



PROJECT MANUAL INCLUDING:
NOTICE TO CONTRACTORS, INSTRUCTIONS TO BIDDERS, PROPOSAL FORMS, BID
SCHEDULE, GENERAL PROVISIONS, SPECIAL PROVISIONS, ATTACHMENTS, AND
CONTRACT DOCUMENTS

FOR

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS
(a.k.a. CAT/RAMP+GAP)
ALONG ATLANTIC AVENUE BETWEEN
MAIN STREET AND CONSTITUTION WAY

CIP# 91402, P.W. 03-18-11

LOCATED IN

CITY OF ALAMEDA - ALAMEDA COUNTY - CALIFORNIA

JULY 2018

DEPARTMENT OF PUBLIC WORKS
CITY OF ALAMEDA
950 WEST MALL SQUARE
ALAMEDA, CA 94501

BID DOCUMENTS



CB-16-0427

O P.A.M.P.

PROJECT AUTHORIZATION

**CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS PROJECT**

City Engineer's Approval:

The Project Specifications contained herein, for Cross Alameda Trail Ralph Appezzato Memorial Parkway Improvements Project, have been approved by the City Engineer in accordance with City of Alameda Ordinance No. 3154 and California Government code 830.6.

Scott Wikstrom, PE (RCE#56266)
City Engineer
City of Alameda, CA

Date

7/18/2018

Engineer's Attest:

The following plans and specifications have been prepared under the supervision of the undersigned who hereby certifies that he is a Registered Engineer in the State of California:

**Daniel Schaefer, PE
BKF Engineers
1646 N. California Blvd, Ste. 400
Walnut Creek, CA 94596**



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CITY OF ALAMEDA DEPARTMENT OF PUBLIC WORKS
ALAMEDA, CALIFORNIA

NOTICE TO CONTRACTORS

INVITING SEALED PROPOSALS OF BIDS

CROSS ALAMEDA TRAIL – RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS PROJECT (aka CAT/RAMP +GAP)

CIP #: 91402, P.W. 03-18-11

Sealed Bids will be received by the City of Alameda Department of Public Works, 950 West Mall Square, Alameda, California, until **2:00 p.m. on Thursday, August 30, 2018**. Bids must be presented to Jack Dybas, Project Manager, City of Alameda Public Works Dept., address noted above, under seal cover plainly marked on the outside as follows: "CITY OF ALAMEDA - SEALED BID FOR CROSS ALAMEDA TRAIL - RAMP, NO. P.W. 03-18-11". Bids will be received and stamped in Room 110, and opened in Room 156.

Work shall be done in accordance with official plans and specifications, which can be obtained from BPXpress Reprographics located at 4903 Central Avenue, Richmond, CA 94804 for a non-refundable cost of \$100.00 per set. Shipping and handling are extra, depending on the delivery method. Electronic copies of the documents are also available for a non-refundable cost of \$50 per set.

Copies of the documents can be viewed and ordered at www.blueprintexpress.com/alameda. They can also be ordered by contacting BPXpress Reprographics by phone at (510) 559-8299 or by email at Richmond@blueprintexpress.com. For any questions about ordering or downloading process, please contact BPXpress. It is the responsibility of each prospective bidder to confirm his/her firm is on the plan holders list held at BPXpress to ensure receipt of any subsequent communications, such as Addenda.

Project Description

This project, the 'CAT/RAMP + Gap' Project, is part of the City of Alameda's overall Cross Alameda Trail (CAT) project, which is envisioned as a premiere crosstown, low-stress four-mile bicycling and walking corridor that will connect the west side of the island to the east, from the former Naval Air Base to the Miller-Sweeney (Fruitvale) Bridge. The CAT is being constructed in segments. This CAT/RAMP + Gap project, running parallel to and south of Ralph Appezzato Municipal Parkway, between Main Street and Constitution Way will total approximately 0.9 miles in length, and is divided into two distinct sub-segments:

1. Ralph Appezzato Memorial Parkway (Main Street to Webster Street)

Construction of separate walking and bicycling paths (asphalt concrete), plus a decomposed granite jogging path, in the City-owned abandoned railroad right-of-way. This approximately 70 foot wide right-of-way sits immediately to the south of Appezzato Parkway, adjacent to apartment complexes, schools, several businesses and a Boys and Girls Club. This segment will include the following additional features:

- a) Connector trails to at least two intersecting streets; Fifth Street and West Campus Drive,
- b) Pedestrian, bicycle, and ADA improvements, as well as signage at intersecting streets,
- c) New hardscaped, landscaped plazas at each end; Main Street and Webster Street,

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

- d) Trees, shrubs, bioretention and self-retaining areas, w/ landscaping and urban runoff control, and
- e) Traffic signal modifications at Fifth Street and Constitution Way,

Note: This section includes significant earthwork in the excavation (or relocation and 'capping') of contaminated soils, creating the subgrade for the bicycle and pedestrian paths, with the placement of a soil cap over the majority of the site.

2. Atlantic Avenue (Webster Street to Constitution Way)

Construction of separated two-way bicycle lanes on the south side of this short urban block, one half of which will be at sidewalk-grade (west of business parking lot driveway), and the other which will be at streetgrade (east of this driveway). This CAT section includes significant improvements to the two intersections, which are among the busiest in the City, to facilitate safe pedestrian and bicycle crossings. The project includes signal modifications, plus the installation of a new mid-block crossing with a flashing beacon, and the creation of a new bus stop platform.

The project is expected to cost \$3.43 million and its current funding sources are a) FTA (Federal Transit Administration (via BART)) earmark, b) Alameda CTC countywide discretionary grant (sales tax and vehicle registration fees), c) Transportation Development Act, Article 3. Potential funding sources are a) Affordable Housing Sustainable Communities (State), and b) CDBG (Community Development Block Grant (Federal)).

The Engineer's Estimate for the base bid for this project is \$3,430,000.

A Bid Bond in the amount of 10% of the total bid amount payable to the City of Alameda shall accompany the Proposal.

At or before 5:00 p.m. of the fifth (5th) working day following Notice of Award of Contract, Contractor must file with CITY the following bonds:

- a. Construction Performance Bond, in the sum equal to 100% of the Contract Price, to guarantee faithful performance of Contract Documents; and
- b. Construction Labor and Material Payment Bond, in sum equal to 100% of the Contract Price to guarantee payment of wages for services engaged and of bills contracted for materials, supplies, and equipment used in performance of the Work.

All corporate sureties must be acceptable and satisfactory to CITY. Corporate sureties on all bonds required under this Contract must be duly licensed to do business in the State of California and must have an A.M. Best Company financial rating of A-VII or better.

The City of Alameda reserves the right to reject any or all bids and the right to waive any irregularities.

The provisions of Public Contract Code 22300, regarding substitution of securities for monies withheld to ensure performance shall apply to this contract.

A mandatory Pre-Bid Meeting will be held on Thursday, August 9, 2018.

Please submit all questions by email regarding the bid documents by **no later than 5:00 PM on Wednesday, August 22, 2018** to:

Jack Dybas, Project Manager, Public Works Department at: jdybas@alamedaca.gov

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with a copy to:

Rochelle Wheeler, City of Alameda Senior Transportation Coordinator, rwheeler@alameda.gov

Bidders are advised that, as required by federal law, the State has established a statewide overall DBE goal. This City federal-aid contract is considered to be part of the statewide overall DBE goal. The City is required to report to Caltrans on DBE participation for all federal-aid contracts each year so that attainment efforts may be evaluated.

The DBE contract goal is 5.00% percent.

The Contractor shall possess a valid Class "A" License at the time contract is awarded. Bids are required for the entire work described herein. This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

Inquiries or questions based on alleged patent ambiguity of the plans, specifications or estimate must be communicated as a bidder inquiry prior to bid opening. Any such inquiries or questions, submitted after bid opening, will not be treated as a bid protest.

The City of Alameda affirms that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates for Alameda County where the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available at the Department of Public Works. Prevailing Wage rates are also available at the State of California Division of Labor Statistics and Research website <http://www.dir.ca.gov/DLSR/PWD/index.htm>. The Federal minimum wage rates for this project as predetermined by the United States Secretary of Labor are set forth in the project Special Provisions. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

Attention is directed to the Federal minimum wage rate requirements in the project Special Provisions. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. The Department will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate which most closely approximates the duties of the employees in question.

The U.S. Department of Transportation (DOT) provides a toll-free "hotline" service to report bid rigging activities. Bid rigging activities can be reported Mondays through Fridays, between 8:00 A.M. and 5:00 P.M., eastern time, Telephone No. 1-800-424-9071. Anyone with knowledge of possible bid, bidder collusion, or other fraudulent activities should use the "hotline" to report these activities. The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

CITY OF ALAMEDA DEPARTMENT OF PUBLIC WORKS
ALAMEDA, CALIFORNIA

INSTRUCTIONS TO BIDDERS

- A. **INSPECTION OF PLANS:** Bidders may obtain copies of the plans and specifications and any addenda by logging on to www.blueprintexpress.com/alameda or by calling BPXpress Reprographics at (510) 559-8229 or e-mailing Richmond@blueprintexpress.com. There is a non-refundable FEE for the plans and specifications. All bidders must purchase a complete set from BPXpress Reprographics to be considered responsive and to receive addenda notifications.
- B. **ELIGIBILITY:** All bidders must be Contractors holding a valid license to perform the required work as provided by the Business and Professions Code, and may be required to submit evidence to the City as to their ability, financial responsibility, and experience, in order to be eligible for consideration of their proposal.
- C. **PROPOSAL GUARANTY:** All bids must be submitted on the proposal Form obtained from the Department of Public Works and shall be accompanied by a Proposal Guaranty of at least ten (10%) of the base bid. Guaranties shall be in the form of cash, a certified or cashier's check or Bid Bond payable to the City of Alameda. Failure of the successful bidder to execute and return the contract, or to file acceptable bonds, as required, within the time allotted shall be cause for the annulment of the award and forfeiture of the Proposal Guaranty.
- D. **BID BONDS:** The bid bond of bidders, other than the successful bidder, may be retained by the City for a period of thirty (30) days after award or until fifteen (15) days after the successful bidder executed the contract and furnished bonds, whichever occurs first. If a bidder to whom the contract is awarded fails, or refuses, to execute the contract within ten (10) days of notice of award, as herein provided, the City Manager may award to the next lowest bidder and apply the bid bond of the bidder failing, or refusing, to execute contract as herein required. The bid bonds of bidders to whom no award was made will be returned within 30 days of award.
- E. **BIDS AND BID OPENING:** Only the total bid amount will be read at the bid opening and not specific items unless requested, in writing, at the time of the submission of proposals. Bidders will be at liberty to inspect and review bids at the Department of Public Works, to which they will be removed for the purpose of checking after opening and reading of totals.

Bids are required for the entire work described herein, and neither partial nor contingent bids will be considered.

- F. **ADDENDUM:** Every interpretation of the specifications, changes, additions or corrections will be readily available via the BPXpress Reprographics bidding site noted above in part A, in the form of an addendum to the contract documents, and when issued will be on file at the Department of Public Works at least one (1) working day before bids are opened. In addition, it will be the bidder's responsibility to make inquiry as to the addenda issued. All such addenda shall become part of the contract documents and all bidders shall be bound by such addenda.

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- G. TIME LIMIT AND LIQUIDATED DAMAGES: The Contractor shall commence work on or before the tenth (10th) working day following date of mailing of written notification by the Department of Public Works that the contract has been awarded by the City Council or City Manager. During this ten-(10) working day interval, the necessary contract documents which were not signed prior to the City Council meeting shall be executed by the Contractor and returned to the Department of Public Works.
1. All work shall be completed within **one hundred and forty six (146) working days** from Notice to Proceed.
 2. The Contractor shall pay to the City the sum of **\$3,000.00** per each and every calendar days' delay in completing the work in excess of the number of working days specified above. The Contractor shall pay said amount to the City in accordance with the requirements of Section D, General Provisions, of the specifications. It is understood that additional crews may be needed to complete the work within the timeline specified.
- H. LEGAL REQUIREMENTS: See the provisions of the specifications regarding legal relations and responsibility.
- I. SPECIFICATIONS: Attention is directed to the correlation of the specifications with the Standard Specifications of the State of California, Business, Transportation and Housing Agency, Department of Transportation (Caltrans), dated 2010 and any amendments, as to materials, methods and workmanship.
- J. CONTRACT BONDS: The Contractor whose bid is accepted shall furnish within five (5) working days of notice of award, the following bonds to the City (at no expense to City), executed by a responsible surety in a form acceptable to the City:
- a) Performance Bond
 - b) Labor and Materials Bond
- The Performance Bond shall be in an amount equal to one hundred percent (100%) of the total amount bid by the Contractor in his proposal.
- The Labor and Materials Bond shall be in an amount equal to one hundred percent (100%) of the total amount bid by the Contractor in his proposal.
- K. PROJECT STABILIZATION AGREEMENT: This project is subject to and shall be performed under the Project Stabilization Agreement ("PSA") between the City of Alameda and the Building and Construction Trades Council of Alameda County and its affiliated local unions. Contractors submitting bids must provide evidence of acceptance of the terms and conditions of the PSA at the time of bid. Specifically, contractor must submit the completed and signed "Agreement to be Bound" found in the Bid Form Checklist. Additionally, all contractors and subcontractors of any tier on this project will be required to execute the Agreement to be Bound and be subject to the PSA prior to contract award.
- L. COMPLETENESS OF BID: Bidders should take care to complete all details in a legible manner in the bid documents. Failure to do so may be cause for rejection of the bid.
- M. EMPLOYEES AND NON-DISCRIMINATION: See Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

**NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM
(GOV. CODE, SECTION 12990)**

See "Nondiscrimination" set forth in Section 7-1.02I(2) of the Standard Specifications, which is applicable to all nonexempt state contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The Specifications are applicable to all nonexempt state construction contracts and subcontracts of \$5,000 or more.

Contractor shall not discriminate against any employee or applicant because of race, religion, color or national origin. This shall include employment, demotion or transfer, recruitment or recruitment advertisement, layoff or termination, rates of pay or other compensation, and selection for training and apprenticeship. Contractor shall post, in conspicuous places during the period of contract and available to applicants for employment, notices setting forth the provisions of this clause. Contractor shall insert the foregoing provisions in all subcontracts thereunder, except subcontracts for standard commercial supplies or raw materials. The hiring of all labor for work shall be in accordance with applicable directives of the Fair Employment Practices Commission of the State of California. The Contractor shall forfeit, as a penalty, in addition to any other penalty provided by law, to City, the sum of \$25.00 for each calendar day, or portion thereof, during which the Contractor knowingly allows any conditions of discrimination to exist in connection with the work, provided, however, that such penalty shall not be imposed without a full investigation and determination by the Fair Employment Practices Commission.

Contractor shall cooperate fully with the City of Alameda and affected Unions to promote and insure the maximum employment of minorities in accordance with State Standard Specifications Section 7-1.02I(2), "Nondiscrimination," with particular emphasis on residents of Alameda County, in all phases and at all levels of the work.

- N. ENVIRONMENTAL CONTROL: The Contractor shall comply with all air pollution and environmental control rules, regulations, ordinances and statutes that apply to the project and any work performed pursuant to the contract.
- O. APPRENTICESHIP: See Sections 1777.5 (Chapter 1411, Statutes of 1968) and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him.

Section 1777.5, as amended required the Contractor or subcontractor employing tradesmen in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project and which administers the apprenticeship program in that trade for a certificate of approval. The certificate will also fix the ratio of apprentices to journeymen that will be used in the performance of the contract. The ratio of apprentices to journeymen in such cases shall not be less than one to five except:

1. When unemployment in the area of coverage by the joint apprenticeship committee has exceeded an average of fifteen percent (15%) in the ninety (90) days prior to the request for certificate, or
2. When the number of apprentices in training in the area exceeds a ratio of one (1) to five (5), or
3. When the trade can show that it is replacing at least 1/30th of its membership through apprenticeship training on an annual basis statewide or locally, or
4. When the assignment of an apprentice to any work performed under a public works contract would create a condition that would jeopardize his or her life or the life, safety, or property of fellow employees or the

public at large, or the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

The Contractor is required to make contributions to funds established for the administration of apprenticeship program if he employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other Contractors on the public works site are making such contributions. The Contractor and any subcontractor under him shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, Standards and its branch office.

- P. PREVAILING WAGES: In compliance with the provisions of Section 1776 of the Labor Code of the State of California, as amended, the Contractor and each of his subcontractors shall keep an accurate payroll record, showing the name, address, social security number, work classifications, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice or worked employed by them in connection with the Project. Said records shall be available for inspection at all reasonable hours, and copies shall be made available to the employer or his authorized representative, the State Division of Labor Standards Enforcement, the State Division of Apprenticeship Standards, and the City.

See Section 7-1.02K(2) "Wages" of the Standard Specifications.

The general prevailing wage rates determined by the Director of Industrial Relations, for Alameda County where the work is to be completed, are available at the Labor Compliance Office at the offices of the District Director for Caltrans District IV and at the Department of Public Works, City of Alameda. These wage rates are not included in the Proposal and Contract for the project. Changes, if any, to the general prevailing wage rates will be available at the same location.

- Q. TRENCHING: If the Project involves the construction of a pipeline, Sewer, sewage disposal system, boring and jacking pits, or similar trenches or open excavations, which are five (5) feet deep or more, then each Bidder must submit, as a Bid Item, adequate sheeting, shoring, and bracing, or an equivalent method, for the protection of life or limb, which shall conform to applicable safety orders. This final submission must be accepted by the City in advance of excavation and must include a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from caving ground during the excavation Work. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.
- R. DEBARMENT OR SUSPENSION: The Contractor shall not perform work with any Subcontractor that has been debarred or suspended pursuant to the California Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. The Contractor and Subcontractors shall not be debarred or suspended throughout the duration of this Contract pursuant to Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. If the Contractor or any Subcontractor becomes debarred or suspended during the duration of the Project, the Contractor shall immediately notify the City.
- S. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE AND PREVAILING WAGE REQUIREMENTS ON PUBLIC WORKS PROJECTS: Effective January 1, 2015, no Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted after March 1, 2015) unless registered with the Department of

Industrial Relations pursuant to Labor Code Section 1725.5 (with the limited exceptions from this requirement for bid purposed only under Labor code Section 1771.1(a)). Register at <https://efiling.dir.ca.gov/PWCR>. No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The Prime Contractor is required to post job site notices prescribed by regulations. See 8 Calif. Code Regulation §16451(d). Effective April 1, 2015, All Contractors and Subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner at: <https://apps.dir.ca.gov/ecpr/das/altlogin>

- T. COMPLIANCE MONITORING AND POSTING JOB SITES: This Project is subject to compliance monitoring and enforcement by the DIR. The Contractor shall post job site notices, as prescribed by regulation.
- U. DISADVANTAGED BUSINESS ENTERPRISE (DBE) – "LOCAL AGENCY BIDDER - DBE COMMITMENT" and "LOCAL AGENCY BIDDER - DBE INFORMATION" forms will be included in the contract documents to be executed by the successful bidder. The purpose of the forms is to collect data required under 49 CFR 26. Even if no DBE participation will be reported, the successful bidder must execute and return the forms.

A "Local Agency Bidder-DBE Information (Construction Contracts), Exhibit 15-G" form shall be executed by the successful bidder. The purpose of the form is to collect data required under 49 CFR 26. Even if no DBE participation will be reported, the successful bidder must execute and return the form.

The successful bidder's "Local Agency Bidder- Information (Construction Contracts), Exhibit 15-G" form should include the names, addresses and phone numbers of DBE firms that will participate, with a complete description of work or supplies to be provided by each, and the dollar value of each DBE transaction. When 100 percent of a contract item of work is not to be performed or furnished by a DBE, a description of the exact portion of that work to be performed or furnished by that DBE should be included in the DBE information, including the planned location of that work. A successful bidder certified as a DBE should describe the work it has committed to performing with its own forces as well as any other work that it has committed to be performed by DBE subcontractors, suppliers and trucking companies.

The successful bidder is encouraged to provide written confirmation from each DBE that the DBE is participating in the contract. A copy of a DBE's quote will serve as written confirmation that the DBE is participating in the contract. If a DBE is participating as a joint venture partner, the successful bidder is encouraged to submit a copy of the joint venture agreement.

The "Local Agency Bidder-DBE Information (Construction Contracts), Exhibit 15-G" form shall be completed and returned to the Agency by the successful bidder with the executed contract and contract bonds.

PROPOSAL

TO THE DIRECTOR OF PUBLIC WORKS OF ALAMEDA
ALAMEDA, CALIFORNIA

FOR: CROSS ALAMEDA TRAIL – RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS (a.k.a. CAT RAMP + GAP)

(See 'NOTICE TO CONTRACTORS', page 7, for a more detailed Project Description.)

This CAT/RAMP + Gap project, between Main Street and Constitution Way, totaling approximately 0.9 miles in length, is divided into two distinct sub-segments:

1. Ralph Appezzato Memorial Parkway (Main Street to Webster Street)

Construction of separate walking, bicycling and jogging paths within the City-owned abandoned railroad right-of-way. This approximately 70 foot wide right-of-way sits immediately to the south of Appezzato Parkway, adjacent to apartment complexes, schools, several businesses and a Boys and Girls Club. This segment includes connector trails, pedestrian, bicycle pathways, ADA improvements, signage, hardscaped plazas, landscape, bioretention and 'self-retaining' areas, and traffic signal modifications.

Note: This section includes significant earthwork in the excavation (or relocation and 'capping') of contaminated soils, creating the subgrade for the bicycle and pedestrian paths, with the placement of a soil cap over the majority of the site.

2. Atlantic Avenue (Webster Street to Constitution Way)

Construction of separated two-way bicycle lanes on the south side of this short urban block, one half of which will be at sidewalk-grade (west of business parking lot driveway), and the other which will be at street grade (east of this driveway). This section includes significant improvements to the two intersections to facilitate safe pedestrian and bicycle crossings.

Name of Bidder_____

Business Address_____

Place of Residence_____

TO THE DIRECTOR OF PUBLIC WORKS OF ALAMEDA:

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm or corporations; that he has carefully examined the location of the proposed work, plans and specifications; and he proposes and

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

agrees, if this proposal is accepted, that he will contract with the City of Alameda to provide all necessary machinery, tools, apparatus, and other means of construction, and to do all the work and furnish all the materials specified in this contract in the manner and time prescribed, and according to the requirements of the Engineer as therein set forth; and that he will take in full payment therefor an amount based on the unit prices specified herein below for the various items of work,

the total value of said work as estimated herein being

\$

_____ /
and the following being the unit prices bid to-wit:

CITY OF ALAMEDA
CROSS ALAMEDA TRAIL - RALPH APPEZZATO MEMORIAL PARKWAY + GAP
BASE BID SCHEDULE

ITEM	DESCRIPTION	SPEC. REF.	UNIT COST	QTY.	UNIT	AMOUNT
FUNDING PACKAGE #1 (Donut Shop)						
1	REMOVE CONCRETE CURB	10.19		39	LF	\$
2	ACCESSIBLE RAMPS	10.44		100	SF	\$
3	ACCESSIBLE SIGN	10.65		1	EA	\$
4	AC PAVEMENT GRIND	10.46		3,225	SF	\$
5	AC PAVEMENT OVERLAY	10.46		39	TON	\$
6	6" CONCRETE CURB	10.44		39	LF	\$
7	INSTALL PARKING STRIPING (4")	10.48		370	SF	\$
FUNDING PACKAGE #2 (FTA via BART)						
8	MOBILIZATION (2.5% of Base Bid)	10.04		1	LS	\$
9	TRAFFIC CONTROL	10.04		1	LS	\$
10	TEMPORARY CONSTRUCTION FENCING	10.05		2,809	LF	\$
11	INSTALL PROJECT SIGNS	10.06		1	LS	\$
12	CONSTRUCTION STAKING	10.34		1	LS	\$
13	CONSTRUCTION SURVEYING (CAP VERIFICATION)	10.30		1	LS	\$
14	SWPPP/EROSION CONTROL	10.08		1	LS	\$
15	CLEARING AND GRUBBING	10.16		117,868	SF	\$
16	TREE REMOVAL	10.18		29	EA	\$
17	TREE TRIMMING	10.18		1	LS	\$
18	REMOVE CONCRETE CURB AND GUTTER	10.19		506	LF	\$
19	REMOVE CONCRETE PAVING	10.19		2,874	SF	\$
20	REMOVE ASPHALT CONCRETE PAVING	10.19		14,594	SF	\$
21	SALVAGE SIGNS	10.16		2	EA	\$
22	TREE PROTECTION	10.18		1	LS	\$
23	REMOVE BOLLARDS	10.21		6	EA	\$
24	REMOVE AND DISPOSE OF EXISTING BUILDING	10.20		1	EA	\$
25	REMOVE CHAIN LINK FENCE	10.22		150	LF	\$
26	TEMPORARY CONTAINMENT	10.27		1,480	CY	\$
27	GEOTEXTILE SEPARATION BARRIER	10.33		155,719	SF	\$
28	REUSE EXISTING MULCH	10.56		20,400	SF	\$
29	EROSION CONTROL LAYER / HYDROSEED	10.53		81,600	SF	\$

ITEM	DESCRIPTION	SPEC. REF.	UNIT COST	QTY.	UNIT	AMOUNT
30	EARTHWORK - EXCAVATION (CUT TO BURIAL)	10.32		3,230	CY	\$
31	FULL DEPTH RECLAMATION (REVOCABLE)	10.31		59,700	SF	\$
32	FINE GRADING	10.29		59,700	SF	\$
33	CEMENT APPLICATION (REVOCABLE)	10.31		20	TON	\$
34	IMPORT AND PLACE CLEAN FILL (REVOCABLE)	10.28		9,600	CY	\$
35	CLASS II RECYCLED AGGREGATE BASE - 8" BIKE & JOG, 4" WALKIING	10.45		2,000	TON	\$
36	WALKING PATH - 2" ASPHALT	10.46		125	TON	\$
37	JOGGING PATH - 4" DECOMPOSED GRANITE	10.47		203	TON	\$
38	3" ASPHALT AT INTERSECTIONS	10.46		50	TON	\$
39	CONCRETE PAVING (PLAZAS)	10.44		3,100	SF	\$
40	4" CONCRETE AT INTERSECTIONS & ACCESS PATHS	10.44		3,635	SF	\$
41	BICYCLE PATH - 3" ASPHALT	10.46		435	TON	\$
42	AGGREGATE BASE SERVICE ROAD FOR MH ACCESS	10.45		94	TON	\$
43	PEDESTRIAN CURB RAMP	10.44		625	SF	\$
44	2 " by 4 ' CDF CAP (INSTALLED ADJACENT TO TRAVEL WAY)			41	CY	\$
45	BICYCLE CURB RAMP	10.44		457	SF	\$
46	CONCRETE CURB AND GUTTER	10.44		813	LF	\$
47	MAIN STREET DRIVEWAY	10.44		1	EA	\$
48	STRIPING: 12" SOLID WHITE LINE	10.48		30	LF	\$
49	STRIPING: 4" SOLID YELLOW	10.48		400	LF	\$
50	STRIPING: 4" SOLID WHITE	10.48		120	LF	\$
51	STRIPING: 4" BROKEN YELLOW	10.48		1,350	LF	\$
52	PAVEMENT MARKINGS	10.48		55	EA	\$
53	NEW SIGNAGE	10.65		26	EA	\$
54	LANDSCAPE SOIL PREPARATION (INCLUDES COMPOST AT 6CY/1000SF AT 91,800 SF)	10.58		551	CY	\$
55	TREE - 15 GALLON	10.59		61	EA	\$
56	CONCRETE BAND	10.44		20	LF	\$
57	PAVERS AT EMERGENCY ACCESS	10.61		475	SF	\$
58	BRICK PAVERS - MORTAR SET WITH CONCRETE BASE	10.62		209	SF	\$
59	BOULDER	10.64		50	TON	\$
60	TRAFFIC SIGNS/POSTS/WAYFINDING SIGNAGE-NOT SHOWN IN PLANS	10.65		1	EA	\$
61	SHEET MULCH (2 LAYERS OF RECYCLED CARDBOARD)	10.67		10,400	SF	\$
62	RECYCLED WOOD MULCH (2 INCH DEPTH/10,400 SF)(REVOCABLE)	10.68		64	CY	\$

ITEM	DESCRIPTION	SPEC. REF.	UNIT COST	QTY.	UNIT	AMOUNT
63	METAL HEADER	10.63		40	LF	\$
64	BENCHES	10.70		3	EA	\$
65	BIKE RACKS	10.72		3	EA	\$
66	TREE GRATE	10.74		1	EA	\$
67	LANDSCAPE MAINTENANCE (1 YEAR)	10.73		1	LS	\$
68	SLOW RELEASE WATERING BAG - TREES	10.52		122	EA	\$
69	ADJUST MANHOLE LID (SS/SD) TO GRADE	10.38		6	EA	\$
70	CONNECT TO EXISTING STORM SYSTEM	10.35		16	EA	\$
71	STORM DRAIN AREA DRAIN	10.36		25	EA	\$
72	SOLID DRAIN LINE, 6" PVC	10.37		576	LF	
73	TRAFFIC SIGNAL MODIFICATION (THIRD ST/RAMP)	10.50		1	LS	\$
74	TRAFFIC SIGNAL MODIFICATION (POGGI ST/RAMP)	10.50		1	LS	\$
FUNDING PACKAGE #3 (ACTC Discretionary)						
75	MOBILIZATION (2.5% of Base Bid)	10.04		1	LS	\$
76	TRAFFIC CONTROL	10.04		1	LS	\$
77	TEMPORARY CONSTRUCTION FENCING	10.05		2,429	LF	\$
78	INSTALL PROJECT SIGNS	10.06		1	LS	\$
79	CONSTRUCTION STAKING	10.34		1	LS	\$
80	CONSTRUCTION SURVEYING (CAP VERIFICATION)	10.30		1	LS	\$
81	SWPPP/EROSION CONTROL	10.08		1	LS	\$
82	CLEARING AND GRUBBING	10.16		149,388	SF	\$
83	TREE REMOVAL	10.18		3	EA	\$
84	REMOVE CONCRETE CURB AND GUTTER	10.19		450	LF	\$
85	REMOVE CONCRETE PAVING	10.19		2,985	SF	\$
86	REMOVE ASPHALT CONCRETE PAVING	10.19		6,732	SF	\$
87	SALVAGE SIGNS	10.16		8	EA	\$
88	REMOVE BOLLARDS	10.21		18	EA	\$
89	DEMOLISH EXISTING LIGHT POLE BASES & CAP ELECTRICAL	10.23		1	LS	\$
90	TEMPORARY CONTAINMENT	10.27		1,480	CY	\$
91	GEOTEXTILE SEPARATION BARRIER	10.33		143,740	SF	\$
92	REUSE EXISTING MULCH	10.54		21,100	SF	\$
93	EROSION CONTROL LAYER / HYDROSEED	10.53		84,410	SF	\$
94	EARTHWORK - EXCAVATION (CUT TO BURIAL)	10.32		2,200	CY	\$

ITEM	DESCRIPTION	SPEC. REF.	UNIT COST	QTY.	UNIT	AMOUNT
95	FULL DEPTH RECLAMATION (REVOCABLE)	10.31		56,800	SF	\$
96	FINE GRADING	10.29		56,800	SF	\$
97	CEMENT APPLICATION (REVOCABLE)	10.31		20	TON	\$
98	IMPORT AND PLACE CLEAN FILL (REVOCABLE)	10.28		3,400	CY	\$
99	CLASS II RECYCLED AGGREGATE BASE - 8" BIKE & JOG, 4" WALKIING	10.45		2,450	TON	\$
100	WALKING PATH - 2" ASPHALT	10.46		160	TON	\$
101	JOGGING PATH - 4" DECOMPOSED GRANITE	10.47		262	TON	\$
102	3" ASPHALT AT INTERSECTIONS	10.46		11	TON	\$
103	CONCRETE PAVING (PLAZAS)	10.44		5,500	SF	\$
104	4" CONCRETE AT INTERSECTIONS & ACCESS PATHS	10.44		7,275	SF	\$
105	BICYCLE PATH - 3" ASPHALT	10.46		580	TON	\$
106	AGGREGATE BASE SERVICE ROAD FOR MH ACCESS	10.45		90	TON	\$
107	PEDESTRIAN CURB RAMP	10.44		310	SF	\$
108	2 " by 4 ' CDF CAP (INSTALLED ADJACENT TO TRAVEL WAY)			55	CY	\$
109	BICYCLE CURB RAMP	10.44		254	SF	\$
110	CONCRETE CURB AND GUTTER	10.48		88	LF	\$
111	STRIPING: 12" SOLID WHITE LINE	10.48		120	LF	\$
112	STRIPING: 4" SOLID YELLOW	10.48		567	LF	\$
113	STRIPING: 4" SOLID WHITE	10.48		690	LF	\$
114	STRIPING: 4" BROKEN YELLOW	10.48		1,440	LF	\$
115	STRIPING: 6" DOTTED WHITE	10.48		300	LF	\$
116	STRIPING: 6" SOLID WHITE LINE	10.48		1,200	LF	\$
117	PAVEMENT MARKINGS	10.48		101	EA	\$
118	NEW SIGNAGE	10.65		29	EA	\$
119	GREEN THERMOPLASTIC PAVEMENT MARKING	10.48		240	SF	\$
120	IRRIGATION (WEBSTER PLAZA)	10.58		1	LS	\$
121	LANDSCAPE SOIL PREPARATION (INCLUDES COMPOST AT 6CY/1000SF AT 95,200 SF)	10.59		571	CY	\$
122	SHRUBS 1 GALLON	10.59		538	EA	\$
123	TREE - 15 Gallon	10.60		71	EA	\$
124	CONCRETE SEAT WALLS	10.49		37	CY	\$
125	CONCRETE BAND	10.62		56	LF	\$
126	BRICK PAVERS - SAND SET	10.62		545	SF	\$
127	BRICK PAVERS - MORTAR SET WITH CONCRETE BASE	10.62		415	SF	\$

ITEM	DESCRIPTION	SPEC. REF.	UNIT COST	QTY.	UNIT	AMOUNT
128	BOULDER	10.64		29	TON	\$
129	TRAFFIC SIGNS/POSTS/WAYFINDING SIGNAGE-NOT SHOWN IN PLANS	10.65		2	EA	\$
130	SHEET MULCH (2 LAYERS OF RECYCLED CARDBOARD)	10.67		11,000	SF	\$
131	RECYCLED WOOD MULCH (2 INCH DEPTH/11,000 SF)(REVOCABLE)	10.68		68	CY	\$
132	BIORETENTION AREA ROCK MULCH (3" DEEP, 300SF)	10.69		3	CY	\$
133	METAL HEADER	10.63		54	LF	\$
134	BENCHES	10.70		1	EA	\$
135	BIKE RACKS	10.72		4	EA	\$
136	RELOCATE BIKE LOCKERS	10.71		3	EA	\$
137	LANDSCAPE MAINTENANCE (1 YEAR)	10.73		1	LS	\$
138	SLOW RELEASE WATERING BAG - TREES	10.52		86	EA	\$
139	CONNECT TO EXISTING STORM SYSTEM	10.35		18	EA	\$
140	ADJUST MANHOLE LID (SS/SD) TO GRADE	10.38		8	EA	\$
141	STORM DRAIN AREA DRAIN	10.36		23	EA	\$
142	STORM DRAIN CLEANOUT	10.36		1	EA	\$
143	SOLID DRAIN LINE, 6" PVC	10.37		363	LF	\$
144	PERFORATED DRAIN LINE, 6" PVC	10.37		32	LF	\$
145	BIORETENTION SOIL	10.41		26	TON	\$
146	CLASS II AB, PERMEABLE	10.42		22	TON	\$
147	(2) - 2" PVC LIGHTING CONDUIT	10.76		24	LF	\$
148	ELECTRICAL PULL BOXES	10.78		1	EA	\$
149	REMOVE CONCRETE CURB AND GUTTER	10.19		150	LF	\$
150	RELOCATION OF BUS STOP ENCLOSURE	10.16		1	LS	\$
151	ADJUST LIGHT POLE TO GRADE	10.38		1	EA	\$
152	RELOCATE TRASH CANS	10.25		2	EA	\$
153	ADJUST MANHOLES TO GRADE	10.38		2	EA	\$
154	ADJUST UTILITY BOX TO GRADE	10.38		2	EA	\$
155	TREES REMOVAL	10.18		2	EA	\$
156	CONCRETE CURB AND GUTTER	10.44		140	LF	\$
157	NEW SIGNAGE	10.67		2	EA	\$
158	RETAINING CURB	10.44		15	LF	\$
FUNDING PACKAGE #4 (No funding)						
159	MOBILIZATION (2.5% of Base Bid)	10.04		1	LS	\$

ITEM	DESCRIPTION	SPEC. REF.	UNIT COST	QTY.	UNIT	AMOUNT
160	TEMPORARY CONSTRUCTION FENCING	10.05		1,028	LF	\$
161	INSTALL PROJECT SIGNS	10.06		1	LS	\$
162	CONSTRUCTION STAKING	10.34		1	LS	\$
163	EROSION CONTROL LAYER / HYDROSEED	10.53		275	SF	\$
164	CLEARING AND GRUBBING (LANDSCAPE)	10.16		580	SF	\$
165	REMOVE CONCRETE CURB AND GUTTER	10.19		440	LF	\$
166	REMOVE CONCRETE CURB (MEDIAN)	10.19		1,650	SF	\$
167	REMOVE ASPHALT CONCRETE PAVING	10.19		2,305	SF	\$
168	REMOVE STRIPING	10.17		1	LS	\$
169	SALVAGE NEWSSTAND	10.26		1	LS	\$
170	TREE REMOVAL	10.18		2	EA	\$
171	TREE PROTECTION	10.18		1	LS	\$
172	RELOCATE IRRIGATION SYSTEM	10.51		1	LS	\$
173	REPLACE AC ROAD SECTION (12" ASPHALT)	10.46		50	TON	\$
174	NEW CONCRETE SIDEWALK	10.44		3,695	SF	\$
175	CONCRETE MEDIAN (ROADWAY MEDIAN)	10.44		175	SF	\$
176	RETAINING CURB	10.44		320	LF	\$
177	PEDESTRIAN CURB RAMP	10.44		440	SF	\$
178	BICYCLE CURB RAMP	10.44		560	SF	\$
179	CONCRETE CURB AND GUTTER	10.44		360	LF	\$
180	CONCRETE CURB	10.44		120	LF	\$
181	MOUNTABLE TRUCK APRON	10.44		90	SF	\$
182	COMMERCIAL DRIVEWAY	10.44		780	SF	\$
183	48" HIGH LANE DELINEATORS	10.66		26	EA	\$
184	NEW SIGNAGE	10.65		11	EA	\$
185	6" DETECTABLE WARNING STRIP	10.44		125	SF	\$
186	TRUNCATED DOMES	10.44		115	SF	\$
187	STRIPING: 24" SOLID WHITE LINE	10.48		1,580	LF	\$
188	STRIPING: 12" SOLID WHITE LINE	10.48		60	LF	\$
189	STRIPING: 4" BROKEN YELLOW LINE	10.48		650	LF	\$
190	STRIPING: 4" BROKEN WHITE LINE	10.48		600	LF	\$
191	STRIPING: 4" SOLID WHITE	10.48		530	LF	\$
192	PAVEMENT MARKINGS	10.48		66	EA	\$

ITEM	DESCRIPTION	SPEC. REF.	UNIT COST	QTY.	UNIT	AMOUNT
193	NON REFLECTIVE MARKERS	10.48		40	EA	\$
194	GREEN THERMOPLASTIC PAVEMENT MARKING	10.48		3,150	SF	\$
195	DRAIN INLETS	10.36		4	EA	\$
196	6" PVC STORM DRAIN PIPE	10.37		120	LF	\$
197	12" RCP STORM DRAIN PIPE	10.37		136	LF	\$
198	ADJUST UTILITY BOX TO GRADE	10.38		2	EA	\$
199	CONNECT TO EXISTING STORM SYSTEM	10.35		3	EA	\$
200	TRAFFIC SIGNAL MODIFICATION (WEBSTER ST/ATLANTIC AVE)	10.50		1	LS	\$
201	TRAFFIC SIGNAL MODIFICATION (ATLANTIC AVE/CONSTITUTION WAY)	10.50		1	LS	\$
FUNDING PACKAGE #5 (CDBG)						
202	ATLANTIC AVENUE RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLY	10.50		1	LS	\$
203	TRAFFIC SIGNAL MODIFICATION (FIFTH ST/RAMP)	10.50		1	LS	\$

BID ALT #1

204	LIGHT FIXTURE, POLE, AND FOUNDATION	10.81		42	EA	\$
205	1.5" PVC LIGHTING CONDUIT	10.76		4135	LF	\$
206	LIGHTING IN-GRADE PULL BOX	10.78		42	EA	\$
207	#10 THWN CONDUCTORS	10.76		4,660	LF	\$
208	#8 THWN CONDUCTORS	10.76		22,760	LF	\$
209	TRENCHING	10.77		4,135	LF	\$
210	UTILITY PAD MOUNT	10.80		1	EA	\$

BID ALT #2

211	IMPORT AND PLACE CLEAN FILL	10.28		13,000	CY	\$
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TOTAL BASE BID: Items 1 through 203 inclusive (IN WORDS): \$ _____

TOTAL ADD ALTERNATE BID #1 (IN WORDS): \$ _____

TOTAL ADD ALTERNATE BID #2 (IN WORDS): \$ _____

BIDDER NAME: _____

Refer to Attachment P "Funding Package Exhibit" for breakdown of funding packages.

This Bid Schedule must be completed in ink and must be included with the sealed Bid Proposal. The unit cost for each item must be inclusive of all costs, whether direct or indirect, including profit and overhead. The sum of all amounts entered in the extended total "Amount" column must be identical to the Base Bid price.

ALTERNATE BID ITEMS

If and when Alternate bid items are called for in the Contract Documents, the lowest responsive bid will be determined on the basis of a total lump sum, equal to the sum of the Base Bid Schedule work only, unless otherwise provided in the Notice Inviting Bids. (Note: Bid Alternates will NOT be part of the determination of lowest responsive bids.)

City may elect to include one or more of the Alternate bid items in the Project scope of work. Accordingly, the City reserves the right to hold the Awarded Contractor to its Bid Alternate bids for no less than 90 days from the award of Contract, and each bidder must ensure that each bid item (Base Bid or Alternate) is balanced and contains a proportionate share of profit, overhead and other costs or expenses which will be incurred by the Bidder.

The time required for completion of the Alternate bid items has been factored into the Contract Time and no additional time will be allowed for performing any of the alternate bid items.

END BID PROPOSAL

The award of contract, if awarded, shall be based on budget requirements and shall be made to the lowest responsible, responsive bidder based on the Total Base Bid amount alone. (Note: Bid Alternates will not be part of the determination of lowest responsive bids.)

In case of discrepancy between prices and totals, the unit prices shall prevail.

It is understood and agreed that the quantities of work under each item are approximate only, being given for a basis of comparison of proposals, and the right is reserved to the City to increase or decrease the amount of work under any item as may be required, in accordance with provisions set forth in the specifications for this project.

It is further understood and agreed that the total amount of money set forth for each item of work or as the total amount bid for the project does not constitute an agreement to pay a lump sum for the work unless it specifically so states.

No person, firm or corporation shall be allowed to make, file or be interested in more than one (1) bid for the same project unless such alternate bids are called for. However, a person, firm or corporation who has submitted a sub-proposal to one bidder is not hereby disqualified from submitting a sub-proposal or quoting prices to other bidders.

If this proposal is accepted and the undersigned shall fail to contract as aforesaid and to give the two bonds in the sums to be determined as aforesaid with surety satisfactory to the Director of Public Works within three (3) working days of notice of award, the City Manager may, at his option, determine that the bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void and the forfeiture of such security accompanying this proposal shall operate and the same shall be the property of the City.

It is hereby agreed that the undersigned, as bidder, shall furnish a faithful performance bond of the total amount of this proposal and a labor and materials bond in the amount of one hundred percent (100%) of the total amount of this proposal to the City and at no expense to said City, in the event that this proposal is accepted by the City.

SUBCONTRACTS

The following "Specialty Item" of work is hereby exempted from percentage requirements of work performed by the Contractor's own organization and workmen under his immediate supervision:

NONE

Attention is directed to the provisions in Section 5-1.13, "Subcontracting," of the Standard Specifications, and Section B.

BID FORM CHECKLIST

TO BE INCLUDED IN BID SUBMITTAL

- _____ PROPOSAL
- _____ BASE BID SCHEDULE
- _____ BID FORM CHECKLIST
- _____ DESIGNATION OF SUBCONTRACTORS
- _____ NONCOLLUSION DECLARATION FORM
- _____ EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION
- _____ DEBARMENT AND SUSPENSION CERTIFICATION
- _____ SUBCONTRACTOR DEBARMENT AND SUSPENSION CERTIFICATION
- _____ CONTRACTOR'S LICENSE
- _____ NONLOBBYING CERTIFICATION
- _____ DISCLOSURE OF LOBBYING ACTIVITIES
- _____ AGREEMENT TO BE BOUND TO THE PROJECT STABILIZATION AGREEMENT (PSA)
- _____ COMPLETED BUY AMERICA CERTIFICATION (Sec 13 - Federal Transit Administration Contract Clauses)
- _____ EXHIBIT 15-G CONSTRUCTION CONTRACT DBE COMMITMENT
- _____ EXHIBIT 15-H GOOD FAITH EFFORT (may be submitted post-bid)
- _____ BIDDER'S LIST OF SUBCONTRACTORS (DBE AND NON-DBE)- PART I
- _____ BIDDER'S LIST OF SUBCONTRACTORS (DBE AND NON-DBE)- PART II

LIST OF UPCOMING SUBMITTALS

<u>Item</u>	<u>Due Date / Frequency</u>	<u>Reference</u>
CONTRACTOR AGREEMENT	Within 10 days of award	Attachment A
CONTRACT BONDS	Within 10 days of award	Attachment B
INSURANCE	Within 10 days of award	---
SECTION 3 CERTIFICATION	Within 10 days of award	Attachment C-F
EMERGENCY FORM	Preconstruction meeting	Attachment G
TRAFFIC CONTROL PLAN	Preconstruction Meeting	---
PEDESTRIAN HANDLING PLAN	Preconstruction Meeting	---
HAULING APPLICATION	Preconstruction Meeting	Attachment H
PEST MANAGEMENT	Preconstruction Meeting	Attachment I
CERTIFIED PAYROLL	Submitted Weekly	---

DESIGNATION OF SUBCONTRACTORS
[Public Contract Code Section 4104]

List all Subcontractors who will perform work or labor or render service to the Contractor in or about the construction of the work or improvement, or a Subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and Specifications, in an amount in excess of one-half percent (0.5%) of the Contractor's total Bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half percent (0.5%) of the Contractor's total Bid or \$10,000, whichever is greater. If all Subcontractors do not fit on this page, attach another page listing all information for all other Subcontractors.

Name under which Subcontractor is Licensed and Registered	CSLB License Number(s) and Class(es)	DIR Contractor Registration Number	Address and Phone Number	Type of Work (e.g. Electrical)	Percentage of Total Bid (e.g. 10%) ¹

¹ The percentage of the total Bid shall represent the "portion of the work" for the purposes of Public Contract Code Section 4104(b).

NONCOLLUSION DECLARATION FORM
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
[Public Contract Code Section 7106]

The undersigned declares:

I am the _____ of _____, the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, Bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any Person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____[date], at _____[city], _____[state].

Signature:

Signature:

Printed Name:

Printed Name:

Date: _____

Date: _____

This form must be notarized.

*(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL SHALL
ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS
WHICH ARE A PART OF THIS PROPOSAL)*

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____, proposed subcontractor _____, hereby certifies that he has ____, has not ____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000.00 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime Contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such Contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

DEBARMENT AND SUSPENSION CERTIFICATION
TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, and manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past three (3) years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

SUBCONTRACTOR DEBARMENT AND SUSPENSION CERTIFICATION
TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The Subcontractor, under penalty of perjury, certifies that, except as noted below, he/she or any other person including subcontractors associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past three (3) years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Authorized Representative

Name (typed)

Signature

Title

Date

Name of Company

Project Name

BIDDER SHALL SUBMIT A SIGNED "SUBCONTRACTOR DEBARMENT AND SUSPENSION CERTIFICATION" NO LATER THAN 4:00 P.M. ON THE 4TH BUSINESS DAY AFTER BID OPENING FOR EACH SUBCONTRACTOR LISTED IN THE BID. FAILURE TO SUBMIT SUBCONTRACTOR CERTIFICATION MAY DEEM A BID NON-RESPONSIVE.

Notes: The certification of this provision is a material representation of fact upon which reliance was place. Providing false information may result in criminal prosecution or administrative sanctions and the termination of the contract for default.

CONTRACTOR'S LICENSE

NOTICE

Section 7028.15 of the Business and Professions Code provides that it is a misdemeanor for any person to submit a bid to a public agency in order to engage in the business or act in the capacity of a Contractor within the state without having a license therefor except in certain cases. Therefore you must sign **one** of the following two statements:

1. I am familiar with the provisions of Section 7028.15 of the California Business and Professions Code and in my opinion the following exceptions contained within the Code section apply:

I declare under penalty of perjury that the foregoing is true and correct.

Executed this ____ day of _____, 20__, at _____, California.

(Signature)

2. I am a licensed Contractor possessing the following license, _____,
the number of which is _____, the license expiration date is _____.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this ____ day of _____, 20__, at _____, California.

(Signature)

ANY BID NOT CONTAINING THE FOREGOING INFORMATION, OR A BID CONTAINING INFORMATION WHICH IS SUBSEQUENTLY PROVEN FALSE, MAY BE CONSIDERED NON-RESPONSIVE AND REJECTED BY THE PUBLIC AGENCY.

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

Accompanying this proposal is _____

(Notice: Insert the words "Cash (\$_____)", "Cashier's Check", "Certified Check," or "Bidder's Bond.")

in amount equal to at least ten (10) percent (10%)of the total of the bid.

The names of all persons interested in the foregoing proposal as principals are as follows:

IMPORTANT NOTICE: If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a co-partnership, state true name of firm, also names of all individual copartners composing firm; if bidder or other interested person is an individual, state first and last names in full.

ADDENDA: This Proposal is submitted with respect to the changes to the contract included in addenda number(s)

(Fill in any addenda numbers if addenda have been received.)

By my signature on this proposal I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements are true and correct. By my signature on this proposal I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Non-collusion Affidavit required by Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date: _____

SIGN HERE: _____

>>>

Signature of Bidder

Business address: _____

Business phone no. _____

Place of business: _____

Place of residence: _____

NONLOBBYING CERTIFICATION
FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

<p>1. Type of Federal Action:</p> <p><input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance</p>	<p>2. Status of Federal Action:</p> <p><input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award</p>	<p>3. Report Type:</p> <p><input type="checkbox"/> a. initial <input type="checkbox"/> b. material change</p> <p>For Material Change Only: year ____ quarter ____ date of last report _____</p>
<p>4. Name and Address of Reporting Entity</p> <p><input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known</p> <p>Congressional District, if known _____</p>	<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</p> <p>Congressional District, if known _____</p>	
<p>6. Federal Department/Agency:</p>	<p>7. Federal Program Name/Description:</p> <p>CFDA Number, if applicable _____</p>	
<p>8. Federal Action Number, if known:</p>	<p>9. Award Amount, if known:</p>	
<p>10. a. Name and Address of Lobby Entity (If individual, last name, first name, MI)</p>	<p>b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI)</p>	
<p>(attach Continuation Sheet(s) if necessary)</p>		
<p>11. Amount of Payment (check all that apply)</p> <p>\$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned</p>	<p>13. Type of Payment (check all that apply)</p> <p><input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other, specify _____</p>	
<p>12. Form of Payment (check all that apply):</p> <p><input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____</p>		
<p>14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:</p> <p>(attach Continuation Sheet(s) if necessary)</p>		
<p>15. Continuation Sheet(s) attached: Yes <input type="checkbox"/> No <input type="checkbox"/></p>		
<p>16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.</p>		
		<p>Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____</p>
<p>Federal Use Only:</p>		<p>Authorized for Local Reproduction Standard Form - LLL</p>

**INSTRUCTIONS FOR COMPLETION OF SF-LLL
DISCLOSURE OF LOBBYING ACTIVITIES**

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of covered Federal action or a material change to previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered Federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant. or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influenced the covered Federal action.
(b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with Federal officials. Identify the Federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

SF-LLL-Instructions Rev. 06-04-90«ENDIF»

AGREEMENT TO BE BOUND TO PSA

**PROJECT STABILIZATION AGREEMENT FOR THE CITY OF ALAMEDA
AGREEMENT TO BE BOUND**

The undersigned party confirms that it agrees and assents to comply with and to be bound by the City of Alameda Project Stabilization Agreement as such Agreement may, from time to time, be amended by the parties or interpreted pursuant to its terms. A copy of the Agreement is included as Attachment K.

By executing this Agreement To Be Bound, the undersigned party subscribes to, adopts and agrees to be bound by the written terms of the legally established trust agreements, as set forth in section 17, specifying the detailed basis upon which contributions are to be made into, and benefits made out of, such Trust Fund(s) and ratifies and accepts the trustees appointed by the parties to such Trust Fund(s) and agrees to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) require(s) such document(s).

Such assent and obligation to comply with and to be bound by this Agreement shall extend to all work covered by said Agreement undertaken by the undersigned party. The undersigned party shall require all of its subcontractors, of whatever tier, to become similarly bound for all their work within the scope of this Agreement by signing an identical Agreement To Be Bound.

This letter shall constitute a subscription agreement, to the extent of the terms of the letter.

Dated: _____ Project: _____

Signature of Authorized Officer

Authorized Officer & Title

Name of Contractor/Employer(s)

Contractor/Employer(s) Address

CSLB #

Area Code Phone

E-mail and/or Fax

Motor Carrier (CA) Permit Number

DIR Prevailing Wage Registration #

Local Assistance Procedures Manual

**Exhibit 15-G
Construction Contract DBE Commitment**

EXHIBIT 15-G CONSTRUCTION CONTRACT DBE COMMITMENT

1. Local Agency: _____ 2. Contract DBE Goal: _____
 3. Project Description: _____
 4. Project Location: _____
 5. Bidder's Name: _____ 6. Prime Certified DBE: 7. Bid Amount: _____
 8. Total Dollar Amount for **ALL** Subcontractors: _____ 9. Total Number of **ALL** Subcontractors: _____

10. Bid Item Number	11. Description of Work, Service, or Materials Supplied	12. DBE Certification Number	13. DBE Contact Information (Must be certified on the date bids are opened)	14. DBE Dollar Amount
Local Agency to Complete this Section			15. TOTAL CLAIMED DBE PARTICIPATION	\$
21. Local Agency Contract Number: _____ 22. Federal-Aid Project Number: _____ 23. Bid Opening Date: _____ 24. Contract Award Date: _____ Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.				%
25. Local Agency Representative's Signature _____ 26. Date _____ 27. Local Agency Representative's Name _____ 28. Phone _____ 29. Local Agency Representative's Title _____			IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Names of the First Tier DBE Subcontractors and their respective item(s) of work listed above must be consistent, where applicable with the names and items of the work in the "Subcontractor List" submitted with your bid. Written confirmation of each listed DBE is required. 16. Preparer's Signature _____ 17. Date _____ 18. Preparer's Name _____ 19. Phone _____ 20. Preparer's Title _____	

DISTRIBUTION: 1. Original – Local Agency
 2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract. Include additional copy with award package.

INSTRUCTIONS – CONSTRUCTION CONTRACT DBE COMMITMENT

CONTRACTOR SECTION

1. **Local Agency** - Enter the name of the local or regional agency that is funding the contract.
2. **Contract DBE Goal** - Enter the contract DBE goal percentage as it appears on the project advertisement.
3. **Project Location** - Enter the project location as it appears on the project advertisement.
4. **Project Description** - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc).
5. **Bidder's Name** - Enter the contractor's firm name.
6. **Prime Certified DBE** - Check box if prime contractor is a certified DBE.
7. **Bid Amount** - Enter the total contract bid dollar amount for the prime contractor.
8. **Total Dollar Amount for ALL Subcontractors** – Enter the total dollar amount for all subcontracted contractors. SUM = (DBEs + all Non-DBEs). Do not include the prime contractor information in this count.
9. **Total number of ALL subcontractors** – Enter the total number of all subcontracted contractors. SUM = (DBEs + all Non-DBEs). Do not include the prime contractor information in this count.
10. **Bid Item Number** - Enter bid item number for work, services, or materials supplied to be provided.
11. **Description of Work, Services, or Materials Supplied** - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime contractor's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
12. **DBE Certification Number** - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.
13. **DBE Contact Information** - Enter the name, address, and phone number of all DBE subcontracted contractors. Also, enter the prime contractor's name and phone number, if the prime is a DBE.
14. **DBE Dollar Amount** - Enter the subcontracted dollar amount of the work to be performed or service to be provided. Include the prime contractor if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.
15. **Total Claimed DBE Participation** - \$: Enter the total dollar amounts entered in the "DBE Dollar Amount" column. %: Enter the total DBE participation claimed ("Total Claimed DBE Participation Dollars" divided by item "Bid Amount"). If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).
16. **Preparer's Signature** - The person completing the DBE commitment form on behalf of the contractor's firm must sign their name.
17. **Date** - Enter the date the DBE commitment form is signed by the contractor's preparer.
18. **Preparer's Name** - Enter the name of the person preparing and signing the contractor's DBE commitment form.
19. **Phone** - Enter the area code and phone number of the person signing the contractor's DBE commitment form.
20. **Preparer's Title** - Enter the position/title of the person signing the contractor's DBE commitment form.

LOCAL AGENCY SECTION

21. **Local Agency Contract Number** - Enter the Local Agency contract number or identifier.
22. **Federal-Aid Project Number** - Enter the Federal-Aid Project Number.
23. **Bid Opening Date** - Enter the date contract bids were opened.
24. **Contract Award Date** - Enter the date the contract was executed.
25. **Local Agency Representative's Signature** - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Contractor Section of this form is complete and accurate.
26. **Date** - Enter the date the DBE commitment form is signed by the Local Agency Representative.
27. **Local Agency Representative's Name** - Enter the name of the Local Agency Representative certifying the contractor's DBE commitment form.
28. **Phone** - Enter the area code and phone number of the person signing the contractor's DBE commitment form.
29. **Local Agency Representative Title** - Enter the position/title of the Local Agency Representative certifying the contractor's DBE commitment form.

EXHIBIT 15-H GOOD FAITH EFFORT

Federal-aid Project No. n/a Bid Opening Date August 30, 2018

The City of Alameda established a Disadvantaged Business Enterprise (DBE) goal of 5.00% for this project. The information provided herein shows that a good faith effort was made.

Lowest, second lowest and third lowest bidders shall submit the following information to document adequate good faith efforts. Bidders should submit the following information even if the “Local Agency Bidder DBE Commitment” form indicates that the bidder has met the DBE goal. This will protect the bidder’s eligibility for award of the contract if the administering agency determines that the bidder failed to meet the goal for various reasons, e.g., a DBE firm was not certified at bid opening, or the bidder made a mathematical error.

Submittal of only the “Local Agency Bidder DBE Commitment” form may not provide sufficient documentation to demonstrate that adequate good faith efforts were made.

The following items are listed in the Section entitled “Submission of DBE Commitment” of the Special Provisions:

- A. The names and dates of each publication in which a request for DBE participation for this project was placed by the bidder (please attach copies of advertisements or proofs of publication):

<u>Publications</u>	<u>Dates of Advertisement</u>
_____	_____
_____	_____
_____	_____

- B. The names and dates of written notices sent to certified DBEs soliciting bids for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested (please attach copies of solicitations, telephone records, fax confirmations, etc.):

<u>Names of DBEs Solicited</u>	<u>Date of Initial Solicitation</u>	<u>Follow Up Methods and Dates</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Local Assistance Procedures Manual

**Exhibit 15-H
DBE Information - Good Faith Effort**

- C. The items of work which the bidder made available to DBE firms including, where appropriate, any breaking down of the contract work items (including those items normally performed by the bidder with its own forces) into economically feasible units to facilitate DBE participation. It is the bidder's responsibility to demonstrate that sufficient work to facilitate DBE participation was made available to DBE firms.

Items of Work	Bidder Normally Performs Item (Y/N)	Breakdown of Items	Amount (\$)	Percentage Of Contract

- D. The names, addresses and phone numbers of rejected DBE firms, the reasons for the bidder's rejection of the DBEs, the firms selected for that work (please attach copies of quotes from the firms involved), and the price difference for each DBE if the selected firm is not a DBE:

Names, addresses and phone numbers of rejected DBEs and the reasons for the bidder's rejection of the DBEs:

Names, addresses and phone numbers of firms selected for the work above:

- E. Efforts made to assist interested DBEs in obtaining bonding, lines of credit or insurance, and any technical assistance or information related to the plans, specifications and requirements for the work which was provided to DBEs:

Local Assistance Procedures Manual

Exhibit 15-H
DBE Information - Good Faith Effort

- F. Efforts made to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services, excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate:

- G. The names of agencies, organizations or groups contacted to provide assistance in contacting, recruiting and using DBE firms (please attach copies of requests to agencies and any responses received, i.e., lists, Internet page download, etc.):

Name of Agency/Organization	Method/Date of Contact	Results
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- H. Any additional data to support a demonstration of good faith efforts (use additional sheets if necessary):

NOTE: USE ADDITIONAL SHEETS OF PAPER IF NECESSARY.

**Local Assistance Procedures Manual
Bidder's List of Subcontractors (DBE and Non-DBE)**

BIDDER'S LIST OF SUBCONTRACTORS (DBE and NON-DBE)- PART I

The bidder shall list all subcontractors (both DBE and non-DBE) in accordance with Section 2-1.33 of the Standard Specifications and per Title 49, Section 26.11 of the Code of Federal Regulations. This listing is required in addition to listing DBE Subcontractors elsewhere in the proposal. **Photocopy this form for additional firms.**

Firm Name/ Address/ City, State, ZIP	Phone/ Fax	Annual Gross Receipts	Description of Portion of Work to be Performed	Local Agency Use Only (Certified DBE?)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		If YES list DBE #:
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		If YES list DBE #:
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		If YES list DBE #:
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		If YES list DBE #:
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)

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DLA OB 13-06

Local Assistance Procedures Manual

Bidder's List of Subcontractors (DBE and Non-DBE)

BIDDER'S LIST OF SUBCONTRACTORS (DBE and NON-DBE)- PART II

The bidder shall list all subcontractors who provide a quote or bid but were not selected to participate as a subcontractor on this project. This is required for compliance with title 49, Section 26 of the Code of Federal Regulations. **Photocopy this form for additional firms.**

Firm Name/ Address/ City, State, ZIP	Phone/ Fax	Annual Gross Receipts	Description of Portion of Work to be Performed	Local Agency Use Only (Certified DBE?)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES <input type="checkbox"/> NO
		<input type="checkbox"/> < \$5 million		
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)

Distribution: 1) Original – Local Agency File

DLA OB 13-06

GENERAL PROVISIONS

SECTION 1 – GENERAL

CITY: City shall mean the City of Alameda, a political subdivision of the State of California, acting as the public entity awarding this contract by action of the City Council sitting as the governing body.

CITY COUNCIL: City Council shall mean governing body the City of Alameda.

CONTRACTOR: The entity awarded to complete the work described in the Contract Documents.

CONTRACT DOCUMENTS: The work shall conform to the requirements of all the following contract documents:

Project Plans.

“Soil Remediation Workplan for the Cross Alameda Trail” prepared by Tetra Tech dated April 14, 2017.

“Investigation Report for the Cross Alameda Trail” prepared by Tetra Tech dated September 2016

“Investigation and Risk Assessment Report for the Cross Alameda Trail” prepared by Tetra Tech dated October 2015

“Site Management Plan” prepared by Tetra Tech

“Phase II Environmental Assessment Report Cross Alameda Trail” prepared by Tetra Tech

Marsh Crust Ordinance prepared by the City of Alameda

Funding Package Exhibit prepared by the City of Alameda

The Standard Specifications, insofar as they may apply.

The Standard Plans, insofar as they may apply.

The Uniform Construction Standards, insofar as they may apply.

These specifications, including the Notice to Contractors.

The Proposal and the Contract (or Agreement).

The two (2) contract bonds required herein.

Any supplemental agreements amending or extending the work.

Any working drawings, sketches, or instructions clarifying or enlarging upon the work specified herein.

Pertinent portions of any other documents included by reference thereto in these specifications, the Standard Specifications, or the Plans.

In case of conflict between the Standard Specifications and these following provisions, these provisions shall take precedence over and be used in lieu of such conflicting portions. It is the intent of this contract to obtain a finished, workmanlike job, complete in place.

DIRECTOR OF PUBLIC WORKS/ENGINEER: Director of Public Works/Engineer shall mean the Director of the Department of Public Works of Alameda, acting on behalf of City, or his/her authorized agent acting within the scope of his/her authority, who shall act as the representative to the public entity during the term of the contract.

ENGINEER: See Director of Public Works / Engineer

PLANS: The construction documents prepared by BKF Engineers dated 07/19/18.

STANDARD SPECIFICATIONS: Standard Specifications shall mean the Standard Specifications of the State of California, Business, Transportation and Housing Agency, Department of Transportation, dated 2010. Any reference therein to a State Agency or officer shall be interpreted as if the corresponding City Office or officer acting under this contract were so specified.

STANDARD PLANS: Standard Plans shall mean the standard plans of the State of California, Business and Transportation Agency, Department of Transportation, dated 2010.

SECTION 2 – BIDDING

The bidder's attention is directed to the provision of Section 2 of the Standard Specifications as modified herein.

Prior to bidding, Bidders must perform the work, investigations, research and analysis that a reasonable bidder in his field would ascertain from having performed the investigations, research and analysis. Bid prices must include entire cost of all work incidental to completion of the Work.

Conditions Shown on Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions indicated in Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. City warrants, and Contractor may rely on, the accuracy of only limited types of information.

Above ground and as-built conditions: There is no express or implied warranty and no express or implied representation that any information as to above ground conditions or as-built conditions indicated in Contract Documents is correctly shown, or indicated, or complete. As a condition to bidding, Contractor shall verify by independent investigation information all above ground and as-built conditions. In submitting its Bid, Contractor shall rely on the results of its own independent investigation and shall not rely on CITY-supplied information regarding above ground conditions and as-built conditions.

Subsurface conditions: Contractor may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated in Contract Documents. The City shall not be responsible for (1) the completeness of any subsurface condition information for bidding or construction; (2) Contractor's conclusions or opinions drawn from any subsurface condition information; or (3) subsurface conditions that are not specifically shown. (For example, CITY is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown.)

Conditions Shown In Reports and Drawings (if any) supplied For Informational Purposes: These materials are not Contract Documents and, except for any "technical data" regarding subsurface conditions, Contractor may not in any manner rely on the information in these materials. Subject to the foregoing, Contractor must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by CITY.

All proposals shall be made in strict accordance with the Instructions to Bidders.

Unless otherwise required by the Special Provisions, the Contractor shall guarantee all work done under the Contract to be free from faulty materials and workmanship for a period of one (1) year from the date of acceptance. Prior to acceptance, the Contractor shall submit proof from the surety that the performance Bond has been extended for the appropriate duration of time, or shall provide a warranty bond in the amount of 10% of the contract price.

The Contractor hereby agrees to repair or replace any and all work, together with any other adjacent work which may be displaced in so doing, that may prove to be not in accordance with the requirements of the Contract or that may be defective in its workmanship or material within the guarantee period specified, without any expense whatsoever to the City.

The Contractor further agrees, that within ten (10) calendar days after being notified in writing by the City of any work not in accordance with the requirements of the Contract or any defects in the work, Contractor will commence and prosecute with due diligence all work necessary to fulfill the terms of this guarantee, and to complete the work within a reasonable period of time. In the event the Contractor fails to comply, it does hereby authorize the City to proceed to have such work done at the Contractor's expense and Contractor will honor and pay the costs and charges upon demand. The City shall be entitled to all costs and expenses, including reasonable attorney's fees, necessarily incurred upon the Contractor's refusal to honor and pay the above costs and charges.

Subcontract agreements must preserve and protect the rights of the City under Contract Documents so that subcontracting will not prejudice such rights. To the extent of the work to be performed by a subcontractor, Contractor must require the subcontractor's written agreement (1) to be bound to the terms of Contract Documents and (2) to assume vis-à-vis Contractor all the obligations and responsibilities that Contractor assumes toward the City under Contract Documents. Contractor must provide for the assignment of all rights any subcontractor may have against any manufacturer, supplier, or distributor for breach of warranties and guarantees relating to the work performed by the subcontractor under Contract Documents to the City.

No person, firm, or corporation shall be allowed to make, file or be interested in more than one (1) bid for the same project unless such alternate bids are called for. However, a person, firm or corporation who has submitted a sub-proposal to one bidder is not hereby disqualified from submitting a sub-proposal or quoting prices to other bidders.

