

DEPARTMENT OF TRANSPORTATION

DES-OE MS #43
1727 30TH Street, 2ND Floor
Sacramento, CA 95816



**** WARNING ** WARNING ** WARNING ** WARNING ****
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October 4, 2002

04-SF-80-4.9/5.9
04-0435V4

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in THE CITY AND COUNTY OF SAN FRANCISCO FROM FIFTH STREET TO SAN FRANCISCO-OAKLAND BAY BRIDGE.

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 November 5, 2002, instead of the original date of October 22, 2002.

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

Project Plan Sheets 1, 14, 50, 229, 230, 231, 234, 235, 245, 255, 269, 323, 324, 373, 388, 389, 538, 564, 576, 587, 590, 596, 597, 598, 601, 602, 609, 620 through 624, 639, 661, 667, 668, 676, 687, 754, 759, 765, 789,797, 800, 807, 808, 884, 887, 888, 889, 956, 967, 971, 975, 985, 986, 987, 989, 990, 991, 995, 998, 1001, 1004, 1007, 1011, 1029, 1031, 1106, 1212 through 1220, 1226, 1229, 1230, 1235, 1237, 1239, 1241, 1245, 1249, 1250, 1252, 1254, 1301 through 1304, 1308, 1309, 1395, 1399, 1402, 1416, 1419, 1422, 1485, 1488 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 895A, 1011A, 1011B, 1309A, 1309B, 1309C, and 1511A through 1511R are added. Half-sized copies of the added sheets are attached for addition to the project plans.

Project Plan Sheets 591 and 592 are deleted.

In the Special Provisions, "IMPORTANT SPECIAL NOTICES," is revised as attached.

In the Special Provisions, in the "NOTICE TO CONTRACTORS," the fourth paragraph regarding pre-bid meeting is revised as follows:

"Bidders are highly encouraged to attend a pre-bid meeting from 9:30 a.m. to 12:30 p.m. on October 10, 2002, at the Holiday Inn Bay Bridge, 1800 Powell Street, Emeryville, California. The purpose of the pre-bid meeting is to exchange information related to Business Enterprise. All subcontractors are also encouraged to attend."

In the Special Provisions, in the "NOTICE TO CONTRACTORS," the Toll Bridge Duty Senior telephone number in the fifth paragraph is changed to "(510)-286-5209".

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In the Special Provisions, Section 2-1.07, "ESCROW OF BID DOCUMENTATION," the first two sentences of the eighth paragraph are revised as follows:

"The Contractor shall also submit bid documentation for each subcontractor, manufacturer and supplier whose total subcontract or purchase orders exceeds or is expected to exceed \$250,000. Subcontractor, manufacturer and supplier bid documentation shall be enclosed with the Contractor's submittal regardless of whether or not subcontracts or purchase orders have been executed or entered into on the date that bid documentation is submitted for escrow."

In the Special Provisions, Section 2-1.08, "SUBMITTAL OF SMALL BUSINESS INFORMATION," is added as attached.

In the Special Provisions, Section 3, "AWARD AND EXECUTION OF CONTRACT," the following paragraph is added after the first paragraph:

"The award of the contract, if it be awarded, will be made within 60 days after the opening of the proposals. This period will be subject to extension for such further period as may be agreed upon in writing between the Department and the bidder concerned."

In the Special Provisions, Section 3, "AWARD AND EXECUTION OF CONTRACT," the third paragraph which reads as follows is deleted:

"It is anticipated that this contract will be awarded within 20 days after the bid opening."

In the Special Provisions, Section 3, "AWARD AND EXECUTION OF CONTRACT," the fourth paragraph is revised as follows:

"The contract shall be signed by the successful bidder and shall be received with contract bonds by the Department within **8 days**, not including Saturdays, Sundays and legal holidays, after the bidder has received notice that the contract has been awarded. Failure to do so shall be just cause for forfeiture of the proposal guaranty. The executed contract documents shall be delivered to the following address: Department of Transportation, P.O. Box 942874, Sacramento, CA 94274-0001, Attn: Office Engineer (MS 43) Contracts."

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

"This work shall be diligently prosecuted to completion before the expiration of **1824 WORKING DAYS** beginning at 12:01 a.m. on the **FIRST WORKING DAY AFTER CONTRACT AWARD.**"

In the Special Provisions, Section 5-1.006, "EXCAVATION SAFETY PLANS," subsection 5-1.02A, "EXCAVATION SAFETY PLANS," the "1.5 m" shown in the second sentence of the first paragraph is changed to "5 feet".

In the Special Provisions, Section 5-1.16, "SUBCONTRACTING," the last paragraph is deleted.

In the Special Provisions, Section 5-1.24, "HAZARDOUS AND NON-HAZARDOUS MATERIAL, GENERAL," the Toll Bridge Duty Senior telephone number in the second paragraph is changed to "(510)-286-5209".

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In the Special Provisions, Section 5-1.24, "HAZARDOUS AND NON-HAZARDOUS MATERIAL, GENERAL," subsection "SAMPLING AND ANALYSIS," the last sentence of the last paragraph is revised as follows:

"Five working days shall be allowed for review of the test data, and, if accepted, the reclassified material shall be paid by increasing or decreasing the various items of work in accordance with Section 4-1.03, "Changes," of the Standard Specifications."

In the Special Provisions, Section 5-1.25, "AREAS FOR CONTRACTOR'S USE," the first paragraph is revised as follows:

"Attention is directed to "Cooperation" of these special provisions. Areas available for the use of the Contractor are designated in the plans. No area is available for the exclusive use of the Contractor. Use of the Contractor's work areas and other State-owned property shall be at the Contractor's own risk, and the State shall not be held liable for damage to or loss of materials or equipment located within these areas."

In the Special Provisions, Section 5-1.28, "ACCESS TO PROJECT SITE," the Toll Bridge Duty Senior telephone number in the paragraph is changed to "(510)-286-5209".

In the Special Provisions, Section 5-1.31, "RELATIONS WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT (ASBESTOS DEMOLITION/RENOVATION)," the Toll Bridge Duty Senior telephone number in the third paragraph is changed to "(510)-286-5209".

In the Special Provisions, Section 6, "INCENTIVES AND DISINCENTIVES FOR COMPLETION OF DESIGNATED PORTIONS OF WORK," the third paragraph is revised as follows:

"An "extended weekend closure" is defined as a closure of extended duration greater than 4 hours and up to 55 hours starting after 10:00 p.m. on Friday and ending before 5:00 a.m. on the following Monday."

In the Special Provisions, Section 6., "INCENTIVES AND DISINCENTIVES FOR COMPLETION OF DESIGNATED PORTIONS OF WORK," subsection " INCENTIVES AND DISINCENTIVES" subparagraph "A", section 2 is revised as follows:

"Nine consecutive extended weekend closures will be the basis for the determination of incentive payments and disincentive deductions to complete the designated portion of work. For each and every extended weekend closure in excess of nine consecutive weekends, a disincentive deduction of \$200,000 will be deducted from any monies due to the Contractor under this contract. For each and every extended weekend closure less than nine consecutive weekends, to complete the designated portion of work, the Contractor will receive an incentive payment of \$200,000. The total incentive payment will not exceed \$600,000. No credit will be issued to offset the damages specified in "Closure Requirements and Conditions" of these special provisions. The work shall be diligently prosecuted to completion before the expiration of nine consecutive weekend closures."

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In the Special Provisions, Section 6, "INCENTIVES AND DISINCENTIVES FOR COMPLETION OF DESIGNATED PORTIONS OF WORK," subsection "INCENTIVES AND DISINCENTIVES" subparagraph "B", section 2 is revised as follows:

"Nine consecutive extended weekend closures will be the basis for the determination of incentive payments and disincentive deductions to complete the designated portion of work. For each and every extended weekend closure in excess of nine consecutive weekends, a disincentive deduction of \$500,000 will be deducted from any monies due to the Contractor under this contract. For each and every extended weekend closure less than nine consecutive weekends, to complete the designated portion of work, the Contractor will receive an incentive payment of \$500,000. The total incentive payment will not exceed \$1,500,000. No credit will be issued to offset the damages specified in "Closure Requirements And Conditions" of these special provisions. The work shall be diligently prosecuted to completion before the expiration of nine consecutive weekend closures."

In the Special Provisions, Section 6, "INCENTIVES AND DISINCENTIVES FOR COMPLETION OF DESIGNATED PORTIONS OF WORK," subsection "INCENTIVES AND DISINCENTIVES" subparagraph "C," the fourth sentence of section 2 is revised as follows:

"The total incentive payment will not exceed \$3,000,000."

In the Special Provisions, Section 9, "DESCRIPTION OF BRIDGE WORK," the bridge work description of "FREMONT STREET OFF-RAMP (Bridge No. 34-0127S)" is revised as follows:

"A multi-span cast-in-place, prestressed concrete box girder bridge, founded on cast-in-drilled hole piling."

In the Special Provisions, Section 9, "DESCRIPTION OF BRIDGE WORK," the bridge work description of "TBT - TURNAROUND (Bridge No. 34-0154C)" is added as follows:

"TBT – TURNAROUND (Bridge No. 34-0154C): A multi-span cast-in-place, reinforced concrete slab bridge, founded on cast-in-drilled-hole concrete piling."

In the Special Provisions, Section 10-1.02, "ORDER OF WORK," the following paragraphs are added after the fourteenth paragraph:

"The Contractor shall complete and open to bus access both the TBTOFF-Line and the HB-Line prior to closing the 2nd Street Bus Ramp.

