marina facilities shall comply with the as-built plans. An information handout of the boat marina facilities as-built plans is available for review at 111 Grand Ave, Oakland, CA 94612. Please call the Construction Office Duty Senior at (510) 286-5209 to reserve a copy of the documents at least 24 hours in advance.

A 60-ft wide path shall be maintained at all times between Sta WA 18+20 and WA 20+50 in order for existing boat slip tenants to access the internal docks. All boats in the marina between Sta N 149+30 and N 151+75 will be relocated by the State prior to commencement of the work.

GENERAL

Attention is directed to "Obstructions" and "Relations with U.S. Coast Guard" elsewhere in these special provisions and the layout sheets of the plans for additional rules, regulations, and conditions that may govern construction operations.

It shall be the Contractor's responsibility to find a location outside of the work area to store the gangways and floating docks. Other components of the boat marina facilities may be stored within the work area as shown on the plans.

The Contractor shall conduct site conditions surveys prior to construction as provided in Sections "Site Conditions Survey" and "Instrumentation and Monitoring" elsewhere in these special provisions.

Boat Marina Facilities shall include electrical, mechanical, telephone, water, and waste systems that are incorporated into the floating docks, gangways, or piles to be reconstructed as shown on the plans and in the information handout. These utilities, as shown in the information handout, shall be temporarily capped for dock disassembly at the limits of reconstruct boat marina facilities as shown on the plans.

Before removing any boat marina facilities, most particularly the pilings and gangways, the Contractor shall conduct surveys to establish reference points with a sufficient number of control points to reestablish such components at its designated original locations.

Prior to the removal of the boat marina facilities, the Contractor shall furnish, install and provide the following:

1. Notify the Engineer in writing before the commencement of work in accordance with Section 10-1.11 "Obstructions" of these standard specifications.
2. Working drawings for the reconstruction of the existing marina facilities shall be submitted to the Engineer for review at least 30 days prior to the intended removal work. The Engineer shall be provided 7 days to review and approve the drawings.

CONSTRUCTION

Dredging for the reconstruction of the existing boat marina facilities will not be allowed.

The Contractor shall clean the mooring piles from foreign matter after removal and prior to reconstruction. The existing mooring piles that are to be removed as part of the reconstruct boat marina facilities work shall be stored at a location designated by the Engineer. The method of extracting such mooring piles shall be the Contractor's responsibility so as not to cause any physical damage to such piles as provided in Section 15-2.04, "Salvage," of the Standard Specifications.

The Contractor shall verify locations of existing utilities within the vicinity of the mooring piles to avoid conflicts. The mooring piles shall be driven to the required tip elevation shown in the information handout.

Existing utilities at boat marina facilities shall be removed up to the limits shown on the plans. The remaining portions of the utility lines shall be capped and protected from damage during construction.

The materials used to reconnect utilities when doing reconstruct boat marina facilities work shall be of commercial quality and compatible with the existing utility lines.

PAYMENT

The contract lump sum price paid for reconstruct boat marina facilities shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in reconstructing boat marina facilities, complete in place, including removal of facilities, transporting, storing, and reconstructing such facilities at the boat marina facilities as shown on the plans and the information handout, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for all additional materials and labor, which are necessary to complete the reconstruction of the permanent boat marina facilities, shall be considered as included in the contract lump sum price paid for reconstruct boat marina facilities and no additional compensation will be allowed thereof.

10-1.26 STONE COLUMNS

CONSTRUCTION

General

The Contractor shall provide a qualified surveyor licensed in the State of California to lay out the work and verify stone column installations on land and over water. A marine geophysicist or equivalent, as approved by the Engineer, shall provide the necessary bottom survey during the work over the water.

This work shall consist of construction surveying by the Contractor using Global Positioning System (GPS) surveying methods, including Static and Real-time kinematic (RTK) GPS, conventional total station and other surveying means to establish and control the lines and grades required for completion of the bridge work as shown on the plans and in these special provisions and as specified in the Standard Specifications. Construction surveying shall include geometric control for the construction of jet grout columns on land, jet grout columns over water, stone columns on land, stone columns over water, and pilings.