SECTION 3 – CONTRACT AWARD AND EXECUTION

The bidder's attention is directed to the provisions in Section 3, "Award and Execution of Contract," of the Standard Specifications and these Special Provisions for the requirements and conditions concerning award and execution of contract.

AWARD OF CONTRACT

The award of contract, if it is awarded, will be to the responsible bidder who submits the lowest and best bid and whose proposal complies with all requirements described herein. The lowest bid will be determined on the basis of Base Bid only. The award, if made, will be made within ninety (90) days after the opening of the bids. All bids will be compared on the basis of the Engineer's estimate of quantities of work to be done. In the event of a delay in funding, the City reserves the right to hold the Bidder to its bid for 90 days from the date the contract is awarded.

The City reserves the right to reject any and all bids.

No proposal shall be considered binding upon the City until the execution of the contract. Failure to execute a contract and file acceptable bonds as provided herein within five (5) business days after the Bidder has received notice that the contract has been awarded shall be just cause for the annulment of the award and the forfeiture of the Bidder's guaranty.

EXECUTION OF CONTRACT

The contract shall be executed by the successful bidder and shall be returned, together with the contract bonds, to the City so that it is received within ten (10) days, not including Saturdays, Sundays and legal holidays, after the bidder has received the contract for execution. Failure to do so shall be just cause for forfeiture of the proposal guaranty.

Upon execution of the contract by the Contractor and the City, the Contractor shall furnish the City (1) a Certificate of Consent to self-insure issued by the Director of Industrial Relations, or (2) a Certificate of Workers' Compensation Insurance issued by an admitted insurer, or (3) an exact copy or duplicate thereof certified by the Director or the insurer.

SECTION 4 – SCOPE OF WORK

PRE-CONSTRUCTION

Within ten (10) business days of the date the work is to commence pursuant to the NTP, the Contractor shall submit the Initial Project Submittal Package to the City Project Manager for review. The Initial Project Submittal Package shall address the entire project, and shall include the Traffic Control Plan (first 20 working days at minimum), Erosion/Storm Water Pollution Prevention Plan, Waste Reduction and Recycling Plan, and the full project schedule.

A preconstruction conference will be held at the office of the Public Works Department approximately two weeks before the date the work is to commence pursuant to the NTP for the purpose of discussing with the Contractor the scope of work, contract drawings, specifications, existing conditions, traffic detour plans, materials to be ordered, equipment to be used, proposed schedule, proposed traffic control, and all essential matters pertaining to the prosecution of and the satisfactory completion of the project as required. The Contractor's representative at this conference shall include all major superintendents for the work and major Subcontractors who will be on the jobsite on a daily basis during their phase of the work.

Weekly project meetings will be hosted by the contractor and held on-site to discuss issues, coordination, change orders, schedule updates or any other matters. Construction schedules shall be updated weekly and submitted prior to the weekly project meetings. In addition, a three-week look ahead schedule that ties into the master schedule shall be provided and delivered to the Engineer on a weekly basis.

Note: For the duration of construction, in the General Contractor's Site Trailer the General Contractor will furnish a secure 'hot desk' space – complete with power, internet connection, desk lighting, etc. for use by the City's Construction Manager.

EXISTING UTILITIES

Drawings indicate above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, hot water and other similar items and utilities that are known to the City. Contractor shall locate these known existing installations before proceeding with trenching, or any other operations that may cause damage, shall maintain them in service where appropriate, and shall repair any damage to them caused by the work, at no increase in Contract Sum. Additional utilities whose locations are unknown to the City are suspected to exist. Contractor shall be alert to their existence; if they are encountered, Contractor shall immediately report to the City for disposition of the same. In addition to reporting if any utility is damaged, Contractor shall take appropriate

action as provided in these General Conditions. Additional compensation or extension of time on account of utilities not shown or otherwise brought to Contractor's attention including reasonable action taken to protect or repair damage shall be determined as provided in these General Conditions.

At no additional cost to the City, Contractor must incorporate into the work main or trunkline utilities identified in Contract Documents and other utilities or underground structures known or reasonably discernible and that will remain in service, including minor adjustments to design location or minor relocations of the existing installations. Contractor must take immediate action to restore any in service installations damaged by Contractor's operations. Should the City determine that Contractor has not responded in a timely manner or not diligently pursued completion of the work, the City may restore service and deduct the costs of such action by the City from the amounts due under the Contract.

Consistent with Government Code Section 4215, as between the City and Contractor, the City shall be responsible for the timely removal, relocation or protection of existing main or trunk line utility facilities located on the Project Site only if such utilities are not identified in the Drawings and Specifications made a part of the invitation for bids. The City shall compensate for the cost of locating and repairing damage not due to Contractor's failure to exercise reasonable care, removing and relocating such main or trunk line utility facilities not indicated on the Drawings and Specifications with reasonable accuracy, and equipment on the Project necessarily idled during such work. The compensation shall be determined in accordance with the provisions of these General Conditions.

Prior to performing work at the Site, Contractor must lay out the locations of known underground utilities that are to remain in service and other significant known underground installations. At no additional cost to the City, prior to commencing other work in proximity to such known underground utilities or installations that can be readily inferred from adjacent surface improvements, Contractor must further locate by carefully excavating with small equipment and principally by hand, such utilities or installations that are to remain and that are subject to damage. This obligation applies to all utilities (including, but not limited to, those referenced above).

Nothing in these General Conditions shall be deemed to require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, new asphalt, meters and junction boxes, on or adjacent to the site of the construction. Contractor shall immediately secure all available information and notify the City and utility, in writing, of its discovery while performing the Work under the Contract Document of any utility facilities not identified in the Drawings and Specifications.

NOTICE OF CONCEALED OR UNKNOWN CONDITIONS

Before commencing work of digging trenches or excavation, Contractor shall review all information available regarding subsurface conditions. Contractor shall also comply with Government Code Sections 4216 to 4216.9, and in particular Section 4216.2 which provides, in part:

"Except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center at least two working days, but no more than 14 calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator, and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated. The regional notification center shall provide an inquiry identification number to the person who contacts the center and shall notify any member, if known, who has a subsurface installation in the area of the proposed excavation."

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

Contractor shall contact the regional notification center, "Underground Service Alert" ("USA"), and schedule the work to allow ample time for the center to notify its members and, if necessary, for any member to field locate and mark its facilities. Contractor is charged with knowledge of all subsurface conditions reflected in USA records. Prior to commencing excavation or trenching work, Contractor shall provide CITY with copies of all USA records secured by Contractor. Contractor shall advise CITY of any conflict between information provided and that provided by USA records.

If any of the following conditions is encountered at Site, Contractor shall give written notice to CITY promptly before conditions are disturbed (except in an emergency as required by Paragraph 16.D of these General Conditions), and in no event later than three (3) days after first observance of:

Material that the Contractor believes may be material that is hazardous waste, as defined in section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

Subsurface or latent physical conditions at the site differing from those indicated by information made available to bidders prior to the deadline for submitting bids.

Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The cost of all of the following will be included in the Contract Sum and Contractor shall have full responsibility for (a) reviewing and checking all available information and data, including but not limited to information on file at USA; (b) locating all Underground Facilities shown or indicated in Contract Documents, available information, or indicated by visual observation, including but not limited to, and by way of example only, engaging qualified locating services and all necessary backhoeing and potholing; (c) coordination of the Work with the owners of such Underground Facilities during construction; and (d) the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated in the materials supplied by CITY or in information on file at USA, or is otherwise reasonably available to Contractor, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby (and in no event later than three (3) calendar days), and prior to performing any Work in connection therewith (except in an emergency as required by Paragraph 16 of these General Conditions), identify the owner of such Underground Facility and give written notice to that owner and to CITY. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

Contractor shall be allowed an increase in the Contract Sum or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that is owned and was built by CITY only where the Underground Facility was not shown or indicated in Contract Documents or in information on file at USA; and (b) Contractor did not know of it; and (c) Contractor could not reasonably have been expected to be aware of it or to have anticipated it from the information available. (For example, if surface conditions such as pavement repairs, valve covers, or other markings, indicate the presence of an Underground Facility, then an increase in the Contract Price or an extension of the Contract Time will not be due, even if the Underground Facility was not indicated in Contract Documents, in information on file at USA, or otherwise reasonably available to Contractor.)

Contractor shall bear the risk that Underground Facilities not owned or built by CITY may differ in nature or locations shown in information on file at USA, or otherwise reasonably available to Contractor. Underground Facilities are inherent in construction involving digging of trenches or other excavations and Contractor is to apply its skill and expertise to verify the information available.

PRECEDENCE OF DOCUMENTS

In the case of discrepancy or ambiguity in Contract Documents, the following order of precedence shall prevail: (1) Contract modifications in inverse chronological order, and in the same order as specific portions they are modifying; (2) Contractor Agreement, and terms and conditions referenced therein; (3) Supplemental Conditions (if any); (4) General Provisions (if any); (5) Division 1 Specifications; (6) Drawings and Section 10 through 16 Specifications; (7) written numbers over figures, unless obviously incorrect; (8) figured dimensions over scaled dimensions; (9) large-scale Drawings over small-scale drawings.

Any conflict between a bill or list of materials shown in Contract Documents and the actual quantities required to complete Work required by Contract Documents, then the actual quantities required shall take precedence.

In the event the technical specifications include divisions above Division 16 (e.g., Division 17 and above), then such divisions shall be included within Contract Documents unless identified otherwise.

OWNERSHIP AND USE OF DRAWINGS

Drawings, Specifications and other Contract Documents were prepared for use for Work of Contract Documents only. No part of Contract Documents shall be used for any other construction or for any other purpose except with the written consent of CITY. Any unauthorized use of Contract Documents is prohibited and at the sole liability of the user.

SECTION 5 – AUTHORITY OF ENGINEER AND CONDUCT OF WORK

Attention is directed to the provisions in Section 5, "Control of Work," of the Standard Specifications and these Special Provisions.

Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in these specifications and the general provisions, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to them as part of the contract, so far as may be consistent with the original specifications; and in the event of any doubt of questions arising regarding the true meaning of the specifications, reference shall be made to the Engineer, whose decision shall be final.

STAKING

Any undue destruction of stakes by the Contractor shall constitute cause to hold the Contractor liable for the cost of re-staking, said cost to be deducted from any monies due the Contractor.

DAMAGE AND REPAIR

The Contractor shall be entirely responsible for any damage to roads, driveways, or property due to hauling, excavating, or other causes attributable to the work, and all such damaged portions shall be repaired when directed and as required to place them in as good a condition as existed before commencement of the work.

MEETINGS

The Contractor shall provide agenda and meeting minutes for all meetings.

SUBMITTALS

The Contractor shall provide and maintain RFI and Submittal Status Logs, and a master list of all project submittals.

OBSERVATION OF WORK BY CITY AND ARCHITECT/ENGINEER

Work shall be performed under the City's general observation and administration. Contractor shall comply with the City's directions and instructions in accordance with the terms of Contract Documents, but nothing contained in these General Conditions shall be taken to relieve Contractor of any obligations or liabilities under Contract Documents. The City's or Architect/Engineer's failure to review or, upon review, failure to object to any aspect of Work reviewed, shall not be deemed a waiver or approval of any non-conforming aspect of Work.

Architect/Engineer will advise and consult with the City's, but will have authority to act on behalf of the City only to extent provided in Contract Documents. Architect/Engineer will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with Work. Architect/Engineer will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors or their agents or employees, or any other persons performing Work.

Architect/Engineer will review Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for conformance with design concept of Work and with information given in Contract Documents.

Architect/Engineer may visit the Site at intervals appropriate to stage of construction to become familiar generally with the progress and quality of Work and to determine in general if Work is proceeding in accordance with Contract Documents. Based on its observations, Architect/Engineer may recommend to the City that it disapprove or reject Work that Architect/Engineer believes to be defective or will not produce a complete Project that conforms to Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by Contract Documents. The City will also have authority to require special inspection or testing of Work, whether or not the work is fabricated, installed or completed.

Architect/Engineer may conduct inspections to recommend to the City the dates that Contractor has achieved Substantial Completion and Final Acceptance, and will receive and forward to the City for review written warranties and related documents required by Contract Documents.

SECTION 6 - CONSTRUCTION MATERIALS AND TESTING

Attention is directed to Section 6 of the Standard Specifications. The Contractor shall furnish all materials required for this project.

All materials incorporated in the project shall meet the requirements of the tests specified in the Standard Specifications and other minimum requirements specified therein or in these specifications.

The Contractor, shall at no additional expense to the City, furnish certificates of inspection or laboratory reports from a reputable testing or inspection agency as to compliance with the specifications and the composition, durability and performance in accordance with the Special Provisions or Standard Specifications.

Test reports on any material must be submitted and approved by the Engineer before incorporating that material in the work. All materials shall be adequately identified by tags or by other means as that material which has been

tested and approved. Lack of proper identification shall be considered adequate cause of rejection of any material which cannot be properly inspected on the job.

The City reserves the right to make such additional inspection or test as it may require prior to acceptance of any material and also reserves the right to reject any material previously approved because of serious defects or damage discovered subsequent to such approval. Any materials rejected by the City shall immediately be removed from the job site, and no payment will be allowed.

SECTION 7 – LEGAL RELATIONS AND RESPONSIBILITY

In connection with laws to be observed and responsibility of the Contractor, attention is directed to Section 7 of the Standard Specifications, and to the laws therein referred to, all of which are applicable to this contract.

The contract prices paid for the work shall include full compensation for all taxes which the Contractor is required to pay, whether imposed by Federal, State or local government, including, without being limited to, Federal excise tax and Federal transportation tax. No tax exemption certificate or any document designed to exempt the Contractor from payment of any tax will be furnished to Contractor by the City, as to any tax on labor, services, materials, transportation or any other items furnished pursuant to this contract.

Reference is made to the list of General Prevailing Wage Rates established by the Director of the Department of Industrial Relations, State of California. Said rates apply to this project. Copies of said Wage Rates are available as specified in the Notice to Contractors.

For any classification not included in the list, the minimum wage shall be the general prevailing rate for Alameda County.

The Contractor shall adhere to all labor compliance regulations related to work in excess of eight hours in any single workday as described by the time in Section G of these General Provisions, and all other labor related requirements so much as they apply.

In case it becomes necessary for the Contractor or any subcontractor to employ on the work under this contract any person in a trade or occupation not covered on the list of prevailing wage rates, (except executive, supervisory, administrative, clerical, or other non-manual workers as such), the Contractor shall immediately notify the Engineer who will promptly thereafter determine the prevailing rate for such additional trade or occupation applicable to the latest collective bargaining agreements and shall furnish the Contractor with the minimum rate based thereon. The minimum rate thus furnished shall be applicable as a minimum for such trade or occupation from the time of the initial employment of the person affected and during the continuance of such employment.

The Engineer may request at any time, and the Contractor shall provide, certified payroll records indicating all wages paid to all workmen on the project for the time period requested.

INDEMNITY

Contractor shall indemnify, defend, and hold harmless City, its council members, officers, agents, and employees, from any liability as a consequence of any willful act, negligent act or non-negligent act or omission by the Contractor arising out of performance under the contract and/or the work by any of the Contractor's employees or agents, or any subcontractor, and shall be responsible for any and all damage, injury, or death to persons, or

damage to property. Contractor shall indemnify, defend and hold City from any and all claims, suits, actions, costs, and liability ensuing in connection with the performance of the contract, or failure to protect the safety of workers or the general public, regardless of the existence of or degree of fault or negligence on the part of the City or the Contractor, subcontractor, or any employee of any of these, excepting the gross negligence or willful misconduct of the City and its officials, agents, and employees.

In those instances where the City has obtained "Rights of Entry" from private property owners upon whose property it will be necessary for the Contractor to enter to perform the work to be done under the contract, Contractor shall indemnify such property owners in the same manner as the City is indemnified.

INSURANCE REQUIREMENTS

Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

a. Minimum Scope of Insurance

Coverage shall be at least as broad as:

- i. Insurance Services Office Commercial General Liability coverage ("occurrence" form CG 00 01 or equivalent).
- ii. Insurance Service Office form number CA 00 01 (Ed. 01/87 or equivalent) covering Automobile Liability, Code 1 "any auto" with endorsement CA 00 29 (auto contractual).
- iii. Workers' Compensation insurance as required by the State of California and Employers Liability Insurance.

b. Minimum Limits of Insurance

Contractor shall maintain limits of no less than:

- i. General Liability: \$2,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If the policy has an annual aggregate limit, the limit of the annual aggregate must be at least twice the required occurrence limit.
- ii. Automobile Liability: \$2,000,000 per accident for bodily injury and property damage.
- iii. Employers' Liability: \$1,000,000 per accident for bodily injury or disease.

c. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

d. Other Insurance Provisions

The general liability policy is to contain, or be endorsed to contain, the following provisions:

- i. **The City of Alameda**, its officials, employees and volunteers are to be covered as additional insureds with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. This Additional Insured requirement can be provided in the form of an endorsement to the Contractor's insurance (using either the City's prepared form or using ISO form CG 20 10 11 85 or equivalent).
- ii. For any claims related to this project, the Contractor's insurance coverage shall be primary insurance as respects the City of Alameda, its officials, employees, agents or volunteers. Any insurance or self-insurance maintained by the City shall be excess of the Contractor's insurance and shall not contribute with it.

The Workers' Compensation policy is to contain or be endorsed to contain the following provision.

- iii. The Workers' Compensation policy shall contain a waiver of subrogation in favor of the City.
 - iv. Contractor shall advise City in writing if any insurance coverage or policy is suspended, voided, canceled by either party, or reduced in coverage or in limits.
- e. Rights of Entry

If applicable, all private property owners granting "Rights of Entry" for construction of the work shall be covered as insureds under the same coverage as provided the City as respects their ownership of the property and the work to be done thereon.

f. Acceptability of Insurers

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII. Carriers not licensed in the State of California should have a current A.M. Best's rating of no less than A:X.

g. Verification of Coverage

Contractor shall furnish the City with proof of insurance and amendatory endorsements effecting coverage required by this clause on an ACORD 25 (2009/09 or later date) or a form acceptable to City. The endorsements must conform to the requirements set forth in section K, "Indemnity and Insurance Requirements" of these general Provisions. All certificates and endorsements are to be received and approved by the City **before work commences**. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these specifications at any time.

h. Subcontractors

Contractor shall require all of its subcontractors name Contractor and the City of Alameda as additional insureds under its general liability policy and Contractor shall require all its subcontractors to furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall

be subject to all of the requirements stated herein with not less than the minimum limits as required by the California Department of Consumer Affairs, Contractors State License Board. Contractor shall be responsible for collecting and verifying the evidence of insurance from its subcontractors.

FEMALE AND MINORITY GOALS

To comply with Section II, "Nondiscrimination," of "Required Contract Provisions Federal-Aid Construction Contracts," the following are goals for female and minority utilization goals for Federal-aid construction contracts and subcontracts that exceed \$10,000:

The nationwide goal for female utilization is 6.9 percent.

The goal for minority utilization [45 Fed Reg 65984 (10/3/1980)] for Alameda County, CA is 25.6 percent.

For each July during which work is performed under the contract, you and each non material-supplier subcontractor with a subcontract of \$10,000 or more must complete Form FHWA PR-1391 (Appendix C to 23 CFR 230). Submit the forms by August 15.

FEDERAL TRAINEE PROGRAM

For the Federal training program, the number of trainees or apprentices is to be determined.

This section applies if a number of trainees or apprentices is specified in the Special Provisions.

As part of your equal opportunity affirmative action program, provide on-the-job training to develop full journeymen in the types of trades or job classifications involved.

You have primary responsibility for meeting this training requirement.

If you subcontract a contract part, determine how many trainees or apprentices are to be trained by the subcontractor.

Include these training requirements in your subcontract.

Where feasible, 25 percent of apprentices or trainees in each occupation must be in their 1st year of apprenticeship or training.

Distribute the number of apprentices or trainees among the work classifications on the basis of your needs and the availability of journeymen in the various classifications within a reasonable recruitment area.

Before starting work, submit to the City:

- 1 Number of apprentices or trainees to be trained for each classification
- 2 Training program to be used
- 3 Training starting date for each classification

Obtain the City's approval for this submitted information before you start work. The City credits you for each apprentice or trainee you employ on the work who is currently enrolled or becomes enrolled in an approved program.

The primary objective of this section is to train and upgrade minorities and women toward journeymen status. Make every effort to enroll minority and women apprentices or trainees, such as conducting systematic and direct recruitment through public and private sources likely to yield minority and women apprentices or trainees, to the extent they are available within a reasonable recruitment area. Show that you have made the efforts. In making these efforts, do not discriminate against any applicant for training.

Do not employ as an apprentice or trainee an employee:

- 1 In any classification in which the employee has successfully completed a training course leading to journeyman status or in which the employee has been employed as a journeyman
- 2 Who is not registered in a program approved by the US Department of Labor, Bureau of Apprenticeship and Training

Ask the employee if the employee has successfully completed a training course leading to journeyman status or has been employed as a journeyman. Your records must show the employee's answers to the questions. In your training program, establish the minimum length and training type for each classification. The City of Alameda and FHWA approves a program if one of the following is met:

- 1 It is calculated to:
 - Meet the your equal employment opportunity responsibilities
 - Qualify the average apprentice or trainee for journeyman status in the classification involved by the end of the training period
- 2 It is registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, and it is administered in a way consistent with the equal employment responsibilities of Federal-aid highway construction contracts

Obtain the State's approval for your training program before you start work involving the classification covered by the program.

Provide training in the construction crafts, not in clerk-typist or secretarial-type positions. Training is allowed in lower level management positions such as office engineers, estimators, and timekeepers if the training is oriented toward construction applications. Training is allowed in the laborer classification if significant and meaningful training is provided and approved by the division office. Off-site training is allowed if the training is an integral part of an approved training program and does not make up a significant part of the overall training.

The City of Alameda reimburses you 80 cents per hour of training given an employee on this contract under an approved training program:

- 1 For on-site training
- 2 For off-site training if the apprentice or trainee is currently employed on a Federal-aid project and you do at least one of the following:
 - ♦ Contribute to the cost of the training
 - ♦ Provide the instruction to the apprentice or trainee
 - ♦ Pay the apprentice's or trainee's wages during the off-site training period
- 3 If you comply this section.

Each apprentice or trainee must:

- 1 Begin training on the project as soon as feasible after the start of work involving the apprentice's or trainee's skill
- 2 Remain on the project as long as training opportunities exist in the apprentice's or trainee's work classification or until the apprentice or trainee has completed the training program

Furnish the apprentice or trainee:

- 1 Copy of the program you will comply with in providing the training
- 2 Certification showing the type and length of training satisfactorily completed

EXHIBIT 12-G REQUIRED FEDERAL-AID CONTRACT LANGUAGE

1 DISADVANTAGED BUSINESS ENTERPRISES (DBE) (Standard Specification Section 2-1.12)

Under 49 CFR 26.13(b):

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

Take necessary and reasonable steps to ensure that DBEs have opportunity to participate in the contract (49 CFR 26).

To ensure equal participation of DBEs provided in 49 CFR 26.5, the Agency shows a goal for DBEs.

Make work available to DBEs and select work parts consistent with available DBE subcontractors and suppliers.

Meet the DBE goal shown elsewhere in these Special Provisions or demonstrate that you made adequate good faith efforts to meet this goal.

It is your responsibility to verify that the DBE firm is certified as DBE at date of bid opening. For a list of DBEs certified by the California Unified Certification Program, go to:
http://www.dot.ca.gov/hq/bep/find_certified.htm.

All DBE participation will count toward the California Department of Transportation's federally mandated statewide overall DBE goal.

Credit for materials or supplies you purchase from DBEs counts towards the goal in the following manner:

- ♦ 100 percent counts if the materials or supplies are obtained from a DBE manufacturer.
- ♦ 60 percent counts if the materials or supplies are obtained from a DBE regular dealer.
- ♦ Only fees, commissions, and charges for assistance in the procurement and delivery of materials or supplies count if obtained from a DBE that is neither a manufacturer nor regular dealer. 49 CFR 26.55 defines "manufacturer" and "regular dealer."

You receive credit towards the goal if you employ a DBE trucking company that performs a commercially useful function as defined in 49 CFR 26.55(d)(1) through (4) and (6).

a. DBE Commitment Submittal (CT Stnd Spec 2-1.12B(2))

Submit the Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) form, included in the Bid book. If the form is not submitted with the bid, remove the form from the Bid book before submitting your bid.

If the DBE Commitment form is not submitted with the bid, the apparent low bidder, the 2nd low bidder, and the 3rd low bidder must complete and submit the DBE Commitment form to the Agency. DBE Commitment form must be received by the Agency no later than 4:00 p.m. on the 4th business day after bid opening.

Other bidders do not need to submit the DBE Commitment form unless the Agency requests it. If the Agency requests you to submit a DBE Commitment form, submit the completed form within 4 business days of the request.

Submit written confirmation from each DBE stating that it is participating in the contract. Include confirmation with the DBE Commitment form. A copy of a DBE's quote will serve as written confirmation that the DBE is participating in the contract.

If you do not submit the DBE Commitment form within the specified time, the Agency will find your bid nonresponsive.

b. Good Faith Efforts Submittal (Standard Specification Section 2-1.12B(3))

If you have not met the DBE goal, complete and submit the DBE Information - Good Faith Efforts, Exhibit 15-H, form with the bid showing that you made adequate good faith efforts to meet the goal. Only good faith efforts directed towards obtaining participation by DBEs will be considered. If good faith efforts documentation is not submitted with the bid, it must be received by the Agency no later than 4:00 p.m. on the 4th business day after bid opening.

If your DBE Commitment form shows that you have met the DBE goal or if you are required to submit the DBE Commitment form, you must also submit good faith efforts documentation within the specified time to protect your eligibility for award of the contract in the event the Agency finds that the DBE goal has not been met.

Good faith efforts documentation must include the following information and supporting documents, as necessary:

1. Items of work you have made available to DBE firms. Identify those items of work you might otherwise perform with your own forces and those items that have been broken down into economically feasible units to facilitate DBE participation. For each item listed, show the dollar value and percentage of the total contract. It is your responsibility to demonstrate that sufficient work to meet the goal was made available to DBE firms.
2. Names of certified DBEs and dates on which they were solicited to bid on the project. Include the items of work offered. Describe the methods used for following up initial solicitations to determine with certainty if the DBEs were interested, and the dates of the follow-up. Attach supporting documents such as copies of letters, memos, facsimiles sent, telephone logs, telephone billing statements, and other evidence of solicitation. You are reminded to solicit certified DBEs through all reasonable and available means and provide sufficient time to allow DBEs to respond.
3. Name of selected firm and its status as a DBE for each item of work made available. Include name, address, and telephone number of each DBE that provided a quote and their price quote. If the firm selected for the item is not a DBE, provide the reasons for the selection.
4. Name and date of each publication in which you requested DBE participation for the project. Attach copies of the published advertisements.
5. Names of agencies and dates on which they were contacted to provide assistance in contacting, recruiting, and using DBE firms. If the agencies were contacted in writing, provide copies of supporting documents.
6. List of efforts made to provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract to assist them in responding to a solicitation. If you have provided information, identify the name of the DBE assisted, the nature of the information provided, and date of contact. Provide copies of supporting documents, as appropriate.

7. List of efforts made to assist interested DBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, and materials, excluding supplies and equipment that the DBE subcontractor purchases or leases from the prime contractor or its affiliate. If such assistance is provided by you, identify the name of the DBE assisted, nature of the assistance offered, and date assistance was provided. Provide copies of supporting documents, as appropriate.
8. Any additional data to support demonstration of good faith efforts.

The Agency may consider DBE commitments of the 2nd and 3rd bidders when determining whether the low bidder made good faith efforts to meet the DBE goal.

c. Exhibit 15-G - Local Agency Bidder DBE Information (Construction Contracts) (Standard Specification Section 3-1.12)

Complete and sign Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) included in the contract documents regardless of whether DBE participation is reported.

Provide written confirmation from each DBE that the DBE is participating in the Contract. A copy of a DBE's quote serves as written confirmation. If a DBE is participating as a joint venture partner, the Agency encourages you to submit a copy of the joint venture agreement.)

d. Subcontractor and Disadvantaged Business Enterprise Records (Standard Specification Section 5-1.13B(1))

Use each DBE subcontractor as listed on the "List of Subcontractors" (DBE and Non-DBE) and Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) form unless you receive authorization for a substitution.

The Agency requests the Contractor to:

- 1 Notify the Engineer of any changes to its anticipated DBE participation
- 2 Provide this notification before starting the affected work
- 3 Maintain records including:
 - ◆ Name and business address of each 1st-tier subcontractor
 - ◆ Name and business address of each 1st-tier subcontractor
 - ◆ Name and business address of each DBE subcontractor, DBE vendor, and DBE trucking company, regardless of tier
 - ◆ Date of payment and total amount paid to each business

If you are a DBE contractor, include the date of work performed by your own forces and the corresponding value of the work.

Before the 15th of each month, submit a Monthly DBE Trucking Verification form.

If a DBE is decertified before completing its work, the DBE must notify you in writing of the decertification date. If a business becomes a certified DBE before completing its work, the business must notify you in writing of the certification date. Submit the notifications. On work completion, complete a Disadvantaged Business Enterprises (DBE) Certification Status Change, Exhibit 17-O, form. Submit the form within 30 days of contract acceptance.

Upon work completion, complete Exhibit 17-F Final Report – Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors. Submit it within 90 days of contract acceptance. The Agency will withhold \$10,000 until the form is submitted. The Agency releases the withhold upon submission of the completed form.

e. Performance of Disadvantaged Business Enterprises (Standard Specification Section 5-1.13B(2))

DBEs must perform work or supply materials as listed in the Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) form, included in the Bid.

Do not terminate or substitute a listed DBE for convenience and perform the work with your own forces or obtain materials from other sources without authorization from the Agency.

The Agency authorizes a request to use other forces or sources of materials if it shows any of the following justifications:

1. Listed DBE fails or refuses to execute a written contract based on plans and specifications for the project.
2. You stipulated that a bond is a condition of executing the subcontract and the listed DBE fails to meet your bond requirements.
3. Work requires a contractor's license and listed DBE does not have a valid license under Contractors License Law.
4. Listed DBE fails or refuses to perform the work or furnish the listed materials.
5. Listed DBE's work is unsatisfactory and not in compliance with the contract.
6. Listed DBE is ineligible to work on the project because of suspension or debarment.
7. Listed DBE becomes bankrupt or insolvent.
8. Listed DBE voluntarily withdraws with written notice from the Contract
9. Listed DBE is ineligible to receive credit for the type of work required.
10. Listed DBE owner dies or becomes disabled resulting in the inability to perform the work on the Contract.
11. Agency determines other documented good cause.

Notify the original DBE of your intent to use other forces or material sources and provide the reasons. Provide the DBE with 5 days to respond to your notice and advise you and the Agency of the reasons why the use of other forces or sources of materials should not occur. Your request to use other forces or material sources must include:

1. One or more of the reasons listed in the preceding paragraph
2. Notices from you to the DBE regarding the request
3. Notices from the DBEs to you regarding the request

If a listed DBE is terminated or substituted, you must make good faith efforts to find another DBE to substitute for the original DBE. The substitute DBE must perform at least the same amount of work as the original DBE under the contract to the extent needed to meet the DBE goal.

The substitute DBE must be certified as a DBE at the time of request for substitution.

Unless the Agency authorizes (1) a request to use other forces or sources of materials or (2) a good faith effort for a substitution of a terminated DBE, the Agency does not pay for work listed on the Exhibit 15-G Local Agency Bidder DBE Commitment (Construction Contracts) form unless it is performed or supplied by the listed DBE or an authorized substitute.

2 BID OPENING (Standard Specification Section 2-1.43)

The Agency publicly opens and reads bids at the time and place shown on the Notice to Bidders.

3 BID RIGGING (Standard Specification Section 2-1.50)

The U.S. Department of Transportation (DOT) provides a toll-free hotline to report bid rigging activities.

Use the hotline to report bid rigging, bidder collusion, and other fraudulent activities. The hotline number is (800) 424-9071. The service is available 24 hours 7 days a week and is confidential and anonymous. The hotline is part of the DOT's effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General.

4 CONTRACT AWARD (Standard Specification Section 3-1.04)

If the Agency awards the contract, the award is made to the lowest responsible bidder.

5 CONTRACTOR LICENSE (Standard Specification Section 3-1.06)

The Contractor must be properly licensed as a contractor from contract award through Contract acceptance (Public Contract Code § 10164).

6 DIFFERING SITE CONDITIONS (23 CFR 635.109) (Standard Specification Section 4-1.06)

Contractor's Notification (Standard Specification Section 4-1.06B)

Promptly notify the Agency's Engineer if you find either of the following conditions:

- 1 Physical conditions differing materially from either of the following:
 - Contract documents
 - Job site examination
- 2 Physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract

Include details explaining the information you relied on and the material differences you discovered.

If you fail to promptly notify the Engineer, you waive the differing site condition claim for the period between your discovery of the differing site condition and your notification to the Engineer.

If you disturb the site after discovery and before the Engineer's investigation, you waive the differing site condition claim.

Engineer's Investigation and Decision

Upon your notification, the Engineer investigates job site conditions and:

1. Notifies you whether to resume affected work
2. Decides whether the condition differs materially and is cause for an adjustment of time, payment, or both

7 BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

The Contractor shall commence work on or before the tenth (10th) working day following date of mailing of written notification by the Department of Public Works that the contract has been awarded by the City Council or City Manager. During this ten-(10) day interval, the necessary contract documents shall be executed by the Contractor and returned to the Department of Public Works. All work shall be completed within contract working days specified in the Instruction to Bidders counting from and after the said tenth (10) day.

This work shall be diligently prosecuted to completion before the expiration of one hundred and forty six (146) working days from Notice to Proceed.

The Contractor shall pay to the City of Alameda the sum listed in the proposal per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

8 BUY AMERICA (Standard Specification Section 6-2.05)

Furnish steel and iron materials to be incorporated into the work with certificates of compliance. Steel and iron materials must be produced in the U.S. except:

1. Foreign pig iron and processed, pelletized, and reduced iron ore may be used in the domestic production of the steel and iron materials [60 Fed Reg 15478 (03/24/1995)];
2. If the total combined cost of the materials does not exceed the greater of 0.1 percent of the total bid or \$2,500, materials produced outside the U.S. may be used.

Production includes:

1. Processing steel and iron materials, including smelting or other processes that alter the physical form or shape (such as rolling, extruding, machining, bending, grinding, and drilling) or chemical composition;
2. Coating application, including epoxy coating, galvanizing, and painting, that protects or enhances the value of steel and iron materials.

9 QUALITY ASSURANCE (Standard Specification Section 6-3.05)

The Agency uses a Quality Assurance Program (QAP) to ensure a material is produced to comply with the Contract.

You may examine the records and reports of tests the Agency performs if they are available at the job site.

Schedule work to allow time for QAP.

10 PROMPT PAYMENT OF FUNDS WITHHELD TO SUBCONTRACTORS

~~(The local agency must include one of the following three provisions to ensure prompt and full payment of any retainage from the prime contractor, or subcontractor, to a subcontractor. Remove or strike out the methods not used.)~~

~~(EITHER)~~

~~No retainage will be withheld by the agency from progress payments due the prime contractor. Retainage by the prime contractor or subcontractors is prohibited and no retainage will be held by the prime contractor from progress due subcontractors. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the California Business and Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime Contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor or deficient subcontract performance, or noncompliance by a subcontractor.~~

~~(OR)~~

~~No retainage will be held by the agency from progress payments due the prime contractor. Any retainage held by the prime contractors or subcontractors from progress payments due subcontractors shall be promptly paid in full to subcontractors within 30 days after the subcontractor's work is satisfactorily completed. Federal law (49CFR26.29) requires that any delay or postponement of payment over the 30 days may take place only for good cause and with the agency's prior written approval. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime Contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.~~

~~(OR)~~

The agency shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the agency, of the contract work, and pay

retainage to the prime contractor based on these acceptances. The prime contractor, or subcontractor, shall return all monies withheld in retention from a subcontractor within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the agency. Federal law (49CFR26.29) requires that any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor. This provision shall apply unless contractor has elected to post securities in lieu of retention in accordance with California Public Contract Code Section 22300.

11 Form FHWA-1273 Required Contract Provisions Federal-Aid Contracts (Excluding ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS)

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

FHWA-1273
REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Government wide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge

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employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency

and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

- (1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;
- (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

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Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

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

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

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

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

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

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

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

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b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

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

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

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

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

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

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the

contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal

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certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

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

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

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to

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any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneously by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website

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(<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

**Certification Regarding Debarment, Suspension, Ineligibility
and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS
FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
 - b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

TITLE VI ASSURANCES

During the performance of this Agreement, the contractor, for itself, its assignees and successors in interest (hereinafter collectively referred to as CONTRACTOR) agrees as follows:

- 1 Compliance with Regulations: CONTRACTOR shall comply with the regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the REGULATIONS), which are herein incorporated by reference and made a part of this agreement.
- 2 Nondiscrimination: CONTRACTOR, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, sex, national origin, religion, age, or disability in the selection and retention of sub-applicants, including procurements of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the agreement covers a program set forth in Appendix B of the Regulations.
- 3 Solicitations for Sub-agreements, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by CONTRACTOR for work to be performed under a Sub-agreement, including procurements of materials or leases of equipment, each potential sub-applicant or supplier shall be notified by CONTRACTOR of the CONTRACTOR'S obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- 4 Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the California Department of Transportation or FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the California Department of Transportation or the FHWA as appropriate, and shall set forth what efforts CONTRACTOR has made to obtain the information.
- 5 Sanctions for Noncompliance: In the event of CONTRACTOR'S noncompliance with the nondiscrimination provisions of this agreement, the California Department of Transportation shall impose such agreement sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to CONTRACTOR under the Agreement within a reasonable period of time, not to exceed 90 days; and/or
 - (b) cancellation, termination or suspension of the Agreement, in whole or in part.
- 6 Incorporation of Provisions: CONTRACTOR shall include the provisions of paragraphs (1) through (6) in every sub-agreement, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

CONTRACTOR shall take such action with respect to any sub-agreement or procurement as the California Department of Transportation or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that, in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a sub-applicant or supplier as a result of such direction, CONTRACTOR may request the California Department of Transportation enter into such litigation to protect the interests of the State, and, in addition, CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

END – Required Federal Contract Provisions (Exhibit 12-G)

SECTION 8 – PROSECUTION AND PROGRESS

See Section 8 of the Standard Specifications.

The provisions of this section not modified by the Agreement or Contract shall apply to this project.

No subcontractor will be allowed on the project who is not listed in the List of Subcontractors contained in the Proposal, unless approved in advance and in writing by the Engineer.

Neither the contract, nor any monies due, or to become due, under the contract, may be assigned by the Contractor without the prior consent and approval of the City Council, nor in any event without the consent of the Contractor's surety or sureties, unless such surety or sureties have waived their right to notice or assignment.

OVERTIME, WEEKEND WORK, AND LEGAL HOLIDAYS

City inspection personnel will be available as required during normal working hours as noted on the schedule. In the event that Contractor wishes to schedule overtime work after 5:00 p.m. or before 8:00 a.m. or City holidays, he shall make arrangements with the Engineer at least forty-eight (48) hours in advance of such overtime work. In the event that the Engineer is unable to schedule the necessary personnel the Contractor's request may be denied and no work shall be performed outside of normal working hours unless the work is of an emergency nature.

Contractor shall not work on a City's legal holiday, including the following:

New Year's Day	January 1
Dr. Martin Luther King, Jr's birthday	the third Monday in January
Presidents Day	the third Monday in February
Memorial Day	the last Monday in May
Independence Day	July 4
Labor Day	the first Monday in September
Veteran's Day	November 12
Thanksgiving Day	the fourth Thursday in November
Day after Thanksgiving Day	the day following the fourth Thursday in November
Christmas Day	December 25

Additionally, December 31 starting at noon, the Friday preceding a Saturday holiday, the Monday following a Sunday holiday and every day declared by the President or the Governor to be a legal holiday.

The Contractor shall coordinate his work so that City of Alameda Recreation and Parks 'Run for the Parks', as well as the city events indicated below, will not be adversely affected. In particular, barricades, excavations, material stockpiling, heavy equipment, newly poured concrete, fresh crack sealing, and other items unsuitable for pedestrian traffic, will not be allowed in the vicinity of the event.

Event:

Spring Festival (Park Street)	TBD
July 4 th Parade	July 4
Art and Wine Faire (Park Street)	TBD
Webster Street Jam	TBD
Classic Car Show (Park Street)	TBD
Trick or Treat at Webster Street	TBD

Santa on Webster Street	TBD
Concerts at the Cove	TBD
Farmer's Market (Webster St. x Haight)	Every Tuesday and Saturday (year-round) from 9a.m. to 1p.m.

SECTION 9 – PAYMENT

- a. The Contractor must submit to the Engineer his or her partial payment estimate on the 15th day of the month. When the 15th falls on a weekend or holiday submittal must be on the first workday prior to the 15th. The partial payment estimate must be a verified application for payment and schedule of values supported by a statement showing all materials actually installed during the preceding month and the cost of labor actually expended in the performance of the Work. Unless otherwise provided in the Contract Documents, no allowances or payments will be made for material or equipment not placed at the work site.
- b. Within ten (10) days after the issuance of the Limited Notice to Proceed, the Contractor shall furnish to the City a detailed Schedule of Values giving a complete breakdown of large lump sum prices and items which include numerous subdivisions of work. The Contractor and Engineer shall jointly review the Schedule of Values and make any adjustments in value allocations if, in the opinion of the Engineer, changes are necessary to establish fair and reasonable allocation of values for the work components. Front end loading will not be permitted. If, in the City's judgment, more detail (i.e. more items of work) is necessary, the Contractor shall add the additional items identified by the Engineer. The Engineer may also require reallocation of work components from items in the preliminary schedule if such allocation is necessary. The Contractor shall submit any necessary revisions for the completed Schedule of Values within 15 days after receiving comments from the Engineer. The costs indicated in making up this breakdown will be used as a basis for partial payments and shall not be considered as fixing a basis of additions or deductions from the contract.
- c. To be eligible for payment the Contractor's applications for payment must be accompanied by certified payroll reports, including "Statement of Non-Performance" for periods where no work was performed. Certified payroll shall be prepared in accordance with California Labor Code Section 1776 and the Contract for each employee of the Contractor and any subcontractors engaged in the performance of the work during the preceding months. Applications for payment will not be processed without certified payroll reports.
- d. In accordance with California Public Contract Code Section 20104.50, the Engineer will review applications for payment as soon as practicable after receipt. Any application or part of an application that is determined to be improper will be returned to the Contractor as soon as practicable, but no later than seven days after receipt by the Engineer, along with a written description of the reasons why the application is improper.
- e. Unless the Contractor has elected to post securities in lieu of retention in accordance with California Public Contract Code Section 22300 and the Contract, and the Contractor and the City have executed an escrow agreement in accordance with the Public Contract Code and the Contract, the City will make progress payments to the Contractor in accordance with applicable law in the amount of ninety five (95) percent of the value of the labor actually performed and the material incorporated in the work as specified in Contractor's verified application for payment upon approval by the Engineer. Payment of progress payments will not be construed as acceptance of the work performed. If the Contractor has elected to post securities in lieu of retention in accordance with Public Contract Code Section 22300 and the Contract, and the Contractor and the City have executed an escrow agreement in accordance with the Public Contract Code and the Contract, the City will make payments to the Contractor or the Contractor's escrow agent in accordance with such escrow agreement.

- f. Wherever the estimated quantities of work to be done and materials to be furnished on a unit price basis under this Contract are specified in any of the Contract Documents, including the proposal, such quantities are specified for purposes of comparing bids, and the right is expressly reserved, except as otherwise expressly provided, to increase or diminish such quantities as may be deemed reasonably necessary or desirable by the Engineer to complete the Work. No such increase or diminution will be a basis for claims for adjustments in the Contract Price other than adjustments necessary to reflect the impacts of such changes in quantities based on the applicable contract prices and/or pursuant to Section 4 of this Contract.
- g. In accordance with California Public Contract Code Section 20104.50, if the City fails to make a progress payment within thirty (30) days of receipt of an undisputed, properly submitted application for payment, the City will pay the Contractor interest equivalent to the legal rate set forth in subdivision (a) of California Code of Civil Procedure Section 685.010. The number of days available to the City to make a payment without incurring an interest obligation pursuant to this provision and California Public Contract Code Section 20104.50 will be reduced by the number of days, if any, by which the City has delayed return of an application for payment beyond the seven day return requirement set forth in Section 9-1.02(d).
- h. The City will pay the Contractor's final invoice in accordance with applicable law and this Section 9 following acceptance of the work provided that:
 - a. The Contractor has furnished evidence satisfactory to the City that all claims for labor and material have been paid, or the time for filing valid stop notices has passed and no stop notices have been filed, or all stop notices filed have been released by valid release or release bond acceptable to the City.
 - b. No claim has been presented to the City by any person based upon any acts or omissions of the Contractor or any subcontractor engaged in the performance of the Work.
 - c. No other claim or dispute exists under the Contract or applicable law concerning payment of the Contractor's final invoice and/or release of the Contract retention.
 - d. The Contractor has filed with the City the Maintenance Bond provided in the Contract Documents with duly notarized signatures of an authorized representative of the Contractor and an attorney-in-fact of an admitted surety insurer acceptable to the City and such Maintenance Bond binds the Contractor as Principal and the Surety in accordance with its terms in the amount of 10% of the final Contract Price.

NON-ALLOWABLE DIRECT CHARGES

The following costs are not allowable direct charges under the Contract. The following costs may only be paid under the Contract, if at all, as part of any allowance for contractor overhead and/or profit established under the Contract.

- a. Labor costs in excess of applicable prevailing wages pursuant to the Contract and applicable law, liability and workers compensation insurance, social security, retirement and unemployment insurance and other employee compensation and benefits pursuant to bona fide compensation plans in effect at the time specified for the opening of Project bids for contractor and subcontractor employees engaged in the performance of the Work. However, in no event will allowable direct labor charges under the Contract include employee bonuses, employee vehicles or vehicle allowances, employee telephones or telephone allowances, or employee housing or housing allowances, whether or not such benefits are part of a bona fide compensation plan in effect at the time specified for the opening of Project bids.

- a. Superintendent labor and clerical labor.
- b. Bond premiums
- c. Insurance in excess of that required under the Contract Documents
- d. Utility costs
- e. Work Site office expenses
- f. Home office expenses.
- g. Permit or license costs

RETENTION

The City or its agent may, in accordance with the Contract Documents and applicable law, withhold any payment of monies due or that may become due the Contractor because of:

- a. Defective work not remedied or uncompleted work.
- b. Claims filed or reasonable evidence indicating probable filing of claims.
- c. Failure to properly pay subcontractors or to pay for material or labor.
- d. Reasonable doubt that the work can be completed for the balance then unpaid.
- e. Damage to another contractor.
- f. Damage to the City.
- g. Damage to a third party.
- h. Delay in the progress of the work, which, in the City's judgment, is due to the failure of the Contractor to properly expedite the work.
- i. Liquidated damages or other charges that apply to the Contractor under the Contract.
- j. Any other lawful basis for withholding payment under the Contract.

SECURITIES IN LIEU OF RETENTION

- a. In accordance with Public Contract Code Section 22300, except where federal regulations or polices do not permit substitution of securities, the Contractor may substitute securities for any moneys withheld by the City to ensure performance of the work. At the Contractor's request and expense, securities equivalent to the amount withheld will be deposited with the City, or with a state or federally chartered bank in California as the escrow agent, who will then pay those moneys to the Contractor under the terms of an

Escrow for Security Deposit agreement. The Escrow for Security Deposit agreement is provided in the Contract Documents. Upon satisfactory completion of the work, the securities will be returned to the Contractor.

- b. Alternatively, at the Contractor's request and expense, the City will pay retentions earned directly to the escrow agent. At the Contractor's expense, the Contractor may direct investment of the payments into securities. Upon satisfactory completion of the work, the Contractor will receive from the escrow agent all securities, interest, and payments received by the escrow agent from the City pursuant to this provision and the terms of the Escrow for Security Deposit agreement. The Contractor will, within 20 days of receipt of payment, pay to each subcontractor the respective amount of interest earned, less costs of retention withheld from each Subcontractor, on monies withheld to ensure the Contractor's performance of the work.
- c. Securities eligible for investment in accordance with this provision include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the Contractor and the City.
- d. The Contractor will be the beneficial owner of any securities substituted for moneys withheld and will receive any interest thereon.

REPORTS AND RECORDS

- a. Contractor shall establish and maintain project-specific accounting systems and records that conform to generally accepted accounting principles (GAAP), properly accumulate and segregate incurred costs by line item for the project, enable the determination of incurred project costs at interim points of completion, and provide support for reimbursement payment vouchers or invoices. All accounting records and other support papers of Contractor, and all subcontractors, shall be maintained for a minimum of three (3) years from the date of final payment to Contractor under these Provisions and shall be held open to inspection and audit by representatives of State, the California State Auditor and auditors of the Federal Government. Copies thereof will be furnished upon request. In conducting an audit of costs claimed under these Provisions, STATE will rely to the maximum extent possible on any prior audit of Contractor and its subcontractors pursuant to the provisions of federal and state laws. In the absence of such an audit, any acceptable audit work performed by external and internal auditors and/or federal auditors will be relied upon and used by STATE when planning and conducting additional audits.
- b. The Contractor and subcontractors agree to comply with the Office of Management and Budget Circular A-87, Cost Principles for State and Local Governments, and 49 CFR Part 18, Uniform Administrative Requirements for Grants and Cooperative Contracts to State and Local Governments. Contractor and subcontractors must agree that contract cost principles, at least as restrictive as 48 CFR, Federal Acquisition System, Chapter 1, Part 31 shall be used to determine the allowability of individual project cost items.
- c. Any costs for which the Contractor has received payment that are determined by subsequent audit to be unallowable under Office of Management and Budget Circular A-87 or 49 CFR Part 18 are subject to repayment by Contractor to STATE. Should the Contractor fail to reimburse moneys due STATE within thirty (30) days of demand, or within such other period as may be agreed between the parties hereto, City is authorized to withhold future payments due Contractor.

- d. Contractor agrees to include this project in the schedule of projects examined in the annual audit and in the schedule of project examined under any single audit that is in accordance with Office of Management and Budget Circular A-133.

INSPECTION OF WORK

All materials, equipment and workmanship used in Work shall be subject to inspection and testing at all times during construction and/or manufacture in accordance with the terms of Contract Documents. Work and materials, and manufacture and preparation of materials, from beginning of construction until final completion and acceptance of Work, shall be subject to inspection and rejection by CITY, its agents, or independent contractors retained by CITY to perform inspection services, or governmental agencies with jurisdictional interests. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's site safety procedures and program so that they may comply therewith as applicable. Upon request or where specified, CITY shall be afforded prompt access for inspection at the source of supply, manufacture or assembly of any item of material or equipment, with reasonable accommodations supplied for making such inspections.

Contractor shall give CITY timely notice of readiness of Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

If applicable laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for promptly arranging and obtaining such inspections, tests or approvals, and furnish CITY with the required certificates of inspection, or approval. CITY shall pay the cost of initial testing and Contractor shall pay all costs in connection with any follow up or additional testing. Contractor shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for the acceptance of materials or equipment to be incorporated in the Work, or of materials, mixed designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

If Contractor covers or displaces any Work, or the work of others, prior to any required inspection, test or approval without written approval of CITY, Contractor must uncover or replace the Work at CITY's request. Contractor shall bear the expense of uncovering Work and/or replacing Work.

In any case where Contractor covers Work contrary to CITY's request, Contractor must uncover Work for CITY's observation or inspection at CITY's request. Contractor shall bear the cost of uncovering Work.

Whenever required by CITY, Contractor shall furnish tools, labor and materials necessary to make examination of Work that may be completed or in progress, even to extent of uncovering or taking down portions of finished Work. Should Work be found unsatisfactory, cost of making examination and of reconstruction shall be borne by Contractor. If Work is found to be satisfactory, CITY in manner herein prescribed for paying for alterations, modifications and extra work, except as otherwise herein specified will pay for examination.

Inspection of the Work by or on behalf of CITY, or its failure to do so, shall not be deemed a waiver or approval of any non-conforming aspect of the Work.

CORRECTION OF DEFECTIVE WORK

If Contractor fails to supply sufficient skilled workers, suitable materials or equipment, or to furnish or perform the Work in such a way that the completed Work will conform to Contract Documents, CITY may order Contractor to replace any defective Work, or stop any portion of Work to permit CITY (at Contractor's sole expense) to replace such defective work. These CITY rights are entirely discretionary on the part of the CITY, and shall not give rise to any duty on the part of CITY to exercise the rights for the benefit of Contractor or any other party.

CITY may direct Contractor to correct any defective Work or remove it from the Site and replace it with Work that is not defective and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting from the correction or removal. Contractor shall be responsible for any and all claims, costs, losses and damages caused by or resulting from such correction or removal. A Change Order will be issued incorporating the necessary revisions in Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, CITY may deduct from monies due Contractor, all claims, costs, losses and damages caused by or resulting from the correction or removal. If Contractor disagrees with CITY's calculations, it may make a claim as provided in Paragraph 12 of these General Conditions. CITY's rights under this paragraph 9.C.2. shall be in addition to any other rights it may have under Contract Documents. Where Contractor fails to correct defective work CITY shall have all rights and remedies granted by law.

Correction Period: If within three years after the date of Final Acceptance, or such longer period of time as may be prescribed by laws or regulations, or by the terms of Contract Documents, any Work is found to be defective, Contractor shall promptly, without cost to CITY and in accordance with CITY's written instructions, correct such defective Work. Contractor shall remove any defective Work rejected by CITY and replace it with Work that is not defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, CITY may have the defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal, replacement and inspection. Where Contractor fails to correct defective work, or defects are discovered outside the correction period, CITY shall have all rights and remedies granted by law.

In special circumstances where a part of the Work is occupied or a particular item of equipment is placed in continuous service before Final Acceptance of all the Work, the correction period for that part of Work or that item may start to run from an earlier date if so provided by Change Order.

Where defective or rejected Work (and damage to other work resulting therefrom) has been inspected, corrected, removed or replaced under this provision after the commencement of the correction period, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

TIME LIMIT AND LIQUIDATED DAMAGES

The Contractor shall commence work and complete the project, in accordance with the time limits specified in the Instructions to Bidders.

The Contractor shall notify the Director of the Department of Public Works, in writing, three (3) calendar days in advance of the time that he plans to commence work.

Should the Contractor prepare to begin work at the regular starting time in the morning of any days on which inclement weather or the condition of the site prevents the work from beginning at the usual starting time, and the crew is dismissed, the Contractor will not be charged for a working day whether or not conditions should change thereafter and the major portion of the day could be considered to be suitable for construction operations.

Reference is made to Section 8 of the Standard Specifications, Section 8-1.05 "Time" and Section 8-1.10 "Liquidated Damages", which provisions, except as modified herein shall apply in case of failure to complete the work within the time limits specified. On the project to be constructed under these specifications, it has been determined that the City will be damaged to the extent of the amount specified in the Instruction to Bidders for each day of delay in completing the work in excess of the number of days specified, and the Contractor agrees to pay liquidated damages at that rate per day for any such delay, as provided in said Section 8. However, the Contractor shall not be assessed liquidated damages for delay in completion when such delay was caused by failure of the City or the owner of any utility to provide for removal or relocation of existing utility facilities.

FEDERAL LOBBYING RESTRICTIONS

Section 1352, Title 1352, Title 31, United States Code prohibits Federal funds from being expended by the recipient or any lower tier subrecipient of a Federal-aid contract to pay for any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal-aid contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement.

If any funds other than Federal funds have been paid for the same purposes in connection with this Federal-aid contract, the recipient shall submit an executed certification and, if required, submit a completed disclosure form as part of the bid documents.

A certification for Federal-aid contracts regarding payment of funds to lobby Congress or a Federal agency is included in the Proposal. Standard Form - LLL, "Disclosure of Lobbying Activities," with instructions for completion of the Standard Form is also included in the Proposal. Signing the Proposal shall constitute signature of the Certification.

The above referenced certification and disclosure of lobbying activities shall be included in each subcontract and any lower-tier contracts exceeding \$100,000. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the Engineer.

The Contractor, subcontractors and any lower-tier contractors shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by the Contractor, subcontractors and any lower-tier contractors. An event that materially affects the accuracy of the information reported includes:

- (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or
- (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or
- (3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal Action.

SANITARY FACILITIES & STORM WATER POLLUTION PREVENTION

The Contractor shall provide all necessary sanitary disposal (toilet) accommodations for the use of all workmen on the job site and shall maintain the same in a clean and sanitary condition.

The intent of these provisions is to enforce federal, state, and other local agencies regulations designed to eliminate storm water pollution. Storm drains discharge directly to creeks and the Bay without treatment. Storm water pollution due to construction operations shall be controlled by keeping pollution out of storm drain systems, reducing the exposure and discharge of materials and wastes to storm water, and by reducing erosion and sedimentation.

In this section, the term "storm drain system" shall refer to any storm water conduits, storm drain inlets and other storm drain structures, street gutters, channels, watercourses, creeks, lakes and the San Francisco Bay.

1. **Material Storage.** The Contractor shall comply with the following practices for materials storage:

The Contractor shall propose designated areas of the project site, for approval by the Engineer, suitable for material delivery, storage, and waste collection that, to the maximum extent practicable, are near construction entrances and at least ten (10) feet away from catch basins, gutters, drainage courses, and creeks.

During wet weather or when rain is forecast within seventy-two (72) hours, the Contractor shall store materials that can contaminate rainwater or be transported by storm water or other runoff to the storm drain system inside a building or cover them with a tarp or other waterproof material secured in a manner that would prevent any of the materials from contacting the rainwater.

The storage and disposal of all hazardous materials such as paints, thinners, solvents, and fuels; and all hazardous wastes such as waste oil, must meet all federal, state, and local standards and requirements.

2. **Street Sweeping.** At the end of each working day or as directed by the Engineer, the Contractor shall clean and sweep roadways and on-site paved areas of all materials attributed to or invoiced in the work. The Contractor shall not use water to flush down streets in place of street sweeping.
3. **Hazardous/Waste Management.** The storage and disposal of all hazardous materials, such as pesticides, paints, thinners, solvents, and fuels; and all hazardous wastes, such as waste oil and antifreeze; shall comply with all federal, state, and local standards and requirements. When rain is forecast within seventy-two (72) hours or during wet weather, the Engineer may prevent the Contractor from applying chemicals in the outside areas.
4. **Spill Prevention and Control.** The Contractor shall take any and all precautions to prevent accidental spills during the work under this contract. The Contractor shall keep a stockpile of spill cleanup materials such as rags or absorbents, readily accessible on-site. In the event of a spill, the Contractor shall immediately contain and prevent leaks and spills from entering the storm drain system, and properly clean up and dispose of the waste and clean up materials. If the waste is hazardous, the Contractor shall comply with all federal, state and local hazardous waste requirements.

The Contractor shall not wash any spilled material into the streets, gutters, storm drains, or creeks.

5. **De-watering Operations.** All groundwater removed from the trench must be de-silted prior to discharging it into the storm drain system through filtering materials methods meeting the Association of

Bay Area Governments (ABAG) Standards For Erosion & Sediment Control Measures and/or through methods and procedures described in the California Storm Water Best Management Practice Handbook – Construction Activity (latest edition).

The Contractor shall reuse the water for other needs, such as dust control and irrigation, to the maximum extent practicable. The rinse water shall be permitted to infiltrate in dirt area or shall be discharged to the sanitary sewer.

6. **Pavement Saw-cutting Operations.** The Contractor shall prevent any saw-cutting debris from entering the storm drain system. The Contractor, preferably, shall use dry cutting techniques and sweep up residue. If wet methods are used, the Contractor shall vacuum slurry as cutting proceeds or collect all waste water by constructing a sandbag sediment barrier. The bermed area shall be of adequate size to collect all waste water and solids. The Contractor shall allow collected water to evaporate if the waste water volume is minimal and if maintaining the ponding area does not interfere with public use of the street area or create a safety hazard. If approved by the Engineer, the Contractor may direct or pump saw-cutting waste water to a dirt area and allow to infiltrate. The dirt area shall be adequate to contain all the waste water. After waste water has infiltrated, all remaining saw-cutting residue must be removed and disposed of properly. With the approval of the Engineer, de-silted water may be pumped to the sanitary sewer to assist in the evaporation or infiltration process. Remaining silt and debris from the ponding or bermed area shall be removed or vacuumed and disposed of properly. If a suitable dirt area is not available or discharge to the sanitary sewer is not feasible, with the approval of the Engineer, the Contractor shall filter the saw-cutting waste water through filtering materials and methods meeting ABAG Standards for Erosion and Sedimentation Control Measures (latest edition) before discharging to the storm drain.
7. **Pavement Operations.** The Contractor shall prevent the discharge of pollutants from paving operations by using measures to prevent run-on and runoff pollution, properly disposing of wastes, and by implementing the following practices:

No paving during wet weather.

Proper Material Storage (refer to previous section one).

Cover inlets and manholes when applying asphalt, seal coat, tack coat, slurry seal, or fog seal.

Place drip pans or absorbent materials under paving equipment when not in use. During wet weather, store contaminated paving equipment indoors or cover with tarp or other waterproof covering.

If paving involves Portland cement concrete, refer to (next section).

8. **Concrete Operations.** The Contractor shall prevent the discharge of pollutants from concrete operations by properly disposing of waste, and by implementing the following practices:

Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.

Avoid mixing excess amounts of Portland cement material .

Do not wash out concrete trucks into storm drains, open ditches, streets, streams, etc. Whenever possible, perform washout of concrete trucks off site where discharge is controlled and not permitted to discharge into the storm drain system. For onsite washout, locate washout area at least fifty (50) feet from storm drains, open

ditches or other water bodies, preferably in a dirt area. Control runoff from the area by constructing a temporary pit or bermed area large enough for the liquid and solid waste.

Wash out concrete wastes into the temporary pit where the concrete can set, be broken up and then disposed of properly. If the volume of water is greater than what will allow concrete to set, allow the water to infiltrate and/or evaporate, if possible. Otherwise, allow water to settle, filter it and then pump to the sanitary sewer with approval of the Engineer. Remove or vacuum the remaining silt and debris from the pond or bermed area and dispose of it properly.

Dispose of water from washing of exposed aggregate to dirt area. The dirt area shall be adequate to contain all the waste water and once the waste water has infiltrated, any remaining residue must be removed. If a suitable dirt area is not available, then the Contractor shall filter the wash water through straw bales or other filtering materials meeting ABAG Standards for Erosion and Sediment Control Measures before discharging to the sanitary sewer with approval from the Engineer.

Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in trash containers.

9. **Grading and Excavation Operations.** The Contractor shall implement sedimentation and erosion control measures to prevent sediments or excavated material from entering the storm drain system.

The erosion and sedimentation control materials and methods shall be in accordance with ABAG Standards for Erosion and Sediment Control Measures and/or the procedures and methods described in the California Storm Water Best Management Practice Handbook – Construction Activity (latest edition).

10. **Vehicle/Equipment Cleaning.** The Contractor shall not perform vehicle or equipment cleaning on site or in the street using soaps, solvents, degreasers, steam cleaning equipment, or equivalent methods. The Contractor shall perform vehicle or equipment cleaning, with water only, in a designated, bermed area that will not allow rinse water to run off-site or into the storm drain system.

The Contractor shall dispose of wash water from the cleaning of water base paint equipment and tools to the sanitary sewer.

If using oil based paint, to the maximum extent practicable, the Contractor shall filter the paint thinner and solvents for reuse and dispose of the waste thinner and solvent, and sludge from cleaning of equipment and tools as hazardous waste.

11. **Vehicle/Equipment Maintenance and Fueling.** The Contractor shall perform maintenance and fueling of vehicles or equipment in a designated, bermed area or over a drip pan that will not allow run-on of storm water or runoff of spills. The Contractor shall use secondary containment, such as a drip pan, to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed, or poured. The Contractor shall clean up leaks and spills of vehicle or equipment fluids immediately and dispose of the waste and cleanup materials as hazardous waste.

The Contractor shall inspect vehicles and equipment arriving on-site for leaking fluids and shall promptly repair leaking vehicles and equipment. Drip pans shall be used to catch leaks until repairs are made. The Contractor shall recycle waste oil and antifreeze, to the maximum extent practicable. The Contractor shall comply with Federal, State and other local agencies for aboveground storage tanks.

12. **Contractor Training and Awareness.** The contractor shall train employees/subcontractors on the water pollution prevention requirements contained in these provisions. The Contractor shall inform all subcontractors of the water pollution prevention contract requirements and include appropriate subcontract provisions to ensure that these requirements are met.

The Contractor shall paint new catch basins, constructed as part of the project, with "No Dumping Drains To The Bay".

The Contractor shall conform to the requirements of Chapter 9.30 of the Municipal Code which regulates urban run-off pollution.

Full compensation for conforming to the provisions herein specified shall be considered as included in the prices paid for the contract items or work involved in compliance with said provisions and no additional compensation will be allowed therefore unless specified as part of a contract item for implementation of a Storm Water Pollution Prevention Plan (SWPPP).

ADVERSE WEATHER

Delays due to abnormal or adverse weather conditions shall not be allowed for weather conditions which fall within the parameters listed herein. Adverse weather delays may be allowed only if the number of workdays of adverse weather exceeds these parameters on a monthly basis and Contractor proves that adverse weather actually delayed work on the critical path of the project. Contractor shall provide written notice of intent to claim an adverse weather day within one day of the adverse weather day occurring. Rain parameters are as follows, prorated in the individual month Contractor starts and finishes work:

Rain Workdays: January, [6]; February, [6]; March, [5]; April, [3]; May, [1]; June, [0]; July, [0]; August, [0]; September, [0]; October, [2]; November, [4]; December, [6]. The Contractor shall anticipate a total of 33 workdays for each complete year and include said workdays in accordance with these general conditions.

In order to qualify as a rain day with respect to the foregoing parameters, daily rainfall must exceed .10 of an inch or more at the Metro Oakland International Airport, Oakland, California, weather station, as measured by the National Oceanic & Atmospheric Administration, and Contractor must prove that the rain actually caused critical project delay as set forth above and below.

Rain delay shall be recognized for the actual period of time Contractor proves it was delayed by rain in accordance with the above parameters and requirements. For example, and not by way of limitation, if rain exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be recognized; and conversely, if Contractor proves that rain exceeding the specified parameters causes delay to Contractor for a period longer than one day, then Contractor shall be entitled to a time extension equal to the actual period of such delay.

FINAL CLEANUP

Final cleanup shall conform to the requirements of Section 4-1.13 "Cleanup," of the Standard Specifications and full compensation therefor will be considered as included in the prices paid for the various contract items of work and no separate payment will be made therefor.

EXCAVATION AND SHORING

Attention is directed to Section 6705 of the California Labor Code concerning shoring. If that Section is applicable to this project, the clause which follows shall be a part of the contract.

Contractor shall submit in advance of any excavation five feet or greater in depth, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during excavation. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer. No excavation shall begin prior to acceptance by the City Engineer of said plan.

SOUND CONTROL REQUIREMENTS

Sound control shall conform to Section 4-10 of the Alameda Municipal Code, which prohibits weekday construction activities between 7 PM and 7 AM.

Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler.

The City requires all construction to meet the following noise levels:

- Does not exceed 60 dBA as measured on residential property unless a special permit is obtained. The special permit shall not be issued by the City Engineer unless the Contractor demonstrates that the equipment to be used produces noise levels that are the lowest of currently available equipment.

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

PUBLIC CONTRACTS CODE 7104: EXCAVATIONS AND HAZARDOUS WASTE

7104. Contracts for digging trenches or excavations; notice on discovery of hazardous waste or other unusual conditions; investigations; change orders; effect on contract.

Any public contract of a local entity which involves digging trenches or other excavations that extend deeper than four feet below the surface shall contain a clause which provides the following:

- (a) That the Contractor shall promptly, and before the following conditions are disturbed, notify public entity, in writing, of any:
 - i. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

- ii. Subsurface or latent physical conditions at the site differing from those indicated by information about the site made available to bidders prior to the deadline for submitting bids.
 - iii. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.
- (b) That the local public entity shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the contractor's cost of, or the time required for, performance of any part of the work shall issue a change order under the procedures described in the contract.
- (c) That, in the event that a dispute arises between the local public entity and the contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the contractor's cost of, or time required for, performance of any part of the work, the contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. The contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties."

ARCHAEOLOGICAL DISCOVERIES

All articles of archaeological interest which may be uncovered by the Contractor during the progress of the work shall be reported immediately to the Engineer. The further operations of the Contractor with respect to the find will be decided under the direction of the Engineer.

REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe, and shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In accordance with Section 25914.1 of the Health and Safety Code, all such removal of asbestos or hazardous substances including any exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 9-1.04, "Force Account," of the Standard Specifications.

