

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
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*Flex your power!
 Be energy efficient!*

February 21, 2014

04-Ala-880-28.4/29.2
 04-0A7104
 Project ID 0400000160
 ACNHPI-880-1(070)E

Addendum No. 5

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN ALAMEDA COUNTY IN ALAMEDA AND OAKLAND FROM 0.2 MILE SOUTH OF 29TH AVENUE OVERCROSSING TO 0.3 MILE NORTH OF 23RD AVENUE OVERCROSSING.

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 Tuesday, March 18, 2014.

This addendum is being issued to revise the Project Plans, the Notice to Bidders and Special Provisions, and the Bid book.

Project Plan Sheets 4, 6, 7, 27, 30, 31, 33, 34, 35, 40, 57, 61, 62, 122, 124, 126, 127, 137, 168, 279, 281, 305, 306, 308, 309, 313, 314, 513, 572, 606, 669, and 680 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 5-1.14, "SUPPLEMENTAL PROJECT INFORMATION," the table titled "Supplemental Project Information," the last row is revised as follows:

<p>Available for inspection at the District Office</p> <p>Telephone no.: (510) 286-5209</p>	<ol style="list-style-type: none"> 1. Storm Water Information Handout 2. Preliminary Site Investigation and Aerially Deposited Lead Report 3. Asbestos and Deteriorated Lead-Containing Paint Survey Report 816 27th Avenue in Oakland, CA 4. Asbestos and Deteriorated Lead-Containing Paint Survey Report 823 27th Avenue in Oakland, CA 5. Structural Evaluation of Crabtree Parcel 816 27th Avenue Oakland, CA 94601 6. Non-Storm Water Information Package
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In the Special Provisions, Section 5-1.15, "NOISE CONTROL," subsection "GENERAL," the third paragraph is revised as follows:

"For the activities and durations listed in the Noise Restriction Exceptions table above limit the noise level by non-impact concrete removal methods, including saw cutting the concrete bridge deck, using diamond wire concrete cutting, and screw-in temporary casing for CIDH piling. "

In the Special Provisions, Section 5-1.19, "NONHIGHWAY FACILITIES (INCLUDING UTILITIES)," the table titled "Utility Relocation and Date of the Relocation" is revised as follows:

Utility Relocation and Date of the Relocation

Utility	Location	Date
AT&T	E. 8 th Street and 27 th Avenue	4/01/2014
Comcast Cable	E. 9 th Street	4/01/2014
PG&E – electrical	E. 9 th Street and 29 th Avenue	4/01/2014
PG&E – gas distribution and fiber cable	E. 9 th Street and 29 th Avenue	4/01/2014

In the Special Provisions, Section 5-1.19, "NONHIGHWAY FACILITIES (INCLUDING UTILITIES)," the table titled "Utility Relocation and Date of the Relocation" is revised as follows:

Utility Relocation and Department-Arranged Time for the Relocation

Utility	Location	Date
PG&E – gas transmission	Kennedy Street	6/01/2016
EBMUD	29 th Avenue	9/01/2015
AT&T	23 rd Avenue	1/01/2018
AT&T	E. 9 th Street	12/01/2015

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the twenty fourth paragraph is revised as follows:

"Contractor shall notify the Engineer 30 days prior to utilizing any long term detour shown on the Construction Area Sign Plans. Contractor shall not perform any work that would impede the long term detour removal during the first 14 days of its use unless otherwise directed by the Engineer."

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In the Special Provisions, Section 10-1.11, "COOPERATION," the table is revised as follows:

Contract No.	Co-Rte-PM	Location	Type of Work
04-3A9214	Ala-880-22.6/24.0	From 0.4 miles south of Marina Boulevard OC to 0.3 miles north of Davis St. OC	Highway Widening
04-3A9224	Ala-880-23.8/25.5	From 0.2 miles north of Davis St. OC to Hegenberger Rd. OC	Highway Widening
W10065	Ala-880-28.4/29.2	From 0.2 mile south of 29 th Ave OC to 0.3 mile north of 23 rd Ave OC	Waterline Relocations

In the Special Provisions, Section 10-1.135, "RIGHT OF WAY OBSTRUCTIONS," is added as attached.

