

CITY OF OAKLAND, CALIFORNIA

Jestin D. Johnson, City Administrator

PROJECT BID DOCUMENTS

for

PROJECT NO. 1006066

MANDELA PARKWAY TRASH

CAPTURE DEVICE

Funded by:
2140 - Caltrans

The work embraced herein shall be done in accordance with these project specifications and drawings (if any), including, but not limited to, the "Standard Specifications for Public Works Construction 2015 Edition" (GREENBOOK), the "Standard Details for Public Works Construction 2002 Edition", and the State of California, Department of Transportation, Standard Specifications and Standard Plans, dated 2018, when applicable for certain applicable State Standard drawings that are specified herein. All documents, City of Oakland programs, policies and regulations referenced herein are incorporated as if attached hereto or herein repeated.

Oakland Public Works Department (OPW)

Bureau of Design and Construction
250 Frank H. Ogawa Plaza, Suite 4314, Oakland, CA 94612

Approved by:

A handwritten signature in black ink.

Siew-Chin Yeong (Dec 22, 2023 11:10 PST)

Siew-Chin Yeong
Assistant Director
Bureau of Design and Construction
December 2023

CERTIFICATION OF PROJECT BID DOCUMENTS

Project Plans and Specifications by:

Michael Mai

12/14/23

Michael Mai, P.E.
Senior Engineer
Wood Rodgers

Date



Bid Documents prepared by:

Tiffany Pham

Tiffany Pham (Dec 21, 2023 16:57 PST)

Dec 21, 2023

Tiffany Pham, P.E.
Civil Engineer

Date

Approved by:

Terri Fashing

Terri Fashing (Dec 21, 2023 16:59 PST)

Dec 21, 2023

Terri Fashing
Date
Acting Watershed & Stormwater Division & DD Program Manager



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SECTION 1. Project Information

1.1 NOTICE TO BIDDERS

Description: The work to be done under this contract includes the installation of the Dual Stage Hydrodynamic Separator (DSBB) (to be furnished by the City) and the RCP piping diversion system at the location near the intersection of Mandela Parkway and 24th Street in the City of Oakland as shown on the Plans and specified in these Specifications.

Pre-Bid Meeting: (Voluntary) January 11, 2024, at 10:00 AM.

The pre-bid meeting now will be held via Microsoft Teams (copy and paste to browser):

https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZmY4YTYxZTYtMzk0Mi00ZDU0LWEzYjktNjE3NDdmYmYwNTIj%40thread.v2/0?context=%7b%22Tid%22%3a%22989a2180-6fbc-47f1-8032-1a9ee969c58d%22%2c%220id%22%3a%22a7d0bce2-2202-4807-93a8-8aec54ebb6d3%22%7d

Meeting ID: 239 153 839 950

Passcode: QEpoc6

[Download Teams](#) | [Join on the web](#)

[Learn More](#) | [Meeting options](#)

Questions Due: January 18, 2024, by 2:00 PM by email to the Project Manager. It is the Contractor's responsibility to ensure that the email is received by the Project Manager. An addendum that materially changes the bid invitation will be issued no less than 72 hours before the bid opening, unless the bid opening is extended by said addendum.

Bids Due: January 25, 2024, by 2:00 PM.

Bids may either be uploaded into the City's iSupplier online procurement system, or may be mailed or hand-delivered to the City Clerk at 1 Frank H. Ogawa Plaza, Room 104, Oakland, CA 94612 prior to the bid due date and time.

Bidders must be registered with iSupplier to submit bids online. New users should register at least three days before bid deadline. Bidders may access iSupplier by going to the following web address.

<https://www.oaklandca.gov/services/register-with-isupplier>

If bidders choose to mail or hand deliver their bid, it is the bidder's responsibility to ensure that it is received by the City Clerk prior to the bid due date and time. It is strongly encouraged to allow for several additional days for mail processing. Late submissions may not be accepted and will be returned unopened.

Engineer's Estimate: \$3,631,500.00 Base Bid

License Required: A.

Contract Days: 135 working days

Liquidated Damages: \$1,500 per calendar day

Bonds: 10% Bid Security; 100% Payment and Performance Bonds

Oakland-certified Local Business Requirement: 20% minimum participation (excluding Specialty Items, if any. See Sections II.F, II.S and III.A.6). Firms unable to attend a voluntary pre-bid meeting are encouraged to contact the assigned Contract Compliance Officer to review the City's Local and Small Local Business Enterprise (L/SLBE) program.

Local Trucking Requirement: Yes

Self-Performance: 30% minimum, excluding Specialty Items if any per the Bid Schedule. See Special Provisions Section 2-3.2.

Contact Information:

PW Project Manager: Tiffany Pham, P.E. at 510-238-3397 or tpham@oaklandca.gov

Capital Contracts: capitalcontracts@oaklandca.gov or (510) 238-7211

Contract Compliance Officer: Sophany Hang at shang@oaklandca.gov or slbe@oaklandca.gov or 510-238-3723

Department of Industrial Relations (DIR):

No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the DIR pursuant to Labor Code Section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code Section 1771.1(a)].

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 DIR pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the DIR.

The prime contractor must post job site notices prescribed by regulation.

Assembly Bill 219 requires companies hauling or delivering ready-mix concrete to register with the DIR as a public works contractor.

Bid Documents and AB 2036 Compliance: Bid documents are only available digitally and provided free of charge through two websites listed below.

<https://www.oaklandca.gov/services/view-bid-and-rfp-rfq-opportunities>; or

<https://www.ciplist.com/plans/?Oakland/city/9392>

Separate Plan Holder lists are maintained by each site. Bid Results and Subcontractor Listings are posted only to the CIPLIST.com site. It is the responsibility of each prospective bidder to download and print all bid documents, including any addenda, and to verify the completeness of their printed bid documents before submitting a bid. The City does not warrant, represent, or guarantee the accuracy or completeness of any bid documents and/or information retrieved from other sources. The City is not responsible for any loss or damage including, but not limited to, time, money, or goodwill arising from errors, inaccuracies or omissions in any bid documents and/or information obtained from other sources. It is each prospective bidder's responsibility to check these sites through to the close of bids for any applicable addenda or updates.

Asha Reed, City Clerk and Clerk of the City Council

Newspaper publication date: December 29, 2023

1.2 PROJECT SCOPE OF WORK

The work to be done under this contract includes the installation of the Dual Stage Hydrodynamic Separator (DSBB 11-24-150) and the RCP piping diversion system at the location near the intersection of Mandela Parkway and 24th Street in the City of Oakland as shown on the Plans and specified in these Specifications. The DSBB will be furnished by the city.

The work shall include, but not limited to, mobilization, traffic control, temporary fencing and barricade, clearing and grubbing, water pollution control, dust control, control of ground and surface waters, installation of shoring system; removal and disposal of existing RCP piping; removal and replacement of existing concrete and asphalt concrete pavements, curbs and gutters, saw cutting; installation of signage, pavement markings and traffic striping; removal and disposal of debris and materials, soil excavation, off hauling and disposal of excavated materials to appropriate disposal site, preparation of subgrade, supplying and placement of structure base materials and pipe bedding materials; structural excavation and backfill; trench excavation and backfill; roadway excavation and backfill; furnishing and installation of materials and components of the storm water treatment unit, sump, riser, manhole/access hatches; supplying and placement of structural concrete, junction boxes, weir wall, pipe collars; installing 72" and 96" RCP piping; furnishing and installation of manholes, manhole frames and covers; supplying and placement of imported backfill materials, permanent and temporary resurfacing, protection of existing facilities and utilities; as well as furnishing and installation of the

associated appurtenances necessary or required to satisfactorily complete the work as shown on the Plans and required in these Specifications.

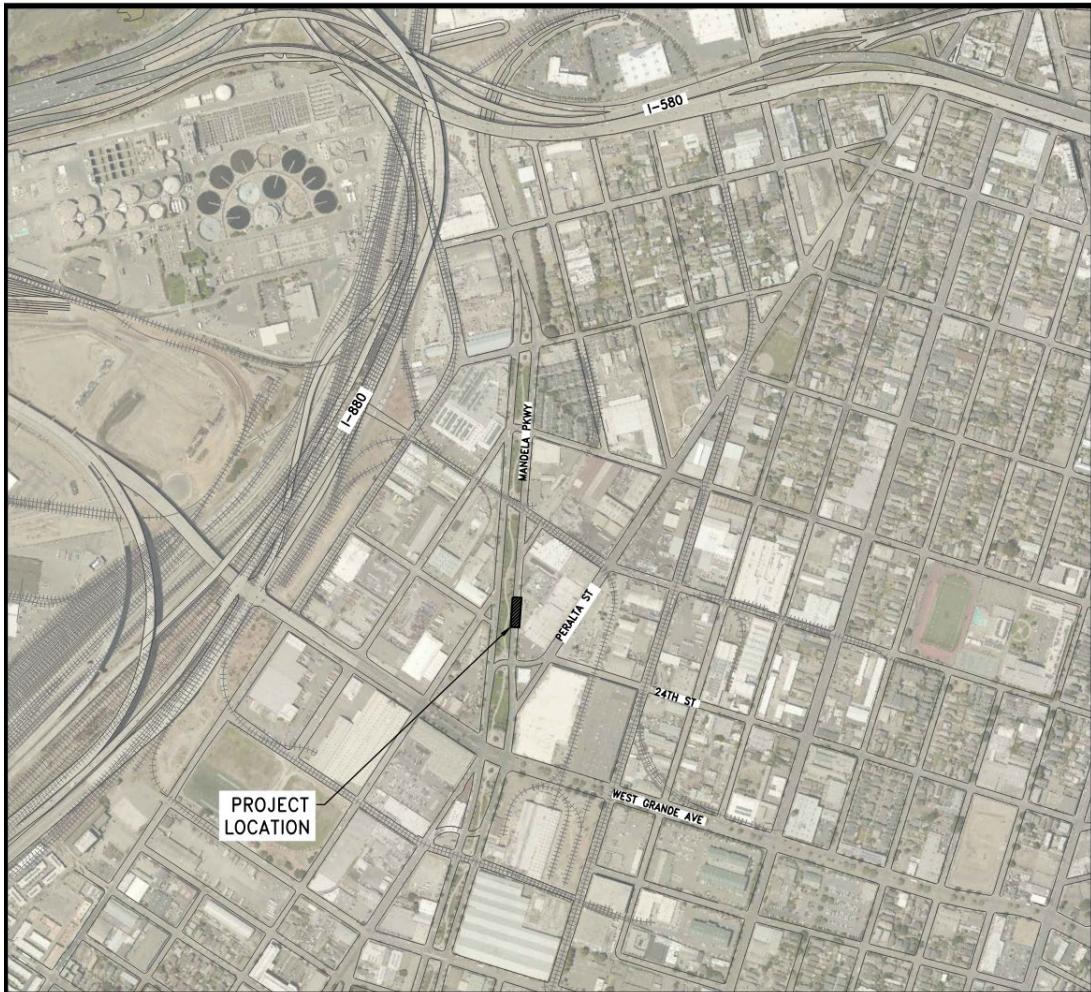
The Contractor shall do all work incidental to legally and satisfactorily complete the work including the furnishing of all supervision, labor, materials, supplies, tools, equipment, transportation, utility coordination, applicable taxes, permits, and any other necessary or required incidental work essential to accomplish the work, whether or not shown on the plans or required in these specifications. The cost of all such incidental work shall be included in the lump sum bid price and no additional or direct payment will be made therefor.

1.3 PROJECT TIMELINE

This is an approximate and estimated timeline for information only. The Contractor shall not be entitled to additional compensation if this timeline is not met or if the actual project's schedule differs from this timeline:

ACTIVITY	ESTIMATED DATE
Legal advertisement	December 29, 2023
Bids due	January 25, 2024

1.4 PROJECT LOCATION MAP



1.5 REGULATORY REQUIREMENTS (PERMITS, UTILITIES, ETC...)

The Contractor must comply with all the regulatory requirements, including obtaining all relevant permits from regulatory and local agencies, as required for the construction of the project. Listed below are among the permits the Contractor must apply as part of the contract work:

- Temporary Discharge to Storm Drain System Application (City of Oakland)
- Temporary Discharge to Sanitary Sewer System (City of Oakland)
- Special Discharge Permit (EBMUD)
- Wastewater Discharge Permit (EBMUD) (if applicable)

Refer to Appendix C for the application forms.

SECTION 2. Mandatory Policies and Programs

Schedules I, O, R, W, and Z shall be submitted with the bid.

All other Schedules referenced below are not required with the proposal. These schedules will only be required of the contractor receiving the award and will be provided during the contract execution phase. These Schedules, policies, programs, and ordinances referenced in this section are available at: <https://www.oaklandca.gov/documents/contracts-and-compliance-forms-and-schedules>

Please carefully review all the terms and conditions described below. The City shall award contracts only to firms that can achieve full compliance.

2.1 Prevailing Wage

The City has adopted State of California Prevailing Wage rates for its public works projects over \$1,000.00 as per Special Provisions Section 7-2.2.

This project is subject to State of California Labor Code Sections 1770-1781, 1813, and 1815 requiring the payment of prevailing wages, the training of apprentices, and compliance with other applicable requirements. The City shall provide upon request copies of the prevailing rate of per diem wages to be paid to all applicable workers. The City shall make available prevailing wage rate determinations to all interested parties upon reasonable request during normal business hours. Additionally, the contractor shall have a copy of the prevailing wage determinations posted in a conspicuous place at each job site. Prevailing wage information may also be obtained via the internet at: www.dir.ca.gov.

As a condition to receiving progress payments, final payment, and payment of retention on any and all projects on which the payment of prevailing wages is required, the contractor shall have provided to the City, along with its request for payment, all applicable and necessary certified payrolls and other required documents for the time period covering such payment request. The City shall withhold any portion of a payment, including the entire payment amount until certified payroll forms and other required compliance monitoring documents are properly submitted. In the event that certified payroll forms do not comply with the requirements of Labor Code Section 1720 et seq., or wage violations are identified by the City, the City may continue to hold sufficient funds to cover estimated wages and penalties under the contract.

- a. **Weekly Certified Payroll:** Contractors are required to submit weekly certified payroll documents five days after each pay period to the City and will be monitored/audited for compliance. The City will investigate discrepancies in the audit as well as prevailing wage claims and may request further documentation or proof of compliance. If the City determines that Contractor has failed to pay any of its employees the appropriate prevailing wage rate, findings will be reported to the Department of Labor and/or the difference between the amount paid and the amount owed for prevailing wages from any amount owed contractor will be withheld until such time as the payment dispute is fully and finally resolved.
- b. **Electronic Payroll Submittals:** The prime contractor and all subcontractors shall submit all certified payrolls via the LCPtracker System, in accordance with the City of Oakland's Local and Small Local Business Enterprise Program. The monthly service charge for Prime contractors is **\$197.00 per month** for contracts less than 5 million dollars **and \$357.00 per month** for contracts greater than 5 million dollars; subcontractors will not be charged for this service.

2.2

Senate Bill 854

Signed into law on June 20, 2014, SB 854 made several significant changes to laws pertaining to the administration and enforcement of prevailing wage requirements by the State of California Department of Industrial Relations (DIR). Among other things, SB 854 established a new public works contractor registration program to replace prior Compliance Monitoring Unit (CMU) and Labor Compliance Program (LCP) requirements for bond-funded and other specified public works projects.

Important Things to Know About SB 854:

- a. It is mandatory for all contractors and subcontractors who bid or work on a public works project to register and pay an annual fee to DIR.
- b. **Only DIR-registered contractors and subcontractors may be listed on a bid proposal for a public works project.**
- c. No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with DIR.
- d. No contractor or subcontractor may work on a public works project unless registered with DIR.
- e. An awarding body may not accept a bid or enter into a contract for public work with an unregistered contractor.
- f. DIR maintains an up-to-date [listing of registered contractors](#).
- g. Additional information may be found at the DIR website: <http://www.dir.ca.gov/public-works/publicworks.html>

- There are *exceptions* to the registration requirement for bidders in circumstances where a CSLB license would not be required at the time of bidding.
- Additional exceptions and protections are included in the registration laws to limit bid challenges, allow some violations to be cured through payment of penalty fees, and allow unregistered contractors to be replaced with registered ones.

h. Further, effective July 1, 2016, **Assembly Bill 219** requires companies hauling or delivering ready-mix concrete to register with the DIR as a public works contractor.

2.3 **Definitions and Abbreviations**

Refer to Special Provisions, Sections 1-2 and 1-3.

2.4 **Nondiscrimination/Equal Employment Practices**

Contractor shall not discriminate or permit discrimination against any person or group of persons in any manner prohibited by federal, state, or local laws. During the performance of this contract, the contractor agrees as follows:

- a. Contractor and Contractor's subcontractors, if any, shall not discriminate against any employee or applicant for employment because of age, marital status, religion, gender, sexual orientation, gender identity, race, creed, color, national origin, mental or physical disability (including but not limited to Acquired-Immune Deficiency Syndrome (AIDS), and AIDS-Related Complex (ARC)), military or military veteran status, or any other legally-protected class. This nondiscrimination policy shall include, but not be limited to, the following: employment, upgrading, promotion or failure to promote, demotion or transfer, recruitment advertising, layoffs, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- b. Contractor and Contractor's Subcontractors shall state in all solicitations or advertisements for employees placed by or on behalf of Contractor that all qualified applicants will receive consideration for employment without regard to age, marital status, religion, gender, sexual orientation, gender identity, race, creed, color, national origin, mental or physical disability (including by not limited to AIDS, and ARC), military or military veteran status, or any other legally-protected class.
- c. Contractor shall make its goods, services, and facilities accessible to people with disabilities and shall comply with the Americans with Disabilities Act and all other applicable federal, state, and local disability rights legislation.
- d. If applicable, the contractor will send to each labor union or representative of workers with whom the contractor has a collective bargaining agreement or contract or understanding, a notice advising the labor union or workers' representative of the

contractor's commitments under this nondiscrimination clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- e. Contractors are required to disclose any disciplinary or investigatory actions against the Contractor by the Equal Employment Opportunity Commission (EEOC), Department of Fair Employment & Housing (DFEH), or the Office of Federal Contract Compliance Programs (OFCCP). Contractor agrees to disclose and has disclosed, any and all such disciplinary or investigatory actions in writing to the Project Manager. Failure to disclose such action prior to execution of this Agreement or any subsequent amendment shall be a basis for termination of the Agreement.
- f. All affirmative action efforts of contractors are subject to tracking by the City. The information or data shall be used for statistical purposes only. All contractors are required to provide data regarding the make-up of their subcontractors who will perform City contracts, including the race and gender of each employee and/or subcontractor and his or her job title or function and the methodology used by the contractor to hire and/or contract with the individual or entity in question.
- g. The City will immediately report evidence or instances of apparent discrimination in City contracts to the appropriate State and Federal agencies and will take action against contractors who are found to be engaging in discriminatory acts or practices by an appropriate State or Federal agency or court of law, up to and including termination or debarment.
- h. In the recruitment of sub-contractors, the City of Oakland requires all Contractors to undertake nondiscriminatory and equal outreach efforts, which include outreach to minorities and women-owned businesses as well as other segments of Oakland's business community. The City Administrator will track the City's MBE/WBE utilization to ensure the absence of unlawful discrimination on the basis of age, marital status, religion, gender, sexual preference, race, creed, color, national origin, Acquired-Immune Deficiency Syndrome (AIDS), AIDS-Related Complex (ARC) or disability.
- i. In the use of such recruitment, hiring, and retention of employees or sub-contractors, the City of Oakland requires all Contractors to undertake nondiscriminatory and equal outreach efforts which include outreach to minorities and women as well as other segments of Oakland's business community.

2.5

Local and Small Local Business Enterprise Program (L/SLBE)

*This summary highlights provisions of the L/SLBE program for **construction contracts**. The full program document is available at:*

https://cao-94612.s3.amazonaws.com/documents/LSLBE-Program-Guidelines_Revised.5.4.21.pdf

2.6.1 Requirement: All construction contracts at or over \$100,000 shall satisfy the 20% L/SLBE minimum participation requirement, unless otherwise reduced or waived in the Notice To Bidders. Of this 20% minimum, 10% minimum participation must be by a SLBE firm, either as a prime, subcontractor, supplier, or trucker. It is extremely important that prime contractors verify the L/SLBE certification status of their firm, any subcontractors, suppliers, and truckers prior to listing the firm on Schedule R.

- a. The prime contractor shall submit a completed Schedule R – “Subcontractor, Supplier, Trucking Listing” showing ALL subcontractors and suppliers with subcontract dollar values greater than one-half of one percent (0.5%) of the prime contractor’s total bid or \$10,000, whichever is greater. **Failure to do so will render the bid nonresponsive.**
- b. If the NTB requires local trucking, bidders must list ALL trucking regardless of tier and dollar amount. **Failure to do so will render the bid nonresponsive.**

2.6.2 Meeting the 20% participation requirement: These scenarios are provided only for illustration purposes and do not relieve the prime’s responsibility to comply with any “Self-Performance” requirement in accordance with the Notice to Bidders.

- I. **MEETING THE MINIMUM - 10% minimum participation must be by a SLBE firm, either as a prime, subcontractor, supplier, or trucker :**
 1. $5\% \text{ LBE} + 15\% \text{ SLBE} = 20\%$ {compliant}
 2. $10\% \text{ LBE} + 10\% \text{ SLBE} = 20\%$ {compliant}
 3. $11\% \text{ LBE} + 9\% \text{ SLBE} = 20\%$ {not-compliant}
 4. $16\% \text{ LBE} + 4\% \text{ SLBE} = 20\%$ {not-compliant}
- II. A Very Small Local Business Enterprise (VSLBE) satisfies SLBE participation at a rate of two times.
 1. $10\% \text{ LBE} + 5\% \text{ VSLBE} = 20\%$ {compliant}
 2. $6\% \text{ LBE} + 7\% \text{ VSLBE} = 20\%$ {compliant}
 3. $10\% \text{ VSLBE} = 20\%$ {compliant}

2.6.3 Bid Discounts: Contractors may earn up to a maximum of a 5% bid discount.

- a. **MEETING THE MINIMUM 20% L/SLBE participation requirement: 2% bid discount.**

b. EXCEEDING THE MINIMUM 20% L/SLBE participation requirement: Up to 3% additional bid discounts may be earned at a rate of 1% per additional 10% participation, up to 80% participation of the total contract dollars spent with L/SLBE firms. See examples below.

- i. 15% LBE + 15% SLBE = 30% = additional 1% bid discount
- ii. 20% LBE + 20% SLBE = 40% = additional 2% bid discount
- iii. 25% LBE + 25% SLBE = 50% = additional 3% bid discount

2.6.4 Trucking: If the NTB requires local trucking, 50% of the total trucking dollars must be allotted to Oakland-certified Local Truckers to enhance the participation of locally-based trucking firms in city-funded public works projects. **Failure to comply with the 50% trucking requirement will result in a non-responsive bid.**

2.6.5 50% Local Employment Program (LEP): This policy establishes a goal for Oakland-resident employment on public works projects (as such projects are defined in this policy). Specifically, for work performed at the construction site, this policy establishes a goal of 50% of the work hours, which must be performed by Oakland residents on a craft-by-craft basis. In addition, a minimum of 50% of all new hires on the project (on a craft-by-craft basis) must be Oakland residents, and the first new hire must be an Oakland resident. A contractor or developer must achieve the goals or secure an exemption from the City.

2.6.6 15% Apprenticeship Program: This program requires contractors to provide employment to Oakland apprentices equal to 15% of the total project work hours on a craft-by-craft basis, or demonstrate through good faith efforts that at the time of the contract there were insufficient Oakland apprentices available to perform contracted work on a craft-by-craft basis equal to fifteen percent (15%) of the total hours. Contractors will have either provided employment to Oakland apprentices equal to 15% of project hours on a craft-by-craft basis or secured waiver(s) from the City.

2.6.7 Prevailing Wages: City of Oakland contracts for public works of improvement (construction) are subject to all California Labor laws, including, but not limited to, prevailing wage and apprentice wage laws. The City has adopted State of California Prevailing Wage rates for their construction projects. City Council Resolution No. 57103 C.M.S., passed March 28, 1978, covering this matter is available for inspection at the Office of the City Clerk, One Frank H. Ogawa Plaza Oakland, CA 94612. The California Department of Industrial Relations (DIR), Divisions of Labor Statistics and Research, annually determines prevailing wages and may be found at www.dir.ca.gov/DLSR/PWD.

2.6.8 The Exit Report and Affidavit (ERA) – This report declares the level of participation achieved and will be used to calculate banked credits. The prime consultant must complete the Schedule F, Exit Report and Affidavit for, and have it executed by,

each L/SLBE sub-consultant and submitted to the Office of the City Administrator, Contracts and Compliance Unit, along with a *copy* of the final progress payment application. This schedule is not provided in this Bid Book and should be provided by the Resident Engineer upon commencement of the project.

2.6.9 Joint Venture and Mentor Protégé Agreements: If a prime is able to develop a Joint Venture or “Mentor-Protégé” relationship with a certified LBE or SLBE, the Joint Venture or Mentor-Protégé partners will enjoy the benefit of credits against the participation requirement. In order to earn credit for Joint Venture or Mentor-Protégé relationships, the Agreement must be submitted for approval to the Office of the City Administrator, Department of Contracts and Compliance, prior to the project bid date for construction. Joint Venture Applications and elements of City approved Mentor Protégé relation are available upon request.

2.6.10 Ownership and workforce: Contractors shall submit information concerning the ownership and workforce composition of their firm as well as its subcontractors and suppliers, by completing Schedule D, Ownership, Ethnicity, and Gender Questionnaire, and Schedule R, Subcontractor, Supplier, and Trucker Listing attached and incorporated herein and made a part of this Agreement.

2.6.11 Affirmative Action: All affirmative action efforts of consultants are subject to tracking by the City. This information or data shall be used for statistical purposes only. All prime consultants are required to provide data regarding the make-up of their sub-consultants and agents who will perform City contracts, including the race and gender of each employee and/or contractor and his or her job title or function and the methodology used by the consultant to hire and/or contract with the individual or entity in question. In the recruitment, hiring, and retention of employees or sub-consultants, the City of Oakland requires all prime consultants to undertake nondiscriminatory and equal outreach efforts, which include outreach to minorities and women-owned businesses as well as other segments of Oakland’s business community. The City Administrator will track the City’s MBE/WBE utilization to ensure the absence of unlawful discrimination on the basis of age, marital status, religion, gender, sexual preference, race, creed, color, national origin, Acquired-Immune Deficiency Syndrome (AIDS), AIDS-Related Complex (ARC) or disability.

2.6

Prompt Payment Ordinance - Oakland Municipal Code, Chapter 2.06.070

This Ordinance requires that the contractor and its subcontractors shall pay undisputed invoices of their subcontractors for goods and/or services within twenty (20) business days of submission of invoices, unless specific exemptions apply, or unless the contractor or its subcontractors notify the City’s Prompt Payment Liaison in writing within five (5) business days that there is a bona fide dispute between the contractor or its subcontractor and claimant. In this case the contractor or its subcontractor may withhold the disputed amount but shall pay the undisputed amount.

Disputed payments are subject to investigation by the Liaison upon the filing of a compliant. The contractor or its subcontractors opposing payment shall provide security in the form of cash, certified check or bond to cover the disputed amount and penalty during the investigation. If the contractor or its subcontractor fails or refuses to deposit security, the Liaison will withhold an amount sufficient to cover the claim from the next contractor progress payment. Upon a determination that an undisputed invoice or payment is late, the Liaison will release security deposits or withhold directly to claimants for valid claims.

The contractor and its subcontractors shall not be allowed to retain monies from subcontractor payments for goods as project retention, and are required to release subcontractor project retention in proportion to the subcontractor services rendered, for which payment is due and undisputed, within five (5) business days of payment. The contractor and its subcontractors shall be required to pay subcontractors mobilization fees within five (5) business days of being paid such fees by the City. For the purpose of posting on the City's website, the contractor and its subcontractors are required to file notice with the City of the release of retention and payment of mobilization fees within five (5) business days of such payment or release; and, the contractor and its subcontractors are required to file an affidavit, under penalty of perjury, that he or she has paid all subcontractors, within five (5) business days following receipt of payment from the City, The affidavit shall provide the names and address of all subcontractors and the amount paid to each.

The contractor and its subcontractors shall include the same or similar provisions as those set forth above in any contract with a subcontractor that delivers goods and/or services in connection with a City of Oakland contract. Invoice and claim inquiries should be directed to Vivian Inman, City of Oakland Prompt Payment Liaison, 510-238-6261 or email vinman@oaklandca.gov.

2.7 **Pending Dispute Disclosure Policy**

Contractors are required to disclose pending disputes with the City of Oakland. Contractor agrees to disclose and has disclosed, any and all pending disputes with the City in writing to the Project Manager. Failure to disclose pending disputes prior to execution of this Agreement or any subsequent amendment shall be a basis for termination of the Agreement.

All entities are required to disclose pending disputes with the City of Oakland when they submit bids, proposals, or applications for a City contract or transaction involving:

- The purchase of products, construction, non-professional or professional services; Contracts with concessionaires, facility or program operators or managers;

- Contracts with project developers, including Disposition and Development Agreements, Lease Disposition and Development Agreements, and other participation agreements;
- Loans and grants; or
- Acquisition, sale, lease, or other conveyance of real property, excluding licenses for rights of entry or use of city facilities for a term less than thirty (30) consecutive calendar days.

The disclosure requirement applies to pending disputes on other City contracts or projects that: (1) have resulted in a claim or lawsuit against the City of Oakland, (2) could result in a new claim or new lawsuit against the City of Oakland, or 3) could result in a cross-complaint or any other action to make the City of Oakland a party to an existing lawsuit. “Claim” includes, but is not limited to, a pending administrative claim or a claim or demand for additional compensation.

Entities required to disclose under this Disclosure Policy include (1) any principal owner or partner, (2) any business entity with principal owners or partners that are owners or partners in a business entity, or any affiliate of such a business entity, that is involved in a pending dispute against the City of Oakland.

Failure to timely disclose pending disputes required by this policy may result in (1) a determination that a bid is non-responsive and non-responsible for price-based awards, or (2) non-consideration of a bid or proposal for a professional service contract or other qualification-based award. The City may elect to terminate contracts with entities that failed to timely disclose pending disputes and/or initiate debarment proceedings against such entities.