INTEGRATED PEST MANAGEMENT (IPM)

A. Integrated Pest Management

The Contractor shall be required to strictly adhere to the guidelines established in the City's IPM Ordinance and Policy. All pesticide applications, regardless of material used, must be approved by the IPM Coordinator prior to use at any facility covered by the contract. Material for weed eradication and pest control shall be only those listed in the City's approved list and categories III and IV herbicides, non-corrosive, non-staining, and shall not leave a flammable residue. Pesticides shall be Environmental Protection Agency and California Department of Agriculture approved and used in strict accordance with manufacturer's label, recommendations, Federal, State, and local laws. All requests for application must be submitted to the Engineer four calendar days prior to posting. Requests must include a map of the area, material requested to be used and dates of application requested. All applications must be approved by the Engineer in writing and applicators must have a signed Pest Control Recommendation before application. All information regarding approved applications will be posted to the City IPM website. Four (4) days prior to any pesticide application, any area to receive a pesticide application shall be posted to notify the public except those areas specifically noted in the Ordinance. Chemical application must use least toxic methods and be used as the last resort and only with written approval. Failure to comply with the IPM Ordinance & Policy may result in fines of up to \$200.00 per incident and/or contract termination.

B. List of Materials

Within thirty (30) days after award, the successful bidder shall furnish to the Engineer for approval a list of fertilizers, herbicides, insecticides, and other chemicals he proposes to use at each work site. He shall also furnish a sample label and a MSDS for each product. Contractor shall use only City approved materials.

C. Records

Contractor is required to maintain records of pest control activities. Contractor shall submit reports on a monthly basis to the Engineer if fertilizers, herbicides, insecticides, and other chemicals were used at the work site. Reports are to include the date, name of the pest, the site/location the work was done, name of technician performing the work and corrective action taken. If a pesticide was used, the product name, the amount applied and the area treated must also be reported.

AUDIT

The City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by the Contractor in preparing its billings to the City as a condition precedent to any payment to the Contractor or in response to a construction claim or a Public Records Act (Government Code Section 6250 et seq.) request. The Contractor will promptly furnish documents requested by the City at no cost. Additionally, the Contractor shall be subject to State Auditor examination and audit at the request of the City or as part of any audit of the City, for a period of three (3) years after final payment under the Contract. The Contractor shall include a copy of this Section 9-4 in all contracts with its Subcontractors, and the Contractor shall be responsible for immediately obtaining those records or other written material from its Subcontractors upon a request by the State Auditor or the City. If the Project includes other auditing requirements, those additional requirements will be listed in the Special Provisions.

LABOR

1. Public Work

The Contractor acknowledges that the Project is a "public work" as defined in Labor Code Section 1720 et seq. ("Chapter 1"), and that this Project is subject to (a) Chapter 1, including without limitation Labor Code Section

1771 and (b) the rules and regulations established by the Director of Industrial Relations ("DIR") implementing such statutes. The Contractor shall perform all work on the Project as a public work. The Contractor shall comply with and be bound by all the terms, rules and regulations described in (a) and (b) as though set forth in full herein.

2. Copies of Wage Rates

Pursuant to Labor Code Section 1773.2, copies of the prevailing rate of per diem wages for each craft, classification, or type of worker needed to perform the Project are on file at City Hall and will be made available to any interested party on request. By initiating any work on this Project, the Contractor acknowledges receipt of a copy of the DIR determination of such prevailing rate of per diem wages, and the Contractor shall post such rates at each job site covered by these Contract Documents.

3. Job Site Notices

The Contractor is required to post job site notices, as prescribed by regulation.

4. Failure to Pay Prevailing Rates

The Contractor shall comply with and be bound by the provisions of Labor Code Sections 1774 and 1775 concerning the payment of prevailing rates of wages to workers and the penalties for failure to pay prevailing wages. The Contractor shall, as a penalty paid to the City, forfeit two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any public work done pursuant to these Contract Documents by the Contractor or by any subcontractor.

5. Apprentices

The Contractor shall comply with and be bound by the provisions of Labor Code Sections 1777.5, 1777.6 and 1777.7 and California Code of Regulations Title 8, Section 200 et seq. concerning the employment of apprentices on public works projects. The Contractor shall be responsible for compliance with these Sections for all apprenticeable occupations. Before commencing work on this Project, the Contractor shall provide the City with a copy of the information submitted to any applicable apprenticeship program. Within sixty (60) Days after concluding work, Contractor and each of its Subcontractors shall submit to the City a verified statement of the journeyman and apprentice hours performed under this Contract.

6. Debarment or Suspension

The Contractor shall not perform work with any Subcontractor that has been debarred or suspended pursuant to California Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. The Contractor and Subcontractors shall not be debarred or suspended throughout the duration of this Contract pursuant to Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. If the Contractor or any Subcontractor becomes debarred or suspended during the duration of the Project, the Contractor shall immediately notify the City.

7. Payroll Records

The Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires the Contractor and each Subcontractor to (1) keep accurate payroll records and verify such records in writing

under penalty of perjury, as specified in Section 1776, (2) certify and make such payroll records available for inspection as provided by Section 1776, and (3) inform the City of the location of the records. The Contractor has ten (10) days in which to comply subsequent to receipt of a written notice requesting these records, or as a penalty to the City, the Contractor shall forfeit one hundred dollars (\$100) for each Day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

8. Hours of Labor

The Contractor acknowledges that eight (8) hours labor constitutes a legal day's work. The Contractor shall comply with and be bound by Labor Code Section 1810. The Contractor shall comply with and be bound by the provisions of Labor Code Section 1813 concerning penalties for workers who work excess hours. The Contractor shall, as a penalty paid to the City, forfeit twenty-five dollars (\$25) for each worker employed in the performance of this Project by the Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one calendar week in violation of the provisions of Division 2, Part 7, Chapter 1, Article 3 of the Labor Code. Pursuant to Labor Code Section 1815, work performed by employees of the Contractor in excess of eight (8) hours per day, and forty (40) hours during any one week shall be permitted upon public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1-1/2) times the basic rate of pay.

9. Registration with the DIR

In accordance with Labor Code Sections 1725.5 and 1771.1, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Section 1725.5.

10. Compliance Monitoring and Posting Job Sites

This Project is subject to compliance monitoring and enforcement by the DIR. The Contractor shall post job site notices, as prescribed by regulation.

11. Subcontractors

For every Subcontractor who will perform work on the Project, the Contractor shall be responsible for such Subcontractor's compliance with Chapter 1 and Labor Code Sections 1860 and 3700, and the Contractor shall include in the written Contract between it and each Subcontractor a copy of the provisions in this Section 7-2 of the General Provisions and a requirement that each Subcontractor shall comply with those provisions. The Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure Subcontractor's compliance, including without limitation, conducting a periodic review of the certified payroll records of the Subcontractor and upon becoming aware of the failure of the Subcontractor to pay its workers the specified prevailing rate of wages. The Contractor shall diligently take corrective action to halt or rectify any failure.

12. Prevailing Wage Indemnity

To the maximum extent permitted by law, the Contractor shall indemnify, hold harmless and defend (at the Contractor's expense with counsel reasonably acceptable to the City) the City, its officials, officers, employees, agents and independent contractors serving in the role of City officials, and volunteers from and against any

demand or claim for damages, compensation, fines, penalties or other amounts arising out of or incidental to any acts or omissions listed in Section 7-2 of the General Provisions by any Person (including the Contractor, its Subcontractors, and each of their officials, officers, employees and agents) in connection with any work undertaken or in connection with the Contract Documents, including without limitation the payment of all consequential damages, attorneys' fees, and other related costs and expenses. All duties of the Contractor under this Section 7-2.9 shall survive expiration or termination of the Contract.

13. CLAIM DISPUTE RESOLUTION

In the event of any dispute or controversy with the City over any matter whatsoever, the Contractor shall not cause any delay or cessation in or of work, but shall proceed with the performance of the work in dispute. The Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. The disputed work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by mutual agreement or a court of law. The Contractor shall keep accurate, detailed records of all disputed work, claims and other disputed matters.

All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims and to Public Contract Code Section 20104 et seq. (Article 1.5) regarding the resolution of public works claims of three hundred seventy-five thousand dollars (\$375,000) or less. This Contract hereby incorporates those provisions as through fully set forth herein. Thus, the Contractor or any Subcontractor must file a claim in accordance with the Government Claims Act as a prerequisite to filing a construction claim in compliance with Article 1.5, and must then adhere to Article 1.5.

AGREEMENT

THIS AGREEMENT, made this ____ day of _____ 20__, by and between the CITY OF ALAMEDA, a political subdivision of the State of California, hereinafter called "Owner" and _____ hereinafter called "Contractor."

WITNESSETH:

That the Owner and the Contractor for the considerations stated herein, agree as follows:

ARTICLE I Scope of Work

The Contractor shall perform everything required to be performed and shall provide and furnish all the labor, materials, necessary tools, equipment, and services required to complete all the work, in accordance with requirements contained in the contract documents therefor entitled, "CROSS ALAMEDA TRAIL – RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS" IN ALAMEDA COUNTY, CALIFORNIA," Project CIP#: 91402, P.W. 03-18-11 Said work to be performed in strict compliance with said plans, specifications and contract documents, which are hereinafter enumerated. It is agreed that said labor, materials, tools, equipment and services shall be furnished and said work performed and completed under the direction and supervision and subject to the approval of the Owner or its authorized representatives.

ARTICLE II
Contract Price

Owner shall pay to Contractor as full consideration for the faithful performance of this contract and subject to any additions or deductions as provided in the contract documents, and in accordance with the schedule of payments contained in the contract documents, the full contract price in accordance with the unit prices set forth in Contractor's accepted proposal.

ARTICLE III
Component Parts of this Contract

This contract consists of all of the following contract documents, all of which are as fully a part thereof as if herein set out in full and if not attached hereto, the same as attached hereto:

1. Notice to Contractors
2. Specifications entitled: CONTRACT DOCUMENTS FOR
CROSS ALAMEDA TRAIL – RALPH APPEZZATO MEMORIAL TRAIL IMPROVEMENTS
3. The accepted proposal of Contractor
4. Plans entitled: CROSS ALAMEDA TRAIL – MAIN STREET TO CONSTITUTION WAY
5. The Project Manual
6. Performance, Labor and Materials Bonds
7. General Liability, Automobile Liability and Workers' Compensation Insurance; all as required pursuant to specifications.

ARTICLE IV
Antitrust Claims

In entering into this Contract, Contractor offers and agrees to assign to City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. § 15) or under the Cartwright Act (Business and Professions Code Section 16700 *et seq.*) arising from purchases of goods, services, or materials pursuant to the Contract. This assignment shall be made and become effective at the time City tenders final payment to Contractor without further acknowledgment by the parties.

IN WITNESS WHEREOF, three identical counterparts of this instrument, each of which shall for all purposes be deemed and original thereof, have been duly executed by the parties hereinabove named on the day and year first above written.

CITY OF ALAMEDA

City Manager

ATTEST:

City Clerk

CONTRACTOR:

Authorized Signature

Print Name

Title

SECTION 10 – SPECIAL PROVISIONS

10.01 GENERAL

FEDERAL REQUIREMENTS

Form FHWA-1273 is incorporated and attached in these Special Provisions.

The Contractor shall furnish various federal reports in accordance with the following:

During the course of the contract, in compliance with the Davis-Bacon Act, the Contractor and all subcontractors shall submit weekly payroll records containing the following:

The Statement of Compliance required in Section 7-1.02K(3), "Certified Payroll Records," of the State Standard Specifications.

A completed payroll certification on State forms CEM-2501, CEM-2502, CEM-2503 or Federal form WH-347, including name address, correct classification, rate of pay, daily and weekly number of hours worked, deductions made and actual wages paid for all employees. The employee's address and social security number need only appear on the first payroll, which the employee's name appears. City owners, superintendents, and nonworking foreman need only be listed by name, title, and hours worked. The labor classification used must be descriptive of the work actually performed and match the nomenclature used in prevailing wage decisions.

An executed Certification by Prime Contractor as found on Form WH-347, or separate City form.

CITY STANDARD PLANS

The City of Alameda Standard Plans are available at the Office of Public Works.

MINIMUM WAGE RATES

See the Federal minimum wage rate section contained within the contract documents. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rate determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. The City will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate which most closely approximates the duties of the employees in question.

Wage and equipment rental rates as determined by the State of California are listed in the Department of Transportation publications entitled "General Prevailing Wage Rates," issued monthly, and "Labor Surcharges and Equipment Rental Rates," issued semi-monthly.

JOB SITE REVIEW

See Sections 2-1.30 "Job Site and Document Examination" and 2-1.06B "Supplemental Project Information" of the Standard Specifications.

The bidder shall carefully examine the work site(s), the plans, specifications and the proposal contract forms. Prior to bidding, the prospective contractors shall thoroughly investigate the conditions which will be encountered in the project

GENERAL PROVISIONS

See Sections 2-1.30 "Job Site and Document Examination" and 2-1.06B "Supplemental Project Information" of the Standard Specifications.

The Contractor shall provide a safe continuous path of travel for pedestrian and bicycle traffic during all phases of construction and at all project sites. If pedestrians are directed away from the existing pedestrian travel way due to construction, a suitable alternate path shall be provided. A suitable alternate path may include, but is not limited to, temporary ADA compliant ramps, traffic control, and physical barriers to separate pedestrians from traffic and signage. It is clearly understood that it is the Contractor's responsibility to provide a safe path of travel at all times. Full compensation for providing safe path of travel shall be considered as included in the contract prices paid for the various bid items and no separate payment will be made.

The Contractor shall take all reasonable precautions to restrict his operations to the least area of work possible and shall not disturb property beyond the areas of work. The Contractor shall perform his work so as to maintain access to adjacent properties and shall minimize inconvenience to adjacent private properties and the general public.

The Contractor shall obtain the approval of the Engineer prior to the use of any area within the road right-of-way for storage purposes as approved by the Engineer.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders, including any section closed to public traffic. Temporary "NO-STOPPING," "NO PARKING," and "TOW-AWAY" signs shall be posted by the Contractor upon authorization of the City.

Normal working hours shall not be earlier than 8:00 a.m. or later than 5:00 p.m. unless otherwise approved by the Engineer.

In addition to the contract requirements of Section 5-1.16 "Representative" of the Standard Specifications, the Contractor shall also provide to the Engineer, the names, address and telephone numbers of at least two emergency contacts for the duration of this contract.

ALLOWABLE WORK HOURS

The Contractor may work on Monday to Friday, except on City Holidays, from 8:00 AM to 5:00 PM.

PAYMENT

Compensation for the provisions in this section shall be considered as included in the contract prices paid for the various bid items and no additional compensation will be allowed.

10.02 ORDER OF WORK AND PROGRESS SCHEDULE

Contractor's work plan and progress schedule must begin with the allotted 5 working days for review of submittals such as material mix designs, traffic control plans, phasing plans, temporary pedestrian access plan, and

contractor-performed survey staking.

No work may begin under the contract until the progress schedule and description of proposed procedures and methods of operation material have been approved by the Engineer. Time required for review and approval of these items shall not constitute a basis for time extension.

After the notice of contract award is received, the contractor has 10 working days to complete all project contract documents and required submittals. The contractor will then have 146 consecutive working days to complete construction.

The Contractor shall prepare and submit a work plan and progress schedule in accordance with Section 8-1.02 of the Standard Specifications and in a form provided by, or acceptable to, the Engineer and submit information describing the Contractor's proposed procedures and methods of operation and a proposed access plan detailing how access is to be maintained on the roadway. The schedule shall clearly show the demolition and reconstruction of one or more groups of ramps and sidewalks. The time limit for having a demolished ramp shall not exceed five (5) working days. Phasing and detours shall be detailed in the Traffic Control Plan described under Section 10.11 of these Special Provisions. The Contractor shall coordinate the work with the regularly scheduled garbage pickup days.

The Contractor shall allow five (5) working days for review and approval of each of these items by the Engineer, which will be counted concurrently if all items are submitted simultaneously.

The above items shall clearly disclose the Contractor's proposed procedures and methods of operation, including identifying any special equipment intended for use on this project and his method of handling traffic.

The limits of work will be marked in the field by the Engineer. The Contractor shall notify the Engineer in writing five (5) working days in advance of when to mark the limits of work at the jobsite.

After the commencement of work there shall be weekly Progress Meetings between the Contractor and City at the City Hall or the jobsite to review the success of the past week's schedule and to review the following week's work elements.

Full compensation for complying with the Order of Work and Progress Schedule, and supplying the schedule, including all required updates to the schedule, and coordination shall be considered as included in the contract price for the various bid items, and no separate payment will be made.

10.03 SUBMITTALS

The Contractor shall provide submittals of product data, shop drawings, and all others as required by these Special Provision. The Contractor shall provide an electronic version of all submittals in Adobe Acrobat format for review by the Engineer. The Contractor shall not acquire materials until he or she receives a satisfactory approval of the submittal.

Many of these submittals are required to verify compliance with the Bay-Friendly Landscape Scorecard, including product data, delivery tags and Accountability Forms. Contractor shall refer to Section 013512 Bay-Friendly Landscaping Requirements in these specifications for additional information and direction. As many of the specified items are required to comply with the Bay-Friendly Landscape Scorecard, no substitutions will be allowed without prior written approval of the City's Representative.

PAYMENT

Compensation for the provisions in this section shall be considered as included in the contract prices paid for the various bid items and no additional compensation will be allowed.

10.04 MOBILIZATION

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for work on the project; for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site; and for obtaining permits, insurance, and bonds as required for the proper performance and completion of the work.

The Contractor shall take photographs and video the entire project area including the frontage of private property prior to commencing construction. The Contractor shall provide a USB Drive containing the video and photographs for the Engineer's review. No demolition shall commence until the Engineer approves the submittal.

PAYMENT

The lump sum price for "Mobilization" (**Bid Item #8, 75, 159**) shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work shown on the Plans, as specified in Section 9-1.16D, "Mobilization," in the Standard Specifications, these Special Provisions, and as directed by the City Representative. Progress payments shall be made per Caltrans Standard Specifications. **The unit price paid for Mobilization is limited to 2.5% of the total base bid amount per funding phase.**

10.05 TEMPORARY CONSTRUCTION FENCING

Temporary construction fencing shall conform to the provisions in Section 80-1.07, "Temporary Fences" of the Standard Specifications and these Special Provisions.

This section includes erection, maintenance, and dismantling of temporary fencing around construction site and materials storage areas.

The contractor shall provide to the City of Alameda a temporary fencing plan which includes type and layout for construction sequencing. The contractor shall submit a shop drawing indicating layout of temporary fencing, location and size of gates, existing pavement and roads, access to fire hydrants and hose connections, and other site specific conditions. The contractor shall prepare a drawing after site observation and verification of existing conditions.

Unless otherwise indicated, type of temporary chain link fencing shall be Contractor's option. Following types are acceptable:

New materials or previously used salvaged chain link fencing in good condition.

Posts: Galvanized steel pipe of diameter to provide rigidity. Post shall be suitable for setting in concrete footings, driving into ground, anchoring with base plates, or inserting in precast concrete blocks.

Fabric: Woven galvanized steel wire mesh. Provide in continuous lengths to be wire tied to fence posts or prefabricated into modular pipe-framed fence panels.

Gates: Provide personnel and vehicle gates of the quantity and size indicated on the Drawings or required for functional access to site.

Fabricate of same material as used for fencing.

Vehicle gates:

Minimum width: 20 feet to allow access for emergency vehicles.

Capable of manual operation by one person.

As required to provide visual warning and control, provide plastic mesh fencing supported by steel posts driven into ground or set in precast concrete blocks. The height shall be 36 inches minimum and the color shall be safety orange.

Installation of temporary fencing shall not deter or hinder access to existing and new hose connections and fire hydrants. Maintain 3 feet diameter clear space around fire hydrants. Where fire hydrant or hose connection is blocked by fencing, provide access gate. Provide gates for personnel, delivery of materials, and access by emergency vehicles. The installation of the fences shall be as follows:

Chain link posts shall be spaced at 10' maximum.

Drive posts, set in holes and backfill, or anchor in precast concrete blocks.

For soft and unstable ground conditions, cast concrete plug around post.

Posts over pavement: Use steel post plates or precast concrete blocks.

Gate posts: Use bracing or concrete footings to provide rigidity for accommodating size of gate.

Fabric: Securely attach to posts.

Gates: Install with required hardware.

Plastic mesh fencing: Space steel support posts to ensure mesh remains vertical and at proper height.

Securely tie mesh to posts.

The temporary fencing shall be maintained in good condition. If damaged, immediately repair. Remove temporary fencing upon completion of Work or when no longer required for security or control. Backfill holes and compact. Holes in pavement shall be surfaced to match existing paving. Repair damage caused by installation of temporary fencing.

PAYMENT

The contract price paid per linear foot for "Temporary Construction Fencing" (**Bid Item #10, 77, 160**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in placing the temporary fencing, complete in place, maintenance and removal as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative

10.06 INSTALL PROJECT SIGNS

The installation of project signs shall conform to the City Standards and these Special Provisions.

7 days prior to any major physical construction work is readily visible to roadway users as part of the contract, the Contractor shall furnish and install project construction signs at locations as determined by the City Representative.

The Contractor shall be responsible for the maintenance of the project signs throughout the duration of the project and make necessary repairs as directed by the City Representative and shall remove the project signs at the completion of the project. Upon removal of these signs, the Contractor shall repair the existing ground to its original condition.

Signs shall be a minimum of 4 feet wide by 3 feet tall. The sign's text and legends shall be fabricated in full color. The City Representative will provide an illustration of the sign to the Contractor. The Contractor shall supply a proof of the proposed sign for approval by the City Representative prior to fabrication.

PAYMENT

The contract unit price paid per each installation of Project Signs (**Bid Item #11, 78, 161**) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in placing the signs, complete in place, including design and fabrication as shown on the plans as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.07 LAYDOWN AREA

The Contractor shall maintain all staging, equipment parking, and materials within the project limits. The City has made no provision for a Construction Staging Area

PAYMENT

Compensation for the provisions in this section shall be considered as included in the contract prices paid for the various bid items and no additional compensation will be allowed.

10.08 WATER POLLUTION CONTROL PLAN (SWPPP AND EROSION CONTROL)

"Water Pollution Control Plan" shall conform to Section 13-2, "Water Pollution Control Program" of the Standard Specifications. Work shall include all labor, materials, equipment, submittals and testing necessary to comply with the Standard Specifications.

The Contractor shall provide a Storm Water Pollution and Prevention Plan for a **Risk Level 1** site.

Within five (5) business days of the date the work is to commence pursuant to the NTP the Contractor shall submit an Erosion/Stormwater Pollution Prevention Plan (SWPPP) to the City Engineer for review. The SWPPP shall include appropriate erosion and sediment control measures to effectively prevent the entry of soil, dirt, debris and other pollutants to storm water runoff, the storm drain system, lagoons and the bay/estuary during construction. No work in the field under this Contract may begin until the City Engineer has approved the Contractor's SWPPP.

Erosion and sediment control plans/sheets shall indicate the specifications and maintenance schedules for the installation and upkeep of the erosion control mechanisms. Specifications shall be provided for the erosion control practices, perimeter protection(s), any silt fencing and fiber rolls to be used, storm drain inlet protections, stabilized construction entrance(s) and exits, site and excavation dewatering activities, vehicle tire wash area(s), vehicle and equipment servicing area(s), and the materials handling and storage area(s). These specifications should meet the same level of erosion and sediment control effectiveness established by practices identified in the San Francisco Bay Regional Water Quality Control Board's Erosion and Sediment Control Field Manual (510-622-2465), the Association of Bay Area Government's Manual of Standards for Erosion and Sediment Control (510-464-7900) and/or the California Stormwater Quality Association's Stormwater Best Management Practice Handbook – Construction (2003) (www.cabmphandbooks.com). Contact City Public Works Department Clean Water Program Specialist Jim Barse (510) 747-7950 for additional assistance in obtaining copies of these reference documents.

The Contractor is responsible for ensuring that all of his/her workers and subcontractors are aware of and implement the specific stormwater quality control measures under the approved SWPPP. The Contractor(s)

shall avoid creating excess dust when breaking asphalt/concrete and during excavation and grading. If water is to be used as a measure for dust control, use as little as possible. All wash water shall be kept out of streets, gutters and storm drains. Controls shall be implemented before construction begins and maintained until the end of construction at which time they shall be removed.

Failure to comply with the following approved construction Best Management Practices (“BMPs”) shall result in the issuance of correction notices, citations and/or a project stop order:

1. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. After breaking old pavement, remove all pieces to avoid contact with rainfall or runoff.
2. Remove on-site piles from the site on a regular basis. Only temporary storage is allowed. All temporary soil or other stockpiles on site shall be securely covered with a tarp, plastic sheeting or similar material.
3. Remove all dirt/mud, gravel, rubbish, refuse and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site daily and prior to rain. Clean up leaks, drips and spills immediately. Avoid unnecessary driving on unpaved areas during wet weather.
4. Install and maintain stabilized construction entrances to minimize the tracking of dirt, mud, dust and debris onto the public right-of-way.
5. Broom-sweep the sidewalk and public street pavement adjoining the project site daily and prior to rain. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the completion of work the street shall be washed and the wash water collected and disposed offsite.
6. Install filter materials (such as block and gravel bags, sandbags, filter fabric) at the storm drain inlets surrounding the project site. Such inlet protections shall be installed before: the start of the rainy season (October 1st), site de-watering activities, saw-cutting activities, or any other activity that may result in the discharge of material to the storm drain. Filter materials shall be maintained and/or replaced as necessary to minimize short-cutting and to remove sediment deposits and buildup. Accumulated sediment/debris shall be disposed of properly.
7. Vacuum saw-cutting slurry and remove from site. Do not allow saw-cut slurry to enter the storm water conveyance system.
8. Create a contained and covered area on the site for the storage of cement bags, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by wind, exposure to rainfall or in the event of a material spill.
9. Never clean machinery, tools, brushes, etc. or rinse containers into a street, gutter, storm drain or stream. See the *Building Maintenance and Remodeling* BMP flyer and ACCWP BMP brochures for more information. Contact the Public Works Department at 747-7930 for assistance with obtaining these documents.
10. Ensure that concrete/gunite supply trucks or concrete/plaster finishing operations do not discharge wash water into street gutters or drains. Concrete trucks shall have a self- contained washout system or discharge to a dedicated, secure site washout in order to avoid the possibility of debris on city streets or discharge of wash water to the storm water conveyance system.
11. Minimize removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Re-plant the area, and stabilize all cut and fill slopes as soon as possible after grading is completed. At a minimum, 4,000 pounds/acre of straw with tackifier should be placed on all exposed soils including those within active work areas and flat lots.
No site grading shall occur between October 1 and May 31 unless approved erosion and sedimentation control measures are in place.

12. Provide erosion "prevention" and perimeter protection measures (soil stabilization) such as fiber rolls, silt fence, and/or sediment traps or basins. Ensure control measures are adequately maintained and in operable condition. Sediment controls, including inlet protection, are necessary but should be a secondary defense behind good erosion control and site perimeter measures.
13. Design site de-watering operations to prevent the discharge of any sediment, debris or other pollutants to the municipal storm water conveyance system.
14. Maintain and if necessary, repair, all erosion prevention and sediment control measures throughout the contract term. Replacement supplies should be kept on site. Site inspections shall be conducted before and after each storm event, and every 24 hours for extended storm events, to identify areas that contribute to erosion and sediment problems or any other pollutant discharges. If additional measures are needed, inform the City Engineer immediately and document all inspection findings and actions taken.
15. Conduct visual observations before, during, and after storm events. Any breach, malfunction, leakage, or spill observed that could result in the discharge of pollutants to surface waters that might not be visually detectable in stormwater shall trigger the collection of a sample of discharge. The following procedures shall be followed during sampling:

Sampling Procedures:

- For all construction activity, identify a sampling and analysis strategy and sampling schedule for potential discharges discovered through visual monitoring.
- Any breach, malfunction, leakage, or spill observed during visual monitoring which could result in the discharge of pollutants to surface waters that would not be visually detectable in stormwater shall trigger the collection of a sample of discharge.
- Samples shall be collected at all discharge locations which drain the areas identified by the visual observations and which can be safely accessed.
- Personnel trained in water quality sampling procedures shall collect stormwater samples.
- An uncontaminated sample shall be collected for comparison with the discharge sample.
- Sampling shall be conducted during the first two hours of discharge from rain events that occur during daylight hours and which generate runoff.
- The uncontaminated sample shall be compared to the samples of discharge using field analysis or through laboratory analysis. Analyses may include, but are not limited to indicator parameters such as: pH, specific conductance, dissolved oxygen, conductivity, salinity, and TDS
- All field and/or analytical data shall be kept in the SWPPP document, which is to remain at the construction site at all times.

Contact the City of Alameda Public Works Department at 510-747-7930 in the event of any slope failure, sediment pond overflow, or any other malfunction resulting in sediment-laden runoff. The City shall, in turn, report such incidents to the Regional Water Quality Control Board.

Clearly mark with the words, "No Dumping! Drains to Bay" or the equivalent, using methods approved by the City of Alameda, onto the on-site storm drain inlets. All on-site storm drains must be inspected and, if necessary, cleaned, at least once a year immediately prior to the rainy season. Additional cleaning may be required by the City of Alameda.

Require all concrete trucks used in the performance of the work to have a self-contained washout system, rather than do washout on the site. The idea is to avoid:

- An undesirable pile of concrete on the jobsite, and
- The possibility of debris on city streets.

The objective of these Standard Conditions is to ensure that the City's municipal storm water Permit, the National Pollutant Discharge Elimination System (NPDES) Permit provisions and additional Regional Water Quality Control Board requirements are adequately enforced.

These recommendations are intended to be used in conjunction with the State's Best Management Practices Municipal and Construction Handbooks, local program guidance materials from municipalities, Section 7.1.01, of the Standard Specifications and any other appropriate documents on storm water quality controls for construction. If you need assistance in checking these documents, contact Clean Water Program Specialist at 510-747-7930.

Failure to comply with the above program will result in issuance of noncompliance notices, citations, project stop orders or fines. The fine for noncompliance of the above program is two hundred and fifty dollars (\$250.00) per occurrence per day. The State under the Federal Clean Water Act can also impose a fine on the Contractor.

Payment for Water pollution control practices shall be included in the various contract bid items and no additional compensation shall be allowed.

PAYMENT

The contract lump sum price for "SWPPP/Erosion Control" (**Bid Item #14, 81,)** includes Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing the storm water pollution prevention plan or SWPPP, obtaining approval of, and amending the Storm Water Pollution Prevention Plan, providing and installing the items needed for Storm Water Pollution Prevention, implementing the practices needed for Storm Water Pollution Prevention, all reporting requirements to the State Water Resources Control Board, inspecting and maintaining the Storm Water Pollution Prevention facilities and practices as specified in the Standard Specifications, and these Special Provisions, and as directed by the City Representative.

10.09 PROPERTY AND FACILITY PRESERVATION

The Contractor shall comply with Section 5-1.36 "Property and Facility Preservation" of the Standard Specifications.

Adjacent Private Property

Building, fences, walls, and any other features which are not designated to be removed shall be protected in place. Any damage to these facilities shall be repaired by the Contractor entirely at his or her expense as directed by the Engineer.

Existing Utilities

The Plans show the approximate location of existing utilities. Prior to commencing construction, the Contractor shall verify the location and depth of all utilities within the project area as described in Section 10.14 Exploratory Excavation of these Special Provisions. The Contractor shall notify Underground Service Alert at 800.642.2444 prior to such excavation work.

Where excavations are performed in the vicinity of underground utility mains and/or services the Contractor shall use extreme care and pothole to verify locations and depths to avoid damage. If damage occurs, it shall be the Contractor's responsibility to coordinate with the utility owner to complete repair. The Engineer will not pay additional compensation for damage to utility systems.

Furthermore, the Engineer expects the Contractor to complete potholing for proposed gravity utilities, which shall occur prior to any portion of the installation of said utilities. The Engineer will pay no additional compensation for right of way delays associated with the relocation or repair of these utilities and other facilities.

Traffic Stripes and Pavement Markings

Existing traffic stripes, pavement markings and pavement markers that are outside the limits of work that are to remain in place shall be protected from wheel marks and other damage by the Contractor. Existing traffic stripes, pavement markings and pavement markers that have been damaged or tracked with bituminous materials shall be cleaned or replaced as approved by the Engineer. The restoration of such objects will be at the Contractor's expense and in conformance with these Special Provisions.

Landscaping

Where tree roots conflict with the grade for the placement or replacement of concrete work or hot mix asphalt (HMA), the Contractor shall inform the City Maintenance Division immediately. When directed by the City Maintenance Division, the Contractor shall perform the necessary root removal and trimming to a minimum depth of ten inches (10") below the proposed concrete or HMA, to prepare the site for the remainder of work. All cut roots shall be properly painted with an approved root-sealing compound. The Contractor shall then proceed with the work to completion. The cost of the Contractor cutting the tree roots involved shall be included in the cost of the work.

Existing trees, shrubs and other plants, that are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor in accordance with the requirements in Section 20-7.03(16), "Replacement Plants", of the Standard Specifications and the following:

The minimum size of replacement shall be as determined by the Engineer.

PAYMENT

Full compensation for complying with the above provisions shall be considered as included in the contract price for the various bid items and no separate payment will be made.

10.10 WATERING

Watering shall conform to Section 10, "Dust Control," and Section 17, "Watering," of the Standard Specifications and these Specifications. Note: Refer to 'Site Management Plan'

Note: Refer to **Attachment M- Soil Remediation Documents** for additional information regarding watering, decontamination, contaminant reduction, and exclusion zone.

The Contractor shall supply the necessary labor, material, and equipment for construction water needs throughout the contract period. Construction water includes, but is not limited to, watering for dust control, and pipe testing. The Contractor shall contact East Bay Municipal Utilities District (EBMUD) for a temporary water meter to supply the project. The contractor will be responsible for any fees, or deposits associated with obtaining construction water. This section applies during working and non-working periods, including weekends.

The second paragraph of Section 10-1.04, "Payment," of the Standard Specifications is deleted. No separate payment will be made for the purpose of controlling dust caused by public traffic.

PAYMENT

Full compensation for complying with the above provisions shall be considered as included in the contract price for the various bid items and no separate payment will be made.

10.11 TRAFFIC CONTROL

"Traffic Control" shall conform to Sections 7-1.03 "Public Convenience," 7-1.04 "Public Safety" and Section 12 "Temporary Traffic Control" of the current State of California Department of Transportation Standard Specifications (Standard Specifications), insofar as they may apply, and the following Special Provisions.

Pedestrian Access

Contractor shall maintain pedestrian access along Atlantic Avenue between Main Street and Constitution Way and its side streets throughout the duration of construction. All north and south bound streets, including Main Street, 3rd Street, 5TH Street, Poggi Street, Webster Street, and Constitution Way, shall maintain pedestrian access on at least one side, in order to maintain an accessible path across Atlantic Avenue. The contractor shall obtain approval from the City Representative should and pedestrian access need to be disrupted during construction.

The Contractor shall maintain at least one lane of traffic in each direction at all times during construction. The full width of the traveled way shall be open for use by public traffic when construction operations are not actively in progress on working days and times provided. All lane closures shall be subject to the prior approval of the City Engineer.

The provisions in Section 7-1.08 of the Standard Specifications, regarding furnishing and installing of signs, cones, lights, flares, temporary railing, barricades and other traffic control facilities used for the temporary traffic control are hereby revised to provide that all signs and other warning devices shall be provided by the Contractor and shall become his property after the completion of the contract. The Contractor shall refer to the current "Manual of Warning Signs, Lighting and Devices for use in the Performance of Work Upon Highways" and the "Uniform Sign Chart" issued by the Department of Transportation, Division of Operations, as well as Chapter 6 of the 2012 California MUTCD.

Flagmen, if necessary, shall be properly equipped and trained in accordance with "Instruction to Flagmen", published by the California Department of Transportation. Section 12-2.2 is revised to provide that all flagmen shall be furnished by the Contractor at his expense.

No additional compensation will be allowed the Contractor for providing for the free passage of traffic through the work.

Contractor shall be responsible for posting "No Parking-Tow Away" signs seventy- two (72) hours prior to construction. Contractor must obtain these signs at his/her own expense from the City's Central Permits Office.

The Contractor shall furnish, install and maintain such facilities as barricades, traffic signs, and flagmen, as may be necessary to advise the public of construction hazards and to control traffic.

Within five (5) business days of the date the work is to commence pursuant to the NTP the Contractor shall submit a Traffic Control Plan to the Engineer. The Traffic Control Plan shall be signed by a California-licensed traffic engineer. The Traffic Control Plan shall cover, at minimum, all phases of work scheduled to occur in the first twenty (20) working days that will impact vehicular, pedestrian and bicycle traffic in the

area. The Traffic Control Plan shall include the Pedestrian Safety Plan. The Traffic Control Plan shall allow residents on the streets impacted ample "on street" parking within one (1) block of their homes.

The Contractor shall have an approved Traffic Control Plan prior to commencing of work in the field. The Contractor shall submit subsequent additions to the Traffic Control Plan in a timely manner to allow for the Engineer's review.

At least 72 hours prior to beginning work on a section of street, curb or sidewalk that will affect use of the parking lane, the Contractor shall notify, by approved "No Parking - Tow Away" signs on barricades, all affected property owners, residents, businesses and agencies adjacent to that section of street. The "No-Parking" signs shall state the days, dates, and hours of parking lane closure, and shall be placed along the street on each side at no more than 50 feet spacing. The Contractor shall notify the Engineer at least one (1) working day in advance of the intent to post No- Parking signs, so that the timely posting can be verified by the Inspector. The Contractor is permitted to list up to one (1) working day before and one (1) working day after the scheduled days of work, as shown in the latest approved schedule on signs, in order to bracket the approved scheduled date of work. The Contractor shall remove the "No Parking" signs as soon as the parking lane is re-opened to parking.

If the Contractor is unable to meet the scheduled and noticed time for the work, the Contractor shall immediately notify the Engineer and remove the posted "No Parking" signs. The Contractor shall submit a new scheduling request in writing to the Engineer. Upon written approval of the Engineer, the Contractor shall post signs at least 72 hours prior to beginning work per the revised schedule.

The provision of this section will not relieve the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provision in Section 7-1.09, "Public Safety", of the Standard Specifications.

PAYMENT

The lump sum price paid for "Traffic Control" (**Bid Item #9, 76,**) shall include furnishing all labor (including delivery of door hangars, removal of towed vehicles, flaggers and detours, when necessary), materials and equipment necessary to provide for the convenience and safety of the public and to facilitate the performance of the contract work as shown on the Plans and specified herein.

Compensation for providing the Traffic Control Plan, traffic control, construction area signs, paving advisory signs, electronic changeable message signs, maintenance of bicycle and pedestrian access, signage to direct bicyclists and pedestrians to the north side of Atlantic Avenue during construction, and any other requirements of this section shall be considered as included in the lump sum contract price paid under "Signs and Traffic Control," and no additional compensation will be allowed.

10.12 RECYCLED CONTENT STANDARDS

ITEM	MINIMUM % OF RECOVERED MATERIAL	MINIMUM % OF POSTCONSUMER MATERIAL
BINDERS		
Press board cover	up to 100%	20%
Paperboard in plastic covering	up to 100%	75%
Solid plastic cover	up to 100%	25%
Plastic covering	25%	not set

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

COPIER PAPER	up to 100%	20%
FIBERGLASS INSULATION	30% cullet	not set
FILE STORAGE BOXES	up to 100%	50%
FLEXIBLE DELINEATOR POSTS	up to 100%	25%
INTEROFFICE ENVELOPES	up to 100%	20%
PAPER TOWELS	up to 100%	40%
PLAYGROUND SURFACES	90%	90%
PLASTIC FOOD SERVICE TRAYS		
Durable plastic	up to 100%	25%
Disposable polystyrene	up to 100%	25%
Disposal paper	80%	not set
PLASTIC LUMBER BENCHES	up to 100%	50%
RE-FINED MOTOR OIL	up to 100%	70%
SOIL AMENDMENT - COMPOST	80%	not set
TRASH CANS/ROLLING CARTS		
Plastic	up to 100%	20%
Paper	up to 100%	50%
Plastic rolling cart	up to 100%	10% body, 50% lid
TRASH CANS LINERS	up to 100%	30%
UNBOUND AGGREGATES	up to 100%	not set

10.13 DISPOSAL OF MATERIALS

The City has not made arrangements for disposal of material, which may include but is not limited to soil, concrete, wood, roofing material, asphalt, pipe, rock, and vegetation. The City plans to dispose of all contaminated soil generated on-site beneath the engineered cap. All excess and unsuitable material shall be disposed of by the Contractor in a legal manner and in a manner consistent with the Bay-Friendly Rated Landscape program.

WASTE MANAGEMENT GOALS

- A. Develop waste management plan that results in end-of-Project rates for salvage/recycling of 50% of construction and demolition waste, and 100% of excavated soil and land clearing debris.
- B. Contractor to use Green Halo to track construction and demolition waste diversion.
- C. Landscape contractor to separate recyclables on the project site or at the Landscape contractor's yard with a minimum of two waste streams. Waste streams could include cardboard, metal, plant debris, plant posts for return to the nursery, untreated and unpainted lumber and film plastic. Contractor shall submit photo documentation of each stream.

- D. The Contractor shall take a proactive and responsible role in the management of construction waste, and shall require all subcontractors, vendors, and suppliers to participate in the effort.
- E. The Contractor shall establish a construction waste management program for this Project that includes, but is not limited to, the following;
 - 1. Salvage for resale.
 - 2. Salvage and reuse. (i.e. Return pots back to nursery)
 - 3. Recycling.
 - 4. Disposal.
- F. Only trash or waste materials that cannot be practically or economically reused or recycled shall be transported to the landfill.

WASTE MANAGEMENT PLAN AND IMPLEMENTATION

- A. General: Develop plan consisting of waste identification, waste reduction work plan, and cost/revenue analysis. Include separate sections in plan for demolition and construction waste. Indicate quantities by weight or volume, but use same units of measure throughout Waste Management Plan.
- B. Identify the off-site Recycling Service and Hauler of each designated debris item, who have agreed to accept and divert that item from landfill, and the proposed quantities. Schedule each item and list off-site Recycling Service and Hauler company name, telephone number, address, and person contacted. Visit www.stopwaste.org for Builder's Guide to Reuse and Recycling, A Directory for Construction, Demolition & Landscaping Materials.
- C. Waste Identification: Indicate anticipated types and quantities of demolition and construction waste generated by the Work. Include estimated quantities and assumptions for estimates.
- D. Maintain log of each load, of each category item diverted from landfill. Log in separately debris sent to a Class III and/or Class II landfills and materials sent to recycling facilities.
 - 1. Include in log, type of load, load weight, name of hauling service; recycling service or landfill, and date accepted by recycling service or by landfill.
 - 2. Owner reserves the right to audit the log at any time, retain and make available, all weight tickets, copies of receipts and invoices.
- E. Material Handling:
 - 1. Separation Facilities:
 - a. Designate a specific on site area or areas to facilitate separation of materials for potential salvage or reuse, recycling, and return.
 - b. Keep waste bins and pile areas neat and clean. Clearly mark bins for each category of waste. Do not mix non-recyclable waste with materials designated for reuse or recycling.
 - 2. Do not permit designated materials to become contaminated or to contaminate site or surrounding areas.
- F. Training And Coordination:
 - 1. Furnish copies of the Waste Management Plan to all on-site supervisors and each subcontractor.
 - 2. Provide on-site instruction of appropriate separation, handling, and recycling, salvage or reuse, and return methods to be used by all entities at the appropriate stages of the Project.

3. Include construction and demolition debris management on the agenda of meetings. At a minimum, discuss waste management goals and issues at the following meetings:
 - a. Pre-construction meeting.
 - b. Regularly scheduled job-site meetings.

REMOVAL ACTION WORKPLAN

The Removal Action Workplan (RAW), contains analytical test data of soil conditions found during select exploration. It shall be the responsibility of the Contractor to bury and/or export these soils as described by the RAW and the improvement plans. The Contractor shall conduct additional tests to determine that no contaminated soils remain near the limit of excavation.

Soil samples should be collected by a reputable testing firm and submitted to a state certified laboratory and analyzed for total petroleum hydrocarbons in the diesel (TPHd) and motor oil (TPHmo) ranges (EPA Test Method 8015), 17 California Assessment Manual (CAM) metals (EPA Test Method 6000/7000), organochlorine pesticides (EPA Test Method 8081), and polychlorinated biphenyls (PCBs) (EPA Test Method 8082), polynuclear aromatic hydrocarbons (PAHs) (EPA Test Method 8270SIM), and any other tests required by the receiver of the soil.

The Contractor shall assume that all soil has levels of contamination that exceeds environmental screening levels listed by the California Regional Water Quality Control Board for residential land use or commercial/industrial land use, but is non-regulated and non-hazardous. All material shall be disposed of in an appropriate landfill with all-weather access. The receiver shall accept soil with contamination as indicated in in the Removal Action Workplan.

The Engineer requires the Contractor to recycle wood, metal, asphalt, concrete, and rock removed from the project area. Furthermore, the Engineer encourages the Contractor to recycle other material where possible. The Contractor shall provide receipts indicating the site and method of material disposal.

The Phase II Environmental Site Assessment (Tetra Tech 2015a), Investigation and Risk Assessment Report (Tetra Tech 2015b), and Investigation Report and RAP (Tetra Tech 2016) contain analytical test data of soil conditions found during select exploration. It shall be the responsibility of the Contractor to bury these soils beneath the cap as described by the RAP and the construction plans.

The Contractor shall schedule disposal of materials such that weather does not impair access to the disposal facility.

PAYMENT

Compensation for the provisions in this section shall be considered as included in the contract prices paid for the various bid items and no additional compensation will be allowed.

10.14 EXPLORATORY EXCAVATION

The Contractor shall perform exploratory excavations to determine the location and depth of existing utility lines to support the installation of underground utilities, pavement repair, and all other tasks required for the successful completion of this project. Exploratory excavation shall conform to Section 7-1.11, "Preservation of Property" and Section 8-1.10, "Utility and Non-highway Facilities" of the Standard Specifications.

The Contractor shall contact Underground Service Alert to determine the extent of potholing required. Exploratory excavation (potholing) shall be at the Contractor's expense.

The Contractor shall cut neatly the asphalt or concrete and use a vacuum type excavation device to remove soil to the depth of the utility. The Contractor shall coordinate with the City and outside utility agencies prior to exploratory excavation.

The Contractor shall provide backfill and surface restoration. Backfill shall be a controlled low strength material as defined in Section 19-3.02F of the 2010 Standard Specifications. The Contractor shall replace pavement or surfacing material in kind so that no discontinuity between the new and existing surface results. The minimum thickness of asphalt shall be four inches. The Contractor shall coordinate the thickness of the asphalt with the final finished elevation of the roadway's surface to ensure the minimum asphalt thickness is achieved.

The Contractor shall provide the Engineer a description (material, diameter, etc.) of existing utility exposed by the exploratory excavation prior to commencing construction. The exploratory excavation log shall be a neatly redlined plan that shows the horizontal and vertical location (the depth) of each exploratory excavation. The Contractor shall immediately notify the Engineer of any conflicts that prevent the satisfactory completion of the work.

The Contractor shall take care not to damage any existing facilities during exploratory excavation. Existing facilities damaged by the Contractor's operations, as determined by the Engineer, shall be repaired or replaced to the satisfaction of the Engineer and the owner of the utility if the owner is different from the City, all at the Contractor's expense.

PAYMENT

Compensation for conforming to this Section shall be included in the various other items of work and no separate payment will be made therefor.

10.15 SAW CUT EXISTING PAVEMENT

The Contractor shall saw cut asphalt and concrete as required to complete the work define in the Plans. Saw cutting shall be vertical and neatly edged and all the way through pavement to the sub grade. The sawing method shall consist of cutting a groove through the pavement with a power driven concrete saw or equivalent. The Contractor shall provide a vacuum to remove water and debris during the saw cutting process.

PAYMENT

Compensation for conforming to this Section shall be included in the various other items of work and no separate payment will be made therefor.

10.16 CLEARING AND GRUBBING

Clearing and grubbing shall conform to the provisions of Section 16, "Clearing and Grubbing" of the Standard Specifications and these Special Provisions.

The construction area shall be stripped of all vegetable growth such as logs, stumps, roots, brush, grass, weeds, and other objectionable material as indicated on the Plans. Landscape improvements shall not be removed unless indicated as to be removed on the Plans. Existing vegetation outside the areas to be cleared and grubbed shall be protected from injury or damage resulting from the Contractor's operations. All stripped organic material and items to be removed shall be disposed of as indicated in the "Soil

Remediation Workplan for the Cross Alameda Trail” and the “Site Management Plan” prepared by Tetra Tech (refer to ATTACHMENT M – SOIL REMEDIATION DOCUMENTS and ATTACHMENT O – SITE MANAGEMENT PLAN, JUNE 2018).

Existing utility service lines are shown in approximate location on the contract plans. The Engineer assumes no responsibility for the accuracy or completeness of this information, which is offered solely for the convenience of the contractor. Contractor shall verify all horizontal and vertical locations of existing utilities and other obstructions prior to construction activities by potholing as described in Section 10.14 EXPLORATORY EXCAVATION of these Special Provisions.

The following items shall be removed from the project area and are paid separately from the Clearing and Grubbing item:

- All trees indicated in the Plans to be removed shall be removed by the Contractor. Removal shall include the root system.
- Removal of roadway signs, including posts and foundations. As noted in the Plans, the Contractor shall salvage specified signs for later re-use within the project as defined in Section 10.65 TRAFFIC SIGNS/POSTS/WAYFINDING SIGNAGE of these Special Provisions. As directed by the Engineer, the Contractor shall deliver all remaining signs to either the City’s Corporation Yard or dispose as indicated in Section **Error! Reference source not found. Error! Reference source not found.** of these Special Provisions.
- Removal of bollards
- Relocation of bus stop shelter, foundation, and related appurtenances. As noted in the Plans, the Contractor shall salvage the bus stop shelter for later re-use within the project
- Removal of fences include wood, metal, and plastic of various sizes
- Removal of light pole and luminaire. This includes demolition of foundation as necessary to avoid future improvements. The unit price paid for removal of light posts includes associated pull boxes, underground conduits, and conductors.

PAYMENT

The contract price paid per square foot for “Clearing and Grubbing” (**Bid Item #15, 82, 164**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary (including disposal of all removed materials) to complete the work as shown on the Plans, as directed by the Engineer, and as specified herein.

The contract price per lineal foot for “Remove Chain Link Fence” (**Bid Item #25**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing the fence and foundation, complete and in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

The contract price paid per each for “Salvage Signs” (**Bid Item #21, 87**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing the pole and foundation as well as salvaging the sign, complete and in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

10.17 STRIPING REMOVAL

The Contractor shall remove striping between the Webster Street and Constitution Way intersections, at the Donut Shop parking lot and at the following Atlantic Avenue intersection: 3rd Street, Poggi Street, 5th Street, as directed by the Engineer prior to re-striping. Pavement Markings and Traffic Stripes shall be removed by any method that does not materially damage the existing pavement. Pavement marking images shall be removed in such a manner that the old message cannot be identified. Residue resulting from removal operations shall be removed from pavement surfaces by sweeping or vacuuming before the residue is blown by the action of traffic or wind, migrates across lanes or shoulders, or enters into drainage facilities.

The Contractor will be asked to perform a test-strip of removal to demonstrate that the proposed operation will not materially damage the existing pavement, or leave a discernible grade difference between the area of removal and the adjacent pavement.

Traffic stripes shall be removed before any change is made in the traffic pattern.

Pavement Markers - Existing pavement markers, including underlying adhesive, when no longer required for traffic lane delineation as determined by the Engineer, shall be removed and disposed of. See section 15-2.02C of the Standard Specifications.

PAYMENT The Contract lump sum price paid for "Remove Striping" (**Bid Item #168**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the applicable work specified in mobilizing equipment, labor, and materials to complete the work and no additional compensation shall be allowed.

10.18 TREE PROTECTION, TRIMMING, AND REMOVAL

Remove trees, as noted on plans. Contractor to verify in field the Engineer prior to beginning operations. Trunks and large branches shall be cut in 8' – 12' lengths for future reuse onsite. Remainder of tree debris shall be chipped onsite and stockpiled for reuse during sheet mulch and planting operations. Grind down stumps and remove roots, obstructions, and debris to a minimum depth of 18 inches below final (new) exposed subgrade.

Existing trees, shrubs, and other plants, that are not to be removed and are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor at his/ her cost in accordance with the requirements in Section 20-2.03B, "Replacement," of the Standard Specifications, Section 20-7.03I, "Planting", of the Standard Specifications and the following:

Provide construction fencing around protected trees, shrubs, or other plants.

Replacement planting of injured or damaged trees, shrubs and other plants shall be completed prior to the start of the plant establishment period

The minimum size of tree replacement shall be 24 inch box and the minimum size of shrub replacement shall be 15 gallons. The replacement specimen must be of the same species. All damaged vegetation is to be disposed of in a legal manner as required by these Special Provisions.

The contract price paid for Tree Removal shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in Tree Removal, including chilling and placement of stockpiled materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, and these Special Provisions, and as directed by the City Representative

Full compensation for Tree protection shall be at the contract lump sum price. Such payment shall include full compensation for furnishing all labor, tools, equipment and materials, and doing all the work necessary for tree protection.

The Contractor shall trim all existing trees with branches located along the proposed trail and pathways to an elevation twelve feet above finished grade, except as designated by City Representative. All pruning work shall be done under continuous supervision of the City Representative or approved Certified Arborist per ANSI A-300 Pruning Standards.

PAYMENT

The contract lump sum price paid for "Tree Protection" (**Bid Item #22, 171**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in Tree Protection, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

The contract lump sum price paid for "Tree Removal" (**Bid Item #16, 83, 155, 170**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in Tree Removal, including chilling and placement of stockpiled materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

The contract lump sum price paid for "Tree Trimming" (**Bid Item #17**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in Tree Removal, including chilling and placement of stockpiled materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.19 DEMOLITION & REMOVAL OF PAVING

The Contractor shall remove curbs, curbs and gutter, sidewalks, pedestrian ramps, and asphalt pavement in the locations as shown in the Plan and as directed by the Engineer.

The Contractor shall mark the demolition limits for review by the Engineer prior to removal. The Contractor shall provide the Engineer 48 hours of notice prior to commencing saw cutting. Limits of demolition shall be at existing joints.

The Contractor shall saw cut at the limits of demolition as described in Section 10.15 SAW CUT EXISTING PAVEMENT of these Special Provisions. The limit of demolition may include the adjacent asphalt, which shall be removed to facilitate the installation of concrete. The Contractor shall determine the limit of asphalt removal.

The Contractor may remove asphalt either by milling per Section 10.23 of these Special Provisions or by excavation.

The Contractor shall remove and dispose of all asphalt and concrete as described in Section DISPOSAL OF MATERIALS of the Special Provisions. The Engineer has no record as to the thickness of the existing concrete as identified in this Section. The Contractor shall use extreme care to protect adjacent facilities during concrete removal.

Existing signs will be removed in accordance with Section 15-2.02J of the Standard Specifications. Disposal will be per "Bay Friendly Standards".

PAYMENT

The contract price per lineal foot for "Remove Concrete Curb", "Remove Concrete Curb And Gutter", "Remove Concrete Curb (Median)", and "Remove Concrete Paving" (**Bid Item #1, 18, 19, 84, 85, 149, 165, 166**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in concrete removal and disposing the material, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

The contract price paid per square foot for "Remove Concrete Paving" (**Bid Item #19, 85**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved sawcutting, removing concrete and disposing the material, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

The contract price paid per square foot for "Remove Asphalt Concrete Paving" (**Bid Item #20, 86, 167**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved sawcutting, removing asphalt and disposing the material, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

10.20 REMOVAL AND DISPOSAL OF EXISTING BUILDING

Removal and Disposal of Existing Building must be performed in accordance with the "Pre-Demolition Hazardous Materials Survey Report", see Attachment L.

PAYMENT

The contract price paid per lump sum for the "Remove and Dispose of Existing Building" (**Bid Item #24**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing hazardous materials as outlined in the Attachment L, as well as removing all materials associated with the existing structure. Contractor is responsible for disposing of all materials offsite appropriately, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.21 REMOVAL AND DISPOSAL OF BOLLARDS

Contractor shall remove bollards as shown on plans.

PAYMENT

The contract price paid per each for the "Remove Bollards" (**Bid Item 23, 88**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in, as well as removing all materials associated with the existing structure. Contractor is responsible for disposing of all materials offsite appropriately, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.22 REMOVAL AND DISPOSAL OF FENCES (WOOD, METAL, PLASTIC)

Contractor shall remove fencing as shown on plans.

PAYMENT

The contract price paid per linear foot for the "Remove Chain Link Fences" (**Bid Item #25**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in, as well as removing all materials associated with the existing fence, poles and foundations. Contractor is responsible for disposing of all materials offsite appropriately, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.23 DEMOLISH EXISTING LIGHT POLE BASES AND CAP ELECTRICAL

Contractor shall remove light poles bases as shown on plans.

PAYMENT

The contract price paid per lump sum for the "Demolish Existing Light Pole Bases and Cap Electrical" (**Bid Item 89**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in, as well as removing all materials associated with the existing poles and foundations. Any electrical line encountered should be cut and capped at the property line. Contractor is responsible for disposing of all materials offsite appropriately, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.24 RELOCATION OF BUS STOP ENCLOSURE

Contractor shall relocate existing bus enclosure, existing tree grates, and existing bike racks at the Webster Street Intersection as shown on the plans.

PAYMENT

The contract price paid per lump sum for "Relocation of Bus Stop Enclosure" (**Bid Item #150**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and reinstalling the enclosure, complete and in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

10.25 RELOCATE TRASH CANS

Contractor shall relocate trash cans, foundation, and related appurtenances as noted in the Plans. The Contractor shall salvage the trash cans for later re-use within the project. When construction is complete, the Contractor shall coordinate with the Engineer and Landscape Architect to place the box in the final location.

PAYMENT

The contract price paid per each for "Relocate Trash Cans" (**Bid Item #152**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing the pole and foundation as well as salvaging the sign, complete and in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no

additional compensation will be allowed therefor.

10.26 SALVAGE NEWSTAND

Contractor shall remove existing newsstand and turn it over to the City of Alameda for storage. Care should take steps to preserve the newsstand equipment for reuse.

PAYMENT

The contract price paid per each for "Salvage Newsstand" (**Bid Item #169**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing the pole and foundation as well as salvaging the sign, complete and in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

10.27 TEMPORARY CONTAINMENT

This work shall be performed in accordance with Section 19, "Earthwork," of the Standard Specifications, these Special Provisions and as directed by the Engineer. This work is associated with the temporary containment and stockpiling of excavated materials prior to being permanently placed and buried on site. Contractor shall furnish high density polyethylene (HDPE) to cover the entirety of the stockpiled material with berms to prevent erosion or dust generation at the end of every shift and if the stockpile is inactive.

Temporary Containment must be performed in accordance with the "Soil Remediation Workplan for the Cross Alameda Trail", see Attachment M.

PAYMENT

The contract price per cubic yard for "Temporary Containment" (**Bid Item #26, 90**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved stockpiling the soils temporarily as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

10.28 EARTHWORK (REVOCABLE)

Imported clean fill shall be sources from Alameda Waterfront, City of Alameda CIC at Mitchell Avenue and 5th Street in Alameda, California or as directed by the City Representative. Contractor shall coordinate with the City Representative during pre-construction for access to the clean soil source site.

Fine Grading

Following the removal of the materials or placement of fill to the selected depth, the subgrade soils shall be scarified in accordance with Section 10.19 Subgrade Preparation of these Special Provisions. The final subgrade shall be prepared in accordance with Section 19-1.03, "Grade Tolerance" of the Standard Specifications.

Property Preservation

The road or existing concrete surface to remain in place shall not be damaged in any way. Care shall be exercised to avoid damage to manholes and other covers (whether shown or not shown on the plans) and adjacent gutters. Utilities and underground pipelines, which are to remain in place shall be worked around

and protected from damage or interruption of service. All improvements damaged by construction shall be replaced at the Contractor's expense. It shall be the contractor's responsibility to ascertain the location of all utilities, including manholes and monuments.

Footings which may be affected by any excavation shall be underpinned or otherwise protected against settlement and shall be protected against lateral movement. Fills or other surcharge loads shall not be placed adjacent to any building or structure unless such building or structure is capable of withstanding the additional loads caused by such fill or surcharge.

Testing

The Contractor shall provide no less than 48 hours' notice to the Engineer, in writing of the need for compaction testing of the subgrade.

Revocable Bid Items

Items marked with "Revocable" on the bid schedule, may be deleted entirely or for which the quantity may be decreased, as determined by the City Engineer based on circumstances that may not be known until after Work on the Project has commenced. If any such item is deleted or the quantity decreased, the Contract Price will be adjusted by a Change Order and the Engineer will offer no additional compensation.

PAYMENT

The contract price per cubic yard for "Import and Place Clean Fill (REVOCABLE)" (**Bid Item #34, 98**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved excavating and loading the material at the source site at 5th Street and Mitchell and hauling the soil to the project site, placing of the soil at the project site in accordance with the plans as specified in these Special Provisions and no additional compensation will be allowed therefor. The contractor's attention is directed to bid alternate #1 which if invoked by the City this item will be revoked in its entirety and no compensation will be given related to this revoked bid item.

10.29 FINE GRADING

Areas not designated to receive trail, sidewalk, or roadway improvements and within the limits of demolition shall be uniformly graded to provide a smooth transition between the improvements and existing conditions. To achieve a smooth transition, import of soil will be necessary. The non-expansive fill should not have any lumps, clods, or cobble pieces larger than 6 inches in diameter and 85% of the fill should be smaller than 2-1/2 inches in diameter. The imported and non-expansive material should be inorganic and have a Plasticity Index (PI) of 25 or less and 15 or less, respectively. Samples of potential import sources should be delivered to the City Representative at least 10 days prior to the desired import start date. At a minimum, laboratory testing will include PI tests. Material data sheets for select fill materials, as indicated in the geotechnical investigation report, listing current laboratory testing data (not less than 6 months from the import start date) may be provided for review without providing a sample. At no time shall lumber, earth clods, rocks and other undesirable materials be used. Refer to Bid Item 38 Landscape Soil Preparation, for requirements for testing and amending planting soils.

PAYMENT

The contract price paid per square foot for "Fine Grading" (**Bid Item #32, 96**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.30 CONSTRUCTION SURVEYING (CAP VERIFICATION)

In order to ensure that the site is covered by the minimum 2 foot cap as outlined in the plans, the contractor shall conduct a site survey at the end of the demolition and clear and grub stage. This will provide a base line elevation for verification of the minimum two foot cap. This survey will need to be supplemented, by the contractor in any areas where native soil is to be mounded for the purpose of disposing said material onsite. The contractor shall provide the updated survey upon completion of rough grading activities. In addition, the contractor shall prepare grading calculations for design team review to determine if the "Mounding for Excess Burial" as shown on the plans will be required.

Once the two foot cap is in place, the contractor shall conduct another survey for the purpose of providing a comparison of the current and finished grades. The project team will review both files and provide guidance if there are areas that have areas of clean fill that are less than 2 feet in thickness. The contractor shall provide the design team with six (6) business days from the time of receipt of the second survey, until an issuance of a corrective action or approval. The contractor shall not be paid for equipment or crew standby during this time period. If corrective action is required, the contractor shall conduct subsequent survey or surveys to provide verification of the cap. No additional compensation will be allowed for subsequent surveys after the corrective action is issued by the design team.

The contractor shall provide all surveys in AutoCAD format, in the same coordinate system as the project design documents. Base files and control will be provided by the design team prior to the survey being conducted.

PAYMENT

The contract price paid per lump sum for "Construction Surveying (Cap Verification)" (**Bid Item #13, 80**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative. If it is determined that additional clean import is required after the comparison of the two surveys, the contractor shall be paid under the "Import and Place Clean Fill" bid item or, if implemented Bid Alternate #1. As it is expected that the cap should be in substantial compliance once the survey is conducted, no additional working days will be allotted the contractor for this corrective action.

10.31 FULL DEPTH RECLAMATION AND CEMENT TREATED SOIL (REVOCABLE)

The Contractor shall complete full depth reclamation (FDR) that consists of pulverizing and mixing existing asphalt pavement and base course material with Portland cement, soil and water to produce a dense, hard, cement-treated base. It shall be proportioned, mixed, placed, compacted, cured and shall conform to the lines, grades, thicknesses, and cross sections shown in the Plan, as described in this Specifications, and the following Standard Specifications:

1. Section 25, Aggregate Subbases.
2. Section 26, Aggregate Bases.
3. Section 27, Cement Treated Bases.

The Contractor shall develop a Plan to manage the full depth reclamation within Main Street in accordance with the Section 10.02 ORDER OF WORK AND PROGRESS SCHEDULE of these Special Provisions. The Engineer seeks to pulverize the existing asphalt and mix with the subgrade. This material will be distributed

to achieve the grades defined in the Plans. When grades are established, the Contractor shall mix the cement and compact the material. Given the stage construction, the Contractor may need to temporarily stockpile material on site. The Engineer notes that that there may need to an export of material from the site.

The Engineer has furnished mix designs for the Main Street Room shown in Appendix B as follows:

1. FDR- Cement Mix Design Number 1 – 60% RAP with 40% Silty Clay Native - Pavement Engineering, Inc.
2. FDR- Cement Mix Design Number 2 – 60% RAP with 40% Clayey Silt Native - Pavement Engineering, Inc.

SUBMITTALS

The FDR Contractor shall submit a sequencing plan for the FDR operation illustrating the stages and duration of work as well as proposed methods to manage site materials.

QUALITY ASSURANCE

The FDR Contractor shall comply with the following:

1. Conform all work and materials to the recommendations or requirements of these Specifications and as directed by the Engineer.
2. Percentage of compaction specified shall be the minimum acceptable. The percentage represents the ratio of the dry density of the compacted material to the maximum dry density of the material as determined by the procedure set forth in ASTM D 1557.
3. Perform installation of base materials under the observation of the Engineer. Materials placed without approval of the Engineer will be presumed to be defective and, at the discretion of the Engineer, shall be removed and replaced at no cost to the Engineer. Notify the Engineer at least 24-hours prior to commencement of base material installation and at least 48 hours prior to testing.
4. Do not mix or place cement treated base when the temperature is below is below 36 degrees F or when the ground is frozen.
5. Finish surface of cement treated base shall be as specified in Section 27 of Caltrans Standard Specifications.
 - a. Finish grade tolerance at completion of base installation: +0.05
6. The FDR construction program shall be performed by a specialist Contractor with at least three continuous years of documented experience in the type of FDR/treatment installation being performed.

INSPECTION AND TESTING

The Engineer, with the assistance and cooperation of the Contractor, shall make such inspections and tests as deemed necessary to form an opinion regarding the conformance of the work to these Specifications. These inspections and tests may include, but shall not be limited to:

1. Obtaining test samples of the cement-treated material and its individual components at all stages of processing and after completion.
2. Observing the operation of all equipment used on the work. Only those materials, machines, and methods meeting the requirements of the contract documents shall be used unless otherwise approved by the engineer. All testing of processed material

or its individual components, unless otherwise provided specifically in the contract documents, shall be in accordance with the latest applicable ASTM specifications in effect as of the date of advertisement for bids on the project.

PROJECT CONDITIONS

For the duration of the FDR operation, the Contractor shall:

1. Protect open excavations, trenches, and the like with fences, covers and railings to maintain safe pedestrian and vehicular traffic passage in accordance with Section 10.11 TRAFFIC CONTROL and 10.48 PAVEMENT STRIPING AND MARKINGS of these Specifications.
2. Temporarily stockpile material in an orderly and safe manner and in a location approved by the Engineer.
3. Provide dust and noise control in conformance with Section 10.10 WATERING of these Specifications.

PRODUCTS AND EQUIPMENT

The Contractor shall use the following in completion of the FDR operation:

1. Products: The Contractor shall provide the following materials for the project:
 - a. Portland Cement. Shall comply with the latest specifications for Portland cement (ASTM C 150, ASTM C 1157, or AASHTO M 85) or blended hydraulic cements (ASTM C 595, ASTM C 1157, or AASHTO M 240).
 - b. Water. Shall be free from substances deleterious to the hardening of the cement-treated material.
 - c. Pozzolans. If used, pozzolans including fly ash, slag, and silica fume shall comply with the appropriate specifications (ASTM C 618, AASHTO M 295 for fly ash; ASTM C 989, AASHTO M 302 for slag; and ASTM C 1240 for silica fume).
2. Equipment: FDR may be constructed with any machine or combination of machines or equipment that will produce a satisfactory product meeting the requirements for pulverization, cement and water application, mixing, compacting, finishing, and curing as provided in this specification. In general, this equipment includes:
 - a. Mixing Methods. Mixing shall be accomplished in place, using single-shaft or multiple shaft mixers. Agricultural disks or motor graders are not acceptable mixing equipment.
 - b. Cement Proportioning. Cement can be added in a dry form. A spreader shall be used to uniformly apply dry cement in equal proportions.
 - c. Application of Water. Water may be applied through the mixer or with water trucks equipped with pressure-spray bars.
 - d. Compaction. The processed material shall be compacted with a combination of the following: static or vibratory sheepfoot (initial compaction), and vibratory smooth-drum roller (finish compaction). Equipment shall be of sufficient size to achieve compaction.

