

DEPARTMENT OF TRANSPORTATION

ESC/OE MS #43

1737 30TH. Street 2ND. Floor
SACRAMENTO, CA 945816

December 22, 1999

04-CC,Mrn-580-6.1/7.8,0.0/2.6
04-0438U4

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in CONTRA COSTA AND MARIN COUNTIES IN AND NEAR RICHMOND AND SAN RAFAEL FROM 1.7 MILES EAST TO 2.6 MILES WEST OF CONTRA COSTA/MARIN COUNTY LINE.

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 March 1, 2000.

This addendum is being issued to revise the Project Plans and the Notice to Contractors and Special Provisions.

Project Plan Sheets 187, 270, 556, 611, 655, 662, 689, 690, 692, 694, 695, 756, 895, 924, 971, 974, 975, 976, 977, 978, 979 and 1044 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 3, "PRE-AWARD MEETING AND AWARD AND EXECUTION," under subsection, "3-1.01A PRE-AWARD MEETING," the pre-award qualifications review meeting date is changed to March 3, 2000.

In the Special Provisions, Section 5-1.43, "AERIALLY DEPOSITED LEAD, GENERAL," the first paragraph is revised to read:

"Aerially deposited lead contamination has been discovered through testing of materials from within the project limits on the west end of the bridge between Stations 248+70 and 249+94 along the 'C' Line."

In the Special Provisions, Section 5-1.47, "RELATIONS WITH THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, DEPARTMENT OF TOXIC SUBSTANCES CONTROL," is added as attached.

In the Special Provisions, Section 10-1.02, "ORDER OF WORK," the fourth paragraph is revised to read:

"The Contractor shall notify the Engineer and submit a schedule of work, not less than 90 days prior to performing any portion of work that will cause an obstruction of the operation of the existing State-owned traveling maintenance scaffolds and platforms. The Contractor shall install permanent traveling maintenance scaffolds and platforms to clear the area affecting the operation of the existing maintenance traveler facility. Upon completion of work within a section served by a newly constructed traveling maintenance scaffold and platform, the new scaffold and platform shall be immediately relinquished by the Contractor for the exclusive use of the Caltrans Maintenance crews."

In the Special Provisions, Section 10-1.03, "WATER POLLUTION CONTROL," is revised as attached.

In the Special Provisions, Section 10-1.04, "TEMPORARY CONSTRUCTION ROAD," under "MATERIALS," the following subsection is added:

"Asphalt Concrete.--Attention is directed to "Asphalt Concrete" elsewhere in these special provisions."

In the Special Provisions, Section 10-1.06, "TEMPORARY CONCRETE WASHOUT FACILITIES," the first paragraph is revised to read:

"Temporary concrete washout facilities shall be installed, maintained, and later removed as shown on the plans, in accordance with the details shown on the plans and these special provisions, and as directed by the Engineer. The concrete washout facilities shall be above grade, and used for collecting excess concrete slurry and concrete equipment wash water resulting from the cleaning of concrete trucks, hand tools, pumping equipment and other equipment. Concrete waste shall not come into contact with soil, vegetation, or water bodies."

In the Special Provisions, Section 10-1.09, "TEMPORARY STRAW BALE BARRIER," the third paragraph is deleted.

In the Special Provisions, Section 10-1.09, "TEMPORARY STRAW BALE BARRIER," the subsection, "MATERIALS," is revised as follows:

"MATERIALS.— Materials shall conform to the provisions in Section 20-2.06, "Straw," of the Standard Specifications and the following:

Each straw bale shall be a minimum of 14 inches wide, 17 inches in height, 3 feet in length and shall have a minimum mass of 70 pounds when dry. The straw bale shall be composed entirely of vegetative matter, except for binding material.

Stakes shall be 2 inch x 2 inch wood posts. Each stake shall have a minimum length of 3 feet.

Bales shall be bound by either wire, nylon or polypropylene string. Jute and cotton binding shall not be used. Wire shall be a minimum of 16-gage baling wire. Nylon or polypropylene string shall be approximately 0.08" in diameter."

In the Special Provisions, Section 10-1.09, "TEMPORARY STRAW BALE BARRIER," subsection, "MEASUREMENT AND PAYMENT," the last paragraph is deleted.

In the Special Provisions, Section 10-1.10, "NON-STORM WATER DISCHARGES," is revised as attached.

In the Special Provisions, Section 10-1.31, "EXISTING HIGHWAY FACILITIES," sixth paragraph, the following references are added:

"Ben C. Gerwick, Inc. - Pile Driving Tip Elevation Information for Piers A-61, dated November 16, 1999

Site Investigation Report, Richmond-San Rafael Bridge, Asbestos Survey Report, dated June 1999

Site Investigation Report, Richmond-San Rafael Bridge, Dust and debris Investigation, dated June 1999

Clayton Environmental Consultants, Sediment Sampling and Analysis for the Richmond-San Rafael Bridge Seismic Retrofit Project, dated December 1996

CH2M HILL, Upland Soil and Ground Water Characterization for the Richmond-San Rafael Bridge Seismic Retrofit Project, dated April 1997

Professional Service Industries, Inc. Preliminary Site Investigation Report for the East Approach of the Richmond-San Rafael Bridge (3 volumes), dated June 1998

Condition Survey of Substructure Concrete for Caltrans Toll Bridges, dated October 1996"

In the Special Provisions, Section 10-1.32, "CLEARING AND GRUBBING," second paragraph, the first sentence is revised to read:

"Before clearing and grubbing operations begin, drainage inlet protection, silt fencing at the toe of slopes, and stabilized vehicle entrances shall be in place and area shall be cleared of trash and debris."

In the Special Provisions, Section 10-1.32, "CLEARING AND GRUBBING," the third and last paragraphs are deleted.

In the Special Provisions, Section 10-1.33A, "DREDGING," subsection, "Dredging Operation Plan," the first and second sentences of the first paragraph are revised to read:

"Prior to the beginning of any dredging work, the Contractor shall submit a Dredging Operation Plan to the Engineer for approval a minimum of 60 calendar days prior to the proposed commencement of dredging. Dredging shall not commence until all comments have been answered and written approval has been granted by the Engineer and the Army Corp of Engineers."

In the Special Provisions, Section 10-1A.08, "PILING," the following paragraph is added after the second paragraph:

"Rock cores and soil samples are available for inspection at the Transportation Laboratory located at 5900 Folsom Blvd, Sacramento; telephone number (916) 227-7197."

In the Special Provisions, Section 10-1A.08, "PILING," subsection, "STEEL PIPE PILING," the seventh paragraph is deleted.

In the Special Provisions, Section 10-1A.09, "FENDER PILING," the thirteenth paragraph is revised to read:

"Portions of the piles, the pile anchorage devices at Piers 33, 36, 46, and 49, and the pile base plates at Piers 47 and 48 shall be painted with flame-sprayed plastic in accordance with Section 10-1A.27, "Steel Casings," elsewhere in these special provisions. For driven piles, the plastic coating shall extend from an elevation approximately ten feet below the mud line to the top of the pipe pile. For the 16-inch diameter pile extensions at Piers 47 and 48 the plastic coating shall extend from an elevation approximately two feet below the top of the CISS or CIDH Seismic Pile to the top of the pipe pile. The coating shall completely cover all sides of the pile anchorage devices and the pile base plates."