Except as otherwise provided herein for establishment of Project horizontal and vertical control and right-of-way staking (on land only), by the Engineer, all other specifications, including the first two paragraphs of Section 5-1.07, "Lines and Grades," of the Standard Specifications, which require the establishment of lines and grades by the Engineer, shall not apply.

The Engineer will determine the horizontal and vertical survey control data to be used for the project and will provide survey control referenced to the North American Datum 1927 (NAD27) coordinates and NGVD 1929. A copy of the survey control data is available at the Construction Duty Senior Office at 111 Grand Ave, Oakland, CA 94612. Please call (510) 286-5209, 24 hours in advance to reserve a copy. The Contractor shall verify the accuracy of the control data prior to initiating construction surveying. The Contractor's attention is directed to the third paragraph of Section 5-1.07, "Lines and Grades," of the Standard Specifications with regard to preserving control monuments furnished by the State.

Stake markings shall be in accordance with Chapter 12, "Construction Surveys," of the California Department of Transportation "Survey Manual."

The Contractor shall use GPS combined with software specifically designed for precise positioning of large structures, for positioning of the jet grout columns and stone columns. The software shall provide a visual display on a computer screen that allows the viewer to see real-time, three-dimensional coordinates, attitude and orientation information with regard to a predetermined target position. The Contractor shall provide the Engineer access to the location where the computer monitor is located whenever the system is being used to maneuver and set columns into place. The software shall also have user-defined reporting functions for quality control and as-built reporting. The records of the GPS work shall be submitted to the Engineer on a weekly basis.

Before starting any stone column or jet grouting work, the Contractor shall submit a Survey Plan to the Engineer. The Survey Plan shall include working drawings and supplements in conformance to "Working Drawings" of these special provisions.

The working drawing submittal shall include the following:

- A. Stake layout
- B. Location of all control points
- C. Datum information
- D. Tube alignment

The supplement to the working drawings shall show the Contractor's proposed methods of construction surveying and a quality control plan for surveying, and shall include the following:

- A. A detailed narrative of the step-by-step surveying control process
- B. A listing of the types of methods and the related item(s) to be constructed
- C. Detailed calculation forms, and a set of calculation for each type of survey method, including sample input and output of computer programs
- D. Identifications of all measuring equipment, procedures
- E. Qualifications of personnel who will carry out construction surveying, and for the Land Surveyor of record
- F. Correlation between the data from geometric control for furnishing precast concrete segments and furnishing steel structures with data for erection and final line and grade

Prior to submitting the Survey Plan, the Contractor and any entity performing surveying for this project shall hold a pre-survey meeting with the Engineer to the proposed procedures. The pre-survey meeting shall be held within the San Francisco Bay Area.

The Contractor shall allow 15 working days for the Engineer to review the Survey Plan after a complete plan has been submitted. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the Survey Plan. The Contractors shall allow 10 working days for the Engineer to review the revisions. No construction surveying shall begin until the Engineer approves the written proposal.

The Contractor shall make the calculations necessary to establish the exact position of the work from the Project control points. Calculations, survey notes computer output, and other construction survey notes and records shall be neat, legible, and accurate. Copies of the survey calculations, notes and other records shall be submitted to the Engineer on a weekly basis.

The Survey Plan, and the calculations, survey notes and other records submitted to establish the exact position of the work shall be completed under the direction of and signed by a Land Surveyor who is licensed by the State of California.

10-1.30A PILING

General

Piling shall conform to the provisions in Section 49, "Piling," of the Standard Specifications, and these special provisions.

Difficult pile installation is anticipated due to the presence of soft bay mud overlying dense soils, tidal flow fluctuation, sound control, and vibration monitoring.

Attention is directed to "Prestressing" of these special provisions.

Jetting will not be permitted unless approved by the Engineer. Only controlled jetting of piles using internal jet tubes will be permitted when approved by the Engineer. The maximum allowable water pressure for jetting shall be 300 psi. Jetting will not be permitted within 5 feet of the required tip elevation for guide piles.

Wire used as reinforcement in concrete piles, as shown on the plans, shall be cold drawn steel wire conforming to the specifications of ASTM Designation: A 82.

Unless otherwise specified, welding of any work performed in conformance with the provisions in Section 49, "Piling," of the Standard Specifications, shall be in conformance with the requirements in AWS D1.1.