EXECUTION

The Contractor shall complete the FDR operation consistent with the following:

1. Site Exploration: The Contractor shall complete potholing to confirm the following:
 - a. All utilities are of adequate depth to avoid conflict with the FDR operation.
 - b. Confirm there is no additional concrete located below the asphalt. Note, the Contractor shall remove concrete in the locations shown in the Plans and as

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described in Section 10.19 DEMOLITION & REMOVAL of these Special Provisions.

2. Site Preparation

- a. The Contractor shall implement a traffic control system in compliance with Section 10.11 TRAFFIC CONTROL and 10.48 PAVEMENT STRIPING AND MARKINGS of these Specifications including implementing the traffic handling plan along the Main Street Room of Miller Avenue. The Contractor shall provide access to driveways within work area over pulverized material.
- b. The Contractor shall not mill the surface prior to pulverizing the asphalt. The intent is to mix the asphalt, soil, and cement uniformly within the work zone.
- c. The Contractor shall pulverize the asphalt while protecting any shallow utilities found during potholing or as shown in the Plans. The Contractor shall protect any manholes, valve covers, or other buried structures. If reinforcing fabric remains within the asphalt, the Contractor shall shred the material into small pieces and mix into subgrade soils.
 - i. The contractor shall note that the new storm drain line as shown in the Plans is near the depth of the FDR operation. The contractor shall reduce the depth of mixing near the storm drain line and use extreme caution when working in its vicinity.
- d. The area to be processed shall be graded and shaped to lines and grades as shown in the Plans or as directed by the Engineer. During this process, any unsuitable soil or material shall be removed and replaced with acceptable material as approved by the Engineer. The subgrade shall be firm and able to support, without yielding or subsequent settlement, the construction equipment.
- e. The Contractor shall not proceed with pulverization when the aggregate, soil, or subgrade is frozen, or when the air temperature is below 40°F.
- f. Moisture in the base course material at the time of cement application shall not exceed the quantity that will permit a uniform and intimate mixture of the pulverized asphalt, base material, and cement during mixing operations; it shall be within 2% of the optimum moisture content for the processed material at start of compaction.
- g. The operation of cement application, mixing, spreading, compacting, and finishing shall be continuous and completed within 8 hours from the start of mixing. Any processed material that has not been compacted and finished shall not be left undisturbed for longer than 30 minutes.

3. Pulverization / Mixing

- a. Preparation: The surface of the pavement prior to mixing shall be at an elevation so that, when mixed with cement and water and re-compacted to the required density, the final elevation will be as shown in the Plans or as directed by the Engineer. The Contractor's grade checker shall provide elevation data to the Engineer confirming that the finished surface is as required by the Plans. The Engineer must approve these elevations prior to placing asphalt overlay.
- b. Fine Grading: The Contractor shall relocate pulverized material within the work zone to fill voids creating a uniform surface. The Contractor shall remove excess material as required.

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- c. Scarifying: Before cement is applied, initial pulverization or scarification may be required to the full depth of mixing. Scarification or pre-pulverization is a requirement if the processed material is more than 3% above or below optimum moisture content. When the material is below optimum moisture content, the Contractor shall add water. If the material is above the optimum moisture content, the Contractor may recommend an amendment for the Engineer's review and approval. The pulverized material shall be sealed and properly drained at the end of the day or if rain is expected to minimize moisture content issues.
- d. Application of Cement: The specified quantity of cement shall be applied uniformly in a manner that minimizes dust and is satisfactory to the engineer. The time from cement placement on the soil to start of mixing shall not exceed 30 minutes.
- e. Mixing: Mixing shall begin as soon as possible after the Contractor spreads cement and shall continue until he or she produces a uniform mixture. The mixed material shall meet the following gradation conditions:
 - i. The final mixture (bituminous surface, granular base, and subgrade soil) shall be pulverized such that 100% passes the 3-inch sieve, at least 95% passes the 2-in. sieve, and at least 55% passes the No. 4 sieve. No more than 50% of the final mixed material shall be made of the existing bituminous material unless approved by the engineer and included in a mix design. Additional material can be added to the top or from the subgrade to improve the mixture gradation, as long as this material was included in the mix design.
 - ii. The final pulverization test shall be made at the conclusion of mixing operations. Mixing shall be continued until the product is uniform in color, meets gradation requirements, and is at the required moisture content throughout. The entire operation of cement spreading, water application, and mixing shall result in a uniform pulverized asphalt, soil, cement, and water mixture for the full design depth and width.
- f. Compaction: The processed material shall be uniformly compacted to a minimum of 95% of maximum density based on a moving average of five consecutive tests with no individual test below 93%. Field density of compacted material can be determined by nuclear method in the direct transmission mode (ASTM D 2922, AASHTO T 310), sand cone method (ASTM D 1556, AASHTO T 191), or rubber balloon method (ASTM D 2167). Optimum moisture and maximum density shall be determined prior to start of construction and in the field during construction by a moisture-density test (ASTM D 558 or AASHTO T 134). At the start of compaction, the moisture content shall be within 2% of the specified optimum moisture. No section shall be left undisturbed for longer than 30 minutes during compaction operations. All compaction operations shall be completed within 2 hours from start of mixing.
- g. Finishing: As compaction nears completion, the surface of the FDR material shall be shaped to the specified lines, grades, and cross sections. If necessary or as required by the engineer, the surface shall be lightly scarified or broom-dragged to remove imprints left by equipment or to prevent compaction planes. The Contractor shall continue compaction until he or she obtains a uniform and adequate density. During the finishing process, the surface shall

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- be kept moist by means of water spray devices that will not erode the surface. Compaction and finishing shall be done in such a manner as to produce a dense surface free of compaction planes, cracks, ridges, or loose material. All finishing operations shall be completed within 4 hours from start of mixing.
- h. Micro cracking: The Contractor shall use the same roller employed for compaction and apply three (3) passes over the section with the roller vibrating at maximum amplitude and traveling at approximately walking speed (approximately 2-3 mph) to apply the micro-cracking procedure making sure that surface damage does not occur. Although surface damage should not occur, the Contractor shall inspect the process for verification and alter the process to prevent surface damage.
 - i. Curing: Finished portions of the FDR base that are traveled on by equipment used in constructing an adjoining section shall be protected in such a manner as to prevent equipment from marring or damaging completed work
 - j. After completion of final finishing, the surface shall be cured by keeping the surface continuously moist for a period of 3 days, or until paved (if longer than 3 days), with a water spray that will not erode the surface of the FDR base. If curing material is used, it shall be applied as soon as possible, but not later than 24 hours after completing finishing operations. The surface shall be kept continuously moist prior to application of curing material.
 - K. For bituminous curing material, the FDR base surface shall be dense, free of all loose and extraneous materials, and shall contain sufficient moisture to prevent excessive penetration of the bituminous material. The bituminous material shall be uniformly applied to the surface of the completed cement-treated material. The exact rate and temperature of application for complete coverage, without undue runoff, shall be approved by the engineer. Should it be necessary for construction equipment or other traffic to use the bituminous covered surface before the bituminous material has dried sufficiently to prevent pickup, sufficient sand cover shall be applied before such use.
 - L. Sufficient protection from freezing shall be given the cement-treated material for 7 days after its construction or as approved by the engineer.
 - m. Traffic: Completed portions of FDR base can be opened immediately to low-speed construction equipment, provided moist curing operations are not impaired, and provided the FDR base is sufficiently stable to withstand marring or permanent deformation. If continuous moist curing is employed, the FDR base can be opened to all traffic after the 7-day moist curing period, provided the FDR base has hardened sufficiently to prevent marring or permanent deformation. Portions of the FDR base that are traveled on by equipment used in constructing an adjoining section shall be protected in such a manner as to prevent equipment from marring or damaging completed work
 - n. Surfacing: The Contractor shall place asphalt in accordance with Section 10.46 ASPHALT CONCRETE PAVEMENT of these Specifications at any time after finishing and curing, as long as the soil-cement is sufficiently stable to

support the required construction equipment without marring or permanent distortion of the surface. The Contractor, as approved by the Engineer, shall determine the curing period. However, the Contractor shall place the asphalt overlay no more than 7 days after initial milling.

- o. Maintenance: The contractor shall maintain the cement-treated material in good condition until all work is completed and accepted. The Contractor at his / her own expense shall do such maintenance. Maintenance shall include immediate repairs of any defects that may occur. If it is necessary to replace any processed material, the replacement shall be for the full depth, with vertical cuts, using either cement-treated material or concrete. The Engineer will permit not surface patches.

REVOCABLE BID ITEMS

Items marked with "Revocable" on the bid schedule, may be deleted entirely or for which the quantity may be decreased, as determined by the City Engineer based on circumstances that may not be known until after Work on the Project has commenced. If any such item is deleted or the quantity decreased, the Contract Price will be adjusted by a Change Order and the Engineer will offer no additional compensation.

PAYMENT

The contract price per square foot for "Full Depth Reclamation (REVOCABLE)" (**Bid Item #31, 95**) shall include full compensation for furnishing all the labor, materials, tools, equipment, and incidental, and for doing all the work involved full depth reclamation, including pulverizing asphalt, testing subgrade soils, applying cement, and mixing material, as shown on the plans, as specified in the Standard Specifications, and these Specifications, and as directed by the Engineer.

The contract unit price paid per ton for "Cement Application (REVOCABLE)" (**Bid Item #33, 97**) shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in providing cement for the full depth reclamation operation as shown on the Plans, and as specified in the Standard Specifications and these Specifications, and as directed by the Engineer and no additional compensation will be allowed therefor.

10.32 EXCAVATE IMPACTED SOIL

This work shall be performed in accordance with Section 19, "Earthwork," of the Standard Specifications, these Special Provisions, the Health and Safety Plan, the Soil Remediation Workplan, the Investigation Report for the Cross Alameda Trail, the Investigation and Risk Assessment Report for the Cross Alameda Trail, and as directed by the City Representative. After removal of the existing asphalt pavement or concrete and in other locations required by the Plans, the Contractor shall excavate aggregate base, native materials, or other substances of whatever nature to the required subgrade depth as shown on the Plans or as directed by the Engineer. Where necessary to achieve grades shown in the Plans or as directed by the Engineer, the Contractor shall place fill.

The Contractor shall coordinate earthwork operations to assure that the prepared subgrade shall not be permitted to dry and/or crack prior to placement of the next covering layer.

Excavation - Cut

Excavation shall be accomplished with properly selected equipment, which has been approved by the Engineer and in such manner that the stability of the subgrade is maintained to the greatest extent possible and to prevent damage to underground utilities.

All surplus and/or unsatisfactory excavated material shall be buried on site in accordance with Section 10.13 DISPOSAL OF MATERIALS of these Special Provisions.

Excavation - Fill

Where necessary, fill shall be placed in 8 inch lifts, moisture conditioned, and compacted to 90% per ASTM D1557. The Contractor may use either of the following as fill:

- a. Class II Aggregate Base per Section 10.22 of these Special Provisions
- b. Native material shall be free from vegetable matter, debris and refuse, shall contain no concrete, stones or clods larger than four (4) inches in any dimension and shall contain sufficient fines so that all voids will be filled when compacted, and shall be so constituted that compaction requirements can be met. The use of native backfill must be approved by the Engineer before proceeding.

The final subgrade shall be prepared in accordance with Section 19-1.03, "Grade Tolerance" of the Standard Specifications.

Excavate Impacted Soil must be performed in accordance with the Soil Remediation Documents, see Attachment M.

PAYMENT

The contract price paid per cubic yard for the "Earthwork- Excavation (Cut to Burial)" (**Bid Item #30, 94**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

If the total quantity of "Excavate Impacted Soil" exceeds the bid quantity by more than 25%, the Contractor will be paid for all the excavated impacted soil using the bid unit price, and no adjustment will be made to the unit price as bid.

10.33 GEOTEXTILE SEPARATION BARRIER

Geotextile fabric shall be permeable and nonwoven and be in minimum accordance with CalTrans specification 88-1.02B Filter Fabric and orange in color. The contractor shall provide the engineer a certificate stating the manufacturer name, product name, chemical composition of the geotextile fabric, and physical characteristics.

Acceptable products include: US 160NW HVO (Class 1.02B) or US 205NW HVO sold by US Fabrics Inc., 3904 Virginia Ave, Cincinnati, Ohio 45227. (800) 518-2290. Geotextile fabric shall be identified, packaged, and stored according to ASTM D 4873. Geotextile fabric shall be covered during shipping and storage. Atmospheric exposure of geotextile fabric to the elements following lay down shall be a maximum of 14 calendar days to minimize damage potential.

Subgrade soft spots identified during site preparation or proof-rolling shall be excavated and backfilled with compacted suitable material or stabilized with geotextile fabric.

The geotextile fabric shall be laid down smooth without wrinkles or folds on the prepared subgrade in the direction of construction traffic. The geotextile elements shall have an overlap of 24" at the seams. On curves the geotextile may be folded or cut to conform to the curves. The fold or overlap shall be held in place by pins, staples, or fill. Prior to covering with soil the geotextile shall be inspected by the engineer to ensure that it has not been damaged. Damaged areas shall be covered by geotextile with an overlap of at least 24".

The geosynthetic warning barrier shall have a manufactured width of not less than 10 feet. During all periods of shipment and storage, the geosynthetic warning barrier shall be protected from direct sunlight, ultraviolet rays, and temperatures greater than 140 degrees Fahrenheit, mud, dirt, dust and debris. The geosynthetic warning barrier shall be stored off the ground, wrapped in a heavy-duty protective covering. The geosynthetic warning barrier shall be clearly marked to show brand name, lot number, type of fabric, and tensile strength.

All surfaces to receive the geosynthetic warning barrier shall be prepared to a relatively smooth condition free of obstructions, voids or depressions, debris, protruding buried objects (e.g. roots, trash, etc.), and soft or low density pockets of soil. The Contractor shall not proceed with the geotextile fabric placement until approval has been given by the Engineer.

The Contractor shall adjust the actual length of the geosynthetic warning barrier used based on initial experience. Aggregate base shall not be allowed to drop on the geosynthetic warning barrier more than two feet. In no case shall any type of equipment be allowed on the unprotected geosynthetic warning barrier.

PAYMENT

The contract unit price paid per square foot for "Geotextile Separation Barrier" (**Bid Item #27, 91**) shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved in the installation as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.34 CONSTRUCTION STAKING

The approved plans provide sufficient information for a qualified surveyor to lay out the project. All working stakes shall be established by a licensed Land Surveyor or a registered Civil Engineer authorized to practice land surveying pursuant to Section 8725 of the Business and Professions Code of California. The Contractor shall be held responsible for the correctness of such working stakes. The Contractor shall furnish the City Representative legible notes ten (10) calendar days prior to the Contractor starting work in the area staked. The notes shall show the location of the working stakes in relation to the construction center line or reference line, and all calculations used to reach the results of information written on the working stake marker.

The Contractor shall provide a qualified "Grade Setter" to check horizontal and vertical alignment of all improvements in progress so that improvements will be built to conform to the lines, widths, and grades on the approved plans or any change order issued by the City Representative. The Contractor shall make available the "Grade Setter" to work with the City's Inspector on checking or verifying all grade stakes, blue tops, form work, etc., when requested by the Inspector. The "Grade Setter" shall provide all necessary equipment and tools to perform this work.

Regardless of any opportunity to review the survey work by the City, the Contractor shall assume absolute responsibility and liability for the accuracy and completeness of all aspects of the improvement project and

the construction layout.

Since this is a Lump Sum Bid Item, the Contractor is responsible for any and all re-staking expenses. The only exception is if there is found to be an error in the approved plans. All additional cost considerations will be included as part of any Change Order.

The Contractor shall preserve all existing benchmarks, survey control points, reference points, and other permanent points within the project limits. Any of the aforementioned controls that are damaged will be replaced by the Contractor's licensed Land Surveyor at no cost to the City. In addition to the survey work required for establishing "...the lines, widths, and grades on the approved plans (etc)", the Contractor shall engage the services of a licensed land surveyor to fully comply with §8771(b) of the Land Surveyors' Act. This work consists of locating and referencing any/all survey monument(s) that might be "destroyed, damaged, covered, or otherwise obliterated" during the prosecution of this contract.

PAYMENT

The lump sum price for "Construction Staking" (**Bid Item #12, 79, 162**) shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the layout of lines and grades as shown on the plans or as specified in these Special Provisions.

10.35 CONNECT TO EXISTING STORM DRAIN SYSTEM

Connection of piping into existing storm drainage structures shall be completed with minimal damage to the existing structures. The opening made in the unit shall be the minimum size necessary to insert the required drainage piping. The gap between the new pipe and the existing structures shall be filled with grout. The grout shall be formed inside the structure to create a smooth transition between the pipe and the structure.

Connection of new drainage structures into existing storm drainage piping shall be completed with minimal damage to the existing piping. The piping shall be neatly cut and grouted into place in the new structure.

PAYMENT

The contract price paid per each for "Connect to Existing Storm System" (**Bid Item #70, 139, 199**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.36 STORM DRAIN STRUCTURES

The Contractor shall install manholes at the locations, and of the types shown on the plans, and as directed by the City Representative.

The contractor shall install precast concrete structures unless otherwise shown on the Plans. For manholes, drain inlets, playground area drains, and storm drain cleanouts, the size, shape, configuration, depth, etc. of structure and frame, grate, or cover shall be as indicated on the Plans.

Materials and fabrication details for grates and angle anchor assemblies, shall conform to the applicable provisions of Section 75-1.02, "Miscellaneous Iron and Steel," of the Standard Specifications and these Special Provisions.

Precast Structure shall be rated for AASHTO H20 loading in traffic areas.

Frames, Grates and Covers: Caltrans Standard Specification Section 75-1.02B.

Galvanize steel frames, grates and covers shall have ½" maximum openings for grates in the pedestrian path of travel. Grates and covers shall be non-rocking and rated for AASHTO H20 loading in traffic areas.

PAYMENT

The contract price paid per each Storm Drain Area Drain, Storm Drain Cleanout, and Drain Inlet (**Bid Items #71, 141, 142, 195**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.37 STORM DRAIN

Storm drain pipe installation shall be in accordance with Section 64 "Plastic Pipe" of the Standard Specifications, and these Special Provisions.

Storm drain pipe shall conform to ASTM F794 for Polyvinyl Chloride (PVC) gravity sewer pipe and fittings and F894 for High Density Polyethylene (HDPE) pipe.

Compaction of bedding, haunching, and initial backfill shall extend to the trench wall. Adequate and uniform support shall be provided under the pipe to avoid differential settlement and suitable excavation shall be made to receive the bell end of the pipe. All adjustment to line and grade shall be made by scraping away or filling in with sand, gravel, or granular material under the body of the pipe, and not by wedging or blocking.

Where an unstable trench bottom is encountered the existing material shall be removed and replaced with six inches (6") of Class I, II, or III materials at 95% minimum relative compaction. In this location the same Class I, II, or III material shall be used for the haunching and initial backfill zones.

The initial stage of haunching shall consist of hand tamping material at the sides and under the pipe at six-inch (6") maximum lifts to the springline in order to provide adequate support. The Contractor shall call for inspection of the haunching operation prior to placing initial backfill. Failure to call for haunching inspection shall be just cause for rejection of all pipe work.

Initial backfill shall be placed to a point at least six inches (6") above the top of pipe. Compaction for the initial backfill shall consist of hand tamping or mechanical tamping at 1'0" maximum lifts. Extreme caution shall be taken during mechanical tamping to avoid deflection of the pipe. The type and size of mechanical equipment to be used in the initial backfill operation shall be approved by the City Representative. Both zones of haunching and initial backfill shall be compacted by hand or mechanical tamping to a 90 percent minimum relative compaction. Neither jetting or flooding will be allowed in haunching or initial backfill zones. The remainder of the backfill operation shall be in accordance with the plans. The City Representative may require compaction testing. All costs associated with the initial compaction tests shall be borne by the City; all subsequent retesting shall be paid for by the Contractor. All pipe shall be laid with bell end "upgrade", unless otherwise permitted by the City Representative.

One gradation report shall be submitted for new material delivered to the site or as directed by the City Representative.

All storm drain pipes shall have a minimum cover of 12" from the top of the pipe the bottom of the structural section or finished grade. In cases where this does not exist, the pipe shall be encased in

concrete.

Pipe deflection shall be in accordance with the manufacturer's recommendations.

Relative compaction of not less than 95 percent shall be obtained in all trenches within the paved portion of the right-of-way for a minimum depth of 2.5 feet below finished grade.

At the end of each day's work all trenches outside the paved section shall be backfilled or properly covered and barricaded to the satisfaction of the City Representative.

Proper implements, tools, and facilities satisfactory to the City Representative shall be provided and used by the Contractor for safe, convenient, and workmanlike prosecution of the work. Under no circumstances shall the pipe or accessories be dropped or dumped into the trench. Before lowering and while suspended, the pipe shall be inspected for defects. Any defective, damaged, or unsound pipe shall be rejected and sound material furnished.

When the installation of new facilities causes interference with existing storm water flow, the Contractor shall provide a satisfactory bypass system at his expense. The bypass system shall be approved by the City Representative prior to installation.

Where ground water is present, the bottom of the trench shall be kept entirely free of water during pipe laying operations and pumping shall continue until backfilling has progressed to a sufficient height to prevent flotation of the pipe. Water shall be disposed of in such a manner as to cause no property damage or be a hazard to public health. Full compensation for handling any ground water intrusion shall be considered as included in the price paid for the various Contract items of work and no additional compensation will be allowed.

PAYMENT

The contract price paid per linear foot of for "Solid Drain Line, 6" PVC", "Perforated Drain Line, 6" PVC", and "12" RCP Storm Drain Line" (**Bid Items #72, 143, 144, 196, 197**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.38 ADJUSTING EXISTING FACILITIES TO GRADE

This work shall consist of adjusting to grade City or public utility owned facilities such as survey monuments, benchmark monuments, manholes, valves, and pull box covers, lids and frames. No facility shall be adjusted to grade until the adjacent pavement or surfacing has been completed. While the project does not intend to change the grade of the existing asphalt after paving is complete, there are certain utility appurtenances that may be set incorrectly or are damaged.

The Plans may not show the locations of all utilities that may require adjustment. The Contractor shall review field conditions and record the location of all facilities requiring adjustment. The list shall be reviewed with the Engineer. The Contractor shall note that some utilities may be buried under asphalt; these will also require adjustment.

Adjustments include modifying the utility structure below the grinding plane and raising to the finish grade,

including all excavation (including removing and reconstructing concrete anchor block, if such exists), backfill, and temporary and permanent repair to the surrounding asphalt concrete surface.

The Contractor shall adjust all facilities to grade and follow the respective utility companies standards.

Manhole Adjustments

This work includes all City owned sanitary sewer or storm drain manholes to grade. All work shall be in accordance with industry standard practice.

Materials used to accomplish the adjustments shall be at least equal in quality to those in the original structure. Cast iron adjusting rings shall not be used to accomplish the adjustment.

Manhole covers shall be adjusted without disturbing the precast concrete cone.

Utility Boxes

The Contractor shall coordinate relocation of electrical, telephone, and cable television boxes with the respective utility owner and shall adjust under their supervision.

Storm Drain Inlets

The Contractor shall adjust storm drain inlets to the grades required to construct the improvements.

Survey/Benchmark Monuments

It is the responsibility of the Contractor to save and protect any existing survey monuments which are not identified for removal and replacement on the project plans. In the event that disturbance or destruction of a survey/benchmark monument is imminent, regardless of whether removal and replacement is indicated on the project plans, the Contractor shall contact the City of Alameda Engineering Department at least seventy-two (72) hours in advance. The Contractor will be required to employ the services of a California licensed surveyor to set reference points (RPs) to the survey monument such that it can be reset in its original position at his/her sole expense. If the specified notice is not given to the City of Alameda Engineering Department and/or the survey monument is disturbed or destroyed without reference points having been set, the Engineer will have the original position of the survey monument re-established by a licensed surveyor and the associated land surveying costs will be at the Contractor's sole expense and will be deducted from the Contractor's pay letter. Otherwise, the Contractor shall replace survey monuments as specified on the plans. The Contractor will be required to employ the services of a California licensed surveyor to set reference points (RPs) to the survey monument such that it can be reset in its original position.

PAYMENT

The contract price for each "Adjust Manhole Lid (SS/SD) to Grade" (**Bid Item #69, 140**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in adjusting the appurtenance, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

The contract price for each "Adjust Light Pole to Grade" (**Bid Item #151**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in adjusting the appurtenance, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

The contract price for each "Adjust Manholes to Grade" (**Bid Item #153**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in adjusting the appurtenance, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

The contract price for each "Adjust Utility Box to Grade" (**Bid Item #154, 198**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in adjusting the appurtenance, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

10.39 RELOCATE IRRIGATION SYSTEM

This bid item is associated with work to reroute irrigation piping at the Main Street Strip Mall. It is anticipated this will involve lowering of existing irrigation in areas where there are conflicts with new improvements.

PAYMENT. The contract lump sum price paid for "Relocate Irrigation System" (**Bid Item #172**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing Irrigation at Webster Plaza, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.40 CONCRETE UTILITY BOX

PAYMENT

The contract price paid per each for Electrical Pull Boxes (**Bid Item #148**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.41 BIORETENTION SOIL

All work under this section shall conform to Municipal Regional Stormwater Permit Specification for Bioretention Soil Mix, and these Special Provisions.

Soils for biotreatment or bioretention areas shall meet two objectives:

- Be sufficiently permeable to infiltrate runoff at a minimum rate of 5" per hour during the life of the facility, and
- Have sufficient moisture retention to support healthy vegetation.

Achieving both objectives with an engineered soil mix requires careful specification of soil gradations and a substantial component of organic material (typically compost).

Local soil products suppliers have expressed interest in developing 'brand-name' mixes that meet these specifications. At their sole discretion, municipal construction inspectors may choose to accept test results and certification for a 'brand-name' mix from a soil supplier.

Tests must be conducted within 120 days prior to the delivery date of the bioretention soil to the project site.

Batch-specific test results and certification shall be required for projects installing more than 100 cubic yards of bioretention soil.

SOIL SPECIFICATIONS

Bioretention soils shall meet the following criteria. “Applicant” refers to the entity proposing the soil mixture for approval by a Permittee.

1. General Requirements – Bioretention soil shall:
 - a. Achieve a long-term, in-place infiltration rate of at least 5 inches per hour.
 - b. Support vigorous plant growth.
 - c. Consist of the following mixture of fine sand and compost, measured on a volume basis: 60%-70% Sand
30%-40% Compost
2. Submittal Requirements – The applicant shall submit to the Permittee for approval:
 - a. A sample of mixed bioretention soil.
 - b. Certification from the soil supplier or an accredited laboratory that the Bioretention Soil meets the requirements of this guideline specification.
 - c. Grain size analysis results of the fine sand component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
 - d. Quality analysis results for compost performed in accordance with Seal of Testing Assurance (STA) standards, as specified in 4.
 - e. Organic content test results of mixed Bioretention Soil. Organic content test shall be performed in accordance with by Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, “Loss-On-Ignition Organic Matter Method”.
 - f. Grain size analysis results of compost component performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
 - g. A description of the equipment and methods used to mix the sand and compost to produce Bioretention Soil.
 - h. Provide the name of the testing laboratory(s) and the following information:
 - (1) Contact person(s)
 - (2) Address(s)
 - (3) Phone contact(s)
 - (4) E-mail address(s)
 - (5) Qualifications of laboratory(s), and personnel including date of current certification by STA, ASTM, or approved equal
3. Sand for Bioretention Soil
 - a. Sand shall be free of wood, waste, coating such as clay, stone dust, carbonate, etc., or any other deleterious material. All aggregate passing the No. 200 sieve size shall be nonplastic.
 - b. Sand for Bioretention Soils shall be analyzed by an accredited lab using #200, #100, #40, #30, #16, #8, #4, and 3/8 inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)	
3/8 inch	100	100
No. 4	90	100

No. 8	70	100
No. 16	40	95
No. 30	15	70
No. 40	5	55
No. 100	0	15
No. 200	0	5

Note: all sands complying with ASTM C33 for fine aggregate comply with the above gradation requirements.

4. Composted Material

Refer to Section 10.58 LANDSCAPE SOIL PREPARATION for Bay Friendly Composted Material.

VERIFICATION OF ALTERNATIVE BIORETENTION SOIL MIXES

Bioretention soils not meeting the above criteria shall be evaluated on a case by case basis. Alternative bioretention soil shall meet the following specification: "Soils for bioretention facilities shall be sufficiently permeable to infiltrate runoff at a minimum rate of 5 inches per hour during the life of the facility, and provide sufficient retention of moisture and nutrients to support healthy vegetation."

The following steps shall be followed by municipalities to verify that alternative soil mixes meet the specification:

1. General Requirements – Bioretention soil shall achieve a long-term, in-place infiltration rate of at least 5 inches per hour. Bioretention soil shall also support vigorous plant growth. The applicant refers to the entity proposing the soil mixture for approval.
 - a. Submittals – The applicant must submit to the municipality for approval:
 - (1) A sample of mixed bioretention soil.
 - (2) Certification from the soil supplier or an accredited laboratory that the Bioretention Soil meets the requirements of this guideline specification.
 - (3) Certification from an accredited geotechnical testing laboratory that the Bioretention Soil has an infiltration rate between 5 and 12 inches per hour as tested according to Section 1.b.(2)(ii).
 - (4) Organic content test results of mixed Bioretention Soil. Organic content test shall be performed in accordance with by Testing Methods for the Examination of Compost and Composting (TMECC) 05.07A, "Loss-On-Ignition Organic Matter Method".
 - (5) Grain size analysis results of mixed bioretention soil performed in accordance with ASTM D 422, Standard Test Method for Particle Size Analysis of Soils.
 - (6) A description of the equipment and methods used to mix the sand and compost to produce Bioretention Soil.
 - (7) The name of the testing laboratory(s) and the following information:
 - (i) contact person(s)
 - (ii) address(s)
 - (iii) phone contact(s)
 - (iv) e-mail address(s)
 - (v) qualifications of laboratory(s), and personnel including date of current certification by STA, ASTM, or approved equal
 - b. Bioretention Soil
 - (1) Bioretention Soil Texture

Bioretention Soils shall be analyzed by an accredited lab using #200, and 1/2" inch sieves (ASTM D 422 or as approved by municipality), and meet the following gradation:

Sieve Size	Percent Passing (by weight)	
1/2 inch	97	100
No. 200	2	5

(2) Bioretention Soil Permeability testing

Bioretention Soils shall be analyzed by an accredited geotechnical lab for the following tests:

- (i) Moisture – density relationships (compaction tests) shall be conducted on bioretention soil. Bioretention soil for the permeability test shall be compacted to 85 to 90 percent of the maximum dry density (ASTM D1557).
- (ii) Constant head permeability testing in accordance with ASTM D2434 shall be conducted on a minimum of two samples with a 6-inch mold and vacuum saturation.

MULCH FOR BIORETENTION FACILITIES

Mulch is recommended for the purpose of retaining moisture, preventing erosion and minimizing weed growth. Projects subject to the State’s Model Water Efficiency Landscaping Ordinance (or comparable local ordinance) will be required to provide at least two inches of mulch. Aged mulch, also called compost mulch, reduces the ability of weeds to establish, keeps soil moist, and replenishes soil nutrients. Aged mulch can be obtained through soil suppliers or directly from commercial recycling yards. It is recommended to apply 1" to 2" of composted mulch, once a Year, preferably in June following weeding.

The following vendors are listed by the regional Clean Water Program as offering biotreatment soil mixes compliant with the required NPDES Attachment L specifications:

- a. American Soil Products, www.americansoil.com, 510-292-3000
- b. L.H. Voss, www.lhvoss.com, 925-676-7910
- c. Lehigh Hanson Aggregates, 510-246-0393
- d. Lyngso Garden Materials, www.lyngsogarden.com/, 650-333-1044
- e. Marshall Brothers Enterprises, 925-449-4020
- f. Pleasanton Trucking, www.pleasantontrucking.com, 925-449-5400
- g. Redi-Gro, www.redi-gro.com/, 800-654-4358
- h. TMT Enterprises, www.tmtenterprises.net, 408-432-9040

MEASUREMENT. The quantity for "Bioretention Soil" measured per Ton by actual field measure. The contractor shall obtain Biotreatment Soil Mix Attachment L compliance documentation (see page 361), including the following: "Obtain verification documentation, including delivery volume receipts and soil lab analysis results, from the supplier of all loads of the biotreatment soil mix, indicating the amounts delivered and the quality of the soil mix is compliant with the Attachment L specifications, for review by the project manager and City Public Works Department."

PAYMENT

The contract price paid per ton of Bioretention Soil (**Bid Item #145**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.42 CLASS II AB, PERMEABLE

The Contractor shall excavate to the required depth to install permeable aggregate base in the area shown in the Plans to receive the permeable concrete pavement, the segmental block walls, and the bioretention area. When approved by the District Representative, the Contractor shall provide and place an approved geotextile fabric as noted in Section 88-1.02D, "Geotechnical Subsurface Reinforcement" of the Standard Specifications and of these Special Provisions. A standard 1" of choker course consisting of No. 58 rock gradation shall be placed between the pavement layer and the permeable material.

Class 2 permeable material shall be placed where shown on the Plans and shall follow Section 68-2.02F, "Permeable Material" of the Standard Specifications. The percentage composition by weight of Class 2 permeable material in place must comply with the grading requirements shown in the following table:

Gradation: Cumulative Percent Passing	
Sieve Sizes	Percentage Passing
<u>Inches</u>	<u>Type A</u>
2	-
1-1/2	-
1	100
3/4	90-100
3/8	40-100
#4	25-40
#8	18-33
#30	5-15
#50	0-7
#200	0-3

MEASUREMENT. The quantity for "Class II AB, Permeable" measured per Ton by actual field measure.

PAYMENT. The contract price paid per ton of Class II AB, permeable (**Bid Item #146**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.43 RETAINING CURB

Concrete structure work shall conform to the provisions of Section 51, "Concrete Structures," of the Standard Specifications and these Special Provisions.

Work shall include, but not be limited to, all layout, surveying, structure excavation, forming, reinforcement, concrete, and backfill to construct the reinforced concrete retaining wall stem as shown on the Plans and as directed by the Engineer.

Steel reinforcement shall conform to the requirements of Section 52, "Reinforcement," in the Standard Specifications and these Special Provisions.

Concrete shall conform to Section 90, "Portland Cement Concrete," of the Standard Specifications and these

Special Provisions. The concrete shall have a minimum 28 day compressive strength of at least 3000 PSI.

The Contractor shall be responsible for installing and removing form work as necessary to install the walls.

MEASUREMENT. The quantity for "RETAINING CURB" measured per linear foot by actual field measurement.

PAYMENT

The contract price paid per lineal foot Retaining Curb (**Bid Items #158, 176**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in installing the retaining curb, including excavation, disposal of unsuitable materials, installing and removing form boards, and placing reinforcement, as shown in the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

10.44 MINOR CONCRETE

Minor Concrete shall conform to the provisions of Sections 51-7 and 90-2, Section 73, "Concrete Curbs and Sidewalks," Section 52, "Reinforcement," and applicable portions of these Special Provisions. Removing existing concrete shall conform to Section 15-3, "Concrete Removal" of the Standard Specifications.

Concrete General

Minor concrete structures shall include construction and/or modification of curbs, gutters, ramps, sidewalks, and walls as shown on the Plans. Structure excavation and structure backfill incidental to minor concrete work shall be included in the price paid for minor concrete.

All standard concrete shall have 463 pounds of Type II cement (Five (5) sacks) per Caltrans Standard Specifications Section 73. All concrete shall have 2 pounds of Davis Black #8084 (or equivalent) added to the mix, during mixing, for every cubic yard of concrete to match existing concrete color. Additional cement is permitted to obtain high early strength in concrete except that total cement shall not exceed 700 pounds of cement per cubic yard unless otherwise approved by the City Engineer.

In lieu of the provisions in Section 73-1.03C, "Fixed Form", of the Standard Specifications, surfaced lumber of nominal dimension may be used for forming the back of the curb and gutter and the front face of the gutter, provided the complete curb and gutter are constructed to the full concrete dimensions shown on the plan.

All edges of concrete shall be edged with a cement edger of the size 2-3/4" in width with a 3/16" radius. All joints or grooves that are indicated on the plans or required by the Engineer shall be marked with cement grooves or jointers 4" in width and having a groove 3/8" wide at the top and a depth of 1/4" to 1/2".

All concrete shall receive a light broom finish unless otherwise specified.

New work adjacent to existing shall match the existing as closely as possible, except where shown on the Plans.

A power driven pavement saw shall be used to cut existing Portland cement concrete sidewalk, curb and gutter where it is necessary to remove the concrete. The depth of the cut shall be a minimum of 1-1/2" and straight; and, if two cuts are made, they shall be parallel. The cut shall be deep enough to permit complete

breakage of the concrete without ragged edges. Sawcut debris is not permitted to enter the storm drain system and shall be vacuumed up by the contractor.

Any damage caused by the Contractor to existing improvements shall be repaired or replaced by the Contractor at his expense.

Concrete shall be cured in accordance with applicable provisions of Section 90-2 of the Standard Specifications. Minor concrete that will be exposed to vehicular traffic shall be protected from bearing the traffic load for a minimum of seven (7) days after placement, unless stated otherwise herein. Traffic plates shall be of sufficient thickness so as not to deflect to or in any way mar the protected concrete.

Curing compound shall be used on all minor concrete surfaces. Application of curing compound shall be made in accordance with Section 90-1.03B(3), "Curing Compound Method," of the Standard Specifications. The quality and quantity to be used shall be approved by the Engineer. The liquid compound shall contain a coloring matter which does not permanently alter the natural color of the concrete, but which will color sufficiently at the time of application to indicate readily the areas covered. The use of any membrane material that would impart a slippery surface to the concrete shall not be permitted. The liquid shall be applied under pressure with a spray nozzle at the rate recommended by the manufacturer, unless otherwise directed by the Engineer, and in such manner as to cover the surface thoroughly. Care shall be exercised to avoid damage to the seal before the expiration of the curing period. Seal damage shall be immediately repaired by the application of additional membrane material over the damaged portion.

CURB AND GUTTER

Curb and Gutter shall apply to bid items for Type "A" and Modified Type "A" curb and gutter and Type "E" sidewalk backing curb. Where new curb and gutter construction conforms to existing curb and gutter, a minimum of three (3) reinforcing bars, No. 3 or No. 4, twelve inches in length, shall be embedded into the existing curb and gutter by means of drilling a hole, inserting the reinforcing bar, and filling the hole with epoxy grout. These bars shall be embedded six inches with the remainder of the bar in the new concrete.

Transverse weakened plane and expansion joints for curb and gutter shall be placed in accordance with Section 73 of the Standard Specifications. Weakened plane joints shall be in 16' intervals and expansion joints shall be 48' on centers.

Contractor shall saw cut and remove one (1) foot of existing asphalt concrete to a minimum depth of six (6) inches in front of the lip of gutter, unless otherwise directed by the engineer. Once the concrete has cured, the contractor shall plug and compact the one (1) foot wide trench with six (6) inches of hot mix asphalt concrete. See Section 10.25 "Asphalt Concrete Pavement" for additional information and method of payment.

The edges of the curb and gutter shall be rounded with an edging tool. Weakened plane joints shall be placed in a true straight line which shall be at right angles or radial to the curb line, and at right angles to the surface of the concrete. Weakened planes for curb and gutter shall not exceed one-eighth inch (1/8") in width and shall be formed by means of an approved weakened plane scoring tool, or a steel bar inserted into the surface to form the weakened plane and removed; or by means of approved strips of forming material which may be left in place. When the forming material is left in place, the top edge shall be slightly below the surface of the concrete. After the surface has been finished, the joint shall be edged with an edging tool having a one-eighth inch (1/8") radius.

New work adjacent to existing shall match the existing as closely as possible, except where shown on the

Plans. The Contractor shall perform a water test on gutters upon completion of gutter construction. The test must be performed in the presence of the inspector and must demonstrate to the Engineer's satisfaction that positive drainage through the gutter will be achieved with the gutter as constructed. If required by the Engineer, the Contractor shall replace any unsatisfactory curb and gutter and replace said at no additional cost. Curb and Gutter adjacent to curb ramps shall be measured and paid by the linear foot.

Concrete Curb and Gutter and Type E Curb shall be poured separately from Concrete Sidewalk at all locations.

As shown in the Plans, the curb portion of the curb and gutter is broken to allow for drainage under the wooden sidewalk. The unit price paid for the curb and gutter is the same, whether or not the curb is 0 inches or 6 inches.

SIDEWALK

In the locations as shown in the Plans, the Contractor shall install a sidewalk with a thickened edge. In the locations of the thickened edge, the Contractor shall furnish and install a sidewalk guide curb at the back of walk to accommodate accessibility requirements. The guide curb shall be fabricated from a 4x4 full sawn redwood timber. The redwood shall be reclaimed and have no sealer applied. The Contractor shall adhere the guide curb to the sidewalk using galvanized wedge anchors and bolts.

CURB RAMPS

Curb Ramps shall comply with Caltrans Standard Plans A88A, A88B, A90 and details shown on the Plans, but may be modified by the Engineer to fit field conditions.

The time limit for having a demolished ramp shall not exceed 5 working days.

Curb Ramps shall include all construction details of each respective type of ramp to be installed as specified on the Plans. **Forms and finished slopes on new curb ramps will be checked in the field by the resident engineer using a 2-foot level.** Contractor shall allow Resident Engineer twenty-four (24) hours to check curb ramp forms. Construction details include the installation of joints, grooves, if necessary, adjustment of utility boxes to new grade, relocation of street/traffic signs, conforming work with existing private improvements and any modifications to fit field conditions as directed by the Engineer.

The Contractor shall place a cast in place detectable warning surface that shall be concrete and NOT plastic. The warning surface shall be yellow in color, federal number 33538. The surface shall achieve slip resistance as defined in the California Building Code current edition including a $Fa=0.86$ in accordance with ASTM C1028. Detectable Warning Surface by Stepstone, Inc. are an example of an acceptable product. The Contractor shall guarantee in writing the warning surface for a period of five years from date of completion. The guarantee includes defective work, breakage, deformation, and loosening of tiles.

Contractor shall saw cut and remove a minimum of one (1) foot of existing asphalt concrete to a minimum depth of six (6) inches in front of the lip of gutter, unless otherwise directed by the engineer. Once the concrete has cured, the contractor shall plug and compact the one (1) foot trench with twelve (12) inches of hot mix asphalt concrete.

Class 2 aggregate base shall be used as needed by the Contractor to obtain grades for ADA ramp installation. Class 2 aggregate base shall be installed at 95% relative compaction. Compensation for Class 2 aggregate base material, labor and equipment shall be paid in "Class 2 Aggregate Base" per ton of material used.

CONCRETE PAVING (PLAZAS)

Concrete paving shall be as specified in Concrete General of these specifications and as detailed on the Plans. Contractor to provide two 4-foot x 4-foot field mock-ups for review and approval of finish, with three variations of medium broom finish.

MEASUREMENT. The quantity for "Concrete Paving (Plazas)" will be measured on a square foot basis.

CONCRETE BAND

Installation of concrete band shall comply with Concrete General and the detail shown on the Plans.

MEASUREMENT. The quantity for "Concrete Band" will be measured on a linear foot basis.

MOUNTABLE TRUCK APRON

Installation of mountable curb apron shall comply with Concrete General and the detail shown on the Plans.

PAYMENT

"Accessible Ramps", "Pedestrian Curb Ramps", "Bicycle Curb Ramp", and "Truncated Domes" (**Bid Items #2, 43, 45, 107, 109, 177, 178, 186**) shall be paid per square foot and includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in preparing the subgrade, disposal of unsuitable materials, furnishing and compacting the aggregate base, doweling into the existing concrete, as well as furnishing, placing and finishing concrete, placing curing compound, and landscape/hardscape replacement as shown as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

"Concrete Curb and Gutter", "Concrete Curb", "6" Concrete Curb", and "Retaining Curb" (**Bid Items #6, 46, 110, 156, 179, 180**), shall be paid per linear foot and includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in preparing the subgrade, disposal of unsuitable materials, furnishing and compacting the aggregate base, doweling into the existing concrete, as well as furnishing, placing and finishing concrete, placing curing compound, and landscape/hardscape replacement as shown as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

"Main Street Driveway" and "Commercial Driveway" (**Bid Items #47, 182**) shall be paid per square foot and includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in preparing the subgrade, disposal of unsuitable materials, furnishing and compacting the aggregate base, doweling into the existing concrete, as well as furnishing, placing and finishing concrete, placing curing compound, and landscape/hardscape replacement as shown as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

"2" by 4' CDF Cap (installed adjacent to travel way)" (**Bid Items #44, 108**) shall be paid per cubic yards and includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in preparing the subgrade, disposal of unsuitable materials, furnishing and compacting the aggregate base, doweling into the existing concrete, as well as furnishing, placing and finishing concrete, placing curing compound, and landscape/hardscape replacement as shown as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

"New Concrete Sidewalk", "Concrete Median (Roadway Median)", "4" Concrete at Intersections & Access Paths" and "Concrete Paving (Plazas)" (**Bid Items #39, 40, 103, 104, 174, 175**) shall be paid per square foot and includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in preparing the subgrade, disposal of unsuitable materials, furnishing and compacting the aggregate base, doweling into the existing concrete, as well as furnishing, placing and finishing concrete, placing curing compound, asphalt plugs, and landscape/hardscape replacement as shown as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

The contract lineal foot price paid "Concrete Band" (**Bid Item #56, 125**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing the "Concrete Band", complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

The contract square foot price paid "Mountable Truck Apron" (**Bid Item #181**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing the "Concrete Band", complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

Full compensation for furnishing and installing dowels and epoxy required for the concrete construction shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

Full compensation for applying curing compound to all exposed faces of the concrete surface shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

Full compensation to procure, deliver, place, spread, and compact imported topsoil material shall be considered as included in the contract prices for the various contract items of work involved, and no additional compensation shall be allowed therefor.

Full compensation for sawcutting and pave back for the concrete construction shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

10.45 CLASS 2 RECYCLED AGGREGATE BASE

Class 2 Recycled Aggregate Base shall be in accordance with Section 26-1.02A of the Standard Specifications for 3/4-inch maximum gradation and compaction shall conform to Section 26-1.03D of the Standard Specifications and these Special Provisions.

This work shall consist of furnishing imported material and placing as indicated on the plans.

The Class 2 Recycled Aggregate Base material shall be graded, watered, and compacted to 95 percent relative density.

PAYMENT

The contract price per ton paid for "Class II Recycled Aggregate Base- 8" Bike & Jog, 4" Walking", and "Aggregate Base Service Road for MH Access" (**Bid Item #35, 42, 99, 106**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work complete in

place, as shown in the Plans, as specified in the Standard Specifications, Special Provisions, and as directed by the City Representative.

If the total quantity of Class II Recycled Aggregate Base exceeds the bid quantity by more than 25%, the Contractor will be paid for all the Aggregate Base using the bid unit price, and no adjustment will be made to the unit price as bid.

10.46 ASPHALT CONCRETE PAVEMENT

Asphalt Concrete shall be Type A. The aggregate for asphalt concrete shall conform to the grading specified for 1/2-inch maximum size aggregate, medium grading. Asphalt concrete shall be produced at an established commercial mixing plant. Asphalt pavement shall only be placed after all of the concrete work (curb, gutter, sidewalk, driveways, and ramps) is completed, all as shown on the plans, described in these Special Provisions, and as directed by the City Representative. Asphalt binder shall be PG 64-10 conforming to the provisions in Section 92, "Asphalts," of the Standard Specifications. No recycled or reclaimed aggregate shall be used in the asphalt concrete mix design.

SUBMITTALS

The Contractor shall submit a current (less than one year old) asphalt concrete mix design from two separate sources (primary source and backup source) for asphalt concrete proposed to be used. The asphalt concrete mix design shall have an air void ratio between 3% and 5%. Contractor shall allow ten (10) calendar days for City Representative's review of mix design.

The asphalt content of the asphalt mixture will be determined in conformance with the requirements in California Test 379, or in conformance with the requirements in California Test 382.

The Contractor will be required to furnish a minimum of two 8 Ton rollers for each asphalt paver. Asphalt concrete shall be compacted to a minimum relative compaction of 95% as determined by Caltrans Test Method 375. In-place density of asphalt concrete will be determined prior to opening the pavement to public traffic.

If the test results for any lot of asphalt concrete indicate that the relative compaction is below 95.0 percent, but above 93.9 percent, the Contractor will be advised that he is not attaining the required relative compaction and that his materials or his procedures, or both, need adjustment. Asphalt concrete spreading operations shall not continue until the Contractor has notified the City Representative of the adjustment that will be made in order to meet the required compaction.

If the test results for any lot of asphalt concrete indicate that the relative compaction is less than 94.0 percent, the asphalt concrete represented by that lot shall be removed. Asphalt concrete spreading operations shall not continue until the Contractor makes significant adjustments to his materials or procedures, or both, in order to meet the required compaction. The adjustments shall be agreed to by the City Representative.

No single compaction test shall represent more than 250 ton or one day's production, whichever is smaller.

All items of work previously installed that may be affected by the removal of asphalt concrete pavement due to failure in compaction, as described above, shall be replaced by the Contractor to the satisfaction of the City Representative, at no extra cost to the City Representative.

The Contractor shall schedule his/her paving operations such that each layer of asphalt concrete is placed on the entire trail traveled way within each phase of construction and within each work shift.

Additional asphalt concrete surfacing material shall be placed along the edge of the surfacing at conform areas, hand raked, if necessary, and compacted to form smooth tapered conforms. Full compensation for furnishing all labor and tools and doing all the work necessary to hand rake said conforms shall be considered as included in the contract prices paid per ton for Asphalt Concrete.

If the finished surface of the asphalt concrete does not meet the specified surface tolerances, the surfacing shall be brought within tolerance by either (1) abrasive grinding (with fog seal coat on the areas which have been ground), (2) removal and replacement or (3) placing an overlay of asphalt concrete. The method will be selected by the City Representative. The corrective work shall be at the Contractor's expense.

If abrasive grinding is used to bring the finished surface to the specified surface tolerances, additional grinding shall be performed, as necessary, to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel to, the nearest lane or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within any ground area. Ground areas shall be neat rectangular areas of uniform surface appearance. Abrasive grinding shall conform to the provisions in the first paragraph and the last 4 paragraphs in Section 42-2.03, "Construction," of the Standard Specifications.

In addition to the provisions in Section 37-3.03C, "Mixing and Spreading Equipment," of the Standard Specifications, asphalt paving equipment shall be equipped with automatic screed controls and a sending device or devices.

Spreading by blading equipment consisting of motor graders will not be permitted.

When placing asphalt concrete to the lines and grades established, the automatic controls shall control the longitudinal grade and transverse slope to the screed. Grade and slope references shall be furnished, installed and maintained by the Contractor. Should the Contractor elect to use a ski device, the minimum length of the ski device shall be 30 feet. The ski device shall be a rigid one piece unit and the entire length shall be utilized in activating the sensor.

Should the methods and equipment furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the provisions, including straightedge tolerance, of Section 39-6.03, "Compacting," of the Standard Specifications, the paving operations shall be discontinued and the Contractor shall modify the equipment or methods, or furnish substitute equipment.

Should the automatic screed controls fail to operate properly during a day's work, the Contractor may manually control the spreading equipment for the remainder of that day. However, the equipment shall be corrected or replaced with alternative automatically controlled equipment conforming to the provisions in this section before starting another day's work.

Liquid asphalt for use as a prime coat shall be Grade SC-70 unless otherwise directed by the City Representative.

The quantity of liquid asphalt will not be measured or paid for as a separate item.

Water furnished and applied to tacky asphaltic emulsion and for mixing-type asphaltic emulsion will not be paid for and full compensation therefore will be considered as included in the contract price paid for asphalt concrete.

In areas where new asphalt concrete pavement is adjacent to new concrete flatwork the final lift of asphalt concrete shall not be placed until all concrete curb, gutter and sidewalk improvements and paving has been completed on the entire project.

PAYMENT

The price paid per ton of "AC Pavement Overlay", "Walking Path- 2" Asphalt", "3" Asphalt a Intersections", "Bicycle Path- 3" Asphalt", "Replace AC Road Section", and "4" Asphalt" (**Bid Items #5, 36, 38, 41, 100, 102, 105, 173**) shall be paid for in tons and considered full compensation for furnishing all labor, materials and equipment necessary to complete the work as shown on the Plans and specified herein.

"AC Pavement Grind" (**Bid Items #4**) shall be paid per square foot and includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in preparing the subgrade, disposal of unsuitable materials, furnishing and compacting the aggregate base, doweling into the existing concrete, as well as furnishing, placing and finishing concrete, placing curing compound, asphalt plugs, and landscape/hardscape replacement as shown as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

Full compensation for sawcutting and pave back for the concrete construction shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

No adjustment in the contract unit price for Asphalt Concrete Resurfacing shall be made for increases or decreases of more than 25 percent of the quantities set forth in the Schedule of Bid Prices.

10.47 DECOMPOSED GRANITE

Decomposed Granite paving shall meet US Department of Transportation/Federal Highway Administration Standard rating for surface firmness of 0.3 inches or less and surface stability of 0.5 inches or less as measured by a rotational penetrometer. Contractor shall submit one-half cubic foot sample of each material for approval by Engineer prior to delivery of material to site.

Decomposed Granite shall be gold path fines a ¼" to dust granite; free of shale, clay, friable materials and debris; Material must be from a quarry in California. Material must meet the sieve test below:

Sieve Size	Sieve No.	% Passing
9.5 mm	3/8 "	100.0%
4.76 mm	#4	93.9%
2.368 mm	#8	66.5%
1.190 mm	#16	41.0%
0.595 mm	#30	23.7%
0.297 mm	#50	11.8%
0.149 mm	#100	4.4%
0.074 mm	#200	1.5%

Installation: Spread material over prepared base to a total compacted thickness as shown on the Drawings. Scarify surface prior to placement of layers to provide a bond between the layers. Place Decomposed Granite in two layers of equal depth and compact by poser rollers to 90 percent optimum moisture content in accordance with ASTM D1557. Level surfaces to elevation and gradients as indicated. Prior to acceptance, contractor shall fill in uneven areas and ruts, and re-compact to the satisfaction of the Engineer.

PAYMENT

The contract price paid per ton for "Jogging Path- 4" Decomposed Granite" (**Bid Item #37, 101**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.48 PAVEMENT STRIPING AND MARKINGS

Traffic Stripes (traffic lines), Stencils, Signs shall conform to the Provisions in Sections 84-1, "General," and 84-2, "Thermoplastic Traffic Stripes and Pavement Markings," of the Standard Specifications and these Special Provisions.

All Traffic Stripes and Pavement Markings shall be extruded thermoplastic in accordance with the State Department of Transportation Standard Plans and Standard Specifications Section 84.

Details and dimensions of Traffic Stripes and Pavement Markings shall be in accordance with the State Department of Transportation Standard Plans.

THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)

Sprayable thermoplastic traffic stripes (traffic lines) shall be applied in conformance with the provisions in Section 84, "Traffic Stripes and Pavement Markings," of the Standard Specifications and these Special Provisions.

Sprayable thermoplastic material shall be free of lead and chromium, and shall conform to the requirements in State Specification No. PTH-02SPRAY.

Retroreflectivity of the sprayable traffic stripes shall conform to the requirements in ASTM Designation: D 6359-99. White sprayable thermoplastic traffic stripes shall have a minimum initial retroreflectivity of 250 mcd m-2lx-1. Yellow sprayable thermoplastic traffic stripes shall have a minimum initial retroreflectivity of 150 mcd m-2lx-1

At the option of the Contractor, permanent traffic striping and pavement marking tape conforming to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these Special Provisions may be placed instead of the sprayable thermoplastic traffic stripes. Permanent tape, if used, shall be installed in conformance with the manufacturer's specifications.

Where striping joins existing striping, as shown on the plans, the Contractor shall begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern.

Sprayable thermoplastic material shall be applied to the pavement at a temperature between 351°F and

401°F, unless a different temperature is recommended by the manufacturer.

Sprayable thermoplastic traffic stripes shall be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

If permanent tape is placed instead of sprayable thermoplastic traffic stripes, the tape will be measured and paid for by the linear foot as thermoplastic traffic stripe (sprayable).

Sprayable thermoplastic traffic stripes will be measured by the linear foot along the line of the traffic stripes, without deductions for gaps in broken traffic stripes.

THERMOPLASTIC TRAFFIC MARKINGS

Thermoplastic pavement markings shall be applied in conformance with the provisions in Section 84, "Traffic Stripes and Pavement Markings," of the Standard Specifications and these Special Provisions.

Thermoplastic material shall be free of lead and chromium, and shall conform to the requirements in State Specification PTH-02ALKYD.

Retroreflectivity of the thermoplastic and pavement markings shall conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic pavement markings shall have a minimum initial retroreflectivity of 250 mcd m-2lx-1.

When thermoplastic marking is applied within a crosswalk or a bike lane, the following composition shall be used with a maximum thickness of 0.12 inches (3.0 mm):

Binder	20% (18% min)
Glass Beads	20% (15% min)
Pigment	10% (7% min)
Filler	35% (37% max)
Cullet	15 % (10% min)

GREEN THERMOPLASTIC PAVEMENT MARKINGS

Light Green colored non-skid thermoplastic pavement marking (Striping Legend and Signage and Striping Plan on plans) shall be PreMark ViziGrip, or approved equal.

Existing pavement surface shall be prepared and thermoplastic shall be installed per the manufacturers' specifications.

GENERAL

Prior to the placement of any traffic striping or markings, the Contractor shall layout cat- tracks for the pavement striping or marking work three (3) working days prior to the anticipated time of performing the striping or marking work and contact the City inspector for inspection and approval of the cat-tracking. The City shall review, modify as necessary, and approve the cat-tracking prior to the Contractor proceeding with the striping or marking. The Contractor may not proceed with the striping or marking work until the cat-tracks have been approved by the Engineer. The Contractor shall post temporary "No Parking" signs and provide other traffic control measures as per approved the traffic control plan and Sections 7-1.17 and 10-

1.01, "PUBLIC CONVENIENCE AND SAFETY" of these Specifications.

Any work done without proper inspection and approval will be subject to rejection. In the case of rejection, the Contractor shall remove the rejected work, and the striping or marking work shall be reinstalled in accordance with these requirements and based on the direction of the Engineer. The City will not compensate the Contractor for any work associated with replacing traffic striping or marking to the satisfaction of the Engineer, including but not limited to: the full removal of the rejected traffic striping or marking work; the installation of new striping or marking, including blacking out any of the removed and rejected striping or marking; and the re-posting of temporary "No Parking" signs in accordance with the provisions of the Sections 7- 1.17 and 10-1.01, "PUBLIC CONVENIENCE AND SAFETY" of these Specifications. All of these costs shall be borne by the Contractor.

Thermoplastic pavement markings shall be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

All additional work necessary to establish satisfactory layout work required for pavement markings shall be performed by the Contractor at his expense, including correction to minor irregularities in the line established by the Engineer. Correction of minor irregularities shall be accomplished by the application of cat tracks or dribble lines, the use of laser guidance devices, or by a combination of these techniques.

Pavement striping and markings shall be applied only on dry surfaces and only during periods of favorable weather. Thermoplastic materials shall not be performed when the atmospheric temperature is below 50°F; when freshly thermoplastic surfaces may become damaged by rain, fog, or condensation; nor when it can be anticipated that the atmospheric temperature will drop below 50°F during the drying period.

Glass beads shall be applied to thermoplastic stripes and markings in accordance with the Standard Specifications.

Nothing in these Special Provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.04, "Public Safety," of the Standard Specifications.

PAYMENT

The contract unit price paid per linear foot for "Install Parking Striping (4")", "Striping: 12" Solid White Line", "Striping: 4" Solid Yellow", "Striping: 4" Broken Yellow", "Striping: 4" Broken White", "Striping: 6" Dotted White", 3' Crosswalk Marking, 6" Solid White, "Striping: 4" Solid White", "Striping: 24" Solid White Line" (**Bid Items#7, 48, 49, 50, 51, 111, 112, 113, 114, 115, 116, 187, 188, 189, 190, 191**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in furnishing and installation of the pavement striping complete in place, as shown on the plans, as specified and as directed by the Engineer.

The contract price per each for "Pavement Markings" (**Bid Item #52, 117, 192**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in furnishing and installation of the pavement markings complete in place, as shown on the plans, as specified and as directed by the Engineer. The price paid shall be the same regardless of the size of the symbol.

The contract price per each for "Non-Reflective Markers" (**Bid Item #193**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in furnishing

and installation of the pavement markings complete in place, as shown on the plans, as specified and as directed by the Engineer. The price paid shall be the same regardless of the size of the symbol.

The square foot price paid for "Green Thermoplastic Pavement Marking" (**Bid Item #119, 194**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in furnishing and installation of the pavement markings complete in place, as shown on the plans, as specified and as directed by the Engineer.

10.49 SURFACE APPLIED DETECTABLE DIRECTIONAL BAR TILE

Detectable Warning Surface shall be installed as shown on plans per manufacturer's recommendations.

Provide surface applied bar tiles that are in compliance with the Americans with Disabilities act (Title III Regulations, 28 CFR Part 36 ADA Standards for Accessible Design, Appendix A, Section 4.29.2 Detectable Warnings on Walking Streets).

The Bar tiles should also comply with the California Code of Regulations (CCR): Provide only approved DSAAC Detectable warning products as provided in CCR Title 24, part 2 Section 205 definition of "Detectable Warning" section 1117A.4 and 1127B.5 for "Curb Ramps" and Section 11338.5 for "Detectable Warnings at Hazardous Vehicular Areas"

Product Data:

Product Data: Vitriified Polymer Composite (VPC) Surface Applied Detectable Directional Bar tiles shall meet or exceed the following test criteria:

Test Reference	Test Description	Value
AASHTO-HS 20	Wheel Load Tests	No Failure
ASTM D 695	Compressive Strength	≥ 25,000 psi
ASTM D 790	Flexural Strength	≥ 30,000 psi
ASTM D 638	Tensile Strength	≥ 12,500 psi
ASTM D 696	Coefficient of Thermal Expansion	1.29 x 10 ⁻⁵ /°F
ASTM C 1028	Static Coefficient of Friction	≥ 0.80
ASTM E 84	Flame Spread Index	≤ 25
ASTM D 570	Water Absorption	≤ 0.05%

ASTM C 501	Abrasive Wear Index Iw	≥ 500
ASTM B 117	Salt Spray (300 hrs)	No Failure
ASTM D 1037	Accelerated Aging Cycle Testing	No Failure
ASTM D 543	Chemical Resistance	No Failure
ASTM G 155	Accelerated Weathering	ΔE ≤ 4.5

Color:

Color shall be homogeneous throughout the tile.

Color	Federal Color No.
Federal Yellow	33538
Light Gray	26280
Dark Gray	36118
Onyx Black	17038
Pearl White	37835
Brick Red	22144
Ocean Blue	15817
Ochre Yellow	23594
Colonial Red (Brown)	20109

The square foot price paid for "6" Detectable Warning Strip" (**Bid Item #185**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in furnishing and installation of the pavement markings complete in place, as shown on the plans, as specified and as directed by the Engineer.

10.50 INTERSECTION IMPROVEMENTS

TRAFFIC SIGNAL SYSTEMS

The material furnished for Traffic Signal System shall conform to the provisions of Division X, "Electrical Work" of the **2015 edition of the California Department of Transportation (Caltrans) Standard Specifications**, Standard Plans, and these Special provisions.

Schedule shall conform to the provisions in Section 86 1.01C, "Submittals," of the Standard Specifications and these special provisions.

The Engineer shall be furnished a schedule of values for each contract lump sum item of work described in this Section.

District to determine number of days required for cost break down submittal. Use 15 days unless otherwise specified.

The schedule of values shall be submitted to the Engineer for approval within 15 days after the contract has been approved. The schedule of values shall be approved, in writing, by the Engineer before any partial payment for the items of electrical work will be made.

Traffic signal modification work shall be performed at the following locations:

1. Third Street and Ralph Appezzato Memorial Parkway (RAMP)
2. Poggi Street and RAMP
3. Fifth Street and RAMP

4. Webster Street and Atlantic Avenue
5. Atlantic Avenue and Constitution Way
6. Rectangular Rapid Flashing Beacon (RRFB) System (Atlantic Ave)

MAINTAINING EXISTING AND TEMPORARY ELECTRICAL SYSTEMS

Traffic signal system shutdowns shall be limited to periods between the hours of 9:00 a.m. and 4:00 p.m. Turn on of traffic signals are only allowed after all the detectors are functionally tested and operational, signal flashed out, communications functional, striping and signing modified or installed matching the signal intended phasing operation. The detector shall not be placed on detector recall to simulate fixed timing. The signal shall only be turned on or switched over Monday through Friday on a non-holiday work week between the hours of 9:00 a.m. and noon allowing ample time for any issues to arise.

Use when lane closures are specified under "Maintaining Traffic."

Traffic signal system shutdowns shall be limited to periods allowed for lane closures listed or specified in "Maintaining Traffic" of these special provisions.

CAST-IN-DRILLED-HOLE CONCRETE FOUNDATIONS

General

This work includes constructing cast-in-drilled-hole concrete pile foundations for traffic signal and lighting standards. Comply with Section 87-1.03E(3), "Concrete Pads, Foundations, and Pedestals" of the Standard Specifications.

Materials

Concrete must contain not less than 590 pounds of cementitious material per cubic yard.

Construction

For standards located in sidewalk areas, the pile foundation must be:

1. Placed to final sidewalk grade before the sidewalk is placed
2. Square for the top 4 inches

STANDARDS, STEEL PEDESTALS, AND POSTS

Standards, steel pedestals, and posts for traffic signal and lighting standards shall conform to the provisions in Section 86-1.02J, "Standards, Poles, Pedestals, and Posts," of the Standard Specifications, "Steel Structures" of these special provisions, and the following requirements.

Steel bolts not designated on the plans as high strength (HS) or stainless steel shall be for general applications and shall conform to the requirements in ASTM Designation: A 307.

Where the plans refer to the side tenon detail at the end of the signal mast arm, the applicable tip tenon detail may be substituted.

The sign mounting hardware shall be installed at the locations shown on the plans. See Caltrans Standard Plan ES-70 for sign mounting details.

Pedestrian Push Button post shall be modified 4-foot1-B post with removable raintight cap at the top to accommodate Audible Pedestrian Signal. See plans for details.

Paint all standards, steel pedestals, and posts "green". Request "green" paint color code from the City.

CONDUIT

Conduit shall conform to the provisions in Section 86-1.02B, "Conduit and Accessories," of the Standard Specifications and these Special Provisions.

Conduit installation shall be performed by trenching across traveled ways.

Repaired roadway to conform to existing asphalt concrete material.

The grade of asphalt binder mixed with aggregate for HMA shall be PG 64-16.

All aggregate for HMA shall comply with the 1/2 - inch grading.

Non-metallic type, Schedule 40 conduit shall be used unless otherwise noted.

After pull boxes have been installed, the ends of conduits terminating in pull boxes shall be sealed with an approved type of sealing compound.

Underground conduit without conductors to be incorporated into a new system shall be cleaned with a mandrel or cylindrical wire brush and blown out with compressed air prior to pulling string.

Deviations from these specifications shall be requested from the City Engineer in writing.

Conduit shall be laid to a depth of not less than 18" below grade in concrete sidewalk areas and curbed paved median areas, and 30" below finished grade in all other areas.

Street Patching: Existing pavement that is removed by the Contractor during construction shall be replaced by compacting the subgrade and constructing a four-inch (4") asphaltic concrete pavement surface course on an 18" minimum thickness aggregate base(Class II) in all trenches in the street area. The work shall conform to the Engineer's Drawing No. 2930, Case 22, and the following requirements:

1. Asphaltic concrete surfacing shall be Type A, one-half inch (1/2") maximum aggregate size asphalt concrete and shall conform to the applicable requirements of Section 39 and 92 of the Standard Specifications. Paving asphalt of the performance grade PG64-10 shall be used unless otherwise permitted by the Engineer. A tack coat of SS-1 emulsified asphalt shall be applied to the existing ground surface, asphalt and concrete areas prior to replacement of asphalt concrete.
2. Portland cement concrete pavement base shall be Class "II" concrete and shall conform to the applicable requirements of Sections 40 and 90 of the Standard Specifications.

Temporary Patch: It shall be mandatory for the Contractor to maintain a good temporary patch upon all trenches from the time they are backfilled until they are satisfactorily completed. The Engineer will determine whether the temporary patch is satisfactory. In general, the patch shall not be lower than the surrounding pavement and shall be topped with cutback.