The Contractor shall complete the First Street On Ramp Retaining Wall, Br. No. RW-101, and the foundation for Construction Area Sign No. 81, and restore First Street before the expiration of one hundred and eighty (180) working days beginning on the first working day after contract award. If at the expiration of 180 working days beginning on the first working day after contract award the Contractor has not completed the work as described above, the Contractor shall cease work on all other operations until the above work is completed. Days that such work is ceased pending completion of the work described above shall be considered working days in accordance with Section 4, "Beginning of Work, Time of Completion and Liquidated Damages," of these special provisions."

In the Special Provisions, Section 10-1.02, "ORDER OF WORK," the nineteenth paragraph is deleted.

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In the Special Provisions, Section 10-1.02, "ORDER OF WORK," the following paragraph is added after the twenty-third paragraph:

"Attention is directed to "INCENTIVES AND DISINCENTIVES FOR COMPLETION OF DESIGNATED PORTIONS OF WORK" of these special provisions regarding incentives and disincentives associated with Frame 8U construction."

In the Special Provisions, Section 10-1.04, "SURVEY OF EXISTING NON-HIGHWAY FACILITIES," the following paragraph is added after the twentieth paragraph:

"The Contractor shall document by means of certified letter any attempt to contact each property owner and provide a copy of all documentation to the Engineer."

In the Special Provisions, Section 10-1.04, "SURVEY OF EXISTING NON-HIGHWAY FACILITIES," the last paragraph is revised as follows:

"The Engineer may order photo surveys, elevation surveys and crack monitoring of existing facilities other than those facilities listed in the table entitled "VIBRATION MONITORING LOCATIONS," in these special provisions. Photo surveys, elevation surveys, and crack monitoring of existing facilities other than those facilities listed in the aforementioned table will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications."

In the Special Provisions, Section 10-1.045, "PHOTOGRAPHY," is added as follows:

"10-1.045 PHOTOGRAPHY

The Contractor shall provide time-lapse video and still photography to document pre-construction conditions, and progress and completion of the work, as directed by the Engineer. Photography will be paid for as extra work as provided in Section 4-1.03D of the Standard Specifications, and will not be considered a special service as specified in Section 9-1.03B of the Standard Specifications."

In the Special Provisions, Section 10-1.05, "VIBRATION MONITORING," the following property addresses and descriptions are added to the table of Vibration Monitoring Locations:

Address	Description
235 1 st St.	Commercial
449 2 nd St.	Commercial
401 3 rd St.	Commercial
330 Bryant St.	Commercial
566 Folsom St.	Commercial
777 Harrison St.	Commercial
81 Lansing St.	Residential
41 Tehama St.	Commercial
411 4 th St.	Commercial
215 Fremont St.	Commercial
Stillman St. near 141 Stillman St.	Under Construction
Sterling Substation	Caltrans Building

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In the Special Provisions, Section 10-1.05, "VIBRATION MONITORING," the following paragraph is added after the sixteenth paragraph:

"The Contractor shall document by means of certified letter any attempt to contact each property owner and provide a copy of all documentation to the Engineer."

In the Special Provisions, Section 10-1.09, "NON-STORM WATER DISCHARGES," the Toll Bridge Duty Senior telephone number in the third paragraph is changed to "(510)-286-5209".

In the Special Provisions, Section 10-1.09, "NON-STORM WATER DISCHARGES," subsection "DEWATERING, GENERAL," the Toll Bridge Duty Senior telephone number in the second paragraph is changed to "(510)-286-5209".

In the Special Provisions, Section 10-1.16, "TEMPORARY CHAIN LINK FENCE AND CHAIN LINK GATE," the fifteenth paragraph is revised as follows:

"Full compensation for maintaining, removing, and disposing of temporary fence shall be considered as included in the contract price paid per foot for temporary chain link fence (Type CL-6) and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.19, "COOPERATION," in the second paragraph, item "T" is revised as follows:

"T. CCSF DPW - Sewer Replacement on Fremont Street between Howard and Folsom Streets, and on Third Street between Harrison and Bryant Streets, Contract No. CW-287."

In the Special Provisions, Section 10-1.23, "PROGRESS SCHEDULE (CRITICAL PATH)," subsection "EQUIPMENT AND SOFTWARE," item "C" is revised as follows:

"C. Minimum five-hundred-and-twelve (512) megabytes of random access memory (RAM)"

In the Special Provisions, Section 10-1.24, "OVERHEAD," the section heading, "OVERHEAD", is changed to "TIME RELATED OVERHEAD".

In the Special Provisions, Section 10-1.29, "MAINTAINING TRAFFIC," the fourth sentence of the seventh paragraph is revised as follows:

"The spacing shown for falsework pavement lighting is the maximum distance center to center in feet between fixtures."

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In the Special Provisions, Section 10-1.29, "MAINTAINING TRAFFIC," the second table for "Fremont Street Off Ramp (UFR and UFF lines)" is revised as follows:

Harrison Street Off Ramp Bridge No. 34-0128K Stage 5 Adjacent to 340 Bryant Street Building			
	Number	Width	Height
Vehicle Openings	4	14	15
Pedestrian Openings	2	5	8
Location and Spacing of Falsework Pavement Lighting			
R 22.5			

In the Special Provisions, Section 10-1.29, "MAINTAINING TRAFFIC," in the twenty-first paragraph, the last sentence which reads as follows is deleted:

"Attention is directed to the section entitled "Order of Work" elsewhere in these special provisions for the definition of a weekend."

In the Special Provisions, Section 10-1.29, "MAINTAINING TRAFFIC," the twenty-third paragraph is revised as follows:

"Obstruction of Perry Street between Third and Fourth Streets as shown on the plans shall be limited to a period of not more than 18 months from the inception date of the initial closure. Access to Perry Street east of Third Street shall be maintained at all times."

In the Special Provisions, Section 10-1.29, "MAINTAINING TRAFFIC," the twenty-fourth paragraph is revised as follows:

"Any of the Contractor's operations in conflict with the existing driveways, doorways, or loading docks at 340 Bryant Street shall be performed during weekends. The Contractor shall maintain access to 340 Bryant Street at all other times."

In the Special Provisions, Section 10-1.29, "MAINTAINING TRAFFIC," Chart Nos. 5A, 5B, and 7 are revised as attached.

In the Special Provisions, Section 10-1.31, "TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE," the following paragraph is added after the third paragraph:

"All work necessary in arranging and managing traffic control on City streets by City forces as determined by the Engineer will be paid for as extra work, as provided in Section 4-1.03D of the Standard Specifications, except no markups will be allowed."

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In the Special Provisions, Section 10-1.39, "EXISTING HIGHWAY FACILITIES," subsection "ABANDON CULVERT," the seventh paragraph is revised as follows:

"Controlled low strength material and slurry cement backfill, if used at the Contractor's option, will be measured and paid for by the cubic yard as sand backfill."

In the Special Provisions, Section 10-1.39, "EXISTING HIGHWAY FACILITIES," subsection "BRIDGE REMOVAL," the following is added at the end of the list of bridge removal locations:

"BRIDGE REMOVAL (PORTION), LOCATION P
TBT - TURNAROUND
(BRIDGE NO. 34-0154C)"

In the Special Provisions, Section 10-1.47, "LIGHTWEIGHT EMBANKMENT MATERIAL (CELLULAR CONCRETE)," the third paragraph is revised as follows:

"At the Contractor's option, a mix design of the Lightweight Embankment Material (cellular concrete) having a higher compressive strength may be submitted and used for the lift immediately below the pavement structural section."

In the Special Provisions, Section 10-1.47, "LIGHTWEIGHT EMBANKMENT MATERIAL (CELLULAR CONCRETE)," the ninth paragraph is revised as follows:

"Lift thickness for Lightweight Embankment Material (cellular concrete) shall not exceed 4.0 feet. Where more than one lift is required, the layer to receive the next lift shall be scarified with a broom or rake to provide surface roughness. After curing for 12 hours, any crumbling area on the surface should be removed and scarified before the next layer is placed. Grades of up to 5 percent may be made by adding a thickening agent to the mix, in conformance with the manufacturer's recommendations."

In the Special Provisions, Section 10-1.47, "LIGHTWEIGHT EMBANKMENT MATERIAL (CELLULAR CONCRETE)," the eleventh paragraph is revised as follows:

"Lightweight Embankment Material (Cellular Concrete) shall be job site batched, mixed with foaming agent, and placed with specialized equipment certified by the manufacturer. Slurry coats and multilayer casting are acceptable methods of installation. Sub grade to receive Lightweight Embankment Material (cellular concrete) shall be free of all loose and extraneous material. Sub grade shall be uniformly moist, and any excess water standing on the surface shall be removed prior to placing Lightweight Embankment Material (cellular concrete)."

In the Special Provisions, Section 10-1.51, "EROSION CONTROL (MULCH)," subsection "MEASUREMENT AND PAYMENT," the first paragraph is revised as follows:

"Erosion control (mulch) will be measured and paid for by the cubic yard in the same manner specified for mulch in Section 20-4.09, "Measurement," and Section 20-4.10, "Payment," of the Standard Specifications."

In the Special Provisions, Section 10-1.53, "IRRIGATION CROSSEOVERS," the second paragraph is revised as follows:

"Materials shall be commercial quality unless otherwise specified. Materials containing asbestos fibers shall not be used. Materials shall conform to the provisions in section 20-2, "MATERIALS" of the Standard Specifications."