In the Special Provisions, Section 10-1.16, "MAINTAINING TRAFFIC," the tables under the seventh paragraph are revised as follows:

Route 880 Mainline at 23rd Avenue

	Number	Width	Height
Vehicle Openings	2	55	15
Pedestrian Openings	None		
	Location	Spacing	
Falsework Pavement Lighting	R and L with C Staggered 1/2 Space	40	

(Width and Height in feet)
 (R = Right side of traffic. L = Left side of traffic)
 (C = Centered overhead)

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Route 880 Southbound On-Ramp from 23rd Avenue

	Number	Width	Height
Vehicle Openings	1	25	15
Pedestrian Openings	None		
	Location	Spacing	
Falsework Pavement Lighting	R	30	

(Width and Height in feet)
 (R = Right side of traffic. L = Left side of traffic)
 (C = Centered overhead)

Route 880 Mainline at 29th Avenue

	Number	Width	Height
Vehicle Openings	2	73	15
Pedestrian Openings	1	12	10

(Width and Height in feet)

In the Special Provisions, Section 10-1.29, "EXISTING HIGHWAY FACILITIES," subsection "BRIDGE REMOVAL," the following paragraph is added after the fourth paragraph:

"Existing concrete components shown on the plans beneath new pile-supported footings shall be removed to limits that eliminate conflict with the new piles. Resulting voids shall be backfilled with structure backfill to the elevation of the bottom of the new footing involved. Full compensation for this removal shall be considered as included in the contract lump sum price paid for bridge removal for the location involved and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.33, "EARTHWORK," subsection "RETAINING WALLS," is revised as attached.

In the Special Provisions, Section 10-1.35, "EARTH RETAINING STRUCTURES," the third paragraph is revised as follows:

"At the Contractor's option, one of the following acceptable alternative earth retaining systems may be constructed:

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Proprietary Earth Retaining System	Address and Phone Number	Web Site
Reinforced Earth – 5 ft cruciform	The Reinforced Earth Company 1660 Hotel Circle North, Suite 304 San Diego, CA 92108 (619) 688-2400	www.reinforcedearth.com
Reinforced Earth – 5 ft square	The Reinforced Earth Company 1660 Hotel Circle North, Suite 304 San Diego, CA 92108 (619) 688-2400	www.reinforcedearth.com
Retained Earth	The Reinforced Earth Company 1660 Hotel Circle North, Suite 304 San Diego, CA 92108 (619) 688-2400	www.reinforcedearth.com
ARES – 9 by 5 ft	Tensar International Corporation 2500 Northwind Parkway, Suite 500 Alpharetta, GA 30009 (888) 828-5126	www.tensarcorp.com
Landmark Reinforced Soil Wall System	Anchor Wall Systems, Inc. 2025 Costero Magestuoso San Clemente, CA 92673 (949)363-6663	www.anchorwall.com
KeySystem 1	Keystone Retaining Wall Systems 4444 West 78th Street Minneapolis, MN 55435 (952) 897-1040	www.keystonewalls.com
Mesa Retaining Wall System	Tensar International Corporation 2500 Northwind Parkway, Suite 500 Alpharetta, GA 30009 (888) 828-5126	www.tensarcorp.com
MSE Plus – 5 ft square	SSL 4740 Scotts Valley Drive, Suite E 209 Scotts Valley, CA 95066-4240 (831) 430-9300	www.mseplus.com
MSE Plus – 5 by 6 ft	SSL 4740 Scotts Valley Drive, Suite E 209 Scotts Valley, CA 95066-4240 (831) 430-9300	www.mseplus.com

In the Special Provisions, Section 10-1.63, "CONCRETE STRUCTURES," subsection "FALSEWORK," item 1 in the second paragraph is revised as follows:

- "1. Soil passive pressure calculations used to resist lateral loads shall include the presence of sloped surfaces."

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In the Special Provisions, Section 10-1.63, "CONCRETE STRUCTURES," subsection "PERMANENT STEEL DECK FORMS," is added after subsection "COST REDUCTION INCENTIVE PROPOSAL FOR PRESTRESSED BRIDGES" as attached.