Trenching and Backfilling: Trenching and backfilling shall conform to the provisions in Section 87-1.03B(6), "Conduit Installation by the Trenching-In-Pavement Method" of the Standard Specifications, and these Special Provisions. Underground conduit, where subject to vehicular traffic, shall have a minimum depth of thirty inches (30") and shall be constructed according to the City Standard Drawing 2930, Case 22.

All trenches shall be shored where required for safety or to eliminate interference with other work being performed. All trenches shall be excavated with straight walls. Conduits shall be installed with three inches (3") radial clearance. This shall include right-angle crossings as well as parallel installations. Trenches shall not be excavated wider than necessary for the proper installation of the electrical appurtenances and foundations.

Approved local or imported material shall be used for backfill. When material from the excavation is unsuitable for backfill, it shall be disposed of as directed in Section XII, Paragraph C, of these specifications, and suitable material, free from rocks or abrasive materials, and approved by the Engineer, shall be furnished by the Contractor for the backfill. Backfill material shall be placed in horizontal, uniform layers not exceeding six inches (6") in thickness, before compaction, and shall be brought up uniformly on all sides of the structure or facility. Relative compaction shall be ninety-five percent (95%) or more as determined by the impact or field method compaction test.

A continuous plastic marker tape shall be installed above all conduits to show the location of the conduit to prevent damage that might be caused by future excavations in the vicinity of the conduit.

The tape shall be laid in a horizontal plane above the conduit. Under paved areas and sidewalks the tape shall be laid directly on top of the compacted earth subgrade before installation of standard street patch. In unpaved areas the tape shall be laid during the backfilling operation on smooth, compacted backfill eight inches (8") below finished grade surface.

Marker tape shall be polyethylene film, six inches (6") wide, four (4) mils thick, color red, marked with black lettering, which is an integral part of the plastic, with the following words repeated continuously along the tape, "CAUTION" and "BURIED ELECTRICAL LINE BELOW."

PULL BOXES

Pull boxes shall conform to the provisions in Section 86-1.02C, "Pull Boxes," of the Standard Specifications, Plan Number ES-8 of the Standard Plans contained within these Specifications, and to these Special Provisions.

Pull boxes and extensions shall be plastic of the size shown on the plan. Covers shall be plastic labeled "Traffic Signals"

No pull boxes shall be labeled "Caltrans."

Pull boxes and covers located in streets or subject to traffic shall be approved for H-20 traffic loading. Steel or cast iron covers shall be used. Covers shall be inscribed as specified above.

Pull boxes shall not have locking type covers and pull box covers shall not have bolt holes unless noted otherwise. All pull boxes shall have extensions.

Grounding shall be required in all pull boxes.

Recesses for suspension of ballast will not be required.

All pull boxes shall have concrete bottoms.

Where pull boxes are located in unpaved areas, the tops shall be set level approximately two inches (2") above finished grade. Pull boxes located in paved areas shall be set flush with surrounding paved surface. Pull boxes located in wheelchair ramp areas shall be set flush and inclined at a slope in conformance to the existing ramp.

Final exact pull box locations will be determined in the field. The Engineer shall have the right to relocate boxes up to a radius of thirty feet (30') from the position shown on the plans without additional charge.

CONDUCTORS, CABLES, AND WIRING

Conductors and wiring shall conform to the provisions in Section 86-1.02F, "Conductors and Cables," of the State Standard Specifications and these Special Provisions.

Splices shall be insulated by "Method B" as illustrated in Caltrans Standard Detail ES-13A.

Conductors shall be wrapped around projecting end of conduit in pull boxes, as shown on the plans. Cables shall be secured to the projecting end of conduit in pull boxes to prevent pulling of cables without removing the securing device.

The minimum insulation thickness, at any point, for Type USE, RHH or RHW wire shall be 39 mils for conductor sizes No. 14 to No. 10, inclusive, and 51 mils for No. 8 to No. 2, inclusive. The minimum insulation thickness, at any point, for Type THW and TW wires shall be 27 mils for conductor sizes No. 14 to No. 10, inclusive, 40 mils for No. 8, and 54 mils for No. 6 to No. 2, inclusive.

All newly installed conductors shall be labeled, identifications shall be by direct labeling, tags, or bands fastened to the conductors in such a manner that they will be permanent and not move along the conductors. Labeling shall be by mechanical methods. Identification bands shall be constructed from nylon cable tie with 3/8 inch by 3/4 inch label flag. The indelible marking pen shall be one recommended by the manufacturer of the cable tie or it shall be indelible marking pen compatible with the writing on the nylon material approved by the engineer. No other method of labeling will be acceptable. All phase conductors and detector cables shall be labeled by phase designations in the pull box nearest their termination, and in the controller cabinet. Detector cables shall be labeled with phase and loop number. Lighting conductors shall be labeled. Spare conductors do not require any labeling. All conductors shall be neatly coiled, secured, and tie wrapped to the edges or corner of the cabinet. Conductors shall not be draped from one end of the cabinet to the other.

Testing

The Contractor shall perform a high voltage series lighting test consisting of the open circuit voltage of the connected constant current transformer between conductors and ground.

The high voltage test shall not be performed on existing circuits or equipment. Non-testing of existing circuits and equipment shall not relieve the Contractor from the responsibility for malfunctioning of existing lighting circuits due to the Contractor making splices in or connecting to the circuits and such malfunctions shall be corrected at the Contractor's expense.

EMERGENCY VEHICLE PREEMPTION (EVP) AND TRANSIT SIGNAL PRIORITY (TSP) SYSTEM

- A. The EVP and TSP equipment furnished by this project will provide traffic signal priority to transit vehicles and preemption to emergency vehicles by altering the phasing of the traffic signals depending on the phase selection criteria. The EVP and TSP System equipment shall be installed at project intersections, as shown on plans, and shall trigger signal preemption by both optical (infrared) and GPS based detection technologies. All installed equipment shall be by a single manufacturer.
- B. The Contractor is not responsible for furnishing any on-board emitter assemblies to AC Transit as a part of this project. However, the Contractor is required to supply the necessary emitter assemblies units required for testing purposes to demonstrate that the systems perform as specified.

- C. The Contractor is responsible for proper configuration of all TSP hardware and software necessary for the TSP system to operate for its intended purpose.
- D. The Contractor shall conduct the test in the presence of the Engineer as described below under "System Operation" during the signal test period. The Contractor shall give the Engineer a minimum of two working-days' notice prior to performing the tests.
- E. The system shall establish a priority of Class II vehicle (Emergency Vehicle) signals over Class I vehicle (Transit Vehicle) signals, and shall conform to the requirements in Section 25352 of the California Vehicle Code.
- F. Intersection GPS Based Detection\Discriminator Assembly

- 1. General

GPS receiver and antenna shall obtain the intersection position from the GPS satellite system operated by the DoD. The time information from the GPS satellites shall be used to synchronize the frequency hopping of the 2.4 GHz radio and to time stamp the activity log. The GPS receiver and the GPS antenna shall reside inside of the radio/GPS module.

A 2.4 GHz spread spectrum/frequency hopping radio shall provide the communications from the intersection to the vehicle as well as from intersection to intersection. The radio shall have a maximum transmit power of not more than 1 watt. The radio shall have an unobstructed range of at least 2,500 feet (762 m). The radio will meet FCC Part 15 rules. The radio and the radio antenna will reside inside of the radio/GPS module.

The radio/GPS module shall be housed in a white, impact resistant polycarbonate housing that will include a water resistant wire entry point. It will contain a water resistant access cover to facilitate cable termination.

The radio/GPS module shall be mounted on signal poles or mast arms as shown in project plans. Mounting hardware shall be per radio/GPS module manufacturer's recommendations.

The radio/GPS module shall communicate to the phase selector via a radio/GPS cable up to a maximum of 250 feet (76 m) in length.

The radio/GPS module shall have dimensions of no greater than 4.5 inches (11.4 cm) wide by 2.75 inches (7.0 cm) high by 8.0 inches (20.3 cm) long.

- 2. Radio/GPS Cable

The radio/GPS cable will deliver sufficient power from the phase selector to the radio/GPS module and will deliver the necessary quality signal from the radio/GPS module to the phase selector over a maximum distance of 250 feet (76 m). The cable shall not have any intermediate splices. Use of coaxial cable is not permitted for this cable.

The outside diameter of the cable will not exceed 0.4 inches (10.16 mm). The insulation rating of the cable will be 300 volts minimum.

The temperature rating of the detector cable will be -40°F (-40°C) to +194°F (+90°C).

The conductors will be AWG #20 (7x28) stranded and individually tinned. The cable will be shielded and have a drain wire to provide signal integrity and transient protection.

The radio/GPS cable wires shall be color coded as follows:

- a. Yellow/Yellow-Black dot for Radio transmit.
- b. Blue/Blue-White dot for Radio receive.
- c. Orange/Orange-Green dot for Radio clock.
- d. Brown/Brown-White dot for GPS power and common.
- e. Violet/Violet-White dot for Radio power and common.
- f. Bare for shield drain.

When the aluminum enclosure version of the radio/GPS module is used, a radio/GPS cable assembly using the above cable with a 15-pin connector that will mate with the connector on the radio/GPS module will be used.

G. Discriminator Module/ Multimode Phase Selector

The multimode phase selector shall recognize inputs from both existing infrared and Radio/GPS activation methods at the intersection and supply coordinated inputs to the controller.

Each discriminator module shall be designed to be compatible and usable with the following controllers and firmware:

1. Model 2070 controller unit running the D4 software.
2. Model 2070 controller unit running Caltrans' TSCP software.
3. Model 170/E and Model 2070 controllers unit running McCain's software (200SA, 233, 2044).

All discriminator modules shall conform to the requirements of Chapter I of the State of California, Department of Transportation "Traffic Signal Control Equipment Specifications".

Each discriminator module shall be a plug-in, four channel, multiple-priority, multi-modal device intended to be installed directly into a card rack located within the controller cabinet. The multi- mode phase selector shall be capable of using existing infrared or Radio/GPS system card racks.

H. Each discriminator module, when used with its associated detectors, shall be capable of:

1. Receiving Class I signals at a range of up to 1000' (300 m) and Class II signals at a range of up to 1800' (550 m).
2. Decoding the signals, on the basis of frequency, at 9.639 Hz \pm 0.119 Hz for Class I signals and 14.035 Hz \pm 0.255 Hz for Class II signals.
3. Establishing the validity of received signals on the basis of frequency and length of time received. A signal shall be considered valid only when received for more than
4. 0.50 second. No combination of Class I signals shall be recognized as a Class II signal regardless of the number of signals being received, up to a maximum of ten signals. Once a valid signal has been recognized its effect shall be held by the module in the event of temporary loss of the signal for a period adjustable from 4.5 seconds to 11 seconds in at least 2 steps at 5 seconds \pm 0.5 second and 10 seconds \pm 0.5 seconds.
5. Providing an output for each channel that will result in a "low" or grounded condition of the appropriate input of a signal controller unit. For Class I signals the output shall be a 6.25 Hz \pm 0.1 percent, rectangular waveform with a 50 percent duty cycle. For Class II signals the output shall be steady.
6. Being assigned up to 25 different radio channels.

Each discriminator module shall receive electric power from the controller cabinet at either 24 VDC or 120 VAC.

Each channel together with its associated detectors shall draw not more than 100 mA at 24 VDC nor more than 100 mA at 120 VAC. Electric power, one detector input for each channel and one output for each channel, shall terminate at the printed circuit board edge connector pins listed below:

BOARD EDGE CONNECTOR PIN ASSIGNMENT

A	DC ground		
B	+24 VDC	P	(NC)
C	(NC)		
D	Detector input, Channel A	R	(NC)
E	+24VDC to detectors	S	(NC)
F	Channel A output (C)	T	(NC)
		U	(NC)
H	Channel A output (E)	V	(NC)
J	Detector input, Channel B	W	Channel B Output (C)
K	DC Ground to detectors	X	Channel B Output (E)
L	Chassis ground	Y	(NC)
M	AC-	Z	(NC)
N	AC+		

(A) Collector, Slotted for Keying

(E) Emitter, Slotted for Keying

(NC) Not connected, cannot be used by manufacturer for any purpose.

Two auxiliary inputs for each channel shall enter each module through the front panel connector. Pin assignment for the connector shall be as follows:

1. Auxiliary detector 1 input, Channel A
2. Auxiliary detector 2 input, Channel A
3. Auxiliary detector 1 input, Channel B
4. Auxiliary detector 2 input, Channel B

Each channel output shall be an optically isolated NPN open collector transistor capable of sinking 50 mA at 30 V and shall be compatible with the Model 2070L controller unit inputs.

Each discriminator module shall be provided with means of preventing transients received by the detector from affecting the traffic signal controller assembly.

Each discriminator module shall have a single connector board and shall occupy one slot width of the input file. The front panel of each module shall have a handle to facilitate withdrawal and the following controls and indicators for each channel:

1. Three separate range adjustments each for both Class I and Class II signals.
2. A 3-position, center-off, momentary contact switch, one position (down) labeled for test operation of Class I signals, and one position (up) labeled for test operation of Class II signals.
3. A "signal" indication and a "call" indication each for Class I and for Class II signals. The "signal" indication denotes that a signal above the threshold level has been received. A "call" indication denotes that a steady, validly coded signal has been received. These two indications may be

accomplished with a single indication lamp; "signal" being denoted by a flashing indication and "call" with a steady indication.

4. In addition, the front panel shall be provided with a single circular, bayonet- captured, multi-pin connector for two auxiliary detector inputs for each channel. Connector shall be a mechanical configuration equivalent to a MIL C-26482 with 10 4 insert arrangement, such as Burndy Trim Trio Bantamate Series, consisting of:
 - a. Wall mounting receptacle, G0B10-4PNE with SM20M-1S6 gold plated pins.
 - b. Plug, G6L10-4SNE with SC20M-1S6 gold plated sockets, cable clamp and strain relief that shall provide for a right angle turn within 2.56" (65 mm) maximum from the front panel surface of the discriminator module.

I. Auxiliary Interface Panel

The auxiliary panel shall provide additional preemption outputs if needed. It shall also provide a connection point for the phase selector to monitor the status of the intersection's green lights (green sense). The panel shall provide an additional RS-232 communication port. The auxiliary interface panel shall contain outputs to drive confirmation lights and time sync output.

J. Interface Software

1. Interface software shall be used to manage the multimode phase selector through a laptop while on-site at the intersection.
2. The interface software shall be supported on Windows™ XP and Windows™ 7 operating systems.
3. The interface software shall allow the user to:
 - a. View and update all programmable configuration parameters of the multimode phase selector.
 - b. Provide intersection name and approach names for each of the four channels and store these as part of the multimode phase selector configuration.
 - c. View and update valid and blocked vehicle codes for the multimode phase selector.
 - d. Create preemption zones directly on a GIS map. Provided the map data is complete, it shall not be necessary to drive a vehicle to create the preemption zones. In areas where map data is incomplete or incorrect, it shall be possible to record points to be used as a reference to create the preemption zones.
 - e. Save the configuration from the multimode phase selector to a file.
 - f. Restore the configuration for a multimode phase selector from a saved configuration file.
 - g. Print the multimode phase selector configuration.
 - h. View the activity log from the multimode phase selector.
 - i. To save the activity log to a file.
 - j. Print the activity log.
 - k. Update firmware for all upgradable modules of the multimode phase selector.
4. The interface software shall display current status of all vehicles within range of the multimode phase selector, both in table format and displayed on a GIS map (GPS Vehicles only). The following details shall be tracked (Fields will vary by vehicle type):
 - a. The approach channel
 - b. Vehicle code
 - c. Priority level
 - d. Preempt / priority status
 - e. No preempt cause
 - f. Turn signal status
 - g. Signal strength
 - h. Unit ID

- i. Radio channel
 - j. ETA, distance, heading and velocity of vehicles in approach corridor
 - k. Source of the call: vehicle or intersection
 - l. Green phase monitoring with information on the current greens
 - m. Active preemption / priority output
 - n. Noise levels
 - o. Intensity
 - p. Primary or Auxiliary detector
5. The interface software shall display current status of all other intersections within radio range of the multimode phase selector. The following details shall be tracked:
- a. Name
 - b. Radio channel
 - c. Signal strength
 - d. Number of vehicle tracked
 - e. Number of satellites heard
 - f. Fix type
 - g. Horizontal and position dilution
 - h. Unit ID
6. The interface software shall display current status of visible GPS satellites. The following details shall be tracked:
- a. Intersection latitude and longitude
 - b. Fix type
 - c. Horizontal and position dilution
 - d. Satellite number, elevation, and azimuth

K. Installation

The Contractor shall install the detector unit(s), mounting hardware, cabling, discriminator unit(s), system chassis, auxiliary interface panel, card rack(s), and green sense harness and shall coordinate with the equipment vendor representative for programming and calibration of the detector and discriminator units. The Contractor shall follow step-by-step instructions provided by the equipment manufacturer and supplier to provide a fully functional installation.

For Model 332 traffic signal cabinet, there are provisions for connections between the optical detectors, the discriminator module and the controller unit.

Wiring for a Model 332 cabinet shall conform to the following:

1. Slots 12 and 13 of input file "J" have each been wired to accept a 2 channel module.
2. Field wiring for the primary detectors, except 24-VDC power, shall terminate on either terminal board TB 9 in the controller cabinet or on the rear of input file "J", depending on cabinet configuration. Where TB 9 is used position assignments shall be as follows:

Position	Assignment
4	Channel A detector input, 1st module (Slot J-12)
5	Channel B detector input, 1st module Slot J-12)

7	Channel A detector input, 2nd module (Slot J-13)
8	Channel B detector input, 2nd module (Slot J-13)

The 24 VDC cabinet power will be available at Position 1 of terminal board TB 1 in the controller cabinet. All field wiring for the auxiliary detectors shall terminate on terminal board TB O in the controller cabinet. Position assignments are as follows:

FOR MODULE 1 (J-12)		FOR MODULE 2 (J-13)	
Position	Assignment	Position	Assignment
1	+24VDC from (J-12E)	7	+24VDC from (J-13E)
2	Detector ground From (J-12K)	8	Detector ground from (J-13K)
3	Channel A auxiliary detector input 1	9	Channel A auxiliary detector input 1
4	Channel A auxiliary detector input 2	10	Channel A auxiliary detector input 2
5	Channel B auxiliary detector input 1	11	Channel B auxiliary detector input 1
6	Channel B auxiliary detector input 2	12	Channel B auxiliary detector input 2

- L. System Operation
- M. The Contractor shall demonstrate that all of the components of each system are compatible and will perform satisfactorily as a system. Satisfactory performance shall be determined using the following test procedure during the functional test period:
- N. Each system to be used for testing shall consist of an optical and GPS emitter assembly, an optical and GPS detector, detector cable and a discriminator module.
- O. The discriminator modules shall be installed in the proper input file slot of the controller cabinet assembly.
- P. Two tests shall be conducted for each the optical and GPS detector assemblies; one using a Class I signal emitter and a distance of 1000' (300 m) between the emitter and the detector, the other using a Class II signal emitter and a distance of 1800' (550 m) between the emitter and the detector. All range adjustments on the module shall be set to "Maximum" for each test.
- Q. Each above test shall be conducted for a period of one hour, during which the emitter shall be operated for 30 cycles, each consisting of a one minute "on" interval and a one minute "off" interval. During the total test period (1) the emitter signal shall cause the proper response from the traffic signal controller unit during each "on" interval and (2) there shall be no improper operation of either the traffic signal controller unit or the monitor during each "off" interval.

2 WIRE ACCESSIBLE PEDESTRIAN SIGNAL (APS)

SYSTEM DESCRIPTION

The Audible-Tactile Pedestrian Signal System shall consist of all electronic control equipment, mounting hardware, push buttons and signs, which are designed to provide both a push button with a raised vibrating tactile arrow on the button, along with a variety of audible sounds for different pedestrian signal functions.

Substantiating documentation for meeting ISO, NEMA, IEC, and FCC requirements must be supplied from an outside Testing Services Laboratory.

GENERAL DESCRIPTION

1. The System shall consist of a Central Control Unit (CCU) and Pedestrian Push Button Stations (PBS), as described below, and an iOS device w/ the iOS client application or Windows PC with BLE dongle and Windows client application, for programming the system settings.
2. The System shall be manufactured by an ISO 9001:2008 (minimum) registered company.
3. The System shall meet the requirements of Made in America and/or The Buy American Act.

DESIGN COMPLIANCE

1. The System shall meet the functionality requirements of MUTCD 2009 – 4E and CAMUTCD 2011 – 4E.
2. The System shall meet NEMA TS 2 Section 2.1 Temperature & Humidity requirements, or TS4 equivalent.
3. The System shall meet NEMA TS 2 Section 2.1 Transient Voltage Protection requirements, or TS4 equivalent.
4. The System shall meet NEMA TS 2 Section 2.1 Mechanical Shock and Vibration requirements, or TS4 equivalent.
5. The System shall meet IEC 61000-4-4, IEC 61000-4-5 Transient Suppression requirements.
6. The System shall meet FCC Title 47, Part 15, Class A Electronic Noise requirements.
7. The Push Button Station (PBS) Enclosure shall meet NEMA 250 – Type 4X requirements.
8. The Central Control Unit (CCU) Enclosure shall meet NEMA 250 – Type 1 requirements.

FUNCTIONAL REQUIREMENTS

1. The System shall support at least 16 PBS's per intersection (on at least 1 channel) controlled by a single base unit located in the traffic control cabinet.
2. The System shall be able to be set to vibrate a tactile arrow button during the WALK interval following a button push and/or every time the walk comes up.
3. The System shall have the field-selectable function known as "LOCATE TONE". This means that during the FLASHING DON'T WALK and the DON'T WALK intervals, the system shall provide a locating tone that emanates from the Pedestrian Push Button Station. The system shall provide at least 3 different sounds to choose from.
4. The System shall have the field selectable function known as "Extended Push Activation". This is defined as the audible WALK message shall only be activated and audible during the WALK interval if the button is depressed for a field selectable minimum period of time (from 0.5 to 6 seconds). Also, for the following walk and clearance intervals, the volumes have a separately settable minimum and maximum volume level.
5. The System shall have the field selectable function known as "Informational Message". This means that a custom message giving the location of the street to cross and the intersection (or other information) will be vocalized only when the button is depressed for a minimum field selectable time.
6. The System shall provide a "Wait" message that plays once the button is activated until the Walk cycle goes into effect. This message must have the field selectable option of OFF or repeating every 4, 6, 8 or 10 seconds.
7. The System shall have standard "Travel Direction" options that can be selected at the time of installation.
8. The System shall have at least 10 field selectable WALK sound options including a cuckoo, a chirp, an MUTCD rapid tick or custom voice message.

9. The System shall provide at least 7 Ped-clearance sound choices including audible countdown (field selectable). The audible countdown shall represent the time remaining during the pedestrian Clearance interval. Timing is automatically adjusted to the CLEARANCE INTERVAL timing, provided by the traffic controller.
10. The System shall provide 2 language capabilities, selectable by user (as a field selectable feature).
11. The System shall provide an Emergency preemption message in conjunction with a preemption system (selectable feature).
12. The system LOCATE TONE, WALK, and DON'T WALK audible features shall have independent assignable minimum and maximum volume limits. CLEARANCE volume level shall be controlled by WALK volume setting.
13. All sounds for all PBS's shall be synchronized.
14. The system shall have a non-visible, ambient sensing microphone located in the pedestrian station in an environmentally protected housing.
15. The LOCATE TONE volume shall adjust automatically in response to ambient noise with field selectable adjustment levels from -30dB below to +20dB above ambient in 2.5dB increments.
16. All other sounds volumes shall adjust automatically in response to ambient noise with field selectable adjustment levels from -30dB below to +20dB above ambient in 5dB increments.
17. The system shall utilize high quality digital audio technology, with a minimum 16-bit sample at a 48 kHz sample rate.
18. The PBS firmware and voice messages shall be updatable via Bluetooth. There shall be no requirement for the IC chips or module hardware to be removed or exchanged in order to complete a firmware or audio update.
19. The System shall have the option to mute sounds on all crosswalks except activated crosswalk (selectable feature).
20. The System shall have a real time clock capable of keeping time when there is no system power, for at least 2 years from the date of manufacture.
21. The System shall have the ability to have four separate program configurations with all features available, and any single configuration can be selected through an external input.
22. The System shall provide a user settable calendar function, allowing four separate configuration profiles to be configured to become active at different times of the day on a daily, weekly, or holiday basis.
23. The entire System shall be configurable from any PBS over Bluetooth.
24. The entire System shall be configurable from the CCU over Wi-Fi or Ethernet.
25. All field access to selectable options using a Bluetooth, Wi-Fi or Ethernet devices shall be protected using password security.

CENTRAL CONTROL UNIT (CCU)

The CCU is the control unit that provides data for the Push Button Stations. The CCU shall be either a shelf mount (CCU-S) or rack mount (CCU-C) assembly.

1. The CCU-S shall be installed inside the Traffic Cabinet and powered by the AC supply mains (115 VAC).
2. The CCU-C shall be installed inside the 300 series Traffic Cabinet's Input File, replacing 2 PED isolator boards and receiving power from the rack (24VDC).
3. The CCU-S shall provide internal power to operate up to 16 PBS's.
4. A 24 volt power brick shall power up to 16 PBS's in a CCU-C configuration.
5. The CCU shall control at least 16 PBS's.
6. The CCU shall be logically configurable to assign any PBS to one of 16 traffic phases.
7. The CCU-S shall receive pedestrian phase Walk, Don't Walk and Clearance inputs from either the traffic cabinet load switches or an SDLC input.

8. The CCU-C shall receive pedestrian phase Walk, Don't Walk and Clearance inputs from a Transport Electrical Equipment Specification (TEES) C4S connector.
9. The CCU shall be able to self-test all PBS's and put a corresponding phase into recall should a PBS assigned to a phase fail the self-test.
10. The CCU-S shall provide optically isolated general purpose inputs.
11. The CCU-S shall be used with a 4-cable interface harness assembly.
12. The CCU shall have internal storage to log several hundred events with a date-time stamp for each event.
13. The CCU shall have an internal real-time clock capable of being set in the field and propagating the time to each connected PBS.
14. The CCU firmware shall be updatable via either Wi-Fi or Ethernet. There shall be no requirement for the IC chips or module hardware to be removed or exchanged in order to complete the firmware update.
15. The CCU shall monitor PED interval conflicts and signal affected PBS's to an off state when a conflict occurs.
16. The CCU-S shall meet NEMA 250 – Type 1 enclosures requirements.
17. The CCU shall have a backlit LCD screen and button interface to allow placing test calls and display status.

PEDESTRIAN PUSH BUTTON STATION (PBS)

The PBS allows the pedestrian to place calls to the traffic controller and provides vibro-tactile feedback during the Walk cycle. This equipment is typically mounted on a pole, near the start of the crossing.

1. The PBS shall be mounted to a pole by banding or bolting.
2. The PBS shall be a single fixture that contains a 2" activation area, in which resides an ADA compliant vibro-tactile push button with a raised directional tactile arrow, and a sign mounted above the button.
3. The PBS Speaker shall be 8 Ohms, 6 Watt, and weather-proof.
4. The button shall be cast aluminum, nickel-plated and powder coated black around the arrow, to provide high contrast to arrow color. The PBS arrow shall allow for change in orientation to one of four directions.
5. The PBS Arrow Button Actuation shall use Hall Effect Sensor technology rated to greater than 20 million operations.
6. The PBS Arrow Button Push Force shall have three adjustable pressure settings between approximately 1 and 3lbs to activate a button push.
7. The PBS Arrow Button shall pulse and vibrate at approximately 20 Hz with displacement factor based on pounds of force used to actuate.
8. The PBS shall have a rear facing speaker projecting sound from front and back, providing 360° omnidirectional sound performance.
9. The PBS shall include internal Conflict Monitoring that monitors WALK, and DON'T WALK input signals for conflict conditions; disables system operation and logs errors if conflict occurs.
10. The PBS firmware and voice messages shall be updatable via Bluetooth. There shall be no requirement for the hardware to be changed out to update.
11. The system shall operate with the vendor's client application to record and upload cumulative ped count & call data.
12. The PBS shall meet or exceed NEMA 250 type 4X enclosure requirements.
13. The PBS Construction shall be:
 - I. FRAME: Cast Aluminum, Powder Coated.
 - II. HOUSING: Reinforced, UL-listed Thermoplastic.
 - III. MESSAGE SIGN: Aluminum, Powder Coated, Ink Markings, or Reflective Vinyl Sheeting

IV. PUSH BUTTON: Aluminum, Powder Coated.

14. Electronic circuits (printed circuit board assemblies) shall be in a water-tight housing/enclosure or encapsulated with a thermoplastic polyamide having a UL94-V0 flammability rating and allowing light and RF transmissions (i.e. over-molded), for environmental protection. The housing/closure or encapsulation shall be capable of providing NEMA 250 4X protection to all covered components.
15. The PBS Message Marking at the time of order may specify the Message Sign Markings to be the International Walking Person or the Informational Explanations for the three (3) distinct pedestrian displays (WALK, DON'T WALK, and PED CLEAR) that a pedestrian would see on an active pedestrian signal.

FIELD PROGRAMMING

Field programming via Client Application (Apple iOS v8.0 or higher devices or a PC with Windows 7, 8 or 10)

1. The iOS and PC applications shall be upgradable.
2. The iOS and PC applications shall notify the user when a newer version of the client application is available.
3. The iOS and PC applications shall notify the user when newer PBS and CCU firmware is available.
4. The iOS and PC applications shall provide the mechanism to download the latest PBS and CCU firmware.
5. The iOS and PC applications shall be capable of setting all volumes and features of the APS system specific to the PBS's.
6. The iOS and PC applications shall be capable of setting/updating configuration options for a single PBS or all PBS's on the intersection for most functions from a single PBS or CCU. (Global updating).
7. The iOS and PC applications shall be capable of storing, modifying, loading, and emailing PBS configuration settings.

ALUMINUM RISER

Adjustable brackets for cameras, sensors and antennas that can mount a variety of traffic industry devices. Video Detection camera brackets are available for mast arm, post top, span wire or side-of-pole applications.

Note:

1. All assemblies are supplied standard with stainless steel fasteners.
2. 1-piece bracket for mounting Iteris, Odetics, or Econolite Solo Pro type cameras.
3. Check manufacturer for cable and band clamp kit pole diameters.
4. Check manufacturer for available paint colors.

PAYMENT

Payment for the traffic signal modification shall be on a lump sum for Traffic Signal Modification as shown on the Bidder's Proposal, and shall include full compensation for furnishing all labor, tools, material and equipment, and doing all the work necessary for removing existing traffic signal equipment and furnishing and installing new equipment, including foundation, conduits, pull box, utility trench crossing, video detection, emergency vehicle preemption including but not limited to mobilization, demobilization, disposal of material, traffic and pedestrian control, street patch.

Payment for installation Traffic Signal Modification and Rectangular Rapid Flashing Beacon (RRFB) System shall be at the contract unit price per location and shall include full compensation for furnishing all labor, materials, tools, and equipment and doing all work involved in the installation of each system.

Full compensation for all additional materials and labor not shown on the plans or specified, which are necessary to complete the installation of modified traffic signal, shall be considered as included in the unit price bid and no additional compensation will be allowed therefore.

MEASUREMENT. The quantity for intersection improvements will be as follows:

Traffic Signal Modification (Third St/RAMP) (**Bid Item #73**) will be measured by unit of lump sum.

Traffic Signal Modification (Poggi St/RAMP)t (**Bid Item #74**) will be measured by unit of lump sum.

Traffic Signal Modification (Fifth St/RAMP) (**Bid Item #203**) will be measured by unit of lump sum.

Atlantic Avenue Rectangular Rapid Flashing Beacon (RRFB) System (**Bid Item # 202**) will be measure by unit of lump sum.

Traffic Signal Modification (Webster St/Atlantic Ave) (**Bid Item #200**) will be measured by unit of lump sum.

Traffic Signal Modification (Atlantic Ave/Constitution Way) (**Bid Item #201**) will be measured by unit of lump sum.

10.51 IRRIGATION AT WEBSTER PLAZA

Install irrigation system at Webster Street Plaza as shown on the plans and specifications.

1. Piping:
 - a. Pressure mainline piping: PVC Schedule 40 and PVC Class 315 (2" and larger). Pipe shall be made from an NSF-approved Type I, Grade I, PVC compound conforming to ASTM D1785. All pipe shall meet requirements as set forth in ASTM D2441, with an appropriate standard dimension (S.D.R.). (Solvent-weld pipe.)
 - b. PVC Non-Pressure Lateral Line Piping: Non-pressure buried lateral line piping shall be PVC Schedule 40 with solvent-weld joints. Pipe shall be made from NSF approved, Type I, Grade II PVC compound conforming to ASTM D1784. All pipe shall meet requirements set forth in ASTM D2441 with an appropriate standard dimension ratio.
2. Sleeving: Material shall be polyvinyl chloride (PVC) Schedule 40, Type 1120/1220 with solvent weld connections.
3. Back Flow Prevention Units shall be as shown on plans.
 - a. Back flow prevention unit cages shall be VIT Smooth Touch Series, Color Green.
4. Pipe Fittings:
 - a. Plastic fittings, except as described in 2.2.D.2 below, shall be Schedule 40 PVC solvent weld type, Type I and in full compliance with ASTM D1784-75 and D2466. Fittings shall be consistently white in color and of one manufacture only.
 - b. Mainline fittings for remote control valve and quick coupling valve connections shall be threaded nipples and fittings. Schedule 80 , Type I and in full compliance with ASTM D2464-74 and D1784.
5. Control Wiring:
 - a. Direct burial copper wire: AWG-U.F. 600-volt, 14- gauge minimum. Size in accordance with manufacturer's recommendations. Common wire to be 12- gauge.
 - b. Connector sealing packs: Scotch Lock #3576, Pentite Wire Connections, Bell System, or equal.
6. Miscellaneous Tools and Equipment: See Drawings for required operating equipment and accessories.
7. Fixtures shall be as shown on the Drawings:
 - a. Irrigation controller
 - b. Remote control valve

- c. Drip components
 - d. Quick coupler valves
 - e. Controller, master valve, pressure regulator, and flow meter
8. Installation
- a. The Landscape Contractor shall verify existing water pressure and available gallonage at Point of Connection (POC) prior to construction. If deficiencies are noted that will hinder the system's performance, notify the City for directions to correct deficiencies.
 - b. The design is diagrammatic. All piping, valves, etc., shown within paved areas is design clarification only. Install piping, valves, etc., in planting areas except where piping is sleeved under paving.
 - c. Provide 3-inch clean sand backfill cushion under mainline pressure pipe and 3" over top of pipe.
 - d. If, within the warrantee period, settlement occurs and subsequent adjustments in pipe, valves, sprinkler heads, lawn or planting, or other construction is necessary, the Contractor shall make all required adjustments at no increase in Contract Sum.
 - e. Install piping under existing walks in sleeves where provided.
 - f. Pipe and Fitting Connections: Thoroughly clean PVC pipe and fittings of dirt, dust and moisture before installation. Installation and solvent welding methods shall be as recommended by the pipe and fitting manufacturer.
9. Flushing of System:
- a. After all new pipe lines and risers are in place and connected, all necessary diversion work has been completed, and prior to installation of sprinkler heads, open control valves and use a full head of water to flush out the system.
 - b. Install sprinkler head only after flushing of system has been accomplished and accepted.

MEASUREMENT. The quantity for "Irrigation at Webster Plaza" will be measured on a lump sum basis.

PAYMENT. The contract lump sum price paid for "Irrigation at Webster Plaza" (**Bid Item #119**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing Irrigation at Webster Plaza, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

PAYMENT. The contract lump sum price paid for "Relocate Irrigation System" (**Bid Item #171**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing Irrigation at Webster Plaza, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.52 SLOW RELEASE WATER BAG

Irrigation supplements to be used at all trees without irrigation. Two watering bags will be located at each tree. Install per detail and manufacturers specifications.

MEASUREMENT. The quantity for "Slow Release Water Bag- Tree" will be measured on a per each basis.

PAYMENT. The contract lump sum price paid for "Slow Release Water Bag- Tree" (**Bid Item #68, 138**) shall include full compensation for all Irrigation Supplements, and all labor, materials, tools, equipment and incidentals necessary

for doing all work involved in providing Irrigation Supplements at Webster Plaza, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.53 HYDROSEEDING

- A. To prepare areas for hydroseeding, irrigate these areas - for 3 weeks, or as needed to germinate grasses and weeds (weeds). After the weeds have sprouted and grown to minimum 2-inch height, manually remove weed roots, not just tops, or treat the area with a City approved post-emergent herbicide and wait the recommended length of time without further disturbing the soil surface before clearing the weeds and preparing the areas designated for hydroseeding.
- B. Soil Preparation: Compost shall be spread over all areas to be hydroseeded prior to hydroseeding. The compost shall comply with requirements as noted in LANDSCAPE SOIL PREPARATION, and shall be spread to a uniform thickness of 4 CY/1,000 SF over all areas to be hydroseeded. Add seed to hydro mulch prior to application. Fertilizer shall NOT be added to the hydroseed mixture.
- C. Preparation: All slurry preparation to be conducted at the job site.
 - 1. Water, mulch, fertilizer, binder and other ingredients shall be added to the tank simultaneously so that the finished load is a homogenous mix of the specified ingredients.
 - 2. Seed shall be added last and shall be discharged within 2 hours of initiating the mix. Loads held over 2 hours will be recharged with additional seed at the rate of ½ the seed rate before application.
 - 3. Once fully loaded, the complete slurry shall be agitated for 3-5 minutes to allow for uniform mixing.
- D. Application:
 - 1. General: Apply specified slurry in a sweeping motion to form a uniform application.
 - 2. Step 1: with hydroseeder apply

Lbs./acre	Material
as noted	Seed Mix
2000	100% Wood Mulch
1200	BioSol 7-2-3 Natural fertilizer
400	Humate 40
60	AM 120 Inoculant

- 3. Step 2: with straw blower apply

Lbs./acre	Material
4000	Straw

- 4. Step 3: with hydroseeder apply

Lbs./acre	Material
500	100% Cellulose Fiber Mulch
150	Organic Binder (such as M-binder)

- a. Under suitable conditions straw shall be uniformly spread at the specified rates. The straw may be pneumatically applied as long as the resulting straw is predominately 3 to 6 inches in length. The straw shall be treated with mulch and tackifier before it can blow off the site but in no case shall straw be left untreated for more than 24 hours. The

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Contractor will clean up areas of straw which are blown from the site, and the areas shall be retreated at no additional expense to the owner.

5. Protection: Contractor is to stay off treated areas.
 - a. Unused Loads: If mixture remains in tank for more than 8 hours it shall be removed from the job site at contractor's expense.
6. Clean-up
 - a. General: Seeding work areas shall be maintained in a neat and orderly condition. Keep paved area free of erosion treatment, soil, and other debris.
 - b. Overspray: Installing contractor is responsible for washing or otherwise cleaning excess material off all areas not intended to receive treatment.
 - c. Debris: Clean up and remove erosion control associated materials and debris from project site before Final Acceptance.

E. Apply materials in locations, rates, and number of applications shown and as follows:

1. Begin application within 60 minutes after adding seed to the tank. Apply in successive passes as necessary to achieve the required application rate. Apply all hydroseed materials indicated for a single area within 72 hours.

Botanical Name Common Name	Botanical Name Common Name	Botanical Name Common Name Application Rate (Pounds Pure Live Seed/Acre)
Bromus carinatus var. californica	California Brome	12
Elymus glaucus	Blue Wild Rye	12
Elymus californica	California Bottlebrush	8
Clarkia coccinea	Red Ribbons	4
Melica californica	California Melic	3
Collinsia heterophylla	Chinese Houses	3
Rosa gymnocarpa	Wood Rose	2.5
Mimulus guttatus	Creek Monkeyflower	0.5
Artemisia douglasiana	Douglas' Mugwort	0.25
Baccharis pilularis	Coyote Brush	0.25
	Total	45.50

- F. Seed may be dry applied to small areas not accessible by hydroseeding equipment if authorized.
- G. All products shall be in conformance with the specifications listed below. Any changes to products to be used shall be approved, in writing, by the owner or owner's representative prior to job site delivery.
- H. Seed Mixes: All seed mixes shall be as in conformance with the California State Seed Law of the Department of Agriculture. Each seed bag shall be delivered to the site sealed and clearly marked as to species, purity, percent germination, dealer's guarantee, and dates of test. In addition, the container shall be labeled to clearly reflect the amount of Pure Live Seed (PLS) contained. Prior to seeding at the request of the owner, the contractor shall provide a letter of certification, original Association of Official Seed Analysts (AOSA) seed test results, and calculations of PLS content.\
- I. All legume seed shall be pellet-inoculated and provided in Bulletin AXT-280 of the University of California Cooperative Extension, "Pellet Inoculation of Legume Seed." Inoculant sources shall be species specific and shall be applied at a rate of 2 pounds of inoculant per one hundred pounds of seed.

- J. Straw Hydromulch Mulch: Straw Hydroseed w/ Plus Guar Formulation mulch shall be composed of processed grass straw with no growth or germination inhibiting substances. Mulch shall be manufactured in such a manner that all the ingredients are contained in a single bag and when thoroughly mixed with seed, fertilizer, and water, in the proportions specified, will form a homogeneous slurry capable of being sprayed to form a porous mat. Straw that has been previously used is not acceptable. The fiber shall have a temporary green dye and shall be accompanied by a certificate of compliance stating that the fiber conforms to these specifications and have the physical properties listed below.
- K. Moisture Content 10 percent +/- 2.0 percent, Organic matter 96.1 percent +/- 3.0percent, pH 6.8 +/- .5, Water Holding Capacity 584 Saturation 309 Water Holding percent Wt/Wt, Carbon/Nitrogen Ratio 39:1 +/- 2.0percent, Soluble Salts 1.7 percent +/- .4 percent. Guar and other tackifiers shall all be incorporated into the mulch bags.
- L. Fertilizer: To be used in the slurry, shall be Biosol 7-2-3 or approved equals, of commercial quality, conform to the requirements of the California Food and Agriculture Code. Fertilizer shall have a guaranteed analysis for nitrogen, phosphorus and potassium of 7-2-1. Products specified as slow-release shall have been tested and demonstrate a nearly linear release curve.
- M. Humate: Shall be OMRI listed and contain at least 40 percent Humic acid. Humate shall be a natural granular humic acid based material that functions as an organic chelator and microbial stimulator.
- N. Soil Inoculant: Endo (arbuscular) mycorrhizal inoculum shall be registered by the California Department of Food and Agriculture and consist of spores, mycelium, and mycorrhizal root fragments in a solid carrier suitable for handling by hydro-seeding equipment. The carrier shall be the material in which the inoculum was originally produced, and may include organic materials, vermiculite, perlite, calcined clay, or other approved materials consistent with mechanical application and with good plant growth. Each endomycorrhizal inoculum shall carry a supplier's guarantee of 80,000 propagules minimum per kilogram. The minimum propagule count shall be shown on each label provided. If more than one fungal species is claimed by the supplier, the label shall include a guarantee for each species of mycorrhizal fungus claimed.
- O. Equipment used for the application of slurry shall be a commercial-type Hydro-Seeder and have a built-in agitation system with an operation capacity sufficient to agitate, suspend and homogeneously mix slurry. Tank capacity shall be a minimum of 1,500 gallons and shall be mounted on a truck to allow access to the site. Size shall be large enough to prevent stoppage and allow for even distribution of slurry over the site. Pump shall be able to generate 150 psi at the nozzle.
- P. Water: Shall be of potable quality.
- Q. Timing of hydroseeding: Hydroseed shall be applied in Fall prior to the winter rains for germination. Exact date shall be proposed by Contractor and approved by Engineer prior to scheduling and implementing the work.

PAYMENT.

The contract unit price paid per square foot of "Erosion Control Layer / Hydroseed" (**Bid Item #29, 92, 162**). Bid shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved in placing the Hydroseed, including preparation of the soil prior to installation and for providing and applying water as specified in the Standard Specifications, these Special Provisions, and as directed by the City Engineer, and no additional compensation will be allowed.

10.54 REUSE EXISTING MULCH

This item is related to Bid Item 'Hydroseeding'. The site has various areas that are currently covered with mulch. This mulch material has been determined to be reusable by the City's environmental consultant. This material is to be spread in over bare earth areas to provide post construction erosion control. However, there is insufficient material to cover all graded areas at the site. It is estimated that roughly 20% of the site can be covered with the existing mulch. Once this material is utilized, the remaining bare earth areas shall be hydroseeded according to the 'Hydroseeding' bid item.

Reuse of existing mulch shall conform to the provisions of Section 16, "Clearing and Grubbing" of the Standard Specifications and these Special Provisions. During the clearing and grubbing operations, the Contractor shall temporary stockpile all of the existing site mulch for reuse to permanently stabilize project and submit a calculation of the overall amount of the stockpile in cubic yards to the Engineer. This material can be used in lieu of Hydroseeding or Recycled Wood Mulch designated in the planting plan. After planting, this material shall be installed per 10.68 RECYLCED WOOD MULCH.

PAYMENT.

The contract unit price paid per square foot of "Reuse Existing Mulch (20%)" (**Bid Item #28, 92**). Bid shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved in temporarily stockpiling and placing the Hydroseed, including preparation of the soil prior to installation and for providing and applying water as specified in 10.68 RECYLCED WOOD MULCH, the Standard Specifications, these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

10.55 GENERAL LANDSCAPE CONSTRUCTION DETAILS

The provisions of Section 20, "Landscape," of the Standard Specifications are supplemented by these Special Provisions.

10.56 BAY-FRIENDLY RATED LANDSCAPE

This project has been designed as a Bay-Friendly Rated Landscape based on the Bay-Friendly Rated Scorecard for Civic, Commercial and Multifamily Landscapes Version 4 and the Bay-Friendly Rating Manual for Civic, Commercial & Multifamily Landscapes Version 4.

The Bay-Friendly Rating system is managed by the Bay-Friendly Landscaping and Gardening Coalition (the Coalition). The City of Alameda will select a Bay-Friendly Rater with the Coalition in order to obtain Bay-Friendly Rated Landscape designation. The Bay-Friendly Rating Manual and Scorecard can be downloaded for free from www.bayfriendly.org.

"Bay-Friendly" refers to a comprehensive approach to the design, construction, and maintenance of healthy, environmentally sound landscapes. Bay-Friendly practices work with nature to reduce waste and protect the watersheds and communities of the San Francisco Bay Area.

The Bay-Friendly approach is guided by seven principles. These principles are explained in detail in the Bay-Friendly Landscape Guidelines and are summarized here:

4. Landscaping Locally

5. Landscape for Less to the Landfill
6. Nurture the soil
7. Conserve Water
8. Conserve Energy
9. Protect Water & Air Quality
10. Create Wildlife Habitat

REFERENCES

- A. Bay-Friendly Rated Scorecard for Civic, Commercial and Multifamily Landscapes for this project (can be obtained from your Bay-Friendly Rater)
- B. Bay-Friendly Rating Manual for Civic, Commercial and Multifamily Landscapes: serves as a guide in describing the requirements and verification procedures for each practice in the Scorecard.
- C. Bay-Friendly Landscape Guidelines: fully describes the seven Bay-Friendly principles, offering 55 practices in sustainable landscape design, construction, and maintenance.
- D. Additional Bay-Friendly resources found at www.BayFriendly.org

DOCUMENTATION

Bay-Friendly documentation is required to verify compliance with the Bay-Friendly Rated Scorecard and must be submitted in addition to project submittals. If a submitted item is identical to that submitted to comply with other project requirements submit duplicate copies in a separate Bay-Friendly documentation package at the end of construction.

Note: Numbers in the lists below, such as (A.5), reference the numbering of practices on the Bay-Friendly Rated Scorecard for Civic and Commercial Landscapes and in the Bay-Friendly Rating Manual. Practice description refers to the requirements of each individual practice that can be found in the Bay-Friendly Rating Manual for Civic, Commercial and Multifamily Landscapes.

- A. Submit the following documents:
 1. Soil analysis including results and recommendations for compost and natural fertilizers (C.1).
 2. Receipts for compost showing the correct volume meeting the practice description (C.9).
 3. Receipts for mulch showing product is local and recycled (D.5.2).
 4. Construction waste management plan shows 50% diversion of construction and demolition waste and 100% of excavated soil and land clearing debris. (D.6)
 5. Online waste management plan is completed (D.7)
 6. Photo documentation showing landscape construction and demolition waste was separated into a minimum of two diversion streams meeting the practice description (D.8).
- B. Submit a signed Bay-Friendly Rated Landscape Accountability Form confirming
 1. Project reused trees on site as mulch, logs or building materials. Project reused 10% of removed trees or 1 tree, whichever is greater. (A.9).
 2. 80% of existing mature, healthy non-invasive trees were fenced at their Critical Root Zone. No heavy grading or stockpiling was done within the CRZ (A.13).
 3. Topsoil was removed, stored and replaced before grading. Topsoil was piled to a height of no more than 6 feet and protected against erosion in the rainy season. (C.3).
 4. Protective fencing was installed at the Critical Root Zone of all trees to remain (C.4.1).
 5. Protective fencing was installed for 50% of new planting areas meeting the practice description (C.4.2)
 6. Wood planks, or 6" of mulch were installed during the rainy season to limit soil compaction (C.5).
 7. Soil compaction was alleviated: ripped, scarified or tilled to 8" depth (C.6.1).
 8. Soil compaction was alleviated: ripped, scarified or tilled to 12" depth (C.6.2).

9. Only amendments and fertilizers allowed by OMRI, the CDFA OIM program or USDA NOP were used. (C.7).
10. Herbicide products or materials listed as prohibited on OMRI's Generic Materials List were not used on the project (C.11).
11. Compost blankets, berms or socks were installed for controlling erosion. No silt fences or straw bales or wattles were used (C.12).
12. Irrigation mainlines were not made from PVC (D.2.1).
13. Irrigation lateral lines were not made from PVC (D.2.2).
14. Recycled aggregate was used for all walkway, driveway, roadway base and other uses with the exception of permeable aggregate (D.3)
15. PVC alternatives were used for 100% of fencing, decking and outdoor furniture (D.4)
16. Stone was mined and manufactured within 200 miles of the project site. Hardscape materials were produced within 200 miles of the project site, hardscape source material location is not considered. (D.17).
17. Integrated Pest Management was used during construction. Herbicides were not used as the first and only weed invasive plant control method (D.18).
18. Organic Pest Management was used during construction. Pesticides prohibited by OMRI in its generic materials list were not used (D.19).
19. All plant material installed is neonicotinoid free (E.13).
20. Low volume irrigation the provides small volumes of water at or near root zone of plants is installed in all mulched planting areas, slopes greater than 25%, areas within 24 inches of non-permeable surfaces. Subsurface irrigation is installed in and in narrow areas less than 10 feet in width.(F.4)
21. Overhead irrigation has a precipitation rate of 1 inch or less per hour and all nozzles have matched precipitation rates within each valve (F.5).
22. Any repairs recommended in the irrigation audit have been completed (F.8).

SUBSTITUTIONS

- A. Notify Owner and Landscape Architect and Bay-Friendly Rater when Contractor wishes to substitute materials, equipment or products that may affect Bay-Friendly Rated compliance.
- B. Contractor shall provide sufficient technical data and supporting information to verify that the proposed substitution is in compliance with the applicable Bay-Friendly credit(s) and practice(s), as described above. Refer to the general provisions of the contract regarding substitution requirements and procedures.

Refer to Sections 10.13 DISPOSAL OF MATERIALS for more information about construction waste management and disposal requirements of the Bay-Friendly Rated Landscape program.

PAYMENT

Full compensation for complying with the provisions shall be considered as included in various bid items and no separate payment will be made.

10.57 LANDSCAPE QUALITY CONTROL AND ASSURANCE

Plants must comply with federal and state laws requiring inspection for plant diseases and infestations. Inspection certificates required by law must accompany each shipment of plants and must be furnished to the Engineer. Obtain clearance from the county agricultural commissioner as required by law before planting plants delivered from a source outside the county where the plants are to be planted. Furnish evidence that clearance is obtained.

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- A. Contractor must have a valid California C-27 contractor's license authorized by the State of California.
- B. BASMAA Certification: Pollution Prevention Training & Certification Program For Surface Cleaners issued by the Bay Area Storm Water Management Agencies Association (BASMAA) is required to perform surface cleaning work. BASMAA certification number: _____.
<http://www.basmaa.org/recognition/> All work should conform to BASMAA standards. BASMAA standards encourage the use of dry cleaning methods over wet such as the use of absorbing materials for oils and sweeping. It discourages the use of any soaps or solvents. It encourages directing wash water into the landscape or collection of waste water for disposal into a sanitary sewer instead of a storm drain. See their website for a thorough list of criteria.
- C. Preferred Qualifications:
 - a. It is preferred that the Contractor have assigned to the project at least one employee who is a Bay-Friendly Qualified Landscape Professional.
 - b. It is preferred that the contractor have assigned to the project at least one employee who has successfully completed the Pollution Prevention Training & Certification Program For Surface Cleaners issued by the Bay Area Storm Water Management Agencies Association (BASMAA).
 - c. It is preferred that the Contractor have assigned to the project at least one employee who is a Certified Irrigation Contractor (Irrigation Association).
 - d. It is preferred that the Contractor have assigned to the project at least one employee who is a Certified Arborist or Certified Tree Worker (International Society of Arboriculture)
 - e. It is preferred that the Contractor have assigned to the project at least one employee who has experience or training in Integrated Pest Management (IPM) techniques.
- D. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.
- E. Plant materials: All plants shall have been grown in nurseries that have been inspected by State of California Department of Agriculture and will be tagged with correct names as per Standard Plant Names. All plant material will be inspected by the Engineer before being planted, and all plant material not meeting specification requirements will be rejected. Replace, at expense of Contractor, rejected trees, shrubs and groundcovers with plant materials of species and variety that meet specification requirements.
- F. Testing: Laboratory testing by Contractor to determine for suitable organic/non-synthetic soil amendments and fertilizer.

Notify the Engineer:

- A. At least 10 days before the shipment date when plants are to be shipped to the job site.
- B. At least 24 hours before each application of pesticide and indicate the hours of application.
- C. At least 4 business days before the completion of work for each stage of an area as part of the progress inspections.

Pesticides: Integrated Pest Management (IPM) practices shall be used to control pests and diseases in the landscape. Synthetic pre-emergents are prohibited. Pesticides that are not allowed by OMRI in its generic materials list are prohibited. Pesticides will not be used on this project without written approval by the City.

If approved for use by the City comply with all rules and regulations of the Department of Food and Agriculture, Department of Public Health, Department of Industrial Relations, and all other agencies that govern the use of pesticides. Unless prohibited by the County Agricultural Commissioner, pesticides may be used for highway planting work. Obtain a licensed pest control adviser's recommendations for the use of all pesticides under Food & Agriculture Code. The recommendation must include the pesticides to be used, rates of application, methods of application and application areas.

PAYMENT

Full compensation for complying with the provisions shall be considered as included in various bid items and no separate payment will be made.

10.58 LANDSCAPE SOIL PREPARATION

Loosen subgrade of planting areas (including areas to receive trees, shrubs, and Hydroseeding) to a depth of 8-inches or greater. In areas to receive planting under existing tree canopies loosen subgrade by using only hand tools, carefully, so as not to harm existing tree roots. Verify on site with Engineer prior to initiating work within tree drip line. Do not scarify or till within drip line of existing trees to be retained. Do not scarify or till when soil is wet. In all areas, remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of all off City's property.

Apply compost soil amendments and fertilizer on surface, and thoroughly blend planting soil to 6-inches. Bring the soil organic matter content to a minimum of 5% by dry weight, as specified in the soils analysis report. For bid purposes assume 2-inches quality compost (6 CY/1,000 SF) applied to all areas to receive planting.

Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture using specified imported top soil. Roll and rake, remove ridges, and fill depressions to meet finish grades.

Soil amendment must comply with the requirements in the Food & Agriculture Code.

Fertilizers: Organic fertilizers as recommended by the soils report. Synthetic, quick-release fertilizers shall not be permitted. Fertilizers prohibited in the generic materials list by OMRI are prohibited in the project.

Compost: Compost shall be a well decomposed, stable and weed free. It shall be derived from one or more of the following materials: agricultural crop residues or herbivore animal manures or food waste or urban plant debris. It shall not contain mixed solid waste. The product shall contain no substances toxic to plants, will possess no objectionable odors and shall not resemble the feedstock (the original material from which it was derived). Compost shall be tested through the US Composting Councils USCC Seal of Testing Assurance Program (STA). A lab analysis shall be performed by a STA certified laboratory using the test methods used in the Seal of Testing Assurance program found in the Test Methods for Examination of Compost and Composting Manual (TMECC). Verifying current participation in the STA program can be confirmed by logging onto the USCC website at www.compostingcouncil.com. The compost lab analysis shall be submitted as part of the "Compost Technical Data Sheet" before delivery of compost.

The compost shall be Wondergrow compost meeting the requirements below or approved equal.

Available from:
Recology™ Grover Environmental Products

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6133 Hammett Ct| Modesto, CA 95358
T: 209.545.8874
dramsey@recology.com

The compost laboratory report must confirm the following compost parameters:

Parameters ^{1,6}	Reported as Units of Measure	General Range
pH ²	pH units	6.0-8.5
Soluble Salt Concentration	dS/m (mmhos/cm)	Maximum 10, less than 4 preferred
Boron	Ppm	Soluble shall be <2.5
Moisture Content	% wet weight basis	30-60%
Organic Matter Content	% dry weight basis	30-65%
Carbon Nitrogen Ratio	ratio of Carbon to nitrogen	25:1
Bulk Density	dry lbs/cubic yard	Between 500-1,100
Particle Size	% pass in a select mesh size, dry weight basis	98% pass through 3/4" screen or smaller
Stability ³ Carbon Dioxide Evolution Rate	Mg CO ₂ -C per g OM per day	<8
Maturity ³ (Bioassay) Seed Emergence and Seed Vigor	%, relative to positive control %, relative to positive control	Minimum 80% Minimum 80%
Physical Contaminants (inerts)	% dry weight basis	<1%
Chemical Contaminants ⁴	mg/kg (ppm)	Meet or exceed USEPA Class A standard, 40CFR: 503.13, Tables 1 and 3 levels
Biological Contaminants ⁵ Select Pathogens Fecal Coliform Bacteria, or Salmonella	MPN per gram per dry weight MPN per 4 grams per dry weight	Meet or exceed US EPA Class A standard, 40 CFR, 503.32(a) levels

Recommended test methodologies are provided in Test Methods for the Examination of Composting and Compost (TMECC, The US Composting Council)

It shall be noted that the pH and soluble salt content of the amended soil mix is more relevant to the establishment and growth of a particular plant, than is the pH or soluble salt content of a specific compost (soil conditioner) used to amend the soil. Each specific plant species requires a specific pH range. Each plant also has a salinity tolerance rating, and maximum tolerable quantities are known. Most ornamental plants and turf species can tolerate a soil/media soluble salt level of 2.5 dS/m and 4 dS/m, respectively. Seeds, young seedlings and salt sensitive species often prefer soluble salt levels at half the afore mentioned levels. When specifying the

Parameters ^{1,6}	Reported as Units of Measure	General Range
<p>establishment of any plant or turf species, it is important to understand their pH and soluble salt requirements, and how they relate to existing soil conditions.</p> <p>Stability/Maturity rating is an area of compost science that is still evolving, and as such, other various test methods could be considered. Also, never base compost quality conclusions on the result of a single stability/maturity test.</p> <p>US EPA Class A standard, 40 CFR § 503.13, Tables 1 and 3 levels = Arsenic 41ppm, Cadmium 39ppm, Copper 1,500ppm, Lead 300ppm, Mercury 17ppm, Molybdenum 75ppm, Nickel 420ppm, Selenium 100ppm, Zinc 2,800ppm.</p> <p>US EPA Class A standard, 40 CFR § 503.32(a) levels = Salmonella <3 MPN/4grams of total solids or Fecal Coliform <1000 MPN/gram of total solids.</p> <p>Engineer may modify the allowable compost specification ranges based on specific field conditions and plant requirements.</p>		

(Table modified from the US Composting Council Landscape Architectural Specifications)

Mycorrhizal Fungi: Provide Mycorrhizal fungi with live spores of beneficial endo and ectomycorrhizal fungi. Submit sample and cut sheets for approval prior to ordering. Apply as root drench when planting per manufacturer’s instructions.

Water Absorbent Gel: Contractor to provide a soil polymer additive to conserve moisture in the soil. Use of Terra-sorb gel or approved equal. Apply per manufacturer’s instructions.

PAYMENT

The contract square foot price paid for “Landscape Soil Preparation” (**Bid Item #54, 121**) shall include full compensation for furnishing all labor, materials, including amendments, fertilizers, tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing Landscape Soil Preparation, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.59 TREES AND SHRUBS

No substitutions will be allowed without prior written approval of the Engineer (or Landscape Architect).

Plant pits shall be two times the root ball in width. Scarify sides of pit. Fill each pit with water, then observe drainage rate prior to plant installation. If drainage is slow, and/or pit holds water after 5 minutes, review planting pit remedial measures with the Engineer. Options for increasing drainage shall include but not be limited to doubling the depth, loosening the sides beyond the specified width, or relocating the planting pit and plant per Engineer.

Native soil shall be amended per soils report. The amended native soil shall be placed in the top 8-inches of the planting area. For backfilling around the sides of the rootball below 8-inch depth, use native soil amended with compost. Set plant rootball on settled, moist amended soil or compacted subgrade so top of rootball is set 2-inches above finish grade of adjacent soil and backfill planting pit. Then place sheet mulching per planting details and Section 10.66 Sheet Mulching. 2-inches of mulch as per planting details. A 4-inch-high water basin shall be constructed around each shrub and tree. After planting, water each plant by filling basin twice and ensure water basin is free draining.

After planting trees, install tree stakes as shown on Plans. Tree stakes shall be of sufficient length to support tree in an upright position as called for on the Plans. Tree stakes shall be: Untreated Lodgepole Pine, 2-inch dia., 10-footlength. Stakes shall be uniform size and sharpened to point at bottom end. Remove nursery stakes and tags after tree planting.

PAYMENT

The contract per each price paid for "Trees- 15 gallon" and "Shrubs- 1 gallon" (**Bid Items #55, 122, 123**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing trees and shrubs, including amending the backfill and mulching, staking, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.60 CONCRETE SEAT WALL

Concrete seat walls shall be cast-in-place concrete per Plans. Contractor shall submit complete, AutoCADshop drawings showing dimensions, reinforcing, and provide 24-inch by 24-inch by 6-foot long concrete seatwall mock-up on-site s to confirm and approve understanding of Plans and Detailing, quality of formwork and workmanship, tone, color, and finish.

MEASUREMENT. The quantity for "Concrete Seat Wall" will be measured on a linear foot basis.

PAYMENT. The contract cubic yard price paid for "Concrete Seat Walls (**Bid Item #124**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing Concrete Seat Walls at the specified sizes complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.61 PAVERS AT EMERGENCY ACCESS

Pavers shall be Turf Block (15.5 x 23.5 inches) x 3-1/8-inch thick from Acker-Stone Industries Inc., 13296 Temescal Canyon Road, Corona, CA. 92883. Submit sample for review and approval.

Under the observation of the Engineer, proof-roll prepared subgrade according to requirements per these specifications and as directed by the Engineer to identify soft pockets and areas of excess yielding. Proceed with unit paver installation only after deficient subgrades have been corrected and are ready to receive base course for unit pavers.

Do not use unit pavers with chips, cracks, voids, discolorations, and other defects that might be visible in finished work. Cut unit pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable. For concrete pavers, a block splitter may be used. Backfill as directed by the Engineer. Unit Paving Tolerances: Do not exceed 1/16-inch unit-to-unit offset from flush (lippage) nor 1/8-inch in 24-inches and ¼-inch in 10-feet from level, or indicated slope, for finished surface of paving.

MEASUREMENT. The quantity for "Pavers at Emergency Access" will be measured on a square foot basis.

PAYMENT. The contract square foot price paid for "Pavers at Emergency Access" (**Bid Item #57**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and

incidentals, and for doing all the work involved in providing the Pavers at Emergency Access, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.62 BRICK PAVERS

Brick unit pavers shall be installed per Plans and these specifications and manufacturer's installation instructions. Install concrete and metal edge restraints per Plans and 10.63 METAL HEADER prior to installing pavers on sand setting bed over compacted aggregate base or on concrete base with mortar.

Brick type and color per Plans. Submit full-size samples of pavers for review and approval prior to ordering. Mix pavers from several pallets or cubes, as they are placed, to produce a uniform blend of color, tone, and texture.

Under the observation of the Engineer, proof-roll prepared subgrade per specifications and as directed by the Engineer and identify and mitigate any soft pockets and areas of excess yielding. Proceed with paver installation only after deficient subgrades have been corrected and reviewed and approved by the Engineer and are ready to receive base course for pavers.

Do not use pavers with chips, cracks, voids, discolorations, and other defects visible in finished work. Cut pavers with motor-driven masonry saw equipment and ensure all cuts have clean, sharp, unchipped edges. Cut pavers to provide pattern indicated and to fit adjoining work tight and neatly. Hammer cutting is not acceptable. Use full pavers without cutting where possible. Backfill as directed by the Engineer. Unit Paving Tolerances: do not exceed 1/16-inch paver-to-paver offset from flush (lippage) or 1/8-inch in 24-inches, and 1/4-inch in 10-feet from level, or indicated slope, for finished surface of brick paver paving.

The Bid Schedule includes an accommodation for approximately 10% surplus Brick Pavers to be returned to the City of Alameda following construction for use during maintenance of the project. The contractor shall move all surplus Brick Pavers to the City of Alameda Public Works Department storage facility at the following location:

Building 6
950 W. Ranger Ave.
Alameda, CA 94501

Prior to delivery, contact the Ricardo De La Torre, Public Works Supervisor to coordinate delivery between the hours of 7am and 5pm, Monday to Thursday. Contact information is as follows:

Office: 510.747.7923
Cell 510.919.9348 | M-TH 7am-5pm

MEASUREMENT. The quantity for "Brick Pavers" will be measured on a square foot basis.

PAYMENT. The contract lump sum price paid for "Brick Pavers- Mortar Set with Concrete Base" and "Brick Pavers- Sand Set" (**Bid Item #58, 126, 127**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing the Brick Pavers, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.63 METAL HEADER

Construct metal header edging as shown on Plans and per manufacturer's specifications, including excavation and backfill.

Spike or stake spacing shall comply with the manufacturer's instructions for use and site conditions. Saw cut ends where, (1) asphalt concrete or concrete surfacing must be removed to permit the installation of edging and, (2) no joint exists between the surfacing to be removed and the surfacing to remain in place. The surfacing must be cut in a straight line to a minimum depth of 2 inches with a power-driven saw before the surfacing is removed.

MEASUREMENT.

The quantity for "Metal Header" will be measured on a linear foot basis.

PAYMENT.

The contract linear foot price paid for "Metal Header" (Bid Item #62, 132) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing the Metal Header, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.64 BOULDERS

Boulders shall be the type and sizes as noted on Plan. Contractor shall provide contact and source for Engineer (or Landscape Architect) to select boulders at source quarry prior to delivery to the site. Boulders shall be blocky, and angular forms without chips, sharp edges, broken edges. Boulders shall not be fractured or split. Locations for boulders shown on Plan are approximate. Contractor shall notify Engineer at least 72-hours in advance of delivery and placement and ensure Engineer (or Landscape Architect) has appropriate lead time to schedule on-site layout with Contractor. Boulders shall be sourced within 100 miles of the project site.

Contractor shall submit a complete procurement, delivery, and installation schedule to Engineer for review and approval prior to ordering the boulders. Contractor shall provide machinery capable of lifting AND moving into place all specified boulders. Forklifts, backhoes, loaders, and dozers are not acceptable machines. Contractor shall utilize large-scale, track driven excavators with thumb attached buckets capable of lifting 5-ton boulders and placing them under direction of Engineer (or Landscape Architect). All boulders shall be located in the project site by Engineer (or Landscape Architect); no boulders shall be placed by Contractor without direct observation by Engineer (or Landscape Architect).

PAYMENT

The contract per ton price paid for Boulders (**Bid Item #59, 128**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing and placing the boulders, complete and in place, as required by these Special Provisions, and as directed by the City Engineer. The fee for Engineer or Landscape Architect site placement of each boulder shall not be the responsibility of the Contractor.

10.65 TRAFFIC SIGNS/POSTS/WAYFINDING SIGNAGE

Traffic signs shall be fabricated and furnished in accordance with details shown on the plans, the Traffic Sign Specifications, and these Special Provisions.

Traffic Sign Specifications for California sign codes are available for review at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/specs.htm>

Traffic Sign Specifications for signs referenced with Federal MUTCD sign codes can be found in Standard Highway Signs Book, administered by the Federal Highway Administration, which is available for review at:

http://mutcd.fhwa.dot.gov/ser-shs_millennium.htm

Information on cross-referencing California sign codes with the Federal MUTCD sign codes is available at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/specs.htm>

Signs shall be free from blemishes that may affect the serviceability and detract from the general sign color and appearance when viewing during daytime and nighttime from a distance of 25 feet. The face of each finished sign shall be uniform, flat, smooth, and free of defects, scratches, wrinkles, gel, hard spots, streaks, extrusion marks, and air bubbles. The front, back, and edges of the sign panels shall be free of router chatter marks, burns, sharp edges, loose rivets, delaminated skins, excessive adhesive over spray and aluminum marks.