2.8

Conflict of Interest/Confidentiality/City-Contractor Relationship

The contractor shall avoid all conflicts of interest and respect its relationship with the City by maintaining confidentiality of materials deemed confidential by law.

According to the City’s Purchasing Ordinance (OMC Chapter 2.04.050.C), “No person, firm or corporation shall be allowed to make or file or be interested in more than one bid for the same supplies, services or both.” To clarify, **a firm (including, but not limited to licensed contractors and professional service providers) may not submit a proposal as a prime consultant or contractor if they are being listed as a sub-consultant or subcontractor on another proposal or bid for the same solicitation.**

Exceptions include:

- a. A firm may be listed on more than one proposal or bid if they are proposing under separate legal entities.
- b. A firm, if not submitting as a prime consultant or contractor, may be listed as sub-consultant or subcontractor on more than one proposal or bid.

- c. In the case of an RFQ for On-Call Construction Services, a firm may be listed as a prime contractor or subcontractor in more than one submittal provided each submittal is for a different contractor license type (e.g. A, B, C10, C-27, etc..) or service type at the sole discretion of the City.
- d. No officer, director, employee or member of a Mentor-Protégé team, as defined by the L/SLBE Program, shall be allowed to bid or otherwise participate independently on a city contract where the mentor-protégé team is bidding or otherwise participating. Each party is prohibited from submitting multiple bids on a city contracts.

The contractor specifically agrees to the following:

- a. The contractor covenants that it presently has no interest, and shall not have any interest, direct or indirect, which would conflict in any manner with the performance of work requested by the Notice to Bidders. Without limitation, the contractor represents to and agrees with the City that no conflict of interest is created between performing the work hereunder and any interest Contractor may have with respect to any other person or entity (including but not limited to any federal or state regulatory agency) which has any interest adverse or potentially adverse to the City.
- b. The contractor understands and agrees to successfully perform the work requested by the Notice to Bidders. In addition, every communication between the contractor and the City or its special counsel shall be considered to be a confidential communication between client and lawyer (see California Evidence Code Section 952), and the confidential work product of the City Administrator, City Attorney and the City's special counsel, respectively, and therefore shall be held in strict confidence. All reports, analysis, maps, diagrams or any documents prepared or assisted in the preparation of or by the contractor, shall be considered to be prepared pursuant to said lawyer-client relationship. All of the above mentioned documents are also considered the work product of the City Administrator and shall not be communicated to any person except as specifically authorized in writing signed by the City Administrator and City Attorney.
- c. The Fair Political Practices Act and/or California Government Code Section 1090, among other statutes and regulations may prohibit the City from contracting with a service provider if the service provider or an employee, officer or director of the service providers' firm, or any immediate family of the preceding, or any subcontractor or contractor of the service provider, is serving as a public official, elected official, employee, board or commission member of the City who will award or influence the awarding of the contract or otherwise participate in the making of the contract. The making of a contract includes actions that are

preliminary or preparatory to the selection of a contractor such as, but not limited to, involvement in the reasoning, planning and/or drafting of solicitations for bids and requests for proposals/qualifications, feasibility studies, master plans or preliminary discussions or negotiations.

2.9 **Violation of Federal, State, City Laws, Programs or Policies**

The City may, in their sole discretion, consider violations of any programs and policies described or referenced in this document a material breach and may take enforcement action provided under the law, programs, or policies, and/or terminate the contract, debar contractors from further contracts with City and/or take any other action or invoke any other remedy available under law or equity.

2.10 **Ownership, Ethnicity and Gender Questionnaire – Schedule D**

The contractor shall submit information concerning the ownership and workforce composition of its firm (This is included in the Combined Schedules).

2.11 **Sanctuary City Contracting and Investment Ordinance – Schedule I**

Neither this Business Entity nor any of its subsidiaries, affiliates or agents are under contract with the United States Immigration and Customs Enforcement (ICE), Customs and Border Protection (CBP), or the Department of Health and Human Services Office of Refugee Resettlement (HHS/ORR) to provide services or goods for data collection or immigration detention facilities. The term “data collection” includes the collection of information (such as personal information about consumers) for another purpose from that which it is ultimately used, data mining in large databases for trends and information, threat-modeling to identify probable attackers to computer systems, predictive risk analysis to predict future events and similar services. Additionally, this business entity does not anticipate a contract with ICE, CBP, or HHS/ORR for such work for the duration of a contract/contracts with the City of Oakland.

2.12 **Independent Contractor Questionnaire - Schedule M, Part A**

Contractor represents that:

- Contractor has the Proposals and skills necessary to perform the services under this contract in a competent and professional manner without the advice or direction of the City; and
- the services will be performed in accordance with the generally accepted principles and practices applicable to contractor’s trade or profession; and
- Contractor and its employees and sub-contractors are properly licensed, registered, and/or certified as may be required under any applicable federal, state and local laws, statutes, ordinances, rules and regulations relating to performance of the services; and
- all services provided pursuant to this contract shall comply with all applicable laws and regulations; and
- Contractor will promptly advise City of any change in the applicable laws, regulations, or other conditions that may affect City’s program.

- This means Contractor is able to fulfill the requirements of this contract. Failure to perform all of the services required under this contract will constitute a material breach of the contract and may be cause for termination of the contract. Contractor has complete and sole discretion for the manner in which the work under this contract is performed.

2.13 **Living Wage Ordinance – Schedule N**

Design-Build, Construction Manager At-Risk, or other contracts for public works of improvement that involve services of licensed professionals, such as, but not limited to, architects and engineers, are subject to Oakland's Living Wage Ordinance, Oakland Municipal Code Chapter 2.28, where such services amount to or exceed \$25,000. The ordinance requires that, unless specific exemptions apply or a waiver is granted, all employers contracted to provide services amounting to or exceeding \$25,000, shall provide certain minimum hourly wages and health benefits to employees. The City determines and adjusts the rates annually using the Bay Region Consumer Price Index as published by the Bureau of Labor Statistics, U.S. Department of Labor as the index. Bidders are required to sign and submit a (Schedule N) certification of intent to comply with the Living Wage Ordinance for design-build, construction manager at-risk or other contracts for public works of improvement that involve services of licensed professionals amounting to or in excess of \$25,000, with their bids/proposals.

2.14 **Equal Benefits Ordinance - Schedule N-1**

This contract is subject to the Equal Benefits Ordinance (OMC Chapter 2.32) and its implementing regulations. The Ordinance requires completion of Schedule N-1 and submittal of applicable employee benefits policies in order for compliance to be certified.

https://library.municode.com/ca/oakland/codes/code_of_ordinances?nodeId=OAKLANDMUCO

The purpose of this Ordinance is to protect and further the public, health, safety, convenience, comfort, property and general welfare by requiring that public funds be expended in a manner so as to prohibit discrimination in the provision of employee benefits by City contractors between employees with spouses and employees with domestic partners, and/or between domestic partners and spouses of such employees. The requirements of this section shall not apply to subcontracts or subcontractors.

The following contractors are subject to the Ordinance:

- Entities which enter into a contract in an amount of twenty-five thousand dollars (\$25,000.00) or more for public works improvements, or for goods or services to be purchased or grants to be provided at the expense of the City or to be paid out of moneys deposited in the Treasury or out of trust moneys under the control of or collected by the City; and

- Entities which enter into a property contract pursuant to Chapter 2.32.020(D) with the City in an amount of twenty-five thousand dollars (\$25,000.00) or more for the exclusive use of or occupancy:
 1. of real property owned or controlled by the City; or
 2. of real property owned by others for the City's use or occupancy, for a term exceeding twenty-nine (29) days in any calendar year.

The Ordinance shall only apply to those portions of a contractor's operations that occur:

- Within the City; or
- On real property outside the City if the property is owned by the City or if the City has a right to occupy the property, and if the contract's presence at that location is connected to a contract with the City; or
- Elsewhere in the United States where work related to a City contract is being performed.

2.15 City of Oakland Campaign Contribution Limits – Schedule O

The Oakland Campaign Reform Act ("Act"), Oakland Municipal Code Chapter 3.12, prohibits contractors doing business or seeking to do business with the City of Oakland or the Oakland Unified School District from making campaign contributions to Oakland candidates between commencement of negotiations and 180 days after completion or termination of contract negotiations. Contractors seeking to do business with the City of Oakland are required to complete and submit the Campaign Contribution Limits form at the time of submittal of a bid, proposal, qualification, or contract amendment.

Contracts shall not be awarded to any contractors who have not signed this form. Filing a false acknowledgment shall subject the contractor to criminal and civil enforcement provisions contained in the Act. The Oakland Public Ethics Commission is charged with enforcing the provisions of the Act.

2.16 Subcontractor, Supplier, Trucking Listing – Schedule R

Bidders must list ALL subcontractors and suppliers with subcontract dollar values greater than one-half of one percent (0.5%) of the prime contractor's total bid, or in the case of street, highway, and bridge projects, one-half of one percent (0.5%) of the prime contractor's total bid or \$10,000, whichever is greater. If the NTB requires local trucking, bidders must list ALL trucking regardless of tier and dollar amount.

Failure to list ALL applicable subcontractors, suppliers and truckers, or to provide ALL applicable information on the Schedule including dollar amounts, or to submit this mandatory form with the Bid, will deem your Bid nonresponsive. This Schedule will be made a part of the contract. No changes may be made to this Schedule without approval of the City.

- **L/SLBE Program:** This Schedule will be used to calculate compliance with Oakland's L/SLBE Program. There is no automatic reciprocity with any local business certification from the County of Alameda and Oakland Unified School District. Firms must have a current certification at time of bid in order to receive L/SLBE credit, and all firms are advised to verify their L/SLBE status prior to bid submittal through the Contract Compliance officer.
- **Bid Alternates:** If any are required per the Bid Schedule, bidders must provide the subcontractor and/or supplier costs related to each alternate on a separate Schedule R form. Do not combine the costs for separate alternates on the same Schedule R.
- **Contractor's License Number:** Bidders must list the Contractor's State License Number for each subcontractor. An inadvertent error in listing the California contractor's license number shall not be grounds for filing a bid protest or considering the bid nonresponsive if the corrected contractor's license number is submitted to the City Clerk's office by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.
- **Senate Bill 854** changed the law governing compliance with prevailing wages and implemented a mandatory contractor registration program applicable to ALL contractors and subcontractors. All contractors and subcontractors who bid or work on a public works project must register and pay an annual fee to DIR. **Only DIR-registered contractors and subcontractors may be listed on a bid proposal for a public works project.** Bids that include an unregistered contractor or subcontractor will be deemed nonresponsive. See <http://www.dir.ca.gov/public-works/SB854.html> for more information about SB 854.
- **Assembly Bill 219**, effective July 1, 2016, requires companies hauling or delivering ready-mix concrete to register with the DIR as a public works subcontractor.

2.17 Border Wall Prohibition – Schedule W

This contract is subject to the Border Wall Ordinance of Oakland Municipal Code, Ordinance 13459 C.M.S. The ordinance mandates and directs the City Administrator, when there is no significant additional cost (to be defined in regulations) or conflict with law, to refrain from entering into new or amended contracts to purchase professional, technical, scientific or financial services, goods, construction labor and materials or other services, or supplies from businesses that enter into contracts to provide such services, goods, materials or supplies to build the U.S. - Mexico border wall. The City of Oakland shall be prohibited from entering into any contractual agreement for the purchase of services, goods, equipment, cyber network or cloud computing,

internet, or cloud-based computer technology or services with any "BORDER WALL ENTITY" individual, firm, or financial institution who provides any services, goods, equipment, or information technology or cloud-based technology or services, to construct any part of the U.S. - Mexico border wall.

Schedule W shall be submitted by the Prime with its bid. All subcontractors shall be required to submit Schedule W during the contract execution process.

2.18 Insurance Requirements - Schedule Q

The Contractor will be required to provide proof of all insurance required for the work prior to execution of the contract, including copies of the Contractor's insurance policies if and when requested. Failure to provide the insurance proof requested or failure to do so in a timely manner shall constitute grounds for rescission of the contract award.

The Contractor shall name the City of Oakland, its Council members, directors, officers, agents, employees and volunteers as additional insured in its Comprehensive Commercial General Liability and Automobile Liability policies. If Contractor submits the ACORD Insurance Certificate, the additional insured endorsement must be set forth on a CG20 10 11 85 form and/or CA 20 48 - Designated Insured Form (for business auto insurance).

Please Note: A statement of additional insured endorsement on the ACORD insurance certificate is insufficient and will be rejected as proof of the additional insured requirement.

Unless a written waiver is obtained from the City's Risk Manager, Contractors must provide the insurance as found at <https://www.oaklandca.gov/documents/contracts-and-compliance-forms-and-schedules> (Schedule Q). A copy of the requirements is attached and incorporated herein by reference. Liability insurance shall be provided in accordance with the requirements specified.

When providing the insurance, include the Project Name and Project Number on the ACORD form in the section marked Description of Operations/Locations.

When providing the insurance, the "Certificate Holder" should be listed as: City of Oakland, Finance Department, 150 Frank H. Ogawa Plaza, Suite 6213, Oakland, CA 94612

2.19 Minimum Wage Ordinance

Oakland employers are subject to Oakland's Minimum Wage Law, Chapter 5.92 of the Oakland Municipal Code, whereby Oakland employees must be paid the City's current Minimum Wage rate. Employers must notify employees of the annually adjusted rates by each December 15th and prominently display notices at the job site. The law also requires paid sick leave for employees and payment of service charges collected for their services. This contract is also subject to Oakland's Living Wage Ordinance (see

previous section) and must pay employees wages and provide benefits consistent with the City's Living Wage Ordinance or the Minimum Wage Law, whichever are greater. For further information, please visit the following website:

<https://www.oaklandca.gov/topics/minimum-wage-paid-leave-service-charges>

2.20 Arizona and Arizona-Based Businesses

In accordance with City Resolution No. 82727 C.M.S., the contractor agrees that neither it nor any of its subsidiaries, affiliates or agents that will provide services under this contract is currently headquartered in the State of Arizona and shall not establish an Arizona business headquarters for the duration of this contract or until Arizona rescinds SB 1070.

The contractor acknowledges its duty to notify The Office of the City Administrator, Contracts and Compliance Unit if it or any of its subsidiaries, affiliates or agents subsequently relocates its headquarters to the State of Arizona. Such relocation shall be a basis for termination of this contract.

2.21 Nuclear Free Zone Disclosure

Contractor confirms that it has read and understood Ordinance No. 11478 C.M.S., titled "An Ordinance Declaring the City of Oakland a Nuclear Free Zone and Regulating Nuclear Weapons Work and City Contracts with and Investment in Nuclear Weapons Makers," which restricts the City from entering into professional service agreements with nuclear weapons makers unless an exemption applies. Under Ordinance No. 11478 C.M.S., it is the City's policy to minimize the expenditure of City funds on goods and services produced by nuclear weapons makers and Contractor is urged to comply with this policy in making purchases and subcontracts. Contractor agrees to comply with Ordinance No. 11478 C.M.S. in the provision of services under this Agreement and certifies that it is not a nuclear weapons maker.

2.22 Slavery Era Disclosure – Schedule S

Contractor confirms that it has read and understood the Slavery Era Disclosure Ordinance, Oakland Municipal Code Chapter 9.60, which requires contractors providing (1) insurance services or (2) financial services to the city of Oakland (including, but not limited to, any bank in which the city deposits public funds and any investment managers), whether subject to a competitive bid or not, and (3) each textile, tobacco, railroad, shipping, rice and/or sugar company doing business with the city, including but not limited to, such businesses with a city franchise, to disclose information related to the legacy of slavery.

If applicable, Contractor certifies that it has completed a signed Slavery Era Disclosure Affidavit (Schedule S) to secure this Agreement, incorporated herein, and agrees to comply with Oakland Municipal Code Chapter 9.60.

SECTION 3. Bidding Information

3.1 BID INSTRUCTIONS

Please read instructions carefully. Bidders are required to fully complete all forms listed in Section 3.2 and submit all information requested including, but not limited to, license information, pricing, materials, labor, certifications, and signatures. Omissions and other failures to provide such information, certifications or signatures may result in a determination of "nonresponsive" with no further consideration of the bid.

3.1.1 Bid Submittal and Bid Opening

All bids shall be submitted to the City Clerk in accordance with the two options specified in the *Notice To Bidders* (NTB). Bid openings will be conducted online through the Zoom link provided below.

<https://us02web.zoom.us/j/6795260269?pwd=eUd3RUVKdWxFYnRhK1E2ZHphOC96dz09&omn=85436393401>
Meeting ID: 679 526 0269
Passcode: 627289
One tap mobile
+16699006833,,6795260269#,,,*627289# US (San Jose)
+13462487799,,6795260269#,,,*627289# US (Houston)
Dial by your location
+1 669 900 6833 US (San Jose)
+1 346 248 7799 US (Houston)
+1 253 215 8782 US (Tacoma)
+1 929 436 2866 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
888 788 0099 US Toll-free
833 548 0276 US Toll-free
833 548 0282 US Toll-free
877 853 5247 US Toll-free
Meeting ID: 679 526 0269
Passcode: 627289
Find your local number: <https://us02web.zoom.us/u/kbJyFbTSns>

3.1.2 Pre-Bid Meeting Information

The NTB and legal advertisement will indicate whether a pre-bid meeting is scheduled, and if it is voluntary or mandatory. If mandatory, Prime Bidders who fail to attend the pre-bid meeting are disqualified from submitting a bid. Topics discussed at the pre-bid meeting may include, but are not limited to, general or technical project information, compliance requirements for programs such as the City's Local/Small Local Business

Enterprise Program, Disadvantaged Business Enterprise provisions, or supplemental HUD funding provisions, the Local Employment Program, the Oakland Apprenticeship Workforce Development Partnership System, Prompt Payment Ordinance, Equal Benefits Ordinance, Border Wall Prohibition, minimum wage ordinance, living wage ordinance, and prevailing wages.

3.1.3 Project Bid Documents, Drawings and Addenda

Project bid documents, drawings and addenda are available in digital format only and provided free of charge through three websites listed below. Hard copies are NOT available for purchase from the City. Sign-in sheets for any pre-bid meetings will also be uploaded to these websites. Courtesy notifications of advertised contracting opportunities are emailed only to vendors properly registered within iSupplier or CIPList.com.

a. iSupplier System (City's official site):

Registration in iSupplier, the City's payment and procurement system, is required in order to receive a contract, payments and notifications of contracting opportunities. New registrants can email iSupplier@oaklandca.gov for registration instructions. Allow three working days for approval to access bid documents through iSupplier. Without proper registration, your firm may not be receiving notifications from iSupplier regarding contracting opportunities. We recommend updating your firm's primary email contact regularly and confirming the "Products and Services" section of your profile is correctly filled out. For further information, refer to the following links for detailed iSupplier registration instructions.

<https://www.oaklandca.gov/services/contracts-and-compliance/register-with-isupplier>

The iSupplier system assigns a unique "Request for Quotation" number and a three page introductory document to each contracting opportunity (construction bid or RFP). These front-end documents from iSupplier are for reference only and need not be submitted at any time. CIPList.com does not assign any such tracking number and as such, bid or proposal documents downloaded from CIPList.com will not include this iSupplier document.

b. CIPList.com (an alternate third-party site)

<http://ciplist.com/plans/?Oakland/city/9392>

New registrants can register independently on the site for immediate access.

c. Separate **Plan Holder lists are maintained by each site.**

d. **Bid Results, scanned bids and Subcontractor Listings (Schedule R) are posted only to CIPList.com.**

e. Firms that are awarded a contract must eventually register in iSupplier in order to receive payments.

3.1.4 Bid Schedules

The low bidder will be determined by the method indicated on the NTB. If no methodology is identified in the NTB, the default method shall be the lowest base bid total price, without consideration of any alternates.

Bids are required for the entire work. The amount of the bid for comparison purposes will be the total of all items. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item and shall be full compensation, including all applicable taxes, for furnishing all labor, materials, water, tools, and equipment and for doing all the work involved in furnishing and installing the separate items in place as specified herein.

- a. In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (i) or (ii), as follows:
 - i. If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;
 - ii. (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage-wise the unit price or item total in the City's Final Estimate of cost.
- b. If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.
- c. Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cents symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

d. The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the City, and that discretion will be exercised in the manner deemed by the City to best protect the public interest in the prompt and economical completion of the work. The decision of the City respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

3.1.5 Bid Alternates

If bid alternates are included in the bid schedule, the Notice to Bidders shall specify which of the following methods will be used to determine the lowest bid. If no method is identified in the NTB, only method "a." may be used. (ref. Public Contract Code §20103.8)

- a. The lowest base bid price, without consideration of any alternates;
- b. The lowest base bid price, plus selected bid alternates specifically identified in the NTB as being used for the purpose of determining the lowest bid price;
- c. The lowest base bid price, plus selected bid alternates, that when taken in the order from a specifically identified list of those items in the NTB and added to, or subtracted from, the base bid, are less than or equal to a funding amount publicly disclosed by the City before the first bid is opened.

The City is not precluded from adding to or deducting from the contract any of the alternate bid items after the lowest responsible bidder has been determined.

3.1.6 Self-Performance

If the NTB indicates a **Self-Performance** requirement for this project, the values provided in Schedule R will be used in the calculation. The following calculation will be used to determine compliance. (Special Provisions Section 2-3.2)

$$\text{Self-Performance \%} = \frac{(\text{Contract Price} - \text{Total Subcontracted Cost})}{\text{Contract Price}}$$

- **Contract Price** is defined as the total Base Bid Price, plus any selected bid alternates.
- **Total Subcontracted Cost** includes all subcontractor bids for the Base Bid and any selected bid alternates, excluding any **Specialty Items***. This cost excludes the prime bidder's supplier costs and trucking bids.

* Defined by Caltrans as: “*Work that requires highly specialized knowledge, craftsmanship or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole. The items are generally limited to minor components of the overall contract. However, the fabrication and erection of certain types of steel structures are of such a nature and intricacy that they should be considered “specialty items” even though the cost of this work may constitute the major portion of the contract amount. For each individual construction contract, the administering agency must select any items that are to be treated as “specialty items” and list such selected items in the Special Provisions, or bid schedule.*”

3.1.7 Bid Security

As per Special Provisions Section 2-1.5, each bidder shall submit bid security in the form of either cash, certified check or cashier's check of or on some responsible United States Bank, in favor of and payable at sight to the City of Oakland, in an amount not less than ten percent (10%) of the base bid amount. The Contractor must use only the City of Oakland bid security form included with the project documents. Bid security forms originating from other institutions will not be accepted. Any contractors not complying with this requirement may be determined to be non-responsive/non-responsible bidders. To be valid, the original copy must be delivered to the City Clerk's Office within 24 hours of the time and date of the bid opening.

In lieu of the foregoing, any bid may be accompanied by a surety bond on a forfeiture form supplied by the City of Oakland in said amount furnished by a corporate surety authorized to do a surety business in the State of California, guaranteeing to the City that said bidder will enter into the contract and file the required bonds within said period. The bidder's failure to enter into the contract after award will result in damages to the City. Such damages are, and will continue to be, impracticable and extremely difficult to determine.

All bid securities and bid bonds will be returned to the unsuccessful bidders after contract award to the successful bidder. The bid security and bid bond of the successful bidder shall be returned after execution of the contract and deposit of the necessary bonds.

3.1.8 Addenda Acknowledgement

Failure of bidder to acknowledge all addenda on the bid form, if any are issued, may result in the bid being deemed nonresponsive.

3.1.9 Bid Rejection

The City reserves the right, in their sole discretion, to reject any and all bids, to elect not to award a contract under this NTB, to revise and re-issue plans and specifications in a new call for bids, or to award a contract on the open market if no valid bids are received in response to this NTB. The foregoing options are separate and distinct and may be exercised by the City independently.

3.1.10 Bid Withdrawal

Certain mistakes permit bidders to withdraw their bids without forfeiting their bid bonds. Bidders claiming mistakes must specify in written detail how the errors occurred and must file their written statement with the Office of the City Clerk within **five (5) working days** of the bid opening. For bids opened between 2:00-3:00 p.m. on Thursdays, the deadline is 3:00 p.m. the following Thursday. Failure to meet the deadline may result in an otherwise valid claim for relief due to mistake being denied. (ref. Public Contract Code §5100-5110)

During the COVID-19 emergency, bid withdrawals must be submitted by email to NPhan@oaklandca.gov.

A bidder that has withdrawn its bid for mistake is prohibited from participating in further bidding on the project, including re-bids or a substantially similar project.

3.1.11 Bid Protest

As per Special Provisions Section 2-1.8.1, any bidder or other interested party desiring to protest any bid must file a written bid protest with the Office of the City Clerk within **five (5) working days** of the bid opening. For bids opened between 2:00-3:00 p.m. on Thursdays, the Bid Protest Deadline is 3:00 p.m. the following Thursday.

During the COVID-19 emergency, bid protests must be submitted by email to NPhan@oaklandca.gov.

The written bid protest must comply with the following requirements:

- a. Only a bidder who has actually submitted a bid for the subject project is eligible to submit a protest against another bidder. Subcontractors are not eligible to submit protests. A bidder may not rely on the protest submitted by another bidder, but must timely pursue its own protest.
- b. The protest must contain a complete statement of the basis for the protest and all supporting documentation. Material submitted after the Bid Protest Deadline will not be considered. The protest must refer to the specific portion(s) of the Contract Documents upon which the protest is based. The protest must contain the project number and project name. The protest must contain the name, address and telephone number of the person representing the protesting bidder.
- c. A copy of the protest and all supporting documents must also be transmitted by fax or email, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
- d. The protested bidder(s) may submit a written response to the protest, provided the response is received by the City before 5:00 p.m. within two (2) working days after

the Bid Protest Deadline or after receipt of the bid protest, whichever is sooner (“Response Deadline”). The response must include all supporting documentation and the name, address and telephone number of the person representing the protested bidder. Material submitted after the Response Deadline will not be considered.

- e. A copy of the protest response and all supporting documents must also be transmitted by fax or email, by or before the Response Deadline, to the protesting bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
- f. The procedures and time limits set forth in this section are mandatory and are the bidder’s sole and exclusive remedy in the event of bid protest. The bidder’s failure to comply with these procedures shall constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.
- g. In all cases, the first level of review of any protest shall be conducted by OPW Contract Services department which shall, within 48 hours of receiving a protest from the City Clerk’s office, will acknowledge receipt of protest in writing to the protesting bidder. As appropriate, the City Clerk, the Project Manager, the Contract Compliance Officer, and/or the City Attorney will be consulted to resolve the protest.
- h. The City shall make their best effort to resolve the protest within twenty-five (25) working days after the protest is filed. A written determination of the protest will be issued to the protesting bidder by the OPW Contract Services department on behalf of the City.
- i. The City may not award the contract pending the City’s determination of the protest unless the contract award is justified for urgent and compelling reasons or is determined to be in the best interest of the City. Such justification or determination shall be approved by the Director of the Public Works Department, or the designee.

3.1.12 Award of Contract

The contract award, if made, will be by the City Council and will be to the lowest responsive and responsible bidder, and when applicable, taking into account bid discounts awarded under the City’s L/SLBE program on non-federal projects. If the contract award by Council is made within 90 days from opening of the bids, the Contractor will be required to hold the bid price. If the contract award is made more than 90 days from opening of bids, the contractor has the option to notify the City in writing to withdraw their bid within 5 working days from the date of contract award by Council. Otherwise, the contractor must hold the bid price.

3.1.13 Contract Execution

The contract shall be signed by the successful bidder and returned together with the supporting certifications, contract bonds and appropriate insurance documents within 20 working days after receipt of such contract. If the bidder fails or refuses to enter into the contract to do the work, or fails to provide the signed contract, supporting certifications, contract bonds or appropriate insurance documents, then the bid security shall be forfeited as liquidated damages, and/or a fine of \$1000 per day shall be collected by the City and paid into the City Treasury. Under no circumstances shall it be returned to the defaulting bidder.

3.1.14 Sample Construction Contract for Public Works Construction

Contractors are advised to familiarize themselves with the contract boilerplate included in APPENDIX A. The City is not inclined to make any changes to the contract language. The bid documents and any addenda will be incorporated by reference into the contract to the awarded contractor.

3.1.15 Performance and Payment Bonds

Performance and Payment bonds for 100% of the contract price will be required during the contract execution process in accordance with Special Provisions Section 2-4. Sample bond forms are included with the sample construction contract in APPENDIX A.

3.1.16 Insurance Requirements

The contractor shall provide proof of insurance in accordance with Schedule Q found in APPENDIX B prior to execution of the construction contract.

3.1.17 Business Tax Certificate

The awarded contractor shall obtain or provide proof of having a current City of Oakland Business Tax Certificate prior to contract execution.

3.1.18 Proprietary Information

All bids become the property of the City. Bidders are instructed to label individual pages as "confidential" or "proprietary" information to indicate the desire to withhold financial and proprietary information.

3.1.19 Public Records Act or Sunshine Ordinance

A document labeled "confidential" or "proprietary" information may still be subject to disclosure under the Public Records Act or Sunshine Ordinance, and is, at the City's discretion, based on the potential impact of the public's interest whether or not to disclose "confidential" or "proprietary" information.

3.1.20 Post-Award Meetings

The City may hold a post-award meeting to familiarize the contractors with project contract compliance requirements. Post award meetings are most advantageous to contractors that wish to become more familiar with these programs and may also be held upon request of the contractor throughout the life of the project. Upon request, the City shall hold a meeting within ten (10) business days. Attendance at a post-award meeting will contribute to the contractor's ability to comply with project policies. To the extent allowable by law, the meeting will be open to stakeholders.

- a. The post-award meeting will include instructions on when and how to prepare and submit forms that may include, but may not be limited to, the following:
 - Electronic Certified Payroll Reports
 - Anticipated Project Workforce
 - Apprenticeship Utilization Plan
 - Progress Payments
 - Job Request and Referral Form
 - Quarterly Wage & Withholding Reports (DE-6)
- b. A post-award meeting should also provide, when possible, information to support the contractors' success, and may include information about the following:
 - Prevailing wages
 - Certification Application
 - Work Opportunity and Welfare-to-Work Tax Credit
 - Construction & Demolition Debris Waste Reduction and Recycling Plan. Refer to Special Provisions Section 4-1.1.3 for more information.