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In the Special Provisions, Section 10-1.53, "IRRIGATION CROSSEOVERS," the fourth paragraph is revised as follows:

"Solvent cement and primer for PVC plastic pipe and fittings for supply line shall be of commercial quality specifically manufactured for use with rigid PVC plastic pipe and fittings and shall be applied separately. Solvent cement shall conform to the requirements of the local Air Quality Management District. The solvent cement and primer used shall be made by the same manufacturer. The color of primer shall contrast with the color of the pipe and fittings."

In the Special Provisions, Section 10-1.53, "IRRIGATION CROSSEOVERS," the sixth paragraph is revised as follows:

"Conduit placed in open trenches shall be corrugated high density polyethylene pipe (CHDPE), corrugated steel pipe, corrugated aluminum pipe or acrylonitrile-butadiene-styrene (ABS) composite pipe. The size and kind of conduit to be installed will be designated in the Engineer's Estimate or specified in these special provisions."

In the Special Provisions, Section 10-1.61, "DRILLED HOLES," in the last paragraph, the phrase "cast-in-drilled-hole" is revised to "drilled hole".

In the Special Provisions, Section 10-1.775, "REFINISH BRIDGE DECKS," is added as attached.

In the Special Provisions, Section 10-1.87, "HEADED BAR REINFORCEMENT," is revised as attached.

In the Special Provisions, Section 10-1.925, "ISOLATION JOINT CASING," is added as attached.

In the Special Provisions, Section 10-1.96, "INSTALL SELF ADHESIVE SIGN PANEL," the Toll Bridge Duty Senior telephone number in the second paragraph is changed to "(510)-286-5209".

In the Special Provisions, Section 10-1.98, "CLEAN AND PAINT STRUCTURAL STEEL," subsection "PAINTING," the seventeenth paragraph is revised as follows:

"The first finish coat shall be applied in 2 applications. The first application shall consist of a spray applied mist application. The second application shall be applied after the mist application has dried to a set to touch condition as determined by the procedure described in Section 7 of ASTM Designation: D1640. The first finish coat color shall be approximately two shades lighter than the second finish coat color. There shall be a noticeable difference between the colors of the first and second finish coats. The total dry film thickness of both applications of the first finish coat shall be not less than 2 mils."

In the Special Provisions, Section 10-1.98, "CLEAN AND PAINT STRUCTURAL STEEL," subsection "PAINTING," the following paragraph is added after the nineteenth paragraph:

"At least 7 days prior to application of the first finish coat, color samples of the first and second finish coats shall be submitted to the Engineer for approval."

In the Special Provisions, Section 10-1.1025, "UNDERDRAIN," is added as attached.

In the Proposal and Contract, the "PROPOSAL TO THE DEPARTMENT OF TRANSPORTATION," the "4-days" specified in the second to the last paragraph is changed to "8 days".

In the Proposal and Contract, "CALTRANS BIDDER - SMALL BUSINESS - INFORMATION" form, is added after "CALTRANS BIDDER – DVBE – INFORMATION" form as attached.

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In the Proposal and Contract, the Engineer's Estimate Items 6, 81, 83, 89, 90, 95, 96, 99, 102, 112, 139, 141, 171, 172, 184, 185, 200, 216, 251, 252, 253, 270, and 272 are revised, Items 302 through 307 are added, and Items 43, 183, and 301 are deleted as attached.

To Proposal and Contract book holders:

Replace the entire Engineer's Estimate in the Proposal with the attached revised Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

Attached is a copy of the Material Information: Foundation Recommendations for "TBT - TURNAROUND (Bridge No. 34-0154C)".

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

IMPORTANT SPECIAL NOTICES

- The bidder's attention is directed to the following special requirements for this project concerning submission of DVBE information, award and execution of contract, and beginning of work:

First-tier subcontractors that will be used for meeting DVBE goals must be listed in the "List of Subcontractors" form regardless of dollar amount of work to be performed. Second- and lower-tier subcontractors need not be listed on the "List of Subcontractors" form. Other, non-DVBE subcontractors are to be listed on the "List of Subcontractors" form in conformance with the requirements in Section 2-1.054 of the Standard Specifications and the Special Provisions.

Identify second- and lower-tier DVBE subcontractors on the "Caltrans Bidder DVBE Information" form.

DVBE information shall be submitted **with the bid proposal**. (See **Section 2-1.04** of the special provisions.) The evaluation of the effort to meet the DVBE goal will be based on the information provided with the bid proposal. If the goal was not met, Caltrans' determination of good faith effort will be based on the information provided with the bid, and the decision will be final. Bidders and all subcontractors listed in the DVBE Information shall be available, by phone, on the day following the bid opening.

The DVBE information shall include all DVBE partners.

If the Bidder submits cash or a cashier's check or a certified check as the form of bidder's security (see Section 2-1.07 of the Standard Specifications), the Bidder shall also include with the bid submittal a signed and notarized affidavit from an admitted surety insurer that contract bonds, as required by Section 3-1.02, "Contract Bonds," of the Standard Specifications, will be provided within the specified time for executing and returning the contract for approval.

If the bidder claims a mistake was made in his bid, the bidder shall give the Department written notice within 48-hours, not including Saturdays, Sundays and legal holidays, after the opening of bids of the alleged mistake in lieu of the 5 days specified in Section 2-1.095, "Relief of Bidders," in the Standard Specifications. (See Section 2-1.01 of the special provisions.) Caltrans' FAX number for submitting this information is (916)227-6282. Such information shall be submitted "Attention Office Engineer."

The contract shall be signed by the successful bidder and shall be received with contract bonds by the Division of Office Engineer within **8 days**, not including Saturdays, Sundays and legal holidays, after the bidder has received notice that the contract has been awarded. (See Section 3 of the special provisions.)

If properly executed by the bidder, it is anticipated the contract will be approved within 2 days of when the executed contract and contract bonds are received by the Department.

- The Contractor shall begin work within 5 calendar days after receiving notice that the contract has been approved. The contract work shall be completed before the expiration of **1824 WORKING DAYS** beginning at **12:01 a.m. on the DAY AFTER THE DAY OF CONTRACT AWARD**. The definition of a working day has been re-defined for this project. (See Section 4 of the special provisions.)
- The time limit specified in the Special Provisions for the completion of work contemplated herein is considered insufficient to permit completion of the work by the Contractor working a normal number of hours per day or week on a single shift basis. It is expected that additional shifts will be required throughout the life of the contract to the extent deemed necessary to ensure that the work will be completed within the time limit specified. (See Section 4 of the Special Provisions).

The following forms have been included at the end of the Proposal and Contract book to assist the successful bidder in early execution of the contract documents: Payment Bond, Performance Bond and Payee Data Record.

- **Payment Bonds**
Attention is directed to Section 5 of the Special Provisions, regarding contract bonds. The payment bond shall be in a sum not less than one hundred percent of the total amount payable by the terms of the contract.

2-1.08 SUBMITTAL OF SMALL BUSINESS INFORMATION

Contractors, subcontractors, suppliers and service providers who qualify are requested to apply for certification as a "Small Business"-by submitting an application to the Department of General Services, Office of Small Business and DVBE Certification, 707 3rd Street, West Sacramento, CA 95605 Telephone No. (916) 375-4940 or (800) 559-5529.

Attention is directed to the provisions of the Small Business Procurement and Contract Act, Government Code Section 14835 et seq., and Title 2, California Code of Regulations, Section 1896 et seq. regarding certification as a Small Business.

Pursuant to Governor's Executive Order D-37-01, the Department is directed to pursue an annual 25% small business participation level in state contracting. In furtherance of this provision, bidders are encouraged to achieve 10 percent participation of small businesses in the performance of this contract. Contractors are requested to provide a completed "CALTRANS BIDDER-SMALL BUSINESS-INFORMATION" form.

**Chart No. 5A
Ramp Lane Requirements**

Location: Eastbound I-80 – On the Essex Street on-ramp

FROM HOUR TO HOUR	a.m.											p.m.													
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Mondays through Thursdays	X	X	X	X	X	X	X	X	X	X	X	X	X	X											X
Fridays	X	X	X	X	X	X	X	X	X	X	X	X	X												
Saturdays		X	X	X	X	X	X	X	X	X															
Sundays		X	X	X	X	X	X	X	X	X	X														X
Day before designated legal holiday																									
Designated legal holidays																									

Legend:

X Ramp may be closed

 No work that interferes with public traffic will be allowed

REMARKS:

1. See Construction Area Signs plans for detour no. 16.
2. For simultaneous closure of both Essex and First on-ramps see Chart No. 6.

**Chart No. 5B
Ramp Lane Requirements**

Location: Eastbound I-80 – On First Street on-ramp

FROM HOUR TO HOUR	a.m.											p.m.													
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Mondays through Thursdays	X	X	X	X	X	X	X																		X
Fridays	X	X	X	X	X	X	X																		
Saturdays		X	X	X	X	X	X	X	X	X															
Sundays		X	X	X	X	X	X	X	X	X	X														X
Day before designated legal holiday																									
Designated legal holidays																									

Legend:

X Ramp may be closed

 No work that interferes with public traffic will be allowed

REMARKS:

1. See Construction Area Signs plans for detour no. 14.
2. For simultaneous closure of both the First and Essex on-ramps see Chart No. 6.