In the Special Provisions, Section 10-1A.13, "PRECAST CONCRETE BRACKET AND WALER UNITS AND PRECAST CONCRETE SEATS," the following paragraph is added after the first paragraph:

"Reinforcement shall conform to the provisions in "Epoxy-Coated Reinforcement" for the substructure, elsewhere in these special provisions."

In the Special Provisions, Section 10-1A.22, "EPOXY-COATED REINFORCEMENT," second paragraph, in subheading, "52-1.02B Epoxy-coated Prefabricated Reinforcement," the following paragraphs are added after the fifth paragraph:

"Prior to epoxy coating, all resistance butt welds shall have the weld flash removed to produce a smooth profile free of any sharp edges that would prevent proper coating of the bar. The flash shall be removed such that the ultimate tensile strength and elongation properties of the bar are not reduced, and the outside radius of the flash, at any point along the circumference of the bar is 1) not less than the nominal radius of the bar nor 2) greater than 0.2 inches (5mm) beyond the nominal radius of the bar.

A proposed weld flash removal process shall be submitted to and approved by the Engineer in writing, prior to performing any removal work. The submittal shall demonstrate that the proposed flash removal process produces a smooth profile that can be successfully epoxy-coated in conformance with the requirements specified herein."

In the Special Provisions, Section 10-1A.23, "EPOXY-COATED REINFORCEMENT (FENDER)," second paragraph, in subheading, "52-1.02B Epoxy-coated Prefabricated Reinforcement," the following paragraphs are added after the fifth paragraph:

"Prior to epoxy coating, all resistance butt welds shall have the weld flash removed to produce a smooth profile free of any sharp edges that would prevent proper coating of the bar. The flash shall be removed such that the ultimate tensile strength and elongation properties of the bar are not reduced, and the outside radius of the flash, at any point along the circumference of the bar is 1) not less than the nominal radius of the bar nor 2) greater than 0.2 inches (5mm) beyond the nominal radius of the bar.

A proposed weld flash removal process shall be submitted to and approved by the Engineer in writing, prior to performing any removal work. The submittal shall demonstrate that the proposed flash removal process produces a smooth profile that can be successfully epoxy-coated in conformance with the requirements specified herein."

In the Special Provisions, Section 10-1A.23, "EPOXY-COATED REINFORCEMENT (FENDER)," second paragraph, in subheading, "52-1.02B Epoxy-coated Prefabricated Reinforcement," the following paragraph is added after the fourteenth paragraph:

"When epoxy-coating on reinforcing steel is damaged as a result of welding to existing reinforcing steel, the provisions for repairing will not apply."

In the Special Provisions, Section 10-1A.24, "STEEL STRUCTURES," subsection, "MEASUREMENT AND PAYMENT," the following paragraph is added after the eighth paragraph:

"Full compensation for providing temporary bracing struts at the existing steel tower legs, shall be considered as included in the contract price paid per pound for erect structural steel (bridge) and no separate payment will be made therefor."

In the Special Provisions, Section 10-1A.25, "PTFE BEARING ASSEMBLY," the twenty-first paragraph is revised to read:

"The stainless steel plate shall be bonded to the steel sole plate under pressure using epoxy resin adhesive and then mechanically connected with 18-8 stainless steel cap screws. At the Contractor's option, the stainless steel plate may be perimeter welded to the sole plate. Stainless steel welding shall be performed in accordance with AWS D1.6."

In the Special Provisions, Section 10-1A.30, "COLUMN RESTRAINER BRACKET," the following paragraph is added after the first paragraph:

"Attention is directed to "Welding Quality Control," of these special provisions."

In the Special Provisions, Section 10-1B.02F, "RIVET REMOVAL AND HOLE REAMING," seventh paragraph, the second sentence is revised to read:

"Difficult rivet removal is anticipated due to rusting of rivets inside the holes, tapered rivets, restricted access to the rivets and misalignment of existing holes and piles."

In the Special Provisions, Section 10-1B.05, "PILING," the following paragraph is after the second paragraph:

"Rock cores and soil samples are available for inspection at the Transportation Laboratory located at 5900 Folsom Blvd, Sacramento; telephone number (916) 227-7197."

In the Special Provisions, Section 10-1B.10, "PRECAST CONCRETE GIRDERS," subsection, "CONCRETE," the first paragraph is revised to read:

"CONCRETE.-- Concrete shall have a minimum 28-day compressive strength of 6500 pounds per square inch. Compressive strength requirements shall conform to the provisions of Section 90-9, "Compressive Strength," of the Standard Specifications."

In the Special Provisions, Section 10-1B.14, "PRECAST CONCRETE PANEL," the table in "Concrete Coatings," is revised as shown:

PRODUCT	MANUFACTURER
POLYQuik or equal	Williamette Valley Company 660 McKinley Street Eugene, OR 97402 (541) 484-9621
TC-300 or equal	Thane Coat 12725 Royal Drive Stafford, TX 77477 (281) 565-7001

In the Special Provisions, Section 10-1B.14, "PRECAST CONCRETE PANEL," in "Concrete Coatings," second paragraph, the following sentence is added after the second sentence:

"The concrete coating shall have a minimum dry film thickness of 60 mils."

In the Special Provisions, Section 10-1B.30, "EPOXY-COATED REINFORCEMENT," second paragraph, in subheading, "52-1.02B Epoxy-coated Prefabricated Reinforcement," the following paragraphs are added after fifth paragraph:

"Prior to epoxy coating, all resistance butt welds shall have the weld flash removed to produce a smooth profile free of any sharp edges that would prevent proper coating of the bar. The flash shall be removed such that the ultimate tensile strength and elongation properties of the bar are not reduced, and the outside radius of the flash, at any point along the circumference of the bar is 1) not less than the nominal radius of the bar nor 2) greater than 0.2 inches (5mm) beyond the nominal radius of the bar.

A proposed weld flash removal process shall be submitted to and approved by the Engineer in writing, prior to performing any removal work. The submittal shall demonstrate that the proposed flash removal process produces a smooth profile that can be successfully epoxy-coated in conformance with the requirements specified herein."

To Proposal and Contract book holders:

- 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

NICK YAMBAO, Chief
Office of Plans, Specifications &
Estimates
Division of Office Engineer

Attachments

5-1.47 RELATIONS WITH THE CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY, DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Attention is directed to "Hazardous and Non-Hazardous Material, General" and "Earthwork" of these special provisions.

The Department of Transportation has entered into a Voluntary Cleanup Agreement with the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) for this project. A copy of the Voluntary Cleanup Agreement (VCA), Docket No. HAS 97/98-024 may be obtained at the Department of Transportation, Plans and Bid Documents, Room 0200, Transportation Building, 1120 N Street, P.O. Box 942874, Sacramento, California, 94274-0001, Telephone No. (916) 654-4490, and is available for inspection at the office of Toll Bridge Program, Duty Senior's Desk at 111 Grand Avenue, Oakland, California 94612-3171, Telephone No. (510) 286-5549.