3.2 BID SUBMITTAL REQUIREMENTS

Every document listed in this section below shall be **completed and submitted with the Bid**, unless otherwise noted. The checklist is provided for convenience only, and does not relieve the bidder from responsibility to carefully review and understand the requirements for a complete bid submittal.

Checklist:

- Contractor's Bid form with all information provided**
 - Correct license types and active per CSLB for bidder and subcontractors?
 - Bidder and subcontractors registered with DIR?
 - Confirm all L/SLBE certifications active. No credit if expired.
- Bid Schedule(s)**
- Bid Security Statement filled out**
- Addenda Acknowledgement filled out**
- Listing of Principals filled out**
- Contractor Signature**
- Schedule O – Campaign Contribution Limits filled out and signed**
- Schedule I – Sanctuary City Contracting and Investment Ordinance filled out and signed**
- Schedule R – Subcontractors, Suppliers and Trucking Listing filled out and signed**
 - Has L/SLBE participation requirement been met?
 - Has Self-Performance requirement been met, if applicable?
 - If Trucking is required, was one listed?
- Schedule W – “Border Wall Prohibition” (from Prime)**
- Bid Bond**



CONTRACTOR'S BID

for

PROJECT NO. 1006066

MANDELA PARKWAY TRASH

CAPTURE DEVICE – RE-BID

TO THE
CITY OF OAKLAND, CALIFORNIA
OAKLAND PUBLIC WORKS DEPARTMENT

Bids must be received by the Office of the City Clerk in accordance with the bid submittal methods and deadline indicated in the Notice to Bidders prior to:

2:00 PM	Thursday	January 25, 2024
—	—	—
Time	Day	Date

CONTRACTOR'S BUSINESS NAME _____

BUSINESS ADDRESS _____

(Provide full street address even if P.O. Box used)

TELEPHONE NO: _____ **FAX NO:** _____

CONTRACTOR'S EMAIL ADDRESS: _____

CONTRACTOR'S STATE LICENSE NO: _____

CLASSIFICATION: _____ **EXPIRATION:** _____

OAKLAND BUSINESS LICENSE NO: _____ **DIR REGISTRATION NO.:** _____

All bids shall include the contractor's state license number, classification, and DIR registration number¹, as well as each subcontractor's license number. The work for which this bid is submitted is for construction in conformance with the Project Plans, Bid Book, including, but not limited to, the Special Provisions, Standard Specifications for Public Works Construction, 2015 Edition, City of Oakland Standard Detail for Public Works Construction 2002 Edition, including any addenda thereto, the contract annexed hereto, and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished.

In accordance with Special Provisions Section 2-1.10, if this bid shall be accepted and the undersigned shall fail to enter into the contract and furnish the two (2) bonds in the sums required by the State Contract Act, with surety satisfactory to the City, the City may, at its option, determine that the bidder has abandoned the contract, and thereupon this bid and the acceptance thereof shall be null and void.

Bidder agrees that if their bid is accepted, that Bidder will contract with the City, in the form of the copy of the contract annexed hereto within 20 working days, or less if stipulated in the Special Provisions. Further, Bidder agrees if their bid is accepted, that Bidder will commence work as prescribed by the Notice to Proceed issued by the City Resident Engineer. Failure by Bidder to execute the contract in a timely manner or failure to comply with the Notice to Proceed will subject Bidder to forfeiture of the contract award and any and all penalties allowed by the Special Provisions.

BID SCHEDULES

The Base Bid total price shall include all work as stipulated in the bid items below and as shown on the drawings and described in the specifications, except that it shall not include any item listed as a bid alternate (if applicable). Specification references are provided to assist the bidder. Other bid sections may also apply.

The bidder shall provide prices for all bid alternates, if any. The responsibility for determining quantities for the Alternates rests with the bidder. Base Bid and Bid Alternates shall include the cost of all supporting elements required, so that no matter what combination of Base Bid and Bid Alternates is accepted, that portion shall be a complete entity in itself. Work for all Bid Alternates shall be in strict accordance with the applicable Contract Documents.

1 Per SB 854: Only DIR-registered contractors or subcontractors may be listed on a bid proposal for a public works project.

❖ Base Bid Items:

Item No.	Spec. Sec. No.	Estimated Quantity	Unit of Measure	Item Description	Unit Price	Item Total
1	900-8.1	1	LS	Health and Safety Plan		
2	900-11	1	LS	Mobilization		
3	900-12	1	LS	Water Pollution Control and Erosion Control		
4	900-13	1	LS	Pre & Post Construction Monument Verification and Reset Monument		
5	901.5	1	LS	Installation of DSBB		
6	902-5	1	LS	Traffic Control		
7	904-6	1	LS	Demo and Clearing and Grubbing		
8	904-6	4,400	TONS	Excavation and Disposal		
9	904-6	1	LS	Backfill and Structural Backfill		
10	905-3	1	LS	Sheeting, Shoring, and Bracing		
11	906-5	1	LS	Dewatering		
12	906-5	1	LS	Temporary Stormwater Diversion		
13	908-5	152	CY	Concrete Junction Box 1		
14	908-5	152	CY	Concrete Junction Box 2		
15	908-5	4	CY	Concrete Weir Wall		
16	908-5	104	CY	96" RCP Pipe Collars		
17	908-5	3	EA	Access Manholes		
18	908-5	25	CY	Minor Concrete Structures		
19	909-4	3	EA	36" Manhole Frames and Covers		
20	909-4	1	LS	Steps (Revocable)		
21	910-3	36	LF	72" RCP		
22	910-3	69	LF	96" RCP		
23	911-4	3,200	SF	Roadway Surfacing		
24	912-3	1	LS	Striping and Pavement Markings		
				TOTAL OF 24 BASE BID ITEMS: \$		

SUBCONTRACTOR, SUPPLIER, TRUCKING LISTING

It is critically important that Bidders provide all required information on Schedule R in accordance with this section. Please refer to Section II.R.

BID SECURITY STATEMENT

Accompanying this bid is _____ in an amount equal to at least ten percent of the total of the bid.

(INSERT THE WORDS "CASH (\$ _____)", "CASHIER'S CHECK", "CERTIFIED CHECK," OR "BIDDER'S BOND", AS THE CASE MAY BE. REFER TO SPECIAL PROVISIONS SECTION 2-1.5 FOR FURTHER INFORMATION)

In accordance with Special Provisions Section 2-1.10, if this bid shall be accepted and the undersigned shall fail to enter into the contract and furnish the two (2) bonds in the sums required by the State Contract Act, with surety satisfactory to the City, the City may, at its option, determine that the bidder has abandoned the contract, and thereupon this bid and the acceptance thereof shall be null and void and the forfeiture of the bid security accompanying this bid shall operate and the same shall be the property of the City.

ADDENDA ACKNOWLEDGEMENT

All bids shall include acknowledgement of all Addenda. This BID is submitted with respect to the changes to the contract included in addendum number(s) _____ through _____.
(FILL IN ADDENDA NUMBERS IF ADDENDA HAVE BEEN RECEIVED AND INSERT, IN THIS BID, ANY ENGINEER'S ESTIMATE SHEETS THAT WERE RECEIVED AS PART OF THE ADDENDA.)

LISTING OF PRINCIPALS

IMPORTANT NOTICE: If bidder or other interested person is a **CORPORATION**, bidder shall 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**, bidder shall state first and last names in full.

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

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

the annexed proposed form of contract, the plans and specifications therein referred to, including all Addenda; and the bidder proposes and agrees if this bid is accepted, that the bidder will contract with the City, in the form of the copy of the contract annexed hereto, and the bidder proposes and agrees if this bid is accepted, that the bidder will execute and fully perform the contract for which bids are called; that the bidder will provide all necessary labor, storage, transportation, machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that the bidder will take in full payment therefor, including all applicable taxes, the unit prices set forth in the attached bid schedule.

By my signature on this bid, I certify, under penalty of perjury, that all representations made on this bid are true and correct. The City of Oakland reserves the right to accept or reject any and all bids.

Sign



Here

Signature and Title of Bidder

Date _____

Schedule O

CAMPAIGN CONTRIBUTION REPORTING REQUIREMENTS

To be completed by City Representative prior to distribution to Contractor.

City Representative: _____ Phone _____ Project Spec No. _____
Department: _____ Contract Name: _____

This is an Original Revised form (check one). If original, complete all that applies. If Revised, complete Contractor name and any changed data.

Contractor Name _____ Phone _____

Street Address _____ City _____, State _____ Zip _____

Type of Submission (check one) Bid Proposal Qualification Amendment

Majority Owner (if any). A majority owner is a person or entity who owns more than 50% of the contracting firm or entity.

Individual or Business Name _____ Phone _____

Street Address _____ City _____, State _____ Zip _____

The undersigned Contractor's Representative acknowledges by his or her signature the following:

The Oakland Campaign Reform Act limits campaign contributions and prohibits contributions from contractors doing business with the City of Oakland during specified time periods. Violators are subject to civil and criminal penalties.

I have read Oakland Municipal Code Chapter 3.12, including Chapter 3.12.140, the contractor provisions of the Oakland Campaign Reform Act and certify that I/we have not knowingly, nor will I/we make contributions during the period specified in the Act.

I understand that the contribution restrictions also apply to entities/persons affiliated with the contractor as indicated in the Oakland Municipal Code Chapter 3.12.080.

If there are any changes to the information on this form during the contribution-restricted time period, I will file an amended form with the City of Oakland.

Signature

Date

Print Name of Signer

Position

To be Completed by City of Oakland after completion of the form

Date Received by City: _____ By _____

Date Entered on Contractor Database: _____ By _____

Schedule R

SUBCONTRACTOR, SUPPLIER, TRUCKING LISTING

By request, the Department of Workplace & Employment Standards DWES) can email an electronic copy of Schedule R to your firm or go to

<https://cao-94612.s3.amazonaws.com/documents/OAK023389.pdf>

Date

Prime Contractor:

Project Name

Project Number

Signature

Attach additional page(s) if necessary.

(SBA) BE -Small Business Administration – Local Business Enterprise (VSL BE – Very Small Local Business Enterprise)

(SBA/LBE - Small Business Administration - Local Business Enterprise) (VSLBE - Very Small Local Business Enterprise) (LBE - Local Business Enterprise) (SLBE - Small Local Business Enterprise) (VSLBE - Very Small Local Business Enterprise) (LPG/LBE - Locally Produced Goods) Contractors are required to identify the ethnicity and gender of all listed firms majority owner. This information will be used for tracking purposes only.

* Ethnicity - (AA=African American) (Al=Asian Indian) (AP=Asian Pacific) (C=Caucasian) (H=Hispanic) (NA=Native American) (O=Other) (NL=Not Listed)

** Ethnicity - (AA = African American)

Gender - (M = Male) (F = Female)

*** Alternate (if applicable) - Please indicate in alternate box either 1, 2 or 3 and so on for alternate line items.

(Revised as of 12/21/2021) JC

Schedule W

BORDER WALL PROHIBITION

This form is to be completed by Contractors and their sub-contractors, and
all Vendors seeking to do business with the City of Oakland)

I, _____, the undersigned, a
(Name)

_____ of _____,
(Title) (Business Entity)

(hereinafter referred to as Business Entity) am duly authorized to attest on behalf of the Business Entity:

- I. Neither this Business Entity nor any of its subsidiaries, affiliates or agents are under contract with any branch of the federal government to plan, design, build, support, repair and/or maintain any part of the border wall nor do we anticipate entering or competing for such work for the duration of a contract or contracts with the City of Oakland.
- II. The appropriate individuals of authority are cognizant of their responsibility to notify the city contact person/Project Manager, invoice reviewer or the City Administrator's Office of Contracts and Compliance if any of the identified above decide to compete, plan, design, build, support, repair and/or maintain any part of work or servicing the border wall.
- III. To maintain compliance, upon review and approval of invoices, the contractors/vendors hereby agree to submit attached to each invoice, a declaration on company stationery that the company remains in compliance with the Border Wall Prohibition and will not seek or secure a contract related to all aspects of the Border Wall.
- IV. Upon close out or completion of deliverables and prior to issuance of final payment (while honoring the Prompt Payment Ordinance) I agree to submit a statement attached to the final invoice, under penalty of perjury, declaring full compliance with the Border Wall Prohibition. I understand that an invoice is not declared fully complete and accepted unless and until the declaration of compliance is accepted.
- V. I declare under penalty of perjury that the above will not, have not and do not plan to participate in the building, servicing, maintenance of the operations of the so called "Border Wall".

I declare that I understand [Ordinance #13459 C.MS.](#) Based on my understanding the above is true and correct to the best of my knowledge.

I declare that I understand [Ordinance #13459 C.MS.](#) Based on my understanding all or a portion of the above is not true and correct to the best of my knowledge.

(Printed Name and Signature of Business Owner)

(Date)

(Name of Business Entity)

(Street Address City, State and Zip Code)

(Name of Parent Company)



Schedule Z

Certification of Debarment and Suspension

Under the requirements of OMB Circular A-133 Supplement, part 3, Section 1, the City is required to obtain certifications that contractors and sub-grantees receiving awards exceeding \$100,000 have not been suspended or debarred from participating in federally funded procurement activities.

1. The prospective primary participant certifies to the best of its knowledge and belief that its principals:
 - a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal debarment or agency.
 - b) Have not within a 3 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 under a public transaction or contract.
 - c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal State or local) with commission of the offenses enumerated in paragraph (1)(b) of this certification; and
 - d) Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

By signing and submitting this form the prospective primary participant's authorized representative hereby obligates the proposer(s) to the above stated conditions.

Company Name

Signature of Authorized Representative

Address

Type or Print Name

Area Code

Phone

Date

Type or Print Title

NOTE: BIDDER MUST USE THIS FORM

BID BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT _____ (hereinafter called the Principal), and _____, a corporation organized and doing business under and by virtue of the laws of the State of _____, and duly licensed for the purpose of making, guaranteeing or becoming sole surety upon bonds or undertakings required or authorized by the laws of the State of California, as Surety, are held and firmly bound unto the City of Oakland, a municipal corporation, (hereinafter called the Obligee) in the just and full sum of _____

____ Dollars (\$ _____)

____ lawful money of the United States of America, for the payment of which, well and truly to be made, we hereby bind ourselves and each of our successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, WHEREAS, the above bounden Principal as aforesaid, is about to hand in and submit the Obligee a bid or proposal for _____ Project No. _____

_____, in accordance with the plans and specifications filed in the office of the Obligee and under the Notice To Bidders therefore.

NOW, THEREFORE, if the bid or proposal as submitted by the said Principal shall be accepted, and the contract for such work or supplies be awarded to the Principal, and the said Principal shall fail, neglect or refuse to enter into a contract to perform said work or deliver said supplies, and furnish good and sufficient bond therefore, then the amount of this bond shall be declared to be forfeited to said Obligee as liquidated damages, it being agreed that said Obligee will suffer damages as a result of such failure, neglect or refusal of the Principal and that such damages are and will continue to be, impracticable and extremely difficult to determine.

IN WITNESS WHEREOF, said Principal and said Surety have caused these presents to be duly signed and sealed this _____ day of _____ A.D., 2020.

By _____

Attorney-in-Fact

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA

County of _____

On _____ before me, _____
_____, a Notary Public, personally appeared _____
_____, 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(ties), 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}

SECTION 4. Standard Specifications for Public Works Construction

**CITY OF OAKLAND
STANDARD SPECIFICATIONS
FOR
PUBLIC WORKS CONSTRUCTION**

AKA

“SPECIAL PROVISIONS”

The work to be performed under the contract includes the work described in the Notice to Bidders, all items listed in the Bid Schedule, and work shown on the plans or included in the project specifications. The work shall be performed in accordance with:

1. The “Standard Specifications for the Public Works Construction, 2015 Edition” adopted by City Council Ordinance No. 13455 C.M.S. on October 3, 2017 (aka Greenbook and hereinafter referred to as the “**Standard Specifications**”); and
2. These **Special Provisions** that modify said Standard Specifications; and
3. The “City of Oakland Standard Details for Public Works Construction 2002 Edition” (hereinafter referred to as the “**Standard Details**”); and
4. The latest State of California, Department of Transportation, “Standard Specifications and Standard Plans”, shall apply for certain applicable State Standard drawings that are specified herein.
5. Mandela Parkway Full Trash Capture Project 1006066 Technical Specifications dated December 2023.

The section numbers used herein (e.g., “1-2 DEFINITIONS”) correspond to the section numbers of the Standard Specifications that are modified by the Special Provisions.

Copies of said Standard Specifications (GREEN BOOK) may be purchased through <http://www.bnibooks.com>. A digital version of the Standard Details is available online at <https://www.oaklandca.gov/resources/standard-details-for-public-works-construction>

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PART 1 - GENERAL PROVISIONS

Part 1 of the Special Provisions shall conform to Part 1 of the Standard Specifications except as modified herein.

SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

1-2 DEFINITIONS.

CHANGE THE DEFINITIONS OF THE FOLLOWING WORDS OF SUBSECTION 1-2:

Addendum: A change or changes made in one or more of the contract documents after bids are invited and before bids are received.

Agency: The City of Oakland, California, a municipal corporation.

Board: The Council of the City of Oakland.

Contract: The written agreement covering performance of the work including, but not limited to, the executed formal contract, Notice to Bidders, proposal, bonds, plans, specifications, addenda and any executed change orders.

Engineer: The City Engineer of the City of Oakland, acting either directly or through authorized agents, such agents acting within the scope of the particular duties entrusted to them.

ADD THE FOLLOWING NEW DEFINITIONS TO SUBSECTION 1-2:

Acceptance: The Engineer's formal written acceptance of an entire contract that has been completed in all respects in accordance with the plans and specifications and any modifications thereof previously approved.

Architect: Same as "Engineer."

Building Sewer: The 4-inch, 5-inch, 6-inch, or 8-inch sewer pipe, also known as "lateral", within both the public right-of way and the private property connecting the building or house to, and including, the connection at the public sewer in the right-of-way or easement. Includes both the "house sewer" and the "house connection sewer."

Building Sewer Connection: (House Connection) The connection at the public sewer in the public right-of-way or easement, to the 4-inch, 5-inch, 6-inch, or 8-inch building sewer.

City: Same as "Agency."

City Clerk: The City Clerk of the City of Oakland.

Council: Same as "Board."

City Administrator: City Administrator of the City of Oakland.

City Treasury: City Treasury of the City of Oakland.

Contract Services: The Contract Services Division of the Department of Public Works. This division is responsible for advertising, bidding and executing the contracting process.

Contract Compliance: The Contracts and Compliance Division of the City Administrator's Office.

Contract Compliance Officer: A subordinate of the Contracts and Compliance Division who is responsible for enforcement of the labor, subcontractor, and supplier provisions of the contract.

Electrolier Standard: The shaft or pole used to support the luminaire arm, luminaire, etc.

Inspector: Same as "Engineer."

Hearing Officer: The Engineer or theirs designee. The Hearing Officer shall be at least one administrative level above the Inspector or Resident Engineer assigned to the project.

Laboratory: The official materials testing laboratory of the City of Oakland or other laboratories authorized by the Engineer to provide quality assurance. The records and reports of tests may be examined if they are available at the job site.

Landscape Architect: Same as "Engineer."

Local Public Agency: The City of Oakland.

Lower Lateral: (House Connection Sewer) That portion of the building sewer existing from the building sewer connection to the Two-Way cleanout.

Owner: The City of Oakland.

Payment Bond: Material and Labor Bond.

Performance Bond: Faithful Performance Bond.

Public Body: The City of Oakland.

Specifications: The term used herein refers to both the Standard Specifications and Special Provisions.

Two-way Cleanout: (Also known House Connection Cleanout or 2-Way Cleanout.) A 4-inch or 6-inch two-way fitting, no hub, cast iron cleanout installed on the building sewer within the public right-of-way.

Upper Lateral: (House Sewer) That portion of the building sewer existing from the Two-Way Cleanout to the building connection.

1-3 ABBREVIATIONS.

ADD THE FOLLOWING NEW ABBREVIATIONS TO SUBSECTION 1-3:

ABAG: Association of Bay Area Governments

ADA: Americans with Disability Act

CAL-OSHA: California Occupational Safety and Health Administration

CALTRANS: California Department of Transportation

EBMUD: East Bay Municipal Utility District

HR: Hour

OMC: Oakland Municipal Code

OPW: Oakland Public Works Department of the City of Oakland

ISA: International Society of Arboriculture

PAV: Pressure Aging Vessel

RTFO: Rolling Thin Film Oven

PG: Performance Graded

SFRWQCB: San Francisco Regional Water Quality Control Board

SECTION 2 - SCOPE AND CONTROL OF WORK

CHANGE SUBSECTION 2-1 TO READ:

2-1 AWARD AND EXECUTION OF THE CONTRACT.

2-1.1 City Ordinance. The bidder shall conform to provisions of Ordinance No. 7937 CMS of the City of Oakland, as amended, that may be applicable to its bid or to the contract awarded it.

2-1.2 Approximate Estimate. Unless otherwise specified in the Special Provisions or bid documents as being lump sum items, any quantities given in the specifications, proposal and contract forms are approximate only, being given as a basis for comparing bids. The City of Oakland, does not, expressly or by implication, agree that the actual work amount will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work or to omit portions of the work, as may be deemed necessary or advisable by the Engineer.

2-1.3 Examination of Plans, Specifications, and Site of Work. The bidder shall examine carefully the contemplated work site and the proposal, plans, specifications and contract forms. It will be assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of these specifications and the contract. It is mutually agreed that submission of a proposal shall be considered *prima facie* evidence that the bidder has made such examination.

2-1.4 Proposal Form. All proposals must be made upon forms contained in the proposal section of the bound project documents.

Bids are required for the entire work. The bid amount, for comparison purposes, will be the total of all items. The total of unit basis items will be determined by extension of the item price bid on the basis of the estimated quantity set forth for the item.

The bidder shall set forth for each item of work, in clearly legible figures, an item price and a total price for the item in the respective spaces provided for this purpose. In the case of unit basis items, the amount set forth under the "Total" column shall be the extension of the item price bid on the basis of the estimated quantity.

In case of a discrepancy between the item price and the total set forth for the item, the item price shall prevail. However, if the amount set forth as an item price is ambiguous, unintelligible, or uncertain for any cause, or if omitted, or in the case of unit basis items, is the same amount as the entry on the "Total" column, then the amount set forth in the "Total" column for the items shall prevail in accordance with the following:

- 1) As to lump sum items, the amount set forth in the "Total" column shall be the item price.

2) As to unit basis items, the amount set forth in the "Total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the item price. All bids shall be clearly and distinctly written. The bidder, who shall fill in all blanks in the proposal forms as therein required, shall sign the proposal.

3) As to add or subtract alternate bids, any discrepancy between the proposal form and changes made by the bidder, the amount shown will be for the alternate as shown on the proposal form.

2-1.5 Bid Security. Each bidder shall submit with the bid security either cash, certified check or cashier's check of or on some responsible United States Bank, in favor of and payable at sight to the City of Oakland, in an amount not less than ten percent (10%) of the base bid amount. The Contractor must use only the City of Oakland bid security form included with the project documents; bid security forms originating from other institutions will not be accepted. Any contractors not complying with this requirement may be determined to be non-responsive/non-responsible bidders.

To be valid, the original copy must be delivered to the City Clerk's Office within 24 hours of the time and date of the bid opening. If the bidder to which the contract is awarded shall, for 20 calendar days after receipt of such contract, fail or neglect to enter into the contract and file the required bonds, the bid security shall be forfeited as liquidated damages. The City Administrator shall draw the money due on such bid security and pay the same or any cash deposited into the City Treasury, and under no circumstances shall it be returned to the defaulting bidder. In lieu of the foregoing, any bid may be accompanied by a surety bond on a forfeiture form supplied by the City of Oakland in said amount furnished by a corporate surety authorized to do a surety business in the State of California, guaranteeing to the City that said bidder will enter into the contract and file the required bonds within said period.

The bidder's failure to enter into the contract after award will result in damages to the City. Such damages are, and will continue to be, impracticable and extremely difficult to determine.

All bid securities and bid bonds will be returned to the unsuccessful bidders after contract award to the successful bidder. The bid security and bid bond of the successful bidder shall be returned after execution of the contract and deposit of the necessary bonds.

If all the bids are rejected, all bids and bid bonds will be returned to the bidders.

2-1.6 Submission and Opening of Bids. All bids shall be sealed, identified as bids on the envelope, and submitted to the City Clerk at the place and time specified in the public Notice to Bidders. The City Administrator or their designated representative will open the bids, in public, at the time and place designated in the Notice to Bidders. Bids received after the specified time shall not be accepted, and shall be returned to the bidder unopened.

2-1.7. Rejection of Proposals. Proposals may be rejected if they contain erasures, interlineations, or irregularities of any kind. The Council reserves the right to reject any and all bids. The Council may reject the bid of any party who has been delinquent or unfaithful in any former contract with the City, and shall reject all bids other than the lowest responsible regular bid.

More than one proposal from an individual, firm, partnership, corporation or combination thereof under the same or different name will not be considered.

Reasonable grounds for believing that any individual, firm, partnership, corporation or combination thereof has a financial interest in more than one proposal for the work contemplated may cause the rejection of all proposals in which such individual, firm, partnership, corporation or combination thereof is interested. If there is reason for believing that collusion exists among bidders, any or all proposals may be rejected. Proposals in which the prices obviously are unbalanced may be rejected. If all bids are rejected, the Agency may again invite sealed proposals as in the first instance.

2-1.8 Complaints. Any bidder or other interested party desiring to enter a complaint against any part or provision of these specifications or the requirements in bidding must file the same in writing in the Office of the City Clerk not later than five working days preceding the date set for submission of the bids.

2-1.8.1 Protests. Any bidder or other interested party desiring to protest against any party bid must file a written statement with the Office of the City Clerk not later than five (5) working days after the bid opening date.

2-1.8.2 Release From Bid. A bidder shall not be relieved of the bid unless by consent of the City, nor shall any change be made in the bid because of a mistake. A bidder may be relieved of its bid if: a mistake is made; they gave the Contracts and Compliance Unit and the City Clerk notice within five working days after the bid opening of the mistake, specifying in the notice in detail how the mistake occurred; the mistake made the bid materially different than they intended it to be; and, the mistake was made in filling out the bid and not due to error in judgment or to carelessness in inspecting the work site, or in reading the plans and specifications.

2-1.9 Award of Contract. The contract award, if made, will be by the Council and will be to the lowest

responsible bidder whose proposal complies with all the requirements of the Specifications and Ordinance No. 7937 CMS as amended. If the contract award is made within 90 days from opening of the bids, the Contractor will be required to hold the bid price. If the contract award is made more than 90 days, the contractor has the option to notify the City in writing to withdraw their bid within 5 working days from the contract award date. Otherwise, the contractor must hold the bid price. All bids will be compared on the basis of the Engineer's estimate of quantities of work to be done and/or lump sum bid items. The Council reserves the right to waive any informality or minor irregularity in the bids.

2-1.10 Contract Execution. The contract shall be signed by the successful bidder and returned together with the contract bonds, appropriate insurance documents and a copy of Form DE6 (Quarterly Wage Report) for the prime and subcontractors listed in the bid proposal, within **20** days after the receipt of such contract. If the bidder fails or refuses to enter into the contract to do the work, or fails to provide the contract bonds, appropriate insurance documents and the prime and subcontractor's Form DE6 (Quarterly Wage Report) as required, then the certified check or bid bond accompanying this bid and the amount herein mentioned shall be forfeited, and/or a fine of \$1,000 per day, shall be collected by the City of Oakland and paid into the City Treasury.

2-1.11 Return of Guaranty of the Successful Bidder. The check, or bid bond accompanying the accepted bid will be held by the City Clerk until the contract has been entered into, and the bonds accompanying the same are approved and filed, whereupon the certified check or bid bond will be returned to the successful bidder.

2-3 SUBCONTRACTS.

2-3.2 Self Performance.

REPLACE SUB-SECTION 2.3.2 WITH THE FOLLOWING:

The Contractor shall perform, with its own organization, Contract work amounting to at least 30 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed will be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or in the Special Provisions. Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

ADD NEW SUBSECTION 2-3.4:

2-3.4 Miscellaneous. The Contractor may utilize the service of specialty Subcontractors on those parts of the work that, under normal contracting practices, is performed by specialty Subcontractors.

The Contractor shall not award any work to any Subcontractor without prior written approval of the City. Approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the Subcontractor, which statement shall contain such information as the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of persons directly employed by them.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind Subcontractors to the Contractor by the terms of the General Provisions and other contract documents insofar as applicable to the work of Subcontractors and to give the Contractor the same power as regards terminating any subcontract that the City may exercise over the Contractor under any provisions of the contract documents.

Nothing contained in this contract shall create any contractual relation between any Subcontractor and the City.

2-4 CONTRACT BONDS.

REPLACE THE SECOND AND THIRD SENTENCES OF THE FIRST PARAGRAPH WITH THE FOLLOWING:
All surety bonds, including bid, performance and payment bonds, must be furnished by a corporate surety admitted in the State of California or Lloyds of London, except as follows:

- If the contract award is \$5,000,000 or less, the surety bond may be furnished by a United States non-admitted corporate surety which appears on the Treasury List subject to the bonding limits

- which the Treasury List imposes on such surety; or,
- If the contract award is \$1,000,000 or less, the surety bond may be furnished by a United States non-admitted corporate surety which has an A.M. Best rating of A+; or,
- If the contract award is \$500,000 or less, the surety bond may be furnished by a United States non-admitted corporate surety that has an A.M. Best rating of A-.

ADD THE FOLLOWING AFTER THE SECOND SENTENCE OF THE THIRD PARAGRAPH:

The percentage of the Payment Bond shall be as listed in the Notice to Bidders. The Payment Bond shall guarantee payment of all claims for labor and material unfurnished, for amounts due under the Unemployment Insurance Act with respect to such work or labor, or any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees pursuant to Section 18806 of Revenue and Taxation Code with respect to such work and labor as required by the California Civil Code Section 3247, et. seq.

REPLACE THE FOURTH PARAGRAPH WITH THE FOLLOWING:

The percentage of the Performance Bond shall be as listed in the Notice to Bidders. The Performance Bond shall guarantee faithful performance of all work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and human effort will be free from original or developed defects. The Performance Bond must remain in effect until the end of all warranty periods set forth in the Contract.