In the Special Provisions, Section 10-1.64, "LOAD DISTRIBUTION SLAB," is revised as attached.

In the Special Provisions, Section 10-1.66, "SOUND WALL," subsection "CONCRETE MASONRY UNITS," the following paragraph is added after the second paragraph:

"The texture of the CMU must be split-face."

In the Special Provisions, Section 10-2.01, "GENERAL," subsection "COST BREAK-DOWN," the IRRIGATION SYSTEM COST BREAK-DOWN is revised as attached.

In the Special Provisions, Section 10-2.05, "IRRIGATION SYSTEMS," subsection "BASE STATION," the first paragraph is revised as follows:

"The base station is installed at the Department of Transportation's District Maintenance Yard at 600 Lewelling Boulevard, San Leandro, California, 94579."

In the Special Provisions, Section 10-2.05, "IRRIGATION SYSTEMS," subsection "TRAINING," is added to subsection "BASE STATION," as follows:

"TRAINING

Personnel training shall consist of a minimum 60 hours of classroom and field training for 4 personnel on the use and adjustment of the base station equipment (including software) and field units. The training shall be conducted over 8 consecutive working days, unless otherwise permitted by the Engineer. One complete set of training documentation and training aids shall be provided to each trainee and 2 sets to the Engineer (if videos are included in the training sessions, only one CD copy will be required) and the training material shall become the property of the State.

The State will provide space for the training, including chairs and tables. Other required training aids will be the responsibility of the Contractor. At the option of the Contractor, the training facility may be provided at a facility of the Contractor's choice, that is, within 30 miles of the project location or of the Office of the District Director of the District in which the project is located."

In the Special Provisions, Section 10-3.29, "CITY OF OAKLAND ELECTRICAL REQUIREMENTS," subsection "CITY CCTV CAMERA," is revised as attached.

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In the Bid book, in the "Bid Item List," Items 142, 155, and 156 are revised as attached.

To Bid book holders:

Replace page 10 of the "Bid Item List" in the Bid book with the attached revised page 10 of the Bid Item List. The revised Bid Item List is to be used in the bid.

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

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

Submit bids in the Bid 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 addendum and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-0A7104

If you are not a Bid 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,



MOHSEN SULTAN
Chief, Office of Plans, Specifications & Estimates
Office Engineer
Division of Engineering Services

Attachments

10-1.135 RIGHT OF WAY OBSTRUCTIONS

Attention is directed to the occupied improvements located within the right of way at:

Parcel 62410 - 646 Kennedy Street, Oakland, CA 94601

It is anticipated that these improvements will be vacated and removed by the June 1, 2016.

The Contractor shall take no action that will result in unnecessary inconvenience, disproportionate injury or any action coercive in nature to the occupants of these improvements who have not yet moved from the improvements.

Retaining Walls

Settlement periods are required for the roadway embankments at the earth retaining structures listed in the following table. Comply with the requirements for settlement monitoring in "Bridge Settlement Monitoring" in these special provisions.

Surcharge embankments shall be constructed at or above the grading plane where listed in the following table.

Earth Retaining Structure No.	Surcharge Height (feet)	Settlement Period (days)
Wall No. 17	0.0	186
Wall No. 18	5.0	186
Wall No. 19	5.0	186
Wall No. 26	0.0	186
Wall No. 28	0.0	124
Wall No. 29	0.0	124
Wall No. 228	0.0	155 31 (with wick drains)
Wall No. 230	0.0	155 31 (with wick drains)

The minimum settlement periods presented in the above tables are minimum durations; actual settlement periods shall be based on settlement monitoring.

At retaining wall locations, temporary shoring will be required for construction of the surcharge embankment. At the same embankment location, the surcharge embankment must extend the full width between retaining walls.

Settlement monitoring devices shall consist of (1) "nails" firmly attached to the wall panel for welded wire mat MSE walls, (2) nails firmly attached onto the geosynthetic surface for the wrap-around walls, and (3) settlement hubs placed at the top of the grading plane or top of the surcharge. Special care is needed when attaching the nails so that the wall panel and geosynthetic wall not be damaged. These settlement monitoring devices shall be installed as construction of the wall progresses from the wall base up to the top of the finished subgrade.