The Contractor shall fully inform himself of all rules, regulations and conditions that may govern his operations for handling, transportation and disposal of excavated material and for all other construction related activities which may disturb soil within the project limits.

The Health, Safety and Work Plan prepared by the Contractor for the project shall be submitted to the Engineer and DTSC for review and comment. Throughout the review process the contractor shall provide 3 copies of the Health, Safety and Work Plan. The Contractor shall allow 10 days for review of the Health, Safety and Work Plan by the Engineer. Upon receipt of response comments by the Engineer, the Contractor shall make all necessary revisions and incorporate responses to all comments in the Health, Safety and Work Plan. The Health, Safety and Work Plan shall then be submitted to the DTSC via the Engineer for review and comment. The Contractor shall allow 20 days for review of the Health, Safety and Work Plan by the DTSC. Upon receipt of response comments by the DTSC, the Contractor shall make all necessary revisions and incorporate responses to all comments in the Health, Safety and Work Plan. If subsequent review is required by the DTSC, then the Contractor shall then resubmit the Health, Safety and Work Plan via the Engineer to the DTSC and allow 15 days for their review. Upon receipt of the final response comments by the DTSC, the Contractor shall make all necessary revisions and incorporate responses to all comments in the final Health, Safety and Work Plan. The contractor shall provide 8 copies of the final Health, Safety and Work Plan to the Engineer.

The Contractor shall also prepare a detailed Soil Management Plan and Transportation Plan for submittal to and review by the DTSC and the Engineer. The Soil Management Plan and Transportation Plan shall be prepared in accordance with the requirements of the VCA and guidance materials available for review at 111 Grand Avenue, Oakland, CA 94601. Contact the Toll Bridge Program Duty Senior at telephone number (510) 286-5549 to reserve a copy of the guidance materials at least 24 hours in advance. Throughout the review process the contractor shall provide 3 copies of the Soil Management Plan and Transportation Plan. The Contractor shall allow 10 days for review of the Soil Management Plan and Transportation by the Engineer. Upon receipt of response comments by the Engineer, the Contractor shall make all necessary revisions and incorporate responses to all comments in the Soil Management Plan and Transportation Plan. The Soil Management Plan and Transportation Plan shall then be submitted to the DTSC via the Engineer for review and comment. The Contractor shall allow 20 days for review of the Soil Management Plan and Transportation by the DTSC. Upon receipt of response comments by the DTSC, the Contractor shall make all necessary revisions and incorporate responses to all comments in the Soil Management Plan and Transportation Plan. If subsequent review is required by the DTSC, then the Contractor shall then resubmit the Soil Management Plan and Transportation Plan to the DTSC via the Engineer and allow 15 days for their review. Upon receipt of the final response comments by the DTSC, the Contractor shall make all necessary revisions and incorporate responses to all comments in the final Soil Management Plan and Transportation. The Contractor shall provide 8 copies of the final Soil Management Plan and Transportation Plan to the Engineer.

The Contractor shall not perform any excavation work at locations containing material classified as contaminated or hazardous until the Engineer provides written approval of the final Soil Management Plan and Transportation Plan and the final Health, Safety and Work Plan.

The Contractor shall prepare an Implementation Report for submittal to the DTSC via the Engineer within 30 days of completion of field activities. The Implementation Report shall provide a chronological summary of the soil management, health and safety, and soil transportation activities that have occurred on site. The Implementation Report shall be supplemented with photographs and field diaries that document the soil management, health and safety, and soil transportation activities. The Contractor shall allow 21 days for review of the Implementation Report by the Engineer and the DTSC. Upon receipt of the response comments by the DTSC and the Engineer, the Contractor shall make all necessary revisions and incorporate responses to all comments in the final Implementation Report. The contractor shall provide 8 copies of the final Implementation Report to the Engineer.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the contract items of work affected by this section and no additional compensation shall be allowed therefor.

10-1.03 WATER POLLUTION CONTROL

Water pollution control work shall conform to the requirements in Section 7-1.01G, "Water Pollution," of the Standard Specifications and these special provisions.

This project shall conform to the requirements of Permit No. CAS000002 and CAS000003 issued by the State Water Resources Control Board. These permits, hereafter referred to as the "Permit," regulates storm water discharges associated with construction activities.

Water pollution control work shall conform to the requirements in the Construction Contractor's Guide and Specifications of the Caltrans Storm Water Quality Handbooks, dated April 1997, and addenda thereto issued up to and including the date of advertisement of the project, hereafter referred to as the "Handbook". Copies of the Handbook 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. In addition, a Conceptual Storm Water Pollution Prevention Plan, hereafter referred to as the "CSWPPP," has been prepared for this project by the Department. The CSWPPP shall be used as a reference for determining and preparing the minimum work required under the Permit and this Special Provision.

Copies of the Handbook, CSWPPP, and the Permit are also available for review at 111 Grand Avenue Oakland, California 94601. Please call the Toll Bridge Duty Senior, telephone number (510) 286-5549, to reserve a copy of the documents at least 24 hours in advance.

The Contractor shall become fully informed of and comply with the applicable provisions of the Handbook, Permit and Federal, State and local regulations that govern the Contractor's operations and storm water discharges from both the project site and areas of disturbance outside the project limits during construction. The Contractor shall maintain a copy of the Permit at the project site and shall make the Permit available during construction activities.

Unless arrangements for disturbance of areas outside the project limits are made by the Department and made part of the contract, it is expressly agreed that the Department assumes no responsibility to the Contractor or property owner whatsoever with respect to any arrangements made between the Contractor and property owner to allow disturbance of areas outside the project limits.

The Contractor shall be responsible for the costs and for any liability imposed by law as a result of the Contractor's failure to comply with the requirements set forth in this section "Water Pollution Control", including but not limited to, compliance with the applicable provisions of the Handbook, Permit and Federal, State and local regulations. For the purposes of this paragraph, 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 any remedy authorized by law, so much of the money due the Contractor under the contract that shall be considered necessary by the Department may be retained by the State of California until disposition has been made of the costs and liabilities.

The retention of money due the Contractor shall be subject to the following:

1. The Department will give the Contractor 30 days notice of its intention to retain funds from any partial payment which may become due to the Contractor prior to acceptance of the contract. Retention of funds from any payment made after acceptance of the contract may be made without prior notice to the Contractor.
2. 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.
3. 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 at the legal rate of interest for the period of the retention.

Conformance with the requirements of this section "Water Pollution Control" shall not relieve the Contractor from the Contractor's responsibilities, as provided in Section 7-1.11, "Preservation of Property," and Section 7-1.12, "Responsibility for Damage," of the Standard Specifications.

The Contractor shall allow authorized agents of the California Regional Water Quality Control Board, State Water Resources Control Board, U. S. Environmental Protection Agency and local storm water management agency, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the construction site and the Contractor's facilities pertinent to the work;
2. Have access to and copy any records that must be kept as specified in the Permit;
3. Inspect the construction site and related soil stabilization practices and sediment control measures; and
4. Sample or monitor for the purpose of ensuring compliance with the Permit.

The Contractor shall notify the Engineer immediately upon request from regulatory agencies to enter, inspect, sample, monitor or otherwise access the project site or the Contractor's records.