2-5 PLANS AND SPECIFICATIONS.

2-5.1 General.

ADD THE FOLLOWING TO THE END OF SUBSECTION 2-5.1:

All work shall be performed in compliance with all applicable (most recent editions) federal, state and local codes, code amendments, and ordinances such as, but not limited to, the following:

- City of Oakland Municipal Code
- California Administrative Code
- California Building Code
- California Electrical Code
- California Mechanical Code
- California Plumbing Code
- California Energy Code
- California Historical Building Code
- California Fire Code
- California Existing Building Code
- California Green Building Standards Code
- California Referenced Standards Code
- California Manual of Uniform Traffic Control Devices (MUTCD);
- "Work Area Traffic Control Handbook."

Unless otherwise noted in the contract documents, the Uniform Building Code shall apply to the construction, alteration or repair of all City facilities including bridges, pedestrian walkways, and pumping stations.

2-5.3 Submittals.

2-5.3.1 General.

ADD NEW PARAGRAPHS AT END OF SUBSECTION 2-5.3.1.1 TO READ:

2-5.3.1.1 Electronic Submittals. The Contractor shall provide submittals in electronic format when possible and as directed by the City. The Contractor shall establish electronic submittal transfer application or sharable portals as necessary to transmit electronic submittal files too large to be submitted via email.

ADD NEW PARAGRAPHS AT END OF SUBSECTION 2-5.3.3 TO READ:

Attachment 1, the project submittal list, at the end of the Special Provisions details project submittal requirements. This list is intended to be comprehensive, but no claim for completeness is implied, and submittal of each and every item on the lists shall not relieve the Contractor of supplying all information needed, or of complying with any of the other requirements of the specifications. Revised lists may be issued and items may be added to the list supplied.

The Contractor shall use **Attachment 2**, the submittal transmittal form at the end of the Special Provisions, to certify that the proposed submittal meets the requirements of the project Special Provisions and the Standard Specifications. This form indicates what party (i.e. Contractor = CONTR; Subcontractor = SUB) shall sign the transmittal form.

The Contractor is responsible for providing all required submittals. The City may request additional itemized lists of materials, equipment and fixtures furnished and installed by the Contractor. These requests for itemized lists shall be made in writing specifying the items and details required. The Contractor shall provide these itemized lists within ten working days of the receipt of the written request. The Contractor's failure to provide said lists will delay payment to the Contractor until such lists are received. In the event that material, equipment and fixture lists are requested and not timely received at the conclusion of field construction, the Engineer may withhold the retention payment until requested lists are received and approved by the Engineer.

The Contractor shall provide submittals showing the locking or theft-deterrent mechanisms to be installed on all City streetscape furniture such as trash receptacles, benches, tree grates, bollards, newspaper racks, etc. Such mechanisms shall be as recommended by the product manufacturer. Such theft-deterrent devices shall not pose a tripping hazard to pedestrians. The Contractor shall not order these items until the Engineer has approved the locking procedure detailed in the submittal.

ADD NEW SUBSECTION 2-5.3.7 TO READ:

2-5.3.7 Submittal Schedule. The Contractor shall, within fifteen (15) calendar days after receipt from the City of the Notice to Proceed on this Contract, or another period of time as determined by the City, prepare and submit to the City, for Review and Concurrence, a comprehensive submittal schedule. This schedule shall identify all submittal items required by the Contract, or as otherwise requested by the City.

The submittal schedule shall include the date by which the item will be submitted to the City, whether the submittal is for approval or for record, the date by which approval is required, and the date by which the material or equipment must be on site in order not to delay the progress of the Work.

In preparing the submittal schedule, the Contractor shall consider the nature and complexity of each submittal item and shall allow adequate time for review, revision or correction, resubmittal, and approval sufficiently in advance of the construction requirements in order not to delay the progress of the Work. The submittal schedule shall allow adequate time for review of each submittal item prior to submittal to the City.

Review and Concurrence of the submittal schedule is a precondition to the City making the first progress payment under the payment provisions of this contract.

2-6 WORK TO BE DONE.

ADD NEW PARAGRAPH TO THE END OF SUBSECTION 2-6 TO READ:

Any work done beyond lines and grades established by the Engineer pursuant to the plans or any extra work done without written authority of the Engineer, shall be considered as unauthorized work and no compensation will be allowed therefor. The Engineer shall have the authority to have such work removed and the area restored, and to deduct the cost thereof from money due the Contractor.

REPLACE SUBSECTION 2-8 WITH THE FOLLOWING:

2-8 RIGHT-OF-WAY. The Contractor shall perform work within the public right-of-way or easements shown on the plans. The right to enter onto private property outside the public right-of-way or easement shall be obtained in writing from the property owner by the Contractor at the Contractor's expense. Mobilization and staging areas outside the City right-of-way shall be obtained at the Contractor's expense.

The Contractor shall be solely responsible for damages to persons or property occurring during or as a result of the Contractor's entry onto private property outside the right-of-way or easement area.

The Contractor shall defend and hold the City harmless from any and all claims, causes of action, demands or judgments resulting from the Contractor's entry onto private property outside the right-of-way or easement area.

2-9 SURVEYING.

2-9.1 Permanent Survey Markers.

REPLACE THE LAST SENTENCE OF THE FIRST PARAGRAPH OF SUBSECTION 2-9.1 WITH THE

FOLLOWING:

The Contractor's California-Licensed surveyor shall reference the location and file a corner record with the County Surveyor of Alameda for all known project monuments and provide official copies of the County's corner records to the City Surveyor prior to doing any construction work. The Contractor shall note that it can take Alameda County Records Office up to four weeks to accept and file corner records. The unit price paid for each bid item Pre and Post Construction Monument Verification shall include full compensation for all labor, materials, surveying, incidentals, and filing costs as required by law.

If it is necessary to remove or replace a City monument in conjunction with the work associated with this contract, the Contractor shall provide two week's notification to the office of the City Surveyor and, under the direction and supervision of the City Surveyor, the monument will either be temporarily removed and later replaced or it will be relocated to another location. The unit price for each bid item Reset Monument shall include full compensation for all labor, materials, surveying, incidentals, and filing costs as required by law for resetting (raising its frame and cover to meet new grades)/relocating a monument. Markers that otherwise are lost or disturbed by its operations shall be replaced at the Contractor's expense by a City survey crew or by a person licensed to practice land surveying in California as determined by the Engineer.

ADD FOLLOWING SUBSECTION 2-9.5

2-9.5 PAYMENT FOR SEWER MAINTENANCE HOLE SURVEY

This bid item will be measured for payment by the number of each maintenance Hole surveyed by a licensed land surveyor and will be paid for at the unit price bid thereof. The Contractor shall survey all sewer structures within the project limits. Contractor's survey data shall include sewer structure number, coordinate, depths, rim, inverts, internal pipelines and structure crossing elevations, and flowline information; contractor shall submit the survey data to the Engineer in an 2018 or higher AutoCAD file. All surveyed information shall be recorded on As-Built drawings as part of this bid item and no additional cost shall be made. This bid item includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals required for performing survey and all costs incurred from the requirements of SECTION 2.9.

2-10 AUTHORITY OF BOARD AND ENGINEER.

ADD THE FOLLOWING THREE PARAGRAPHS TO SUBSECTION 2-10:

No member of or Delegate of Congress, or Resident Commissioner shall be admitted to any share or part of this contract or to any benefit that may arise there from, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

No official of the City who is authorized in such capacity and on behalf of the City to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part hereof. No officer, employee, architect, attorney, engineer or inspector of or for the City who is authorized in such capacity and on behalf of the City to exercise any legislative, executive, supervisory, or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract or any other contract pertaining to the project.

Prior federal approval may be required on changes in the work and final acceptance.

ADD NEW SUBSECTION 2-13 TO READ:

2-13 RE-INSPECTION AT THE END OF THE WARRANTY PERIOD. The Contractor shall include in the bid the cost for re-inspection of completed work just prior to the expiration period of the warranty. The Contractor and Engineer shall meet together on the project site to re-inspect all of the work just prior to the expiration of the warranty period. If any warranty items are discovered then corrective work shall be completed within 60 calendar days.

ADD NEW SUBSECTION 2-14 TO READ:

2-14 GPS COORDINATES AND VERTICAL DATUM. GPS coordinates shall be based on one of these two systems:

1. NAD_1983_StatePlane_California_III_FIPS_0403_Feet [NAD83]
or in
2. WGS 84

The vertical datum shall be NAVD88.

SECTION 3 - CHANGES IN WORK

3-1 CHANGES REQUESTED BY THE CONTRACTOR.

REPLACE SUBSECTION 3-1.1 WITH THE FOLLOWING:

3-1.1 General. The General Contractor shall submit to the Engineer, in writing, requests for changes in products, materials, equipment, and construction methods required by the contract documents. These requests for changes will be received and considered by the Engineer when the Contractor has demonstrated and/or indicated in writing that:

- the request does not require extensive revision to the contract documents;
- that the proposed changes are in keeping with the general intent of the contract documents; and
- the request is timely, fully documented and properly submitted.

In addition, the requests for changes will only be considered if they do not impair, in any manner, essential project functions or characteristics, including but not limited to service life, economy of operation, ease of maintenance, desired appearance, or design and safety standards. These requests for changes shall be submitted only during the substitution period stipulated in the contract documents, or within **15** calendar days of the Notice to Proceed date if no substitution period is stipulated. All requests received more than **15** calendar days after the Notice to Proceed date or after the stipulated substitution period will be rejected.

It is not the intent of these Specifications to exclude the use of any meritorious product of equal value, however the burden of proof of equality lies with the Contractor. Proposed substitutions that increase the cost of Work or Contract Time will not be accepted.

Substitution requests shall meet the following requirements:

- a) The Contractor shall present each substitution request individually. If the proposed substitute is found to be not acceptable, then the specified item shall be supplied.
- b) For any substitution request to be considered, it must be submitted in six copies, the first page of each shall be a completed **Attachment 3**, "MATERIAL OR PRODUCT OR METHOD SUBSTITUTION REQUEST". Attachment 3 (located in the Attachments section at the end of the Special Provisions) must be filled out within its entirety. The Contractor's failure to do so will result in immediate return of the request to the Contractor without the City's review.
- c) If the City deems the proposed substitute to be acceptable, authorization for its inclusion in the Work will be issued as a Change Order with appropriate action.
- d) The Contractor's failure to order materials and/or equipment in a timely manner will not constitute justification for substitution.
- e) A substitution request constitutes a representation that the Contractor:
 - (1) has investigated the proposed product/method of rehabilitation and determined that it meets or exceeds the quality level of the specified item;
 - (2) will provide the same warranty for the substitution as for the specified item;
 - (3) will coordinate installation and make changes to other work which may be required for the work to be completed with no additional cost to the City;
 - (4) waives claims for additional cost or time extension which may subsequently become apparent;
 - (5) waives claims and assume responsibilities at no cost to the City to resolve any conflict as a result of the substitution; and
 - (6) will reimburse the City for review or redesign services associated with re-evaluation process.
- f) Substitutions will not be considered without separate written request when they are indicated or implied on shop drawing or product data submittals. Substitutions will also not be considered when acceptance will require untimely revisions to the Contract Documents.
- g) No substitutions shall be incorporated in the project without the Engineer's written approval. The Engineer will render their written decision not later than 35 calendar days after receipt of any proposed substitutions.
- h) The City may require the Contractor to furnish a written warranty, with adequate safeguards to the City, assuring satisfactory performance of a proposed substitute item or system for a stated minimum period of time, usually one year.
- i) The Contractor's failure to submit a proposed substitution for approval in the manner described above, and within ample time before scheduled installation, shall be deemed sufficient cause for the

Engineer's disapproval of any substitution otherwise proposed.

j) Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.

Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the City, may be granted by the Engineer to facilitate the Work, when approved in writing by the Engineer.

3-2 CHANGES INITIATED BY THE AGENCY.

REVISE SUBSECTION 3-2.1 TO READ:

3-2.1 General. The Agency may change the plans, specifications, character of the work, or work quantity, provided the total arithmetic dollar value of all such changes, does not exceed 25 percent of the contract price.

The Agency delegates to the City Administrator or theirs designee the authority to approve such changes. Should it become necessary to exceed this limitation, the change shall be by written change order between the Contractor and the agency, and shall be approved by the City Council.

A contract change order, approved by the Engineer, may be issued to the Contractor at any time prior to contract completion. Upon receipt of the approved contract change order, the Contractor shall proceed with the ordered work. If ordered in writing by the Engineer, the Contractor shall proceed with the work so ordered prior to actual receipt of an approved contract change order therefore. In such cases, the Engineer will, as soon as practical, issue an approved contract change order for such work. The provisions in 3-5 "Disputed Work" shall be fully applicable to such subsequently issued contract change order.

A contract change order, approved by the Engineer and executed by the Contractor, is an executed contract change order.

3-2.2.4.1 General.

Compensation adjustments for Asphalt Concrete, Portland Cement Concrete or Structural Steel will be subject to the following requirements:

- A. The compensation adjustments provided herein will be shown separately on payment estimates. The Contractor shall be liable to the City for decreased compensation adjustments and the City may deduct the amount thereof from moneys due or that may become due the Contractor.
- B. Compensation adjustments made under this section will be taken into account in making adjustments in conformance with the provisions in Subsection 3-2.2.1 Contract Unit Prices.

3-2.2.4.2 Asphalt Concrete Products. The compensation payable for asphalt concrete bid items will be increased or decreased in conformance with the provisions of this section for paving asphalt price fluctuations exceeding 10 percent (I_u/I_b is greater than 1.10 or less than 0.90) that occur during performance of the work.

The adjustment in compensation will be determined in conformance with the following formulae when the item of asphalt concrete is included in a monthly estimate:

- A. Total monthly adjustment = AQ
- B. For an increase in paving asphalt price index exceeding 10 percent:
$$A = 0.90 (1.1023) (I_u/I_b - 1.10) I_b$$
- C. For a decrease in paving asphalt price index exceeding 10 percent:
$$A = 0.90 (1.1023) (I_u/I_b - 0.90) I_b$$
- D. Where:

A = Adjustment in dollars per ton of paving asphalt used to produce asphalt concrete rounded to the nearest \$0.01.

I_u = The California Statewide Paving Asphalt Price Index which is in effect on the first business day of the month within the pay period in which the quantity subject to adjustment was included in the estimate.

I_b = The California Statewide Paving Asphalt Price Index for the month in which the bid opening for the project occurred.

Q = Quantity in ton of paving asphalt that was used in producing the quantity of asphalt concrete shown under "This Estimate" on the monthly estimate using the amount of asphalt determined by the Engineer.

The California Statewide Paving Asphalt Price Index is determined monthly on the first business day of

the month by CALTRANS using the median of posted prices in effect as posted by Chevron, Mobil, and Unocal for the Buena Vista, Huntington Beach, Kern River, Long Beach, Midway Sunset, and Wilmington fields.

In the event that the companies discontinue posting their prices for a field, CALTRANS determines an index from the remaining posted prices. CALTRANS reserves the right to include in the index determination the posted prices of additional fields. The City reserves the right to use the California Statewide Paving Asphalt Price Index as determined by CALTRANS.

In the event of an overrun of contract time due to delays for which the City is responsible, the adjustment in compensation for paving asphalt included in estimates during the overrun period will be determined using the California Statewide Paving Asphalt Price Index in effect on the first business day of the month within the pay period in which the overrun began. The City will not provide additional compensation for overrun of contract time caused by the Contractor.

3-2.2.4.3 Portland Cement and Structural Steel Products

The compensation payable for Portland cement concrete and/or structural steel bid items will be increased or decreased in conformance with the provisions of this section to provide additional compensation to the Contractor (or a credit to the City) for unforeseeable fluctuations in structural steel and Portland cement concrete material prices. These price adjustments are dependent upon either:

- An increase or decrease in the price of steel or cement used in the production of products utilized on this project; or
- An increase or decrease in the ratio of the Bureau of Labor Statistics – Producer Price Index (PPI) for these materials as listed below.

Payment or credit for steel and cement price adjustments shall be evaluated under the following conditions:

- A. This subsection shall only apply to material cost changes that occur between the date of the bid opening and the date of the certified invoice. The Contractor is required to order reinforcing steel and cement materials within 30 days of the Notice to Proceed. The Contractor is required to order custom-fabricated steel products within 30 days of Shop Drawing approval. The Contractor shall take possession of materials as quickly as is reasonably possible.
- B. The price adjustment clause applies only to structural steel, reinforcing steel, and cement materials. To be considered for this subsection, the material must have a total dollar value of \$25,000 or more.
- C. Within five days of the Notice of Award, the Contractor shall submit the supplier's or the fabricator's material price quotes for the steel and/or cement items. The Contractor must certify that these price quotes are the actual quoted prices utilized in the bid computations. The quote must describe and break down the total weights of the steel, and cement and the applicable unit cost used to prepare the unit bid cost.
- D. For the price adjustment to apply in this contract, the increase or decrease in the material unit cost must exceed 10% of the original quoted prices (from Condition C above) or the PPI unit cost change as described below.
- E. If there is an increase or decrease in steel or cement material prices in excess of 5%
 - between the original documented and quoted unit cost and the unit cost listed on the certified invoice
 - or the PPI unit price at the date of bid and the PPI unit price at the date of certified invoice the following adjustment shall apply. The Contractor shall be due a change order equal to the value of the lesser of
 - the documented unit cost change between the bid unit cost and the certified unit cost, and
 - the unit cost change between the PPI unit price for the material at the date of bid and the PPI unit price at the date of certified invoice.
- F. The Producer Price Index (PPI) is defined at the US Department of Labor – Bureau of Labor Statistics index entitled "Producers Price Index" (PPI).
 - The price adjustment for steel shall be a function of the percentage of change of the price index for Price Index Commodity Item "101211 Carbon steel scrap."
 - The price adjustment for cement shall be a function of the percentage of change of the price index for "13220161 Portland and other cements."

These price indices are available on the internet Producer Price Index website at <http://data.bls.gov/PDQ/outside.jsp?survey=wp>. If the change in the PPI controls the price adjustment, the City shall review the PPI data four months after initial publication to make the required adjustment since the PPI is subject to change for four months after publication.

- G. In the event of an overrun of contract time due to delays for which the City is responsible, adjustment in compensation for Portland cement concrete or structural steel included in estimates during the overrun period will be determined using the applicable Producer Price Index in effect on the first business day of the month within the pay period in which the overrun began.
- H. The City reserves the right to seek verification of any claimed increase in cost of said material directly from the supplier and/or fabricator. If necessary, the Contractor shall assist the City in obtaining this information.

3-2.4 Agreed Prices.

ADD THE FOLLOWING TO THE END OF SUBSECTION 3-2.4:

Proposals for extra work submitted by the Contractor for increases or decreases to the contract price shall include a detailed cost estimate in the format and for the items described in Section 3-3.

3-3 EXTRA WORK.

3-3.2 Payment.

3-3.2.2 Basis for Establishing Costs.

REPLACE THE FIRST PARAGRAPH WITH THE FOLLOWING:

3-3.2.2.1 Labor. The Contractor will be paid the cost of labor for workers used in the actual and direct performance of the work. The labor cost will be the sum of the following:

- 1) **Actual Wages.** The actual wages paid shall include, but not limited to, base wages plus any employer payments to or on behalf of the workers for health and safety, pension, welfare, vacation, holiday, sick leave, union training and similar purposes.
- 2) **Labor Surcharge.** To the actual wages paid as defined in 1) above, will be added a labor surcharge set forth in the CALTRAN's publication entitled "Labor Surcharge and Equipment Rental Rates", which is in effect on the date upon which the work is performed. This document is available on the web at http://www.dot.ca.gov/hq/construc/eqrr/Book_2015.pdf. The labor surcharge shall constitute full compensation for payments imposed by State and Federal laws for Workers' Compensation, Social Security, Medicare, Federal Unemployment, State Unemployment, and State Training taxes.

CHANGE THE LAST PARAGRAPH OF SUBSECTION 3-3.2.2.1 TO READ:

Indirect labor costs including, but not limited to, superintendence, office personnel, timekeepers, and maintenance mechanics shall be considered part of the markup of 3-3.2.3.1. All labor classifications used in the performance of extra work shall be subject to the Engineer's approval.

3-3.2.2.3 Tool and Equipment Rental.

REPLACE THE SECOND PARAGRAPH OF SUBSECTION 3-3.2.2.3 WITH THE FOLLOWING THREE PARAGRAPHS:

The Contractor will be paid for the use of contractor-owned equipment at the current rental rates in effect on the work date as listed for such equipment in the State of California, Department of Transportation publication entitled, "Equipment Rental Rate and General Prevailing Wage Rates." The Engineer will establish a suitable rental rate if equipment other than that listed in the above publication is used for the work performance.

Equipment rented and not owned by the Contractor will be paid for at the actual rental rates from rental invoices provided by the Contractor. The rental time to be paid for equipment on extra work shall be the time the equipment is in operation on the extra work being performed and twice the time required to move the equipment to the location of the extra work. However, moving time will not be paid for if the equipment is used at the site of the extra work on other than such extra work. The rental time paid per day will be in accordance with the following:

<u>Hours Equipment is in Operation</u>	<u>Hours to be Paid</u>
0-2	2
2-4	4
4-6	6
6-8	8

Equipment at the work site idled due to unforeseen events not caused by the Contractor may be compensated for, as approved, by the Engineer. Compensation will be computed using the delay factor, overtime factor and rental rates listed for equipment in the most recently published State of California Department of Transportation publication entitled "Equipment Rental Rate and General Prevailing Wages."

CHANGE SUBSECTION 3-3.2.3 TO READ:

3-3.2.3 Markup.

3-3.2.3.1 Work by the Contractor. The following percentages shall be added to the Contractor's direct costs and shall constitute the full markup for all overhead and profits. Direct labor cost is defined as actual wages plus labor surcharge.

Direct Labor Cost	33%
Materials	15%
Equipment Rental	15%
Other Items and Expenditures	15%

This markup shall fully compensate the Contractor for all personnel not included in Section 3-3.2.2(a) hereinabove, indirect labor costs, bond and insurance premium, temporary construction facilities, field engineering, schedule updating, As-Built drawings, home office cost, estimating cost, and any other indirect cost incidental to the performance of the change in Work.

3-3.2.3.2 Work by a Subcontractor. When all or any part of the extra work is actually performed by a first tier Subcontractor, the markup established in 3-3.2.3.1 shall be applied to the first tier Subcontractor's actual cost of such work calculated under Section 3-3.2.2.1 hereinabove. The Contractor may add a markup of fifteen percent (15%) on the first \$5,000 of the total subcontracted portion of the extra work and a markup of seven and one-half percent (7-1/2%) on work added in excess of \$5,000 of the subcontracted portion of the extra work.

When the extra work is actually performed by a second or lower tier subcontractor, the total markup of the Contractor and the upper tier subcontractors shall not exceed eighteen percent (18%) on the first \$5,000 of the total subcontracted portion of the extra work, and ten percent (10%) on work added in excess of \$5,000 of the subcontracted portion of the extra work.

Markups on work performed by Subcontractors shall be considered full payment for estimating, handling, office processing and field superintendence of extra work.

3-5 DISPUTED WORK.

ADD THE FOLLOWING TWO PARAGRAPHS TO THE END OF SUBSECTION 3-5.

Should the Contractor disagree with any terms or conditions set forth in an approved contract change order that it has not executed, it shall submit a written protest to the Engineer within two weeks after the receipt of such approved contract change order, and proceed with the work. If a written protest is not submitted, payment will be made as set forth in the approved contract change order and such payment shall constitute full compensation for all work included therein or required thereby. Such unprotested approved contract change orders will be considered as executed contractor change orders.

The procedures in Section 3-5 through Section 3-8 are established for disputes and claims related to the construction aspect of the work. For other disputes and claims, such as compliance with the City's Small Local Business Enterprise Program, the Local Employment Program, prevailing wages, stop notices, etc., these procedures are not applicable.

ADD NEW SUBSECTION 3-6:

3-6 PROCEDURE FOR PROTEST BY THE CONTRACTOR. If in disagreement with some aspect of the Work, the Contractor shall:

1. File a written Notice of Potential Claim with the Resident Engineer within five calendar days after the event creating the disagreement.
2. Supplement the written protest, within ten calendar days of its filing, with a written statement that:
 - a. Cites contract provisions that support the protest,
 - b. Estimates the dollar cost, if any, of the protested work, and
 - c. Estimates the amount of added time incurred, if any, and
3. Provide the Resident Engineer with a written statement of actual adjustment requested with supporting documentation as soon as possible.

Throughout any protested work, the Contractor shall keep records of costs and time incurred. The Contractor shall furnish copies and permit the Resident Engineer access to these and any other records needed in order to evaluate the protest.

The Resident Engineer will evaluate all protests and potential claims and provide a written answer to the Contractor within ten (10) calendar days of receipt of the supporting information described in (2) and (3) above. If a protest is valid, the Engineer will adjust contract time or payment by an equitable amount. No adjustment

will be made for an invalid protest.

If the Contractor does not agree with the ruling of the project Resident Engineer, the Contractor may pursue the protest further by filing a formal claim as outlined in Section 3-7.

By failing to follow the procedures of this subsection, the Contractor waives any claims for protested, claimed or disputed work.

ADD NEW SUBSECTION 3-7:

3-7 CLAIMS PROCEDURES. For claims of \$375,000 or less, the Contractor shall use the accelerated claims procedures outlined in Subsections 3-7 and 3-8 of these Special Provisions.

If the Contractor claims that additional payment or time is due and the Contractor has pursued and exhausted all the means provided in Sections 3-6 and 6-6 to resolve a dispute (protest or potential claim), the Contractor may file a claim as provided in this subsection.

A Claims Resolution Hearing will be held within thirty (30) calendar days of a properly filed claim. The claim shall be addressed to the Supervising Civil Engineer or Construction Supervisor who will act as Hearing Officer. The Hearing Officer will render a written decision within ten calendar days of the close of the Claims Resolution Hearing.

If the written notifications provided in Sections 3-6 and 6-6 were not provided or if the Engineer is not afforded reasonable access to the Contractor's records of actual cost and additional time incurred, or if a claim is not filed as provided in this subsection, then the Contractor agrees to waive any claim for additional payment or time. The fact that the Contractor has provided proper notification, provided a properly filed claim, or provided the Resident Engineer access to records of actual cost, shall not be construed as proving or substantiating the claim's validity.

If the Hearing Officer determines that the claim has merit, the Resident Engineer will make an equitable adjustment either in the amount of costs to be paid or in the time required for the work, or both. If the Hearing Officer determines that the claim does not have merit, no adjustment will be made.

All claims filed by the Contractor shall be in writing and in sufficient detail to enable the Hearing Officer to ascertain the basis and amount of the claim. The City may request, in writing, any copies of any additional documentation supporting the claim or relating to defense to the claim the City may have against the contractor. At a minimum, the following information must accompany each claim submitted.

1. A statement indicating that the Contractor is filing the claim under Section 3-7 of the Special Provisions.
2. A detailed, factual statement of the claim for additional compensation and/or time, providing all necessary dates, locations, and items of work affected by the claim.
3. The name of each individual, official, or employee involved in or knowledgeable about the claim.
4. The specific provisions of the Contract that support the claim and a statement of the reasons such provisions support the claim.
5. Any documents and the written communications that support the claim, including but not limited to, daily reports, cancelled checks, original bid estimates and worksheets, payroll records, contracts with subcontractors, correspondences between contractor and subcontractors, etc.
6. If a time extension is sought:
 - a. The specific days and dates for which it is sought;
 - b. The specific reasons the Contractor believes a time extension should be granted;
 - c. An As-Built critical path schedule that identifies all events causing delays to the project's critical path.
7. If additional compensation is sought, the exact amount sought and a breakdown of that amount into the following categories (refer to Section 3-3):
 - a. Direct labor,
 - b. Direct materials,
 - c. Direct equipment. The rates claimed for each piece of equipment shall not exceed actual costs. In the absence of actual equipment costs, the equipment rates, when in use, shall not exceed the rates established by the current CALTRANS Equipment Rental Rate Manual. For each piece of equipment for which the claim is made the equipment cost shall be broken down to identify the following:
 - (1) Detailed description (e.g., Motor Grader Diesel Powered Caterpillar 12"G", etc.)
 - (2) The hours of use or standby
 - (3) The specific day and dates of use or standby.
 - d. Job site overhead.

- e. Unabsorbed Home Office Overhead (general and administrative).
- f. Subcontractor's claims (same level of detail as specified herein for contractor's claims).

8. The Contractor's claim certificate (Attachment 4 at the end of these Special Provisions) shall be submitted to the Agency. Failure to submit the notarized certificate will be sufficient cause for denying the claim.

ADD NEW SUBSECTION 3-8:

3-8 CLAIM APPEALS. If the claim is denied, the Contractor may appeal to the Division Manager. The Contractor shall make such appeal in writing within ten calendar days of receiving the Hearing Officer's written notice denying the claim. The Division Manager will hold a hearing within fifteen calendar days of the appeal filing to determine the merits of the claim. The Division Manager shall render a written decision within ten calendar days of the close of the Appeals Hearing. If the Division Manager concurs with the Claims Hearing Officer, no adjustment will be made.

SECTION 4 - CONTROL OF MATERIALS

4-1 MATERIALS AND HUMAN EFFORT.

4-1.1 General.

REPLACE THE SECOND SENTENCE OF THE SECOND PARAGRAPH WITH THE FOLLOWING:
Materials and human effort not conforming to the requirements of the bid construction documents shall be considered defective and will be subject to rejection.

ADD NEW SUBSECTION 4-1.1.1 TO READ:

4-1.1.1 Material Furnished by the Agency. Certain material to be installed by the Contractor may be furnished by the Agency at no cost to the Contractor. Any material to be furnished by the Agency will be listed in the plans and/or specifications. All other material to complete the contract shall be furnished by the Contractor. The Contractor shall be responsible for all materials furnished until the work the City accepts the Contract work. The Contractor shall replace any City-furnished materials lost or damaged from any cause whatsoever at the Contractor's expense. The Contractor shall be liable to the City for the cost of replacing City-furnished material, and such cost may be deducted from any monies due or to become due the Contractor. The City will furnish maintenance Hole frames and covers; lamphole frames and covers; and cleanout frames and covers (except for house connection or two-way cleanouts).