A geotechnical investigation report entitled "Port of Oakland Jack London Square Marina Reconstruction," dated June 1998 was prepared for the original installation of the existing piles by Geomatrix, Oakland, California. This report is available for review at the Caltrans District 4 Office for inspection by bidders.

Attention is directed to "Public Safety" of these special provisions. Before performing pile handling or pile installation operations at a location that is closer than the length of the pile being handled or installed to the edge of areas open to public traffic or public use, the Contractor shall submit to the Engineer in conformance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications, a detailed plan describing the measures that will be employed to provide for the safety of traffic and the public.

The second paragraph in Section 49-1.03, "Determination of Length," of the Standard Specifications is amended to read:

For driven piling, the Contractor shall furnish piling of sufficient length to obtain both the specified tip elevation and design load shown on the plans or specified in the special provisions. For cast-in-drilled-hole concrete piling, the Contractor shall construct piling of such length to develop the compression nominal resistance and to obtain the specified tip elevation shown on the plans or specified in the special provisions.

At the Contractor's option, the Contractor may conduct additional foundation investigation, including installing and axial load testing additional non-production indicator piling. The Engineer shall approve locations of additional foundation testing. The Contractor shall notify the Engineer at least 5 working days prior to beginning additional foundation investigation.

Additional foundation investigation shall be completed prior to requesting revised specified pile tip elevations or modification to the installation methods specified herein. Revisions to specified tip elevations and modifications to the specified installation methods will be subject to the provisions of Section 5-1.14, "Cost Reduction Incentive."

Modification to the specified installation methods and specified pile tip elevation will not be considered at locations where lateral load demands control design pile tip elevations or when the plans state that specified pile tip elevation shall not be revised.

The pile structural capacity design is based on the nominal strength as defined in Caltrans Bridge Design Specifications (Article 8.1.3) or the nominal resistance as defined in the LRFD Bridge Design Specifications (Article 1.3.2.1). The nominal resistance of the pile, as shown on the plans, is the design capacity required to resist the factored axial load demands.

Indicator compression pile load testing shall conform to the requirements of ASTM Designation: D 1143. The acceptance criteria for compression pile load testing shall be as follows:

The pile shall sustain the first compression test load applied which is equal to the nominal compression resistance, as shown on the plans, with no more than 0.5-inch total vertical movement at the top of the pile measured relative to the top of the pile prior to the start of compression load testing.

Indicator tension pile load testing shall conform to the requirements of ASTM Designation: D 3689. The loading apparatus described as "Load Applied to Pile by Hydraulic Jack(s) Acting at One End of Test Beam(s) Anchored to the Pile" shall not be used. The acceptance criteria for tension pile load testing shall be as follows:

The pile shall sustain the first tension test load applied which is equal to the nominal tension resistance, as shown on the plans, with no more than 0.5-inch total vertical movement at the top of the pile measured relative to the top of the pile prior to the start of tension load testing.

Existing piles designated to be removed and salvaged in accordance with the Contractor's Marina Removal and Reconstruction Plan shall be carefully removed in full length and stockpiled at a location provided by the Contractor and approved by the Engineer. Existing piles shall be reused and any piles that are damaged or destroyed as a result of the Contractor's operations shall be replaced by the Contractor at the Contractor's expense.

The removal operations shall be performed without damage to any portion of the marina structures and piers that are to remain in place as in accordance with Section 15-4.02.

Indicator piling shall be removed in conformance with the requirements in Section 15-4.02, "Removal Methods," and the remaining holes shall be backfilled with earth or other suitable material approved by the Engineer.

The first and second paragraphs in Section 49-1.05, "Driving Equipment," of the Standard Specifications are amended to read:

49-1.05 Driving Equipment.—Driven piles shall be installed with impact hammers that are approved in writing by the Engineer. Impact hammers shall be steam, hydraulic, air, or diesel hammers. Impact hammers shall develop sufficient energy to drive the piles at a penetration rate of not less than 1/8 inch per blow at the specified bearing value.

Vibratory hammers shall not be used for installation of piles, unless otherwise shown on the plans or specified in the special provisions.

Hammers with an external combustion engine that are not single action, shall have a transducer that records ram velocity.

Double acting diesel hammers with internal combustion engines shall have a transducer that records bounce chamber pressure.