STORM WATER POLLUTION PREVENTION PLAN PREPARATION, APPROVAL AND UPDATES.—As part of the water pollution control work, a Storm Water Pollution Prevention Plan, hereafter referred to as the "SWPPP," is required for this contract. The SWPPP shall conform to the requirements in Section 7-1.01G, "Water Pollution," of the Standard Specifications, the requirements in the Handbook, the requirements of the Permit and these special provisions. Upon the Engineer's approval of the SWPPP, the SWPPP shall be deemed to fulfill the requirements of Section 7-1.01G, "Water Pollution," of the Standard Specifications for development and submittal of a Water Pollution Control Program.

The ability to waive the submission of a written water pollution control program as provided for in Section 7-1.01G, "Water Pollution," of the Standard Specifications will not be allowed.

No work having potential to cause water pollution, as determined by the Engineer, shall be performed until the SWPPP has been approved by the Engineer.

Within 20 days after the approval of the contract, the Contractor shall submit 3 copies of the SWPPP to the Engineer. The Contractor shall allow 10 days for the Engineer to review the SWPPP. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the SWPPP within 5 days of receipt of the Engineer's comments and shall allow 5 days for the Engineer to review the revisions. Upon the Engineer's approval of the SWPPP, 3 additional copies of the SWPPP, incorporating the required changes, shall be submitted to the Engineer. In order to allow construction activities to proceed, the Engineer may conditionally approve the SWPPP while minor revisions are being completed.

The objectives of the SWPPP shall be to identify pollution sources that may adversely affect the quality of storm water discharges associated with the project and to identify, construct, implement and maintain water pollution control measures, hereafter referred to as control measures, to reduce to the extent feasible pollutants in storm water discharges from the construction site both during and after construction is completed under this contract.

Throughout the duration of the project, the SWPPP shall be amended to reflect changes in field conditions which necessitates changes to the deployment of water pollution control measures as determined by the Engineer.

The SWPPP shall incorporate control measures in the following categories:

1. Soil stabilization practices;
2. Sediment control practices;
3. Sediment tracking control practices;
4. Wind erosion control practices; and
5. Non-storm water management and waste management and disposal control practices.

Specific objectives and minimum requirements for each category of control measures are contained in the Handbook.

The Contractor shall consider the objectives and minimum requirements presented in the Handbook for each of the above categories. The special minimum requirements listed below supersede the minimum requirements listed in the Handbook for the same category. When minimum requirements are listed for any category, the Contractor shall incorporate into the SWPPP, and implement on the project, the listed minimum controls required in order to meet the pollution control objectives for the category. In addition, the Contractor shall consider other control measures presented in the Handbook and shall incorporate into the SWPPP and implement on the project the control measures necessary to meet the objectives of the SWPPP. The Contractor shall document the selection process in accordance with the procedure specified in the Handbook.

The following special minimum requirements are established:

Category:	Minimum Requirements:
Non-Storm Water and Waste Management Controls	CD7(2) Dewatering, CD8(2) Paving Operations, CD10(2) Material Delivery and Storage, CD11(2) Material Use, CD12(2) Spill Prevention and Control, CD13(2) Solid Waste Management, CD14(2) Hazardous Waste Management, CD16(2) Concrete Waste Management, CD17(2) Sanitary/Septic Waste Management, CD18(2) Vehicle and Equipment Cleaning, CD19(2) Vehicle and Equipment Fueling, CD20(2) Vehicle and Equipment Maintenance, CD22(2) Scheduling, CD44(2) Illicit Discharge/Illegal Dumping Reporting
Erosion & Sediment Source Controls	CD22(2) Scheduling, CD23(2) Preservation of Existing Vegetation, CD25(25(2) Mulching, CD26B(2) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets,
Wind Erosion Controls	CD22(2) Scheduling, CD26A(2) Soil Stabilizers, CD26B(2) Geotextiles, Mats/Plastic Covers & Erosion Control Blankets
Sediment Treatment Controls	CD22(2) Scheduling, CD39(2) Brush or Rock Filter CD43(2) Fiber Rolls

The following contract items of work, as shown on the project plans, shall be incorporated into the SWPPP as critical temporary control measures: Stabilized Construction Entrance, Temporary Concrete Washout Facilities, Temporary Silt Fence, Temporary Stockpile Cover, and Temporary Straw Bale Barrier. The Contractor shall consider other control measures to supplement the critical temporary control measures when necessary to meet the pollution control objectives of the SWPPP.

The following contract items of work, as shown on the project plans, shall be incorporated into the SWPPP as permanent post-construction control measures: Erosion Control (Type D), Rock Slope Protection (1 Ton, Method A) and Rock Slope Protection (Backing No. 1, Method B). These control measures shall be utilized as construction period control measures. Attention is directed to "Order of Work" of these special provisions. The Contractor shall consider other control measures to supplement these permanent, post-construction control measures when necessary to meet the pollution control objectives of the SWPPP. The Contractor shall maintain and protect the permanent control measures throughout the duration of the project and shall restore these controls to the lines and grades shown on the plans prior to acceptance of the project.

The SWPPP shall include, but not be limited to, the following items as described in the Handbook and Permit:

1. Source Identification;
2. Erosion and Sediment Controls;
3. Non-Storm Water Management;
4. Waste Management and Disposal;
5. Maintenance, Inspection and Repair;
6. Training;
7. List of Contractors and Subcontractors;
8. Post-Construction Storm Water Management;
9. Preparer;

10. Copy of the permit;
11. BMP Consideration Checklist;
12. SWPPP Checklist;
13. Schedule of Values; and
14. Water Pollution Control Drawings.

The Contractor shall amend the SWPPP, graphically and in narrative form, whenever there is a change in construction activities or operations which may affect the discharge of significant quantities of pollutants to surface waters, ground waters, municipal storm drain systems, or when deemed necessary by the Engineer. The SWPPP shall also be amended if it is in violation of any condition of the Permit, or has not effectively achieved the objective of reducing pollutants in storm water discharges. Amendments shall show additional control measures or revised operations, including those in areas not shown in the initially approved SWPPP, which are required on the project to control water pollution effectively. Amendments to the SWPPP shall be submitted for review and approval by the Engineer in the same manner specified for the initially approved SWPPP. Approved amendments shall be dated and logged in the SWPPP. Upon approval of the amendment, the Contractor shall implement the additional control measures or revised operations.

The Contractor shall keep a copy of the SWPPP and approved amendments at the project site. The SWPPP shall be made available upon request of a representative of the Regional Water Quality Control Board, State Water Resources Control Board, U.S. Environmental Protection Agency or local storm water management agency. Requests by the public shall be directed to the Engineer.