The Contractor shall make arrangements with the Engineer at least seven calendar days in advance of picking up Agency-furnished material.

Payment for all labor, equipment, tools, and incidentals, for picking up, transporting, and installing Agency-furnished material shall be included in the price bid for related items of work.

ADD NEW SUBSECTION 4-1.1.2 TO READ:

4-1.1.2 Required Recycled-Content Material Report. It is the City's policy that contractors and suppliers use recycled-content materials to the greatest extent feasible (unless specified otherwise). At the end of all projects \$50,000 and greater, the Contractor shall submit a Recycled Materials Report. In this report the Contractor shall detail those products made with recycled materials that were used on the project by type of material, quantity, and cost.

ADD NEW SUBSECTION 4-1.1.3 TO READ:

4-1.1.3 Required Construction and Demolition Waste Reduction and Recycling. This contract is subject to Oakland's Construction and Demolition Debris Waste Reduction and Recycling Ordinance (C&D Ordinance), OMC 15.34. The ordinance requires salvage or recycling of 100% of asphalt and concrete products and 65% of all other construction and or demolition debris, and submittal of plans and reports that document compliance with this requirement. Additional details are available at

<https://www.oaklandca.gov/services/submit-your-construction-and-demolition-recycling-form-online>

For projects of \$50,000 or greater, the Contractor must submit a Waste Reduction and Recycling Plan (WRRP) prior to the start of construction or issuance of applicable building permits. This plan shall state how

construction and demolition debris generated by type and quantity from the project will be diverted from landfills to meet the standards noted above. The Contractor must submit the WRRP online at <https://www.oaklandca.gov/services/submit-your-construction-and-demolition-recycling-form-online>

At the end of all construction, for projects of \$50,000 or greater, the Contractor shall submit a completed Construction & Demolition Summary Report (CDSR) online at <https://www.oaklandca.gov/services/submit-your-construction-and-demolition-recycling-form-online>. To Submit Construction and Demolition CDSR at project completion, click "Submit For Final" to deliver a completed CDSR to the City, prior to scheduling the Final Inspection or requesting a T.C.O. or C.O..

4-1.3 Inspection Requirements.

ADD NEW SUBSECTION 4-1.3.4 TO READ:

4-1.3.4 Reinspection and Retesting. In the event work or materials are rejected and reinspection and/or retesting is necessary, or in the event portions of the work scheduled by the Contractor for inspection or testing are not ready at the time designated by the Contractor, then the Contractor shall be subject to the costs incurred by the Agency for such reinspection, retesting, or delays.

Said costs shall include, but not limited to, direct labor costs (including fringe benefits, labor overhead charges as established by current agency finance procedures), equipment, and related overhead costs.

It shall be the Contractor's responsibility to notify the Engineer when work is ready for inspection and/or testing.

REPLACE SUBSECTION 4-1.5 TO READ.

4-1.5 Certificate of Compliance. A Certificate of Compliance shall be furnished prior to the use of any materials for which these specifications or the special provisions require that a certificate be furnished. In addition, when so authorized in these specifications or in the special provisions, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the specifications. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the certificate.

Materials test data may be required by the Engineer to be included with the submittal of the Certificate of Compliance.

Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the plans and specifications, and any material not conforming to the requirements will be subject to rejection whether in place or not.

The City reserves the right to refuse to permit the use of material on the basis of a Certificate of Compliance.

The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

4-1.6 Trade Names or Equals.

ADD THE FOLLOWING TO THE END OF SUBSECTION 4-1.6:

If the Contractor is authorized to substitute an equivalent item or material, it shall be with the understanding that there will be no increase in contract price due to the substitution. If a substitution is approved by the Engineer and is subsequently found not to be equal to the specified item or material, the Contractor shall remove and dispose of the substitute at the Contractor's expense. The Contractor shall then furnish and install the specified item or material at no additional cost to the owner.

SECTION 5 - UTILITIES

5-1 LOCATION.

REPLACE THE THIRD PARAGRAPH OF SUBSECTION 5-1 WITH THE FOLLOWING PARAGRAPHS:

As provided in Section 4216 of the California Government Code, at least two working days prior to commencing any excavation, if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations, the Contractor shall contact Underground Service Alert (USA)

of Northern California and obtain an inquiry identification number. Notification numbers must be updated two working days before the twenty-eight day period expires, or as required by State law.

White Markings in Paved Areas: The Contractor shall avoid excessive or oversized marking, especially if marking outside the excavation area. Limit length, height, and interval of marks per USA guidelines. Letters and numbers shall not exceed 3" to 6" in height. On concrete surfaces the Contractor shall use spray chalk paints, water-based paints or equivalent less permanent type marking.

White Markings in Non-Paved Areas: When paint is not used, use appropriate colored stakes, lath, pennants or chalk lines. Select marker types that are most compatible to the purpose and marking surface. Adhere to paved area marking suggestions to the extent practical.

Each utility that is not a member of the Regional Notification Center (RNC) must be notified individually. The City of Oakland Electrical Division (street lights, traffic signals, call boxes) is not a member of a RNC. The City of Oakland is not required to mark gravity-fed lines such as storm and sanitary sewers.

CHANGE THE FIFTH PARAGRAPH OF SUBSECTION 5-1 TO READ:

The Contractor shall be responsible for locating all the service laterals including, but not limited to, private building sewer, storm drainage, water, electrical, telephone and cable, prior to excavation in areas where service laterals could reasonably be expected to exist. Any service laterals damaged by the Contractor shall be promptly repaired with the approval of the Engineer, at no cost to the City. If no pay item is provided in the Contract for this work, full compensation for such work shall be considered as included in the prices bid for other items of work.

5-2 PROTECTION.

REPLACE THE FIRST SENTENCE OF THE SECOND PARAGRAPH WITH THE FOLLOWING:

Where protection is required to ensure support of utilities located substantially (i.e. within 3 feet) as shown on the Plans or in accordance with 5-1, the Contractor shall, unless otherwise provided, furnish and place the necessary protection at the Contractor's expense.

ADD THE FOLLOWING TO THE END OF SUBSECTION 5-2:

The Contractor shall provide temporary and permanent supports under all existing concrete, asbestos concrete, clay, telephone, and power conduits. Cost for such supports shall be absorbed in the Contractor's bid item for the pipeline construction.

The Contractor shall not tunnel under conduits unless approved by the Engineer. All voids within the tunnel limits shall be filled with one-sack cement/sand slurry.

5-5 DELAYS.

ADD THE FOLLOWING TO THE END OF SUBSECTION 5-5.

No payment will be made for the first two hours of each occurrence of delay related to identification and removal of an abandoned or unmarked utility.

5-6 COOPERATION.

ADD NEW SUBSECTION 5-6.1 TO READ:

5-6.1 Utility Work. The Contractor shall be advised that the relocation of overhead and underground utilities may be underway by other forces within or adjacent to the limits of Work. The Contractor shall cooperate and coordinate with all such other forces to avoid delays or hindrances to their work.

ADD NEW SUBSECTION 5-7 TO READ:

5-7 UTILITY EXCAVATION BACKFILL. The Contractor will not be entitled to damages, additional payment, or a time extension for impacts or delays attributable to utility excavation backfill material type or density if such utility is substantially located (i.e. within 3 feet) according to Subsection 5-1.

ADD NEW SUBSECTION 5-8 TO READ:

5-8 SPECIAL POTHOLE INVESTIGATION

Contractor shall pothole unknown and field discovered underground utilities that are not shown on plans or without USA markings with the approval of the Engineer. Where directed by the Resident Engineer to pothole to verify the depths of the underground utility crossings, the Contractor shall excavate and expose said underground utility crossings per plan's general notes 3 and 4 and provide the depth, clearance, separation information, and photos with sectional profiles as necessary to show utility crossing conflicts to the Resident

Engineer for review before continuing the rehab work.

The bid item shall be paid at the unit bid price for each location and it shall include full compensation for all labor, materials, equipment, signage, traffic control, excavation, trench shoring, protecting and supporting of utilities, providing and compacting backfill, disposal of excavated materials and all debris, providing temporary and permanent resurfacing, coordinating with utilities companies, and incidentals to complete work. In accordance with 3-2.2.1, no change in unit bid price for this bid item shall be allowed for any increase or decrease in the quantity of work thereof.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

6-1.1 Construction Schedule.

ADD THE FOLLOWING SENTENCE TO THE END OF THE FIRST PARAGRAPH:

A schedule utilizing the critical path method is required on all projects with a bid price of \$250,000 or greater.

ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:

On a monthly basis, along with the monthly payment request, the Contractor shall revise the schedule, indicating actual progress, and resubmit to the City for review and concurrence. If in the opinion of the City, the Contractor falls behind the accepted schedule, the Contractor shall take the necessary steps to improve progress and adhere to the original schedule.

6-1.2 Commencement of the Work

ADD THE FOLLOWING AT THE END OF SUBSECTION 6-1.2:

The contract time specified is the City's best estimate of the required time to complete the Work. If the Contractor elects to submit an early completion schedule for the Project, the Contractor does so at its own risk. Such a submission does not change the contract time specified in the contract documents and the contractor must show the remaining time as "float time" on the schedule. Moreover, the City shall not be responsible for, nor be held liable for, any damages allegedly caused by the Contractor's failure to complete the Project within the proposed early completion schedule.

The Contractor's failure to comply with the requirements of Subsection 6-1 shall be grounds for the City to determine that the Contractor is not prosecuting the Work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the City may withhold approval of progress payments until the Contractor complies with the requirements of Subsection 6-1.

The Contractor's failure to comply with the requirements of Subsection 6-1 shall be grounds for the City to determine that the Contractor is not prosecuting the Work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the City may withhold approval of progress payments until the Contractor complies with the requirements of Subsection 6-1.

ORDER OF WORK: The project order of work shall be as follows:

- All concrete work and related items shall be completed on a particular street before AC pavement demolition or other AC work may commence.

ADD NEW SUBSECTION 6-1.3 TO READ:

6-1.3 Mandatory Pre-Construction Meeting.

A pre-construction meeting will be scheduled for within ten days of the contract award for all projects with a contract bid price of greater than \$50,000. At this meeting the Contractor will meet representatives of the City's Contract Compliance, Construction and Design divisions.

The project Resident Engineer will chair the meeting. This meeting's purpose is to establish procedures for field coordination, resolve anticipated construction problems, and discuss the process for submittals, request for information, disputes, and progress payments. The Resident Engineer will also discuss the construction schedule, traffic control plans, housekeeping, storm water protection, recycling, utility coordination, notification to property owners, project sign location, office trailer location, working hours, noise control, dust control, general public relations, and other related issues.

The Contract Compliance Officer will discuss enforcement of the City's various employment and prevailing wage requirements specified by the Contract.

6-3 SUSPENSION OF THE WORK.

CHANGE SUBSECTION 6-3.1 TO READ:

6-3.1 General. The Engineer shall have the authority to suspend the work wholly or in part for such period as deemed necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as it may deem necessary due to the Contractor's failure to carry out orders given or to perform any work provisions. The Contractor shall immediately obey the Engineer's suspension orders and shall not resume work until so ordered in writing by the Engineer.

If the Engineer orders a work suspension due to the Contractor's failure to carry out provided orders or to perform any contract provision, the days on which the suspension order is in effect shall be considered contract working days if such days are working days within the meaning of the definition set forth in these specifications.

If work is suspended through no fault of the Agency, all expenses and losses incurred by the Contractor during such suspension shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the work during suspension periods, the Agency may elect to do so, and deduct the cost thereof from monies due the Contractor. Such action will not relieve the Contractor from liability.

The Contractor's responsibilities as defined in Section 7 of the Standard Specifications and Special Provisions shall continue in full force and effect during such suspension period.

ADD NEW SUBSECTION 6-3.3 TO READ:

6-3.3 Hazardous Material and Waste Encountered during Operations. If the Contractor encounters a substance during operations that the Contractor has reason to believe may be a hazardous material as defined by Section 25501 of the California Health and Safety Code or a hazardous waste as defined by Section 25117 of the California Health and Safety Code, and if such substance was not previously accounted for in the Scope of Work, the Contractor shall immediately so notify the Engineer in writing. Work in the immediate area of the suspected hazardous material or waste shall be suspended until the Engineer authorizes the work to resume. If such suspension delays the current controlling operation, the Contractor shall be granted a time extension as provided in Section 6-6.

If such work suspension delays the current controlling operation by more than two working days, the delay shall be considered a right of way delay and the Contractor shall be compensated for such delay as provided in Section 8-1.09 of the most recent Caltrans Standard Specifications.

The City reserves the right to use other forces for exploratory work to identify and determine the extent of such hazardous material or waste in the construction area.

6-6 DELAYS AND EXTENSIONS OF TIME.

6-6.1 General.

DELETE THE WORD "labor disputes" and "labor or equipment" FROM THE SECOND SENTENCE OF THE FIRST PARAGRAPH OF SUBSECTION 6-6.1.

REPLACE THE SECOND PARAGRAPH OF SUBSECTION 6-6.1 TO READ:

An extension of time will not be granted for a delay caused by the Contractor's inability to obtain materials and equipment, unless the Contractor furnishes to the Engineer documented proof that the Contractor has made every effort to obtain such materials and equipment from every known source within reasonable reach of the Work. The Contractor shall also submit proof that the inability to obtain such materials when originally planned did, in fact, cause delay in final completion of the Work that could not be compensated for by revising the sequence of operations. Only the physical shortage of material and equipment will be considered under these provisions as a cause for extension of time.

CHANGE THE THIRD PARAGRAPH OF SUBSECTION 6-6.1 TO READ:

In the event of work delays beyond the control of the Contractor, the Contractor shall so notify the Engineer in writing. Such notice shall give the reason for the delay, and provide such documentary evidence as may be necessary to substantiate the reasons for the delay plus an estimate of the additional time required to complete the contract. Such a delay notice shall be filed with the Engineer within five working days after the beginning of said delay. The Contractor's failure to file a timely notice shall act as a bar against an acceleration claim. The Agency's decision will be issued within five working days. The Contractor shall not accelerate the work unless authorized in writing by the Engineer.

6-6.3 Payment for Delays to Contractor.

CHANGE THE FIRST SENTENCE OF SUBSECTION 6-6.3 TO READ:

The Contractor may be compensated for damages incurred due to delays for which the Agency is responsible, except for delays caused by the issuance of extra work as stated in 3-2.1 of these Special Provisions.

6-7.2 Working Day.

DELETE THE WORD "field" FROM THE FIRST SENTENCE OF SUBSECTION 6-7.2.

CHANGE 6-7.2 ITEM 3 TO READ:

The following designated holidays:

January 1st (New Years Day - Observed)	September 9 th (Admissions Day)
3rd Monday in January (ML King Jr. Day)	November 12 th (Veterans Day)
February 12 th (Lincoln's birthday)	4 th Thursday in November (Thanksgiving)
3 rd Monday in February (President's Day)	The Friday after Thanksgiving
Last Monday in May (Memorial Day)	December 25 th (Christmas Day)
June 19 th (Juneteenth)	
July 4 th (Independence Day)	

6-7.2 Working Day.

ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 6-7.2:

The Contractor's working hours shall be from 7:00 AM TO 5:00 PM, Monday through Friday. The Table "Operation Hours" (see Attachment 6 "Operation Hours" at the end of these Special Provisions) details the permissible work hours on public streets. The Contractor may be allowed to work after 5:00 PM on weekdays and work on Saturday and Sundays only with the Engineer's written permission. The Engineer may shorten the hours of this subsection to prevent traffic congestion or to prevent unreasonable disturbance in residential areas.

ADD NEW SUBSECTION TO READ:

6-7.4 Contract Working Days. The work that the Contractor is required to perform under this contract commences at the time stipulated by the Engineer in the "Notice to Proceed" to the Contractor shall be completed within the number of working or calendar days from the date of the Notice to Proceed specified in the Notice to Bidders. Each month the Engineer will furnish the Contractor a statement of working days remaining on the contract as part of the monthly progress estimate.

6-8 COMPLETION, ACCEPTANCE, AND WARRANTY.

6.8.1 Completion

6.8.2 Acceptance

REPLACE 6-8.2 WITH THE FOLLOWING:

If the Engineer determines that the project work has been completed in accordance with the plans and specifications, they will so certify and accept the completed work. The Engineer will, in their acceptance, give the date when the work was completed. This Notice of Completion date is when the Contractor is relieved from responsibility to protect the work, and is also the date to which liquidated damages will be computed.

The Contractor shall maintain a set of As-Built plans of all contract work daily. All changes to the original contract documents shall be legibly incorporated in red ink with reference to the date and name of appropriate written document(s), such as Change Order, RFI, email, field order, record of conversation, and etc. Each page of final drawings shall be identified as As-Built Plans. The City shall retain a five-percent retention to ensure that the as-built plans are submitted to the City. The Contractor shall supply two copies of the As-Built plans plus a copy of the signed, completed As-Built Plans Submittal Form (**Attachment 5** at the end of the Special Provisions) to the Engineer for approval.

6.8.3 Warranty

REPLACE 6.8.3 WITH THE FOLLOWING:

All work involving underground construction (such as pipe laying, electrical or liquid-carrying conduit installation, sewer repair, replacement or installation, trenching, backfilling, and paving, etc.), shall be warranted by the Contractor against defective human effort and materials for a period of 2 years from the date the Work was completed. All other work shall be warranted by the Contractor against defective human effort and materials for a period of 1 year from the date the Work was completed, unless specified otherwise in the plans or contract documents.

6-9 LIQUIDATED DAMAGES.

CHANGE THE FIRST PARAGRAPH OF SUBSECTION 6-9 TO READ:

The Contractor's failure to complete the Work within the time allowed will result in the City sustaining damages. Such damages are, and will continue to be, impracticable and extremely difficult to determine. Liquidated damages shall be assessed. For each consecutive calendar day in excess of the time specified for the completion of Work, as adjusted in accordance with 6-6, the Contractor shall pay to the Agency or the Agency may deduct from monies due the Contractor, the daily liquidated damages amount specified in the Notice to Bidders, unless otherwise provided in the contract documents.

The Contractor shall complete the concrete work for each curb ramp, concrete curb, gutter, and sidewalk work within five working days from start to finish. For each consecutive calendar day in excess of the time specified to complete the concrete repairs, the Contractor shall pay to the City or the City may deduct from monies due the Contractor, the sum of \$1,500.00 per location per day, unless otherwise provided in the contract documents. In accordance with Subsection 300-1.3.2.c, no sidewalk or curb ramp demolition work may be performed on a Friday.

Contract execution shall constitute agreement by the Agency and Contractor that the above sums are the minimum value of the costs and actual damage caused by the Contractor's failure to complete the Work within the allotted time. Such sums are liquidated damages and shall not be construed as a penalty, and may be deducted from payments due the Contractor if such delay occurs.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-1 CONTRACTOR'S EQUIPMENT AND FACILITIES.

ADD THE FOLLOWING TO THE END OF SUBSECTION 7-1.1:

7-1.1 General.

The Contractor shall render all machinery and equipment inoperable at all times except during actual construction. The Contractor shall be responsible for construction means, controls, techniques, sequences, procedures and construction safety.

ADD THE FOLLOWING SUBSECTION 7-1.4:

7-1.4 Powered Industrial Trucks, Forklifts, Heavy Equipment and Other Vehicles.

Contractor employees who drive or operate any such equipment or vehicles on City property or project sites, must first provide proof of a current driver's license and the Contractor must verify training in accordance with any applicable Cal/OSHA standards, Department of Transportation, and Department of Motor Vehicles codes and standards. The Contractor shall be responsible for providing and keeping current all required licenses, certifications and insurance for such equipment and vehicles. The Contractor further agrees to ensure that all such equipment and vehicles are equipped with required lights, brakes, operating controls, backup alarms and other safety equipment and that all such devices are properly inspected, serviced, maintained in good working order and free of damage and defects. The Contractor agrees to immediately remove from service any equipment or vehicle with identified damage or defects that affect the safe operation of the equipment or vehicle.

The Contractor shall render all machinery and equipment inoperable at all times except during actual construction. The Contractor shall be responsible for construction means, controls, techniques, sequences, procedures and construction safety.

7-2 LABOR.

7-2.2 Prevailing Wages.

ADD THE FOLLOWING THREE PARAGRAPHS TO THE END OF SUBSECTION 7-2.2:

The City Council of the City of Oakland has ascertained the general prevailing rate of wages for City

public works projects by Resolution Number 57103. C.M.S.

For public works projects over \$1,000.00, the State's Labor Code requires Contractors to pay their employees in accordance with the general prevailing wages.

The Contractor is required to submit weekly payroll records showing payment of these wages to their employees.

The Prime Contractor and all Subcontractors will have to comply with Sections 1770-1781 of the State of California Labor Code.

ADD NEW SUBSECTION 7-2.2.1 TO READ:

7-2.2.1 Electronic Payroll Submission. The Contractor shall register for and use the City's selected electronic certified payroll tracking system—LCPtracker, a Labor Compliance software program. This software is a web-based system provided by an independent company. Their website address www.lcptracker.net may be accessed for general information and an introductory product tour.

The Contractor and all subcontractors must submit all certified payrolls via the LCPtracker system. The Contractor and each subcontractor will be given a **special Log-On identification number** and a **password** to access the City's reporting system. The Contractor shall contract with LCPtracker for the entire duration of project construction.

Effective July 1, 2020, the monthly charge to Contractors is \$196.00 for all contracts valued at or below five million dollars. Contractors will be charged \$356.00 monthly for contracts above that amount. This monthly charge will be assessed until the City files a project notice of completion. The Contractor's first payment is due within 30 days of the Notice to Proceed date. Subsequent payments are due every thirty days or the 20th of the month, whichever comes first. Remittances should be made payable to the City of Oakland (reference project number and the month for which the payment is being made) and sent to the City of Oakland, City Administrator's Office, Contracts and Compliance Unit, Social Equity Division 250 Frank H. Ogawa Plaza, Suite 3341, Oakland, Ca 94612. Subcontractors will not be charged for this service.

The advantages to this required service are:

- elimination of inaccurate certified payroll submittals;
- elimination of the need to submit hard copies of certified payrolls;
- identification of prevailing wage irregularities;
- at-a-glance assessment of compliance with the Local Employment Program (LEP) and the 15% Apprenticeship Program; and
- the elimination of potential delays in progress payments resulting from rejected certified payroll(s).

To assist contractors and subcontractors in this process, on-line training is available via the LCPtracker website. Also, a City computer with online capability to access LCPtracker is available, as needed, Monday through Friday between the hours of 10:00 am and 4:30 pm. To arrange additional training on the use of LCPtracker or to use the City's computer, the Contractor's payroll resource (staff or business service) may contact the City Administrator's Office, Contracts and Compliance Unit, Contract Compliance Office at 250 Frank Ogawa Plaza, 3rd Floor, Suite 3341, telephone (510) 238-2970.

While the submission of hard copies of certified payrolls is no longer necessary with the implementation of this program, contractors and subcontractors will continue to be required to submit a signed, original affidavit made under penalty of perjury that states that the information contained in each submitted LCPtracker payroll record is true and correct.

Electronic submittal of weekly payroll information is consistent with California Department of Industrial Relation Public Works payroll reporting requirements.

Payment: The Contractor shall absorb in the bid all costs incurred from these electronic payroll submission requirements.

ADD NEW SUBSECTION 7-2.2.2 TO READ:

7-2.2.2 Electrical Workers Safety Requirement. Enhanced Electrical Safety Requirements are required

for all worksite electrical labor. For all capital improvement contracts where the electrical scope of work is \$100,000 or more, the project must comply with the following requirements for electrical safety enhancement:

- 70% of all "Journey-level Electricians" must be graduates of a State of California approved Electrical Apprenticeship Program.
- 20% of the jobsite electrical workers must be OSHA 10-hour Construction Industry Safety and Health Certified.
- At least one jobsite electrical worker must be OSHA 30-hour Construction Industry Safety and Health Certified.

The above workforce ratios are determined by verifying the workforce composition on a daily basis. The Contractor will be required to certify their compliance by completing and submitting information via forms provided by the Resident Engineer.

ADD NEW SUBSECTION 7-2.2.3 TO READ:

7-2.2.3 Federal Wage Rates. The payment of predetermined minimum wages on Federal-aid contracts is derived from the Davis-Bacon Act of 1931 and is prescribed by 23 USC 113.

Federal wage rates are not required to be physically included in the contract advertising package provided they are referenced to an Internet web site address where they can be found. However, these wage rates must be physically inserted in the final contract package signed by the City and the contractor on all Federal-aid highway construction projects exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempted.

The federal minimum wage rates are available directly from the Department of Labor Home Page under www.gpo.gov/davisbacon. Click on "Browse all determination by State" then click on "California." For conformance with the federal "10-day rule," the City shall access the federal wage rates within ten days prior to bid opening to see if updated rates have been posted. If the updated wage rates have been posted, the City shall to issue an addendum. Addenda are issued only to official plan holders of the Bid book (those who have directly obtained the bid book from iSupplier or CIPList.com).

REPLACE SUBSECTION 7-3 WITH THE FOLLOWING:

7-3 INSURANCE

7-3.1 City of Oakland Insurance Requirements.

The Contractor shall procure, prior to commencement of service, and keep in force for the term of this contract, at Contractor's own cost and expense, the following policies of insurance or certificates or binders as necessary to represent that coverage as specified below is in place with companies doing business in California and acceptable to the City. The insurance shall at a minimum include as per Schedule Q in Appendix B.

7-3.2 General Liability Insurance.

DELETE SUBSECTION 7-3.2. INSTEAD REFER TO SUBSECTION 7-3.1.

7-3.3 Workers' Compensation Insurance.

DELETE SUBSECTION 7-3.3. INSTEAD REFER TO SUBSECTION 7-3.1.

7-3.4 Auto Liability Insurance.

DELETE SUBSECTION 7-3.4. INSTEAD REFER TO SUBSECTION 7-3.1.

ADD NEW SUBSECTION 7-3.5 TO READ:

7-3.5 Responsibility for Damage. The City and/or its Council, and/or its employees, shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or to any material or equipment used in performing the work; or for injury or damage to any person or persons, either employers, workmen, or the public; or for damage to property or loss or use thereof from any cause whatsoever during the progress of the work or at any time before final acceptance.

To the extent not otherwise prohibited by Section 2782 of the Civil Code of the State of California, the Contractor shall indemnify and save harmless the City of Oakland, its Council, officers and employees, from any suits, claims or actions brought by any person or persons, or corporations, or other entities for or on account of any bodily injuries or disease or illness, or damages of any nature, however caused, and regardless of responsibility for negligence, sustained as a result of or arising within the work. The City Council may retain

as much of the money due to Contractor as shall be considered necessary until disposition has been made of such suits or claims for damages as aforesaid.

Neither the City Administrator, Council, the City Engineer, the OPW Director, nor any other officer or authorized assistant or agent of the City shall be personally responsible for any liability arising under the contract.

The City shall not be held responsible for the care or protection of any material or parts of the work prior to final acceptance, except as expressly provided in these specifications.

CHANGE SUBSECTION 7-5 TO READ:

7-5 PERMITS AND LICENSES. The Contractor shall procure all permits and licenses, pay all related charges and fees for any required permit or license, and give all notices necessary and incidental for the due and lawful prosecution of the work. All charges and fees for any required permit or license shall be included in the base bid for the project.

7-6 THE CONTRACTOR'S REPRESENTATIVE.

ADD THE FOLLOWING TWO PARAGRAPHS TO THE END OF SUBSECTION 7-6:

The Contractor's representative shall be an employee of the Contractor and shall be present at the work site at all times while work is in progress. The Contractor's representative shall personally supervise the work of all subcontractors. At a minimum, the Contractor's representative must be onsite at the beginning and end of each workday to coordinate the Contractor's workforce and receive instructions from the Agency. The Contractor may be fined \$500 per day for every day in violation of this Subsection. In addition, the Contractor's failure to provide a representative with authority to direct all facets of the work shall be grounds for suspending the work. Contract time shall continue to run if the Agency suspends the work for violation of this Subsection. When work is not in progress and during periods of work suspension, arrangements acceptable to the Agency shall be made for performance of emergency work when required.

7-7 COOPERATION AND COLLATERAL.

ADD THE FOLLOWING TWO PARAGRAPHS TO THE END OF SUBSECTION 7-7:

The Contractor shall notify the City of Oakland Sewer Maintenance Section at (510) 615-5566 when a building sewer / lateral is connected so that a sewer maintenance representative can inspect it.

The Agency and each utility company reserves the right to enter upon any street or easement for the purpose of making changes, new installations, repairs, or performing maintenance work.

7-8 WORK SITE MAINTENANCE.

7-8.1 General.

ADD THE FOLLOWING TO THE END OF SUBSECTION 7-8.1:

The Contractor's failure to comply with the Engineer's cleanup orders may result in the City having the cleanup work done by others. The Contractor shall bear all costs incurred by the City in having the work done.

The Contractor shall take all necessary measures to ensure that materials from the job site identified in the project Waste Reduction and Recycling Plan (WRRP) are recycled.

The Contractor shall provide daily reports. The daily reports will require the Contractor to provide status of labor, equipment, traffic control, maintenance efforts of BMPs and SWPPPs, and work plan ahead. The Contractor shall drive the work site daily for the reports. Failure to complete this on a daily basis will result in a fine of \$250 per day.

7-8.2 Air Pollution Control.

ADD THE FOLLOWING TO THE END OF SUBSECTION 7-8.2:

The use of water resulting in mud on public or private paved surfaces will not be permitted as a substitute for sweeping or other methods. The Contractor shall sweep the streets within the project area with a power pickup sweeper at least once daily, or as directed by the Engineer, for the duration of the project. A Wet/Dry vacuum shall be used to vacuum sawcut slurry.

7-8.4.1 General.

ADD THE FOLLOWING TO THE END OF THE SECOND PARAGRAPH:

Excess excavated material from trenches, structures, general excavation and maintenance Holes and similar structures shall be removed from the site immediately.

ADD THE FOLLOWING TO THE END OF SUBSECTION 7-8.4.1:

The Contractor shall take all necessary measures to ensure that materials from the job site identified in the project Job Site Recycling and Waste Reduction Plan are recycled.