**Chart No. 7
Ramp Lane Requirements**

Location: Eastbound I-80 – On the Sterling Street on-ramp

FROM HOUR TO HOUR	a.m.												p.m.														
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
Mondays through Thursdays	X	X	X	X	X	X						1	1	1	1								X	X	X	X	
Fridays	X	X	X	X	X	X						1	1	1	1									X	X	X	
Saturdays	X	X	X	X	X	X	X	X	X	X	X	X	X	X										X	X	X	
Sundays	X	X	X	X	X	X	X	X	X	X	X	X	X	X										X	X	X	X
Day before designated legal holiday																											
Designated legal holidays																											

Legend:

- 1 A minimum of one paved ramp lane, not less than 10 feet wide, shall be open for use by public traffic
- X Ramp may be closed
- No work that interferes with public traffic will be allowed

REMARKS:

1. See Construction Area Signs plans for detour no. 15.
2. On days of Pacific Bell Park events, the ramp shall remain open, with all lanes open, from two hours before the start of the event until two hours after the end of the event.

10-1.775 REFINISHING BRIDGE DECKS

Surfaces of bridge decks that are exposed when existing railings, curbs, or sidewalks are removed shall be prepared and refinished flush with the adjoining deck surface with portland cement concrete or rapid setting concrete, at the option of the Contractor, in conformance with these special provisions.

The exact area to be refinished will be designated by the Engineer.

Attention is directed to "Public Safety" of these special provisions.

When work is being performed within 10 feet of a traffic lane or performed over traffic, dust and residue from deck preparation and cleaning shall be removed or controlled by vacuum, water spray, or shield methods approved by the Engineer.

Concrete shall be removed without damage to concrete that is to remain in place. Damage to concrete which is to remain in place shall be repaired to a condition satisfactory to the Engineer.

The concrete in deck areas to be refinished shall be removed to a depth of approximately 3/4-inch below the adjoining deck surface. A 3/4-inch deep saw cut shall be made along the perimeter of areas prior to removing the concrete.

Existing areas of the deck more than 3/4-inch below the adjoining deck surface shall be prepared by removing not less than 1/4-inch of surface material to expose sound aggregates.

Concrete removal may be done by abrasive blast cutting, abrasive sawing, impact tool cutting, machine rotary abrading, or by other methods, all to be approved by the Engineer. Cut areas shall be cleaned free of dust and all other loose and deleterious materials by brooming, abrasive blast cleaning, and high pressure air jets. Equipment shall be fitted with suitable traps, filters, drip pans or other devices to prevent oil or other deleterious matter from being deposited on the deck.

Existing reinforcement, exposed during the removal of concrete, that is to remain in place shall be protected from damage.

Steel dowels shall be cut off flush with the existing concrete or cut off at the bottom of concrete removal, whichever is lower. Patching around or over dowels in sound concrete will not be required. Existing voids around dowels, where refinning is not required, shall be chipped back to sound concrete, the dowels removed 1 inch below the finished surface, and the hole filled with rapid setting concrete.

Refinishing isolated high areas in the existing deck may be accomplished by cutting the concrete down to be flush with the plane of the adjoining deck surface by abrasive sawing, grinding, impact tool cutting, or by other methods to be approved by the Engineer. When grinding is performed to bring the deck concrete flush with the adjoining deck surface, the resulting surface shall have a coefficient of friction of not less than 0.35 as determined by California Test 342.

PORTLAND CEMENT CONCRETE

An epoxy adhesive shall be applied to the surfaces to be refinished before placing the portland cement concrete. Immediately prior to applying the adhesive, the area to receive the adhesive shall be cleaned by abrasive blasting and blown clean by compressed air to remove dust and any other loose material. The area to be covered shall be surface dry and the ambient temperature shall be 10°C or above when the adhesive is applied.

The epoxy adhesive shall be furnished and applied in conformance with the provisions in Section 95-1, "General," and Section 95-2.03, "Epoxy Resin Adhesive for Bonding New Concrete to Old Concrete," of the Standard Specifications. Whenever the ambient temperature is below 65°F, Type II epoxy shall be used. The exact rate of applying epoxy adhesive will be as determined by the Engineer. The adhesive shall be worked onto the surface with stiff brushes or equal.

Portland cement concrete used to fill the prepared areas shall conform to the provisions in Section 90, "Portland Cement Concrete," of the Standard Specifications and the following:

- A. The concrete shall contain a minimum of 658 pounds of portland cement per cubic yard.
- B. The amount of free water used in concrete shall not exceed 280 pounds per cubic yard.
- C. The aggregate shall contain between 50 and 55 percent fine aggregate and the remainder shall be pea gravel. The grading of pea gravel shall be such that 100 percent passes the ½ inch screen and not more than 5 percent passes the No. 16 sieve, unless a larger size is ordered by the Engineer.
- D. Admixtures shall be furnished and used if directed by the Engineer.
- E. Immediately after depositing on the newly placed adhesive, the portland cement concrete shall be thoroughly consolidated until all voids are filled and free mortar appears on the surface and then struck off to the required grade.
- F. Concrete shall be cured as provided in Section 90-7.03, "Curing Structures," of the Standard Specifications.
- G. No loads of any kind shall be applied to the portland cement concrete for at least 7 days after placing, unless otherwise permitted by the Engineer.

RAPID SETTING CONCRETE

The concrete used to fill the prepared areas shall be a high-strength material consisting of either magnesium phosphate concrete, modified high alumina based concrete, or portland cement based concrete. Magnesium phosphate concrete shall conform to the requirements for magnesium phosphate concrete in Section 83-2.02D(1), "General," of the Standard Specifications and these special provisions. Modified high alumina based concrete and portland cement based concrete shall be water activated and shall conform to the requirements for single component (water activated) magnesium phosphate concrete in Section 83-2.02D(1), "General," of the Standard Specifications and the following:

- A. A clean uniform rounded aggregate filler may be used to extend the concrete. The moisture content of the aggregate shall not exceed 0.5 percent. Grading of the aggregate shall conform to the following:

Sieve Size	Percentage Passing
½ inch	100
No. 16	0-5

- B. The amount of aggregate filler shall conform to the manufacturer's recommendation, but in no case shall the concrete strengths be less than that specified for magnesium phosphate concrete in Section 83-2.02D(1), "General," of the Standard Specifications.
- C. Mixing of components of dual component (with a prepackaged liquid activator) magnesium phosphate shall be by complete units, supplied by the manufacturer. Portions of units shall not be used. Water shall not be added to dual component magnesium phosphate.
- D. Immediately prior to applying the rapid setting concrete, the surface shall be dry and blown clean by compressed air to remove accumulated dust and any other loose material. If the surface becomes contaminated at any time prior to placing the concrete, the surface shall be cleaned by abrasive blasting. The surface temperature of the areas to be covered shall be 40°F or above when the concrete is applied. Methods proposed to heat said surfaces are subject to approval by the Engineer. The surface for the magnesium phosphate concrete shall be dry. The surfaces for modified high alumina based concrete or portland cement based concrete may be damp but not saturated.
- E. Magnesium phosphate concrete shall not be mixed in containers or worked with tools containing zinc, cadmium, aluminum or copper. Modified high alumina based concrete shall not be mixed in containers or worked with tools containing aluminum.
- F. Concrete shall not be retempered. Finishing tools that are cleaned with water shall be thoroughly dried before working the concrete.
- G. When placing concrete on slopes exceeding 5 percent, the Engineer may require the Contractor to provide a flow controlled modified material.
- H. Modified high alumina based concrete and portland cement based concrete shall be cured in conformance with the provisions in Section 90-7.01B, "Curing Compound Method," of the Standard Specifications. Magnesium phosphate concrete shall not be cured.
- I. Unless otherwise permitted in writing by the Engineer, public traffic shall not be permitted on the new concrete until at least 24 hours after final set.

FINISHING REQUIREMENTS

In advance of the curing operations, the surface of the concrete shall be textured by brooming with a stiff bristled broom or by other suitable devices which will result in uniform scoring. Brooming shall be performed transversely. The operation shall be performed at a time and in a manner that to produces a hardened surface having a uniform texture and a coefficient of friction of not less than 0.35 as determined by California Test 342.

Refinished surfaces that are found to have a coefficient of friction less than 0.35 shall be ground or grooved by the Contractor at his expense in conformance with the applicable provisions in Section 42, "Groove and Grind Pavement," of the Standard Specifications.

In the longitudinal direction, refinished surfaces shall not vary more than 0.02-foot from the lower edge of a 12-foot straightedge. The refinished surface shall be flush with the existing adjoining surface.

MEASUREMENT AND PAYMENT

No adjustment of compensation will be made for any increase or decrease in the quantity of refinish bridge deck, regardless of the reason for the increase or decrease. The provisions in Section 4-1.03B, "Increased or Decreased Quantities," of the Standard Specifications shall not apply to the contract item of refinish bridge deck.

The quantity in square feet of refinish bridge deck to be paid for will be determined from the lengths and widths of the refinished areas, measured horizontally, plus 0.2-square foot for patching around each dowel.

The contract price paid per square foot for refinish bridge deck shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in refinishing areas of the existing bridge deck (including cutting steel dowels), complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.87 HEADED BAR REINFORCEMENT

Headed bar reinforcement shall consist of bar reinforcement with heads attached to one or both ends. The type of headed bar reinforcement to be used on this project shall be on the Department's current prequalified list prior to use, and shall conform to the provisions of Section 52, "Reinforcement," of the Standard Specifications, the details shown on the plans, and these special provisions.

Welded headed bar reinforcement shown on the plans shall conform to the provisions for headed bar reinforcement as specified herein.