By June 15 of each year, the Contractor shall submit an annual certification to the Engineer stating compliance with the requirements governing the Permit. Throughout the duration of the contract, if the project is determined to be in non-compliance at any time by the Engineer, the Contractor shall submit a written report to the Engineer within 48 hours of identification of the non-compliance. The report shall specify the time and nature of the non-compliance and include a course of action to correct the deficiency. Non-compliance shall include, but not be limited to, any of the following conditions:

1. Any written notices, violations, or orders presented by a regulatory agency.
 2. Control measures in the field are not implemented or maintained as provided for in the approved Storm Water Pollution Prevention Plan and amendments.
 3. The contractor fails respond to written requests for corrective actions.
 4. The contractor refuses to submit an annual certification.
 5. Contractor discharges unauthorized materials, residues, or liquids to drainage conveyances or water bodies.
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1. Directing the Contractor to revise the operations and SWPPP.
 2. No further work on any contract item out of compliance until the water pollution control measures are adequate and the SWPPP is amended and acceptable to the Engineer.
 3. No further work or the beginning of any new work on any contract items until an inspection is conducted of the work area to determine the adequacy of measures deployed to address all other work.
 4. Notification to the Regional Water Quality Control Board (RWQCB) of the non-compliance status.

SCHEDULE OF VALUES.—The Contractor shall submit with the SWPPP, for approval by the Engineer, a schedule of values detailing the cost breakdown of the contract lump sum item for water pollution control. The cost breakdown shall include both the special minimum requirements required by the Department and those selected by the Contractor for this project. The combined requirements shall be considered as items of work as part of the lump sum bid. The schedule of values shall reflect the total items of work, including both those required by the Department and those selected by the Contractor. The Contractor shall indicate quantities values and amounts for all control measures shown in the schedule of values, except for critical temporary controls and permanent control measures which are shown on the project plans and for which there is a contract item of work. Adjustments in the items of work and quantities listed in the schedule of values shall be made when required to address approved amendments to the SWPPP.

The sum of the amounts for the units of work listed in the schedule of values shall be equal to the contract lump sum price for water pollution control.

If approved in writing by the Engineer, the schedule of values will be used to determine progress payments for water pollution control during the progress of the work, and as the basis for calculating any adjustment in compensation for the contract item for water pollution control due to changes in the work ordered by the Engineer.

SWPPP IMPLEMENTATION.—Upon approval of the SWPPP, the Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting and maintaining the control measures included in the SWPPP and any amendments thereto and for removing and disposing of temporary control measures. Unless otherwise directed by the Engineer or specified in these special provisions, the Contractor's responsibility for SWPPP implementation shall continue throughout any temporary suspension of work ordered in accordance with Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications. Requirements for installation, construction, inspection, maintenance, removal and disposal of control measures are specified in the Handbook and these special provisions.

Soil stabilization practices and sediment control measures, including minimum requirements, shall be provided throughout the winter season, defined as between October 1 and May 1.

Implementation of soil stabilization practices and sediment control measures for soil-disturbed areas of the project site shall be completed, except as provided for below, no later than 20 days prior to the beginning of the winter season or upon start of applicable construction activities for projects which begin either during or within 20 days of the winter season.

Throughout the winter season, the active, soil-disturbed area of the project site shall be no more than 2 acres. The Engineer may approve, on a case-by-case basis, expansions of the active, soil-disturbed area limit. The Contractor shall demonstrate the ability and preparedness to fully deploy soil stabilization practices and sediment control measures to protect soil-disturbed areas of the project site before the onset of precipitation. The Contractor shall maintain a quantity of soil stabilization and sediment control materials on site equal to 125 percent of that sufficient to protect unprotected, soil-disturbed areas on the project site and shall maintain a detailed plan for the mobilization of sufficient labor and equipment to fully deploy control measures required to protect unprotected, soil-disturbed areas on the project site prior to the onset of precipitation. The Contractor shall include a current inventory of control measure materials and the detailed mobilization plan as part of the SWPPP.

Throughout the winter season, soil-disturbed areas of the project site shall be considered to be nonactive whenever soil disturbing activities are expected to be discontinued for a period of 10 or more days and the areas are protected with soil stabilization and sediment control measures. Areas that will become nonactive either during the winter season or within 20 days thereof shall be fully protected with soil stabilization practices and sediment control measures within 10 days of the discontinuance of soil disturbing activities or prior to the onset of precipitation, whichever is first to occur.

Throughout the winter season, active soil-disturbed areas of the project site shall be fully protected at the end of each day with soil stabilization practices and sediment control measures unless fair weather is predicted through the following work day. The weather forecast shall be monitored by the Contractor on a daily basis. The National Weather Service forecast shall be used, or an alternative weather forecast proposed by the Contractor may be used if approved by the Engineer. If precipitation is predicted prior to the end of the following work day, construction scheduling shall be modified, as required, and the Contractor shall deploy functioning control measures prior to the onset of the precipitation.

The Contractor shall implement, year-round and throughout the duration of the project, control measures included in the SWPPP for sediment tracking, wind erosion, non-storm water management and waste management and disposal.

The Engineer may order the suspension of construction operations which create water pollution if the Contractor fails to conform to the requirements of this section "Water Pollution Control" as determined by the Engineer.

MAINTENANCE.—To ensure the proper implementation and functioning of control measures, the Contractor shall regularly inspect and maintain the construction site for the control measures identified in the SWPPP. The Contractor shall identify corrective actions and time frames to address any damaged measures or reinitiate any measures that have been discontinued.

The construction site inspection checklist provided in the CSWPPP shall be used to ensure that the necessary measures are being properly implemented, and to ensure that the control measures are functioning adequately. The Contractor shall submit one copy of each site inspection record to the Engineer.

Inspections of the construction site shall be conducted by the Contractor to identify deficient measures, as follows:

1. Prior to a forecast storm;
2. After each storm event;
3. At 24 hour intervals during extended precipitation events; and
4. Routinely, on a weekly basis.

If the Contractor or the Engineer identifies a deficiency in the deployment or functioning of an identified control measure, the deficiency shall be corrected by the Contractor immediately, or by a later date and time if requested by the Contractor and approved by the Engineer in writing, but not later than the onset of subsequent precipitation events. The correction of deficiencies shall be at no additional cost to the State.

When any deficiency is not corrected within the timeframe prescribed by the Engineer, then the project shall be in non-compliance.

PAYMENT.—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 as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Attention is directed to Sections 9-1.06, "Partial Payments," and 9-1.07, "Payment After Acceptance," of the Standard Specifications. Payments for prepare storm water pollution prevention plan will be made as follows:

1. After the SWPPP has been approved by the Engineer, 75 percent of the contract item price for prepare storm water pollution prevention plan will be included in the monthly partial payment estimate; and
2. After acceptance of the contract pursuant to Section 7-1.17, "Acceptance of Contract," the remaining 25 percent of the contract item price for prepare storm water pollution prevention plan will be made in accordance with Section 9-1.07.

The contract lump sum price paid for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in installing, constructing, maintaining, removing and disposing of control measures, except those shown on the project plans and for which there is a contract item of work, and excluding developing, preparing, obtaining approval of, revising and amending the SWPPP, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for changes in control measures required by an approved amendment to the SWPPP, except changes to those control measures shown on the project plans and for which there is a contract item of work, shall be considered as included in the lump sum bid for the various items of work and no additional compensation will be allowed thereafter except changes to control measures required as a result of extra work will be compensated in accordance with Section 4-1.03D of the standard specifications and the following:

If the control measure is listed in the approved SWPPP schedule of values, an adjustment in compensation for the contract item for water pollution control will be made by applying the increase or decrease in quantities to the approved schedule of values. No adjustment of compensation will be made to the unit price listed for any item in the schedule of values due to any increase or decrease in the quantities, regardless of the reason for the increase or decrease. The provisions in Section 4-1.03B, "Increased or Decreased Quantities," shall not apply to items listed in the schedule of values.