ADD SUBSECTIONS Section 7-8.5.3

Section 7-8.5.3 Overflow Emergency Response Plan

Constructor shall submit an Overflow Emergency Response Plan (OERP) to the City for review and approval.

Contractor shall refer to the City of Oakland Overflow Emergency Response Plan for information and requirements.

The reference of the OERP on the City's website is at

<https://www.oaklandca.gov/documents/2019-asset-management-implementation-plan-and-sewer-system-management-plan>,

2019 Asset Management Implementation Plan and Sewer System Management Plan, Appendix C (page 144) – City of Oakland Overflow Emergency Response Plan (OERP).

Contractor shall complete attachment 17 and submit to the City for review per each sewer overflow occurrence.

REPLACE SUBSECTION 7-8.6 WITH THE FOLLOWING:

7-8.6 Water Pollution Control.

7-8.6.1 General. The intent of these requirements is to enforce federal, state, and other local agency regulation prohibiting storm water pollution from construction sites. The storm drain system discharges directly to creeks and the San Francisco Bay without treatment. Therefore, pollutant discharge into the storm drain system is strictly prohibited. Here pollutant discharge means any substance, material, or waste, and discharges NOT permitted under the National Pollutant Discharge Elimination System regulated by the State of California Regional Water Quality Control Board or the United States Environmental Protection Agency other than uncontaminated stormwater.

The Contractor shall conform to all applicable local, state and Federal regulations and laws pertaining to water pollution control including the City of Oakland's Creek Protection, Stormwater Management and Discharge Control Ordinance. As applicable, the Contractor shall obtain water pollution control permits including, but not limited to, the State Water Resources Control Board Construction General Permit (Construction General Permit), and the City of Oakland Creek Protection Permit and Temporary Storm Water Discharge Permit, and shall file all relevant and required documents including, but not limited to, the Construction General Permit Stormwater Pollution Prevention Plan, Rain Event Action Plans, Inspection, Monitoring and Annual Reports, and the City of Oakland Creek Protection Plan and Hydrology Report. The Contractor shall conduct and schedule operations and follow and implement Best Management Practices (BMPs) in such a manner as to prevent water pollution. The Contractor shall also conform to the following requirements:

- 1) Sediments shall not be discharged to a storm drain system or receiving waters. In this subsection, the term "storm drain system" shall include storm water conduits, storm drain inlets and other storm drain structures, street gutters and paved surfaces. In this subsection "receiving waters" shall include channels, watercourses, creeks, lakes, the Oakland Estuary, and the San Francisco Bay.
- 2) Sediments generated on the Work site shall be contained on the Work site using appropriate BMPs. Avoid using BMPs made with plastic netting or fixed aperture netting, especially when placing final site stabilization BMPs. Wildlife-friendly products made from made of biodegradable natural materials are widely available.
- 3) No construction-related materials, waste, spill or residue shall be discharged from the Work site to streets, drainage facilities, receiving waters or adjacent property by wind or runoff.
- 4) Non-storm water runoff from equipment, vehicle washing or any other activity shall be contained within the Work site using appropriate BMPs.
- 5) Erosion shall be prevented. Erosion-susceptible slopes shall be covered, planted or otherwise protected in a way that prevents discharge from the Work site.

7-8.6.2 Best Management Practices (BMPs). For the purpose of eliminating stormwater pollution, the

Contractor shall implement effective control measures known as Best Management Practices (BMPs). BMPs include schedules of activities, prohibition of practices, general good housekeeping practices, operational practices, pollution prevention practices, maintenance procedures, and other management procedures to prevent pollutant discharge directly or directly into the storm drain system. BMPs also include the construction of some facilities that may be required to prevent, control, and abate stormwater pollution.

The Contractor shall implement and maintain such BMPs as are relevant to the work, and as are specifically required by the Construction General Permit, Plans, or Special Provisions. The Contractor shall be responsible throughout the Contract duration for installing, constructing, inspecting, maintaining, removing and disposing of BMPs for wind erosion control, tracking control, erosion and sediment control, non-storm water control, and waste management and materials pollution control. Unless otherwise directed by the Engineer, the Contractor shall be responsible for BMP implementation and maintenance throughout any temporary suspension of the Work. Guidance for appropriate implementation of BMPs can be found in the Reference Publications listed in 7-8.6.5.

7-8.6.3 Storm Water Pollution Prevention Plan (SWPPP). When so specified in the Special Provisions, or if so required by the Construction General Permit or by a City of Oakland permit, the Contractor shall prepare and submit per 2-5.3 a Storm Water Pollution Prevention Plan. The SWPPP shall conform to the requirements specified in the Special Provisions and those of the jurisdictional regulatory agency. The Construction General Permit Notice of Intent will be filed by the City.

7-8.6.4 Dewatering. Dewatering shall be performed by the Contractor when specifically required by the Plans or Specifications, and as necessary for construction of the Work. Dewatering shall be performed in conformance with all applicable local, state and Federal laws and permits issued by jurisdictional regulatory agencies. Permits necessary for treatment and disposal of accumulated water shall be obtained by the Contractor or the Agency as specified in the Special Provisions. Accumulated water shall be treated prior to disposal if so specified in the Special Provisions or required by a permit. The contractor shall submit a working drawing and related supporting information per 2-5.3 detailing its proposed plan and methodology and treatment and disposal of accumulated water. To the maximum extent practical, the Contractor shall reuse non-toxic, de-silted water for other onsite needs, such as dust control and irrigation.

The plan shall identify the location, type and size of dewatering devices and related equipment, the size and type of materials composing the collection system, the size and type of equipment to be used to retain and, if required, treat accumulated water, and the proposed disposal locations. If the proposed disposal location is a sanitary sewer, the Contractor shall submit to the Engineer written evidence of permission from the owner. If the proposed disposal location is a storm drain system or receiving body of water, the Contractor shall submit written evidence of permission from the owner of the storm drain system and, if not obtained by the Agency, original signed permits from jurisdictional regulatory agencies or written evidence that such permits are not required.

7-8.6.5 Reference Publications.

Reference publications are as follows:

1. California State Water Resources Control Board (SWRCB) Construction General Permit Order 2009-009-DWQ (As amended by 2010-0014-DWQ and 2012-006-DWQ). Available at: http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml
2. Construction BMP Online Handbook. California Stormwater Quality Association(January 2015). Available at: <https://www.casqa.org/resources/bmp-handbooks/construction> (subscription required)
3. City of Oakland Creek Protection, Stormwater Management, and Discharge Control Ordinance and Guide to Oakland's Creek Protection Ordinance. Available at: <http://www2.oaklandnet.com/government/o/PWA/o/FE/s/ID/OAK024740>
6. Manual of Standards for Erosion and Sediment Control Measures. Association of Bay Area Governments (ABAG) Available at: <https://store.abag.ca.gov/environment.asp#ec1>
7. Stormwater Quality Handbooks. California Department of Transportation. Available at: <http://www.dot.ca.gov/hq/construc/stormwater/manuals>
8. Start at the Source. Bays Area Stormwater Management Association. Available at: <http://www.scvurppp-w2k.com/pdfs/0910/StartAtTheSource.pdf>

7-8.6.6 Material Storage. Storage and exposure of raw materials, by-products, finished products, and

containers shall be controlled as described below:

All construction materials shall be stored at least ten feet away from inlets, catch basins, and curb returns. The Contractor shall not allow any material to enter the storm drain system. Measures shall be taken to maintain a neat and protected pile. At the end of each working day, the Contractor shall collect and dispose of all scrap, debris, and waste material excluding materials set aside for recycling and salvage. Materials set aside for recycling and salvage shall be delivered to the recycling station within five days.

Materials that can contaminate rainwater or be transported by storm water or other runoff to the storm drain system require special storage. During wet weather or when rain is forecast, the Contractor shall store such materials inside a building or cover them with a tarp or other waterproof material secured with weighted tires or sandbags to prevent contact with rain (i.e., cover and berm).

The Contractor is reminded that 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.

7-8.6.7 Pavement Saw Cutting Operations. The Contractor shall prevent any saw cutting debris from entering the storm drain system. The Contractor shall preferably use dry cutting techniques and sweep up residue. If wet methods are used, the Contractor shall vacuum slurry as cutting proceeds or collect all wastewater by constructing a sandbag sediment barrier. The bermed area shall be of adequate size to collect all wastewater and solids. The Contractor shall allow collected water to evaporate, as approved by the Engineer, if the wastewater volume is minimal and if maintaining the ponding area does not interfere with public use of the street area, create a safety hazard, or does not create standing water that remains longer than 72 hours. If the Engineer approves, the Contractor may direct or pump saw cutting wastewater to a dirt area for infiltration. This dirt area shall be adequate to contain all the wastewater. After wastewater has infiltrated, all remaining saw cutting residue must be removed and disposed of properly.

With the approval of East Bay Municipal Utility District (EBMUD) and 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 Engineer's approval the Contractor shall filter the saw-cutting wastewater through filtering materials and methods meeting the water quality standards in the Construction General Permit.

7-8.6.8 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 Best Management Practices:

- a. No paving during wet weather.
- b. Store materials as required by 7-8.6.6.
- c. Cover inlets and maintenance Holes when applying asphalt, seal coat, tack coat, slurry seal, fog seal, etc.
- d. 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.
- e. Sweep work site daily to prevent sand, gravel or excess asphalt from entering, or being transported by rain, into the storm drain system. The contractor shall use water and sweeper trucks on a daily basis including weekends to maintain the site. Failure to maintain site cleanliness will result in a fine of \$500 per location per day.
- f. Keep ample supplies of drip pans or absorbent materials on-site.
- g. If paving involves portland cement concrete, refer to 7.8.6.6.

7-8.6.9 Concrete Operations. The Contractor shall prevent pollutant discharge from concrete operations by using measures to prevent run-on and runoff pollution, by properly disposing of wastes, and by implementing the following BMPs:

- a. Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.
- b. Avoid mixing excess amounts of portland cement materials.
- c. 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 to the storm drain system. For on-site washout:
 - i. Locate washout area at least 50 feet from storm drains, open ditches or other water bodies, preferably in a dirt area. Prevent runoff from this area by constructing a temporary pit or bermed

- area large enough to store the liquid and solid waste.
- ii. Wash out concrete wastes into the temporary pit where the concrete can set, be broken up and then disposed of properly. If the water volume greater than what will allow concrete to set, allow the wash water to infiltrate and/or evaporate, if possible. Otherwise, allow wash water to settle, then filter and pump it to the sanitary sewer with approval from EBMUD and the Engineer. Remove or vacuum the remaining silt and debris from the ponding or bermed area and dispose of it properly.
- d. Dispose of wastewater from exposed aggregate washing to a dirt area adequate to contain all the wastewater. Once the wastewater has infiltrated, remove any remaining residue. If a suitable dirt area is not available, filter the wash water through straw bales or other filtering materials meeting the water quality standards in the Construction General Permit.
- e. Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in a trash container.

7-8.6.10 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 in accordance with the water quality standards in the Construction General Permit.

At a minimum, the Contractor shall install filter materials (such as sandbags, filter fabric, etc.) at storm drain inlet(s) located in and downstream of the project site. These materials must be in place between October 15 and April 15 and also when rain is forecast within 24 hours. The Contractor shall install filter materials or seal all surface inlet openings during the dry season or if there is potential for sediment or excavated material to be discharged to the storm drain system during the construction operation (e.g. sediments and debris tracked by construction vehicles, wind-blown, or transported by runoff). The storm drain inlets shall be sealed such that they can be opened in an emergency and unblocked at the end of each working day, so that no property is damaged as a result of accidents or overflows.

Sedimentation and erosion control/filter materials shall be placed in a manner to restrain any debris or sediment from flowing into the storm drain system. Said materials or control devices shall also be maintained and/or replaced as necessary to ensure effective sediment control and to prevent flooding.

7-8.6.11 Spill Prevention and Control. The Contractor shall take all precautions to prevent accidental spills during construction. However, in the event of a spill, the Contractor shall immediately contain any leaks/spills to prevent them from entering the storm drain system. The Contractor shall properly clean up and dispose of spilled wastes and resulting clean-up materials. If the spilled waste is hazardous, the Contractor shall comply with all federal, state and local hazardous waste requirements.

- a. The Contractor shall not wash any spilled material into the streets, gutters, storm drains, or creeks.
- b. The Contractor shall report any hazardous materials spill immediately to the Oakland Fire Department, the Alameda County Hazardous Materials Division and other state and local agencies as required by state and local regulations.

7-8.6.12 Vehicle/Equipment Cleaning. The use of soaps, solvents, de-greasers, steam cleaning equipment or equivalent methods for vehicle or equipment cleaning on-site or in the street is not permitted. Vehicle or equipment may be cleaned only with water in a designated, bermed area of adequate size. Rinse water may not runoff site or into the storm drain system. The rinse-water shall be permitted to infiltrate in dirt area or shall be discharged to the sanitary sewer with the approval of EBMUD and the Engineer.

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

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

7-8.6.13 Contractor Training And Awareness. The Contractor shall train all employees on the water pollution prevention requirements contained in these specifications. 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 mark all new catch basins constructed as part of the project with stainless steel storm drain markers with the logo "No Dumping: Drains to the Bay". Storm drain markers are available from the

Engineer.

7-8.6.14 Good Housekeeping Practices. The Contractor shall implement the following applicable good housekeeping practices.

- a. Store all materials that have the potential to be transported to the storm drain system by storm runoff or by a spill under cover in a contained area or in sealed waterproof containers.
- b. Use ground tarps to collect fallen debris or splatters that could contribute to storm water pollution.
- c. Secure opened bags of cement, and other light materials or powders that can be transported by wind.
- d. Pick up litter, construction debris and other wastes daily from outside areas including the sidewalk area, gutter, street pavement and storm drains impacted by the project. Store all wastes in covered containers or dispose of immediately. Arrange for appropriate collection of those materials separated for recycling.
- e. Dispose of wash water to the sanitary sewer with the approval of EBMUD and the Engineer or recycle wash water. Refer to 7-8.6.9.
- f. Inspect vehicles and equipment arriving on-site for leaking fluids and promptly repair leaking vehicles and equipment. Use drip pans to catch leaks until repairs are made.
- g. Avoid spills by handling materials carefully. Keep a stockpile of spill materials, such as rags or absorbents, readily accessible on-site. Clean up all spills immediately to prevent any material from being discharged to the storm drain system. Refer to 7-8.6.11.
- h. Train employees regularly on good housekeeping practices and BMPs. Assign specific employees responsibility for BMPs, good housekeeping practices, and actions to take in the event of a spill. Refer to 7-8.6.13.
- i. Maintain and replace all sediment and water pollution control devices as necessary to ensure that said controls are working effectively (e.g. inspect all sediment ponds or sandbag sedimentation/filtering systems after each rain. Remove accumulated sediment and debris and replace or repair damaged sandbags immediately.)

7-8.6.15 Payment. Unless otherwise specified in the Special Provisions, payment for implementation and maintenance of BMPs, implementing SWPPP measures and other work of this section (except dewatering) shall be deemed included in the price paid for associated contract bid items, and no additional payment shall be made therefor. Payment for dewatering shall be as specified in the Special Provisions.

7-8.6.16 Enforcement. Various sections of the Oakland Municipal Code enforce subsection 7-8.6. City enforcement may include, but is not limited to: citations, abatement orders, bills for City cleanup costs and administration, civil suits, and criminal charges. City enforcement actions do not void or suspend any enforcement actions by other agencies. At a minimum, the Contractor shall implement the storm water Clean Water Program BMPs listed in 7-8.6.2 General, or implement equally effective alternatives approved by the Engineer on all projects within the City of Oakland.

ADD NEW SUBSECTION 7-8.7 TO READ:

7-8.7 Removal of Graffiti. The contractor shall maintain a worksite free of graffiti. All new improvement under the subject contract and all on-site equipment and materials including but not limited to trailer, barricade, k-rails, excavator, loader, truck, storage bin, signage, etc. free of graffiti. Contractor shall remove all graffiti on such equipment and improvements within 24 hours of occurrence. Unless otherwise specified in the Bid Schedule, the costs for all labor, tools and equipment, and for implementation of all work involved in the removal of graffiti shall be considered as included in the payment made for other items of work, and no separate payment shall be made therefor. Should the Contractor fail to keep the new improvement under the subject contract and equipment and materials free of graffiti, the Engineer may suspend the Work per 6-3 until the graffiti is removed or abated.

In addition, the contractor shall maintain all existing improvement in the public right-of-way in the vicinity of the job site free of graffiti. If directed by the Engineer in writing, the Contractor shall remove all graffiti within 24 hours of occurrence. The costs associated with the implementation of all work involved in the removal of graffiti shall be considered as extra work subject to the Engineer's written approval. Should the Contractor fail to keep the existing improvement in the public right-of-way free of graffiti, the Engineer may suspend the Work per 6-3 until the graffiti is removed or abated.

ADD NEW SUBSECTION 7-8.8 TO READ:

7-8.8 Contractor's Identification. At all times the Contractor shall, at its expense, provide for the proper identification of its work to the public. This identification shall include the Contractor's name and telephone number and shall be printed on barricades used on the job. The contractor shall provide 72 hours advance notice before entering private property to perform contract work.

CHANGE SUBSECTION 7-9 TO READ:

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS. The Contractor shall be responsible for the protection of public and private property adjacent to and along the line of work. The Contractor shall exercise due caution to avoid damage to such property. Before submitting a bid the Contractor shall verify and document the condition of existing improvements that may be damaged or removed by construction operations.

The Contractor shall repair or replace all existing improvements within the right-of-way (e.g. curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavements, structures, pavement markings and traffic striping, etc.) that are damaged or removed as a result of its operations. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension. The Engineer may require replacements to be installed at locations other than the location where the existing improvements were removed.

The Contractor shall immediately notify the Engineer and the Electrical Division at (510) 615-5430 of any damage to any traffic signal, street light equipment or City electrical facilities. City Electrical Division forces shall temporarily repair damage to traffic signal equipment or facilities caused by the Contractor's operations. The Contractor shall coordinate with the Electrical Division to make permanent repairs to traffic signal or street lighting facilities within five (5) days of damage. All repair work will be inspected and shall conform to Electrical Division requirements and details of the Standard Plans. If the Contractor does not proceed with or complete repairs within the allotted time, the Engineer may order the work completed by City forces or by another licensed electrical contractor. Should this occur, the Contractor will be billed for any necessary repair work by others, including administrative costs. Repair costs may be deducted from Contractor's progress payment if not paid within thirty days of billing date.

Trees, lawns, and shrubbery that are not to be removed shall be protected from damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be replaced with sod, unless otherwise approved by the Engineer.

Unless shown on the plans, no trees shall be removed. Trees, limbs, and roots within the project area that interfere with the Contractor's operations may be trimmed, with authorization from the Engineer. Only a qualified arborist or tree surgeon shall perform tree trimming. Prior to any trimming being performed, the Contractor shall submit to the Engineer, for review, the qualifications of the proposed arborist or tree surgeon. Any tree roots one inch or greater in diameter which have to be removed or are damaged during construction operations shall be saw-cut evenly and shall be treated with a heavy coat of commercially available water base asphalt emulsion sealing compound.

The Contractor shall give reasonable notice to occupants or property owners to permit them to salvage or relocate plants, trees, sprinklers and other improvements within the right-of-way that will be destroyed because of the construction work.

The Contractor shall absorb in the bid all costs for protecting, removing, and restoring existing improvements and other work of this subsection.

7-10 SAFETY.

ADD THE FOLLOWING TO SECTION 7-10:

Unless a separate lump sum bid item is included for traffic control, the Contractor shall absorb in the bid all costs incurred from the requirements of Section 7-10.

CHANGE SUBSECTION 7-10.2 TO READ:

7-10.2 Storage of Equipment and Materials in Public Streets. Construction materials may not be stored in streets, roads, or highways for more than five days after unloading. All materials or equipment not installed or used in the construction within five days after unloading shall be stored elsewhere by the Contractor at its expense unless the Engineer authorizes additional storage time.

Construction equipment shall not be stored at the work site before its actual use, nor for more than five days after it is no longer needed on the work. The Engineer may authorize additional storage time when

necessary for repair or assembly of equipment.

Excavated material, except that to be used as backfill in the adjacent trench, shall not be stored in private properties, public streets, roads, or highways for any period of time and shall be removed and disposed of immediately from the site. Only Engineer-approved excavated backfill material shall be allowed to be stored. Such material storage at the work site or elsewhere shall only be allowed for a period not exceeding five calendar days after excavation. The storage site shall be subject to the Engineer's approval. After the backfill is placed, all excess material shall be removed from the site and disposed of immediately.

The Contractor shall maintain the flow of any surface runoff waters obstructed by the storage and/or materials stored in public streets in accordance with the above provisions and 7-8.6.

7-10.4 Safety.

7-10.4.1-2 Safety Orders.

ADD THE FOLLOWING SENTENCE AT THE END OF THE FIRST PARAGRAPH:

The Contractor shall have a Competent Person, as described by CAL/OSHA regulations, present at the worksite at all times during construction.

REPLACE THE SECOND PARAGRAPH WITH THE FOLLOWING:

Before excavating any trench 5 feet or more in depth, the Contractor shall submit a detailed plan to the Engineer showing the design of shoring, bracing, sloping, or other provisions to be made for the workers' protection from the hazard of caving ground during the excavation of such trench. The Contractor shall submit the shoring plan in advance of any excavation. If such plan varies from the shoring system standards established by the Construction Safety Orders for the Division of Industrial Safety of the State of California, the plan shall be prepared by a registered civil or structural engineer licensed to practice in California. The Contractor is responsible for site safety. Nothing in this requirement shall be deemed to allow the use of shoring, sloping, or protective system less effective than that required by the Construction Safety Orders. Nothing in this requirement shall be construed to impose tort liability on the City of Oakland or any of its employees.

ADD THE FOLLOWING NEW PARAGRAPH AFTER THE SECOND PARAGRAPH:

The Contractor shall provide positive ventilation during work in existing sewerage facilities or while making connections to existing sewerage facilities. The Contractor's employees working in said facilities shall be provided with safety lines, harnesses, gas detectors, and other protective equipment as required by OSHA and CAL/OSHA.

7-10.4.4 Special Hazardous Substances and Processes.

ADD THE FOLLOWING TWO PARAGRAPHS TO THE END OF SUBSECTION 7-10.4.4:

Hazard Communication and Material Safety Data Sheets. The Contractor shall provide copies of current Material Safety Data Sheets (MSDS) to the Engineer for all chemical products used, handled, stored or transported to City property or project sites. The Contractor shall provide updated copies of such MSDS to the Engineer within 15 days of the Contractor's receipt of such updated copies.

Asbestos and Lead-Based Paint. The contract documents indicate the locations of any known or presumed asbestos-containing materials and lead-based paint in proposed work areas. Only those Contractors with the required Cal/OSHA training, certification and permits for asbestos abatement and removal and/or lead abatement and removal will be allowed to handle these materials.

7-10.4.5 Confined Spaces.

ADD NEW SUBSECTION 7-10.4.5 TO READ:

7-10.4.5.4 Additional City of Oakland Requirements: The following are considered confined spaces for the purposes of 7-10.4: all maintenance holes, lift stations, tanks, vaults, pipelines, some trenches and excavations, or other enclosed or partially enclosed spaces. Contractors are prohibited from entering such confined spaces for any reason and at any time, unless specifically authorized to do so in written contractual agreements. The Contractor is responsible for compliance with Cal/OSHA standards and regulations pertaining to confined space entries. The Contractor shall provide any required air monitoring equipment, safety equipment and emergency rescue devices for confined space entry. Contractors shall ensure that emergency rescue services are provided for their employees who may be involved in confined space entry and that such emergency services comply with applicable Cal/OSHA requirements.

ADD NEW SUBSECTION 7-10.4.6 TO READ:

7-10.4.6 Compliance with Laws. The Contractor will perform the Work and any other obligations under this Agreement in strict compliance with all applicable local, state and Federal laws, codes, standards and regulations.

7-10.4.6 a. Security. The Contractor shall maintain a daily log of all employees and Subcontractors present on-site. This log shall be used in an emergency to identify missing personnel. Contractor employees and Subcontractors must be logged in and out of the site each day.

A visitor is defined as any person not covered by contractual agreements with the City, excluding regulatory inspectors and compliance officers. Visitors may include vendors, tour groups or guests of the City of Oakland or the Contractor. All visitors to City facilities or properties must have prior written authorization from the Engineer. Visitors must be escorted by a Contractor supervisor or manager, or by City of Oakland personnel, at all times while on-site. Visitors are prohibited from contact with hazardous substances or materials on-site and are also prohibited from entering any area of the work site that requires personal protective equipment (PPE), respirators, or specialized safety equipment, medical monitoring or safety training.

Contractors shall immediately notify the Engineer of any other party who requests entry to City facilities or property. This includes requests from county, state or Federal government agencies.

7-10.4.6 b. Supervision. The Contractor will at all times be solely responsible for all means, methods, techniques, sequences and procedures of the Work, and the acts and omissions of all employees, Subcontractors and agents, and all other persons performing any of the Work.

7-10.4.6 c. Employee Training and Qualifications. The Contractor will provide only properly trained and qualified personnel to perform work under this Contractor Agreement. The Contractor will provide only employees who are trained in both general safe work practices and all applicable specific hazards of the Work.

7-10.4.6 d. Environmental, Health and Safety Requirements. The Contractor agrees that Contractor has been retained by the City of Oakland for reasons that include, but are not limited to, the Contractor's expertise with regard to safety and health hazards associated with the work to be performed by Contractor. The Contractor agrees that it has, and will have, sole responsibility for the health, safety, and welfare of its employees, Subcontractors, and agents performing Work under this Agreement. The Contractor has the authority and responsibility to control, and/or correct all hazards associated with the work to be performed by Contractor. If the Contractor becomes aware of a hazard that the Contractor contends was created or caused by the City, the Contractor must notify the City immediately in the case of an imminent hazard, and no later than five working days in all other cases. If the Contractor fails to do so, the Contractor agrees to assume all responsibility to control and/or correct the hazard as if the Contractor were the creator or the cause of the hazard.

1. *Safety Equipment.* Contractors must provide their own first aid supplies and emergency response equipment. The Contractor must certify that at least one employee on each work shift has current training in emergency first aid and cardiopulmonary resuscitation (CPR). The City does not supply air monitoring or sampling equipment, respiratory protection, personal protective equipment (PPE), fall protection equipment or other safety equipment to persons who are not City of Oakland employees. Contractors are required to provide their own tools and equipment and maintain their own PPE, respiratory protection, breathing air supplies, breathing air distributions systems, fall protection and other safety equipment and supplies.
2. *Lockout/Tagout and Control of Hazardous Energy.* At the pre-construction meeting the Contractor shall provide the Engineer with copies of its lockout and tagout procedures for control of hazardous energy related to City equipment and utilities involved in the Contractor's scope of work. The Contractor shall obtain permission and authorization from the Engineer before placing any lockout or tagout on City of Oakland equipment. Contractor employees must have their own individual locks and tags assigned to each employee for use in locking out and tagging out equipment required for their assigned work tasks, regardless of whether the City of Oakland also applies its own lockouts and tagouts. The Contractors shall ensure that lockout and tagout activities and control of hazardous energy comply with Cal/OSHA standards pertaining to these activities.
3. *Equipment and Utilities.* Contractors are prohibited from starting, stopping, or otherwise accessing or operating City of Oakland owned or leased equipment and utilities, unless specifically authorized to do so in written, contractual documents.

The City of Oakland will provide the Contractor with information, if any is in the City's possession, regarding the location of underground or above ground mechanical, electrical, gas, telephone, sewers, storm drains, water lines and other utilities that may be impacted by the nature of the Work; provided,

however, that the City makes no warranty regarding the sufficiency or accuracy of such information. The Contractor will promptly inform the City in writing if the Contractor believes any information provided by the City is inaccurate in any material respect, or if the Contractor encounters unexpected or previously unknown site conditions. The Contractor will become thoroughly familiar with the tolerances, dimensions and location of all such utilities. If necessary, the Contractor will contact representatives of utility companies and public agencies, and review plans and information, if any, provided by such representatives and agencies about the work site.

The Contractor will be solely responsible for any damage done by Contractor to such utilities during the Work. No repair of such damage will be included in the cost of the Work unless the Contractor could not have located such utilities prior to such damage by conducting the investigation required by this Agreement. In such event, the repair of such damage may be included in the cost of the Work by Change Order, as set forth in this Agreement.

4. *Welding and Other Hot Work.* Contractors are prohibited from welding, burning, cutting, or performing other "hot work" unless specifically authorized to do so in written contractual agreements. All hot work must comply with Cal/OSHA standards for these work activities, including those standards pertaining to hot work permits and safe handling of compressed gases.
5. *Injury and Illness Prevention Plan.* The Contractor shall develop and implement a written Injury and Illness Prevention Plan (IIPP) and Code of Safe Practices that specifically apply to the Contractor's scope of work and anticipated work activities. The IIPP and Code of Safe Practices must comply with Cal/OSHA standards, as applicable. Copies of the IIPP and Code of Safe practices must be provided at the pre-construction meeting.

7-10.4.6 e. Prohibited Acts. Contractor employees and Subcontractors are prohibited from bringing firearms, knives and weapons of any kind into City of Oakland facilities or onto City property, unless specifically authorized to do so in written contractual documents. The Contractor shall remove any person found in unauthorized possession of such devices on City facilities and property.

Threats and acts of violence or vandalism in the workplace are strictly prohibited. This includes, but is not limited to, threats to City personnel or vandalism/property damage to City of Oakland facilities, equipment, supplies or properties.

Contractor and Subcontractors are prohibited from scavenging or otherwise salvaging or removing any City of Oakland equipment, tools, waste materials or other property unless specifically authorized to do so in written contractual agreements.

7-10.4.6 f. Work Site, Material Storage and Disposal. The Contractor will perform the Work without interfering with City of Oakland employees or operations in areas around the work site. The Contractor shall secure and store all materials and supplies in a safe manner in accordance with local, state and Federal laws, standards and regulations. Contractors will on a daily basis, at their own expense, keep the work site and areas immediately adjacent thereto in an orderly and neat condition, clean and free from accumulation of waste materials and rubbish. Upon completion or termination of the Work, the Contractor will remove all waste materials, rubbish, temporary structures, tools, equipment and surplus materials from the work site.