Nails shall be placed at the bottom panel and at the mid-height of welded wire mat MSE walls. For the wrap around MSE walls, nails shall be placed at 2 feet above the lowest adjacent grade and at mid-height. Place the settlement hubs behind the wall by a distance of one-half of the MSE wall base. Place the first set of hubs behind the highest wall panels. Space the other hubs at equal distance from the first hub. Use the minimum number of hubs or the spacing shown in the following table, whichever requires the larger number of total hubs.

Wall No.	Settlement Device Spacing	Minimum No. of Hubs
17	70 feet	2
18	100 feet	3
19	100 feet	3
26	70 feet	2
28	70 feet	2
29	70 feet	2

Settlement monitoring devices are not shown for walls 228 and 230 because wick drains are recommended at these wall locations.

Care shall be exercised to minimize impacts to existing buildings due to construction of embankments and surcharge. A program shall be implemented during construction for distress monitoring of the affected structures. Monitoring shall include pre-construction, during-construction and post-construction surveys, photographic and physical documentation performed by personnel experienced in this type of survey and monitoring. Settlement monitoring and settlement devices shall conform to California Test 112. If the measured vertical movement at any settlement monument is greater than 1/2 inch, construction of adjacent embankment and its surcharging shall be discontinued and mitigation measures implemented. The recommended building distress and settlement monument locations are listed in the following table. The actual location of the devices shall be approved by the Engineer.

Location	Minimum No. of Settlement Monument Locations	Spacing of Settlement Monuments
Building Located West of Southern Approach to 23rd Ave OC (Replace)	3	Along retaining wall nearest northeast corner of existing wall and at 50 feet thereafter
Building Located West of Southern Approach to 29th Ave OC (Replace)	6	Along retaining wall nearest northeast corner of existing wall and at 50 feet thereafter

The settlement monuments shall be installed in a timely manner upon completion of wall backfill. Special care shall be exercised in the field to survey and protect these settlement devices. The monuments shall be monitored at the time of installation, on a weekly basis for a month, and then once every 2 weeks thereafter until it has been verified by the Engineer that the remaining settlement for the embankment is acceptable. For the welded wire mat reinforcement MSE walls, the uppermost level of wall facing, coping, roadway pavement, hardscape, and any nearby improvements shall not be constructed until remaining settlement is within acceptable limits (i.e., 1/2 -inch or less). For the geosynthetic loop around reinforcement MSE walls, the entire wall facing, roadway pavement, hardscape and any other nearby improvements shall not be constructed until remaining settlement is within acceptable limits (i.e., 1/2 -inch or less).

The duration of the required settlement period at each location will be determined by the Engineer. The estimated duration of the settlement periods are listed in the tables of settlement data. The Engineer may order an increase or decrease in any settlement period. An ordered increase or decrease in any settlement period will result in an increase or decrease in the number of contract working days if the settlement period involved is considered to be the current controlling operation in conformance with the provisions in Section 8-1.06, "Time of Completion," of the Standard Specifications. Adjustments of contract time due to increases or decreases in settlement periods will be made by contract change order.

Full compensation for constructing, monitoring, and removing surplus embankment material placed as a settlement or surcharge embankment, including material removed to conform to the finished slope lines shown on the plans, shall be considered as included in the contract price per cubic yard for the various items of earthwork involved and no additional compensation will be allowed therefor.

PERMANENT STEEL DECK FORMS

Forms for the deck slabs between girders of the 29th Avenue Overcrossing (Replace), at the option of the Contractor, shall either be constructed and removed as provided in Section 51-1.05, "Forms," of the Standard Specifications or shall be constructed and left in place in conformance with these special provisions.

Permanent steel deck forms and supports shall be steel conforming to the requirements in ASTM Designation: A 653/A 653M (Designation SS, Grades 33 through 80) having a coating designation G165. The forms shall be mortar-tight, true to line and grade, and of sufficient strength to support the loads applied.

Detailed working drawings for forms shall be submitted to the Engineer for approval in conformance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications. Three sets of drawings shall be submitted. These drawings shall show the grade of steel, the physical and section properties for all deck members, the method of support and grade adjustment, accommodation for skew, and methods of sealing against grout leaks.