The Department maintains a list of prequalified headed bar reinforcement types. The prequalified list can be obtained by contacting the Transportation Laboratory and is available at the Department's internet site at:

http://www.dot.ca.gov/hq/esc/approved_products_list/

GENERAL

Prior to manufacturing, the Contractor shall submit to the Engineer the manufacturer's Quality Control (QC) manual for the fabrication of headed bar reinforcement. As a minimum, the QC manual shall include the following:

- A. The pre-production procedures for the qualification of materials and equipment.
- B. The methods and frequencies for performing QC procedures during production.
- C. The calibration procedures and calibration frequency for all equipment.
- D. A system for the identification and tracking of all friction welds. The system shall have provisions for permanently identifying each weld and the parameters used to perform it.
- E. The welding procedure specification (WPS) for friction welded headed bar reinforcement.
- F. A system for marking headed bar reinforcement.

The provisions of "Welding Quality Control" of these special provisions shall not apply to headed bar reinforcement.

The Contractor shall perform inspection and testing prior to, during, and after manufacturing headed bar reinforcement and as necessary to ensure that materials and workmanship conform to the requirements of the specifications.

A daily production log for the manufacture of headed bar reinforcement shall be maintained by the manufacturer for each production lot. The log shall clearly indicate the production lot numbers, the heats of bar material and head material used in the manufacture of each production lot, the number of bars in each production lot, and manufacturing records, including tracking and production parameters for welds or forgings. The data from the daily production log shall be available to the Engineer upon request.

A production lot of headed bar reinforcement is defined as 150 reinforcing bars, or fraction thereof, of the same bar size, with heads of the same size and type, and manufactured by the same method, produced from bar material of a single heat number and head material of a single heat number. If one reinforcing bar has a head on both ends, it will be counted as two reinforcing bars for the purposes of establishing and testing production lots. A new production lot shall be started if the heat number of either the bar material or the head material changes before the maximum production lot size of 150 is reached.

The Contractor shall furnish Certificates of Compliance accompanied by a copy of the mill test report, the Production Tests Reports specified herein, and the corresponding daily production logs to the Engineer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for each shipment of headed bar reinforcement delivered to the jobsite.

Welding, welder qualifications, and inspection of welding shall conform to the requirements for friction welding in ANSI/AWS C6.1.

Equipment used to perform friction welding shall be fitted with an effective in-process monitoring system to record essential production parameters that describe the process of welding the head onto the reinforcement. The parameters to be recorded shall include friction welding force, forge force, rotational speed, friction upset distance and time, and forge upset distance and time. The data from this in-process monitoring shall be recorded and preserved by the manufacturer until acceptance of the contract and shall be provided to the Engineer upon request.

PRODUCTION TESTS

Production tests shall be performed at the Contractor's expense, at an independent qualified testing laboratory, and in the presence of the Engineer, unless otherwise directed in writing. The independent qualified testing laboratory used to perform the testing of headed bar reinforcement samples shall not be employed or compensated by any subcontractor, or by other persons or entities hired by subcontractors who will provide other services or materials for the project, and shall have the following:

- A. A tensile testing machine capable of breaking the largest size of reinforcing bar to be tested.
- B. Operators who have received formal training for performing the testing requirements of ASTM Designation: A 970/A 970M.
- C. A record of annual calibration of testing equipment performed by an independent third party that has 1) standards that are traceable to the National Institute of Standards and Technology, and 2) a formal reporting procedure, including published test forms.

The Engineer shall be notified in writing when any lots of headed bar reinforcement are ready for testing. The notification shall include the number of lots to be tested and the location where the tests are to be conducted. After notification has been received, test samples will be randomly selected by the Engineer from each production lot of headed bar reinforcement which is ready for shipment to the jobsite. If epoxy coating is required, test samples will be taken after the headed bar reinforcement has been prepared for epoxy coating. The Engineer will be at the testing site within a maximum of one week after receiving written notification that the samples are at the testing site and ready for testing. In the event the Engineer fails to be present at the testing site within the time allowed, and if, in the opinion of the Engineer, completion of the work is delayed or interfered with by failure of the Engineer to be present at the testing site, the Contractor will be compensated for any resulting loss in the same manner as provided for in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

A minimum of 3 samples from each production lot shall be tested. One tensile test shall be conducted on each sample.

Tensile tests shall conform to the requirements specified in ASTM Designation: A 970/A 970M, Section 7, except that at rupture, there shall be visible signs of necking in the reinforcing bar 1) at a minimum distance of one bar diameter away from the head to bar connection for friction welded headed bar reinforcement, or 2) outside the affected zone for integrally forged headed bar reinforcement.

The affected zone for integrally forged headed bar reinforcement is the portion of the reinforcing bar where any properties of the bar, including the physical, metallurgical, or material characteristics, have been altered during the manufacturing process.

If one of the test specimens fails to meet the specified requirements, one retest shall be performed on one additional sample, selected by the Engineer, from the same production lot. If the additional test specimen, or if more than one of the original test specimens fail to meet these requirements, all headed bar reinforcement in the lot represented by the tests will be rejected in conformance with the provisions in Section 6-1.04, "Defective Materials," of the Standard Specifications.

A Production Test Report for all testing performed on each lot shall be prepared by the independent testing laboratory and submitted to the Engineer as specified herein. The report shall be signed by an engineer who represents the laboratory and is registered as a Civil Engineer in the State of California. The report shall include the following information for each set: contract number, bridge number, lot number, bar size, type of headed bar reinforcement, physical conditions of test sample, any notable defects, limits of affected zone, location of visible necking area, and the ultimate strength of each headed bar.

Each unit of headed bar reinforcement in a production lot to be shipped to the site shall be tagged in a manner such that production lots can be accurately identified at the jobsite. All unidentified headed bar reinforcement received at the jobsite will be rejected.

MEASUREMENT AND PAYMENT

Quantities of headed bar reinforcement will be measured as units determined from the number of heads shown on the plans or as directed by the Engineer.

The contract unit price paid for headed bar reinforcement shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing headed bar reinforcement, including conforming to all testing requirements, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Bar reinforcement to be used in the manufacture of headed bar reinforcement, and placing the completed headed bar reinforcement into the work will be measured and paid for as specified in Section 52, "Reinforcement," of the Standard Specifications, except that the lengths to be used in the computation of calculated masses of the bar reinforcement shall be the entire length of the completed headed bar, including heads.

10-1.925 ISOLATION JOINT CASING

Isolation joint casing shall consist of drilling holes and bonding bar reinforcing steel dowels inside casings at existing columns, furnishing and installing structural steel casings, fins, jacking platforms, lateral supports, and high strength threaded rods at the columns, coring holes for these threaded rods, cleaning and painting these structural steel components, jacking and cutting through the columns, furnishing and installing stainless steel plates, furnishing and placing concrete between the columns and casings, furnishing and installing neoprene strip, and furnishing and placing asphalt membrane waterproofing on the casings, in conformance with the details shown on the plans and these special provisions.

The columns shall be cut and raised to provide for placing of stainless steel plates at the gaps created by the cutting of the columns.

Jacking operations shall be carefully controlled so that the portion of the column above the cut is raised in uniform amounts across all dimensions at all times. The jacking operation shall not interfere with or disrupt the flow of traffic over the bridge. Jacking operations shall not begin until concrete has obtained a compressive strength of not less than 4000 psi.

A displacement monitoring system shall be provided to measure horizontal and vertical displacements. The displacement monitoring system shall consist of a system of devices that are capable of reading dimensions to a precision of at least 0.01 inch. The measuring devices shall be placed at no fewer than 4 locations at the cut and shall be evenly spaced around the column.

At least 15 days before starting the work the Contractor shall submit to the Engineer complete details and working drawings of the method and equipment he proposes to use in accordance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. The drawings shall include a description of the jacking equipment, displacement monitoring system, and sequence of operations.

At no time shall the superstructure be raised more than 1/4 inch above the existing roadway.

Cutting concrete and bar reinforcing steel shall conform to the provisions in "Bridge Removal" of these special provisions.

The ends of the cut reinforcement shall be painted with a zinc rich coating conforming to the provisions for painting damaged galvanized surfaces in Section 75-1.05, "Galvanizing," of the Standard Specifications.

Concrete for filling the space between the column and the casing shall conform to the provisions in "Concrete Structures" of these special provisions.

Drilling and bonding dowels shall conform to the provisions in "Drill and Bond Dowels" of these special provisions

Coring concrete shall conform to the provisions in "Core Concrete" of these special provisions

Bar reinforcing steel shall conform to the provisions in "Reinforcement" of these special provisions.

Structural steel shall conform to the provisions for structural steel for column casings as specified in "Column Casings" of these special provisions.

Double extra strong steel pipe shall conform to the requirements of ASTM Designation: A 53, Grade B.

Stainless steel plates shall conform to the requirements of ASTM Designation: A 240, Type 304.

High-strength threaded rods shall conform to the requirements of ASTM Designation: A354, Grade BD.

Stud connectors shall conform to the provisions in Section 55, "Steel Structures," of the Standard Specifications.

Cleaning and painting structural steel components of isolation joint casings, including high-strength threaded rods, shall conform to the provisions for cleaning and painting column casings at SFOBB San Francisco Approach Mainline Structure as specified in "Column Casings" of these special provisions.

Asphalt membrane waterproofing shall conform to the provisions in "Waterproofing" of these special provisions.

Furnishing and installing neoprene strip shall conform to the requirements for strip water stops as provided in Section 51-1.145, "Strip Water stops," of the Standard Specifications, except that the protective board will not be required.