For hammers with no visual way of observing the ram stroke, a printed readout showing hammer energy during driving operation shall be provided to the Engineer by the Contractor.

49-1.08 Bearing Value and Penetration.—Except for piles to be load tested, driven piles shall be driven to a bearing value of not less than the design loading shown on the plans unless otherwise specified in the special provisions or permitted in writing by the Engineer.

The third through seventh paragraphs in Section 49-1.08, "Bearing Value and Penetration," of the Standard Specifications are amended to read:

The bearing values for driven piles shall be determined from the following formula in which "P" is the design loading shown on the plans in pounds, "E" is the manufacturer's rating for foot-pounds of energy developed by the hammer, and "s" is the penetration per blow in inches, averaged over the last few blows.

$$P = 2E/(s+0.1)$$

The penetration per blow "s" shall be measured only when there is no appreciable rebound of the hammer and only when the last blow is struck on a sound pile head or driving block. The penetration per blow "s" may be measured either during initial driving or during re-driving following a set period as determined by the Engineer.

MEASUREMENT AND PAYMENT (PILING)

Measurement and payment for the various types and classes of piles shall conform to the provisions in Sections 49-6.01, "Measurement," and 49-6.02, "Payment," of the Standard Specifications and these special provisions.

The first paragraph in Section 49-6.02, "Payment," of the Standard Specifications is amended to read:

Timber, steel, and precast prestressed concrete piles, and cast-in-place concrete piles consisting of driven shells filled with concrete, will be paid for at the contract price per foot for furnish piling and the contract unit price for drive pile.

The sixth and seventh paragraphs in Section 49-6.02, "Payment," of the Standard Specifications are amended to read:

If precast prestressed concrete piling or steel pipe piling is manufactured or fabricated more than 300 air miles from both Sacramento and Los Angeles, additional shop inspection expenses will be sustained by the State. Whereas it is and will be impractical and extremely difficult to ascertain and determine the actual increase in such expenses, it is agreed that payment to the Contractor for furnishing piling of the types shown in the Engineer's Estimate will be reduced \$5000 for each manufacture or fabrication site located more than 300 air line miles from both Sacramento and Los Angeles and an additional \$3000 (\$8000 total) for each manufacture or fabrication site located more than 300 air line miles from both Sacramento and Los Angeles.

The contract unit price paid for drive pile shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in driving timber, concrete, and steel piles, driving steel shells for cast-in-place concrete piles, placing filling materials for cast-in-place concrete piles, and cutting off piles, all complete in place to the required bearing and penetration as shown on the plans, as specified in these specifications and the special provisions, and as directed by the Engineer.

The work for existing pile removal and existing pile replacement shall be paid for on a lump sum basis for Removal and Replacement of Marinas. The above prices and payments shall include full compensation for furnishing all labor, materials, tools, and equipment and incidentals, and for doing all the work involved in removing and replacing existing piles.

10-1.30B PLASTIC PIPE

Plastic pipe shall conform to the provisions in Section 64, "Plastic Pipe," of the Standard Specifications and these special provisions. A temporary concrete pad shall be constructed as shown in the information handout. Concrete shall conform to the provisions in "Miscellaneous Concrete Construction" as shown elsewhere in these special provisions.

The Contractor must coordinate temporary utility relocation activities with both Alameda Power and Telecom and Pacific Bell fulfilling the requirements on the plans, in these special provisions, and in the information handout from Alameda Power & Telecom available at the Duty Senior Desk, 111 Grand Ave, Oakland, CA 94612. Please call the Construction Office Duty Senior at (510) 286-5209 at least 24 hours in advance to reserve your copy. The Contractor must notify the Engineer 30 days in advance of the beginning of any excavation associated with the utility relocation.

MEASUREMENT AND PAYMENT

Plastic pipe shall be measured and paid by linear foot of plastic pipe. The contract unit price paid for plastic pipe shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in trenching to the limit shown on the plans, laying sand backfill, plastic pipe conduit, and temporary concrete pad as specified in these specifications and the special provisions, and as directed by the Engineer.