For custom signs, contractor shall provide shop drawings for approval by the Engineer prior to manufacturing,

Signs shall be installed on existing street barricades, street lights or electrolier poles or on the new unistrut poles as designated on plan. Signs shall be mounted to the unistrut poles in conformance with the Standard Plans and to the requirements of the Unistrut Telespar Sign Support System or equal. Signs shall be mounted on the existing street wood barricade or street lights and electrolier poles using fasteners (supply shop drawing) that are acceptable to the City. Prior to installation of signs contractor shall mark and verify location with City construction inspector.

Where designated on the plans, City shall supply signs for contractor to install. Contractor to coordinate installation with City's construction inspector.

Existing signs shall be reused where indicated on plan. City will provide and attach the 'NO PARKING' adhesive stickers to be placed over the 'NO STOPPING' portion of the message. Contractor shall coordinate with construction inspector and pick up signs at the City's maintenance yard.

Traffic sign posts shall be 1-3/4" x 1-3/4" with 2"x2" sleeve square tubing manufactured by Unistrut Telespar System. Post shall be as shown in Exhibit 'T': Foundation Detail for Square Tubing Traffic Sign Poles.

Concrete foundation shall be as shown in Exhibit 'T', for use in landscape or non-concrete locations. Surface mounted bases shall be used for traffic sign posts located in concrete areas (i.e. traffic islands, medians, sidewalk) and shall be similar or equal to EBERL FMCB200, hot dipped galvanized, with four mounting holes for securing to concrete, and the 2"x2" unistrut square post sleeve shall be of height of 12 vertical holes. Provide shop drawing or manufacturers specifications for unistrut poles and surface mounted base, including mounting hardware for approval.

Posts:

Prior to installation contractor shall mark and verify location with City construction inspector.

Material - Steel posts shall conform to the standard specifications for hot rolled carbon sheet steel, structural quality ASTM A1011 Grade 50, 12-gauge.

Shape - The cross section of the post shall be square carefully rolled to size and shall be welded directly in the corner by high frequency resistance welding and externally scarified to agree with corner radii.

Finish – Sign posts and sleeves shall be manufactured from hot-dipped galvanized steel conforming to ASTM A653, G90, Structural Quality, Grade 50, Class 1. The corner weld is zinc coated after scarifying operation. The steel is also coated with a chromate conversion coating and a clear organic polymer topcoat. Both the interior and exterior of the post shall be galvanized.

Holes – Holes shall be 7/16" +/- 1/64" in diameter on one (1) inch centers all four sides down the entire length of the post. On square tubing, holes shall be on centerline on each side in true alignment and opposite each other directly and diagonally.

Installation – When installing foundation anchoring steel tubing, wrap duct tape around all hole openings to prevent concrete from entering holes. All poles shall be plumb in and in vertical alignment and shall have sufficient fasteners so that poles will not sway between inner and outer tubing. See last page of Exhibit P for the "Bicycle Must Dismount" sign specifications (Bid Item #57). The clearance from the ground to the bottom of the signs shall be at least 7 feet.

PAYMENT

Payment for installation per each "Accessible Sign", "New Signage", "Traffic Signs/Posts/Wayfinding Signage- Not Shown in Plans" (**Bid Item #3, 53, 60, 118, 129, 157, 184**) shall be at the contract unit price per traffic sign and shall include full compensation for furnishing all labor, materials, tools, and equipment and doing all work involved in the installation of the traffic signs.

10.66 48" HIGH LANE DELINEATORS

All lane delineators shall be 36" high reflective, flexible delineators. All delineators shall conform to the provisions in Section 82, "Markers and Delineators" of the SSS and these special provisions.

Round Base: Polymer (4) 4"x 3/8" fasteners (for asphalt)
Delineator: 48" x 2.25" Polyethylene Bollard with reflective tape
Color: White

PAYMENT

The contract per each price paid for "48" High Lane Delineators" (**Bid Item #183**). The contract unit price paid for this item shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved in installing the flexible bollards in place, as shown on the plans, as specified in the State CSS, SSS and these Special Provisions, and as directed by the Engineer.

10.67 SHEET MULCHING

Contractor shall install Sheet Mulch Cardboard, compost layer and recycled mulch in all planting areas. Install after planting trees. Cardboard shall be 100% recycled, B-flute cardboard or approved equal. Rolls of recycled cardboard are available through North Bay Paper in Petaluma, 800-734- 2772; Monahan Paper in Oakland, 510-835-4670; or The Urban Farmer Store in Richmond, 510-524-1604.

After the soil preparation has been completed and approved by Engineer, and 5 gallon and larger plants have been planted, install the sheet mulch shall be installed in all planting areas that do not contain sod planting or are designated for seeding. Apply a minimum of two layers of cardboard as a biodegradable weed barrier to the entire planting area. Completely cover all existing soil. Wet cardboard immediately after laying out to prevent wind from displacing. Sheets of cardboard shall overlap a minimum of 8-inches. Cardboard shall abut directly against edge of pavement, curbs, boulders, or other site features. Cardboard shall not cover tree and shrub root crowns. Excess cardboard shall be folded under itself when abutting against pavements or walls or the root crown areas of plants. Wetting the cardboard will help facilitate folding. Recycle all cardboard scraps.

Apply 1-inch of compost as specified by the soils report and in Section 10.52 Landscape Soil Preparation, on top of the cardboard layer in all planting areas. Reduce compost application to ½-inch when within 6-inches or less from the edge of paving. Keep root crowns of plants clear of compost, mulch and debris.

PAYMENT

The contract price paid per square foot for Sheet Mulch (**Bid Item #61, 130**) shall include full compensation for furnishing all labor, materials, including compost, tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing Sheet Mulch, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.68 RECYLCED WOOD MULCH (REVOCABLE)

Apply 2-inch layer of recycled wood mulch on top of the Sheet Mulch and 1-inch layer of compost to obtain a total 3-inch depth of combined compost and recycled wood mulch on top of the cardboard. Keep root crowns of plants clear of compost and mulch. Recycled wood mulch shall be applied so that it is below adjacent finish surfaces (e.g., curb or edging) by 1/2-inch. Additional fine grading adjacent to sidewalks or edging will be required to keep the finish grade of the mulch at an appropriate level. Recycled Wood Mulch may either be salvaged on-site material from chipped trees, salvaged existing site mulch, or imported recycled mulch as noted below. Recycled wood mulch shall be made from arborist's tree removals without any color enhancement. Color shall be natural wood tone. Product shall pass 2-inch screen and meet the specifications for the following established product.

Sources:

Recycled mulch- Treeincarnation

Greenwaste recycle yard

<http://www.greenwasterecycleyard.com/mulch.htm>

or approve equal, non-colored recycled wood mulch product

MEASUREMENT. The quantity for "Recycled Wood Mulch - Revocable" will be measured on a cubic yard basis. The quantity included in the bid schedule assumes no available existing mulch for reuse. This amount will be modified based on the submitted calculation of the overall amount of the stockpile of Existing Mulch in cubic yards per Section 10.54 REUSE EXISTING MULCH.

PAYMENT

The contract price paid per cubic yard for Recycled Wood Mulch (**Bid Item #62, 131**) shall include full compensation for furnishing all labor, materials, tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing Recycled Wood Mulch, complete and in place, as required by these

Special Provisions, and as directed by the City Engineer. The contract price will only apply to Recycled Wood Mulch needed for the project beyond what is available from Existing Mulch, if any, and approved by the City Engineer.

10.69 BIORETENTION ROCK MULCH

Bioretention Rock Mulch shall be ¾-inch crushed drain rock or approved equal; Acapulco Rock and Soil, Richmond, CA, 510-526-3800

Install a 3-inch layer of rock mulch of the the approved finish grade.

MEASUREMENT. The quantity for "Bioretention Rock Mulch" will be measured on a cubic yard basis.

PAYMENT. The contract cubic yard price paid for "Bioretention Area Rock Mulch (3" Deep, 300SF)" (**Bid Item #132**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing the Rain Garden Rock Mulch, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.70 BENCHES

Manufacturer: Dumor

Model 142-60 PL

Finish: IPE wood with green metal

Submit catalogue sheets and wood and metal color samples for Engineer approval prior to ordering. Locations shown on Plans are approximate. Install plumb, level, square, in true alignment, and firmly anchored in place as shown on Plans and manufacturer's installation instructions.

PAYMENT

The contract per each price paid for Benches (**Bid Item #64, 134**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in assembling and installing the Benches, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.71 RELOCATE BIKE LOCKERS

Bike Lockers shall be provided by the City and assembled and installed by Contractor. Contractor shall pick up the bike lockers from the plaza in front of College of Alameda on the northwest corner of Webster Street and Ralph Appezzato Memorial Parkway. Installation locations shown on Plan are approximate. Install per Plans, manufacturer's installation instructions, and as directed in the field by the Engineer. No product information submittal is required.

MEASUREMENT

The quantity for "Bike Lockers" will be measured on a per each basis.

PAYMENT

The contract per each price paid for "Relocate Bike Lockers" (**Bid Item #136**) shall include full compensation for furnishing all labor, tools, equipment, mobilization, and incidentals, and for doing all the

work involved in relocating the Bike Lockers, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.72 BIKE RACKS

Bike Racks shall be per Plans and as noted below. One existing bike rack shall be relocated within the Webster Street Plaza area. All other bike racks shall be new. All racks shall be same model and color/tone. Submit catalogue sheets and color sample for approval prior to ordering. Locations on Plan are approximate. Install per details, manufacturer's installation instructions and as directed in the field by the Engineer.

Mfr: CycleSafe

Model: Classis U/2 Racks in ground mount, round pipe, #12707-IG

Size: 24" wide, 36" tall

Finish/Color: galvanized steel

www.cyclesafe.com

Mfr: Welle

Model: round pipe, powder coated, WSH3602-IG-P

Size 18" wide, 36" tall

Finish/Color: galvanized steel

www.bikeparking.com

Mfr: MadRax

Model: U Bike rack, 2.375 OD tubing, In ground,

Size: 22" wide, 44" tall

Finish/ Color: galvanized steel

www.madrax.com

PAYMENT

The contract per each price paid for Bike Racks (**Bid Item #65, 135**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing the Bike Racks, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

10.73 LANDSCAPE MAINTENANCE (1 YEAR)

Contractor shall maintain all landscape areas and the complete irrigation system for one year following written acceptance of the project by Engineer. Plants installed and cared for by Contractor shall be covered by a one-year free replacement warranty, except for losses due to events beyond Contractor's control, including but not limited to vandalism, thief, damage, and natural events such as wind storms.

- A. Soil Compaction: Contractor shall protect soil from compaction. Soils shall not be worked when wet, typically between October and April.
- B. Mulch: Contractor shall maintain a minimum of 3-inches of mulch at all times over the surface of all non-turf planting areas.
- C. Amendments: fertilizers and soil amendments must be organic and derived from natural sources that release elements slowly and are produced locally. Amendments that are prohibited by the Organics Materials Research Institute (OMRI) are prohibited for use in the landscape. See

www.omri.org.

D. Water Management.

1. Monitor plants to ensure adequate water is being provided by irrigation supplements. All plants shall be irrigated to provide adequate water to maintain an attractive, green, healthy and moderate growth rate during its growing season.
2. Irrigation Supplement: Contractor shall slow release water bags per manufacturers specifications. Contractor shall provide supplemental water from watering truck or other means as need to establish trees and shrubs with and without slow release water bags.

E. Irrigation:

1. Contractor is required to perform an irrigation audit bi-annually (refer to www.itrc.org) or to schedule an audit with the local water Contractor shall utilize the water budget approach to irrigation scheduling shall be used to match plant need with water application and avoid over-irrigation and overspray.
2. Contractor shall monitor soil moisture within plant root zones using a soil probe or shovel and adjust irrigation schedules
3. Contractor shall observe irrigation system in operation to identify and correct water runoff or standing water problems
4. Contractor shall determine irrigation run time demand monthly by recording water meter, sub-meter or controller reading before and after irrigation. This data should be reconciled with run times and flow rates to determine if there is unusual consumption which may indicate stuck valves or leaks.
5. All plants shall be irrigated to provide adequate water to maintain an attractive, green, healthy and moderate growth rate during its growing season. The contractor shall comply with the water budget approach to irrigation scheduling to match plant need with water application and avoid over-irrigation.
6. Contractor shall maintain the irrigation system for optimum performance, as per manufacturer specifications, All malfunctioning equipment shall be repaired prior to the next scheduled irrigation. All irrigation replacement parts shall be of the same manufacturer, type, and application rates as existing, or approved equals or upgrades.

F. Integrated Pest Management (IPM)

1. Contractor shall utilize integrated pest management (IPM) practices during installation and maintenance to control pests and disease in the landscape. IPM uses cultural, mechanical, physical, and biological control methods before using pesticides. Chemical controls are applied only when monitoring indicates that preventative and non-chemical methods are not keeping pests below acceptable levels. When pesticides are required, the least toxic and the least persistent pesticide that will provide adequate pest control is applied.
2. If allowed on this project, Contractor shall apply chemicals in a safe manner and according to label instructions and Agency, State and Federal requirements. A California Chemical Applicators license is required by the contractor for chemical applications. The Contractor shall mix and apply chemicals to protect against accidental spills and drift to non-target areas, and to insure safety of the applicator. Any spilled chemicals, as well as contaminated soil, water, and/or landscape materials must be removed from the Project and disposed of in accordance with the Agency requirements. The Contractor shall maintain applicator's licenses and records of applications as required by the State.
3. A Chemical Work Report shall be completed for each chemical application. The Contractor is responsible for submitting chemical usage reports to the County Agricultural Department. Copies are to be sent to the Agency's representative as part of

the Contractor's monthly report

G. Pruning

1. Selective pruning—Plants shall be pruned selectively to remove individual stems or branches that extend beyond the natural conformation of the plant to a lateral branch or at the point of attachment. Woody groundcovers shall be selectively pruned to control growth towards pavements rather than edged.
2. Hedging and shearing--Contractor shall not shear plants into formal shapes as this destroys the natural form of the plant and generates excessive waste.
3. Tree pruning shall be performed only by trained, experienced personnel. An I.S.A. Certified Arborist or Tree Worker is to be present at all times during pruning.

- H. Soil subsidence: Fill in any soil subsidence that may occur, replant trees and or shrubs that may have settled and Replace mulch materials and restore plant saucers. Tree stakes, ties and guys shall be checked regularly to ensure trees are not being damaged. Adjust ties and stake as necessary to prevent girdling and wounding.
- I. Landscape areas: Litter, broken glass, paper, cans, bottles and other small debris are to be removed from the landscaped site weekly and recycled/composted where appropriate.
- J. Hardscape Areas: Contractor shall keep all hardscapes free from trash, soil and plant debris. It is preferred that plant debris be cleaned up with brooms rather than blowers. Contractor will clean hard surfaces as needed to remove accumulation of sediment, dirt, or other materials that distracts from the visual impact of the area or creates a safety hazard. Cleaning methods must be consistent with the Bay Area Stormwater Management Agencies Association (BASMAA) criteria.
- K. Equipment Refueling And Repair: The Contractor shall refuel and repair equipment in a safe manner to protect against accidental spills. Limit refueling to specific areas on a site. Measures shall be taken to prevent, control, and clean-up spills. Clean-ups should be immediate, automatic and routine and performed by a trained staff member or a licensed cleaning company. Contact the local emergency response team agencies to report all spills. All oil leaks are repaired immediately and that repairs are not done at the landscape site
- L. Perform other operations as required to establish healthy viable plantings.
- M. Upon completion of the one year maintenance period, contractor shall notify the City a minimum of 48 hours in advance for a walk-through. Contractor will be required to correct any deficiencies noted during the walk through before final acceptance and payment for landscape maintenance.

MEASUREMENT

The quantity for "Landscape Maintenance (1 Year)" will be measured on a lump sum basis.

PAYMENT

The contract lump sum price paid for "Landscape Maintenance (1 Year)" (**Bid Item #67, 137**) shall include full compensation for all labor, materials, tools, equipment and incidentals necessary for doing all work involved as shown on the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Engineer, and no additional compensation will be allowed therefor.

10.74 TREE GRATE

Tree Grates shall be per the plans. Submit catalogue sheets and color sample for approval prior to ordering. Location shown on plan is approximate and shall be verified in the field by the engineer. Install plumb, level, square, in true alignment, and firmly anchored in place as shown on drawings and per details and manufacturer's installation instructions.

Mfr: Urban Accessories
Model Flat Rainbow 6' diameter round
Material: 100% Recycled grey Iron
Finish: Raw Natural Finish

<http://www.urbanaccessories.com/>

OR

Mfr: Barry Craft
Model Concentric Design B-TG876-6 with frame, 6' diameter
Material: 100 Gray Cast Iron
Finish: unpainted natural rust color

<http://barrycraft.com/>

OR

Olympicfoundry
Model: Custom design to match urban accessories Rainbow 6' diameter round.
Finish: standard unfinished ductile gray iron

www.olympicfoundry.com

PAYMENT

The contract per each price paid for Tree Grates (**Bid Item #66**) shall include full compensation for furnishing all labor, materials, including tools, equipment, mobilization, and incidentals, and for doing all the work involved in providing the Tree Grates, complete and in place, as required by these Special Provisions, and as directed by the City Engineer.

BID ALTERNATES

Bid Alternate #1: Soil

This work shall be performed in accordance with Section 10.28 EARTHWORK of this document, these Special Provisions and as directed by the Engineer.

PAYMENT

The contract price per cubic yard for "Import and Place Clean Fill" (**Bid Item #211**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved moving the soils, complete in place as specified in these Special Provisions, as shown on the Plans and as directed by the Engineer and no additional compensation will be allowed therefor.

Bid Alternate #2: Trail Lighting

This work shall be performed in accordance with Sections 10.75 BASIC ELECTRICAL REQUIREMENTS, 10.76 WIRE AND CABLE, 10.77 GROUNDING AND BONDING, 10.78 BOXES, 10.79 ELECTRICAL IDENTIFICATION, 10.80 SERVICE PEDESTALS, and 10.81 EXTERIOR LIGHTING of this document, these Special Provisions and as directed by the Engineer.

10.75 BASIC ELECTRICAL REQUIREMENTS

Work included: This Section includes general administrative and procedural requirements for Division 26. The following administrative and procedural requirements are included in this Section to supplement the requirements specified in Division 01.

Quality assurance.

Definition of terms.

Submittals.

Coordination.

Record documents.

Operation and maintenance manuals.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete and operable installation.

General and supplementary conditions: Drawings and general provisions of Contract and Division 01 of the Specifications, apply to all Division 26 Sections.

Earthwork: Include trenching, backfilling, boring and soil compaction as required for the installation of underground conduit, in-grade pull boxes, vaults, lighting pole foundations, etc.

Concrete Work: Include forming, steel bar reinforcing, cast-in-place concrete, finishing and grouting as required for underground conduit encasement, light pole foundations, pull box slabs, vaults, housekeeping pads, etc.

Miscellaneous metal Work: Include fittings, brackets, backing, supports, rods, welding and pipe as required for support and bracing of raceways, lighting fixtures, panelboards, distribution boards, switchboards, motor control centers, etc.

Miscellaneous lumber and framing Work: Include wood grounds, nailers, blocking, fasteners and anchorage for support of electrical materials and equipment.

Work furnished and installed under another Division requiring connections under this Division includes but is not limited to:

QUALITY ASSURANCE

Reference to Codes, Standards, Specifications and recommendations of technical societies, trade organizations and governmental agencies shall mean that latest edition of such publications adopted and published prior to submittal of the bid. Such codes or standards shall be considered a part of this Specification as though fully repeated herein.

When codes, standards, regulations, etc. allow Work of lesser quality or extent than is specified under this Division, nothing in said codes shall be construed or inferred authority for reducing the quality, requirements or extent of the Contract Documents. The Contract Documents address the minimum requirements for construction.

Work shall be performed in accordance with all applicable requirements of the latest edition of all governing codes, rules and regulations including but not limited to the following minimum standards, whether statutory or not:

California Electric Code (CEC).

California Building Code (CBC).

California Fire Code (CFC).

Standards: Equipment and materials specified under this Division shall conform to the following standards where applicable:

ACI American Concrete Institute

ANSI	American National Standards Institute
ASTM	American Society for Testing Materials
CBM	Certified Ballast Manufacturers
ETL	Electrical Testing Laboratories
FS	Federal Specification
IEEE	Institute of Electrical and Electronics Engineers, Inc.
IPCEA	Insulated Power Cable Engineer Association
NEMA	National Electrical Manufacturer's Association
UL	Underwriters' Laboratories

Independent Testing Agency qualifications:

- a. Testing Agency shall be an independent testing organization that will function as an unbiased authority, professionally independent of Manufacturer, Supplier and Contractor, furnishing and installing equipment or system evaluated by Testing Agency.
- b. Testing Agency shall be regularly engaged in the testing of electrical equipment, devices, installations and systems.
- c. Testing Agency shall meet Federal Occupational Safety and Health Administration (OSHA) requirements for accreditation of independent testing laboratories, Title 9, Part 1907.
- d. On-site technical personnel shall be currently certified by the International Electrical Testing Association in electrical power distribution system testing.
- e. Testing Agency shall use technicians who are regularly employed by the firm for testing services.
- f. Contractor shall submit proof of above Testing Agency qualifications with bid documentation upon request.

All base material shall be ASTM and/or ANSI standards.

All electrical apparatus furnished under this Section shall conform to NEMA standards and the NEC and bear the UL label where such label is applicable.

Certify that each welder performing Work has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone re-certification.

DEFINITION OF TERMS

The following list of terms as used in the Division 26 documents shall be defined as follows:

- a. "Provide": Shall mean furnish, install and connect unless otherwise indicated.
- b. "Furnish": Shall mean purchase and deliver to Project site.
- c. "Install": Shall mean to physically install the items in-place.
- d. "Connect": Shall mean make final electrical connections for a complete operating piece of equipment.
- e. "As directed": Shall be as directed by the Owner or their authorized Representative.
- f. "Utility Companies": Shall mean the company providing electrical, telephone or cable television services to the Project.

SUBMITTALS

Format: Furnish submittal data neatly bound in an 8-1/2" x 11" folder or binder for each Specification Section with a table of contents listing materials by Section and paragraph number.

Submittals shall consist of detailed Shop Drawings, Specifications, block wiring diagrams, "catalog cuts" and data sheets containing physical and dimensional information, performance data, electrical characteristics, materials used in fabrication and material finish. Clearly indicate by arrows or brackets precisely what is being submitted on and those optional accessories which are included and those which are excluded.

Furnish quantities of each submittal as noted in Division 01.

Each submittal shall be labeled with the Specification Section Number and shall be accompanied by a cover letter or shall bear a stamp stating that the submittal has been thoroughly reviewed by the Contractor and is in full compliance with the requirements of the Contract Documents. Cover letters shall list in full the

items and data submitted. Failure to comply with this requirement shall constitute grounds for rejection of data.

As part of the equipment and fixture submittals, the Contractor shall provide anchorage calculations for floor and wall mounted electrical equipment and fixtures, distribution conduits and raceways, in conformance with the 2013 California Building Code (CBC) and ASCE 7-05. Use the Occupancy Category, Ground Accelerations, Site Class, Seismic Design Category, and Seismic Importance Factor as noted in the structural drawings. For components required for Life Safety or containing hazardous materials use $I_p=1.5$. Structural Calculations shall be prepared, stamped and signed by a California Registered Structural Engineer. Specify proof loads for drilled-in anchors, if used.

The Manufacturer shall recommend the method of anchoring the equipment to the mounting surface and shall provide the Contractor with the assembly dimensions, weights and approximate centers of gravity.

The Manufacturer shall recommend the method of anchoring the equipment to the mounting surface and shall provide the Contractor with the assembly dimensions, weights and approximate centers of gravity.

All resubmittals shall include a cover letter that lists the action taken and revisions made to each Drawing and equipment data sheet in response to Submittal Review Comments. Resubmittal packages will not be reviewed unless accompanied by this cover letter. Failure to include this cover letter will constitute rejection of the resubmittal package.

Independent Testing Agency report:

- a. Testing Agency shall provide 3 copies of the complete testing report.
- b. Test report shall include the following:

Summary of Project.

Description of equipment.

Equipment used to conduct the test.

Type.

Manufacturer.

Model number.

Serial number.

Date of last calibration.

Documentation of calibration leading to NIST standards.

Description of test.

Test results, as compared to Manufacturers or industry accepted standards and tolerances.

Conclusion and recommendation.

Signature of responsible test organization authority.

- c. Furnish completed test report to Engineer no later than 30 days after completion of testing, unless otherwise directed.

Substitutions:

All requests for substitutions shall conform to the general requirements and procedure outlined in Division 01.

Where items are noted as "or equal," a product of equal design, construction and performance will be considered. Contractor must submit to the Engineer all pertinent test data, catalog cuts and product information required substantiating that the product is in fact equal to that specified. Only one substitution will be considered for each product specified.

Manufacturers' names and model numbers used in conjunction with materials, processes or equipment included in the Contract Documents are used to establish standards of quality, utility and appearance.

Materials, processes or equipment, which in the opinion of the Engineer is equal in quality, utility and appearance, will be approved as substitutions to that specified.

Whenever any material, process or equipment is specified in accordance with a Federal specification, an ASTM standard, an ANSI specification, UL rating or other association standard, the Contractor shall present an affidavit from the Manufacturer certifying that the product complies with the particular standard

specification. When requested by the Engineer, support test data to substantiate compliance shall be submitted by the Contractor at no additional cost.

Substitutions shall be equal, in the opinion of the Architect/Engineer, to the specified product. The burden of proof of such shall rest with the Contractor. When the Architect/Engineer in writing accepts a substitution, it is with the understanding that the Contractor guaranteed the substituted article or material to be equal to the one specified and dimensioned to fit within the construction. Approved substitutions shall not relieve the Contractor of responsibilities for the proper execution of the Work or from any provisions of the Specifications.

The Contractor shall be responsible for all expenses in connection with the substitution materials, processes and equipment, including the effect of the substitution on the Contractor, Subcontractor's or other Contractor's Work. No substitution of material, processes or equipment shall be permitted without written authorization of the Architect/Engineer. Any assumptions on the acceptability of a proposed substitution prior to acceptance by the Engineer are at the sole risk of the Contractor.

COORDINATION

Discrepancies:

- a. In the event of discrepancies within the Contract Documents, the Engineer shall be so notified, within sufficient time, as delineated in Division 01, prior to the Bid Opening to allow the issuance of an Addendum.
- b. If, in the event that time does not permit notification or clarification of discrepancies prior to the Bid Opening, the following shall apply: The Drawings govern in matters of quantity and the Specifications govern in matters of quality. In the event of conflict within the Drawings involving quantities or within the Specifications involving quantities or within the Specifications involving quality, the greater quantity and higher quality shall apply. Such discrepancies shall be noted and clarified in the Contractor's Bid. No additional allowances will be made because of errors, ambiguities or omissions that reasonably should have been discovered during the preparation of the Bid.

Project conditions:

- a. Examination of Project site: The Contractor shall visit the Project site and thoroughly review the locale, working conditions, conflicting utilities and the conditions in which the Electrical Work will take place. Verify all existing conditions in the field. No allowances will be made subsequently for any costs that may be incurred because of any error or omission due to failure to examine the Project site and to notify the Engineer of any discrepancies between Contract Documents and actual Project site conditions.
- b. Protection: Keep conduits, junction boxes, outlet boxes and other openings closed to prevent entry of foreign matter. Cover fixtures, equipment, devices and apparatus and protect them against dirt, paint, water, chemical or mechanical damage, before and during construction period. Prior to final acceptance, restore to original condition any fixture, apparatus or equipment damaged including restoration of damaged factory applied painted finishes. Protect bright finished surfaces and similar items until in service. No rust or damage will be permitted.
- c. Supervision: Contractor shall personally or through an authorized and competent representative constantly supervise the Work from beginning to completion and, within reason, keep the same foreman and workmen on the Project throughout the Project duration.

Preparation:

Drawings:

- a. Layout: General layout indicated on the Drawings shall be followed except where other Work may conflict with the Drawings.
- b. Accuracy: Drawings for the Work under this Section are essentially diagrammatic within the constraints of the symbology applied.

Utility company contacts:

- a. Contact for electrical service:

Mr. Juan Ulloa
Alameda Municipal Power Company
2000 Grand Street, P.O. Box H
Alameda, CA 94501-0263
510.748.3996
Mr. Juan Ulloa
510 748-3996.

RECORD DOCUMENTS

Provide Project Record Drawings as described herein:

- a. Drawings shall fully represent installed conditions including actual locations of outlets, true panelboard connections following phase balancing routines, correct conduit and wire sizing as well as routing, revised fixture schedule listing Manufacturers and products actually installed and revised panel schedules. Contractor shall record all changes in the Work during the course of construction on blue or black line prints. These prints shall be made subject of monthly review by the Owner's Representative to ascertain that they are current. If not current monthly payments may be withheld.
- b. Record Drawings shall be the transfer of information on these prints to the construction documents via computer aided drafting (CAD) process. A set of CAD files of the electrical documents will be provided to the Contractor in either Autocad Release 14 or DXF file format.
- c. Record drawing submissions shall be provided to the Engineer to review upon the completion of the following phases of Work:
Final electrical installation.
- d. A single set of half size prints of the Record Drawings shall be submitted for review. Upon receipt of the Engineer's review comments, corrections shall be made and the Contractor shall provide the following:
Two sets of full size prints.
Four sets of half size prints.
One set of full size reproducibles.
DXF files of Drawings.
Panel schedules:
 - a. Typewritten panel schedules shall be provided for panelboards indicating the loads served and the correct branch circuit number. Schedules shall be prepared on forms provided by the Manufacturer and inserted in the pocket of the inner door of each panelboard.

OPERATION AND MAINTENANCE MANUALS

Prior to Project closeout furnish to the Owner, six (6) hard back 3-ring binders containing all bulletins, operation and maintenance instructions, part lists, service telephone numbers and other pertinent information as noted in each Section all equipment furnished under Division 26. Binders shall be indexed into Division Sections and labeled for easy reference. Bulletins containing more information than the equipment concerned shall be properly stripped and assembled.

EXCAVATION

General: Cutting and digging shall be under the direct supervision of the General Contractor and included as necessary for the Work of this Section.

Excavation for underground vaults and electrical structures: Conform to elevations and dimensions indicated within a tolerance of plus or minus 0.10 foot; plus a sufficient distance to permit placing and removal of concrete formwork, installation or services, other construction and for inspection.

- a. Excavate, by hand, areas within drip-line of large trees. Protect the root system for damage and dry-out. Maintain moist conditions for root system and over exposed roots with burlap. Paint root cuts of 1 inch in diameter and larger with emulsified asphalt tree paint.
- b. Take care not to disturb bottom of excavation. Excavate by hand to final grade just before concrete

reinforcement is placed.

Trenching: Excavate trenches for electrical installation as follows:

- a. Excavate trenches to the uniform width, sufficiently wide to provide ample working room and a minimum of 6 to 9 inches clearances on both side of raceways and equipment.
- b. Excavate trenches to depth indicated or required.
- c. Limit the length of open trench to that in which installations can be made and the trench backfilled within the same day.
- d. Where rock is encountered, carry excavation below required elevation and backfill with a layer of crushed stone or gravel prior to installation of raceways and equipment. Provide a minimum of 6 inches of stone or gravel cushion between rock bearing surface and electrical installations.

Backfilling: Place soil materials in layers to required subgrade elevations for each area classification, using materials and methods specified in Division 31, Earthwork.

ELECTRICAL INSTALLATION

Preparation, sequencing, handling and installation shall be in accordance with Manufacturer's written instructions and technical data particular to the product specified and/or accepted equal except as otherwise specified. Comply with the following requirements:

- a. Shop Drawings prepared by Manufacturer.
- b. Verify all dimensions by field measurements.
- c. Coordinate the installation of required supporting devices and sleeves to be set in poured-in-place concrete and other structural components, as they are constructed.
- d. Sequence, coordinate and integrate installations of electrical materials and equipment for efficient flow of the Work.
- e. Coordinate connection of electrical systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies and controlling agencies. Provide required connection for each service.
- f. Install systems, materials and equipment to conform with approved submittal data, including coordination Drawings, to greatest extent possible. Conform to arrangements indicated by the Contract Documents, recognizing that portions of the Work are indicated only in diagrammatic form.
- g. Conform to the National Electrical Contractor's Association "Standard of Installation" for general installation practice.

FIELD QUALITY CONTROL

General testing requirements:

- a. The purpose of testing is to ensure that all tested electrical equipment, both Contractor and Owner supplied, is operational and within industry and Manufacturer's tolerances and is installed in accordance with design Specifications.
- b. Tests and inspections shall determine suitability for energization.
- c. Perform tests in presence of the Owner's Representative and furnish test equipment, facilities and technical personnel required to perform tests.
- d. Tests shall be conducted during the construction period and at completion to determine conformity with applicable codes and with these Specifications.

Tests: In addition to specific system test described elsewhere, tests shall include:

- a. Lighting control circuits: Test lighting circuits for correct operation through their control devices.
- b. Circuit numbering verification: Cycle circuit breakers on and off to verify compliance of the typed panel directories with actual field wiring.
- c. Voltage check:

At completion of job, check voltage at several points of utilization on the system that has been installed under this Contract. During test, energize all installed loads.

Contractor shall provide test power required when testing equipment before service energization and coordinate availability of test power with General Contractor after service energization. The Contractor shall provide any specialized test power as needed or specified herein.

Testing safety and precautions:

- a. Safety practices shall include the following requirements:

Applicable State and Local safety operating procedures.

OSHA.

NSC.

NFPA 70E.

- b. All tests shall be performed with apparatus de-energized and grounded except where otherwise specifically required ungrounded by test procedure.

Calibration of test equipment:

- a. Testing Agency shall have calibration program that assures test instruments are maintained within rated accuracy.
- b. Instruments shall be calibrated in accordance with the following frequency schedule:
- c. Field instruments: Analog, 6 month maximum; Digital, 12 months maximum.
- d. Laboratory instruments: 12 months.
- e. Leased specialty equipment: 12 months where accuracy is guaranteed by lessor.
- f. Dated calibration labels shall be visible on test equipment.
- g. Records, which show date and results of instruments calibrated or tested, must be kept up-to-date.
- h. Up-to-date instrument calibration instructions and procedures shall be maintained for test instrument.
- i. Calibration standards shall be of higher accuracy than instrument tested.
- j. Equipment used for field testing shall be more accurate than instrument being tested.

Coordinate with General Contractor regarding testing schedule and availability of equipment ready for testing.

Notify Owner one week in advance of any testing.

Any products which fail during the tests or are ruled unsatisfactory by the Owner's Representative shall be replaced, repaired or corrected as prescribed by the Owner's Representative at the expense of the Contractor. Tests shall be performed after repairs, replacements or corrections until satisfactory performance is demonstrated.

Testing Agency shall maintain written record of tests and shall assemble and certify final test report.

Include all test results in the maintenance manuals.

CLEANING

Prior to energizing of electrical equipment, the Contractor shall thoroughly clean the interior of enclosures from construction debris, scrap wire, etc. using Manufacturer's approved methods and materials.

Upon completion of Project, prior to final acceptance, the Contractor shall thoroughly clean both the interior and exterior of all electrical equipment per Manufacturers approved methods and materials.

Remove paint splatters and other spots, dirt and debris.

Touch-up paint any marks, blemishes or other finish damage suffered during installation.

PROJECT CLOSEOUT

Training: At the time of completion, a period of not less than 24 hours shall be allotted by the Contractor for instruction of building operating and maintenance personnel in the use of all systems. This 24 hours training is in addition to any instruction time called out in the Specifications for specific systems. All personnel shall be instructed at one time, the Contractor making all necessary arrangements with Manufacturer's Representative. The equipment Manufacturer shall be requested to provide product literature and application guides for the users' reference. Costs, if any, for the above services shall be paid by the Contractor.

Special tools: Provide one of each tool required for proper operation and maintenance of the equipment provided under this Section. All tools shall be delivered to the Owner at the Project completion.
Keying: Provide two keys for each lock furnished under this Section and turn over to Owner.

10.76 WIRE AND CABLE

Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:

Wire.

Wiring connections and terminations.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

REFERENCES

Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified:

Federal Specifications (FS):

FS J-C-30A; Cable and Wire, Electrical (Power, Fixed Installation).

FS W-S-610C; Splice Conductor.

FS HH-I-595C; Insulation Tape, Electrical, Pressure-Sensitive Adhesive, Plastic.

Underwriters Laboratories, Inc. (UL):

UL 44; Thermoset-Insulated Wires and Cables.

UL 83; Thermoplastic-Insulated Wires and Cables.

UL 310; Electrical Quick-Connect Terminals.

UL 486A & B; Wire Connectors.

UL 486C; Splicing Wire Connectors.

UL 486D; Insulated Wire Connector Systems for Underground Use or in Damp or Wet Locations.

UL 493; Thermoplastic-Insulated Underground Feeder and Branch Circuit Cables.

UL 510; Polyvinyl Chloride, Polyethylene and Rubber Insulating Tape.

UL 854; Service-Entrance Cables.

UL 1581; Reference Standard for Electrical Wires, Cables and Flexible Cords.

National Electrical Manufacturer Association (NEMA):

NEMA WC-5; Thermoplastic Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

NEMA WC-7; Cross-Linked Thermosetting Polyethylene Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

Institute of Electrical and Electronic Engineers (IEEE):

IEEE 82; Test Procedure for Impulse Voltage Tests on Insulated Conductors.

SUBMITTALS

Submit in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS, the following items:

Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.

Clearly mark on each data sheet the specific item(s) being submitted and the proposed application.

Submit Manufacturer's installation instructions.

Final test results.

QUALITY ASSURANCE

All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.

Only products and applications listed in this Section may be used on the Project unless otherwise submitted. Independent Testing Agency qualifications: Refer to Section 10.75 BASIC ELECTRICAL REQUIREMENTS.

MANUFACTURERS

Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.

Wire:

Cerrowire

General Cable

Southwire Company

Stabiloy (aluminum only)

United Wire and Cable

Southwire Company

Wiring connectors and terminations:

3M Company.

Ideal.

Blackburn-Holub.

Burndy.

Thomas & Betts Corp.

Beau Barrier.

Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

WIRE

Conductor material:

Provide annealed copper for all wire, conductor and cable, unless otherwise indicated.

Copper wire AWG #8 and larger shall be stranded, unless otherwise indicated.

Copper wire AWG #10 and smaller may be solid or stranded as best suited for the installation.

Insulation material:

All insulated wire, conductor and cable shall be 600 volt rated unless otherwise noted on the Drawings.

Thermoplastic-insulated building wire: NEMA WC 5.

Rubber-insulated building wire: NEMA WC 3.

Copper feeders and branch circuits larger than #6 AWG: Type THW, XHHW or dual rated THHN/THWN.

Copper feeders and branch circuits #6 AWG and smaller: Type TW, THW, XHHW or dual rated THHN/THWN.

Service Entrance: Type RHW or THWN.

Control Circuits: Type THW or dual rated THHN/THWN.

Identify system conductors as to voltage and phase connections by means of color-impregnated insulation.

WIRING CONNECTIONS AND TERMINATIONS

Bolted pressure connectors: Provide wide range-taking connectors with cast bronze compression bolts, designed for parallel taps, tees, crosses or end-to-end connections.

Electrical spring wire connectors:

Provide multi-part construction incorporating a non-restricted, zinc coated square cross-section steel spring enclosed in a steel sheet with an outer jacket of plastic and insulating skirt.

Self-striping pigtail and tap U-contact connectors shall not be used.

Push-in wire connectors:

Multi-port push-in wire connectors for a maximum of 8-wires, as required for specific application. Connectors are manufactured to accommodate a wide range of sizes with either solid or stranded conductors, up to a maximum wire size of #10 AWG. Low insertion force required for ease of installation. Housing shall be 105 degrees C and transparent for visual connection verification.

600 volt maximum rating with copper contacts.

UL Listed to 486C and UL 467 Listed for grounding and bonding applications.

Compression type terminating lugs:

Provide tin-plated copper high-compression type lugs for installation with hand or hydraulically operated circumference-crimping tools and dies as stipulated by the lug Manufacturer or as indicated on Drawings. Notch or single point type crimping is NOT acceptable.

Two hole, long barrel lugs shall be provided for size (4/0) and larger wire where terminated to bus bars. Use minimum of three crimps per lug, on sizes where possible.

Splicing and insulating tape: Provide black, ultraviolet proof, self-extinguishing, 7 mil thick vinyl general purpose electrical tape with a dielectric strength of 10,000 volts suitable for temperatures from minus 18 degrees C to 105 degrees C. Federal Spec. HH-I-595, Scotch 33+ or equal minimum.

Insulating putty:

Provide pads or rolls of non-corrosive, self-fusing, one-eighth inch thick rubber putty with PVC backing sheet. Scotch vinyl mastic pads and roll or equal.

Use putty suitable for temperatures from minus 17.8 degrees C to 37.8 degrees C with a dielectric strength of 570-volts/mil minimum.

Insulating resin:

Provide two-part liquid epoxy resin with resin and catalyst in pre-measured, sealed mixing pouch.

Scotchcast 4 or equal for wet or underground vaults, boxes, etc. splices or terminations.

Use resin with a set up time of approximately 30 minutes at 21.1 degrees C and with thermal and dielectric properties equal to the insulating properties of the cables immersed in the resin.

Terminal strips:

Provide box type terminal strips in the required quantity plus 25% spare. Install in continuous rows in terminal cabinets.

Use the box type terminal strips with barrier open backs and with ampere ratings as required.

Identify all terminals with numbering sequence being used for a particular system.

Crimp type connectors:

Provide insulated fork or ring crimp terminals with tinned electrolytic copper-brazed barrel with funnel wire entry and insulation support

Fasten crimp type connectors or terminals using a crimping tool recommended by the connector Manufacturer.

Provide insulated overlap splices with tinned seamless electrolytic copper barrel with funnel wire entry and insulation support.

Provide insulated butt splices with tinned seamless electrolytic copper barrel with center stop, funnel wire entry and insulation support.

Cable ties: Provide harnessing and point-to-point wire bundling with nylon cable ties. All cable ties shall be installed using tool supplied by Manufacturer of ties.

Wire lubricating compound:

UL listed for the wire insulation and conduit type and shall not harden or become adhesive.

Shall not be used on wire for isolated type electrical power systems.

Bolt termination hardware:

Bolts shall be plated, medium carbon steel heat-treated, quenched and tempered equal to ASTM A-325 or SAE grade 5; or silicon bronze alloy ASTM B-9954 Type B.

Nuts shall be heavy semi-finished hexagon, conforming to ANSI B18.2.2, threads to be unified coarse series (UNC), class 2B steel or silicon bronze alloy.

Flat washers shall be steel or silicon bronze, Type A plain standard wide series, confirming to ANSI B27.2. SAE or narrow series shall not be used.

Belleville conical spring washers shall be hardened steel, cadmium plated or silicon bronze.

Each bolt connecting lug(s) to a terminal or bus shall not carry current exceeding the following values:

1/4" bolt - 125 amps

5/16" bolt - 175 amps

3/8" bolt - 225 amps

1/2" bolt - 300 amps

5/8" bolt - 375 amps

3/4" bolt - 450 amps

EXAMINATION

Contractor shall thoroughly examine Project site conditions for acceptance of wire and cable installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

APPLICATION

All wire, conductor and cable with their respective connectors, fittings and supports shall be UL listed for the installed application and ambient condition.

Feeders and branch circuits in wet locations shall be rated 75 degree C.

Feeders and branch circuits in dry locations shall be rated 90 degree C.

Minimum conductor size:

Provide minimum AWG #12 for all power and lighting branch circuits.

Provide minimum AWG #14 for all line voltage signal and control wiring unless otherwise indicated.

Color coding:

For 120/208 volt, 3 phase, 4 wire systems:

Phase A - Black

Phase B - Red

Phase C - Blue

Neutral - White

Ground - Green

Switch leg individually installed shall be the same color as the branch circuit to which they are connected, unless otherwise noted.

WIRING METHODS

Install wires and cables in accordance with Manufacturer's written instructions, as indicated on Drawings and as specified herein.

Install all single conductors in raceway system, unless otherwise noted.

Parallel circuit conductors and terminations shall be equal in length and identical in all ways.

Provide adequate length of conductors within electrical enclosures and train the conductors to terminal points with no excess. Bundle multiple conductors, with conductors larger than #10 AWG cabled in individual circuits. Make terminations so there is no bare conductor at the terminal.

20 amp power and lighting branch circuit containing no more than four (4) current carrying conductors (phases and neutrals). Use #10 AWG conductor for 120/208 volt circuits located outside a 75 foot radius of panel source, unless otherwise noted.

20 amp power and lighting branch circuits containing no more than eight (8) current carrying conductors (phases and neutrals). Use #10 AWG conductors for 120/208 volt circuits located outside a 65 foot radius of panel source.

Provide #10 AWG pig tails on all 20A and 30A wiring devices served by #8 AWG conductors and larger.

Splice cables and wires only in junction boxes, pull boxes, manholes or handholes. Group and bundle with tie wrap each neutral with its associated phase conductor where more than one neutral is present in a conduit.

Neatly form, train and tie the cables in individual circuits. For panelboards, cabinets, wireways, switches and equipment assemblies.

Provide UL-listed factory-fabricated, solderless metal connectors of size, ampacity rating, material, type and class for applications and for services indicated. Use connectors with temperature ratings equal to or greater than the wires that are being terminated.

Stranded wire shall be terminated using fitting, lugs or devices listed for the application. However, in no case shall stranded wire be terminated solely by wrapping it around a screw or bolt.

WIRING INSTALLATION IN RACEWAYS

Install wire in raceway after any mechanical work likely to injure conductors has been completed. Pull all conductors into a raceway at the same time. Exercise care in pulling conductors so that insulation is not damaged. Use UL listed, non-petroleum base and insulating type pulling compound as needed.

Completely mandrel all underground or concrete encased conduits prior to installing conductors.

Completely and thoroughly swab raceway system before installing conductors.

Do not use block and tackle, power driven winch or other mechanical means for pulling conductors of size smaller than AWG #1.

Wire pulling:

Provide installation equipment that will prevent the cutting or abrasion of insulation during pulling of cables.

Use rope made of nonmetallic material for pulling feeders.

Attach pulling lines for feeders by means of either woven basket grips or pulling eyes attached directly to the conductors.

Pull in together multiple conductors in a single conduit.

Install and test all cables in accordance with Manufacturer's instructions and warranty.

WIRE SPLICES, JOINTS and TERMINATION

Join and terminate wire, conductors and cables in accordance with UL 486A, C, NEC and Manufacturer's instructions.

Thoroughly clean wires before installing lugs and connectors.

Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.

SplICES and terminations shall be made mechanically and electrically secure.

Where it's determined that unsatisfactory splice or terminations have been installed, remove the devices and install approved devices at no addition cost.

Terminate wires in Terminal Cabinets, relay and contactor panels, etc. using terminal strip connectors.

Insulate spare conductors with electrical tape and leave sufficient length to terminate anywhere in the panel or cabinet.

Install cable ties and maintain harnessing.

Encapsulate splices in exterior outlets, pullboxes and junction boxes using specified insulating resin kits.

Make all splices watertight for exterior equipment.

Make up all splices and taps in accessible junction or outlet boxes with connectors as specified herein.

Pigtails and taps shall be the same color as the feed conductor. Form conductor prior to cutting and provide at least six (6) inches of tail and neatly packed in box after splice is made up.

Branch circuits (#10 AWG and smaller):

Connectors: Solderless, screw-on, reusable spring pressure cable type, 600 volt, 105-degree C. with integral insulation, approved for copper conductors.

The integral insulator shall have a skirt to completely cover the stripped wires.

The number, size and combination of conductors as listed on the Manufacturers packaging shall be strictly complied with.

Feeder circuits: (#6 to 750 MCM)

Join or tap conductors from #6 AWG to 750 MCM using bolted pressure connectors or insulate mechanical compression (hi-press) taps with pre-molded, snap-on insulating boots or specified conformable insulating pad and over wrapped with two half-lapped layers of vinyl insulating tape starting and ending at the middle of the joint.

Terminate conductors from size #6 AWG to 750 MCM copper using bolted pressure or mechanical compression lugs in accordance with Manufacturer recommendation or as specified elsewhere.

Field installed compression connectors for cable sizes 250 MCM and larger shall have not less than two clamping elements or compression indents per wire.

Insulate splices and joints with materials approved for the particular use, location, voltage and temperature. Insulate with not less than that of the conductor level that is being joined.

Termination hardware assemblies:

AL/CU lugs connected to aluminum plated or copper buss, shall be secured using a steel bolt, flat washer (two per bolt), Belleville washer and nut.

Copper lugs connected to copper bus, shall be secured using silicon bronze alloy bolt, flat washer (two per bolt), Belleville washer and nut.

The crown of Belleville washers shall be under the nut.

Bolt assemblies shall be torque to Manufacturer recommendation. Where manufacture recommendation are not obtainable, the following values shall be used:

1/4" - 20 bolt at 80-inch pounds torque.

5/16" - 18 bolt at 180-inch pounds torque.

3/8" - 16 bolt at 20-foot pounds torque.

1/2" - 13 bolt at 40-foot pounds torque.

5/8" - 11 bolt at 55-foot pounds torque.

3/4" - 10 bolt at 158-foot pounds torque.

IDENTIFICATION

Refer to Section 260553: Electrical Identification for additional requirements.

Securely tag all branch circuits. Mark conductors with specified vinyl wrap-around markers. Where more than two conductors run through a single outlet, mark each conductor with the corresponding circuit number.

Color code conductors size #8 and larger using specified phase color markers and identification tags.

Provide all terminal strips with each individual terminal identified using specified vinyl markers.

In pullboxes and handholes, provide tags of the embossed brass type and also show the cable type and voltage rating. Attach the tags to the cables with slip-free plastic cable lacing units.

FIELD QUALITY CONTROL

Independent testing: Contractor shall arrange and pay for the services of an independent Testing Agency to perform all quality control electrical testing required herein. Independent Testing Agency shall meet the requirements as outlined in Section 260010: Basic Electrical Requirements.

Prefunctional testing:

Visual and mechanical inspection:

Compare cable data with Contract Documents.

Inspect exposed sections of wires and cables for physical damage and proper connections.

Verify tightness of accessible bolted connections with calibrated torque wrench in accordance with Manufacturer's published data.

Inspect compression applied connectors for correct cable match and indentation.

Verify visible cable bend meet or exceed ICEA and Manufacturer's minimum allowable bending radius.
If cables are terminated through window type current transformers, make an inspection to verify neutral and ground conductors are correctly placed for operation of protective devices.

Ensure wire and cable identification has been installed as specified herein.

Electrical testing:

Contractor shall perform feeder and branch circuit insulation test after installation and prior to connection to utilization devices such as fixtures, motors or appliances. Testing shall be as follows:

100% of all feeders 100 amp rated and above.

100% of all branch circuits at each individual pedestal/panelboard.

Perform insulation-resistance test using megohm meter with applied potential of 1000V DC for a continuous duration of 60 seconds. Test conductors phase-to-phase and phase-to-ground. Conductors shall test free from short-circuit and ground faults.

Perform continuity test of all feeder and branch circuits to ensure correct cable connections. Test all neutrals for improper grounds.

Contractor shall furnish instruments, materials and labor for these tests.

Test values: Investigate resistance values less than 50 megohms.

Furnish test results in typewritten report form for review and inclusion in the operation and maintenance manuals.

PAYMENT

The contract price paid per linear foot for (2) – 2" PVC Lighting Conduit, 1.5" PVC Lighting Conduit, #8 THWN Conductors and #10 THWN Conductors (**Bid Items #147, 205, 207, 208**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing electrical conductors and conduits, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.77 GROUNDING AND BONDING

Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:

Power system grounding.

Site lighting grounding.

Electrical equipment and raceway grounding and bonding.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

Division 05: Equipment Steel.

Division 22: Cold Water Piping.

REFERENCES

Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified:

Underwriters Laboratories, Inc. (UL):

UL 467; Grounding and Bonding Equipment.

Institute of Electrical and Electronics Engineers, Inc. (IEEE):

IEEE No. 142; Recommended Practice for Grounding of industrial and Commercial Power Systems.

IEEE No. 81 Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System.

SYSTEM DESCRIPTION

Ground the electrical service system neutral at service entrance equipment as described herein and indicated on Drawings.

Except as otherwise indicated, the complete electrical installation including the neutral conductor, metallic conduits and raceways, boxes and equipment shall be completely and effectively grounded in accordance with all code requirements, whether or not such connections are specifically indicated or specified.

Resistance:

Resistance from the main switchboard ground bus through the ground electrode to earth shall not exceed 5 OHMS unless otherwise noted.

SUBMITTALS

Submit in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS, the following items:

Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.

Clearly mark on each data sheet the specific item(s) being submitted and the proposed application.

Submit Manufacturer's installation instructions.

QUALITY ASSURANCE

All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.

Only products and applications listed in this Section may be used on the Project unless otherwise submitted.

MANUFACTURERS

Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.

Ground Rods:

Weaver.

Erico "Cadweld" Products, Inc.

Ground Wells:

Christy Concrete Products, Inc.

Forni Corp.

Ground Bushings, Connectors, Jumpers and Bus:

O-Z/Gedney.

Thomas & Betts Corp.

Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

GROUND CONDUCTORS

Refer to Specification Section 260519: Building Wire and Cable for conductor specifications.

General purpose insulated:

UL approved and code sized copper conductor, with dual rated THHN/THWN insulation, color identified green.

Where continuous color-coded conductors are not commercially available, provide a minimum 4" long color band with green, non-aging, plastic tape in accordance with NEC/CEC.

Bare conductors in direct contact with earth or encased in concrete: **#2/0** AWG copper minimum, U.O.N.

Bonding pigtails: Insulated copper conductor, identified green, sized per code and provide with termination screw or lug. Provide solid conductors for #10 AWG or smaller and stranded conductors for #8 AWG or larger.

DRIVEN (GROUND) RODS

Copper clad steel, minimum 3/4-inch diameter by 8 feet long, unless otherwise noted.

GROUND WELL BOXES FOR GROUND RODS

Precast concrete box nominal 9" throat diameter x 14" deep with light duty concrete cover for non-traffic areas or steel plate for traffic areas. Cover shall be embossed or engraved with "GROUND ROD".

INSULATED GROUNDING BUSHINGS

Plated malleable iron or steel body with 150 degree Centigrade molded plastic insulating throat and lay-in grounding lug.

CONNECTIONS TO STEEL, GROUND RODS or SPLICES

Where required by the Drawings, grounding conductors shall be spliced together, connected to ground rods or connected to structural steel using exothermic welds or high pressure compression type connectors. Exothermic welds shall be used for cable-to-cable and cable-to-ground rod and for cable to structural steel surfaces. Exothermic weld kits shall be as manufactured by Cadweld or equal. Each particular type of weld shall use a kit unique to that type of weld.

High-pressure compression type connectors shall be used for cable-to-cable and cable-to-ground rod connections.

EXTRA FLEXIBLE, FLAT BONDING JUMPERS

Where required by Code, indicated on the Drawing, and specified herein.

GROUND BUS requirements

Power system reference ground bus:

The reference ground bus is furnished as part of the main electrical switchgear for the project, along with neutral disconnect and bus. The grounding electrode shall make a direct connection to the project referenced ground bus in the main switchgear.

EXAMINATION

Contractor shall thoroughly examine Project site conditions for acceptance of grounding system installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

INSTALLATION

Grounding electrodes:

Supplementary grounding electrode (driven rods): Provide, as indicated on the Drawings, driven ground rod(s) installed in listed ground well box(s) and filled with gravel after connection is made. Interconnect ground rod with structural steel and adjacent rods with minimum #4 AWG bare copper conductor. Ground rod shall not be less than 10 foot from any other electrode of another electrical system or from adjacent ground rod(s).

Grounding electrode conductor: Provide grounding electrode conductor as indicated on the Drawings or sized per NEC/CEC Article 250, whichever is greater.

Power system grounding:

Connect the following items using NEC/CEC sized copper grounding conductors to lugs on the main reference ground bus in main switchgear:

Bonding conductor to equipment structural steel.

At the main power system reference ground bus in the main service switchgear, connect the grounding electrode conductor from grounding electrode systems as indicated on the Drawing or herein.

Equipment bonding/grounding:

Provide a NEC/CEC sized insulated copper ground conductor in all 120VAC through 600 VAC feeder and

branch circuit distribution conduits and cables.

Conduit terminating in concentric, eccentric or oversized knockouts at panelboards, cabinets, gutters, etc. shall have grounding bushings and bonding jumpers installed interconnecting all such conduits.

Provide bonding jumpers across expansion and deflection couplings in conduit runs.

Site lighting grounding: Bond all metallic light poles and bollards. Provide ground rods where indicated on the Drawings.

FIELD QUALITY CONTROL

Independent Testing: Contractor shall arrange and pay for the services of an independent Testing Agency to perform all quality control electrical testing required herein.

Prefunctional testing:

Provide Testing Agency with Contract Documents for their review prior to the commencement of ground testing.

Visual and mechanical inspection:

The Testing Agency shall inspect the grounding electrode and connections prior to concrete encasement, burial or concealment.

Check tightness and welds of all ground conductor terminations.

Verify installation complies with the intent of the Contract Documents

Obtain and record ground resistance measurements both from electrical equipment ground bus to the ground electrode and from the ground electrode to earth. Furnish and install additional bonding and add grounding electrodes as required complying with resistance limits specified under this Section of the Specification.

A typewritten record of measured resistance values shall be submitted for review and included with the operation and maintenance manual furnished to the Owner at the time of Project closeout and before certificate of final payment is issued.

CONDUIT

Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:

Electrical metallic tubing and fittings.

Rigid non-metallic conduit and fittings.

Miscellaneous conduit fittings and products.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

Division 01: Cutting and patching.

Division 31: Earthwork. Excavation and backfill for conduit and utilities on Project site.

Division 03: Cast-in-place concrete. Protective envelope for underground conduit installations.

Division 07: Sheet metal flashing and trim.

Division 09: Painting. Exposed conduit and other devices.

REFERENCES

Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified:

Federal Specifications (FS):

FS WW-C-563; Electrical Metallic Tubing.

FS W-C-1094A; Conduit and Conduit Fittings Plastic, Rigid.

American National Standards Institute, Inc. (ANSI):

ANSI C80.3; Electrical Metallic Tubing, Zinc Coated.

Underwriters Laboratories, Inc. (UL):

UL 514B; Conduit, Tubing and Cable Fittings.
UL 635; Insulating Bushings.
UL 651; Schedule 40 and 80 Rigid PVC Conduit.
UL 797; Electrical Metallic Tubing - Steel.
National Electrical Manufacturer Association (NEMA):
NEMA TC 2; Electrical Plastic Tubing and Conduit.
NEMA TC 3; PVC Fittings for use with Rigid PVC Conduit.
NEMA TC 6; PVC Plastic Utilities Duct (EB and DB Type)

SUBMITTALS

Submit in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS the following items:

Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.

Clearly mark on each data sheet the specific item(s) being submitted and the proposed application.

Submit Manufacturer's installation instruction. Provide written instructions for raceway products requiring glues, special tools or specific installation techniques.

QUALITY ASSURANCE

All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.

Only products and applications listed in this Section may be used on the Project unless otherwise submitted and approved.

MANUFACTURERS

Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.

Metal conduit:

Allied Tube and Conduit Co.

Triangle PWC, Inc.

Western Tube and Conduit Corp.

Spring City Electrical Manufacturing Co.

Occidental Coating Co. (OCAL).

Alflex Corp.

American Flexible Metal Conduit Co.

Anaconda.

Nonmetallic conduit:

Prime Conduit.

JM Eagle.

Cantex.

Fittings:

Appleton Electric Co.

OZ/Gedney.

Thomas & Betts Corp.

Spring City Electrical Manufacturing Co.

Occidental Coating Co. (OCAL).

Carlson.

Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

ELECTRICAL METALLIC TUBING (EMT)

Conduit: Shall be formed of cold rolled strip steel, electrical resistance welded continuously along the longitudinal seam and hot dip galvanized after fabrication. Conduit shall conform to ANSI C80.3

Specifications and shall meet UL requirements.

Set screw type couplings: Electroplated, steel or cast malleable iron, UL listed concrete tight. Use set screw type couplings with four setscrews each of conduit sizes over 2 inches. Setscrews shall be of case hardened steel with hex head and cup point to firmly seat in wall of conduit for positive grounding.

Set screw type connectors: Electroplated steel or cast malleable iron UL listed concrete tight with male hub and insulated plastic throat, 150 degree C temperature rated. Setscrew shall be same as for couplings.

Raintight couplings: Electroplate steel or cast malleable iron; UL listed raintight and concrete tight, using gland and ring compression type construction.

Raintight connectors: Electroplated steel or cast malleable iron, UL listed raintight and concrete tight, with insulated throat, using gland and ring compression type construction.

RIGID NON-METALLIC CONDUIT (PVC)

Conduit:

Rigid polyvinyl chloride, Schedule 40 or 80 conforming to NEMA TC1 and UL 651, latest edition. UL listed for exposed and direct-burial applications and for 90 degrees C conductor insulation. Conduit shall include an integral bell fitting at one end.

Rigid polyvinyl chloride, Type EB or DB conforming to NEMA TC 6 and UL 651, latest edition. UL listed for concrete encased burial and direct burial applications and for 90 degrees C conductor insulation. Conduit shall include an integral bell fitting at one end.

Fittings: Couplings, adaptors, transition fittings, etc., shall be molded PVC, slip on, solvent weld type conforming to NEMA TC3 for Schedule 40 or 80 and NEMA TC 9 for type EB or DB.

MISCELLANEOUS CONDUIT FITTINGS AND PRODUCTS

Watertight conduit entrance seals: Steel or cast malleable iron bodies and pressure clamps with PVC sleeve, neoprene sealing grommets and PVC coated steel pressure rings. Fittings shall be supplied with neoprene sealing rings between the body and PVC sleeve.

Watertight cable sealing bushings: One piece, compression molded sealing ring with PVC coated steel pressure disks, stainless steel sealing screws and zinc plated cast malleable iron locking collar.

Standard products not herein specified:

Provide listing of standard electrical conduit hardware and fittings not herein specified for approval prior to use or installation, i.e. locknuts, bushings, etc.

Listing shall include Manufacturers name, part numbers and a written description of the item indicating type of material and construction.

Miscellaneous components shall be equal in quality, material and construction to similar items herein specified.

EXAMINATION

Contractor shall thoroughly examine Project site conditions for acceptance of conduit system installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

APPLICATION

Electrical metallic tubing (EMT): Shall be used exposed or concealed for interior electrical feeders 4" and smaller, interior power and lighting branch circuits and low tension distribution system where run above suspended ceilings, in concrete slabs and walls not in contact with earth; in stud walls, furred spaces and crawl spaces. EMT shall not be installed exposed below 6 feet above the finish floor except within electrical,

communication or signal rooms or closets.

Rigid non-metallic conduit (PVC): Shall be used in the following applications:

Schedule 40 or 80 for exterior branch circuits directly buried in earth, 18" minimum below grade. PVC may be used below exterior slabs not subject to vehicular traffic.

Only schedule 80 PVC may be used for above ground conduit extensions on utility poles.

PVC elbows shall be radius sweep type schedule 40 for bends 45° or less and large radius sweep type schedule 80 for bends 46° or greater.

PREPARATION

Locations of conduit runs shall be planned in advance of the installation and coordinated with other trades. Where practical, install conduits in groups in parallel horizontal runs and at elevations that avoid unnecessary offsets.

In long runs of conduit, provide sufficient pull boxes inside buildings to facilitate pulling wires and cables, with spacing not to exceed 150 feet. Support pull boxes from structure independent of conduit supports. These pull boxes are not indicated on the Drawings.

Provide all reasonably inferred standard conduits fitting and products required to complete conduit installation to meet the intended application whether noted, indicated or specified in the Contract Documents or not.

INSTALLATION

Install conduit in accordance with Manufacturer's written instructions, as indicated on Drawings and as specified herein.

Minimum Conduit Size: Unless otherwise noted herein or on Drawings, minimum conduit size shall be 1/2" for interior applications and 3/4" for exterior and underground applications.

All conduit sizes indicated on the Drawings are sized for copper conductors with THHN/THWN insulation. If conductor type or size is changed the Contractor shall be responsible for resizing conduits upward to meet Code.

Install conduits in complete runs before pulling in cables or wires.

Install conduit free from dented, bruises or deformations. Remove and replace any damaged conduits with new undamaged material.

Clean any conduit in which moisture or any foreign matter has collected before pulling in conductors.

In all empty conduits or ducts, install a "True Tape" conduit measuring tape line to provide overall conduit length for determining length of cables/conductors for future use.

Conduit systems shall be mechanically and electrically continuous throughout. Install code size, insulated, copper, green-grounding conductors in all conduit runs for branch circuits and feeders. This conductor is not indicated on the Drawings. Refer to Section 260526: Grounding and Bonding.

Metallic conduit shall not be in contact with other dissimilar metal pipes (i.e. plumbing).

Make bends with standard conduit bending hand tool or machines. The use of any item not specifically designed for the bending of electrical conduit is strictly prohibited.

A run of conduit between terminations at wire pulling points shall not contain more than the equivalent of four quarter bends (360 degrees, total).

UNDERGROUND INSTALLATION

Perform trenching, backfilling and compaction operations as specified in Division 31: Trenching.

Install service utility company underground conduits in strict conformance to each utility company's requirements. Obtain a copy of each utility company's installation guidelines prior to commencing Work.

Tops of conduits shall be as follows unless otherwise noted:

Not less than 18 inches below finished grade.

Not less than 24 inches below roadways, paved parking lots, driveways or any surface subject to vehicular

traffic.

Not less than 4 inches below building floor slab for branch circuits. Major feeders and large signal conduits (2" and greater) at not less than 18 inches.

Depth of service utility conduits shall conform to utility company requirements.

Furnish and install specified underground conduit marker 12" above conduits in trenches with all buried conduits.

TERMINATIONS AND JOINTS

Use raceway fittings that are of types compatible with the associated raceway and suitable for the use and location. For intermediate steel conduit, use threaded rigid steel conduit fittings except as otherwise indicated.

Raceways shall be joined using specified couplings or transition couplings where dissimilar raceway systems are joined.

Conduits shall be securely fastened to cabinets, boxes and gutters using two locknuts and an insulating bushing or specified insulated connectors. Where joints cannot be made tight, use bonding jumpers to provide electrical continuity of the raceway system. Where subject to dampness, use insulating bushings to protect conductors. Install grounding bushings or bonding jumpers on all conduits terminating at concentric or eccentric knockouts.

Conduit terminations exposed at weatherproof enclosures and cast outlet boxes shall be made watertight using specified connectors and hubs.

Raceway seal: Inject into wire filled raceways, a pre-formulated rigid 2 lbs. density polyurethane foam which expands a minimum 35 times its original bulk. Foam shall have the physical properties of water vapor transmission of 1.2 to 3.0 perms; water absorption less than 2% by volume, fungus and bacterial resistant. Foam shall permanent seal against water, moisture, insects and rodents. Install raceway sealing foam at the following points:

Where conduits enter enclosures from below grade.

SUPPORTS

All raceways systems shall be secured to structures using specified fasteners, clamps and hangers spaced according to the NEC.

Support single runs of conduit using one-hole pipe straps. Where run horizontally on walls in damp or wet locations, install "clamp backs" to space conduit off the surface.

Metal structures: Use machine screw fasteners or other devices specifically designed and approved for the application.

PAYMENT

The contract price paid per lineal foot for "Trenching" (**Bid Item #209**) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in placing the temporary fencing, complete in place, maintenance and removal as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.78 BOXES

Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:

Pull and junction boxes.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

Division 08: Access doors. Wall and ceiling access doors.

REFERENCES

Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified.

American National Standards Institute/National Electrical Manufacturer Association:

ANSI/NEMA OS-1; Sheet-Steel Outlet Boxes, Device Boxes, Covers and Box Supports.

ANSI/NEMA OS-2; Nonmetallic Outlet Boxes, Device Boxes, Covers and Box Supports.

NEMA 250; Enclosures for Electrical Equipment (1000 volts maximum).

Underwriters Laboratories (UL):

UL 50; Enclosures for Electrical Equipment.

UL 514A; Metallic Outlet Boxes.

UL 1773; Termination Boxes.

SUBMITTALS

Submit in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS, the following items:

Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.

Clearly mark on each data sheet the specific item(s) being submitted and the proposed application.

Submit Manufacturer's installation instructions.

QUALITY ASSURANCE

All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.

Only products and applications listed in this Section may be used on the Project unless otherwise submitted.

MANUFACTURERS

Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.