Contractors are prohibited from using or accessing City of Oakland waste disposal systems unless specifically authorized to do so in written contractual documents. Contractors shall provide their own waste storage and disposal containers, store and dispose of all waste materials in a timely manner and in accordance with local, state and Federal environmental, health and safety laws, standards and regulations.

7-10.4.6 g. Incident Reporting. The Contractor shall immediately notify the Engineer of any occupational injury or illness, employee exposure to hazardous substances, vehicle accidents, property damage, or environmental spills or releases regardless of the severity of such incidents. The Contractor shall provide a written incident report to the Engineer within 24 hours of any such occurrence. The City of Oakland reserves the right to review Contractor incident investigations and/or perform the City's own investigation(s), for the sole purpose of verifying facts and protecting City of Oakland personnel and property.

REPLACE SUBSECTION 7-11 WITH THE FOLLOWING:

7-11 PATENT FEES OR ROYALTIES. The Contractor shall absorb in the Bid all patent fees or royalties on any patented article or process that may be furnished or used in the work.

The Contractor agrees to hold the City harmless from and to indemnify the City against any and all costs, attorneys' fees, and damages arising out of or connected with any claim, demand, action, lawsuit, judicial determination or judgment concerning infringement upon the rights of others, including patent rights, by the use of any article or process which may be furnished or used in the work. In the event of any such infringement claim, the Contractor shall notify the City within ten days of such claim, and keep the City advised of all

developments. The Contractor shall comply with all reasonable requests by the City for information and data in defense of such suit. The Contractor shall agree to defend any and all such claims, demands, actions and suits.

In the event that any equipment or process furnished or used in the work is determined by the City or by a Court to infringe upon the rights of a third party, the City shall in addition have the option of:

1. Replacing the equipment with non-infringing equipment;
2. Modifying the equipment or process to the extent required to avoid such infringement;
3. Continuing to use the equipment or process;
4. Receiving as partial compensation the refund of all monies paid to the Contractor.

In the event of replacement or modification, the amounts spent on such replacement or modification shall be charged against and be recoverable from the Contractor. Final payment to the Contractor by the City will not be made while any suit or claim remains unsettled.

The City may itself defend any such claim, demand, action or suit, and settle or take any other action it deems necessary or advisable in connection with any such claim, demand, action or suit.

7-12 ADVERTISING.

ADD NEW SUBSECTION 7-12.1 TO SUBSECTION 7-12:

7-12.1 Contract Information Signs. The Contractor shall supply, erect, and maintain two Construction Information Signs and one Barricade Sign per construction location as directed by the Engineer.

Attachment 9 and Attachment 9A at the end of these Special Provisions shows the requirements for these signs. Signs not conforming to these requirements will be rejected. These project signs shall be erected at locations as directed and approved by the Engineer prior to beginning construction. These signs shall be relocated, if necessary, as construction proceeds according to the Engineer's direction.

Payment: The cost for two Construction Information Signs with unlimited Barricade Signs shall be included with Bid Item 2 – Mobilization. This cost shall include material, labor, and incidentals and for relocation and any changes to the signs due to project time extension(s) and printing error.

ADD NEW SUBSECTION 7-12.2 TO SUBSECTION 7-12:

7-12.2 Door Hanger Notifications. The Contractor shall print a sufficient number of door hangers for notification to adjacent property owners. The text for these door hangers is provided in **Attachment 11** at the end of these Special Provisions. The door hangers shall be 4"x9.5" in size, two per 8.5"x11" sheet, 38 pound stock, and micro-perforated for easy, clean separation. Door hangers not conforming to these requirements will be rejected. The ink shall be forest green color on cream-colored card stock. Door hanger design will be discussed at the pre-construction meeting. The Contractor shall submit a sample printed door hanger design to the Engineer for approval before use.

Before distribution, the Contractor shall indicate on the door hanger the type of work to be performed, the anticipated work start date and the number of working days that will be required. The Contractor shall show a sample of the door hanger before the first batch is distributed to neighborhood buildings. The Contractor's workers shall place the door hangers on the doors of adjacent properties 72 hours before construction begins to alert neighborhood residents of the upcoming construction work. The contractor shall distribute the notices in accordance to the phases listed on the sample door hanger. For example, for street resurfacing projects the contractor shall distribute the notices two times, once for the concrete work and a second time for the street resurfacing work (including grinding and overlay work.)

Payment: Full payment for door hangers, including materials and labor shall be included in the price paid for other bid items, and no additional payment shall be made therefor.

7-13 LAWS TO BE OBSERVED.

ADD THE FOLLOWING TO THE END OF SUBSECTION 7-13:

Before submitting bids, all Contractors shall be licensed in accordance with the provisions of Chapter 8 of Division III of the Business and Professions Code of the State of California. The Contractor must be properly licensed as a contractor from contract award through Contract acceptance (Public Contract Code § 10164.)

ADD NEW SUBSECTION 7-15:

7-15 Violations and Fines. Contractor shall be subject to fines for any violations and/or breach of contract

provisions such as, but not limited to, improper traffic control, unapproved working hours, violations of BMP's for erosion control and storm drain protection, failure to maintain site cleanliness and dust control, construction safety and environmental health issues, improper construction staging and material storage, etc. Fines shall range from \$250 to \$2,500 per violation per day and will be determined at the sole discretion of the Resident Engineer. All assessed fines shall be deducted from the Contractor's Progress Payments.

All other provisions of the contract plans and specifications are independent of this subsection and remain applicable.

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.

9-1.1 General.

DELETE THE WORD "pipe" FROM THE 2nd SENTENCE OF THE FIRST PARAGRAPH OF SUBSECTION 9-1.1.

9-3 PAYMENT.

REPLACE SUBSECTION 9-3.2 WITH THE FOLLOWING:

9-3.2 Partial and Final Payment. The Engineer will, after award of contract, establish a monthly closure date for the purpose of making monthly progress payments. The Contractor may request in writing that such monthly closure date be changed. The Engineer may approve this request if it is compatible with the Agency's payment procedures.

Each month, the Contractor shall submit a draft invoice along with approximate measurements of the work performed up to the closure date and Attachment 13 (when required). Upon receipt of the draft invoice, the Engineer will review the draft invoice and estimate completed work based on the contract unit prices or as provided for in Section 9.2 within 5 business days. No such monthly estimate or payment shall be required to be made when, in the Engineer's judgment, the work is not proceeding in accordance with the contract provisions, or when the total value of the work done by the Contractor since the last monthly estimate amounts to less than Five Thousand Dollars (\$5,000).

When the work has been satisfactorily completed, the Engineer will determine the quantity of work performed and prepare the final estimate.

From each progress estimate, five percent (5%) will be deducted and retained by the Agency, and the remainder less the amount of all previous payment will be paid to the Contractor.

As provided for in Section 4590 of the California Government Code and Section 10263 of the California Public Contract Code, the Contractor may substitute securities for any monies withheld by the City to ensure contract performance. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the City, or with a State or federally chartered bank as the escrow agent, who shall pay such moneys to the Contractor upon satisfactory contract completion. Securities eligible for investment under this subsection shall include those listed in Section 16430 of the Government Code, or bank or savings and loan certificates of deposit.

The Contractor shall be the beneficial owner of any securities substituted for moneys by the City. These securities shall contain, as a minimum, the following provisions:

1. The securities amount to be deposited;
2. The terms and conditions of conversion to cash in case of the Contractor's default; and
3. Escrow termination upon contract completion.

The City shall value any Contractor-deposited securities. The City's decision on the securities value shall be final.

No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damages under 6-9.

9-3.2.1 Subcontractor Release of Retention. A Local Business Enterprise (LBE) Subcontractor may request full release of their portion of the General Contractor's retention held by the City of Oakland upon completion and tentative approval of all the LBE Subcontractor's work on the project. This provision shall be contingent upon the following conditions:

1. Payment and Performance Bonds remain in full force until completion and acceptance of the project as defined by the Standard Specifications for Public Works Construction and Special Provisions.
2. The LBE Subcontractor's work must be complete and conditionally approved by the Engineer. The LBE Subcontractor's work is deemed complete and approved if:
 - a. The General Contractor was allowed to advance the project beyond the LBE Subcontractor's work. For example, advancing from grading to paving or from asbestos abatement to painting and;
 - b. The LBE Subcontractor has complied with all provisions in the City of Oakland and Redevelopment Agency Small Local Business Enterprise Program, and the City of Oakland and Redevelopment Agency Local Employment Program for Public Works Contracts.
 - c. All work, including punch list work, is in full compliance with all applicable codes, contract plans and contract specifications.

3. Completion and conditional approval for purposes of this provision shall not signify acceptance of the work by the City of Oakland. The LBE Subcontractor's work shall continue to be subject to contract provisions covering warranty, and incomplete or defective work.
4. Release of any portion of the General Contractor's retention shall not constitute a release of any contract provisions governing the work.

To initiate the release of their retention, the LBE Subcontractor shall apply by letter to the General Contractor. The letter must include:

- A statement certifying that the LBE Subcontractor's work is complete and complies with all applicable codes, contract plans and contract specifications.
- The dollar value and the scope of work of the LBE Subcontractor's contract with the General Contractor.
- The dollar value of the LBE Subcontractor's retention held by the General Contractor.
- A payment summary indicating that full payment, except the City's retained amount, has been made to each of the LBE Subcontractor's subcontractors and suppliers. After the General Contractor verifies and certifies the above items, the General Contractor shall make a request to the City of Oakland to release a portion of the General Contractor's retention, as stated in 9-3.2 of the Standard Specifications for Public Works Construction, equal to the dollar value of the LBE Subcontractor's retained amount. Upon the City of Oakland's approval of this request, the retention will be released in the next scheduled progress payment. The General Contractor shall have three (3) business days after receipt to forward these funds to the LBE Subcontractor.

9-3.2.2 Subcontractor/Subconsultant/Supplier Payment Certification. The Contractor shall certify in writing that all subcontractors/ subconsultants/ suppliers have been paid for work and materials from previous progress payments received (less any retention) by the Contractor prior to receipt of any further progress payments. In the event the Contractor is unable to pay a subcontractor/sub-consultant/supplier until they receive a progress payment from the City, the Contractor shall pay all subcontractors/ subconsultants/ suppliers funds due from said progress payments within forty-eight hours of receipt of payment from the City. During and upon completion of the contract, the City may request monthly documentation to certify payment to subcontractors/ subconsultant/ suppliers. The City reserves the right to issue joint checks payable to both the Contractor and the subcontractor/ subconsultant/ supplier to insure proper payment. This provision in no way creates any contractual relationship between any subcontractor/ subconsultant/ supplier and the City or any liability on the City for the Contractor's failure to make timely payment to the subcontractor/ subconsultant/supplier.

In order for the City of Oakland to verify that all subcontractors, equipment owners and suppliers have been paid for work and materials from previous progress payments received, it will be necessary for the Contractor to fill out the monthly progress payment for Subcontractors, Equipment Owner Operators & Suppliers Form. This form must be attached to the Contractor's monthly request for payment invoice. Failure to do so will delay the progress payment to the Contractor. One copy of the form must also be sent to the City Administrator's Office, Contracts and Compliance Unit, Contract Compliance Division, Oakland, CA 94612. Telephone (510) 238-2970. These forms are available at the Contract Compliance Office.

The Engineer is authorized to withhold an amount from progress and final payments from Contractors who do not submit certified payroll reports for themselves or their subcontractors or are in non-compliance with the City of Oakland and Redevelopment Agency's Local Construction Employment Program and Resolution No. 57103 C.M.S. governing the payment of prevailing wages. The Contract Compliance Officer shall determine the withholding amounts.

9-3.2.3 Submittal of Certified Payrolls. It is required that contractors and their subcontractors submit weekly certified electronic payroll reports for all crafts covered under the contract provisions within five working days of the end of the payroll period. For tracking purposes the certified payroll records shall show the ethnic and gender breakdown of the workforce. The Contractor's failure to submit the required information may result in a monetary penalty in an amount not to exceed \$1,000 or one percent (1%) of the amount of the contract, whichever is less, for each working day of non-compliance, regardless of the number of separate acts of non-compliance by the contractor or subcontractor existing on a particular day.

As a condition to receiving progress payments, final payment and payment of retention on any and all projects on which the payment of prevailing wages is required, the contractor shall have provided to the City, along with its request for payment, all applicable and necessary certified payrolls and other required documents

for the time period covering such payment request. The City shall withhold any portion of a payment, including the entire payment amount, until certified payroll forms and other required LCP documents are properly submitted. In the event that certified payroll forms do not comply with the requirements of Labor Code Section 1720 et seq., or wage violations are identified by the City, the City will continue to hold sufficient funds to cover estimated wages and penalties under the contract.

9-3.2.4 Required Job Site Waste Reduction and Recycling Summary Report Form. The Contractor shall submit the proper form referenced in Subsection 4-1.1.3 Required Construction and Demolition Waste Reduction and Recycling. Failure to provide this report will result in withholding up to 5% of the contract amount to the Contractor.

9-3.2.5 Prompt Payment Transmittal Form. The Contractor shall provide a completed Prompt Payment Transmittal form with each payment request. A copy of this form is included in the Department of Contracting and Purchasing website under the heading "Forms and Schedules" <http://www2.oaklandnet.com/Government/o/CityAdministration/d/CP/s/FormsSchedules/index.htm>.

REPLACE SUBSECTION 9-3.3 WITH THE FOLLOWING:

9-3.3 Delivered Materials. In determining the amounts of a progress payment, the City may consider the invoiced value of acceptable materials delivered on the site or furnished and stored off the site, if such storage is within a 25-mile radius of the Oakland City Hall, Oakland, California, except for plant (nursery) material, for which said radius shall be 40 miles. In either case, the Contractor shall furnish evidence satisfactory to the City: (1) of the value of such materials; and (2) that such materials are under the exclusive control of the Contractor and have been paid for. Only materials to be incorporated in the project will be considered for purposes of partial payment. Partial payment shall not be construed as acceptance of such materials, nor relieve the Contractor from sole responsibility for the care and protection of such materials, nor relieve the Contractor from risk of loss to such materials from any cause including, but not limited to, theft, casualty, act of God, vandalism or levy by creditors, nor as a waiver of the right of the City to require fulfillment of all terms of the contract.

The Contractor shall submit, upon demand, invoices, bills of lading and other documentary evidence regarding material involved in progress payments, indicating thereon that such material is specifically assigned to this work, and shall submit documentary evidence of acceptable fire and extended coverage insurance for such material or acceptable certification that material is in storage in a bonded warehouse or at the approved site.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes all rejected material either unloaded, or not unloaded, from vehicles. No compensation will be allowed for disposing of rejected or excess material.

All material covered by partial payment made shall thereupon become the sole property of the City, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the proper storage, transportation, care, maintenance and protection of materials upon which payments have been made or the restoration of any damaged material, or as a waiver of the City's right to require the fulfillment of all contract terms.

9-3.4 MOBILIZATION.

ADD THE FOLLOWING PARAGRAPH TO SUBSECTION 9-3.4:

When mobilization is included as a bid line item, the bid amount shall not exceed 5% of the total contract amount.

ADD THE FOLLOWING SUBSECTION:

9-4 AS-BUILT DRAWINGS. The Contractor shall provide and keep up-to-date a complete "As-Built" record set of paper prints that shall be corrected daily and shall show every change from the original contract Drawings and Specifications. The "As-Built" shall show exact locations, types, and sizes of material and equipment installed. This set of prints shall be kept on the job site and shall be used only as a record set.

Final As-Built Drawings: On completion of the work, the Contractor shall provide the final, complete set of as-built drawings to the Resident Engineer.

The City will inspect "As-Built" Drawings at the time of the monthly payment review. If it is determined that "as-built" Drawings are not properly maintained, the City may withhold 5% of the contract price from the Contractor, in addition to any other withheld amounts.

PART 2 - CONSTRUCTION MATERIALS

Part 2 of the Special Provisions shall conform to Part 2 of the Standard Specifications except as modified herein.

Building materials containing asbestos are prohibited. Any specialized materials where asbestos is necessary shall be submitted to the City along with the Material Request Form for approval.

SECTION 200 -- ROCK MATERIALS

200-2 UNTREATED BASE MATERIALS.

200-2.2 Crushed Aggregate Base.

ADD THREE NEW PARAGRAPHS TO END OF SUBSECTION 200-2.2:

Aggregate may include or consist of material processed from reclaimed asphalt concrete, portland cement concrete, lean concrete base, cement treated base or a combination of any of these materials.

Untreated reclaimed asphalt concrete and portland cement concrete will not be considered to be treated with lime, cement or other chemical material for the purposes of performing the Durability Index test.

Payment: Full compensation for labor material, equipment and incidentals to deliver and compact the aggregate base to the limit specified in the plans and special provisions for Class 2 aggregate base shall be paid for other bid items of work involved, and no additional compensation will be allowed therefor.

200-2.4 Crushed Miscellaneous Base.

REVISE SUBSECTION 200-2.4.2 TO READ:

200-2.4.2 Grading. The material shall be uniformly graded and shall conform to the gradation of crushed aggregate base in 200-2.2.

200-2.4.3 Quality Requirements.

REVISE THE 1ST AND 2ND LINES OF TABLE 200-2.4.3 (A) TO READ:

<u>TEST</u>	<u>TEST METHOD</u>	<u>REQUIREMENTS</u>
R-Value ¹	California 301	78 min.
Sand Equivalent	California 217	26 min.

200-2.5 Processed Miscellaneous Base.

ADD THE FOLLOWING SENTENCE TO SUBSECTION 200-2.5 TO READ:

Processed Miscellaneous Base shall have an aggregate grading of 3/4" maximum, coarse.

200-2.5.3 Quality Requirements.

REVISE THE 1ST AND 2ND LINES OF TABLE 200-2.5.3 (A) TO READ:

<u>TEST</u>	<u>TEST METHOD</u>	<u>REQUIREMENTS</u>
R-Value ¹	California 301	55 min.
Sand Equivalent	California 217	25 min.

200-2.6 Select Subbase.

200-2.6.3 Quality Requirements.

REVISE TABLE 200-2.6.3 (A) TO READ:

<u>TEST</u>	<u>TEST METHOD</u>	<u>REQUIREMENTS</u>
R-Value ¹	California 301	40 min.
Sand Equivalent	California 217	15 min.

SECTION 201 -- CONCRETE, MORTAR AND RELATED MATERIALS

201-1 PORTLAND CEMENT CONCRETE.

201-1.1.4 Concrete Specified by Compressive Strength.

ADD THE FOLLOWING BETWEEN THE 5TH AND 6TH PARAGRAPHS OF SUBSECTION 201-1.1.4:

When directed by the Engineer in lieu of field-testing, a testing laboratory selected by the Engineer shall evaluate mix designs. Laboratory batch samples shall be made in accordance with ASTM C 192. The Contractor shall supply and deliver adequate samples of all material proposed for use at no cost to the Engineer. Mix designs shall be submitted to the Engineer at 35 days in advance of proposed use when laboratory evaluation is performed. At least six test cylinders shall be molded from laboratory trial batches. Cylinder testing shall be performed as follows:

The remaining	one at 7 days	one at 14 days	two at 28 days	two cylinders
shall be tested at the Engineer's direction.				

Concrete used for sidewalks, driveways, curbs, gutters and curb ramp construction shall be 2,500 psi mix in accordance with subsection 201-1. Concrete shall contain lampblack in the amount of one pound per cubic yard.

Payment: Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and doing all work involved for concrete tests of all concrete construction as shown on the plans, as required by the Standard Specifications and these Special Provisions, or as directed by the Engineer, shall be considered as included in the price bid for the other bid items, and no additional compensation shall be allowed therefor.

201-1.4 Mixing.

201-1.4.3 Transit Mixers.

ADD NEW ITEM TO LIST IN 7TH PARAGRAPH OF SUBSECTION 201-1.4.3:

- h) Time and date of batching and Revolution counter reading at time of batching and at time of discharge.

201-2 STEEL REINFORCEMENT FOR CONCRETE.

201-2.2.3 Welded Wire Reinforcement.

ADD THE FOLLOWING PARAGRAPH TO SUBSECTION 201-2.2.3:

Wire mesh used as reinforcement shall only be a flat sheet. Rolled mesh shall be permitted only when authorized by the Engineer.

201-6 CONTROLLED LOW STRENGTH MATERIAL (CLSM).

REPLACE SECTION 201-6 WITH THE FOLLOWING:

201-6.1 General and Quality Assurance.

201-6.1.1 Cementitious Material. CLSM shall be composed of a cementitious material, water and suitable native or imported soils as described in this section.

The cementitious materials shall be Portland cement. Fly ash may be substituted for cement provided the requirements of this section are met.

201-6-1.2 Mix Proportions. The appropriate CLSM mix proportions shall be determined by preparing test batches and testing trial cylinders in accordance with 201-6.2.

201-6.1 Strength and Density. CLSM shall have an unconfined compressive 28 day strength from 50 psi to a maximum of 150 psi and a density of 110 to 130 pounds per cubic foot.

201-6.1.4 Mixture. The mixture shall have a consistency such that the CLSM completely fills the space between the pipe and the excavated trench walls without bleeding or segregation of soil materials.

The CLSM mixture shall contain no particles larger than 3 inches.

201-6.1.5 Native and Imported Soils:

The soil shall be free of organic impurities.

The amount of material passing a #200 sieve shall not exceed 30 percent.

The plasticity index of the soil shall not exceed 3. The sand equivalent of the soil shall be at least 15. For native material with a sand equivalent between 10 and 15, approval shall be dependent on production and successful testing of a sample batch of CLSM.

During full-scale CLSM placement, the Engineer will take samples and perform tests to determine compliance with the specified unconfined compressive strength requirements.

201-6.2 Mix Design. The design of the CLSM mix shall be the responsibility of the Contractor, and

shall be subject to review and approval by the Engineer before a full-scale field mix is used. Mix shall result in a final product that meets the requirements of this section.

201-6.2.1 Submittals - Mix Design and Testing. CLSM mix shall be designed, in accordance with ASTM D4832-02 Standard Test Method for Preparation and Testing of Controlled Low Strength Material Test Cylinders. The CLSM used in test cylinders shall be prepared using the same equipment proposed for full-scale batching and mixing.

The testing laboratory shall submit certified copies of all laboratory trial mix reports to the Engineer.

CLSM shall not be used prior to the Engineer's review of test reports and approval of the mix design.

The minimum cement content for the mix design shall be 3 percent by dry mass of the soil.

Cementitious fly ash (Class C or F) may be used in the mix provided the strength and consistency requirements in 201-6.1 are met.

Air entraining admixtures may be used in the mix provided the strength and consistency requirements in 201-6.1 are met.

The CLSM shall be sampled according to ASTM D5971.

The following tests shall be conducted on the native soils proposed for use in preparing CLSM: ASTM D422 and ASTM D4318.

The following tests shall be conducted for each CLSM trial batch: ASTM D4832, ASTM D6023, ASTM D6024.

The Contractor shall submit the results of the laboratory testing program and the selected design mix for full-scale field production for review and approval by the Engineer. After acceptance, the batch and mix process or native soil source material shall not be changed without submitting new test information.

The Contractor shall provide a submittal showing the proposed methods to support the pipe during CLSM placement.

The Contractor shall provide a submittal showing the proposed methods to prevent pipe flotation during CLSM placement.

The Contractor shall provide a submittal detailing the proposed batching and mixing process including the following:

The proposed equipment and methods to process native soils into source material in compliance with 201-6.1.

The proposed staging and batch plant mixing areas relative to the work areas where the CLSM will be placed.

The proposed means of transport for mixed CLSM material from the batching and mixing area to the work where the CLSM will be placed.

201-6.3 Materials.

Cement shall conform to ASTM C150, Type II.

Cementitious fly ash (Class F or C) may be used in the mix provided that the strength and consistency requirements in 201-6.1 are met. The fly ash shall conform to ASTM C618 and shall not contain more than 3% carbon (low).

Air entraining admixtures may be used in the mix provided that the strength and consistency requirements in 201-6.1 are met.

Native soils used in the CLSM mix shall be predominantly granular and meet the requirements of 201-6.1.

Water shall be free from oil, salts and other impurities that would have an adverse effect on the quality of the CLSM.

201-6.4 Execution - Batching and Mixing, and Installation.

201-6.4.1 Batching and Mixing: Batch and mix the CLSM in the field with the processed native soils similar to that used in the trial mix program.

201-6.4.2 Installation:

Use sufficient shores or other supports to prevent soil from caving onto pipe. Remove soil fallen into trench before placing CLSM.

CLSM shall be placed on one side of the pipe and allowed to flow under until it is seen on the other side.

The CLSM shall be brought uniformly to the elevation as shown on the drawings.

Place CLSM between the trench bottom and 0.15 D above the bottom of the pipe as part of a single lift, where D is the diameter of the pipe.

The CLSM shall be placed so there is complete contact between the pipe and excavated pipe trench walls.

Prevent CLSM from entering bell holes before joint coating and testing are complete.

If CLSM is placed near a joint before application and testing of joint coating, place a blanket or cover over joint to prevent CLSM spatter onto joint area.

The support materials used to haunch the pipe and contain the CLSM during placement shall not exceed the compressive strength of the CLSM.

The Contractor shall take the necessary measures to prevent flotation of the pipe during CLSM placement.

CLSM shall not be placed when the air temperature is below 4°C (40°F). Allow CLSM to set before placing backfill above CLSM.

No equipment or traffic shall be allowed on the CLSM until the surface of the CLSM will withstand the weight of the equipment or traffic without displacement or damage. Suitability for load applications shall be determined by ASTM D6024.

If necessary to prevent displacement or damage, provide steel trench plates that span the trench or other means that prevent equipment or traffic contact with CLSM.

ADD NEW SUBSECTION 201-10 TO READ AS FOLLOWS:

201-10 MAINTENANCE HOLES, CLEANOUTS AND APPURTENANT MATERIALS.

Material quality, the manufacture process, and the finished sections shall be subject to the Engineer's inspection and approval. Such inspection may be made at the manufacture place and/or on the job site after delivery. The materials shall be subject to rejection at any time for failure to meet any of the Specification requirements even though samples may have been accepted as satisfactory at the manufacture place. Materials rejected after delivery to the job site shall be marked for identification and shall be removed at once from the job site. All materials damaged after delivery and prior to project acceptance by City shall be rejected, even if installed. The Engineer's judgment on the materials shall be final. The Contractor may attempt to make acceptable repairs on installed material(s), if the Engineer so agrees. However, the Engineer's judgment on the repairs' acceptability will be final. Unsatisfactory material shall be removed and replaced with satisfactory material entirely at the Contractor's expense. The Engineer may accept a certification indicating compliance with the specifications in lieu of inspection.

201-10.1 Materials.

201-10.1.1 Rock Base. Rock base shall conform to the requirements of 200-1.2 and shall be the $\frac{3}{4}$ " inch mix according to Table 200-1.2 (A).

201-10.1.2 Cement Mortar. Cement mortar shall conform to the requirements of 201-5.

201-10.2 Maintenance Holes

201-10.2.1 Cast-In-Place Concrete Maintenance Holes. Materials used in cast-in-place concrete maintenance Holes shall be as shown on the plans and in accordance with the applicable requirements of 201.

201-10.2.2 Pre-cast Maintenance Hole Sections. Pre-cast maintenance Hole sections, where not otherwise modified in the Plans, shall conform to ASTM C478 and meet the following requirements:

- a. The wall thickness shall not be less than 5 inches.
- b. All sections shall be fully cured and shall not be shipped nor subjected to loading until the design compressive strength has been reached.
- c. Pre-cast base sections shall have the base slab integral with the sidewalls. Pre-cast base sections may only be used if the invert plan and base alignment of the sewer connections exactly match the field-measured angles between the connecting sewers.

201-10.2.3 Maintenance Hole Bases. Materials used in cast-in-place concrete maintenance Hole bases shall be in accordance with the applicable requirements of Section 201. At the Contractor's option and with the Engineer's approval, pre-cast base sections with integral floor conforming to ASTM C478 may be used.

201-10.2.4 Pipe Connections. Pipe connections to maintenance Holes shall have a rubber waterstop tightly banded to the pipe and cast into the maintenance Hole base. Banding materials shall be 316 stainless steel or other approved corrosion resistant materials secured with Type 316 stainless steel nuts and bolts. See Section 500-1.6.7, Sealing Connections at Maintenance Holes, for HDPE pipe.

201-10.2.5 Maintenance Hole Extensions. Concrete grade rings for extensions shall be a maximum of six inches thick. In general, maintenance Hole extensions will be used on all maintenance Holes in roads, streets or other locations where a subsequent change in existing grade may be likely. Extensions will be limited to a maximum height of 12 inches.

201-10.2.6 Jointing Maintenance Hole Sections. Male and female joints of maintenance Hole sections shall be sealed with a round rubber "O" ring gasket or a preformed flexible joint sealant. The "O" ring shall conform to ASTM C443. The preformed flexible joint sealant shall conform to Federal Specifications SS-S00210, and shall be Kent Seal No. 2 as manufactured by Hamilton-Kent; Ram-Nek as manufactured by K. T. Snyder Company; or equal. The size of the preformed

joint sealant shall be as recommended by the manufacturer of the pre-cast maintenance Hole sections

201-10.3 Cleanouts. Cleanouts shall be as shown on the Plans or the Standard Details and shall be the same material type as approved for use in main or building sewer construction.

201-10.4 Lampholes. Lampholes shall be as shown on the Plans or the Standard Details and shall be the same material type as approved for use in main sewer or building connection sewer construction.

201-10.5 Appurtenant Materials.

201-10.5.1 Pipe and Fittings. Pipefittings, including material for drop connections at the maintenance Hole, shall be the type and dimensions as shown on the Plans or Agency Standard Details, as applicable, or as specified in these specification amendments.

201-10.5.2 Pipe Stubouts for Future Sewer Connections. Pipe stubouts shall be the same type as approved for use in lateral, main, or trunk sewer construction. Strength classifications shall be same class as in adjacent trenches. Where there are two different pipe classes at a maintenance Hole, the higher strength pipe will govern strength classification. Rubber-gasketed watertight plugs shall be furnished with each stub-out and shall be adequately braced against all hydrostatic or air pressures.