**ENGINEER'S ESTIMATE
04-440144**

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	150771	REMOVE ASPHALT CONCRETE DIKE	LF	32		
22	022704	SALVAGE PICNIC TABLE	EA	3		
23	022705	SALVAGE BENCH	EA	9		
24	022706	SALVAGE TRASH CAN	EA	5		
25	022707	SALVAGE BOLLARD	EA	3		
26	022708	SALVAGE PLANTER BOX AND TREE	EA	5		
27	022709	RESET BIKE RACK	EA	4		
28	022710	RECONSTRUCT BOLLARD	EA	2		
29	022711	RECONSTRUCT PARKING BUMPER	EA	110		
30	022712	RESET ROCK SLOPE PROTECTION	CY	350		
31 (S)	151540	RECONSTRUCT CHAIN LINK FENCE	LF	120		
32	151554	RECONSTRUCT CHAIN LINK GATE	EA	2		
33	022713	RECONSTRUCT CHAIN LINK SLIDING GATE	EA	3		
34	152322	RESET ROADSIDE SIGN (WOOD POST)	EA	3		
35	152324	RESET ROADSIDE SIGN (METAL POST)	EA	20		
36	152438	ADJUST FRAME AND COVER TO GRADE	EA	18		
37 (S)	153101	PLANE ASPHALT CONCRETE PAVEMENT	SQYD	3660		
38	153210	REMOVE CONCRETE	CY	302		
39 (S)	159001	RECONSTRUCT HANDRAILING	LF	260		
40	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	

**ENGINEER'S ESTIMATE
04-440144**

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	160120	REMOVE TREE	EA	61		
42 (F)	192001	STRUCTURE EXCAVATION	CY	2240		
43 (F)	192020	STRUCTURE EXCAVATION (TYPE D)	CY	111		
44 (F)	192023	STRUCTURE EXCAVATION (TYPE H)	CY	930		
45 (F)	193001	STRUCTURE BACKFILL	CY	2390		
46 (F)	193101	GRAVEL BLANKET	CY	772		
47 (F)	048807	FILTER FABRIC	SQFT	30 760		
48	048808	JET GROUTING OVER LAND	LF	3738		
49	048809	JET GROUTING OVER WATER	LF	2273		
50	048810	JET GROUTING AT TREMIE PLATFORM (POSEY TUBE)	LS	LUMP SUM	LUMP SUM	
51 (S)	048811	TESTING (POSEY TUBE)	LS	LUMP SUM	LUMP SUM	
52 (F)	048812	STONE COLUMN OVER LAND	LF	18 542		
53 (F)	048813	STONE COLUMN OVER WATER	LF	32 846		
54	BLANK					
55 (S)	048815	TESTING (WEBSTER TUBE)	LS	LUMP SUM	LUMP SUM	
56	260301	CLASS 3 AGGREGATE BASE	CY	4840		
57	390102	ASPHALT CONCRETE (TYPE A)	TON	2600		
58	394040	PLACE ASPHALT CONCRETE DIKE (TYPE A)	LF	32		
59	397001	ASPHALTIC EMULSION (PAINT BINDER)	TON	26		
60	729010	ROCK SLOPE PROTECTION FABRIC	SQYD	560		

**ENGINEER'S ESTIMATE
04-440144**

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	290		
62 (S)	800360	CHAIN LINK FENCE (TYPE CL-6)	LF	1660		
63 (S)	800701	WOOD FENCE	LF	50		
64 (S)	840504	4" THERMOPLASTIC TRAFFIC STRIPE	LF	900		
65 (S)	840515	THERMOPLASTIC PAVEMENT MARKING	SQFT	490		
66 (S)	840656	PAINT TRAFFIC STRIPE (2-COAT)	LF	260		
67 (S)	840666	PAINT PAVEMENT MARKING (2-COAT)	SQFT	5080		
68 (S)	860401	LIGHTING	LS	LUMP SUM	LUMP SUM	
69 (S)	048816	SEISMIC WARNING SYSTEM	LS	LUMP SUM	LUMP SUM	
70	BLANK					
71	048890	TURBIDITY CONTROL	LS	LUMP SUM	LUMP SUM	
72	048891	RECONSTRUCT BOAT MARINA FACILITY	LS	LUMP SUM	LUMP SUM	
73	048892	PLASTIC PIPE	LS	LUMP SUM	LUMP SUM	
74	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: _____