Outlet and junction boxes:

Spring City Electrical Manufacturing Co.

Thomas & Betts Corp.

Raco, Inc.

Cast boxes:

Appleton Electric Co.

Crouse-Hinds.

Precast concrete boxes:

Oldcastle Enclosure Solutions.

Jensen Precast.

Christy Boxes

Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

OUTLET BOXES

Standard outlet box:

Provide galvanized, one-piece die formed or drawn steel, knockout type box of size and configuration best suited to the application indicated on the Drawings.

4-inch square by 1-1/2 inch deep shall be minimum box size.

ANSI/NEMA OS 1.

Concrete box:

Provide galvanized steel, 4-inch octagon rings with mounting lugs, backplate and adapter ring as required.

Select height as necessary to position knockouts above concrete reinforcing steel.

ANSI/NEMA OS 1.

Cast metal outlet body:

Provide four inch round, galvanized cast iron alloy with threaded hubs and mounting lugs as required.

Provide boxes with cast cover plates of the same material as the box and neoprene cover gaskets.

Conduit outlet body: Provide Cadmium plated cast iron alloy, oblong conduit outlet bodies with threaded conduit hubs and neoprene gasket, cast iron covers.

PULL AND JUNCTION BOXES

Sheet metal pull and junction box:

Provide standard outlet or concrete ring boxes wherever possible; otherwise use minimum 16 gauge galvanized sheet metal, NEMA 1 boxes, sized to Code requirements with covers secured by cadmium plated machine screws located 6 inches on centers.

ANSI/NEMA OS 1.

Cast metal pull and junction box: Provide standard cast malleable iron outlet or device boxes wherever possible; otherwise use cadmium plated, cast malleable iron boxes with bolt-on, interchangeable conduit hub plates with neoprene gaskets.

Precast concrete boxes: Provide high density reinforced concrete pull and junction box with end and side knockouts and non-settling shoulders. Use cast iron lid with hold down bolts or use traffic rated covers in areas subject to vehicular traffic.

EXAMINATION

Contractor shall thoroughly examine Project site conditions for acceptance of box installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

PREPARATION

Install all outlet boxes surface mounted in structures or where exposed Work is called for on the Drawings.

INSTALLATION

Install boxes in accordance with Manufacturer's written instructions, as indicated on Drawings and as specified herein.

Locate electrical boxes as indicated on Drawings and as required for splices, taps, wire pulling, equipment connections and Code compliance.

Install junction or pullboxes where required to limit bends in conduit runs to not more than 360 degrees or where pulling tension achieved would exceed the maximum allowable for the cable to be installed. Note that these boxes may not be indicated on the Drawings.

Leave no unused openings in any box. Install close-up plugs as required to seal openings.

Provide cast metal boxes with gasketed cast metal cover plates where boxes are exposed in damp or wet locations.

Provide precast concrete boxes in exterior planting areas, walkways, roads etc.

Use conduit outlet bodies to facilitate pulling of conductors or to make changes in conduit direction only.

Do not make splices in conduit outlet bodies.

Install galvanized steel coverplates on surface mounted outlets.

SUPPORTS

Support boxes independently of conduit system.

PAYMENT

The contract price paid per each for "Lighting In-Grade Pull Box" (**Bid Item #206**) the items included in this section shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved furnishing and installing electrical boxes, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.79 ELECTRICAL IDENTIFICATION

Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:

Electrical equipment nameplates.

Panelboard directories.

Wire and cable identification.

Buried electrical line warnings.

Junction box identification.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

SUBMITTALS

Submit in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS, the following items:

Data/catalog cuts for each product and component specified herein.

Schedules for nameplates to be furnished.

MANUFACTURERS

Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.

Conduit and wire markers:

Thomas & Betts Corp.

Brady.

Griffolyn.

Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

NAMEPLATES

Type NP: Engraved, plastic laminated labels, Signs and Instruction Plates. Engrave stock melamine plastic laminate 1/16-inch minimum thickness for signs up to 20 square inches or 8 inches in length; 1/8 inch thick for larger sizes. Engraved nameplates shall have white letters and be punched for mechanical fasteners. Color and letter height as specified in Part 3: Execution.

PANELBOARD DIRECTORIES (400 amp or less)

Directories: A 6" x 8" minimum size circuit directory frame and card with clear plastic covering shall be provided inside the inner panel door.

Circuit numbering: Starting at the top, odd numbered circuits in sequence down the left hand side and even numbered circuits down the right hand side. Multi-section panelboards shall have continuous consecutive circuit numbers, i.e. Section 1 (circuit numbers 1-42), Section 2 (circuit numbers 43-84), Section 3 (circuit numbers 85-126).

WIRE AND TERMINAL MARKERS

Provide self-adhering, pre-printed, machine printable or write-on, self-laminating vinyl wrap around strips. Blank markers shall be inscribed using the printer or pen recommended by Manufacturer for this purpose.

CONDUCTOR PHASE MARKERS

Colored vinyl plastic electrical tape, 3/4" wide, for identification of phase conductors. Scotch 35 Brand Tape or equal.

UNDERGROUND CONDUIT MARKER

6-inch wide, yellow polyethylene tape, with continuous black imprinting reading "Caution - Buried Electric Line Below".

EXAMINATION

Contractor shall thoroughly examine Project site conditions for acceptance of identification device installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

NAMEPLATES

Installation:

Degrease and clean surfaces to receive nameplates.

Install nameplates parallel to equipment lines.

Secure nameplates to equipment fronts using machine screws.

Provide type 'NP' color coded nameplates that present, as applicable, the following information:

Equipment or device designation:

Equipment designations shall conform to the following:

Equipment description:

Main switchboard/pedestal – MSA

Amperage.

Voltage.

Nameplates for power system distribution equipment and devices are to be black.

Minimum letter height shall be as follows:

For main switchboard/pedestal, lighting control panel, etc.: ½ inch letters to identify equipment designation. Use ¼ inch letters to identify voltage, phase, wires, etc.

PANELBOARD DIRECTORIES (400 AMP OR LESS)

Provide typewritten directories arranged in numerical order denoting loads served by area for each circuit.

Mount panelboard directories in a minimum 6" x 8" metal frame under clear plastic cover inside main switchboard/pedestal.

WIRE AND CABLE IDENTIFICATION

Provide wire markers on each conductor in main switchboard/pedestal, pull boxes, outlet and junction boxes and at load connection. Identify with branch circuit or feeder number for power and lighting circuits.

Provide colored phase markers for conductors as noted in Section 260519: Building Wire and Cable. Apply colored, pressure sensitive plastic tape in half-lapped turns for a distance of 3 inches from terminal points and in boxes where splices or taps are made. Apply the last two laps of tape with no tension to prevent possible unwinding. Do not cover cable identification markings by taping.

UNDERGROUND CONDUIT MARKERS

During trench backfilling, for exterior underground power, signal and communications lines, install continuous underground plastic line marker, located directly above line at 6 to 8 inches below finished grade. Where multiple lines installed in a common trench or concrete envelope, do not exceed an overall width of 16 inches; install a single line marker.

JUNCTION BOX IDENTIFICATION

The cover of junction, pull and connection boxes for power systems shall be clearly marked with a permanent ink felt pen. Identify the circuit(s) (panel designation and circuit numbers) contained in each box, unless otherwise noted or specified.

10.80 SERVICE PEDESTALS

SUMMARY

Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:

Service pedestals.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

Division 03: Cast-in-place concrete. Equipment pad.

Division 09: Painting. Touch-up of painted surfaces.

REFERENCES

Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified:

Federal Specifications (FS):

FS W-C-375; Circuit Breakers, Molded Case, Branch Circuit and Service.

American National Standards Institute, Inc. (ANSI):

ANSI C12; Code for Electricity Metering.

ANSI C37.5; Current and Potential Transformers.

ANSI C39.1; Electrical Analog Indicating Instruments.

ANSI C57.13; Requirements for Instrument Transformers.

Underwriters Laboratories, Inc. (UL):

UL 486E; Equipment Wiring Terminals for Use with Aluminum and/or Copper Conductors.

UL 489; Molded-Case Circuit Breakers, Molded-Case Switches and Circuit Breaker Enclosures.

UL 508; Industrial Control Equipment.

UL 508A; Industrial Control Panels.

UL 869A; Service Equipment.

National Electrical Manufacturer Association (NEMA):

NEMA AB1; Molded Case Circuit Breakers.

SUBMITTALS

Submit in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS, the following items:

Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.

Shop Drawings to include:

Front, rear, plan and side view elevations with overall dimensions.

Conduit entrance locations and requirements.

Nameplate legend.

Control equipment, instrument details and accessories.

Electrical characteristics including voltage, frame size and trip rating and withstand ratings.

Outdoor weatherproof equipment enclosure.

Furnish structural calculations for equipment anchorage as described in Section 260010: Basic Electrical Requirements.

Submit Manufacturer's installation instructions.
Complete Bill of Material listing all components.
Warranty.

Service entrance utility metering section shall be submitted to the local power utility company for approval prior to submission to the Engineer. A letter of acceptance from utility company shall accompany the submittal package.

OPERATION AND MAINTENANCE MANUAL

Supply operation and maintenance manuals in accordance with the requirements of Section 260010: Basic Electrical Requirements, to include the following:

A detailed explanation of the operation of the system.

Instructions for routine maintenance.

Pictorial parts list and part numbers.

Pictorial and schematic Electrical Drawings of wiring systems, including operating and safety devices, control panels, instrumentation and annunciators.

Telephone numbers for the authorized parts and service distributors.

Include all service bulletins and torque Specifications for all terminations.

Final testing report.

QUALITY ASSURANCE

All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.

Only products and applications listed in this Section may be used on the Project unless otherwise submitted.

PRODUCT DELIVERY, STORAGE AND HANDLING

Delivery: Service pedestal components shall not be delivered to the Project site until equipment is ready to be installed. Storage outdoors covered by rainproof material is not acceptable. Equipment damaged during shipment shall be replaced and returned to Manufacturer at no cost to Owner. Components shall be properly packaged in factory-fabricated containers and mounted on shipping skids.

Storage: Store in a clean, dry, ventilated space free from temperature extremes. Maintain factory wrapping or provide a heavy canvas/plastic cover to protect units from dirt, water, construction debris and traffic.

Provide heat where required to prevent condensation.

Handling: Handle in accordance with Manufacturer's written instructions. Be careful to prevent internal component damage, breakage, denting and scoring. Damaged units shall not be installed. Replace damaged units and return equipment to Manufacturer.

WARRANTY

Units and components offered under this Section shall be covered by a **1** year parts and labor warranty for malfunctions resulting from defects in materials and workmanship. Warranty shall begin upon acceptance by the Owner.

EXTRA MATERIAL

Provide one spray can of matching finish paint for touching up damaged surfaces after installation.

MANUFACTURERS

Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.

Tesco Controls, Inc.

Substitutions: Under provisions of Section 10.75 BASIC ELECTRICAL REQUIREMENTS.

Service pedestal - GENERAL

Enclosure:

Bus assembly and terminations:

Service pedestal bus bars and connections shall consist of copper mounted on heavy duty glass polyester supports.

Bus arrangement shall be Phase A-B-C-N left-to-right, top-to-bottom and front-to-rear as viewed from the front.

Ground bus shall be sized in accordance with UL 891.

Termination lugs: High compression circumference crimped type rated for use with aluminum/copper conductors.

Service pedestal shall be fully rated for a minimum of 22,000 AIC.

Neutral bus shall be 100 percent rated unless otherwise indicated on the Drawings.

Main service:

Removable neutral link: Provide removable bolted bus section for the purpose of disconnecting the ground circuit conductor from the supply side of the service in accordance with NEC Article 230.75.

Main bonding jumper: Connection between the grounded circuit conductor and the equipment ground conductor at the supply side of the service. Size in accordance with NEC Article 250.

Switching and overcurrent protective devices:

Main overcurrent protective device(s) shall be fixed mounted molded case circuit breakers with interrupting rating and frame and trip ratings as indicated on Drawings.

Feeder overcurrent protective device(s) shall be fixed mounted, molded case circuit breakers with frame and trip rating as indicated on Drawings.

Devices interrupting rating shall match that of switchboard for which the device is installed.

Devices shall be manually operated unless shunt trip and/or electrically operated devices are indicated on Drawings.

Instrumentation and controls:

Meter potential circuits shall be fused. Potential transformers if required for the monitoring devices shall be provided with fuses in the primary.

All internal devices (relays, transformers, etc.) shall be tagged as to rating and function with permanently fastened engraved nameplates.

Control and signal circuits: Control devices, i.e.: contactors, relays, time clocks, etc. shall be mounted in a separate compartment that is fully barrier from the overcurrent protective device compartments. Control devices shall be accessible through a separate hinged cover panel.

Relays: All relays shall be industrial control grade with a "ON" indicating neon light, hold down springs, minimum of 10 amp rated contacts and a minimum of four form C contacts. Relays used for control power transfer shall have 20 amp rated contacts. Do NOT use paralleled relays for relays with greater than 4 poles; use relays with the required number of poles. This is to prevent the situation where one relay fails and half of the intended function is lost; which could be dangerous.

Miscellaneous requirements:

Circuit numbering: Starting at the top, odd numbered circuits in sequence down the left hand side and even numbered circuits down the right hand side.

Nameplates: Engraved nameplates shall be provided for each device and all "SPACES" located in the switchboard. An engraved nameplate shall also be provided indicating the switchboard designation. See Section 10.79 ELECTRICAL IDENTIFICATION for requirements.

All control wires shall be labeled with wire markers and referenced to the control wiring diagrams. Provide colored wires with colored stripes to facilitate trouble-shooting and locating both ends of wires. Do not use wires with all the same wire color. Use fork, crimp type terminations on all control wires.

Provide a test block and plugs for voltage and current monitoring at each main switch. Provide engraved legend plates to indicate function of each test point.

Vertically mounted mains shall have the operating handle in the up position when energized.

Finish:

Five step zinc phosphate pre-treatment, one coat of rust inhibiting dichromate primer and one coat of baked-on enamel finish, ANSI 61 (light gray).

A seven step spray wash, electroplate primer with final baked-on enamel finish; ANSI 61 (light gray) is an acceptable finish alternative.

EXECUTION

EXAMINATION

Contractor shall thoroughly examine Project site conditions for acceptance of switchboard installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

PREPARATION

Ensure all conduit stub-ups for bottom entry into switchboard are in place and located as required per Shop Drawings.

Provide 4-inch high concrete housekeeping pad beneath equipment. Coordinate actual sizes of equipment base with approved Shop Drawings and extend pad 4-inches in all directions beyond overall dimension of base. Provide reinforcing bars as required structurally within pad to ensure proper support of equipment.

INSTALLATION

Install service pedestals in accordance with Manufacturer's written instructions, as indicated on the Drawings and as specified herein.

Service pedestals shall be accurately aligned, leveled and bolted in place.

Service pedestals shall be anchored and braced to withstand seismic forces as calculated per Section 260010: Basic Electrical Requirements.

Provide mounting hardware brackets, bus bar drilling and filler pieces for all unused spaces.

"Train" interior wiring; bundle and clamp, using specified plastic wire wraps specified under Section 260519: Building Wire and Cable.

Replace any panel pieces, doors or trims having dents, bends, warps or poor fit that may impede ready access, security or integrity.

Check and tighten all bolts and connections with a torque wrench using Manufacturer's recommended values.

Visually inspect service pedestals for rust and corrosion if signs of rust and corrosion are present, board shall be restored to new condition or replaced.

FIELD QUALITY CONTROL

Testing: Perform all quality control electrical testing, calibration and inspection required herein. Testing objectives shall be to:

Assure service pedestal installation conforms to specified requirements and operates within specified tolerances.

Field test and inspect to ensure operation in accordance with Manufacturer's recommendations and Specifications.

Prepare final test report including results, observations, failures, adjustments and remedies.

Apply label on pedestal upon satisfactory completion of tests and results.

Verify ratings and settings and make final adjustments.

Testing of overcurrent protective devices shall be done only after all devices are installed and system is energized.

Prefunctional testing:

Visual and mechanical inspection:

Inspect for physical damage, defects alignment and fit.

Perform mechanical operational tests in accordance with Manufacturer's instructions.

Compare nameplate information and connections to Contract Documents.

Check tightness of all control and power connections.

Check that all covers, barriers and doors are secure.

Verify that relays and overcurrent protective devices meet specified requirements.

Electrical tests:

Insulation resistance: 1000 volt DC tests for one minute on all 600 volt and lower rated equipment, components, buses, feeder and branch circuits and control circuits. Test phase-to-phase and phase-to-ground circuits showing less than 10 megohms resistance to ground shall be repaired or replaced.

Circuit continuity: All feeders shall be tested for continuity. All neutrals shall be tested for improper grounds.

Ground resistance: Test resistance to ground of system and equipment ground connection.

Test overcurrent protection devices per Section 262816: Overcurrent Protective Devices.

In the event that the system fails to function properly during the testing as a result of inadequate pretesting or preparation, the Contractor shall bear all costs incurred by the necessity for retesting including test equipment, transportation, subsistence and the Engineer's hourly rate.

Contractor shall replace at no costs to the Owner all devices which are found defective or do not operate within factory specified tolerances.

Contractor shall submit the testing final report for review prior to Project closeout and final acceptance by the Owner. Test report shall indicate test dates, devices tested, results, observation, deficiencies and remedies. Test report shall be included in the operation and maintenance manuals.

CLEANING

Prior to energizing of service pedestal the Contractor shall thoroughly clean the interior of enclosure of all construction debris, scrap wire, etc. using Manufacturer's approved methods and materials.

Upon completion of Project prior to final acceptance the Contractor shall thoroughly clean both the interior and exterior of switchboard per Manufacturers approved methods and materials. Remove paint splatters and other spots, dirt and debris.

Touch-up paint any marks, blemishes or other finish damage suffered during installation.

TRAINING

Factory authorized service representative shall conduct a 4 hour training seminar for Owner's

Representatives upon completion and acceptance of system. Instructions shall include safe operation, maintenance and testing of equipment with both classroom training and hands-on instruction.

Contractor shall schedule training with a minimum of 7 days advance notice.

PAYMENT

The contract price paid per each Utility Pad Mount (**Bid Item #210**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing materials composed of asphalt and concrete, including saw cutting and disposal of unsuitable materials, complete in place, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.81 EXTERIOR LIGHTING

SUMMARY

Work included: Labor, materials and equipment necessary to complete the installation required for the item specified under this Division, including but not limited to:

Site lighting fixtures.

Diodes.

LED drivers.

Pole standards.

Related Work: Consult all other Sections, determine the extent and character of related Work and properly coordinate Work specified herein with that specified elsewhere to produce a complete installation.

Division 03: Cast-in-place concrete. Light pole foundations and backboxes.

Division 09: Painting. Field painting of lighting fixtures.

REFERENCES

Comply with the latest edition of the following applicable Specifications and standards except as otherwise indicated or specified:

Federal Specifications (FS):

Underwriters Laboratories, Inc. (UL):

UL 66; Fixture Wire.

UL 1598; Luminaires.

National Electrical Manufacturer Association (NEMA):

NEMA LE 2; HID Lighting System Noise Criterion (LS-NC) Ratings.

Illumination Engineering Society of North America (IESNA):

IESNA LM-80-2008; Approved Method for Measuring Lumen Maintenance of LED Light Sources.

SUBMITTALS

Submit in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS, the following items:

Data/catalog cuts for each product and component specified herein, listing all physical and electrical characteristics and ratings indicating compliance with all listed standards.

Clearly mark on each data sheet the specific item(s) being submitted and the proposed application.

Independent Testing Laboratories, Inc. or equal, photometric test report for each luminaire type and lamp combination listed on the fixture schedule. Test reports shall be based on Illuminating Engineering Society published test procedures and shall contain candlepower distribution curves in five lateral planes for fixtures with asymmetric distributions and fixture luminance data for vertical angles above 45 degrees from nadir.

Submit Manufacturer's installation instructions.

Complete bill of material listing all lighting fixtures and components.

Warranty.

OPERATION AND MAINTENANCE MANUAL

Supply operation and maintenance manuals in accordance with the requirements of Section 10.75 BASIC ELECTRICAL REQUIREMENTS, to include the following:

A detailed explanation of the operation of the system.

Instructions for routine maintenance.

Pictorial parts list and part numbers.

Telephone numbers for the authorized parts and service distributors.

QUALITY ASSURANCE

All materials, equipment and parts comprising the units specified herein shall be new, unused and currently under production.

Only products and applications listed in this Section may be used on the Project unless otherwise submitted.

PRODUCT DELIVERY, STORAGE AND HANDLING

Delivery: Lighting fixtures shall not be delivered to the Project site until protected storage space is available. Storage outdoors covered by rainproof material is not acceptable. Equipment damaged during shipment shall be replaced and returned to Manufacturer at no cost to Owner.

Storage: Store in a clean, dry, ventilated space free from temperature extremes. Maintain factory wrapping or provide a heavy canvas/plastic cover to protect units from dirt, water, construction debris and traffic. Provide heat where required to prevent condensation.

Handling: Handle in accordance with Manufacturer's written instructions. Be careful to prevent internal component damage, breakage, denting and scoring. Damaged units shall not be installed. Replace damaged units and return equipment to Manufacturer.

WARRANTY

Units and components offered under this Section shall be covered by a 1 year parts and labor warranty for malfunctions resulting from defects in materials and workmanship. Warranty shall begin upon acceptance by the Owner.

MANUFACTURERS

Products furnished by the following Manufacturers shall be acceptable if in compliance with all features specified herein and indicated on the Drawings.

Diodes:

Cree (LED)

Lumi-leds (LED)

LED drivers:

Osram Sylvania

North American Philips Lighting Co. (NAPLC)

Substitutions: Under provisions of Section 260010: Basic Electrical Requirements.

LAMPS

Light emitting diodes (LED):

Refer to the Fixture Schedule for size and type of LED lamps required.

All diodes shall come from the same manufacturer and carry the same bin number.

All diodes shall be tested and tuned for the optimal Kelvin color point.

Color correlated temperature: 3000K

Minimum CRI (Color Rendering Index): 80

LED fixture components shall be free of all toxic materials to include lead, cadmium and mercury, and shall be RoHS compliant.

Groups of three or more diodes in a single housing shall be tested for even distribution.

Standard lumen output shall meet or exceed the State of California Title 24 Energy Code for high efficiency luminaires.

All LED fixtures shall have an IES formatted electronic photometric report.

Diodes shall have a minimum life of 50,000 hours and maintain at least 70% of initial lamp lumens throughout this period.

BALLASTS

LED Drivers:

LED drivers shall be integral to fixture housing or remotely located, when specified, within 15 feet of diode assembly.

Drivers shall have a minimum life of 50,000 hours and maintain at least 70% of initial lamp lumens for that

period.

FIXTURES

Refer to the Lighting Fixture Schedule on drawings.

The finish of all fixtures and trim shall be submitted to and approved by the Architect prior to ordering.

All standard fixtures must bear UL label. Attaching of labels after delivery of fixtures is not acceptable.

POLES

Wind-load strength: 80 mph and 1.3 gust factor for total support assembly, including pole, base and anchorage, where used, to carry the fixtures, supports and appurtenances at the indicated heights above grade without deflection or whipping.

Arm, bracket and tenon mount materials: Match the poles.

Mountings, fastenings and appurtenances: Corrosion-resistant components compatible with the poles and fixtures that will not cause galvanic action at contact points. Provide mountings that will correctly position the luminaire to provide the indicated light distribution.

Pole shafts: Refer to Lighting Fixture Schedule.

Handhole: Provide handhole and cover near base of pole shaft for access to wiring compartment.

Grounding lug: Provide grounding lug for grounding conductor with access through handhole.

Pole bases: Anchor type with galvanized steel hold-down or anchor bolts, leveling nuts and bolt covers.

Steel poles: Steel tubing conforming to ASTM A 500, Grade B, carbon steel with a minimum yield of 46,000 psi. Poles are 1-piece construction up to 40 feet in length and have access handhole in wall.

Pole-top tenons: Fabricated to support the fixture indicated and securely fastened to the pole top.

EXECUTION

EXAMINATION

Contractor shall thoroughly examine Project site conditions for acceptance of site lighting fixture installation to verify conformance with Manufacturer and Specification tolerances. Do not commence with installation until all conditions are made satisfactory.

PREPARATION

Consult Architectural or Landscape Drawings for details of ceiling and wall construction, finish, landscape features and other applicable details and provide backboxes and trims suitable for the particular type of ceiling or wall at each location.

INSTALLATION

Install lighting fixtures in accordance with Manufacturer's written instructions, as indicated on the Drawings and as specified herein.

Contractor shall be responsible for all supports, hangers and hardware necessary for a complete installation.

Fixtures shall be plumb, level, square, in straight lines and without distortion.

INSTALLATION OF POLES

General: Store poles on decay-resistant treated skids at least 1 ft. above grade and vegetation. Support pole to prevent distortion and arrange to provide free air circulation.

Poles: Retain factory-applied pole wrappings until just before pole installation. For poles with nonmetallic finishes, handle with web fabric straps.

Pole installation: Use fabric web slings (not chain or cable) to raise and set poles.

CONCRETE FOUNDATIONS

Construct concrete foundations with 3000 pound, 28 day concrete. Comply with electrical drawing details, Caltrans Standard Plans, and Manufacturer's recommendations for reinforcing, anchor bolts, nuts and washers.

FIELD QUALITY CONTROL

Visual and mechanical inspection:

Inspect for physical damage, defects, alignment and fit.

Perform operational test of each lighting fixture after installed, circuited and energized.

Perform emergency operational test of all lighting fixtures connected to emergency circuiting by interrupting normal power source.

Contractor shall replace at no cost to the Owner all equipment which is found defective or do not operate within factory specified tolerances.

CLEANING

Clean lighting fixtures prior to Project closeout in accordance with Manufacturer's recommended materials and methods.

PAYMENT

The contract price paid per each Light Fixture, Pole, and Foundation (**Bid Item #204**) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing the foundations, posts, and fixtures for lighting, as shown in the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the City Representative.

10.82 FINAL CLEANUP

Cleanup shall conform to the provisions of Section 4-1.13, "Cleanup," of the Standard Specifications, details on the Plans, and the Special Provisions

The project area shall be left in a neat and clean condition, as approved by the Engineer, at the end of each workday. The project site shall be clear of clutter at the end of each workday.

The project area shall be left in a neat and clean condition upon completion of the project prior to final inspection by the Engineer.

Full compensation for complying with the above provisions shall be considered as included in various bid items and no separate payment will be made.

10.83 DBE UTILIZATION

The Contractor shall complete and submit DBE Utilization forms to the Engineer.

Full compensation for complying with the provisions shall be considered as included in various bid items and no separate payment will be made.

SECTION 11 – WORK ZONE SAFETY AND MOBILITY

(Local Agency Information Only! A Traffic Management Plan (TMP) is required for all Federal-aid construction projects, and needs to include a Temporary Traffic Control (TTC) plan that addresses traffic safety and control through the work zone. A **significant project** (as defined in 23 CFR §630.1010) is one that, alone or in combination with other concurrent projects nearby, is anticipated to cause sustained work zone impacts that are greater than what is considered tolerable based on agency policy and/or engineering judgment. If a project is expected to be *significant*, the Traffic Management Plan (TMP) for that project must also contain both Transportation Operations (TO) and Public Information (PI) components.)

A significant portion of this project is within a designated hazardous waste site. Contractor shall develop and use their own health and safety plan to protect workers and public. Work zone safety shall comply with OSHA 29CFR 1910.120.

TRAFFIC MANAGEMENT PLAN: (Submitted to City by the Contractor)

Transportation Operations (Local Agency to include if a Significant Project)

Public Information: (Local Agency to include if a Significant Project)

SECTION 12 – RELATIONS WITH RAILROAD

Not Included.

SECTION 13 – FEDERAL TRANSIT ADMINISTRATION CONTRACT CLAUSES

1. Fly America Requirements

49 U.S.C. §40118

41 CFR Part 301-10

Applicability to Contracts

The Fly America requirements apply to the transportation of persons or property, by air, between a place in the U.S. and a place outside the U.S., or between places outside the U.S., when the FTA will participate in the costs of such air transportation. Transportation on a foreign air carrier is permissible when provided by a foreign air carrier under a code share agreement when the ticket identifies the U.S. air carrier's designator code and flight number. Transportation by a foreign air carrier is also permissible if there is a bilateral or multilateral air transportation agreement to which the U.S. Government and a foreign government are parties and which the Federal DOT has determined meets the requirements of the Fly America Act.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down Requirements

The Fly America requirements flow down from FTA recipients and subrecipients to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are in compliance.

Model Clause/Language

The relevant statutes and regulations do not mandate any specified clause or language. FTA proposes the following language.

Fly America Requirements - The Contractor agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10, which provide that

recipients and subrecipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

2. Buy America Requirements

49 U.S.C. 5323(j)

49 CFR Part 661

Applicability to Contracts

The Buy America requirements apply to the following types of contracts: Construction Contracts and Acquisition of Goods or Rolling Stock (valued at more than \$100,000).

Flow Down

The Buy America requirements flow down from FTA recipients and subrecipients to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are in compliance. The \$100,000 threshold applies only to the grantee contract, subcontracts under that amount are subject to Buy America.

Mandatory Clause/Language

The Buy America regulation, at 49 CFR 661.13, requires notification of the Buy America requirements in FTA-funded contracts, but does not specify the language to be used. The following language has been developed by FTA.

Buy America - The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

A bidder or offeror must submit to the FTA recipient the appropriate Buy America certification (below) with all bids or offers on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

Certification requirement for procurement of steel, iron, or manufactured products.

Certificate of Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 CFR Part 661.5.

Date _____

Signature _____

Company Name _____

Title _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 C.F.R. 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date _____

Signature _____

Company Name _____

Title _____

Certification requirement for procurement of buses, other rolling stock and associated equipment.

Certificate of Compliance with 49 U.S.C. 5323(j)(2)(C).

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and the regulations at 49 C.F.R. Part 661.11.

Date _____

Signature _____

Company Name _____

Title _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(2)(C)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11, but may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date _____

Signature _____

Company Name _____

Title _____

3. Charter Bus Requirements

49 U.S.C. 5323(d)

49 CFR Part 604

Applicability to Contracts

The Charter Bus requirements apply to the following type of contract: Operational Service Contracts.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down Requirements

The Charter Bus requirements flow down from FTA recipients and subrecipients to first tier service contractors.

Model Clause/Language

The relevant statutes and regulations do not mandate any specific clause or language. The following clause has been developed by FTA.

Charter Service Operations - The contractor agrees to comply with 49 U.S.C. 5323(d) and 49 CFR Part 604, which provides that recipients and subrecipients of FTA assistance are prohibited from providing charter service using federally funded equipment or facilities if there is at least one private charter operator willing and able to provide the service, except under one of the exceptions at 49 CFR 604.9. Any charter service provided under one of the exceptions must be "incidental," i.e., it must not interfere with or detract from the provision of mass transportation.

3. School Bus Requirements

49 U.S.C. 5323(F)

49 CFR Part 605

Applicability to Contracts

The School Bus requirements apply to the following type of contract: Operational Service Contracts.

Flow Down Requirements

The School Bus requirements flow down from FTA recipients and subrecipients to first tier service contractors.

Model Clause/Language

The relevant statutes and regulations do not mandate any specific clause or language. The following clause has been developed by FTA.

School Bus Operations - Pursuant to 69 U.S.C. 5323(f) and 49 CFR Part 605, recipients and subrecipients of FTA assistance may not engage in school bus operations exclusively for the transportation of students and school personnel in competition with private school bus operators unless qualified under specified exemptions. When

operating exclusive school bus service under an allowable exemption, recipients and subrecipients may not use federally funded equipment, vehicles, or facilities.

4. Cargo Preference Requirements

46 U.S.C. 1241

46 CFR Part 381

Applicability to Contracts

The Cargo Preference requirements apply to all contracts involving equipment, materials, or commodities which may be transported by ocean vessels.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down

The Cargo Preference requirements apply to all subcontracts when the subcontract may be involved with the transport of equipment, material, or commodities by ocean vessel.

Model Clause/Language

The MARAD regulations at 46 CFR 381.7 contain suggested contract clauses. The following language is proffered by FTA.

Cargo Preference - Use of United States-Flag Vessels - The contractor agrees: a. *to use* privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels; b. *to furnish within 20* working days following the date of loading for shipments originating within the United States or within 30 working days following the date of leading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo *described in the preceding paragraph* to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (*through the contractor in the case of a subcontractor's bill-of-lading.*) c. *to include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.*

5. Seismic Safety Requirements

42 U.S.C. 7701 et seq. 49

CFR Part 41

Applicability to Contracts

The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down

The Seismic Safety requirements flow down from FTA recipients and subrecipients to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all subcontractors.

Model Clauses/Language

The regulations do not provide suggested language for third-party contract clauses. The following language has been developed by FTA.

Seismic Safety - The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation

Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

6. Energy Conservation Requirements

42 U.S.C. 6321 et seq.

49 CFR Part 18

Applicability to Contracts

The Energy Conservation requirements are applicable to all contracts.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down

The Energy Conservation requirements extend to all third party contractors and their contracts at every tier and subrecipients and their subagreements at every tier.

Model Clause/Language

No specific clause is recommended in the regulations because the Energy Conservation requirements are so dependent on the state energy conservation plan. The following language has been developed by FTA.

Energy Conservation - The contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

7. Clean Water Requirements

33 U.S.C. 1251

Applicability to Contracts

The Clean Water requirements apply to each contract and subcontract which exceeds \$100,000.

Flow Down

The Clean Water requirements flow down to FTA recipients and subrecipients at every tier.

Model Clause/Language

While no mandatory clause is contained in the Federal Water Pollution Control Act, as amended, the following language developed by FTA contains all the mandatory requirements.

Clean Water - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq. . The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

8. Bus Testing

49 U.S.C. 5318(e)

49 CFR Part 665

Applicability to Contracts

The Bus Testing requirements pertain only to the acquisition of Rolling Stock/Turnkey.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down

The Bus Testing requirements should not flow down, except to the turnkey contractor as stated in [Master Agreement](#).

Model Clause/Language

Clause and language therein are merely suggested. 49 CFR Part 665 does not contain specific language to be included in third party contracts but does contain requirements applicable to subrecipients and third party contractors. Bus Testing Certification and language therein are merely suggested.

Bus Testing - The Contractor [Manufacturer] agrees to comply with 49 U.S.C. A 5323(c) and FTA's implementing regulation at 49 CFR Part 665 and shall perform the following:

1. A manufacturer of a new bus model or a bus produced with a major change in components or configuration shall provide a copy of the final test report to the recipient at a point in the procurement process specified by the recipient which will be prior to the recipient's final acceptance of the first vehicle.
2. A manufacturer who releases a report under paragraph 1 above shall provide notice to the operator of the testing facility that the report is available to the public.
3. If the manufacturer represents that the vehicle was previously tested, the vehicle being sold should have the identical configuration and major components as the vehicle in the test report, which must be provided to the recipient prior to recipient's final acceptance of the first vehicle. If the configuration or components are not identical, the manufacturer shall provide a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.
4. If the manufacturer represents that the vehicle is "grandfathered" (has been used in mass transit service in the United States before October 1, 1988, and is currently being produced without a major change in configuration or components), the manufacturer shall provide the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

CERTIFICATION OF COMPLIANCE WITH FTA'S BUS TESTING REQUIREMENTS

The undersigned [Contractor/Manufacturer] certifies that the vehicle offered in this procurement complies with 49 U.S.C. A 5323(c) and FTA's implementing regulation at 49 CFR Part 665.

The undersigned understands that misrepresenting the testing status of a vehicle acquired with Federal financial assistance may subject the undersigned to civil penalties as outlined in the Department of Transportation's regulation on Program Fraud Civil Remedies, 49 CFR Part 31. In addition, the undersigned understands that FTA may suspend or debar a manufacturer under the procedures in 49 CFR Part 29.

Date: _____

Signature: _____

Company Name: _____

Title: _____

9. Pre-award and Post Delivery Audits Requirements

49 U.S.C. 5323

49 CFR Part 663

Applicability to Contracts

These requirements apply only to the acquisition of Rolling Stock/Turnkey.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down

These requirements should not flow down, except to the turnkey contractor as stated in [Master Agreement](#).

Model Clause/Language

- Clause and language therein are merely suggested. 49 C.F.R. Part 663 does not contain specific language to be included in third party contracts but does contain requirements applicable to subrecipients and third party contractors.

- Buy America certification is mandated under FTA regulation, "Pre-Award and Post-Delivery Audits of Rolling Stock Purchases," 49 C.F.R. 663.13.
- Specific language for the Buy America certification is mandated by FTA regulation,

"Buy America Requirements--Surface Transportation Assistance Act of 1982, as amended," 49 C.F.R. 661.12, but has been modified to include FTA's Buy America requirements codified at 49 U.S.C. A 5323(j).

Pre-Award and Post-Delivery Audit Requirements - The Contractor agrees to comply with 49 U.S.C. § 5323(l) and FTA's implementing regulation at 49 C.F.R. Part 663 and to submit the following certifications:

1. Buy America Requirements: The Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Bidder/Offeror certifies compliance with Buy America, it shall submit documentation which lists 1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.
2. Solicitation Specification Requirements: The Contractor shall submit evidence that it will be capable of meeting the bid specifications.
3. Federal Motor Vehicle Safety Standards (FMVSS): The Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

**BUY AMERICA CERTIFICATE OF COMPLIANCE WITH FTA REQUIREMENTS
FOR BUSES, OTHER ROLLING STOCK, OR ASSOCIATED EQUIPMENT**

(To be submitted with a bid or offer exceeding the small purchase threshold for Federal assistance programs, currently set at \$100,000.)

Certificate of Compliance

The bidder hereby certifies that it will comply with the requirements of 49 U.S.C. Section 5323(j)(2)(C), Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 C.F.R. 661.11:

Date: _____

Signature: _____

Company Name: _____

Title: _____

Certificate of Non-Compliance

The bidder hereby certifies that it cannot comply with the requirements of 49 U.S.C. Section 5323(j)(2)(C) and Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, but may qualify for an exception to the requirements consistent with 49 U.S.C. Sections 5323(j)(2)(B) or (j)(2)(D), Sections 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act, as amended, and regulations in 49 C.F.R. 661.7.

Date: _____

Signature: _____

Company Name: _____

Title: _____

10. Lobbying

31 U.S.C. 1352

49 CFR Part 19

49 CFR Part 20

Applicability to Contracts

The Lobbying requirements apply to Construction/Architectural and Engineering/Acquisition of Rolling Stock/Professional Service Contract/Operational Service Contract/Turnkey contracts.

Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Flow Down

The Lobbying requirements mandate the maximum flow down, pursuant to Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352(b)(5) and 49 C.F.R. Part 19, Appendix A, Section 7.

Mandatory Clause/Language

- Clause and specific language therein are mandated by 49 CFR Part 19, Appendix A.

Modifications have been made to the Clause pursuant to Section 10 of the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, *et seq.*]

- Lobbying Certification and Disclosure of Lobbying Activities for third party contractors are mandated by 31 U.S.C. 1352(b)(5), as amended by Section 10 of the Lobbying Disclosure Act of 1995, and DOT implementing regulation, "New Restrictions on Lobbying," at 49 CFR § 20.110(d)
- Language in Lobbying Certification is mandated by 49 CFR Part 19, Appendix A, Section 7, which provides that contractors file the certification required by 49 CFR Part 20, Appendix A.

Modifications have been made to the Lobbying Certification pursuant to Section 10 of the Lobbying Disclosure Act of 1995.

- Use of "Disclosure of Lobbying Activities," Standard Form--LLL set forth in Appendix B of 49 CFR Part 20, as amended by "Government wide Guidance For New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96) is mandated by 49 CFR Part 20, Appendix A.

Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, *et seq.*] - Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding \$100,000)

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, *et seq.*)]

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, *et seq.*, apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Name and Title of Contractor's Authorized Official

Date

11. Access to Records and Reports

49 U.S.C. 5325

18 CFR 18.36 (i)

49 CFR 633.17

Applicability to Contracts

Reference Chart "Requirements for Access to Records and Reports by Type of Contracts"

Part 1 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 2 **Flow Down**

FTA does not require the inclusion of these requirements in subcontracts.

Part 3 **Model Clause/Language**

The specified language is not mandated by the statutes or regulations referenced, but the language provided paraphrases the statutory or regulatory language.

The specified language is not mandated by the statutes or regulations referenced, but the language provided paraphrases the statutory or regulatory language.

Access to Records - The following access to records requirements apply to this Contract:

1. Where the Purchaser is not a State but a local government and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C. F. R. 18.36(i), the Contractor agrees to provide the Purchaser, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C. F. R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.
2. Where the Purchaser is a State and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 633.17, Contractor agrees to provide the Purchaser, the FTA Administrator or his authorized representatives, including any PMO Contractor, access to the Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311. By definition,

a major capital project excludes contracts of less than the simplified acquisition threshold currently set at \$100,000.

3. Where the Purchaser enters into a negotiated contract for other than a small purchase or under the simplified acquisition threshold and is an institution of higher education, a hospital or other non-profit organization and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 19.48, Contractor agrees to provide the Purchaser, FTA Administrator, the Comptroller General of the United States or any of their duly authorized representatives with access to any books, documents, papers and record of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions.
4. Where any Purchaser which is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 U.S.C. 5325(a) enters into a contract for a capital project or improvement (defined at 49 U.S.C. 5302(a)1) through other than competitive bidding, the Contractor shall make available records related to the contract to the Purchaser, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
5. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
6. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until the Purchaser, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i)(11).
7. FTA does not require the inclusion of these requirements in subcontracts.

Part 4 Requirements for Access to Records and Reports by Types of Contract

Contract Characteristics	Contract	Operational Service Contract	Turnkey	Construction	Architectural Engineering	Acquisition of Rolling Stock	Professional Services
I. State Grantees	a. Contracts below SAT (\$100,000)	None	Those imposed on state pass thru to Contractor	None	None	None	None
	b. Contracts above \$100,000/Capital Projects	None unless ¹ non-competitive award	Those imposed on state pass thru to Contractor	Yes, if non-competitive award or if funded thru ² 5307/5309/5311	None unless non-competitive award	None unless non-competitive award	None unless non-competitive award
II. Non State Grantees	a. Contracts below SAT (\$100,000)	Yes ³	Those imposed on non-state Grantee	Yes	Yes	Yes	Yes

			pass thru to Contracto r				
	b. Contracts above \$100,000/Capita l Projects	Yes ³	Those imposed on non- state Grantee pass thru to Contracto r	Yes	Yes	Yes	Yes

Part 5 **Sources of Authority**

1. 49 USC 5325 (a)
2. 49 CFR 633.17
3. 18 CFR 18.36 (i)

Part 6 **12. Federal Changes**

49 CFR Part 18

Part 7 **Applicability to Contracts**

The Federal Changes requirement applies to all contracts.

Part 8 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 9 **Flow Down**

The Federal Changes requirement flows down appropriately to each applicable changed requirement.

Part 10 **Model Clause/Language**

No specific language is mandated. The following language has been developed by FTA.
Federal Changes - Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the [Master Agreement](#) between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

Part 11 **13. Bonding Requirements**

Part 12 **Applicability to Contracts**

For those construction or facility improvement contracts or subcontracts exceeding \$100,000, FTA may accept the bonding policy and requirements of the recipient, provided that they meet the minimum requirements for construction contracts as follows:

- a. A bid guarantee from each bidder equivalent to five (5) percent of the bid price. The "bid guarantees" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
- b. A performance bond on the part of the Contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.
- c. A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment, as required by law, of all persons

supplying labor and material in the execution of the work provided for in the contract. Payment bond amounts required from Contractors are as follows:

1. 50% of the contract price if the contract price is not more than \$1 million;
 2. 40% of the contract price if the contract price is more than \$1 million but not more than \$5 million; or
 3. \$2.5 million if the contract price is more than \$5 million.
- d. A cash deposit, certified check or other negotiable instrument may be accepted by a grantee in lieu of performance and payment bonds, provided the grantee has established a procedure to assure that the interest of FTA is adequately protected. An irrevocable letter of credit would also satisfy the requirement for a bond.

Part 13 Flow Down

Bonding requirements flow down to the first tier contractors.

Part 14 Model Clauses/Language

FTA does not prescribe specific wording to be included in third party contracts. FTA has prepared sample clauses as follows:

Part 15 Bid Bond Requirements (Construction)

a. Bid Security

A Bid Bond must be issued by a fully qualified surety company acceptable to (Recipient) and listed as a company currently authorized under 31 CFR, Part 223 as possessing a Certificate of Authority as described thereunder.

b. Rights Reserved

In submitting this Bid, it is understood and agreed by bidder that the right is reserved by (Recipient) to reject any and all bids, or part of any bid, and it is agreed that the Bid may not be withdrawn for a period of [ninety (90)] days subsequent to the opening of bids, without the written consent of (Recipient).

It is also understood and agreed that if the undersigned bidder should withdraw any part or all of his bid within [ninety (90)] days after the bid opening without the written consent of (Recipient), shall refuse or be unable to enter into this Contract, as provided above, or refuse or be unable to furnish adequate and acceptable Performance Bonds and Labor and Material Payments Bonds, as provided above, or refuse or be unable to furnish adequate and acceptable insurance, as provided above, he shall forfeit his bid security to the extent of (Recipient's) damages occasioned by such withdrawal, or refusal, or inability to enter into an agreement, or provide adequate security therefor.

It is further understood and agreed that to the extent the defaulting bidder's Bid Bond, Certified Check, Cashier's Check, Treasurer's Check, and/or Official Bank Check (excluding any income generated thereby which has been retained by (Recipient) as provided in [Item x "Bid Security" of the Instructions to Bidders]) shall prove inadequate to fully recompense (Recipient) for the damages occasioned by default, then the undersigned bidder agrees to indemnify (Recipient) and pay over to (Recipient) the difference between the bid security and (Recipient's) total damages, so as to make (Recipient) whole.

The undersigned understands that any material alteration of any of the above or any of the material contained on this form, other than that requested, will render the bid unresponsive.

Part 16 Performance and Payment Bonding Requirements (Construction)

The Contractor shall be required to obtain performance and payment bonds as follows:

a. Performance bonds

1. The penal amount of performance bonds shall be 100 percent of the original contract price, unless the (Recipient) determines that a lesser amount would be adequate for the protection of the (Recipient).
2. The (Recipient) may require additional performance bond protection when a contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The (Recipient) may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

b. Payment bonds

1. The penal amount of the payment bonds shall equal:
 - i. Fifty percent of the contract price if the contract price is not more than \$1 million.
 - ii. Forty percent of the contract price if the contract price is more than \$1 million but not more than \$5 million; or
 - iii. Two and one half million if the contract price is more than \$5 million.
2. If the original contract price is \$5 million or less, the (Recipient) may require additional protection as required by subparagraph 1 if the contract price is increased.

Part 17 Performance and Payment Bonding Requirements (Non-Construction)

The Contractor may be required to obtain performance and payment bonds when necessary to protect the (Recipient's) interest.

- a. The following situations may warrant a performance bond:
 1. (Recipient) property or funds are to be provided to the contractor for use in performing the contract or as partial compensation (as in retention of salvaged material).
 2. A contractor sells assets to or merges with another concern, and the (Recipient), after recognizing the latter concern as the successor in interest, desires assurance that it is financially capable.
 3. Substantial progress payments are made before delivery of end items starts.
 4. Contracts are for dismantling, demolition, or removal of improvements.
- b. When it is determined that a performance bond is required, the Contractor shall be required to obtain performance bonds as follows:
 1. The penal amount of performance bonds shall be 100 percent of the original contract price, unless the (Recipient) determines that a lesser amount would be adequate for the protection of the (Recipient).
 2. The (Recipient) may require additional performance bond protection when a contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The (Recipient) may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.
- c. A payment bond is required only when a performance bond is required, and if the use of payment bond is in the (Recipient's) interest.
- d. When it is determined that a payment bond is required, the Contractor shall be required to obtain payment bonds as follows:
 1. The penal amount of payment bonds shall equal:
 - i. Fifty percent of the contract price if the contract price is not more than \$1 million;
 - ii. Forty percent of the contract price if the contract price is more than \$1 million but not more than \$5 million; or
 - iii. Two and one half million if the contract price is increased.

Part 18 Advance Payment Bonding Requirements

The Contractor may be required to obtain an advance payment bond if the contract contains an advance payment provision and a performance bond is not furnished. The (recipient) shall determine the amount of the advance payment bond necessary to protect the (Recipient).

Part 19 Patent Infringement Bonding Requirements (Patent Indemnity)

The Contractor may be required to obtain a patent indemnity bond if a performance bond is not furnished and the financial responsibility of the Contractor is unknown or doubtful. The (recipient) shall determine the amount of the patent indemnity to protect the (Recipient).

Part 20 Warranty of the Work and Maintenance Bonds

1. The Contractor warrants to (Recipient), the Architect and/or Engineer that all materials and equipment furnished under this Contract will be of highest quality and new unless otherwise specified by (Recipient), free from faults and defects and in conformance with the Contract Documents. All work not so

conforming to these standards shall be considered defective. If required by the [Project Manager], the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

2. The Work furnished must be of first quality and the workmanship must be the best obtainable in the various trades. The Work must be of safe, substantial and durable construction in all respects. The Contractor hereby guarantees the Work against defective materials or faulty workmanship for a minimum period of one (1) year after Final Payment by (Recipient) and shall replace or repair any defective materials or equipment or faulty workmanship during the period of the guarantee at no cost to (Recipient). As additional security for these guarantees, the Contractor shall, prior to the release of Final Payment [as provided in Item X below], furnish separate Maintenance (or Guarantee) Bonds in form acceptable to (Recipient) written by the same corporate surety that provides the Performance Bond and Labor and Material Payment Bond for this Contract. These bonds shall secure the Contractor's obligation to replace or repair defective materials and faulty workmanship for a minimum period of one (1) year after Final Payment and shall be written in an amount equal to ONE HUNDRED PERCENT (100%) of the CONTRACT SUM, as adjusted (if at all).

Part 21 **14. CLEAN AIR**

42 U.S.C. 7401 et seq
40 CFR 15.61
49 CFR Part 18

Part 22 **Applicability to Contracts**

The Clean Air requirements apply to all contracts exceeding \$100,000, including indefinite quantities where the amount is expected to exceed \$100,000 in any year.

Part 23 **Flow Down**

The Clean Air requirements flow down to all subcontracts which exceed \$100,000.

Part 24 **Model Clauses/Language**

No specific language is required. FTA has proposed the following language.

Clean Air - (1) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 *et seq.* The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(2) The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

Part 25 **15. Recycled Products**

42 U.S.C. 6962
40 CFR Part 247
Executive Order 12873

Part 26 **Applicability to Contracts**

The Recycled Products requirements apply to all contracts for items designated by the EPA, when the purchaser or contractor procures \$10,000 or more of one of these items during the fiscal year, or has procured \$10,000 or more of such items in the previous fiscal year, using Federal funds. New requirements for "recovered materials" will become effective May 1, 1996. These new regulations apply to all procurement actions involving items designated by the EPA, where the procuring agency purchases \$10,000 or more of one of these items in a fiscal year, or when the cost of such items purchased during the previous fiscal year was \$10,000.

Part 27 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 28 **Flow Down**

These requirements flow down to all to all contractor and subcontractor tiers.

Part 29 **Model Clause/Language**

No specific clause is mandated, but FTA has developed the following language.

Recovered Materials - The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

Part 30 **16. Davis-Bacon and Copeland Anti-Kickback Acts**

Part 31 **Background and Application**

The Davis-Bacon and Copeland Acts are codified at 40 USC 3141, et seq. and 18 USC 874. The Acts apply to grantee construction contracts and subcontracts that "at least partly are financed by a loan or grant from the Federal Government." 40 USC 3145(a), 29 CFR 5.2(h), 49 CFR 18.36(i)(5). The Acts apply to any construction contract over \$2,000. 40 USC 3142(a), 29 CFR 5.5(a). 'Construction,' for purposes of the Acts, includes "actual construction, alteration and/or repair, including painting and decorating." 29 CFR 5.5(a). The requirements of both Acts are incorporated into a single clause (see 29 CFR 3.11) enumerated at 29 CFR 5.5(a) and reproduced below. The clause language is drawn directly from 29 CFR 5.5(a) and any deviation from the model clause below should be coordinated with counsel to ensure the Acts' requirements are satisfied.

Part 32 **Clause Language**

Part 33 **Davis-Bacon and Copeland Anti-Kickback Acts**

(1) **Minimum wages** - (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

1. Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and
2. The classification is utilized in the area by the construction industry; and
3. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

4. With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

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

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

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

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

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

1. The work to be performed by the classification requested is not performed by a classification in the wage determination; and
2. The classification is utilized in the area by the construction industry; and
3. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

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

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination

with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(v) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

(3) **Payrolls and basic records** - (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the [*insert name of grantee*] for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

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

1. (1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;
2. (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

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

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

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

(ii) *Trainees* - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a

percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

(5) **Compliance with Copeland Act requirements** - The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) **Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) **Contract termination: debarment** - A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) **Compliance with Davis-Bacon and Related Act requirements** - All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) **Disputes concerning labor standards** - Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) **Certification of eligibility** - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

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

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

Part 34 **17. Contract Work Hours and Safety Standards Act**

Part 35 **Background and Application**

The Contract Work Hours and Safety Standards Act is codified at 40 USC 3701, et seq. The Act applies to grantee contracts and subcontracts "financed at least in part by loans or grants from ... the [Federal] Government." 40 USC 3701(b)(1)(B)(iii) and (b)(2), 29 CFR 5.2(h), 49 CFR 18.36(i)(6). Although the original Act required its application in any construction contract over \$2,000 or non-construction contract to which the Act applied over \$2,500 (and language to that effect is still found in 49 CFR 18.36(i)(6)), the Act no longer applies to any "contract in an amount that is not greater than \$100,000." 40 USC 3701(b)(3)(A)(iii).

The Act applies to construction contracts and, in very limited circumstances, non-construction projects that employ "laborers or mechanics on a public work." These non-construction applications do not generally apply to

transit procurements because transit procurements (to include rail cars and buses) are deemed "commercial items." 40 USC 3707, 41 USC 403 (12). A grantee that contemplates entering into a contract to procure a developmental or unique item should consult counsel to determine if the Act applies to that procurement and that additional language required by 29 CFR 5.5(c) must be added to the basic clause below. The clause language is drawn directly from 29 CFR 5.5(b) and any deviation from the model clause below should be coordinated with counsel to ensure the Act's requirements are satisfied.

Part 36 **Clause Language**

Part 37 **Contract Work Hours and Safety Standards**

1. **Overtime requirements** - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. **Violation; liability for unpaid wages; liquidated damages** - In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
3. **Withholding for unpaid wages and liquidated damages** - The (write in the name of the grantee) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
4. **Subcontracts** - The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

Part 38 **18. [RESERVED]**

Part 39 **19. No Government Obligation to Third Parties**

Part 40 **Applicability to Contracts**

Applicable to all contracts.

Part 41 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 42 **Flow Down**

Not required by statute or regulation for either primary contractors or subcontractors, this concept should flow down to all levels to clarify, to all parties to the contract, that the Federal Government does not have contractual liability to third parties, absent specific written consent.

Part 43 **Model Clause/Language**

While no specific language is required, FTA has developed the following language.

No Obligation by the Federal Government.

1. The Purchaser and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to the Purchaser, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
2. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

Part 44 **20. Program Fraud and False or Fraudulent Statements and Related Acts**

31 U.S.C. 3801 et seq.

49 CFR Part 31 18 U.S.C. 1001

49 U.S.C. 5307

Part 45 **Applicability to Contracts**

These requirements are applicable to all contracts.

Part 46 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 47 **Flow Down**

These requirements flow down to contractors and subcontractors who make, present, or submit covered claims and statements.

Part 48 **Model Clause/Language**

These requirements have no specified language, so FTA proffers the following language.

Program Fraud and False or Fraudulent Statements or Related Acts.

1. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
2. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.
3. The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

Part 49 **21. Termination**

49 U.S.C. Part 18
FTA Circular 4220.1E

Part 50 Applicability to Contracts

All contracts (with the exception of contracts with nonprofit organizations and institutions of higher education,) in excess of \$10,000 shall contain suitable provisions for termination by the grantee including the manner by which it will be effected and the basis for settlement. (For contracts with nonprofit organizations and institutions of higher education the threshold is \$100,000.) In addition, such contracts shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.

Part 51 Flow Down

The termination requirements flow down to all contracts in excess of \$10,000, with the exception of contracts with nonprofit organizations and institutions of higher learning.

Part 52 Model Clause/Language

FTA does not prescribe the form or content of such clauses. The following are suggestions of clauses to be used in different types of contracts:

- a. **Termination for Convenience (General Provision)** The (Recipient) may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Government's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to (Recipient) to be paid the Contractor. If the Contractor has any property in its possession belonging to the (Recipient), the Contractor will account for the same, and dispose of it in the manner the (Recipient) directs.
- b. **Termination for Default [Breach or Cause] (General Provision)** If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the (Recipient) may terminate this contract for default. Termination shall be effected by serving a notice of termination on the contractor setting forth the manner in which the Contractor is in default. The contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by the (Recipient) that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the (Recipient), after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

- c. **Opportunity to Cure (General Provision)** The (Recipient) in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions

If Contractor fails to remedy to (Recipient)'s satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within [ten (10) days] after receipt by Contractor of written notice from (Recipient) setting forth the nature of said breach or default, (Recipient) shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude (Recipient) from also pursuing all available remedies against Contractor and its sureties for said breach or default.

- d. **Waiver of Remedies for any Breach** In the event that (Recipient) elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by (Recipient) shall not limit (Recipient)'s remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.
- e. **Termination for Convenience (Professional or Transit Service Contracts)** The (Recipient), by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, the Recipient shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

- f. **Termination for Default (Supplies and Service)** If the Contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Recipient.

- g. **Termination for Default (Transportation Services)** If the Contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of default. The Contractor will only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.

If this contract is terminated while the Contractor has possession of Recipient goods, the Contractor shall, upon direction of the (Recipient), protect and preserve the goods until surrendered to the Recipient or its agent. The Contractor and (Recipient) shall agree on payment for the preservation and protection of goods. Failure to agree on an amount will be resolved under the Dispute clause.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the (Recipient).

- h. **Termination for Default (Construction)** If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, the (Recipient) may terminate this contract for default. The (Recipient) shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the Recipient may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Recipient resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Recipient in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if-

1. the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of the Recipient, acts of another Contractor in the performance of a contract with the Recipient, epidemics, quarantine restrictions, strikes, freight embargoes; and
2. the contractor, within [10] days from the beginning of any delay, notifies the (Recipient) in writing of the causes of delay. If in the judgment of the (Recipient), the delay is excusable, the time for completing the work shall be extended. The judgment of the (Recipient) shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.

If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Recipient.

- i. **Termination for Convenience or Default (Architect and Engineering)** The (Recipient) may terminate this contract in whole or in part, for the Recipient's convenience or because of the failure of the Contractor to fulfill the contract obligations. The (Recipient) shall terminate by delivering to the Contractor

a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process.

If the termination is for the convenience of the Recipient, the Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

If the termination is for failure of the Contractor to fulfill the contract obligations, the Recipient may complete the work by contract or otherwise and the Contractor shall be liable for any additional cost incurred by the Recipient. If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Recipient.

- j. **Termination for Convenience of Default (Cost-Type Contracts)** The (Recipient) may terminate this contract, or any portion of it, by serving a notice or termination on the Contractor. The notice shall state whether the termination is for convenience of the (Recipient) or for the default of the Contractor. If the termination is for default, the notice shall state the manner in which the contractor has failed to perform the requirements of the contract. The Contractor shall account for any property in its possession paid for from funds received from the (Recipient), or property supplied to the Contractor by the (Recipient). If the termination is for default, the (Recipient) may fix the fee, if the contract provides for a fee, to be paid the contractor in proportion to the value, if any, of work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the (Recipient) and the parties shall negotiate the termination settlement to be paid the Contractor.

If the termination is for the convenience of the (Recipient), the Contractor shall be paid its contract close-out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination.

If, after serving a notice of termination for default, the (Recipient) determines that the Contractor has an excusable reason for not performing, such as strike, fire, flood, events which are not the fault of and are beyond the control of the contractor, the (Recipient), after setting up a new work schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

Part 53 **22. Government-Wide Debarment and Suspension
(Nonprocurement)**

**49 CFR Part 29
Executive Order 12549**

Part 54 **Background and Applicability**

In conjunction with the Office of Management and Budget and other affected Federal agencies, DOT published an update to 49 CFR Part 29 on November 26, 2003. This government-wide regulation implements Executive Order 12549, *Debarment and Suspension*, Executive Order 12689, *Debarment and Suspension*, and 31 U.S.C. 6101 note (Section 2455, Public Law 103-355, 108 Stat. 3327).

The provisions of Part 29 apply to all grantee contracts and subcontracts at any level expected to equal or exceed \$25,000 as well as any contract or subcontract (at any level) for Federally required auditing services. 49 CFR 29.220(b). This represents a change from prior practice in that the dollar threshold for application of these rules has been lowered from \$100,000 to \$25,000. These are contracts and subcontracts referred to in the regulation as "covered transactions."

Grantees, contractors, and subcontractors (at any level) that enter into covered transactions are required to verify that the entity (as well as its principals and affiliates) they propose to contract or subcontract with is not excluded or disqualified. They do this by (a) Checking the Excluded Parties List System, (b) Collecting a certification from that person, or (c) Adding a clause or condition to the contract or subcontract. This represents a change from prior practice in that certification is still acceptable but is no longer required. 49 CFR 29.300.

Grantees, contractors, and subcontractors who enter into covered transactions also must require the entities they contract with to comply with 49 CFR 29, subpart C and include this requirement in their own subsequent covered transactions (i.e., the requirement flows down to subcontracts at all levels).

Part 55 Clause Language

The following clause language is suggested, not mandatory. It incorporates the optional method of verifying that contractors are not excluded or disqualified by certification.

Suspension and Debarment

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by **{insert agency name}**. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to **{insert agency name}**, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Part 56 23. Privacy Act

5 U.S.C. 552

Part 57 Applicability to Contracts

When a grantee maintains files on drug and alcohol enforcement activities for FTA, and those files are organized so that information could be retrieved by personal identifier, the Privacy Act requirements apply to all contracts.

Part 58 Applicability to Micro-Purchases

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 59 Flow Down

The Federal Privacy Act requirements flow down to each third party contractor and their contracts at every tier.

Part 60 Model Clause/Language

The text of the following clause has not been mandated by statute or specific regulation, but has been developed by FTA.

Contracts Involving Federal Privacy Act Requirements - The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

1. The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974,

5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

2. The Contractor also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with Federal assistance provided by FTA.

Part 61 24. Civil Rights Requirements

29 U.S.C. § 623, 42 U.S.C. § 2000

42 U.S.C. § 6102, 42 U.S.C. § 12112

42 U.S.C. § 12132, 49 U.S.C. § 5332

29 CFR Part 1630, 41 CFR Parts 60 et seq.

Part 62 **Applicability to Contracts**

The Civil Rights Requirements apply to all contracts.

Part 63 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 64 **Flow Down**

The Civil Rights requirements flow down to all third party contractors and their contracts at every tier.

Part 65 **Model Clause/Language**

The following clause was predicated on language contained at 49 CFR Part 19, Appendix A, but FTA has shorten the lengthy text.

Civil Rights - The following requirements apply to the underlying contract:

1. *Nondiscrimination* - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
2. *Equal Employment Opportunity* - The following equal employment opportunity requirements apply to the underlying contract:
 - a. *Race, Color, Creed, National Origin, Sex* - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 *et seq.*, (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
 - b. *Age* - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
 - c. *Disabilities* - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

3. The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

Part 66 **25. Breaches and Dispute Resolution**

49 CFR Part 18

[FTA Circular 4220.1E](#)

Part 67 **Applicability to Contracts**

All contracts in excess of \$100,000 shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. This may include provisions for bonding, penalties for late or inadequate performance, retained earnings, liquidated damages or other appropriate measures.

Part 68 **Flow Down**

The Breaches and Dispute Resolutions requirements flow down to all tiers.

Part 69 **Model Clauses/Language**

FTA does not prescribe the form or content of such provisions. What provisions are developed will depend on the circumstances and the type of contract. Recipients should consult legal counsel in developing appropriate clauses. The following clauses are examples of provisions from various FTA third party contracts.

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of (Recipient)'s [title of employee]. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the [title of employee]. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the [title of employee] shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute - Unless otherwise directed by (Recipient), Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the (Recipient) and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the (Recipient) is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the (Recipient), (Architect) or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Part 70 **26. Patent and Rights in Data**

37 CFR Part 401

49 CFR Parts 18 and 19

Part 71 **Applicability to Contracts**

Patent and rights in data requirements for federally assisted projects ONLY apply to research projects in which FTA finances the purpose of the grant is to finance the development of a product or information. These patent and data rights requirements do not apply to capital projects or operating projects, even though a small portion of the sales price may cover the cost of product development or writing the user's manual.

Part 72 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 73 Flow Down

The Patent and Rights in Data requirements apply to all contractors and their contracts at every tier.

Part 74 Model Clause/Language

The FTA patent clause is substantially similar to the text of 49 C.F.R. Part 19, Appendix A, Section 5, but the rights in data clause reflects FTA objectives. For patent rights, FTA is governed by Federal law and regulation. For data rights, the text on copyrights is insufficient to meet FTA's purposes for awarding research grants. This model clause, with larger rights as a standard, is proposed with the understanding that this standard could be modified to FTA's needs.

CONTRACTS INVOLVING EXPERIMENTAL, DEVELOPMENTAL, OR RESEARCH WORK.

A. Rights in Data - This following requirements apply to each contract involving experimental, developmental or research work:

1. The term "subject data" used in this clause means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the contract. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to contract administration.
2. The following restrictions apply to all subject data first produced in the performance of the contract to which this Attachment has been added:
 - a. Except for its own internal use, the Purchaser or Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Purchaser or Contractor authorize others to do so, without the written consent of the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to any contract with an academic institution.
 - b. In accordance with 49 C.F.R. § 18.34 and 49 C.F.R. § 19.36, the Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for "Federal Government purposes," any subject data or copyright described in subsections (2)(b)1 and (2)(b)2 of this clause below. As used in the previous sentence, "for Federal Government purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not extend its Federal license to any other party.
 1. Any subject data developed under that contract, whether or not a copyright has been obtained; and
 2. Any rights of copyright purchased by the Purchaser or Contractor using Federal assistance in whole or in part provided by FTA.
 - c. When FTA awards Federal assistance for experimental, developmental, or research work, it is FTA's general intention to increase transportation knowledge available to the public, rather than to restrict the benefits resulting from the work to participants in that work. Therefore, unless FTA determines otherwise, the Purchaser and the Contractor performing experimental, developmental, or research work required by the underlying contract to which this Attachment is added agrees to permit FTA to make available to the public, either FTA's license in the copyright to any subject data developed in the course of that contract, or a copy of the subject data first produced under the contract for which a copyright has not been obtained. If the experimental, developmental, or

research work, which is the subject of the underlying contract, is not completed for any reason whatsoever, all data developed under that contract shall become subject data as defined in subsection (a) of this clause and shall be delivered as the Federal Government may direct. This subsection (c) , however, does not apply to adaptations of automatic data processing equipment or programs for the Purchaser or Contractor's use whose costs are financed in whole or in part with Federal assistance provided by FTA for transportation capital projects.

- d. Unless prohibited by state law, upon request by the Federal Government, the Purchaser and the Contractor agree to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Purchaser or Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that contract. Neither the Purchaser nor the Contractor shall be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.
 - e. Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.
 - f. Data developed by the Purchaser or Contractor and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying contract to which this Attachment has been added is exempt from the requirements of subsections (b), (c), and (d) of this clause , provided that the Purchaser or Contractor identifies that data in writing at the time of delivery of the contract work.
 - g. Unless FTA determines otherwise, the Contractor agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.
3. Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (i.e. , a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual, etc.), the Purchaser and the Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in

U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401.

4. The Contractor also agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

B. Patent Rights - This following requirements apply to each contract involving experimental, developmental, or research work:

1. *General* - If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under the contract to which this Attachment has been added, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Purchaser and Contractor agree to take actions necessary to provide immediate notice and a detailed report to the party at a higher tier until FTA is ultimately notified.
2. Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), the Purchaser and the Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401.

3. The Contractor also agrees to include the requirements of this clause in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

Part 75 **27. Transit Employee Protective Agreements**

49 U.S.C. § 5310, § 5311, and § 5333
29 CFR Part 215

Part 76 **Applicability to Contracts**

The Transit Employee Protective Provisions apply to each contract for transit operations performed by employees of a Contractor recognized by FTA to be a transit operator. (Because transit operations involve many activities apart from directly driving or operating transit vehicles, FTA determines which activities constitute transit "operations" for purposes of this clause.)

Part 77 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 78 **Flow Down**

These provisions are applicable to all contracts and subcontracts at every tier.

Part 79 **Model Clause/Language**

Since no mandatory language is specified, FTA had developed the following language.

Transit Employee Protective Provisions.