Isolation joint casing will be measured by the unit. One unit shall consist of one column around which an isolation joint casing is installed.

The contract unit price paid for isolation joint casing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing the isolation joint casing, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.1025 UNDERDRAIN

Under drains at columns around which isolation joint casings are installed shall conform to the provisions in Section 68-1, "Under drains," of the Standard Specifications and these special provisions.

Attention is directed to the section "Engineering Fabrics" of these special provisions.

Permeable material used at columns around which isolation joint casings are installed shall be placed in horizontal layers and thoroughly consolidated along with and by the same methods specified for structure backfill in Section 19-3, "Structure Excavation and Backfill," of the Standard Specifications. Ponding and jetting of permeable material or structure backfill adjacent to permeable material will not be permitted.

At the option of the Contractor, Class 1 or Class 2 permeable material shall be used. Filter fabric shall be placed between Class 1 permeable material and backfill or soil. No filter fabric will be required with Class 2 permeable material.

Under drains used at columns around which isolation joint casings are installed will be measured and paid for at the contract price per linear foot for 8-inch perforated steel pipe under drain (.064 inch thick).

Permeable material used at columns around which isolation joint casings are installed will be measured and paid for by the cubic yard as permeable material (bridge).

Full compensation for filter fabric when required shall be considered as included in the contract price paid per cubic yard for permeable material (bridge) and no additional compensation will be allowed therefor.

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
1	024308	SURVEY OF EXISTING NON-HIGHWAY FACILITIES	LS	LUMP SUM	LUMP SUM	
2	024309	SEWER VIDEO SURVEY	LS	LUMP SUM	LUMP SUM	
3	024310	VIBRATION MONITORING	LS	LUMP SUM	LUMP SUM	
4	024311	ELECTRONIC MOBILE DAILY DIARY SYSTEM DATA DELIVERY	LS	LUMP SUM	LUMP SUM	
5	070010	PROGRESS SCHEDULE (CRITICAL PATH)	LS	LUMP SUM	LUMP SUM	
6	070018	TIME-RELATED OVERHEAD	WDAY	1,824		
7	049020	TEMPORARY SUPPORT, LOCATION A	LS	LUMP SUM	LUMP SUM	
8	049021	TEMPORARY SUPPORT, LOCATION B	LS	LUMP SUM	LUMP SUM	
9	024312	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
10 (S)	074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM	LUMP SUM	
11 (S)	074020	WATER POLLUTION CONTROL	LS	LUMP SUM	LUMP SUM	
12 (S)	074029	TEMPORARY SILT FENCE	LF	1,800		
13 (S)	024313	TEMPORARY SILT FENCE FABRIC ALONG CHAIN LINK FENCE	LF	14,600		
14 (S)	024314	TEMPORARY ROCK BAG BARRIER	LF	14,600		
15 (S)	024315	TEMPORARY COVER	SQYD	2,500		
16 (S)	024316	TEMPORARY DRAINAGE INLET PROTECTION	EA	87		
17 (S)	024317	TEMPORARY CONCRETE WASHOUT FACILITY	EA	21		
18 (S)	024318	TEMPORARY ENTRANCE/EXIT	EA	42		
19 (S)	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM	LUMP SUM	
20 (S)	120100	TRAFFIC CONTROL SYSTEM	LS	LUMP SUM	LUMP SUM	

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21 (S)	120120	TYPE III BARRICADE	EA	13		
22 (S)	120149	TEMPORARY PAVEMENT MARKING (PAINT)	SQFT	3,670		
23 (S)	024319	TEMPORARY PAVEMENT MARKER (NON-REFLECTIVE)	EA	4,010		
24 (S)	024320	TEMPORARY PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE C)	EA	15		
25 (S)	024321	TEMPORARY PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE D)	EA	80		
26 (S)	024322	TEMPORARY PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE G)	EA	1,790		
27 (S)	024323	TEMPORARY PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE H)	EA	450		
28 (S)	120159	TEMPORARY TRAFFIC STRIPE (PAINT)	LF	43,700		
29 (S)	120165	CHANNELIZER (SURFACE MOUNTED)	EA	220		
30 (S)	024324	TEMPORARY CHAIN LINK FENCE (TYPE CL-6)	LF	4,020		
31 (S)	024325	16' TEMPORARY CHAIN LINK GATE (TYPE CL-6)	EA	2		
32 (S)	128650	PORTABLE CHANGEABLE MESSAGE SIGN	EA	14		
33 (S)	129000	TEMPORARY RAILING (TYPE K)	LF	30,900		
34 (S)	129100	TEMPORARY CRASH CUSHION MODULE	EA	620		
35 (S)	129150	TEMPORARY TRAFFIC SCREEN	LF	29,200		
36	049022	PIN COLUMN	LS	LUMP SUM	LUMP SUM	
37	150206	ABANDON CULVERT	EA	45		
38	150221	ABANDON INLET	EA	2		
39	150224	ABANDON MANHOLE	EA	3		
40	150608	REMOVE CHAIN LINK FENCE	LF	6,940		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	150620	REMOVE GATE	EA	11		
42	150662	REMOVE METAL BEAM GUARD RAILING	LF	350		
43 (S)	BLANK					
44	150714	REMOVE THERMOPLASTIC TRAFFIC STRIPE	LF	22,400		
45	024326	REMOVE THERMOPLASTIC TRAFFIC STRIPE (YELLOW)	LF	6,280		
46	150742	REMOVE ROADSIDE SIGN	EA	95		
47	150760	REMOVE SIGN STRUCTURE	EA	9		
48	150769	REMOVE ASPHALT CONCRETE	CY	210		
49	150771	REMOVE ASPHALT CONCRETE DIKE	LF	1,110		
50	150805	REMOVE CULVERT	LF	220		
51	150820	REMOVE INLET	EA	34		
52	024327	REMOVE SAN FRANCISCO MANHOLE	EA	1		
53	152320	RESET ROADSIDE SIGN	EA	1		
54 (S)	153101	PLANE ASPHALT CONCRETE PAVEMENT	SQYD	27,700		
55	153210	REMOVE CONCRETE	CY	940		
56	153221	REMOVE CONCRETE BARRIER	LF	6,100		
57	153229	REMOVE CONCRETE BARRIER (TYPE K)	LF	760		
58	156585	REMOVE CRASH CUSHION	EA	7		
59	156590	REMOVE CRASH CUSHION (SAND FILLED)	EA	38		
60	157551	BRIDGE REMOVAL, LOCATION A	LS	LUMP SUM	LUMP SUM	