Working drawings shall be submitted sufficiently in advance of the start of the affected work to allow time for review by the Engineer and correction by the Contractor of the drawings without delaying the work. Such time shall be proportional to the complexity of the work but in no case shall such time be less than 3 weeks after complete drawings and all support data are submitted.

The design of permanent steel deck forms shall be based on the combined dead load of the forms, reinforcement, and plastic concrete plus an allowance for all anticipated construction loads. The allowance for construction loads shall be not less than 50 psf. The combined dead load shall be assumed to be not less than 160 pcf for normal concrete and not less than 130 pcf for lightweight concrete.

Physical design properties shall be computed in conformance with the requirements of the AISI specification for the "Design of Cold Formed Steel Structural Members."

The maximum allowable stresses and deflections used in the design of steel forms shall be as follows:

- A. Tensile stress shall not exceed 0.725 of the specified yield strength of the material furnished or 36,000 psi.
- B. Deflection due to dead load shall not exceed 0.0056 of form span or 1/2 inch, whichever is less. In no case shall the dead load for deflection calculations be less than 120 psf total.
- C. Form camber, used at the option of the Contractor, shall be based on the actual dead load condition. Camber shall not be used to compensate for deflection in excess of the allowable limits.
- D. The design span of the form sheets shall be the clear span of the form plus 2 inches measured parallel to the form flutes.

Permanent steel deck forms shall not be used for those sections of deck slabs that contain a longitudinal expansion joint unless additional supports are placed under the joint.

Permanent steel deck forms shall not interfere with the movement at deck expansion joints.

The clearance between the surface of permanent forms and any bar reinforcement shall be not less than one inch. The configuration of the forms shall be such that the weight of deck slab is not more than 110 percent of the weight of the total deck slab as dimensioned on the plans.

Permanent steel deck forms shall be installed in conformance with the approved working drawings.

Form sheets shall not rest directly on the top of the girder flanges. Sheets shall be securely fastened to form supports and shall have a minimum bearing length of one inch at each end. Form supports shall be placed in direct contact with the flange of the girder. Attachment of supports shall be made by bolts, clips or other approved means.

Transverse deck construction joints shall be located at the bottom of a flute and 1/4-inch weep holes shall be field drilled at not less than 12 inches on center along the line of the joint.

Permanently exposed galvanized form surfaces that are abraded or damaged prior to installation shall be repaired by thoroughly wire brushing the damaged areas and removing all loose and cracked coating, after which the cleaned areas shall be painted with 2 applications of unthinned zinc-rich primer (organic vehicle type) conforming to the provisions in Section 91, "Paint," of the Standard Specifications. Aerosol cans shall not be used. Minor heat discoloration in area of welds need not be repaired.

10-1.64 LOAD DISTRIBUTION SLAB

GENERAL

Summary

This work includes constructing a load distribution slab (LDS).

Comply with Section 51, "Concrete Structure," and Section 52, "Reinforcement," of the Standard Specifications.

MATERIALS

Transverse Bar Assembly

You may use transverse bar assemblies to support longitudinal reinforcement instead of transverse reinforcement and other support devices.

Wire for transverse bar assemblies must be welded under Section 7.4 of ASTM A 185/A 185M. For clips use a minimum W5 wire size number under ASTM A 82/A 82M. For chairs use a minimum W2 wire size number under ASTM A 82/A 82M1.

Liquid Joint Sealant

Liquid joint sealant for joint between LDS and drainage inlets must be silicon or asphalt rubber.

CONSTRUCTION

Bar Reinforcement

Place bar reinforcement under section 52-1.07, "Placing" of the Standard Specifications except you may request to use plastic chairs. Plastic chairs will only be considered for support directly under the transverse bars. Your request to use plastic chairs must include a sample of the plastic chair, the manufacturer's written recommendations for the applicable use and load capacity, chair spacing, and your calculation for the load on a chair for the area of bar reinforcement sitting on it. Vertical and lateral stability of the bar reinforcement and plastic chairs must be demonstrated during construction of the test strip. Obtain authorization before using the proposed plastic chairs for work after the test strip is accepted.