Those control measures which are shown on the project plans and for which there is a contract item of work will be measured and paid for as that item of work.

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 requirements of this section "Water Pollution Control" or if the project is in non-compliance as determined by the Engineer.

Retentions for failure to conform to the requirements of this section "Water Pollution Control" shall be in addition to the other retentions provided for in the contract. The amounts retained for failure of the Contractor to conform to the requirements of this section will be released for payment on the next monthly estimate for partial payment following the date that an approved SWPPP has been implemented and maintained, and water pollution is adequately controlled, as determined by the Engineer.

WATER POLLUTION CONTROL SCHEDULE OF VALUES

Contract No. 04-0438U4

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
NON-STORM AND WASTE MANAGEMENT CONTROLS				
DEWATERING	LS	LUMP SUM		
MATERIAL USE	LS	LUMP SUM		
SPILL PREVENTION AND CONTROL	LS	LUMP SUM		
SOLID WASTE MANAGEMENT	LS	LUMP SUM		
HAZARDOUS WASTE MANAGEMENT	LS	LUMP SUM		
CONCRETE WASTE MANAGEMENT	LS	LUMP SUM		
SANITARY/SEPTIC WASTE MANAGEMENT	LS	LUMP SUM		
VEHICLE AND EQUIPMENT CLEANING	LS	LUMP SUM		
VEHICLE AND EQUIPMENT FUELING	LS	LUMP SUM		
VEHICLE AND EQUIPMENT MAINTENANCE	LS	LUMP SUM		
SCHEDULING	LS	LUMP SUM		
ILLCIT DISCHARGE/ILLEGAL DUMPING REPORTING	LS	LUMP SUM		

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REVISED PER ADDENDUM NO. 3 DATED DECEMBER 22, 1999

WATER POLLUTION CONTROL SCHEDULE OF VALUES

Contract No. 04-0438U4

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
EROSION AND SEDIMENT SOURCE CONTROLS				
SCHEDULING	LS	LUMP SUM		
PRESERVATION OF EXISTING VEGETATION	LS	LUMP SUM		
MULCHING	SQYD			
GEOTEXTILES, MATS/PLASTIC COVERS AND EROSION CONTROL BLANKETS	SQYD			
WIND EROSION CONTROLS				
SCHEDULING	LS	LUMP SUM		
SOIL STABILIZERS	SQYD			
GEOTEXTILES, MATS/PLASTIC COVERS AND EROSION CONTROL BLANKETS	SQYD			
SEDIMENT TREATMENT CONTROLS				
SCHEDULING	LS	LUMP SUM		
BRUSH OR ROCK FILTER	EACH			
FIBER ROLLS	EACH			

TOTAL _____

10-1.10 NON-STORM WATER DISCHARGES

This work shall consist of performing, installing, monitoring, maintaining, and removing when no longer required, non-storm water discharge facilities and waste management devices in accordance to the provisions in Section 7-1.01G, "Water Pollution Control," of the Standard Specifications and these special provisions and as directed by the Engineer.

Conformance with the requirements of this section shall not relieve the Contractor's from his responsibilities, as provided in Sections 7-1.11, "Preservation of Property," and 7-1.12, "Responsibility for Damage," of the Standard Specifications.

Attention is directed to Section "Dredging" of these specifications for handling of dredged material.

EXCAVATION DEWATERING.--The Contractor shall prevent surface runoff from entering the excavations. Continuous pumping of groundwater from the excavations may be required. A meter that has been approved by the Engineer shall be used to measure all excavation discharges. Dewatering at multiple locations within the project limits may be required in order to perform contract work. Effluent treatment systems may require multiple operations to mobilize, assemble and disassemble various components adjacent to work areas. Groundwater levels adjacent to work areas may require dewatering in order to perform contract work. This dewatering may be necessary in addition to the dewatering of individual work locations. Discharging effluent from various work locations to the approved discharge area may require additional piping or hauling of the treated effluent to the discharge location.

The Contractor shall submit a plan to the Engineer, as provided in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications, which details the methods and measures that will be used to seal the sides of the excavations, prevent the flow of water into excavations, and remove known groundwater contaminants. The plan shall, at a minimum, contain a graphic for the dewatering operation showing both a sectional and plan view that details the removal techniques for suspended solids and other constituents of concern. The graphic shall define the flow path and placement of pipes, hoses, pumps, and other equipment used to convey the discharge. In addition, the Contractor shall provide a drawing that depicts the general position of the dewatering measures relative to the excavations undergoing dewatering and the point of effluent discharge. The written descriptions of the dewatering operation shall include, but are not limited to, an estimate of the discharge volume, flow rate, and frequency; location of discharge; performance capabilities of treatment measures; and the inspection and monitoring procedures related to the discharge.

The plan shall be submitted at least 2 weeks prior to beginning excavation operations. The Contractor shall allow 5 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 3 days of receipt of the Engineer's comments and shall allow 3 days for the Engineer to review the revisions. Excavation operations shall not be allowed until the Engineer has approved the plan.

The maximum rate for dewatering of the excavation shall be 120,000 gallons per day.

Suspended solids shall be removed during the dewatering operation in conformance with these special provisions and the discharge permit for contaminated groundwater.

Suspended solids shall be removed to the extent that visible, floating products are not apparent within the discharge. Furthermore, suspended solids shall be removed to the extent that the activated carbon treatment system does not become damaged, clogged, or create a significant pressure drop, such that the removal effectiveness of petroleum hydrocarbons is diminished. The discharge shall be of a purity such that turbidity and apparent color beyond the present natural background levels are not apparent within the receiving water body. The turbidity, measured in Nephelometric Turbidity Units (NTU), of the discharge shall not be greater than a 10 percent increase of the background turbidity. The point of effluent discharge shall not cause bottom sediments, aquatic vegetation or surface soils to become dislodged or disturbed.

Petroleum hydrocarbons shall be removed during the dewatering operation in conformance with these special provisions and the discharge permit for contaminated groundwater.

The discharge into the receiving water body shall not contain total petroleum hydrocarbons beyond a maximum allowable concentration of 3.1×10^{-5} pounds per cubic feet (50 µg/L). Samples obtained from the discharge shall be analyzed in accordance with EPA method 8015M. The detection limit for the analysis shall be equal to or less than the allowable discharge concentration.

Monitoring requirements for the purposes of determining contaminant removal effectiveness and contaminant breakthrough of the effluent treatment system shall be handled as provided in 'Monitoring' elsewhere in this specification and in accordance with the discharge permit for contaminated groundwater.

The Contractor shall conduct a daily inspection of the dewatering equipment, when in use, to ensure that all components are functional and routinely maintained to prevent leakage prior to removal of suspended solids and petroleum hydrocarbons. Should any component of the dewatering equipment or treatment systems be damaged or affect the performance of the treatment system, the dewatering operation shall be discontinued and the component shall be repaired or replaced with substitute equipment.