ENGINEER'S ESTIMATE**04-0435V4**

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	157552	BRIDGE REMOVAL, LOCATION B	LS	LUMP SUM	LUMP SUM	
62	157553	BRIDGE REMOVAL, LOCATION C	LS	LUMP SUM	LUMP SUM	
63	157554	BRIDGE REMOVAL, LOCATION D	LS	LUMP SUM	LUMP SUM	
64	157555	BRIDGE REMOVAL, LOCATION E	LS	LUMP SUM	LUMP SUM	
65	157556	BRIDGE REMOVAL, LOCATION F	LS	LUMP SUM	LUMP SUM	
66	157557	BRIDGE REMOVAL, LOCATION G	LS	LUMP SUM	LUMP SUM	
67	157558	BRIDGE REMOVAL, LOCATION H	LS	LUMP SUM	LUMP SUM	
68	157559	BRIDGE REMOVAL, LOCATION I	LS	LUMP SUM	LUMP SUM	
69	049023	BRIDGE REMOVAL, LOCATION J	LS	LUMP SUM	LUMP SUM	
70	049024	BRIDGE REMOVAL, LOCATION M (STAGE 1)	LS	LUMP SUM	LUMP SUM	
71	049025	BRIDGE REMOVAL, LOCATION M (STAGE 2)	LS	LUMP SUM	LUMP SUM	
72	049026	BRIDGE REMOVAL, LOCATION M (STAGE 3)	LS	LUMP SUM	LUMP SUM	
73	049027	BRIDGE REMOVAL, LOCATION M (STAGE 4)	LS	LUMP SUM	LUMP SUM	
74	049028	BRIDGE REMOVAL, LOCATION M (STAGE 5)	LS	LUMP SUM	LUMP SUM	
75	049029	BRIDGE REMOVAL (PORTION), LOCATION N	LS	LUMP SUM	LUMP SUM	
76	049030	BRIDGE REMOVAL (PORTION), LOCATION O	LS	LUMP SUM	LUMP SUM	
77	157571	BRIDGE REMOVAL (PORTION), LOCATION K	LS	LUMP SUM	LUMP SUM	
78	157572	BRIDGE REMOVAL (PORTION), LOCATION L	LS	LUMP SUM	LUMP SUM	
79	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
80	024328	ROADWAY EXCAVATION(TYPE NH)	CY	5,770		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
81	024329	ROADWAY EXCAVATION (TYPE NRH)	CY	9,288		
82	024330	ROADWAY EXCAVATION (TYPE RH)	CY	1,000		
83	190138	ROADWAY EXCAVATION (DETOUR REMOVAL)	CY	4,742		
84	024331	STRUCTURE EXCAVATION (UTILITY TRENCH)	CY	2,560		
85 (F)	049031	STRUCTURE EXCAVATION, TYPE NH	CY	518		
86	024332	STRUCTURE EXCAVATION, TYPE NH RETAINING WALL	CY	300		
87 (F)	049032	STRUCTURE EXCAVATION, TYPE DNH RETAINING WALL	CY	102		
88	024333	STRUCTURE EXCAVATION (RETAINING WALL- TYPE NRH)	CY	430		
89 (F)	049033	STRUCTURE EXCAVATION, TYPE NRH	CY	1,348		
90 (F)	049034	STRUCTURE EXCAVATION, TYPE DNRH	CY	5,071		
91 (F)	049035	STRUCTURE EXCAVATION, TYPE DNH	CY	3,821		
92 (F)	049036	STRUCTURE EXCAVATION, TYPE RH	CY	158		
93 (F)	049037	STRUCTURE EXCAVATION, TYPE DNRH RETAINING WALL	CY	52		
94 (F)	049038	STRUCTURE EXCAVATION (SOLDIER PILE WALL) TYPE DNRH	CY	430		
95 (F)	049039	STRUCTURE EXCAVATION (16"-42") PILING TYPE DNH	CY	1,768		
96 (F)	049040	STRUCTURE EXCAVATION (60"-84") PILING TYPE DNH	CY	6,792		
97 (F)	049041	STRUCTURE EXCAVATION (90"-108") PILING TYPE DNH	CY	11,514		
98 (F)	049042	STRUCTURE EXCAVATION (16"-42") PILING TYPE DNRH	CY	164		
99 (F)	049043	STRUCTURE EXCAVATION (60"-84") PILING TYPE DNRH	CY	837		
100 (F)	049044	STRUCTURE EXCAVATION (90"-108") PILING TYPE DNRH	CY	862		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101 (F)	049045	STRUCTURE EXCAVATION (60"-84") PILING TYPE DRH	CY	4		
102 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	CY	5,567		
103 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	CY	1,045		
104	193031	PERVIOUS BACKFILL MATERIAL (RETAINING WALL)	CY	47		
105	193114	SAND BACKFILL	CY	55		
106 (F)	193119	LEAN CONCRETE BACKFILL	CY	145		
107 (F)	049046	CLASS A CONCRETE BACKFILL	CY	50		
108	194001	DITCH EXCAVATION	CY	110		
109 (F)	197021	EARTH RETAINING STRUCTURE, LOCATION A	SQFT	3,050		
110 (F)	197022	EARTH RETAINING STRUCTURE, LOCATION B	SQFT	2,850		
111 (F)	197023	EARTH RETAINING STRUCTURE, LOCATION C	SQFT	5,060		
112	198001	IMPORTED BORROW	CY	6,704		
113	024334	LIGHTWEIGHT EMBANKMENT MATERIAL (CELLULAR CONCRETE)	CY	900		
114 (S)	200101	IMPORTED TOPSOIL	CY	16,000		
115 (S)	024335	EROSION CONTROL (MULCH)	CY	2,500		
116 (S)	203003	STRAW (EROSION CONTROL)	TON	2.5		
117 (S)	203014	FIBER (EROSION CONTROL)	LB	350		
118 (S)	203021	FIBER ROLLS	LF	4,800		
119 (S)	203024	COMPOST (EROSION CONTROL)	LB	1,200		
120 (S)	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	4		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121 (S)	203045	PURE LIVE SEED (EROSION CONTROL)	LB	150		
122 (S)	203061	STABILIZING EMULSION (EROSION CONTROL)	LB	200		
123	208029	4" SUPPLY LINE (BRIDGE)	LF	1,200		
124	208030	6" SUPPLY LINE (BRIDGE)	LF	1,200		
125 (S)	208738	8" CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT	LF	570		
126 (S)	208739	10" CORRUGATED HIGH DENSITY POLYETHYLENE PIPE CONDUIT	LF	180		
127	250401	CLASS 4 AGGREGATE SUBBASE	CY	7,780		
128	260301	CLASS 3 AGGREGATE BASE	CY	6,250		
129	290211	ASPHALT TREATED PERMEABLE BASE	CY	1,500		
130	390102	ASPHALT CONCRETE (TYPE A)	TON	20,400		
131	394002	PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	SQYD	1,130		
132	394040	PLACE ASPHALT CONCRETE DIKE (TYPE A)	LF	430		
133	394044	PLACE ASPHALT CONCRETE DIKE (TYPE C)	LF	730		
134	394049	PLACE ASPHALT CONCRETE DIKE (TYPE F)	LF	500		
135	049047	DRILLED HOLE (24")	LF	930		
136 (S)	490601	16" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	599		
137 (S)	490602	20" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	304		
138 (S)	490603	24" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	1,018		
139 (S)	490604	30" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	3,465		
140 (S)	490605	36" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	2,883		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141 (S)	490609	60" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	1,163		
142 (S)	490611	72" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	2,561		
143 (S)	490616	84" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	3,098		
144 (S)	490617	90" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	3,686		
145 (S)	490618	96" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	2,887		
146 (S)	490620	108" CAST-IN-DRILLED-HOLE CONCRETE PILING	LF	410		
147 (S)	049048	30" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	LF	90		
148 (S)	049049	72" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	LF	443		
149 (S)	049050	84" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	LF	84		
150 (S)	049051	90" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	LF	277		
151 (S)	049052	96" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	LF	1,053		
152 (S)	049053	108" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	LF	873		
153 (S)	049054	36" CAST-IN-DRILLED-HOLE CONCRETE PILING (ROCK SOCKET)	LF	50		
154 (S)	049055	36" PERMANENT STEEL CASING	LF	1,750		
155 (S)	049056	42" PERMANENT STEEL CASING	LF	520		
156 (S)	049057	90" PERMANENT STEEL CASING	LF	1,264		
157 (S)	049058	96" PERMANENT STEEL CASING	LF	1,248		
158 (S)	049059	102" PERMANENT STEEL CASING	LF	424		
159	490713	FURNISH PILING (CLASS 70)	LF	267		
160 (S)	490714	DRIVE PILE (CLASS 70)	EA	8		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
161 (F)	049060	STEEL SOLDIER PILE (W18 X 76)	LF	875		
162	495133	FURNISH 36" CAST-IN-STEEL SHELL CONCRETE PILING	LF	2,575		
163 (S)	495134	DRIVE 36" CAST-IN-STEEL SHELL CONCRETE PILE	EA	35		
164 (S)	500001	PRESTRESSING CAST-IN-PLACE CONCRETE	LS	LUMP SUM	LUMP SUM	
165 (S)	049061	PRESTRESSING (LOCATION A)	LS	LUMP SUM	LUMP SUM	
166 (S)	049062	PRESTRESSING (LOCATION B)	LS	LUMP SUM	LUMP SUM	
167 (S)	049063	PRESTRESSING (LOCATION C)	LS	LUMP SUM	LUMP SUM	
168	049064	PRESTRESSING (LOCATION D)	LS	LUMP SUM	LUMP SUM	
169 (S)	500060	TIEDOWN ANCHOR	EA	61		
170	049065	CATHODIC PROTECTION	LS	LUMP SUM	LUMP SUM	
171 (F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	2,369		
172 (F)	510053	STRUCTURAL CONCRETE, BRIDGE	CY	67,326		
173 (F)	510060	STRUCTURAL CONCRETE, RETAINING WALL	CY	608		
174 (F)	510086	STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	CY	291		
175	024336	CLASS B CONCRETE (BACKFILL)	CY	340		
176	510407	CLASS D CONCRETE (BACKFILL)	CY	64		
177 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	98.5		
178 (S)	024337	SAN FRANCISCO MANHOLE	EA	3		
179 (S)	024338	SAN FRANCISCO STORM WATER INLET	EA	2		
180	024339	ARCHITECTURAL SURFACE (FIRST STREET RETAINING WALL)	SQFT	2,760		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
181	024340	ARCHITECTURAL SURFACE (RETAINING WALL NO. 2)	SQFT	300		
182	024341	ARCHITECTURAL SURFACE (RETAINING WALL NO. 3)	SQFT	1,660		
183 (F)	BLANK					
184	511106	DRILL AND BOND DOWEL	LF	14,490		
185	511109	DRILL AND BOND DOWEL (EPOXY CARTRIDGE)	EA	2,112		
186	049066	ROCK ANCHOR	EA	56		
187 (S)	049067	SPIN-LOCK CONCRETE ANCHORS	LS	LUMP SUM	LUMP SUM	
188 (S)	515062	CORE CONCRETE (3")	LF	110		
189 (S)	049068	CORE CONCRETE (6 1/2")	LF	87		
190 (S)	049069	CORE CONCRETE (8") AND GROUT STEEL PIPE	LF	32		
191 (S)	049070	CORE CONCRETE (3 1/2")	LF	705		
192 (S)	515064	CORE CONCRETE (5")	LF	4		
193 (S)	049071	CORE CONCRETE (1") AND PRESSURE GROUT DOWEL	LF	120		
194 (S)	515160	CORE CONCRETE (1 1/2")	LF	635		
195 (S)	049072	CORE CONCRETE (1 1/2") AND PRESSURE GROUT DOWEL	LF	1,582		
196 (S)	515161	CORE CONCRETE (1 3/4")	LF	243		
197 (S)	049073	CORE CONCRETE (2") AND PRESSURE GROUT DOWEL	LF	2,930		
198 (S)	515163	CORE CONCRETE (2 1/2")	LF	114		
199	518042	REPLACE BEARING	EA	2		
200 (S)	518051	PTFE SPHERICAL BEARING	EA	126		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
201	049074	GROUT	CY	52		
202	519081	JOINT SEAL (MR 1/2")	LF	328		
203 (S)	049075	JOINT SEAL (MR = 1")	LF	248		
204 (S)	519086	JOINT SEAL (TYPE B-MR 1 1/2")	LF	51		
205 (S)	049076	JOINT SEAL (MR = 2")	LF	60		
206 (S)	519092	JOINT SEAL ASSEMBLY (MR 2 1/2")	LF	67		
207 (S)	519093	JOINT SEAL ASSEMBLY (MR 3")	LF	219		
208 (S)	519094	JOINT SEAL ASSEMBLY (MR 3 1/2")	LF	195		
209 (S)	519095	JOINT SEAL ASSEMBLY (MR 4")	LF	96		
210 (S)	519096	JOINT SEAL ASSEMBLY (MR 4 1/2")	LF	525		
211 (S)	519097	JOINT SEAL ASSEMBLY (MR 5")	LF	191		
212 (S)	519098	JOINT SEAL ASSEMBLY (MR 5 1/2")	LF	56		
213 (S)	519099	JOINT SEAL ASSEMBLY (MR 6")	LF	182		
214	519102	JOINT SEAL (TYPE AL)	LF	361		
215 (S)	519105	JOINT SEAL ASSEMBLY (MR 7")	LF	37		
216 (S-F)	520102	BAR REINFORCING STEEL (BRIDGE)	LB	31,535,900		
217 (S-F)	520103	BAR REINFORCING STEEL (RETAINING WALL)	LB	42,826		
218 (S-F)	520120	HEADED BAR REINFORCEMENT	EA	38,036		
219 (F)	530100	SHOTCRETE	CY	55		
220 (F)	540101	ASPHALT MEMBRANE WATERPROOFING	SQFT	310		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
221 (S-F)	550110	COLUMN CASING	LB	169,700		
222 (S-F)	550203	FURNISH STRUCTURAL STEEL (BRIDGE)	LB	1,541,300		
223 (S-F)	550204	ERECT STRUCTURAL STEEL (BRIDGE)	LB	1,541,300		
224 (S-F)	049077	ISOLATION CASING	LB	385,000		
225 (F)	560218	FURNISH SIGN STRUCTURE (TRUSS)	LB	128,590		
226 (S-F)	560219	INSTALL SIGN STRUCTURE (TRUSS)	LB	128,590		
227 (S)	562004	METAL (RAIL MOUNTED SIGN)	LB	6,820		
228 (S)	566011	ROADSIDE SIGN - ONE POST	EA	46		
229 (S)	566012	ROADSIDE SIGN - TWO POST	EA	12		
230	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	9		
231 (S-F)	024342	INSTALL SELF ADHESIVE SIGN PANEL	EA	20		
232 (S-F)	568020	INSTALL SIGN PANEL ON EXISTING STRUCTURE	SQFT	585		
233 (F)	570120	TREATED LUMBER AND TIMBER	MFBM	12		
234 (S)	590115	CLEAN AND PAINT STRUCTURAL STEEL	LS	LUMP SUM	LUMP SUM	
235 (S-F)	590135	SPOT BLAST CLEAN AND PAINT UNDERCOAT	SQFT	144		
236	590301	WORK AREA MONITORING	LS	LUMP SUM	LUMP SUM	
237	620060	12" ALTERNATIVE PIPE CULVERT	LF	1,330		
238	620100	18" ALTERNATIVE PIPE CULVERT	LF	2,390		
239	665037	36" CORRUGATED STEEL PIPE (.109" THICK)	LF	9		
240	690118	18" CORRUGATED STEEL PIPE DOWNDRAIN (.109" THICK)	LF	54		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
241	703233	GRATED LINE DRAIN	LF	83		
242	024343	3" WELDED STEEL PIPE CLEANOUT	EA	2		
243	703509	6" WELDED STEEL PIPE (.134" THICK)	LF	170		
244 (S)	024344	10" VITRIFIED CLAY PIPE	LF	82		
245 (S)	024345	12" VITRIFIED CLAY PIPE	LF	96		
246 (S)	024346	18" VITRIFIED CLAY PIPE	LF	260		
247	727901	MINOR CONCRETE (DITCH LINING)	CY	64		
248	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	700		
249 (F)	731517	MINOR CONCRETE (GUTTER)	LF	333		
250 (S-F)	750001	MISCELLANEOUS IRON AND STEEL	LB	20,198		
251 (S-F)	750496	MISCELLANEOUS METAL (RESTRAINER - PIPE TYPE)	LB	78,500		
252 (S-F)	750498	MISCELLANEOUS METAL (RESTRAINER - CABLE TYPE)	LB	25,700		
253 (S-F)	750501	MISCELLANEOUS METAL (BRIDGE)	LB	576,676		
254 (S-F)	750505	BRIDGE DECK DRAINAGE SYSTEM	LB	83,890		
255 (F)	049078	CLOCK TOWER SCREEN	LF	120		
256 (S)	800360	CHAIN LINK FENCE (TYPE CL-6)	LF	7,000		
257 (S)	802620	16' CHAIN LINK GATE (TYPE CL-6)	EA	1		
258 (S)	802660	20' CHAIN LINK GATE (TYPE CL-6)	EA	5		
259 (S)	802670	24' CHAIN LINK GATE (TYPE CL-6)	EA	3		
260	820107	DELINEATOR (CLASS 1)	EA	160		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
261 (S)	832001	METAL BEAM GUARD RAILING	LF	780		
262 (F)	833160	CONCRETE BARRIER (TYPE 27)	LF	587		
263 (F)	833187	CONCRETE BARRIER (TYPE 27 MODIFIED)	LF	587		
264 (F)	839521	CABLE RAILING	LF	333		
265 (S)	839559	TERMINAL SYSTEM (TYPE ET)	EA	9		
266 (S)	839565	TERMINAL SYSTEM (TYPE SRT)	EA	6		
267 (S)	839603	CRASH CUSHION (ADIEM)	EA	12		
268	839701	CONCRETE BARRIER (TYPE 60)	LF	4,320		
269	839702	CONCRETE BARRIER (TYPE 60A)	LF	1,760		
270	839703	CONCRETE BARRIER (TYPE 60C)	LF	1,733		
271 (F)	839704	CONCRETE BARRIER (TYPE 60D)	LF	386		
272 (F)	839720	CONCRETE BARRIER (TYPE 732)	LF	1,366		
273 (F)	049079	CONCRETE BARRIER (TYPE 732 MOD)	LF	25,617		
274 (F)	049080	CONCRETE BARRIER (ANCHORAGE RECONSTRUCTION)	LF	45		
275 (F)	839721	CONCRETE BARRIER (TYPE 732A)	LF	96		
276 (S-F)	839726	CONCRETE BARRIER (TYPE 736A)	LF	221		
277 (S)	840504	4" THERMOPLASTIC TRAFFIC STRIPE	LF	38,300		
278 (S)	840505	6" THERMOPLASTIC TRAFFIC STRIPE	LF	120		
279 (S)	840506	8" THERMOPLASTIC TRAFFIC STRIPE	LF	12,200		
280 (S)	840508	8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)	LF	2,590		