For transverse bar reinforcement in a curve with a radius under 2,500 feet, place the reinforcement in a single continuous straight line across the lanes and aligned with the radius point. Place tie bars on the same alignment as the transverse bar reinforcement. If the curve does not allow the specified spacing between transverse bar reinforcement and tie bars, space them a distance that is between one half the specified spacing and the specified spacing.

Construction Joints

Transverse construction joints must be perpendicular to the lane line. Construct joints to allow for lap splices of the longitudinal bar reinforcement. Comply with the lap splice lengths shown for LDS.

Clean construction joint surfaces before placing fresh concrete against the joint surfaces. Remove surface laitance, curing compound, and other foreign materials.

MEASUREMENT AND PAYMENT

The contact price paid per cubic yard for load distribution slab shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in construction the load distribution slab including bar reinforcement, complete-in-place, as shown on the plans, and as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

"IRRIGATION SYSTEM COST BREAK-DOWN

Contract No. 04-0A7104

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
CHECK AND TEST EXISTING IRRIGATION FACILITIES	LS	LUMP SUM		
REMOVE AND SALVAGE EXISTING IRRIGATION FACILITIES	LS	LUMP SUM		
12 STATION ELECTRIC AUTOMATIC CONTROLLER - STATE	EA	2		
12 STATION ELECTRIC AUTOMATIC CONTROLLER - CITY	EA	3		
IRRIGATION CONTROLLER ENCLOSURE CABINET (SINGLE)	EA	5		
2 INCH BACKFLOW PREVENTER ASSEMBLY	EA	3		
1 INCH BACKFLOW PREVENTER ASSEMBLY	EA	2		
BACKFLOW PREVENTER INSULATED BLANKET	EA	5		
BACKFLOW ASSEMBLY ENCLOSURE	EA	5		
CONTROL AND NEUTRAL CONDUCTORS (ARMOR CLAD)	LS	LUMP SUM		
2 INCH MASTER CONTROL VALVE	EA	3		
1 INCH MASTER CONTROL VALVE	EA	2		
2 INCH FLOW SENSOR	EA	1		
1 INCH FLOW SENSOR	EA	4		
FLOW SENSOR CABLE IN CONDUIT	LF	495		
2 INCH GATE VALVE	EA	14		
2 INCH BALL VALVE	EA	4		
1 1/2 INCH BALL VALVE	EA	3		
1 INCH BALL VALVE	EA	13		
2 INCH WYE STRAINER	EA	1		
1 1/2 INCH WYE STRAINER	EA	2		
1 INCH WYE STRAINER	EA	18		

CONTRACT NO. 04-0A7104
 REVISED PER ADDENDUM NO. 5 DATED FEBRUARY 21, 2014

IRRIGATION SYSTEM COST BREAK-DOWN

Contract No. 04-0A7104

UNIT DESCRIPTION	UNIT	APPROXIMATE QUANTITY	VALUE	AMOUNT
1 INCH REMOTE CONTROL VALVE	EA	29		
1 1/2 INCH REMOTE CONTROL VALVE	EA	3		
QUICK COUPLING VALVE	EA	22		
SPRINKLER PROTECTOR TYPE 1	EA	22		
2 INCH PLASTIC PIPE (PR 315) (SUPPLY LINE)	LF	2705		
3 INCH PLASTIC PIPE (PR 315) (SUPPLY LINE)	LF	325		
3/4 INCH PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	50		
1 INCH PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	875		
1 1/4 INCH PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	225		
1 1/2 INCH PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	25		
2 INCH PLASTIC PIPE (PR 200) (SUPPLY LINE)	LF	15		
SPRINKLER TYPE B-2	EA	32		
SPRINKLER TYPE C-2	EA	1245		

TOTAL _____

CITY CCTV CAMERA

CCTV camera for city monitoring shall be pan-tilt-zoom camera, shall support HDTV video resolution, and be an IP-based camera system. Camera shall be installed in a dome enclosure with a traffic signal pole mounting bracket. The camera shall be compatible with the existing Axis Q6034-E City CCTV cameras currently installed throughout the City to maintain a complete coordinated CCTV system. The Contractor shall provide submittals of the system prior to procurement to be reviewed and approved for use by the City of Oakland.