The Contractor shall monitor both the discharge and the receiving water body. The observations or measurements made during monitoring shall include the color, size of affected area, presence of suspended material, presence of water fowl or aquatic wildlife, wind direction and velocity, atmospheric condition, time, date, pH, and a turbidity measurement in NTU. The Contractor shall supplement the observations with photographs. The Contractor shall conduct monitoring, at a minimum of 1 hour prior to discharge, during the first 10 minutes of initiating discharge, every 4 hours during discharge, and upon cessation of the discharge. The observations shall be recorded on the inspection forms to be provided by the Engineer. Completed inspection forms, including photographs, shall be provided to the Engineer, on a weekly basis or as directed by the Engineer.

Observations which indicate that the discharge is of a visible purity such that turbidity and apparent color are beyond the present natural background levels shall be immediately reported to the Engineer. The discharge activity shall cease so that corrective actions are undertaken to repair, modify or replace the equipment. The commencement of discharge activities shall be upon approval by the Engineer.

All water removed from excavations and dewatering operations shall be handled as provided in 'Effluent Treatment System' elsewhere in this specification and in accordance with the discharge permit for contaminated groundwater issued by the San Francisco Bay Regional Water Board. Copies of the permit are available for inspection and purchase at the Department of Transportation, Toll Bridge Duty Senior's Desk, 111 Grand Avenue, Oakland, California, telephone (510) 286-5549. Penalties assessed against the State for permit non-compliance by the Contractor shall be borne by the Contractor. The Department will deduct those penalty amounts from any monies due, or that may become due, the Contractor under the contract.

EFFLUENT TREATMENT SYSTEM.--An effluent treatment system shall be provided to treat all groundwater discharged from excavations or dewatering operations as shown on the plans and in accordance with these special provisions. Effluent shall be considered as the water and any other material discharged from the pumping operations.

The Contractor shall use the effluent treatment system to treat all groundwater prior to discharging into the approved dedicated discharge site (San Francisco Bay). Protection shall be provided at the outlet of treated effluent into the receiving water body to ensure that bottom sediments, aquatic vegetation, or surface soils do not become dislodged or disturbed.

Materials.--Materials for the effluent treatment system shall conform to the provisions in Section 6, "Control of Materials," Section 7-1.16, "Contractor's Responsibility for the Work and Materials," and Section 74-2, "Drainage Pump Equipment," of the Standard Specifications and these special provisions.

Holding tanks shall be transportable, totally enclosed, with a minimum holding capacity of 10,000 gallons per individual tank and capable of connecting multiple tanks in series. Holding tanks shall have an inlet and outlet capable of receiving and discharging minimum flows at a rate of 85 gpm. Holding tanks shall be able to accommodate temporary installation of submersible pumps of such capability to discharge water at a rate of 85 gpm. A minimum of 4 tanks shall be provided for use on this project. All tanks shall be of the same make and manufacturer and shall remain on the jobsite until dewatering operations are no longer necessary as determined by the Engineer.

A granulated activated carbon (GAC) system shall be used to treat groundwater contaminated with petroleum hydrocarbons. The GAC treatment system shall consist of at least 2 vessels having an inlet and outlet capable of receiving and discharging water at a flow rate of 85 gpm. The GAC treatment system shall be capable of treating total petroleum hydrocarbons at an inflow concentration of 6.2×10^{-4} pounds per cubic feet (10 mg/L), such that the outflow concentration is less than or equal to an allowable concentration of 3.1×10^{-5} pounds per cubic feet (50 µg/L). GAC treatment vessels shall be readily capable of removal and replacement or interchange when required. The GAC treatment system shall have appropriate fittings for pipe connections designed to accommodate the flow rate. The Contractor shall throughout the operation have 1 additional GAC vessel available for transport and use at the site within 24 hours after being directed by the Engineer.

Sampling ports shall be spigots attached to the piping system and capable of obtaining a representative sample of water at each location of the GAC treatment system, as shown on the plans. The GAC treatment system shall be capable of sustaining temporary fluctuations in water pressure due to monitoring activities.

Pumps shall be capable of being submerged in water and discharging water. Submersible pumps will be required for this project and shall be capable, at all times, of discharging at a flow rate of 85 gpm.

Plastic piping may be approved for use as determined by the Engineer in writing. If plastic piping is used, it shall conform to the provisions in Section 20-5.03E, "Pipe" of the Standard Specifications. The Contractor shall be responsible for providing all piping required to circulate the effluent through the treatment system and all piping required to convey the treated effluent from the temporary holding container to the point of release at the dedicated discharge location.

A temporary holding container shall be provided with a minimum holding capacity of 500 gallons. The holding container shall have an inlet and outlet capable of receiving and discharging minimum flows of 85 gpm. The holding container shall be open to the air and sealed on all sides and the bottom to prevent any leakage.

The Contractor shall be responsible for maintaining all of the equipment and materials outlined in this special provision to operational levels necessary to comply with provisions outlined in these special provisions and permits issued for this project. If the Contractor or the Engineer identifies a deficiency in the functioning of any equipment or material, the deficiency shall be immediately corrected by the Contractor.

Monitoring.--Monitoring shall be conducted in accordance with these special provisions and the discharge permit. Monitoring shall occur daily for the first 7 days of operating the GAC treatment system, and then be reduced to a frequency of once every 7 days thereafter. Upon relocation, replacement, interchange, or maintenance of the GAC vessels the Contractor shall conduct daily monitoring for the first 7 days of resuming treatment operations, and then reduce the monitoring frequency to once every 7 days thereafter. The Contractor shall collect water samples from each sampling port of the GAC treatment system, as depicted in the plans. A total of 3 samples shall be obtained from each sampling port during each monitoring event. The first of the 3 samples shall be analyzed for total suspended solids (TSS) in accordance with EPA method 160.1. The detection limit for the TSS analysis shall be at a maximum of 6.2×10^{-5} pounds per cubic feet (1 mg/L). The second sample shall be analyzed for total metals in accordance with EPA method 6010, and the third sample shall be analyzed for total petroleum hydrocarbons in accordance with EPA method 8015M. The detection limits for total metals and total petroleum hydrocarbons shall be consistent with those used for the site investigations described in "Contaminated and Hazardous Material, General" elsewhere in these special provisions. Furthermore, the quality assurance and quality control measures employed by the laboratory and personnel conducting sampling shall be consistent with those used for the site investigation described "Contaminated and Hazardous Material, General" elsewhere in these special provisions. Analytical results for all samples shall be available to the Engineer within 24 hours of delivering the samples to the laboratory. The Contractor shall ensure that the laboratory responsible for the analysis of the samples has been properly certified by the California Department of Health Services for conducting the analyses described under these special provisions and the discharge permit.

PILE AND COFFERDAM DEWATER.-- Suspended solids shall be removed during the dewatering operation for piles and cofferdams, as specified in these special provisions.

Suspended solids shall be removed to the extent that visible, floating products are not apparent within the discharge. Also, the discharge shall be of a purity such that turbidity and apparent color beyond present natural background levels are not apparent within the receiving water body of San Francisco Bay. The turbidity, measured in Nephelometric Turbidity Units (NTU), of the discharge shall not be greater than a 10 percent increase of the background turbidity for San Francisco Bay upgradient of the piles and cofferdams at a distance of at least 60 feet, but not greater than 150 feet. The point of effluent discharge shall not cause bottom sediments, aquatic vegetation, or surface soils to become dislodged or disturbed.