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
281 (S)	840515	THERMOPLASTIC PAVEMENT MARKING	SQFT	11,600		
282 (S)	840526	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7)	LF	10,100		
283 (S)	850101	PAVEMENT MARKER (NON-REFLECTIVE)	EA	2,370		
284 (S)	850110	PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE C)	EA	120		
285 (S)	024347	PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE D)	EA	200		
286 (S)	850112	PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE G)	EA	1,450		
287 (S)	850113	PAVEMENT MARKER (RETROREFLECTIVE-SPECIAL TYPE H)	EA	600		
288 (S)	860402	LIGHTING (CITY STREET)	LS	LUMP SUM	LUMP SUM	
289 (S)	860407	LIGHTING (PARKING LOT)	LS	LUMP SUM	LUMP SUM	
290 (S)	860460	LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
291 (S)	024348	LIGHTING AND SIGN ILLUMINATION (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
292 (S)	860797	ELECTRIC SERVICE (IRRIGATION)	LS	LUMP SUM	LUMP SUM	
293 (S)	024349	TRAFFIC OPERATIONS SYSTEM	LS	LUMP SUM	LUMP SUM	
294 (S)	024350	MICROWAVE VEHICLE DETECTION SENSOR (MVDS) TYPE A	EA	25		
295 (S)	024351	MICROWAVE VEHICLE DETECTION SENSOR (MVDS) TYPE B	EA	5		
296 (S)	024352	TRAFFIC OPERATIONS SYSTEM (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
297 (S)	024353	CAMERA UNIT	EA	1		
298 (S)	024354	PAN/TILT UNIT	EA	1		
299 (S)	024355	SIGNAL AND LIGHTING (CITY STREET) MODIFY LOCATION 1	LS	LUMP SUM	LUMP SUM	
300 (S)	024356	SIGNAL AND LIGHTING (CITY STREET) MODIFY LOCATION 2	LS	LUMP SUM	LUMP SUM	

ENGINEER'S ESTIMATE

04-0435V4

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
301	BLANK					
302	030219	BRIDGE REMOVAL (PORTION), LOCATION P	LS	LUMP SUM	LUMP SUM	
303	515020	REFINISH BRIDGE DECK	SQFT	484		
304	030220	ISOLATION JOINT CASING	EA	12		
305	682005	PERMEABLE MATERIAL (BRIDGE)	CY	285		
306	680405	8" PERFORATED STEEL PIPE UNDERDRAIN (0.064" THICK)	LF	600		
307	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: _____