The camera shall be manufactured with an all-metal body, support start-up and operation between -40 °C to +50 °C (-40 °F to +122 °F) and be both IP66 and NEMA 4X certified.

The camera shall be equipped with a progressive scan sensor, 18x optical zoom, Day/Night functionality and shall provide images down to 0.74 lux in day mode and 0.04 lux in night mode.

The camera shall provide accurate high-speed pan-tilt functionality with 360° endless pan range and a 220° tilt range, provide pan and tilt speed between 0.05° - 450°/s, support guard tour functionality, auto tracking and incorporate at least 100 presets.

The camera shall be equipped with a 10BASE-T/100BASE-TX Ethernet-port.

The camera, together with heaters and fans, shall be powered over the network cable using a standalone injector provided with the camera.

The camera shall provide simultaneous Motion JPEG and H.264 video streams and shall support at least two individually configured video streams of resolutions up to 1280 x 720 (HDTV 720p) in full frame rate (30fps). The H.264 implementation shall include both unicast and multicast functionality and support Constant Bit Rate (CBR) as well as Variable Bit Rate (VBR).

The camera shall be able to trigger its embedded event functionality based on detection of video motion, pan tilt zoom position, Auto Tracking, when the local storage is full, camera temperature or in the case of fan malfunctions. Possible response to a triggered event shall include remote notification, including image upload, guard tour or preset call-up and recording to local storage. The camera shall be equipped with a video buffer for saving pre- and post-alarm images and shall have a SD/SDHC card slot to support local storage of video.

The camera shall feature overlay text ability, that includes date and time synchronized using an NTP server. Furthermore, it shall have the ability to apply a graphical image as an overlay and at least 8 individually configurable and dynamically adjusted privacy masks in the video stream.

The camera shall support both static IP addresses and addresses from a DHCP-server, and shall support both IPv4 and IPv6. The camera shall incorporate support for Differentiated Quality of Service (DiffQoS).

For secure access to the camera as well as provided content, the camera shall support HTTPS, SSL/TLS and IEEE802.1X authentication. The camera shall also support IP address filtering and include at least three different levels of password security.

The camera shall contain a built-in web server making video and configuration available in a standard browser environment using HTTP and shall also be fully supported by an open and published API (Application Programmers Interface) providing necessary information for integration of functionality into third party applications.

The camera shall be able to be integrated into existing City central video surveillance management system developed by Genetec Inc.

BID ITEM LIST

04-0A7104

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141 (F)	520103	BAR REINFORCING STEEL (RETAINING WALL)	LB	618,020		
142 (F)	520107	BAR REINFORCING STEEL (BOX CULVERT)	LB	359,023		
143 (F)	520120	HEADED BAR REINFORCEMENT	EA	336		
144	560203	FURNISH SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	6,713		
145	560204	INSTALL SIGN STRUCTURE (BRIDGE MOUNTED WITH WALKWAY)	LB	6,713		
146	560213	FURNISH SIGN STRUCTURE (LIGHTWEIGHT)	LB	11,100		
147	560214	INSTALL SIGN STRUCTURE (LIGHTWEIGHT)	LB	11,100		
148	560218	FURNISH SIGN STRUCTURE (TRUSS)	LB	40,450		
149	560219	INSTALL SIGN STRUCTURE (TRUSS)	LB	40,450		
150	560233	FURNISH FORMED PANEL SIGN (OVERHEAD)	SQFT	1,320		
151	560248	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	860		
152	560249	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	190		
153	560251	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-FRAMED)	SQFT	240		
154	560252	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-FRAMED)	SQFT	180		
155	562002	METAL (BARRIER MOUNTED SIGN)	LB	2,140		
156	025749	METAL (SOUND WALL MOUNTED SIGN)	LB	1,000		
157	566011	ROADSIDE SIGN - ONE POST	EA	62		
158	566012	ROADSIDE SIGN - TWO POST	EA	11		
159	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	74		
160	568015	INSTALL SIGN (MAST-ARM HANGER METHOD)	EA	15		