The Contractor shall graphically depict the dewatering process within the Storm Water Pollution Prevention Plan (SWPPP), as specified in "Water Pollution Control" of these special provisions. The graphic shall show both a sectional and plan view that details the removal techniques for suspended solids. The graphic shall define the flow path and placement of pipes, hoses, pumps, and other equipment used to convey the discharge. In addition, the contractor shall provide a sketch that depicts the general position of the apparatus relative to the pile(s) or cofferdam(s) undergoing dewatering and the point of effluent discharge.

The Contractor shall describe the dewatering apparatus within the appropriate sections of the SWPPP. The description shall include, but not be limited to, an estimate of the discharge volume, flow rate, and frequency; location of discharge; and the inspection and monitoring procedures related to the discharge.

The Contractor shall conduct a daily inspection of the dewatering equipment, when in use, to ensure that all components are functional and routinely maintained to prevent leakage prior to removal of suspended solids. Any component of the apparatus that is found to be damaged or to affect the performance of the apparatus shall be either immediately repaired or replaced.

The Contractor shall monitor and observe both the discharge and the receiving water body. The observations made during monitoring shall include the color, size of affected area, presence of suspended material, presence of water fowl or aquatic wildlife, wind direction and velocity, tidal condition, atmospheric condition, time, and date. In addition, the Contractor shall supplement the observations with photographs. Monitoring the discharge shall include collection of a turbidity measurement of the discharge and background turbidity of San Francisco Bay. Turbidity shall be reported in NTU. The contractor shall conduct monitoring, at a minimum, one hour prior to discharge, during the first ten minutes of initiating discharge, every four hours during discharge, and upon cessation of discharge. The

observations and monitoring data shall be recorded daily in a tabular format known as the monitoring report provided within the Conceptual Storm Water Pollution Prevention Plan, as described within "Water Pollution Control" of these special provisions. The monitoring report, including photographs, shall be provided weekly to the Engineer, or as directed by the Engineer.

Observations which indicate that the discharge is of a visible purity such that turbidity and apparent color are beyond the present natural background levels shall be immediately reported to the Engineer. The discharge activity shall immediately cease, so that corrective actions are undertaken to repair, modify, or replace the equipment. The commencement of discharge activities shall be allowed upon approval by the Engineer.

STOCKPILE DEWATER.-- The Contractor shall prevent the flow of water, including ground water, surface runoff and tidal flow from entering any temporary stockpiles on land.

The Contractor shall depict and describe within an amendment to the Storm Water Pollution Prevention Plan (SWPPP), as specified in "Water Pollution Control" of these special provisions, the methods and measures that will be used to dewater the temporary stockpiles, to seal the sides and bottom of the temporary stockpiles, and to prevent the flow of water into the stockpiles. The time to be provided for the Engineer's review and approval of the amendment shall be 10 working days prior to beginning temporary stockpile operations. Operations producing water will not be permitted until the plan has been approved by the Engineer.

All water removal from temporary stockpiles shall be handled in accordance with National Pollutant Discharge Elimination System (NPDES) Permits CAS000002 and CAS000003, issued by the State Water Resources Control Board. Copies of the permits and any amendments will be available for inspection and purchase at the Department of Transportation, District 04 Toll Bridge Duty Senior's desk at 111 Grand Avenue, Oakland, California, telephone number (510) 286-5549. The Contractor is responsible for all work, records, reports, and costs involved in handling the water in accordance with the NPDES permit. The Contractor shall supply all analytical data, dewatering volume records, and written requests for discharge to the Engineer for approval prior to discharging any water. The Engineer shall have up to 7 calendar days for review and approval of discharge. Water that does not meet discharge requirements shall not be discharged on the site or to the storm drainage or to the sanitary sewer systems. The Contractor is responsible for either treating such water to meet the requirements for discharge or hauling such water off site to an appropriately licensed liquid disposal facility. Penalties assessed against the State for permit non-compliance by the Contractor will be borne by the Contractor. Such penalties will be deducted from the monthly progress payment.

However, nothing in this section, "Non-Storm Water Discharge," will be construed as relieving the Contractor of full responsibility of complying with Section 7-1.16 "Contractor's Responsibility for the Work and Materials" of the Standard Specifications.

FLUIDS FROM TEST BORING AND PILE INSTALLATION.--Fluids from test boring and pile installation shall be contained during and after the test boring or piling operations.

The Contractor shall submit to the Engineer schematic diagrams showing the process in conveying and containing fluids including any fluid recirculation system intended to be used during test boring or piling operations. In addition, the Contractor shall supplement the schematic diagrams with contingency plans in event of spills. Schematic diagrams shall conform to the requirements in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. For initial review, 4 sets of schematic diagrams for review shall be submitted. After review, between 5 and 10 sets, as requested by the Engineer, shall be submitted to the Engineer for final approval and for use during construction.

Test boring or piling operations shall not be performed until the Contractor receives written approval from the Engineer.

Attention is directed to the requirements in "Spill Contingencies" of this section in the event of spill.

Disposal of fluids from test boring and pile installation not using cofferdams shall conform to Section "Dredging" of these special provisions and shall be fully described in the Storm Water Pollution Prevention Plan (SWPPP).

Disposal of fluids from pile installation within cofferdams shall conform to the requirements under "Pile and Cofferdam Dewater" of these special provisions and shall be fully described in the Storm Water Pollution Prevention Plan (SWPPP).

All water removed from piles shall be handled in accordance with National Pollutant Discharge Elimination System (NPDES) Permits CAS000003 and CAS000002 issued by the State Water Resources Control Board. Copies of the permits are available for inspection and purchase at the Department of Transportation, Toll Bridge Duty Senior's Desk, 111 Grand Avenue, Oakland, CA, (510) 286-5549. Penalties assessed against the State for permit non-compliance by the Contractor will be borne by the Contractor. Such penalties will be deducted from the monthly progress payment.

SPILL CONTINGENCY.--The Contractor shall prepare and submit to the Engineer a contingency plan for the management of spills or leaks of any materials or wastes that may impact the water quality of the San Francisco Bay.

The spill contingency plan shall be incorporated within the Storm Water Pollution Prevention Plan (SWPPP), as specified in "Water Pollution Control" of these special provisions.

The contingency plan shall include instructions and procedures for reporting spills, and a list of spill containment and collection materials and equipment to be maintained onsite. The contingency plan shall be reviewed and updated at least every 90 calendar days.

LIQUIDS, RESIDUES AND DEBRIS.--The control and disposal of liquids, residues, and debris associated with all activities shall be described within the SWPPP, as specified in "Water Pollution Control" of these special provisions. The SWPPP shall, at a minimum, depict and describe the procedural and structural methods of detaining, collecting, and disposing of all slurries, liquids, residues, and debris associated with the operations. Sufficient redundancy shall be incorporated into the procedural and structural methods such that the liquids, residues, and debris are not conveyed into or become present in drainage systems, San Francisco Bay, or other water bodies.

PAYMENT.-- Full compensation for conforming to the requirements of this section shall be considered as included in the lump sum price paid for water pollution control no additional compensation will be allowed therefor.