1. The Contractor agrees to the comply with applicable transit employee protective requirements as follows:
 - a. *General Transit Employee Protective Requirements* - To the extent that FTA determines that transit operations are involved, the Contractor agrees to carry out the transit operations work on the underlying contract in compliance with terms and conditions determined by the U.S. Secretary of Labor to be fair and equitable to protect the interests of employees employed under this contract and to meet the employee protective requirements of 49 U.S.C. A 5333(b), and U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the letter of certification from the U.S. DOL to FTA applicable to the FTA Recipient's project from which Federal assistance is provided to support work on the underlying contract. The Contractor agrees to carry out that work in compliance with the conditions stated in that U.S. DOL letter. The requirements of this subsection (1), however, do not apply to any contract financed with Federal assistance provided by FTA either for projects for elderly individuals and individuals with disabilities authorized by 49 U.S.C. § 5310(a)(2), or for projects for nonurbanized areas authorized by 49 U.S.C. § 5311. Alternate provisions for those projects are set forth in subsections (b) and (c) of this clause.

- b. *Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C.*

§ 5310(a)(2) for Elderly Individuals and Individuals with Disabilities - If the contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5310(a)(2), and if the U.S. Secretary of Transportation has determined or determines in the future that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for the state and the public body subrecipient for which work is performed on the underlying contract, the Contractor agrees to carry out the Project in compliance with the terms and conditions determined by the U.S. Secretary of Labor to meet the requirements of 49 U.S.C. § 5333(b), U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the U.S. DOL's letter of certification to FTA, the date of which is set forth Grant Agreement or Cooperative Agreement with the state. The Contractor agrees to perform transit operations in connection with the underlying contract in compliance with the conditions stated in that U.S. DOL letter.

- c. *Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C.*

§ 5311 in Nonurbanized Areas - If the contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5311, the Contractor agrees to comply with the terms and conditions of the

Special Warranty for the Nonurbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979, and the procedures implemented by U.S. DOL or any revision thereto.

2. The Contractor also agrees to include the any applicable requirements in each subcontract involving transit operations financed in whole or in part with Federal assistance provided by FTA.

Part 80 **28. Disadvantaged Business Enterprise(DBE)**

49 CFR Part 26

Part 81 **Background and Applicability**

The newest version on the Department of Transportation's Disadvantaged Business Enterprise (DBE) program became effective July 16, 2003. The rule provides guidance to grantees on the use of overall and contract goals, requirement to include DBE provisions in subcontracts, evaluating DBE participation where specific contract goals have been set, reporting requirements, and replacement of DBE subcontractors. Additionally, the DBE program dictates payment terms and conditions (including limitations on retainage) applicable to all subcontractors regardless of whether they are DBE firms or not.

The DBE program applies to all DOT-assisted contracting activities. A formal clause such as that below must be included in all contracts above the micro-purchase level. The requirements of clause subsection b flow down to subcontracts.

A substantial change to the payment provisions in this newest version of Part 26 concerns retainage (see section 26.29). Grantee choices concerning retainage should be reflected in the language choices in clause subsection d.

Part 82 **Clause Language**

The following clause language is suggested, not mandatory. It incorporates the payment terms and conditions applicable to all subcontractors based in Part 26 as well as those related only to DBE subcontractors. The suggested language allows for the options available to grantees concerning retainage, specific contract goals, and evaluation of DBE subcontracting participation when specific contract goals have been established.

Disadvantaged Business Enterprises

- a. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is **5.00 %**.
- b. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted contract. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as **{insert agency name}** deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).
- c. **{If a separate contract goal has been established, use the following}** Bidders/offerors are required to document sufficient DBE participation to meet these goals or, alternatively, document adequate good faith efforts to do so, as provided for in 49 CFR 26.53. Award of this contract is conditioned on submission of the following **[concurrent with and accompanying sealed bid] [concurrent with and accompanying an initial proposal] [prior to award]**:
 1. The names and addresses of DBE firms that will participate in this contract;
 2. A description of the work each DBE will perform;
 3. The dollar amount of the participation of each DBE firm participating;
 4. Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet the contract goal;
 5. Written confirmation from the DBE that it is participating in the contract as provided in the prime contractor's commitment; and
 6. If the contract goal is not met, evidence of good faith efforts to do so.

[Bidders][Offerors] must present the information required above **[as a matter of responsiveness] [with initial proposals] [prior to contract award]** (see 49 CFR 26.53(3)).

{If no separate contract goal has been established, use the following} The successful bidder/offeror will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

- d. The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the **{insert agency name}**. In addition, **[the contractor may not hold retainage from its subcontractors.] [is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed.] [is required to return any retainage payments to those subcontractors within 30 days after incremental acceptance of the subcontractor's work by the {insert agency name} and contractor's receipt of the partial retainage payment related to the subcontractor's work.]**
- e. The contractor must promptly notify **{insert agency name}**, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of **{insert agency name}**.

Part 83 **29. [RESERVED]**

Part 84 **30. Incorporation of Federal Transit Administration (FTA) Terms**

[FTA Circular 4220.1E](#)

Part 85 **Applicability to Contracts**

The incorporation of FTA terms applies to all contracts.

Part 86 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 87 **Flow Down**

The incorporation of FTA terms has unlimited flow down.

Part 88 **Model Clause/Language**

FTA has developed the following incorporation of terms language:

Incorporation of Federal Transit Administration (FTA) Terms - The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in [FTA Circular 4220.1E](#) are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any (name of grantee) requests which would cause (name of grantee) to be in violation of the FTA terms and conditions.

Part 89 **31. Drug and Alcohol Testing**

49 U.S.C. §5331

49 CFR Parts 653 and 654

Part 90 **Applicability to Contracts**

The Drug and Alcohol testing provisions apply to Operational Service Contracts.

Part 91 **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

Part 92 Flow Down Requirements

Anyone who performs a safety-sensitive function for the recipient or subrecipient is required to comply with 49 CFR 653 and 654, with certain exceptions for contracts involving maintenance services. Maintenance contractors for non-urbanized area formula program grantees are not subject to the rules. Also, the rules do not apply to maintenance subcontractors.

Part 93 Model Clause/Language

Part 94 Introduction

FTA's drug and alcohol rules, 49 CFR 653 and 654, respectively, are unique among the regulations issued by FTA. First, they require recipients to ensure that any entity performing a safety-sensitive function on the recipient's behalf (usually subrecipients and/or contractors) implement a complex drug and alcohol testing program that complies with Parts 653 and 654. Second, the rules condition the receipt of certain kinds of FTA funding on the recipient's compliance with the rules; thus, the recipient is not in compliance with the rules unless every entity that performs a safety-sensitive function on the recipient's behalf is in compliance with the rules. Third, the rules do not specify how a recipient ensures that its subrecipients and/or contractors comply with them.

How a recipient does so depends on several factors, including whether the contractor is covered independently by the drug and alcohol rules of another Department of Transportation operating administration, the nature of the relationship that the recipient has with the contractor, and the financial resources available to the recipient to oversee the contractor's drug and alcohol testing program. In short, there are a variety of ways a recipient can ensure that its subrecipients and contractors comply with the rules.

Therefore, FTA has developed three model contract provisions for recipients to use "as is" or to modify to fit their particular situations.

Part 95 Explanation of Model Contract Clauses

Under Option 1, the recipient ensures the contractor's compliance with the rules by requiring the contractor to participate in a drug and alcohol program administered by the recipient. The advantages of doing this are obvious: the recipient maintains total control over its compliance with 49 CFR 653 and 654. The disadvantage is that the recipient, which may not directly employ any safety-sensitive employees, has to implement a complex testing program. Therefore, this may be a practical option only for those recipients which have a testing program for their employees, and can add the contractor's safety-sensitive employees to that program.

Under Option 2, the recipient relies on the contractor to implement a drug and alcohol testing program that complies with 49 CFR 653 and 654, but retains the ability to monitor the contractor's testing program; thus, the recipient has less control over its compliance with the drug and alcohol testing rules than it does under option 1. The advantage of this approach is that it places the responsibility for complying with the rules on the entity that is actually performing the safety-sensitive function. Moreover, it reserves to the recipient the power to ensure that the contractor complies with the program. The disadvantage of Option 2 is that without adequate monitoring of the contractor's program, the recipient may find itself out of compliance with the rules.

Under option 3, the recipient specifies some or all of the specific features of a contractor's drug and alcohol compliance program. Thus, it requires the recipient to decide what it wants to do and how it wants to do it. The advantage of this option is that the recipient has more control over the contractor's drug and alcohol testing program, yet it is not actually administering the testing program. The disadvantage is that the recipient has to specify and understand clearly what it wants to do and why.

**Part 96 Drug and Alcohol Testing
Option 1**

The contractor agrees to:

(a) participate in (grantee's or recipient's) drug and alcohol program established in compliance with 49 CFR 653 and 654.

**Part 97 Drug and Alcohol Testing
Option 2**

The contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 CFR Parts 653 and 654, produce any documentation necessary to establish its compliance with Parts 653 and 654, and

permit any authorized representative of the United States Department of Transportation or its operating administrations, the State Oversight Agency of (name of State), or the (insert name of grantee), to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Parts 653 and 654 and review the testing process. The contractor agrees further to certify annually its compliance with Parts 653 and 654 before (insert date) and to submit the Management Information System (MIS) reports before (insert date before March 15) to (insert title and address of person responsible for receiving information). To certify compliance the contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

Part 98 **Drug and Alcohol Testing**
Option 3

The contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 CFR Parts 653 and 654, produce any documentation necessary to establish its compliance with Parts 653 and 654, and permit any authorized representative of the United States Department of Transportation or its operating administrations, the State Oversight Agency of (name of State), or the (insert name of grantee), to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Parts 653 and 654 and review the testing process. The contractor agrees further to certify annually its compliance with Parts 653 and 654 before (insert date) and to submit the Management Information System (MIS) reports before (insert date before March 15) to (insert title and address of person responsible for receiving information). To certify compliance the contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register. The Contractor agrees further to [Select a, b, or c] (a) submit before (insert date or upon request) a copy of the Policy Statement developed to implement its drug and alcohol testing program; OR (b) adopt (insert title of the Policy Statement the recipient wishes the contractor to use) as its policy statement as required under 49 CFR 653 and 654; OR (c) submit for review and approval before (insert date or upon request) a copy of its Policy Statement developed to implement its drug and alcohol testing program. In addition, the contractor agrees to: (to be determined by the recipient, but may address areas such as: the selection of the certified laboratory, substance abuse professional, or Medical Review Officer, or the use of a consortium).

SECTION 14 – ATTACHMENTS

ATTACHMENT A – CONTRACTOR AGREEMENT

CONTRACTOR AGREEMENT

THIS AGREEMENT, entered into this ____ day of _____ 2018, by and between CITY OF ALAMEDA, a municipal corporation (hereinafter referred to as "City"), and **COMPANY NAME**, a (California corporation, partnership, sole proprietor, individual) whose address is ADDRESS, (hereinafter referred to as "Contractor"), in reference to the following:

RECITALS:

- A. City is a municipal corporation duly organized and validly existing under the laws of the State of California with the power to carry on its business as it is now being conducted under the statutes of the State of California and the Charter of the City.
- B. The City is in need of the construction of the Cross Alameda Trail – Ralph Appezzato Memorial Parkway Improvements Project; parallel to and south of Ralph Appezzato Memorial Parkway between Webster Street and Main Street , in accordance with Plans and Specifications adopted therefor, P.W. 03-18-11, filed in the Office of the City Clerk. Plans and Specifications were sent out on _____ and after a minimum bidding period of 21 days, ____ (insert number) firms submitted bids. The bids were opened on _____. We received ____ (insert number) bids and selected the lowest responsive, responsible bidder per Administrative Order No. 5.
- C. Contractor possesses the skill, experience, ability, background, certification and knowledge to provide the services described in this Agreement on the terms and conditions described herein.
- D. City and Contractor desire to enter into an agreement for the construction of the Cross Alameda Trail – Ralph Appezzato Memorial Parkway Improvements.

NOW, THEREFORE, it is mutually agreed by and between the undersigned parties as follows:

1. TERM:

The Contractor shall have One Hundred and Forty Six (146) consecutive working days from the date the work is to commence pursuant to the Notice to Proceed to diligently prosecute the work to completion.

2. SERVICES TO BE PERFORMED:

Contractor agrees, at its own cost and expense, to furnish all labor, tools, equipment, materials, except as otherwise specified, and to do all work strictly in accordance with Specifications, Special Provisions and Plans, which Specifications, Special Provisions and Plans are hereby referred to and expressly made a part hereof with the same force and effect as if the same were fully incorporated herein. The contractor acknowledges that the work plan included in Exhibit "A" (BIDDER'S PROPOSAL) is tentative and does not commit the City to request Contractor to perform all tasks included therein.

3. COMPENSATION TO CONTRACTOR:

Contractor shall be compensated for services performed pursuant to this Agreement in the amount and manner set forth in Contractor's bid, which is attached hereto as Exhibit "A" (BIDDER'S PROPOSAL) and incorporated herein by this reference. Payment will be made in the same manner that claims of a like character are paid by the City, with checks drawn on the treasury of said City, to be taken from CIP fund 91402.

Payment will be made by the City in the following manner: On the first day of each month, Contractor shall submit a written estimate of the total amount of work done the previous month. However, the City reserves the right to adjust budget within and between tasks. Pricing and accounting of charges are to be according to the bid packet pricing, unless mutually agreed to in writing.

Payment shall be made for 95% of the value of the work completed as determined by the City. The City shall retain 5% of the value of the work as partial security for the completion of the work by Contractor. Retained amounts shall be paid to Contractor within sixty days of acceptance by the City of the project. Payment shall not be construed as acceptance of defective work. No interest will be paid to Contractor on retained funds.

Total compensation for work is \$_____, with a _____ () percent contingency in the amount of \$_____ for a total not to exceed of \$_____. Use of

contingency shall be for items of work outside the original scope and requires prior written authorization by the City.

Prompt Payment Of Withheld Funds To Subcontractors: The City shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the City of the contract work and pay retainage to the prime contractor based on these acceptances. The prime contractor or subcontractor shall return all monies withheld in retention from all subcontractors within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the City. Any delay or postponement of payment may take place only for good cause and with the City's prior written approval. Any violation of these provisions shall subject the violating prime contractor to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise, available to the prime contractor or subcontractor in the event of a dispute involving late payment, or nonpayment by the contractor, or deficient subcontractor's performance, or noncompliance by a subcontractor. This clause applies to both DBE and non-DBE subcontractors.

4. TIME IS OF THE ESSENCE:

Contractor and City agree that time is of the essence regarding the performance of this Agreement.

It is agreed by the parties to the Agreement that in case all the work called for under the Agreement is not completed before or upon the expiration of the time limit as set forth in paragraph 1 above, damage will be sustained by the City, and that it is and will be impracticable to determine the actual damage which the City will sustain in the event of and by reason of such delay. It is therefore agreed that the Contractor will pay to the City the sum of Five Hundred DOLLARS (\$500) per day for each and every day's delay beyond the time prescribed to complete the work; and the Contractor agrees to pay such liquidated damages as herein provided, and in case the same are not paid, agrees that the City may deduct the amount thereof from any money due or that may become due the Contractor under the Agreement.

It is further agreed that in case the work called for under the Agreement is not finished and completed in all parts and requirements within the time specified, the City shall have the right to extend the time for completion or not, as may seem best to serve the interest of the City; and if City decides to extend the time limit for the completion of the

Agreement, it shall further have the right to charge the Contractor, his or her heirs, assigns, or sureties, and to deduct from the final payment for the work, all or any part, as it may deem proper, of the actual costs and overhead expenses which are directly chargeable to the Agreement, and which accrue during the period of such extensions.

The Contractor shall not be assessed with liquidated damages during any delay in the completion of the work caused by an act of God or of the public enemy, acts of the City, fire, flood, epidemic, quarantine restriction, strikes, freight embargoes, and unusually severe weather or delays of subcontractors due to such causes; provided that the Contractor shall, within one (1) day from the beginning of such delay, notify the City in writing of the causes of delay. The City shall ascertain the facts and the extent of the delay, and its findings of the facts thereon shall be final and conclusive.

5. STANDARD OF CARE:

Contractor agrees to perform all services hereunder in a manner commensurate with the prevailing standards of like professionals in the San Francisco Bay Area and agrees that all services shall be performed by qualified and experienced personnel who are not employed by the City nor have any contractual relationship with City.

6. INDEPENDENT PARTIES:

Contractor hereby declares that it is engaged as an independent business and it agrees to perform its services as an independent contractor. The manner and means of conducting the work are under the control of Contractor, except to the extent they are limited by statute, rule or regulation and the express terms of this Agreement. No civil service status or other right of employment will be acquired by virtue of Contractor's services. None of the benefits provided by City to its employees, including but not limited to unemployment insurance, workers' compensation plans, vacation and sick leave are available from City to Contractor, its employees or agents. Deductions shall not be made for any state or federal taxes, FICA payments, PERS payments, or other purposes normally associated with an employer-employee relationship from any fees due Contractor. Payments of the above items, if required, are the responsibility of Contractor.

7. IMMIGRATION REFORM AND CONTROL ACT (IRCA):

Contractor assumes any and all responsibility for verifying the identity and employment authorization of all of its employees performing work hereunder, pursuant to all applicable IRCA or other federal, or state rules and regulations. Contractor shall indemnify, defend, and hold City harmless from and against any loss, damage, liability, costs or expenses arising from any noncompliance of this provision by Contractor.

8. NON-DISCRIMINATION:

Consistent with City's policy that harassment and discrimination are unacceptable employer/employee conduct, Contractor agrees that harassment or discrimination directed toward a job applicant, a City employee, or a citizen by Contractor or Contractor's employee on the basis of race, religious creed, color, national origin, ancestry, handicap, disability, marital status, pregnancy, sex, age, or sexual orientation will not be tolerated. Contractor agrees that any and all violations of this provision shall constitute a material breach of this Agreement.

Contractor certifies and agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, sex, age, or condition or physical or mental handicap (as defined in 41 C.F.R. Section 60-741, et. seq.), in accordance with requirement of state or federal law. Contractor shall take affirmative action to ensure that qualified applicants are employed and that employees are treated during employment without regard to race, color, religion, national origin, ancestry, sex, age, or condition of physical or mental handicap in accordance with requirements of state and federal law. Such shall include, but not be limited to, the following:

- A. Employment upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation.
- B. Selection for training, including interns and apprentices.

Contractor agrees to post in conspicuous places in each of Contractor's facilities providing services hereunder, available and open to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, ancestry, sex, age, or condition of physical or mental handicap, in accordance with requirements of state and federal law.

Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice advising the labor union or workers' representative of Contractor's commitments under this paragraph.

Contractor certifies and agrees that it will deal with its subcontractors, bidders, or vendors without regard to race, color, religion, national origin, ancestry, sex, age, or

condition of physical or mental handicap, in accordance with requirement of state and federal law.

In accordance with applicable state and federal law, Contractor shall allow duly authorized county, state and federal representatives access to its employment records during regular business hours in order to verify compliance with the anti-discrimination provisions of this paragraph. Contractor shall provide such other information and records as such representatives may require in order to verify compliance with the anti-discrimination provisions of this paragraph.

If the City finds that any of the provisions of this paragraph have been violated, the same shall constitute a material breach of Agreement upon which City may determine to cancel, terminate, or suspend this Agreement. City reserves the right to determine independently that the anti-discrimination provisions of this Agreement have been violated. In addition, a determination by the California Fair Employment Practices Commission or the Federal Equal Employment Opportunity Commission that Contractor has violated state and federal anti-discrimination laws shall constitute a finding by City that Contractor has violated the anti-discrimination provisions of Agreement.

The parties agree that in the event Contractor violates any of the anti-discrimination provisions of this paragraph, City shall be entitled, at its option, to the sum of \$500.00 pursuant to California Civil Code Section 1671 as liquidated damages in lieu of canceling, terminating, or suspending this Agreement.

Contractor hereby agrees that it will comply with Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. Section 794), all requirements imposed by the applicable regulations (45 C.F.R.), and all guidelines and interpretations issued pursuant thereto, to the end that no qualified handicapped person shall, on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity of Contractor receiving Federal Financial Assistance. In addition, Contractor shall comply with the Uniform Federal Accessibility Standards, and Contractor, Engineer, or Architect responsible for any design, construction or alteration shall certify compliance with those Standards.

Contractor's attention is directed to laws, including but not limited to:

A. CIVIL RIGHTS/EQUAL OPPORTUNITY

(1) Civil Rights Act of 1964. Under Title VII of the Civil Rights Act of 1964, no person shall, on the grounds of race, sex, religion, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

(2) Section 109 of the Housing and Community Development Act of 1974. No person in the United States shall, on the grounds of race, color, national origin, or sex, be excluded

from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.

Section 109 of the Act further provides that any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975 (42 U.S.C. 6101 et seq.) or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) shall also apply to any program or activity funded in whole or in part with funds made available pursuant to the Act.

B. PROGRAM ACCESSIBILITY FOR INDIVIDUALS WITH DISABILITIES

This Agreement is subject to laws and regulations concerning the rights of otherwise qualified individuals with handicaps for equal participation in, and benefit from federally assisted programs and activities, including but not limited to:

(1) Americans with Disabilities Act of 1990 (ADA) (28 C.F.R. 35). Title II, Subpart A of the Americans with Disabilities Act of 1990 applies to all publicly funded activities and programs. Contractor shall also comply with the public accommodations requirements of Title III of the ADA, as applicable.

(2) Nondiscrimination on the Basis of Handicap (24 CFR 8). These regulations, which implement Section 504 of the Rehabilitation Act of 1973, as amended, and as cited in Section 109 of the Housing and Community Development Act, apply to all federally assisted activities and programs and are implemented through the regulations at 24 C.F.R. 8.

(3) Architectural Barrier Act of 1968. Any building or facility, excluding privately owned residential structures, designed, constructed, or altered with federal funds, shall comply with the Uniform Federal Accessibility Standards, 1984 (41 C.F.R. 3) and the Handicapped Accessibility Requirements of the State of California Title 24. The Consultant, Engineer or Architect responsible for such design, construction or alteration shall certify compliance with the above standards.

(4) In resolving any conflict between the accessibility standards cited in paragraphs (1), (2) and (3) above, the more stringent standard shall apply.

9. HOLD HARMLESS:

Contractor shall indemnify, defend, and hold harmless City, its City Council, boards, commissions, officials, employees, and volunteers ("Indemnitees") from and against any and all loss, damages, liability, claims, suits, costs and expenses whatsoever, including reasonable attorneys' fees ("Claims"), arising from or in any manner connected to Contractor's negligent act or omission, whether alleged or actual, regarding performance of services or work conducted or performed pursuant to this Agreement.

If Claims are filed against Indemnites which allege negligence on behalf of the Contractor, Contractor shall have no right of reimbursement against Indemnites for the costs of defense even if negligence is not found on the part of Contractor. However, Contractor shall not be obligated to indemnify Indemnites from Claims arising from the sole negligence or willful misconduct of Indemnites.

10.INSURANCE:

On or before the commencement of the terms of this Agreement, Contractor shall furnish City with certificates showing the type, amount, class of operations covered, effective dates and dates of expiration of insurance coverage in compliance with paragraphs 10A, B, C and D. Such certificates, which do not limit Contractor's indemnification, shall also contain substantially the following statement: "Should any of the above insurance covered by this certificate be canceled or coverage reduced before the expiration date thereof, the insurer affording coverage shall provide fourteen (14) days' advance written notice to the City of Alameda, "Attention: Risk Manager." It is agreed that Contractor shall maintain in force at all times during the performance of this Agreement all appropriate coverage of insurance required by this Agreement with an insurance company that is acceptable to City and licensed to do insurance business in the State of California. Endorsements naming the City, its City Council, boards, commissions, officials, employees, and volunteers as additional insured shall be submitted with the insurance certificates.

A. COVERAGE:

Contractor shall maintain the following insurance coverage:

(1) Workers' Compensation:

Statutory coverage as required by the State of California.

(2) Liability:

Commercial general liability coverage in the following minimum limits:

Bodily Injury: \$2,000,000 each occurrence
 \$2,000,000 aggregate - all other

Property Damage: \$1,000,000 each occurrence
 \$2,000,000 aggregate

If submitted, combined single limit policy with aggregate limits in the amounts of \$2,000,000 will be considered equivalent to the required minimum limits shown above.

(3) Automotive:

Comprehensive automobile liability coverage (any auto) in the following minimum limits:

Bodily injury: \$1,000,000 each occurrence
Property Damage: \$1,000,000 each occurrence
or
Combined Single Limit: \$2,000,000 each occurrence

(4) Pollution Prevention:

Legal liability required for hazardous materials excavation in the amount of \$2,000,000 each occurrence.

(5) Builders Risk:

In the amount of \$2,000,000.

B. SUBROGATION WAIVER:

Contractor agrees that in the event of loss due to any of the perils for which it has agreed to provide comprehensive general and automotive liability insurance, Contractor shall look solely to its insurance for recovery. Contractor hereby grants to City, on behalf of any insurer providing comprehensive general and automotive liability insurance to either Contractor or City with respect to the services of Contractor herein, a waiver of any right to subrogation which any such insurer of said Contractor may acquire against City by virtue of the payment of any loss under such insurance.

C. FAILURE TO SECURE:

If Contractor at any time during the term hereof should fail to secure or maintain the foregoing insurance, City shall be permitted to obtain such insurance in the Contractor's name or as an agent of the Contractor and shall be compensated by the Contractor for the costs of the insurance premiums at the maximum rate permitted by law and computed from the date written notice is received that the premiums have not been paid.

D. ADDITIONAL INSURED:

City, its City Council, boards, commissions, officials, employees, and volunteers shall be named as an additional insured under all insurance coverages, except worker's compensation insurance. The naming of an additional insured shall not affect any recovery to which such additional insured would be entitled under this policy if not named as such additional insured. An additional insured named herein shall not be held liable for any premium, deductible portion of any loss, or expense of any nature on this policy or any extension thereof. Any other insurance held by an additional insured shall not be required to contribute anything toward any loss or expense covered by the insurance provided by this policy.

E. SUFFICIENCY OF INSURANCE:

Contractor shall furnish the following bonds from a bonding company acceptable to the City Attorney. Faithful Performance Bond and Labor and Material Bond are only required for work over \$25,000. Therefore, those estimates that are under \$25,000 will not need to budget for the bond premiums and those estimates over \$25,000 will need to be sure to budget for the bond premiums.

The insurance limits required by City are not represented as being sufficient to protect Contractor. Contractor is advised to consult Contractor's insurance broker to determine adequate coverage for Contractor.

11. BONDS:

Contractor shall furnish the following bonds from a bonding company acceptable to the City Attorney:

A. Faithful Performance:

A bond in the amount of 100% of the total contract price guaranteeing the faithful performance of this contract, and

B. Labor and Materials:

A bond for labor and materials in the amount of 100% of the total contract price.

12. PROHIBITION AGAINST TRANSFERS:

Contractor shall not assign, sublease, hypothecate, or transfer this Agreement, or any interest therein, directly or indirectly, by operation of law or otherwise, without prior written consent of City. Any attempt to do so without said consent shall be null and void, and any assignee, sublessee, hypothecate or transferee shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer. However, claims for money by Contractor from City under this Agreement may be assigned to a bank, trust company or other financial institution without prior written consent. Written notice of such assignment shall be promptly furnished to City by Contractor.

The sale, assignment, transfer or other disposition of any of the issued and outstanding capital stock of Contractor, or of the interest of any general partner or joint venturer or syndicate member or cotenant, if Contractor is a partnership or joint venture or syndicate or cotenancy, which shall result in changing the control of Contractor, shall be construed as an assignment of this Agreement. Control means fifty percent (50%) or more of the voting power of the corporation.

13. SUBCONTRACTOR APPROVAL:

Unless prior written consent from City is obtained, only those people and subcontractors whose names are listed in Contractor's bid shall be used in the performance of this Agreement.

Requests for additional subcontracting shall be submitted in writing, describing the scope of work to be subcontracted and the name of the proposed subcontractor. Such request shall set forth the total price or hourly rates used in preparing estimated costs for the subcontractor's services. Approval of the subcontractor may, at the option of City, be issued in the form of a Work Order.

In the event that Contractor employs subcontractors, such subcontractors shall be required to furnish proof of workers' compensation insurance and shall also be required to carry general and automobile liability insurance in reasonable conformity to the insurance carried by Contractor. In addition, any work or services subcontracted hereunder shall be subject to each provision of this Agreement.

14. PERMITS AND LICENSES:

Contractor, at its sole expense, shall obtain and maintain during the term of this Agreement, all appropriate permits, certificates and licenses, including a City Business License that may be required in connection with the performance of services hereunder.

15. REPORTS:

Each and every report, draft, work product, map, record and other document reproduced, prepared or caused to be prepared by Contractor pursuant to or in connection with this Agreement shall be the exclusive property of City.

No report, information nor other data given to or prepared or assembled by Contractor pursuant to this Agreement shall be made available to any individual or organization by Contractor without prior approval by City.

Contractor shall, at such time and in such form as City may require, furnish reports concerning the status of services required under this Agreement.

16. RECORDS:

Contractor shall maintain complete and accurate records with respect to sales, costs, expenses, receipts and other such information required by City that relate to the performance of services under this Agreement.

Contractor shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Contractor shall provide free access to such books and records to the representatives of City or its designees at all proper times, and gives City the right to examine and audit same, and to make transcripts therefrom as necessary, and to allow inspection of all work, data, documents, proceedings and activities related to this Agreement. Such records, together with supporting documents, shall be kept separate from other documents and records and shall be maintained for a period of three (3) years after receipt of final payment.

If supplemental examination or audit of the records is necessary due to concerns raised by City's preliminary examination or audit of records, and the City's supplemental examination or audit of the records discloses a failure to adhere to appropriate internal financial controls, or other breach of contract or failure to act in good faith, then Contractor shall reimburse City for all reasonable costs and expenses associated with the supplemental examination or audit.

17. NOTICES:

All notices, demands, requests or approvals to be given under this Agreement shall be given in writing and conclusively shall be deemed served when delivered personally or on the second business day after the deposit thereof in the United States Mail, postage prepaid, registered or certified, addressed as hereinafter provided.

All notices, demands, requests, or approvals from Contractor to City shall be addressed to City at:

City of Alameda
Public Works Department
950 West Mall Square, Room 110
Alameda, CA 94501-7575
ATTENTION: Jack Dybas, Project Manager II
Ph: (510) 747-7948
E-mail: jdybas@alamedaca.gov

With a copy to:
Transportation Planning Division
2263 Santa Clara Avenue
Alameda, CA 94501-4417

ATTENTION: Rochelle Wheeler, Senior Transportation Coordinator
Ph.: (510) 747-6814
E-mail: rwheeler@alamedaca.gov

All notices, demands, requests, or approvals from City to Contractor shall be addressed to Contractor at:

[Contractor Name]
[Department]
[Address]
Alameda, CA 94501
ATTENTION; [Title]
Ph: (510) xxx-xxxx / Fax: (510) xxx-xxxx

18. RESTRICTIONS ON LOBBYING:

This Agreement is subject to 24 C.F.R. 87 which prohibits the payment of Federal funds to any person for influencing or attempting to influence, any public officer or employee in connection with the award, making, entering into, extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or agreement.

19. UTILITIES:

Contractor shall pay all charges for fuel, gas, water, electricity, telephone services and any other utilities necessary to carry on the operations of Contractor.

20. NUISANCE:

Contractor shall not maintain, commit, or permit the maintenance or commission of any nuisance in connection with the performance of services under this Agreement.

21. SAFETY REQUIREMENT:

All work performed under this Agreement shall be performed in such a manner as to provide safety to the public and to meet or exceed the safety standards outlined by CAL-OSHA. City reserves the right to issue restraints or cease and desist orders to Contractor when unsafe or harmful acts or conditions are observed or reported relative to the performance of the work under this Agreement.

Contractor shall maintain the work sites free of hazards to persons and/or property resulting from his or her operations. Any hazardous condition noted by Contractor, which is not a result of his or her operations, shall immediately be reported to City.

The Contractor will be solely and completely responsible for conditions of all vehicles owned or operated by Contractor, including the safety of all persons and property during performance of the services and tasks under this Agreement. This requirement will apply continuously and not be limited to normal working hours. In addition, Contractor will comply with all safety provisions in conformance with U.S. Department of Labor Occupational Safety and Health Act, any equivalent state law, and all other applicable federal, state, county and local laws, ordinances, codes, and any regulations that may be detailed in other parts of the Agreement. Where any of these are in conflict, the more stringent requirements will be followed. The Contractor's failure to thoroughly familiarize itself with the aforementioned safety provisions will not relieve it from compliance with the obligations and penalties set forth herein.

The Contractor will immediately notify the City's Risk Manager within 24 hours of any incident of death, serious personal injury or substantial property damage that occurs in connection with the performance of this Agreement. The Contractor will promptly submit to the City a written report of all incidents that occur in connection with this Agreement. This report must include the following information: (i) name and address of injured or deceased person(s); (ii) name and address of Contractor's employee(s) involved in the incident; (iii) name and address of Contractor's liability insurance carrier; (iv) a detailed description of the incident; and (v) a police report.

22. HOURS OF OPERATION:

Contractor shall be allowed to operate on weekdays only for the hours of 8:00 a.m. to 5:00 p.m. unless prior written approval has been secured from City to do otherwise.

23. LAWS TO BE OBSERVED:

The Contractor shall keep himself fully informed of all existing and future state and federal laws and all municipal ordinances and regulations of the City of Alameda which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same.

24. DEPARTMENT OF INDUSTRIAL RELATIONS COMPLIANCE AND PREVAILING WAGE REQUIREMENTS ON PUBLIC WORKS PROJECTS:

Effective January 1, 2015, no Contractor or Subcontractor may be listed on a bid proposal for a public works project (submitted after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5 (with the limited exceptions from this requirement for bid purposed only under Labor code Section 1771.1(a)). Register at <https://efiling.dir.ca.gov/PWCR>

No Contractor or Subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code Section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Prime Contractor is required to post job site notices prescribed by regulations. See 8 Calif. Code Regulation §16451(d).

Effective April 1, 2015, All Contractors and Subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner at:

<https://apps.dir.ca.gov/ecpr/das/altlogin>

25. HOURS OF LABOR:

As provided in Article 3 (commencing at § 1810), Chapter 1, Part 7, Division 2 of the Labor Code, eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by the Contractor or by any Subcontractor on any subcontract under this Contract, upon the work or upon any part of the work contemplated by this Contract, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as hereinafter provided. Notwithstanding the provision hereinabove set forth, work performed by employees of Contractor in excess of eight (8) hours per day and forty (40) hours during any one week shall be permitted upon this public work provided that the employees' compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1-1/2) times the basic rate of pay.

The Contractor shall pay to the City a penalty of Twenty-five Dollars (\$25.00) for each worker employed in the execution of this Contract by the Contractor, or by any Subcontractor, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one (1) calendar week, in violation of the provisions of Article 3 (commencing at § 1810), Chapter 1, Part 7, Division 2 of the Labor Code, unless compensation for the workers so employed by Contractor is not less than one and one-half (1-1/2) times the basic rate of pay for all hours worked in excess of eight (8) hours per day.

Holiday and overtime work, when permitted by law, shall be paid for at a rate of at least one and one-half (1½) times the above specified rate of *per diem* wages, unless otherwise specified. Holidays shall be defined in the Collective Bargaining Contract applicable to each particular craft, classification, or type of worker employed.

26. CERTIFIED PAYROLL:

Contractor's attention is directed to California Labor Code Section 1776, which requires Contractor and any subcontractors to keep an accurate payroll record and which imposes inspection requirements and penalties for non-compliance. Certified payrolls shall be prepared and submitted weekly to the Construction Management Consultant and Labor Compliance Officer, Gail Carlson, Public Works Department, 950 W. Mall Square, Room 110, Alameda, CA 94501 by the Contractor and each subcontractor. Contractor is responsible for the submission of copies of payrolls by all subcontractors. Each payroll submitted shall be accompanied by a "Statement of Compliance", signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract, and shall certify the following:

- a. That the payroll for each payroll period contains the name, social security number, and address of each employee, his or her correct classification, including applicable area and group code, hourly rates of wages paid, daily and weekly number of hours worked, deductions made and actual wages paid, and that such information is correct and complete;
- b. That such laborer or mechanic (including each helper, apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions; and
- c. That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

If the Contractor or a subcontractor does not work during the payroll period, a Statement of Non-Working Days must be submitted for each day not worked.

In the event of noncompliance with the requirements of such section after 10 Days written notice specifying in what respects compliance is required, the CONTRACTOR shall forfeit as a penalty to the CITY, \$25.00 for each calendar Day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.

27. APPRENTICES:

Attention is directed to the provisions in sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him on contracts greater than \$30,000 or 20 working days. The Contractor and any subcontractor under him shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Section 1777.5 requires the Contractor or subcontractor employing workers in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of the public works project, and which administers the apprenticeship program in that trade, for a certificate of approval, if they have not previously applied and are covered by the local apprenticeship standards.

The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if: (1) the Contractor employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions; or (2) if the Contractor is not a signatory to an apprenticeship fund and if the funds administrator is unable to accept Contractor' required contribution. The Contractor or subcontractor shall pay a like amount to the California Apprenticeship Council.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex-officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

28. LABOR DISCRIMINATION:

No discrimination shall be made in the employment of persons upon public works because of the race, color, sex, religion, age, national origin, sexual orientation, or physical disability of such persons and every Contractor for public works violating this section is subject to all the penalties imposed for a violation of the provisions of the Labor Code, and, in particular, Section 1735.

29. REGISTRATION OF CONTRACTORS:

Before submitting bids, contractors shall be licensed in accordance with the provisions of Chapter 9, Division 3, of the Business and Professional Code of the State of California.

30. URBAN RUNOFF MANAGEMENT:

The Contractor shall avoid creating excess dust when breaking asphalt or concrete and during excavation and grading. If water is used for dust control, contractor shall use as

little as necessary. Contractor shall take all steps necessary to keep wash water out of the streets, gutters and storm drains.

The Contractor shall develop and implement erosion and sediment control to prevent pollution of storm drains. Such control includes but is not limited to:

- a. Use storm drain inlet protection devices such as sand bag barriers, filter fabric fences, block and gravel filters. (Block storm drain inlets prior to the start of the rainy season (October 15), on site de-watering activities and saw-cutting activities; shovel or vacuum saw-cut slurry and remove from the site).
- b. Cover exposed piles of soil or construction material with plastic sheeting. All construction materials must be stored in containers.
- c. Sweep and remove all materials from paved surfaces that drain to streets, gutters and storm drains prior to rain as well as at the end of the each work day. At the completion of the project, the street shall be washed and the wash water shall be collected and disposed of offsite in an appropriate location.
- d. After breaking old pavement, Contractor shall remove all debris to avoid contact with rainfall or runoff.
- e. Contractor shall maintain a clean work area by removing trash, litter, and debris at the end of each workday. Contractor shall also clean up any leaks, drips, and other spills as they occur.

The objective is to ensure that the City and County of Alameda County-Wide Clean Water Program is adequately enforced. These controls should be implemented prior to the start of construction, up-graded as required, maintained during construction phases to provide adequate protection, and removed at the end of construction.

These recommendations are intended to be used in conjunction with the State's Best Management Practices Municipal and Construction Handbooks, local program guidance materials from municipalities, Section 7.1.01 of the Standard Specifications and any other appropriate documents on storm water quality controls for construction.

Failure to comply with this program will result in the issuance of noncompliance notices, citations, project stop orders or fines. The fine for noncompliance of the above program is two hundred and fifty dollars (\$250.00) per occurrence per day. The State under the Federal Clean Water Act can also impose a fine on the contractor, pursuant to Cal. Water Code §13385.

31. COMPLIANCE WITH MARSH CRUST ORDINANCE:

Contractor shall perform all excavation work in compliance with the City's Marsh Crust Ordinance as set forth at Section 13-56 of the Municipal Code. Prior to performing any excavation work, Contractor shall verify with the Building Official whether the excavation work is subject to the Marsh Crust Ordinance. Contractor shall apply for and obtain permits from Building Services on projects deemed to be subject to the Marsh Crust Ordinance.

32. COMPLIANCE WITH THE CITY'S INTEGRATED PEST MANAGEMENT POLICY:

The Contractor shall follow the requirements of the City's Integrated Pest Management (IPM) Policy to ensure the City is in compliance with its Municipal Regional Stormwater NPDES Permit, Order No. R2-2009-0074, issued by the San Francisco Bay Regional Water Quality Control Board.

- ❑ Contractor shall use the most current IPM technologies available to ensure the long-term prevention or suppression of pest problems and to minimize negative impacts on the environment, non-target organisms, and human health for the control or management of pests in and around City buildings and facilities, parks and golf courses, urban landscape areas, rights-of-way, and other City properties.
- ❑ Contractor will consider the City IPM Policy's hierarchy of options or alternatives listed below, in the following order before recommending the use of or applying any pesticide on City property: (1)
 - a. No controls (e.g. tolerating the pest infestation, use of resistant plant varieties or allowing normal life cycle of weeds);
 - b. Physical or mechanical controls (e.g. hand labor, mowing, exclusion);
 - c. Cultural controls (e.g. mulching, disking, alternative vegetation) and good housekeeping (e.g. cleaning desk area);
 - d. Biological controls (e.g., natural enemies or predators);
 - e. Reduced-risk chemical controls (e.g., soaps or oils);
 - f. Other chemical controls.
- ❑ Prior to applying chemical controls the contractor shall complete a checklist (attached as Exhibit B) for the City's pre-approval that explains why a chemical control is necessary. For annual contracts that require regular application of

chemical controls the contractor shall submit one checklist prior to the initiation of the project demonstrating that the hierarchy has been reviewed and no other options exist. Additionally, the contractor shall provide documentation to the City's project manager of the implementation of the IPM techniques hierarchy described in the City's IPM Policy.

- ❑ Contractor shall avoid the use of the following pesticides that threaten water quality, human health and the environment:
 - a. Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA)
 - b. Organophosphate pesticides (e.g., those containing Diazinon, chlorpyrifos or malathion)
 - c. Pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin), carbamates (e.g., carbaryl), and fipronil
 - d. Copper-based pesticides unless their use is judicious, other approaches and techniques have been considered, and the threat of impact to water quality is prevented.
- ❑ Contractor shall sign the Contractor Verification Form (attached as part of Exhibit B) indicating the intent to implement the City's IPM Policy, and return a signed copy to the City's project manager.
- ❑ Contractor shall provide to the City's project manager an annual Report of all pesticide usage in support of City operations including pesticide name, active ingredient(s), target pest(s), the total amounts used and the reasons for any increase in use of any pesticide.
- ❑ Contractor shall provide a copy of any current IPM certifications(s) to the City's project manager prior to initiation of the service work.

A copy of the City's IPM Policy may be obtained from the City's project manager and is also on file with the City Clerk.

33. PURCHASES OF MINED MATERIALS REQUIREMENT:

Contractor shall ensure that all purchases of mined materials such as construction aggregate, sand and gravel, crushed stone, road base, fill materials, and any other mineral materials must originate from a surface mining operation identified on the AB3098 List per the Surface Mining and Reclamation Act of 1975 (SMARA).

Within five days of award of contract, Contractor shall submit a report to City which lists the intended suppliers for the above materials and demonstrates that the suppliers are in compliance with the SMARA requirements. The AB3098 List is maintained by the

Department of Conservation's Office of Mine Reclamation (OMR) and can be viewed at: www.conservation.ca.gov/OMR/ab_3098_list/index.htm. Note that the list changes periodically and should be reviewed accordingly.

34. TERMINATION:

In the event Contractor fails or refuses to perform any of the provisions hereof at the time and in the manner required hereunder, Contractor shall be deemed in default in the performance of this Agreement. If such default is not cured within a period of two (2) business days after receipt by Contractor from City of written notice of default, specifying the nature of such default and the steps necessary to cure such default, City may terminate the Agreement forthwith by giving to the Contractor written notice thereof.

City shall have the option, at its sole discretion and without cause, of terminating this Agreement by giving seven (7) days' prior written notice to Contractor as provided herein. Upon termination of this Agreement, each party shall pay to the other party that portion of compensation specified in this Agreement that is earned and unpaid prior to the effective date of termination.

35. ATTORNEY'S FEES:

In the event of the bringing of any action or suit by a party hereto against the other party by reason of any breach of any covenants, conditions, obligation or provision arising out of this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party all of its costs and expenses of the action or suit, including reasonable attorneys' fees, experts' fees, all court costs and other costs of action incurred by the prevailing party in connection with the prosecution or defense of such action and enforcing or establishing its rights hereunder (whether or not such action is prosecuted to a judgment). For the purposes of this Agreement, reasonable fees of attorneys of the Alameda City Attorney shall be based on the fees regularly charged by private attorneys with the equivalent number of years of experience in the subject matter area of the law for which the Alameda City Attorney's services were rendered who practice in Alameda County in law firms with approximately the same number of attorneys as employed by the Alameda City Attorney's Office.

36. PCC SECTION 9204 SUMMARY - CLAIMS SUBMITTED BETWEEN 01-01-2017 AND 01-01-2020.:

Notwithstanding anything else to the contrary stated in the Information For Bidders (IFB) or the Contract Documents, all claims, regardless of dollar amount, submitted

between January 1, 2017 and January 1, 2020 shall be governed by PCC Section 9204 and this section.

The following provisions and procedures shall apply:

- A. For the purposes of this section, the term "Claim", "Contractor", "mediation", "Public Entity" "Public works project" and "Subcontractor" shall have the meaning provided for in PCC Section 9204.
- B. Contractor shall submit each Claim (whether for a time extension, payment for money or damages) in writing and in compliance with PCC Section 9204. Contractor must include reasonable documentation to support each claim.
- C. Upon receipt of a Claim, the City shall conduct a reasonable review and respond in writing within 45 days of receipt and shall identify in a written statement what portions of the claim are disputed and undisputed. Undisputed portions of the Claim shall be process and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The City and Contractor may mutually agree to extend the 45 day response time.
- D. If the City needs approval from the City Council to provide a written statement, the 45 days may be extended to 3 days following the next duly noticed public meeting pursuant to PCC Section 9204(d)(1)(C).
- E. If the City fails to timely respond to a Claim or if Contractor disputes the City's response, Contractor may submit a written demand for an informal meet and confer conference with the City to settle the issues in dispute. The demand must be sent via registered or certified mail, return receipt requested. Upon receipt, the City shall schedule the conference within 30 days.
- F. Within 10 business days following the informal meet and confer conference, the City shall submit to Contractor a written statement describing any issues remaining in dispute and that portion which is undisputed. Undisputed portions of the Claim shall be process and paid within 60 days of the written statement. Undisputed amounts not paid in a timely manner shall bear interest at 7% per annum. The issues remaining in dispute shall be submitted to non-binding mediation. If the City and Contractor mutually agree on a mediator, each party shall pay equal portions of all associated costs. If within 10 business days, the City and Contractor cannot agree on a mediator, each party shall select a mediator (paying all costs associated with their selected mediator), and those mediators shall select a qualified neutral third party to mediate the disputed issues. The City and Contractor shall pay equal portions of all associated costs of such third party mediator.

- G. Unless otherwise agreed by the City and Contractor, any mediation conducted hereunder shall excuse any further obligation under Public Contract Code Section 20104.4 to mediate after litigation has commenced.
- H. The City reserves all rights and remedies that it has pursuant to the Construction Contract, plans and specification, at law or in equity which are not in conflict with PCC 9204.
- I. This Section shall be automatically extended if legislation is lawfully passed which extends the terms of Public Contract Code Section 9204 beyond January 1, 2020.

37.COMPLIANCES:

Contractor shall comply with all applicable laws, state, federal, and all ordinances, rules and regulations enacted or issued by City.

38.CONFLICT OF LAW:

This Agreement shall be interpreted under, and enforced by the laws of the State of California excepting any choice of law rules which may direct the application of laws of another jurisdiction. The Agreement and obligations of the parties are subject to all valid laws, orders, rules, and regulations of the authorities having jurisdiction over this Agreement (or the successors of those authorities.) Any suits brought pursuant to this Agreement shall be filed with the courts of the County of Alameda, State of California.

39.ADVVERTISEMENT:

Contractor shall not post, exhibit, display or allow to be posted, exhibited, displayed any signs, advertising, show bills, lithographs, posters or cards of any kind pertaining to the services performed under this Agreement unless prior written approval has been secured from City to do otherwise.

40.WAIVER:

A waiver by City of any breach of any term, covenant, or condition contained herein, shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant, or condition contained herein, whether of the same or a different character.

41.INTEGRATED CONTRACT:

This Agreement represents the full and complete understanding of every kind or nature whatsoever between the parties hereto, and all preliminary negotiations and agreements of whatsoever kind or nature are merged herein. No verbal agreement or implied covenant shall be held to vary the provisions hereof. Any modification of this

Agreement will be effective only by written execution signed by both City and Contractor.

42. INSERTED PROVISIONS:

Each provision and clause required by law to be inserted into the Agreement shall be deemed to be enacted herein, and the Agreement shall be read and enforced as though each were included herein. If through mistake or otherwise, any such provision is not inserted or is not correctly inserted, the Agreement shall be amended to make such insertion on application by either party.

43. CAPTIONS:

The captions in this Agreement are for convenience only, are not a part of the Agreement and in no way affect, limit or amplify the terms or provisions of this Agreement.

Signatures on next page

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

IN WITNESS WHEREOF, the parties have caused the Agreement to be executed on the day and year first above written.

COMPANY NAME
(A California Corporation, partnership,
sole proprietor, individual)

CITY OF ALAMEDA
A Municipal Corporation

(Name)
(Title; *president, vice president or
chairman of the board*)

Elizabeth D. Warmerdam
Acting City Manager

(Name)
(Title; *secretary, chief financial officer,
or treasurer*)

RECOMMENDED FOR APPROVAL

Liam Garland
Public Works Director

APPROVED AS TO FORM:
City Attorney

Janet Kern
City Attorney

ATTACHMENT B – PERFORMANCE BOND

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____, hereinafter called Principal, and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____
Dollars. (\$ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____ 2018 a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PERFORMANCE BOND FORM

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed on _____ counterparts, each one
(Number)

of which shall be deemed an original, this the _____ day of _____, 2018

ATTEST:

Principal Secretary
(SEAL)

By: _____
Principal

(Witness as to Principal)

(Address)

(Address)

(Surety)

ATTEST:

Surety Secretary
(SEAL)

By: _____
Attorney-in-fact

(Witness as to Surety)

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract.

If the CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

PAYMENT BOND FORM

KNOW ALL MEN BY THESE PRESENTS: that

a _____, hereinafter called Principal, and

hereinafter called Surety, are held and firmly bound unto _____

hereinafter called OWNER, in the penal sum of _____ Dollars. (\$ _____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____ 2018 a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PAYMENT BOND FORM

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed on _____ counterparts, each
one (Number)

of which shall be deemed an original, this the _____ day of _____, 2018

ATTEST:

Principal Secretary
(SEAL) By: _____
Principal

(Witness as to Principal) _____
(Address)

(Address) _____
(Surety)

ATTEST:

Surety Secretary
(SEAL) By: _____

(Witness as to Surety) _____
Attorney-in-fact

(Address) _____
(Address)

NOTE: Date of BOND must not be prior to date of Contract.
If the CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

Bidder's Proposal Form

Contractor Name:

BIDDER'S BOND

We,
as Principal, and as Surety are bound unto the _____,
hereafter referred to as "obligee", in the penal sum of ten percent (10%) of the total amount of the
bid of the Principal submitted to the Obligee for the work described below, for the payment of
which sum we bind ourselves, jointly, and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for _____
(Copy here the exact description of

work, including locations as it appears on the proposal)

for which bids are to be opened per Section 1 Proposal and Contract Requirements, Paragraph E,
Presenting and Marking of Bid.

NOW, THEREFORE, if the Principal is awarded the contract and, within the time and
manner required under the specifications, after the prescribed forms are presented to Contractor for
signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files
two bonds with Obligee, one to guarantee faithful performance of the contract and the other to
guarantee payment for labor and materials as provided by law, then this obligation shall be null and
void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgement is recovered, the
Surety shall pay all cost incurred by the Obligee in such suite, including a reasonable attorney's fee
to be fixed by the court.

The surety; for value received, hereby stipulates and agrees that the obligations of said
Surety and its Bond shall be in no way impaired or affected by any extension of the time within
which the OWNER may accept such BID; and said Surety does hereby waive notice of any such
extension.

2018
Dated: _____, 2017.

Principal

Surety

By:

CERTIFICATE OF ACKNOWLEDGMENT

State of California
County of Alameda

On this _____ day of _____ in the year 2018 before me

_____, a Notary Public, personally appeared _____
Attorney-in-fact

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)
Notary Public

CROSS ALAMEDA TRAIL
RALPH APPEZZATO MEMORIAL PARKWAY IMPROVEMENTS

**ATTACHMENT C – CERTIFICATION OF BIDDER REGARDING SECTION 3
AND SEGREGATED FACILITIES**

Name of Prime Contractor

Project Name and Number

The undersigned hereby certified that:

- (a) Section 3 provisions are included in the Contract.
- (b) A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$10,000).
- (c) No segregated facilities will be maintained.

Name _____
Name and Title of Signer (Print or Type)

Signature

Date

**ATTACHMENT D – CERTIFICATION OF PROPOSED SUBCONTRACTOR REGARDING
SECTION 3
AND SEGREGATED FACILITIES**

Name of Sub Contractor

Project Name and Number

The undersigned hereby certified that:

- (a) Section 3 provisions are included in the Contract.
- (b) A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$10,000).
- (c) No segregated facilities will be maintained, as required by Title VI of the Civil Right Act of 1964.

Name _____
Name and Title of Signer (Print or Type)

Signature Date

ATTACHMENT E – CERTIFICATION OF UNDERSTANDING AND AUTHORIZATION

Project Name: _____

Project Number: _____

This is to certify that the principals, and the authorized payroll officer, below, have read and understand the Minutes of the Preconstruction Conference and the labor standards clauses pertaining to the subject project.

The following person(s) is designated as the payroll officer for the undersigned and is authorized to sign the Statement of Compliance which will accompany our weekly certified payroll reports for this project:

Designated Payroll Officer (Name)

Designated Payroll Officer (Signature)

Authorized by (Contractor Subcontractor)

(Signature)

(Title)

(IRS) Employer Identification Number

(Date)

Date

Title

ATTACHMENT G – EMERGENCY FORM

During the course of the work and/or while the contractor has responsibility for the project, emergencies may arise where it is necessary to repair or replace safety devices, or install additional safety devices, or take preventative measures necessary for public safety. Such corrections as may be necessary are the contractor's responsibility and he, or his representative, will be called upon in such emergencies.

Please fill in the following information and submit it to the City Engineer.

CONTRACTOR'S NAME _____

CONTRACTOR'S PHONE NUMBER _____

PROJECT SUPERINTENDENT _____

CONTACT IN THE EVENT OF EMERGENCY: _____

Name: _____

Phone Number: _____

In cases where the contractor, or his representative, cannot be contacted or will not take the necessary actions, the City Public Works Department will be notified and the necessary repairs, corrections, or changes will be made. The contractor will be billed for such remedial action. Charges will include the cost of labor at applicable rates, the City's normal overhead factor, the rental of any equipment or safety devices placed during the emergency that are damaged or stolen, or otherwise not returned to the City, will be billed to the contractor.

Scheduled starting date _____

Scheduled completion date _____

Job Name _____

ATTACHMENT H – ANNUAL HAULING INFORMATION AND APPLICATION

**ACKNOWLEDGMENT OF RECEIPT OF THE CITY OF ALAMEDA
CONSTRUCTION AND DEMOLITION DEBRIS INFORMATION PACKET FOR
PROJECTS VALUED AT \$100,000 OR MORE**

I do hereby acknowledge that I understand the following:

1. I must use the City’s franchised waste hauler, Alameda County Industries (ACI) or another permitted hauler (permitted specifically by the City of Alameda).
2. If I choose to haul my own Construction and Demolition (C&D) debris, I must request to become a permitted hauler and apply for and receive a separate hauling permit.

Should I decide to use a permitted hauler, other than ACI, I must provide completed copies of the following forms:

1. C&D Debris Waste Management Plan (WMP) Form Due with my Building Permit Application
2. C&D Debris Recycling Summary Report Form
Due within thirty (30) days of completion of the project.
No Final Inspection can be scheduled until reports are received and outstanding fees paid.

I, the applicant, understand that failure to observe these guidelines may delay final inspection and issuance of an occupancy permit.

Project Address _____

Application/Permit # _____

Applicant Name (print): _____

Title:

Company:

Project Name:

Signature:

Date:

City Staff Name (print):

Date:

Send completed form to Public Works Department, Environmental Services

**ATTACHMENT I – INTEGRATED PEST MANAGEMENT POLICY
WITH CONTRACTOR VERIFICATION**

I. PURPOSE

This City Policy sets forth the guiding principles for development and implementation of Integrated Pest Management (IPM) practices on all City properties.

II. OBJECTIVES

A. Reduce or minimize pesticide use on municipally owned buildings and landscaping (City Properties) to ensure the City is in compliance with its municipal stormwater National Pollutant Discharge Elimination System (NPDES) permit requirements.

B. Establish the use of Integrated Pest Management in all municipal operations and on all City Properties.

C. Minimize the reliance on pesticides that threaten water quality.

D. Create awareness among City staff of less-toxic pest management techniques.

E. Educate City departments to practice the most appropriate approach to managing pests, including prevention, on City properties.

F. Reduce the adverse impacts to San Francisco Bay water quality due to pesticide usage, particularly from organophosphorous pesticides (chlorpyrifos, diazinon, and malathion), pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin), carbamates (e.g., carbaryl), fipronil and copper-based pesticides.

III. ORGANIZATIONS AFFECTED

- A. Public Works Department
- B. Recreation and Parks Department
- C. Golf Complex
- D. Alameda Municipal Power
- E. Economic Development Department

IV. POLICY

It is the policy of the City of Alameda to:

A. Comply with Federal requirements for local government to develop and implement an Integrated Pest Management policy or ordinance to address water quality impairment by pesticides, per Section C.9.a. of the Municipal Regional Stormwater NPDES Permit, Order No. R2-2009-0074, from the California Regional Water Quality Control Board, 10/14/09.

B. Adopt and implement a policy requiring the use of Integrated Pest Management techniques in the City's operations, as required for all co-permittees of the Alameda Countywide Clean Water Program.

C. Establish City departmental written standard operating procedures for pesticide use that ensure implementation of the IPM policy and require municipal employees and contractors working on City property to adhere to IPM standard operating procedures.

D. Support the City of Alameda Municipal Code, Storm Water Management and Discharge Control ordinance, Ordinance No. 2605, by describing procedures by which the City may implement its policy regarding urban runoff.

This City Policy shall not be construed as requiring a department, purchaser or contractor to procure products that do not perform adequately for their intended use, exclude adequate competition, risk the health or safety of workers and citizens, or are not available at a reasonable price in a reasonable period of time.

This City Policy shall not be construed as requiring the City of Alameda, a department, purchaser or contractor to take any action that conflicts with local, state or federal requirements.

V. DEFINITIONS

5.1 *Biological control* - The use of biological technologies to manage unwanted pests. Examples of this type of control include, but are not limited to, the use of pheromone traps or beneficial insect release for control of certain types of weeds or invasive insects in landscapes.

5.2 *Cultural control* - The use of IPM control methods such as grazing, re-vegetation, disking, mulching, proper irrigation, seeding, and landscaping with competitive or tolerant species to manage unwanted weeds, rodents or plant diseases, plus good housekeeping.

5.3 *DPR* - Department of Pesticide Regulations for the State of California's Environmental Protection Agency. DPR, in partnership with the Federal Environmental Protection Agency (EPA) and the County Department of Agriculture, oversees all issues regarding the registration, licensing and enforcement of laws and regulations pertaining to pesticides.

5.4 *Integrated Pest Management (IPM)* - IPM is the strategic approach that focuses on long-term prevention of pests and their damage from reaching unacceptable levels by selecting and applying the most appropriate combination of available pest control methods. These include cultural, mechanical, biological and chemical technologies that are implemented for a given site and pest situation in ways that minimize economic, health and environmental risks.

5.5 *Mechanical controls* - The use of IPM control methods utilizing hand labor or equipment such as mowers, graders, weed-eaters, and chainsaws. Crack and crevice sealants and closing small entryways (i.e., around pipes and conduits) into buildings for insect and rodent management are also mechanical controls.

5.6 *PCA* - Pest Control Advisor is one licensed by the California Department of Pesticide Regulations according to Title 3, Article 5 of the California Code of Regulations. A licensed PCA, who is registered with the County Agricultural Commissioner, provides written pest control recommendations for agricultural pest management, including parks, cemeteries, and rights-of-way.

5.7 *Pesticides* - Defined in Section 12753 of the California Food and Agricultural Code as any spray adjuvant, or any substance, or mixture of substances intended to be used for defoliating plants, regulating plant growth, or for preventing, destroying, repelling, or mitigating any pest, as defined in Section 12754.5 (of the Food and Agricultural Code), which may infest or be detrimental to vegetation, man, animals or households, or be present in any agricultural or nonagricultural environment whatsoever. The term pesticide applies to herbicides, insecticides, fungicides, rodenticides and other substances used to control pests. Antimicrobial agents are not included in this definition of pesticides

5.8 *QAL* - Qualified Applicator License is a licensed applicator according to Title 3, Article 3 of the California Code of Regulations. This license allows supervision of applications that may include residential, industrial, institutional, landscape, or rights-of-way sites.

5.9 *QAC* - Qualified Applicator Certificate is a certified applicator of pesticides according to Title 3, Article 3 of the California Code of Regulations. This certificate allows supervision of applications that may include residential, industrial, landscape, or rights-of-way sites.

5.10 *Structural Pest Control Operator (SPCO- Branch I, II or III)* - A licensed applicator for controlling pests that invade buildings and homes according to the requirements of the Structural Pest Control Board of the California Department of Consumer Affairs.

VI. RESPONSIBILITY

6.1 Coordination

6.1.1 This Policy applies to the City Departments with operations subject to this Administrative Regulation. Department Directors, or their designees, shall coordinate implementation of this Administrative Regulation.

6.2 Training

6.2.1 All City employees who within the scope of their duties apply or use pesticides that threaten water quality shall be trained in IPM practices, the City's IPM policy, department IPM standard operating procedures, and as required by State of California Department of Pesticide Regulations rules, the County Agricultural Commissioner, and/or the Structural Pest Control Board and the City's NPDES permit. Training opportunities may also include the Bay-Friendly Landscape Maintenance Training and Qualifications Program and EcoWise Certified. Each Department will maintain records of all training activities (e.g., attendees, course outline, date).

6.2.2 City Staff responsible for pest management on City property will ensure annual training is provided to all employees who within the scope of their duties apply pesticides on:

1. Pesticide Safety,
2. This City Policy on IPM and
3. City department IPM standard operating procedures, appropriate Best Management Practices and Integrated Pest Management Technologies.

6.2.3 Pest Control Advisors and Applicators, pest management contractors, and other "contract for service providers" serving City properties will be licensed by the State of California Department of Pesticide Regulations (DPR) as a Pest Control Advisor or licensed Qualified Applicator and either IPM-certified or under contract to implement IPM. Contract specifications shall require contractors to implement IPM no later than July 1, 2010.

6.3 Public Education and Outreach

6.3.1 The City's Clean Water Program, in participation with the Alameda Countywide Clean Water Program, will continue with its existing program to encourage people who live, work, and/or attend school in Alameda to:

1. Obtain information on IPM techniques to control pests and minimize pesticide use
2. Use IPM technologies for dealing with pest problems
3. Perform pesticide applications according to the manufacturer's instructions as detailed on the product label, and in accordance with all applicable state and local laws and regulations set forth to protect the environment, the public, and the applicator; and properly dispose of unused pesticides and their containers.

6.3.2 City of Alameda Departments with property leaseholders shall inform property leaseholders of the need to comply with the City Policy on IPM and encourage the use of the most current IPM technologies and Best Management Practices.

6.4 Program Evaluation

6.4.1 Each Department with operations subject to this City Policy shall monitor and evaluate its success implementing this City Policy. This evaluation can include progress in meeting the objectives of this City Policy, and note barriers encountered, recommendations for resolution, cost analysis, and a description of assistance needed to continuously improve staff's ability to meet the City Policy objectives.

6.5 Reporting Requirements

The information outlined below is required for inclusion in the City's NPDES Stormwater Permit Annual Report compiled by the City's Clean Water Program for submittal to the Regional Water Quality Control Board. Each City department, pest management contractor, and/or other appropriately licensed contractors employed by the City to provide city services that involve pesticide application on City properties shall submit by **July 15th** annually to the Public Works Clean Water Program staff:

A. Annual Pesticide Use Summary Report

1. Product name and manufacturer
 2. Active ingredient
 3. The total quantity of each pesticide used during the prior fiscal year (from July 1 to June 30) in order to provide an accounting of pesticide use at City-owned or operated properties.
 4. Target pest(s) for pesticide application(s).
 5. Reasons for increases in use of pesticides that threaten water quality, specifically organophosphorous pesticides, pyrethroids, carbaryl, fipronil, and copper-based pesticides.
- Annual Pesticide Use Summary Report Forms may be obtained by contacting the Public Works Clean Water Program staff.

B. Annual Training Summary (City departments only)

1. The number of departmental employees who apply pesticides.
2. The number of departmental employees who apply pesticides who have received training in IPM policy and IPM standard operating procedures during the reporting year.

VII. PROCEDURE

7.1 Pesticide Prevention

7.1.1 The City of Alameda shall institute practices that reduce the use of pesticides and result in the purchase of fewer pesticides whenever practicable and cost-effective, but without reducing safety or workplace quality.

7.1.2 The City of Alameda shall direct all employees to implement Good Housekeeping Practices in their workstations, vehicles, break rooms, outdoor work areas, etc., to prevent the conditions that provide a food source and habitat which attract unwanted pests

7.2 Pest Control and Management

7.2.1 The City of Alameda, including all departments and staff herein, and contractors or individuals (QAL, QAC, SPCO) providing pest control services on City property (Applicators) shall follow the City's Integrated Pest Management City Policy and utilize generally accepted IPM Best Management Practices (BMPs) to the maximum extent practicable for the control or management of pests in and around City buildings and facilities, parks and golf courses, urban landscape areas, rights-of-way, and other City properties.

7.2.2 Applicators will use the most current IPM technologies available to ensure the long-term prevention or suppression of pest problems and to minimize negative impacts on the environment, non-target organisms, and human health.

7.2.3 Applicators will consider the options or alternatives listed below in the following order, before recommending the use of or applying any pesticide on City property:

1. No controls (e.g., tolerating the pest infestation, use of resistant plant varieties or allowing normal life cycle of weeds)
2. Physical or mechanical controls (e.g., hand labor, mowing, exclusion)
3. Cultural controls (e.g., mulching, disking, alternative vegetation), good housekeeping (e.g. cleaning desk area)
4. Biological controls (e.g., natural enemies or predators)
5. Reduced-risk chemical controls (e.g., soaps or oils)
6. Other chemical controls

7.3 Pesticide Application

7.3.1 Only City of Alameda employees or appropriate licensed contractors employed by the City who are authorized and trained in pesticide application (i.e., hold PCA, QAL, QAC, or Structural Branch Operator I, II, or III certifications/licenses or individuals working under the supervision of one of the aforementioned certificate/license holders) and who shall implement the City department's IPM standard operating procedures may apply pesticides to or within City property.

7.3.2 City of Alameda employees are not to apply pesticides during municipal operations or on City property that have been purchased at City employee expense. Each City department shall assign a responsible supervisor to identify less-toxic products to be used. If there are no less-toxic products on hand, department employees shall contact the assigned supervisor to be given approved less-toxic pesticides (i.e. Orange Guard, insecticidal soap).

7.3.3 Applicators will select and apply IPM methods that will minimize reliance on pesticides that threaten water quality, human health and the environment.

7.3.4 Existing contracts and New contracts that are entered into with pest management contractors and other appropriately licensed contractors employed to provide services that involve pesticide application at City properties after **June 30, 2010** will include requirements that the contractors follow the requirements of this City Policy on IPM and implement the most current IPM technologies and Best Management Practices.

7.4 Restricted Chemicals

7.4.1 City of Alameda employees and/or contractors employed by the City who are trained to recommend or apply pesticides will not use or promote the use of:

1. Acute Toxicity Category I chemicals as identified by the Environmental Protection Agency (EPA),
2. Organophosphate pesticides (e.g., those containing Diazinon, chlorpyrifos or malathion)
3. Pyrethroids (bifenthrin, cyfluthrin, beta-cyfluthrin, cypermethrin, deltamethrin, esfenvalerate, lambda-cyhalothrin, permethrin, and tralomethrin), carbamates (e.g., carbaryl), fipronil
4. Copper-based pesticides unless:
 - a. Their use is judicious,
 - b. Other approaches and techniques have been considered, and;
 - c. Threat of impact to water-quality is prevented.