201-10.6.1 Sealing Maintenance Hole Walls. Maintenance Hole walls shall be sealed where shown or specified, or as directed by the Engineer. Sealing maintenance Hole walls shall include cracks, joints, gaps, and channel. Sealing of the maintenance Hole walls shall be accomplished by any of the methods specified below:

201-10.6.1.a Cement-Epoxy Mixtures. Openings, cracks, and deteriorated joints in maintenance Hole walls shall be repaired and sealed by utilizing cement-epoxy mixtures manufactured for this purpose, such as those manufactured and/or supplied by Standard Dry Wall Products; Water- Wastewater Products & Systems, Inc.; IPA Systems, Inc.; Stonehard, Inc.; or approved equal.

201-10.6.1.b Chemical Grout. Openings, cracks, and deteriorated joints in maintenance Hole walls shall be repaired and sealed using chemical grout and applicable procedures specified for sewer system rehabilitation.

201-10.6.1.c Polyurethane Coatings. Sprayable polyurethane coating shall be used to seal maintenance Hole walls. The coating shall be a high-build polyurethane specifically formulated for use in a sewer system environment. The minimum thickness of the dry coating shall be 125 mils.

201-10.6.1.d Modified Polyester/Polymorphic Coatings. Spray-applied modified polyester/polymorphic resin shall be used to seal maintenance Hole walls. The coating shall be a two- component, 100% solids system. Prior to applying the prime coat, the maintenance Hole surface shall be sandblasted or hydroblasted and properly dried.

201-10.6.1.e Epoxy Coating. Sprayable or brushable epoxy coatings may be used to seal maintenance Hole walls. The coating shall be a high-build epoxy, Mainstay DS-5 or approved equal, specifically formulated for use in the sewer system and applied in accordance with manufacturer's recommendations and guidelines and at 50-125 mils thickness in one or two coats. Prior to coating, the maintenance Hole walls shall be thoroughly sandblasted or hydroblasted and cleaned as recommended by the manufacturer to ensure complete coverage and bonding. Openings and cracks larger than 1/8 inch in the maintenance Hole walls shall be filled with mortar, Mainstay ML-72 or

ML-72F, or approved equal, at one-half to one inch thickness, prior to trimming and applying the epoxy coating.

201-10.6.1.f Fiberglass Liners. Existing maintenance Hole walls shall be thoroughly sandblasted and cleaned or primed as recommended by the materials manufacturer to ensure complete coverage and bonding. Openings and cracks larger than 1/8 inch in the maintenance Hole walls shall be filled with mortar prior to priming and applying the fiberglass.

i) **Factory-Manufactured Fiberglass Liners.** Maintenance Hole liners shall be made of

fiberglass reinforced plastic (FRP), having an inside diameter of not less than 42 inches. Maintenance Hole liners shall meet the requirements of ASTM D3753. The liner shall be installed in accordance with manufacturer's recommendations including removal of the existing cone, grouting of the annular space between the liners and existing maintenance Hole walls, rebuilding or replacing the cones, backfilling, installing steps, and installing cast iron frames and covers.

ii) **Field-Fabricated Fiberglass Liners.** Maintenance Hole liners shall be field-fabricated by applying glass fibers and resin to the maintenance Hole walls. The completed lining thickness shall be not less than 1/4 inch at any location.

201-10.6.1.g HDPE Liners. Lining manufacturer shall be GSE "Studliner", GU-International AGRU "Suregrip" or equal. Polymer mortar shall consist of a primer if recommended by the manufacturer and a liquid binder and a dry aggregate mixed together to make a mortar of consistency as required for the application. The mortar shall be designed for application to vertical or overhead surfaces and must be accepted by the lining manufacturer. The liquid binder shall be chemical and oil resistant, stress relieved, low modulus, moisture insensitive, two- component epoxy-resin compound. The consistency shall be similar to lightweight oil for proper mixing with aggregate. Material shall conform to ASTM C881, type 3, Grade 1, Sika Corporation Sikadur 22 Lo-Mod Series or equal.

i) HDPE lining, joint strips and angle strips (hereinafter collectively referred to as "lining") shall be made from minimum 97 percent virgin high density polyethylene (HDPE). Color shall be gray.

ii) Lining shall be impermeable to sewage gases and liquids and shall be nonconductive to bacterial or fungal growth. All linings shall be factory checked to ensure freedom from porosity.

iii) Lining shall have good impact resistance, shall be flexible, and shall have elongation sufficient to bridge up to 1/4 inch settling crack.

iv) Once cast into the concrete of the maintenance Hole wall, lining shall be permanently and physically attached to the concrete by the lining studs and shall not rely on an adhesive bond unless otherwise specified at a specific location.

v) Locking studs shall be made of the same material as the lining and integrally extruded with the sheet. Stud spacing shall be on approximately 1.25-inch centers, such that there are approximately 110 studs per square foot.

vi) Plasticizer shall not be added to the resin formation.

vii) Lining shall be free of holes, pinholes, bubbles, blisters, excessive contamination by foreign matter, and nicks and cuts on roll edges.

viii) Adhesive to bond HDPE lining to metal shall be in accordance with the recommendations of the HDPE lining manufacturer.

ix) All work shall be in strict conformity with all applicable specifications, instructions, and recommendations of the lining manufacturer.

x) Prior to shipping lined precast maintenance Hole sections and then again after field welding is complete, the lining shall be spark tested in the presence of the Engineer. The spark test shall be done with an approved electrical holiday detector (Turnhert Rasor, model AP-W with power pack or equal) with the instrument set at a minimum of 20,000 volts. Any imperfection shall be repaired in accordance with the manufacturer's recommendations and with the approval of the Engineer.

201-10.6.1.h Cementitious Crystalline Waterproofing. Waterproofing manufacturer shall be Xypex Chemical Corporation, Xypex Concentrate, Modified, Patch'n Plug or equal. Application shall be in accordance with Xypex recommended specifications.

i) For use in new maintenance Holes, the Xypex materials Admix C-500, Admix C-1000, Admix C-2000 or equal shall be used.

ADD NEW SUB-SECTION 201-10.7 TO READ AS FOLLOWS:

201-10.7 CATCH BASIN CONNECTOR PIPE SCREEN

Inlets shall be fitted with connector pipe screen (CPS) and both the product type and manufacturer need to be certified by the State Water Resources Control Board as meeting requirements for full trash capture. The product must be manufactured from S-304 perforated stainless steel with 5mm diameter holes, have a solid top deflector, and have a quick disconnect feature to facilitate easy removal of the screen for cleaning.

SECTION 203 – BITUMINOUS MATERIALS

The following PG asphalt mixes shall be used unless otherwise specified:

- Upper Course (Top 2" of AC) or AC OVERLAY: 1/2" Maximum Aggregate, Type C2 Mix from Table 203-6.4.4 (A) Bituminous Pavement Mixture PG64-10 with 15% reclaimed asphalt pavement (RAP)
- Lower Course(s) (more than 2" below surface) or AC BASE REPAIR: 3/4" Maximum Aggregate, Type B Mix from Table 203-6.4.3 (A) - Bituminous Pavement Mixture PG64-10 with 15% reclaimed asphalt pavement (RAP)

203-3 EMULSIFIED ASPHALT

203-3.1 GENERAL

ADD SUBSECTION 203-3.1.1 TO READ AS FOLLOWS:

203-3.1.1 CRACK SEAL

The contractor shall provide the engineer with a certificate of compliance conforming to the provisions for each shipment of crack sealant. The certificate shall certify that the sealant conforms to the specifications, and shall be accompanied with storage and heating instructions and cautions for the material. The crack sealant shall be readily handled at ambient temperature, shall be capable of being stored for periods of up to 6 months, shall withstand freeze-thaw cycles and shall contain no volatile organic compounds which may contribute to air pollution. The base material shall remain ductile with aging and provide resiliency under extreme climatic conditions.

Contractor shall clean and dry all cracks prior to sealing. All vegetation shall be removed with torch or spray. When used as part of seal or mill and overlay treatment, once seal is applied, a soft rubber, u-shaped squeegee shall be used to form a wipe zone approximately 3-4 inches wide along the crack and flush to pavement surface. When used as a stand-alone treatment contractor to use the overband method 4" in width maximum.

Crack sealing shall be applied to only cracks from 1/2" to 2" wide cracks.

ADD SUBSECTION 203-3.1.2 TO READ AS FOLLOWS:

203-3.1.2 MEASUREMENT AND PAYMENT

Payment for furnishing and applying flexible joint and crack sealant will be made as a lump sum price bid for crack seal.

The linear foot price paid for crack seal shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in sealing cracks, complete in place, including furnishing and applying sand and for brooming excessive sand as specified in the standard specifications and these special provisions, and as directed by the engineer.

Full compensation for cleaning and sealing cracks in adjacent paved shoulders shall be considered as included in the linear foot price paid for crack seal and no additional compensation will be allowed therefor.

203-5 Emulsion-Aggregate Slurry.

REPLACE SUBSECTION 203-5.2 WITH THE FOLLOWING:

203-5.2 Materials.

The latex/polymer shall be SBR, SBS, SEBS, or Neoprene, at the option of the Contractor.

1) **Latex/Polymer Modified Asphaltic Emulsion for Emulsion Aggregate Slurry.** Latex/Polymer Modified Asphaltic emulsion shall be a cationic quickset, quick traffic type conforming to the requirements of type PMCQS-1h, and shall meet all the requirements for such material as specified below. The emulsion shall be homogeneous and show no separation after thorough mixing and shall break and set on the aggregate within five minutes. The polymer modified asphalt emulsion shall conform to the requirements prescribed in Table 1.

Table 1:

LATEX/ POLYMER MODIFIED ASPHALT EMULSION PMCQS-1h REQUIREMENTS FOR SLURRY SEAL

TEST ON EMULSION	METHOD OF TEST	REQUIREMENTS
Viscosity, SSF, @ 77 °F sec.	ASTM D244	20-100
pH		2+/-1
Distillation Residue %, Minimum	CT-331	60
<u>TEST ON RESIDUE PREPARED USING CALTRANS TEST METHOD CT-331</u>		
Penetration, 77 F, 100g, 5 sec.	ASTM D5	40-80 dmm
Softening Point (Ring & Ball), °F.	ASTM D36	135-150
Ductility, @ 77°F, 5cm/min, cm	ASTM D113	25 Minimum
Fraass-Breaking Point (°C)	DIN 51012	-18°C

The Contractor shall furnish a one-quart sample of asphaltic emulsion drawn for each tank load of material to be used on the project. Samples will be obtained in accordance with ASTM method D140 or such other methods as are approved by the Engineer. A certificate of compliance will be furnished by the Contractor in accordance with Section 203-1.3, "Test Reports and Certification", of the Standard Specifications for all asphaltic emulsion used under these specifications. Test reports shall include evidence that all materials are individually acceptable and are collectively compatible when mixed together to produce the emulsion-aggregate slurry. The certificate of compliance shall include all information stipulated in Section 203-1.3 of the Standard Specifications and these special provisions. Additional information relevant to the specifications shall be furnished if requested by the Engineer.

2) **Aggregate for Emulsion-Aggregate Slurry.**

a. Aggregate for the slurry seal shall comply in all respects to requirements in Section 203-5, "Emulsion-Aggregate Slurry", of the Standard Specifications for a Type II slurry seal. Aggregate shall consist of sound, durable, crushed stone or crushed gravel and approved mineral filler. The material shall be free from viable matter and other deleterious substances. Aggregates shall be 100% crushed with no rounded particles, volcanic in origin and black in color, as supplied by George Reed, Table Mountain Plant, Sonora, CA, or Equal. **The use of gray or light-colored aggregate will not be allowed.** The percentage composition by weight of the aggregate shall conform to the following grading:

Percent Passing

Sieve Sizes	Type II
3/8" (9.5mm)	100
No. 4 (4.75 mm)	90-100
No. 8 (2.36 mm)	65-90
No. 16 (1.18 mm)	40-70
No. 30 (600 um)	25-50
No. 200 (75 um)	5-15

b. The aggregate shall have a minimum sand equivalent of 60 (Test Method No. Calif. 217).
 c. A certificate of compliance shall be furnished by the Contractor, for aggregates used in the slurry seal. The certificate of compliance shall include laboratory test results indicating the average gradation, minimum sand equivalent, residual asphalt as percent (%) aggregate weight, emulsified asphalt as percent (%) of aggregate weight, maximum film striping (25% max., Calif. 302) and durability index (60 min., Calif. 229), all in accordance with Sections 203-5.2, and 203-5.3 of the Standard Specifications and these Special Provisions. The certified test reports and the testing required in

connection with the reports shall be at no cost to the City.

3) **Water and Retarder for Emulsion-Aggregate Slurry.** Water and Retarder shall be used to insure proper workability and to permit uncontrolled traffic on the slurry no more than two hours after placement without occurrence of bleeding, raveling, separation, or scalping.

ADD NEW SUBSECTION 203-5.5 TO READ:

203-5.5 Field Observation and Testing. The Engineer from time to time, and at their discretion, will perform tests to verify conformance to requirements for materials specified in the Special Provisions. At a minimum, the Contractor shall perform the following listed tests. Testing results shall be submitted to the City of Oakland.

- A. Measure the quantity of emulsion and estimate the quantity of aggregate being used for comparison with the quantity per square yard as specified in the approved design mix. Emulsion shall be measured at the storage tanks and/or at the mixing machine(s). The quantity of aggregate will be visually estimated by the Engineer.
- B. Determine the percent of residual asphalt in the slurry mix by extraction test using ASTM Test No. D2172.
- C. Determine aggregate loss using the wet track abrasion test, ASTM Test No. D 3910-80a.
- D. Determine the aggregate grading, using Calif. Test Method No. 202.
- E. Determine the properties of the asphaltic emulsion in accordance with AASHTO Designation: T59, "Testing Emulsified Asphalt."

The Contractor shall cooperate fully in providing safe access for the Engineer's personnel performing the tests.

If all or any one of these tests indicate that the mix or application rate differ from the design mix or from the Contract requirements, the operation shall immediately be stopped and adjustments made to the equipment. The Engineer shall designate areas of the street to be used for test demonstrations.

Full compensation for meeting the requirements of the provisions shall be considered as included in the contract item for slurry seal and no additional compensations will be paid therefore.

ADD NEW SUBSECTION 203-6.10 TO READ:

203-6.12 MEASUREMENT AND PAYMENT

The 2-inch-thick AC mill and overlay work will be measured for payment as specified per "Street Resurfacing Requirement For Sanitary Sewer Rehab" in Plan's Project Notes by the actual square feet of area of paving satisfactorily completed and will be paid for at the unit bid price in the bid schedule. This bid item shall include full compensation for furnishing all labor, materials, tools, equipment, grinding, hauling, disposal, adjusting structure frames and cover of utility companies, and all other incidentals required to complete the work as specified herein. Adjusting City owned maintenance Hole frames to new grade if necessary and grinding 2-inch depth of pavement will be considered incidental and will not be measured for payment.

203-10.2 LATEX MODIFIED ASPHALT CONCRETE.

REVISE SUBSECTION 203-10.2.1 TO READ:

203-10.2.1 Paving Asphalt. Paving asphalt to be mixed with the latex and aggregate shall be Performance Grade PG 64-10 conforming to 203-1, or as specified in the Special Provisions.

203-10.2.4 Composition and Grading.

CHANGE THE FIRST PARAGRAPH OF 203-10.2.4 TO READ:

The mix shall be C2 unless otherwise specified on the Plans or in the Special Provisions. Where Alternate Rock Products-Type S, Section 400, are specified, the class and grade shall be Type III-C3-PG 64-10 or as specified in the Special Provisions.

203-11 ASPHALT RUBBER HOT MIX (ARHM) WET PROCESS – ASPHALT RUBBER CHIP SEAL. Asphalt rubber chip seal shall conform to the provisions of Section 203-11 "Asphalt Rubber Hot Mix (ARHM) Wet Process" and Section 203-12 Asphalt Rubber and Aggregate Membrane Surfacing or Interlayer of the Standard Specifications and these Special Provisions. Asphalt rubber binder shall consist of a mixture of paving asphalt, asphalt modifier, and crumb rubber modifier (CRM). Screenings shall be medium 3/8 inch.

203-11.2 Materials

ADD THE SECOND PARAGRAPH OF 203-11.2 TO READ:

The mineral aggregate used shall be of the type and grade specified for the particular use of the rubber chip seal. Aggregate shall consist of sound, durable, crushed stone or crushed gravel and approved mineral filler. The material shall be free from vegetable matter and other deleterious substances. Aggregates shall be 100% crushed material with no rounded particles and shall be volcanic in origin and black in color, as supplied by

George Reed, Table Mountain Plant, Sonora, CA., or approved equal. **The use of gray or light-colored aggregate will be a bid-alternate.** All aggregate shall be free of caked lumps and oversize particles.

The Contractor shall provide the Engineer with a Certificate of Compliance conforming to the provisions for each of the constituent components of the asphalt rubber binder and for the completed mixture of the asphalt rubber binder.

The Contractor shall provide a Certificate of Compliance for each truck load of crumb rubber modifier (CRM), paving asphalt, and asphalt modifier (if required) delivered to the project. The Quality Control Program used by the manufacturer of each ingredient shall include a sampling and testing frequency as shown below:

CRM shall be tested except for the grading requirement, at least once for every 250 tons with a minimum of once per project. CRM shall be tested for grading for every truck load delivered to the project.

Paving asphalt shall be tested at least once for every 200 tons of production with a minimum of once per project.

Asphalt modifier (if required) shall be tested at least once for every 25 tons of production with a minimum of once per project.

A copy of the laboratory test results for the test parameters specified in these special provisions for CRM, paving asphalt, and asphalt modifier (if required) shall be submitted to the Engineer with the Certificate of Compliance for each truck load of individual material delivered to the project.

Certified volume or weight slips shall be delivered to the Engineer for materials supplied.

ADD THE SECOND PARAGRAPH OF 203-11.3 TO READ:

Screenings shall conform to the following quality requirements immediately prior to preheating:

SCREENINGS QUALITY REQUIREMENTS

test parameters	california test	requirements
Los Angeles Rattler Loss (100 Revolutions)	211	10 Max.
Los Angeles Rattler Loss (500 Revolutions)	211	40 Max.
Film Stripping	302	25 Max.
Cleanness Value	227	80 Min.
Durability	229	52 Min.

Screenings for asphalt rubber seal coat shall be preheated to between 260° F and 325° F and uniformly coated at a rate of 0.5 percent to 1 percent by weight of dry aggregate with Grade PG 64-10 asphalt, conforming to the provisions in Section 92, "Asphalts," of the 2006 Standard Specifications reflecting the use of 'Performance Graded (PG)' asphalt binders. Screenings shall be coated at a central mixing asphalt concrete plant that has been approved in conformance with the requirements in California Test 109. The exact rate determined by the Engineer upon a visual inspection of the first initial load delivered and thereafter as deemed necessary.

ADD NEW SUBSECTION TO 203-11.10 TO READ:

203-11.10 Equipment for Asphalt Rubber Seal Coat

A self-propelled truck or trailer mounted distributor, equipped with an internal mixing unit that maintains a homogeneous mixture of blended paving asphalt, asphalt modifier (if required) and CRM. The distributor shall have a pump or pumps that sprays asphalt rubber binder within ± 0.05 gallon per square yard of the specified rate. The distributor shall have a fully circulating spray bar that applies the asphalt rubber binder without a streaked or otherwise irregular pattern. The distributor shall be equipped with a tachometer, pressure gages, volume measuring devices, and thermometer. The distributor shall have a platform on the rear of the vehicle and an observer shall accompany the

distributor. The observer shall ride in such a position that all spray nozzles are in full view and readily accessible for unplugging plugged nozzles, should plugging occur; and

Tailgate discharge trucks for hauling screenings shall be equipped with a device to lock onto the hitch at the rear of the screenings spreader. Haul trucks shall be compatible with the screenings spreader so that the dump bed will not push down on the spreader when fully raised or have too short a bed which results in screenings spilling while dumping into the receiving hopper.

The Contractor shall comply with Federal, State, and Local environmental laws, rules, regulations, and ordinances including, but not limited to, air quality requirements.

ADD NEW SUBSECTION TO 203-15 TO READ:

203-15 MICROSURFACING

203-15.1 General. Microsurfacing shall consist of mixing a polymer modified, cationic microsurfacing emulsion (MSE), aggregate, mineral filler, set-control additives, and water and spreading the mixture on a pavement surface where shown on the plans, in conformance with the provisions in these special provisions, and as directed by the Engineer.

203-15.2 Materials. Microsurfacing Emulsion (MSE) shall be homogenous and shall conform to the provisions of these special provisions. The polymer shall be milled or blended into the asphalt or blended into the emulsifier solution prior to the emulsification process.

The MSE shall conform to the following requirements when tested in conformance with the following test methods:

Polymer Modified, Cationic Microsurfacing Emulsion (MSE)

Specification Designation	Test Method	Requirement
Viscosity SSF @ 77 °F (25° C)	AASHTO T 59	15-90 Seconds
Sieve, max.	AASHTO T 59	0.30 Percent
Settlement, 5 days, max.	ASTM D244	5 Percent
Storage Stability, 1 day, max.	AASHTO T 59	1 Percent
Residue by Evaporation, min.	California Test 331	62 Percent

Specification Designation for Residue

Specification Designation	Test Method	Requirement
Penetration@ 77 °F (25°C), 100g, 5s ,0.1mm	AASHTO T 51	40-90
Softening Point °F (°C) Min.	AASHTO T53	135 (57)

Water and Additives

Water shall be of such quality that the asphalt will not separate from the MSE before the microsurfacing is placed on the pavement. If necessary for workability, a set-control agent that will not adversely affect the microsurfacing product may be used.

Mineral Filler

Mineral filler shall be Portland cement or hydrated lime that is free of lumps. Portland cement shall be either Type I, Type II, Type III or combination thereof. The type of mineral filler shall be determined by the Contractor based on laboratory mix designs. The mineral filler will be considered part of the aggregate gradation requirement.

Aggregate

The mineral aggregate used shall be of the type and grade specified for the particular use of the microsurfacing. Aggregate shall consist of sound, durable, crushed stone or crushed gravel and approved mineral filler. The material shall be free from vegetable matter and other deleterious substances. Aggregates

shall be 100% crushed material with no rounded particles and shall be volcanic in origin and black in color, as supplied by George Reed, Table Mountain Plant, Sonora, CA., or approved equal. **The use of gray or light-colored aggregate will not be allowed.** All aggregate shall be free of caked lumps and oversize particles.

The aggregate, prior to the addition of emulsion shall conform to the requirements of this section. If aggregates are blended each component aggregate shall meet the sand equivalency and abrasion resistance and shall be 100% crushed as tested in accordance with California Test 205. The definition of a crushed particle in California Test 205 Section D is amended to read: "Any particle having 2 or more fresh mechanically fractured faces shall be considered a crushed particle."

The percentage composition by mass of the aggregate (including mineral filler) shall conform to the following grading requirements when tested in conformance with California Test 202:

TYPE II

Sieve Sizes	Percentage Passing
3/8" (9.5-mm)	100
No. 4 (4.75-mm)	94 - 100
No. 8 (2.36-mm)	65 - 90
No. 16 (1.18-mm)	40 - 70
No. 30(600- μ m)	25 - 50
No. 200 (75- μ m)	5 - 15

TYPE III

Sieve Sizes	Percentage Passing
3/8" (9.5-mm)	100
No. 4 (4.75-mm)	70 - 90
No. 8 (2.36-mm)	45 - 70
No. 16 (1.18-mm)	28 - 50
No. 30(600- μ m)	19 - 34
No. 200 (75- μ m)	5 - 15

See project plans showing type of microsurfacing to be used.

The aggregate (excluding mineral filler) shall conform to the following quality requirements:

Test	California Test	Requirement
Sand Equivalent (Min.)	217	70
Durability Index (Min.)	229	75
Percentage of Crushed Particles (Min.) ¹	205	100%
Los Angeles Rattler Loss at 500 Rev. (Max.) ²	211	35%

Notes: 1. CT205, Section D, is amended to read: "Any particle having 2 or more freshly, mechanically fractured faces shall be considered a crushed particle"

2. Los Angeles Rattler shall be performed on the parent aggregate before crushing.

If the results of the aggregate grading do not meet the specified gradation, the microsurfacing represented by the test shall be removed. However, if requested in writing by the Contractor and approved by the Engineer, the microsurfacing may remain in place and the Contractor shall pay to the City \$2.00 per ton for the aggregate represented by the tests and left in place.

If the results of the Sand Equivalent test for aggregate do not meet the specified requirement, the microsurfacing represented by the test shall be removed. However, if requested in writing by the Contractor and approved by the Engineer, the microsurfacing may remain in place and the Contractor shall pay to the City \$2.00 per ton for the aggregate represented by the tests and left in place.

When the results of both the aggregate grading and the Sand Equivalent tests do not conform to the specified requirements, both payments to the City shall apply. The City may deduct these amounts from any moneys due or to become due the Contractor.

No single aggregate grading or Sand Equivalent test shall represent more than 300 tons or one day's production, whichever is smaller.

203-15.3 Mix Design And Tests. At least 7 working days before the microsurfacing placement commences, the Contractor shall submit for approval of the Engineer a laboratory report of tests and a proposed mix design covering the specific materials proposed for use on the project.

The Contractor shall be responsible for all sampling and testing, and for furnishing all test results to the Engineer. The Contractor, in the presence of the Engineer, shall take a minimum of two samples per day for extraction/gradation analyses. The samples shall be taken from the pugmill discharge chute using a rectangular non-absorptive container, such as a loaf pan, of sufficient size to obtain a sample from the entire cross section of the mixture being discharged. Each sample should weigh from 2.5 to 4 lbs. Each sample shall be tested to determine the asphalt content and gradation of aggregate in the mixture.

The percentages of each individual material proposed in the mix design shall be shown in the laboratory report. Individual materials shall be within the following limits:

Residual Asphalt	5.5% to 9.5% by dry mass of aggregate
Mineral Filler	0% to 3% by dry mass of aggregate
Additive	As needed
Water	As needed

Adjustments may be required during construction based on field conditions.

The proposed microsurfacing mixture shall conform to the specified requirements when tested in conformance with the following tests:

Test	Requirements
Wet Cohesion @ 30 Minute (Set) (Min.)	12 kg-cm
@ 60 Minute (Traffic) (Min.)	20 kg-cm
Excess Asphalt	540 g/m ²
Wet Stripping (Min.)	90%
Wet Track Abrasion 6-day Soak Loss (Max.)	810 g/m ²
Displacement Lateral (Max.)	5%.
Specific Gravity After 1000 Cycles of 125 lbs. (56.8 kg)(Max.)	2.10
Classification Compatibility	(AAA, BAA) 11 Grade Points
Mix Time @ 77°F (25°C)	Controllable to 120 Seconds

The laboratory that performed the tests and designed the mixture shall sign the laboratory report. The report shall show the results of the tests on individual materials and shall compare their values to those required by these special provisions. The report shall clearly show the proportions of aggregate, filler (minimum and maximum), water (minimum and maximum), set control additive, and MSE solids content (minimum and maximum) based on the dry mass of aggregate. The laboratory shall report the quantitative effects of moisture content on the unit mass of the aggregate (bulking effect) in conformance with the requirements of ASTM Designation C 29M. Previous laboratory reports covering the same materials may be accepted provided the material test reports were completed within the previous 12 months. The mix design shall further show the recommended changes in mineral filler, water, and additive proportions for high temperature weather conditions by reporting proportions of materials required for 60 seconds of mix time with materials heated to 100 °F (38°C). This 100 °F (38°C) mixing report will not be required for projects requiring nighttime application.

The component materials used in the mix design shall be representative of the microsurfacing materials proposed by the Contractor for use on the project.

Once the mix design is approved by the Engineer, no substitution of other material will be permitted unless the materials proposed for substitution are first tested and a laboratory report is submitted for the substituted design in conformance with the provisions of these special provisions. Substituted materials shall not be used until the mix design for those materials has been approved by the Engineer.

The completed mixture, after addition of water and set control agent, if used, shall be such that the microsurfacing mixture has proper workability. At the expiration of the road closure hours, the microsurfacing

mixture shall be sufficiently cured to support unrestricted traffic.

203-15.4 Proportioning. Aggregate, mineral filler, MSE, water, and additives, including the set-control agent, if used, shall be proportioned by volume utilizing the mix design approved by the Engineer. If more than one kind of aggregate is used, the correct amount of each kind of aggregate to produce the required grading shall be proportioned separately, prior to adding the other materials of the mixture, in a manner that will result in a uniform and homogeneous blend.

The aggregate shall be proportioned using a belt feeder operated with an adjustable cutoff gate. The height of the gate opening shall be determinable. The MSE shall be proportioned by a positive displacement pump. Variable rate emulsion pumps, if used, shall be calibrated and sealed in the pump's calibrated condition in conformance with California Test 109 prior to usage.

The delivery rate of aggregate and MSE per revolution of the aggregate feeder shall be calibrated at the appropriate gate settings for each mixer-spreader truck used on the project in conformance with California Test 109 and in conformance with the provisions of these special provisions.

The aggregate belt feeder shall deliver aggregate to the pugmill with such volumetric consistency that the deviation for any individual aggregate delivery rate check-run shall not exceed 2.0 percent of the mathematical average of three runs of at least 3 tons each. The emulsion pump shall deliver MSE to the pugmill with such volumetric consistency that the deviation for any individual delivery rate check-run shall be within 2.0 percent of the mathematical average of 3 runs of at least 300 gallons (1135 L) each. The water pump shall deliver water to the pugmill with such volumetric consistency that the deviation for any individual delivery rate check-run shall be within 2.0 percent of the mathematical average of 3 runs of at least 300 gallons (1135 L) each.

The MSE storage tank shall be located immediately before the emulsion pump and shall be equipped with a device which will automatically shut down the power to the emulsion pump and aggregate belt feeder when the MSE level is lowered to a point where the pump suction line is exposed.

A temperature-indicating device shall be installed in the emulsion storage tank at the pump suction level. The device shall indicate the temperature of the MSE and shall be accurate to within 10°F (5°C).

The belt delivering the aggregate to the pugmill shall be equipped with a device to monitor the depth of aggregate being delivered to the pugmill. The device for monitoring the depth of aggregate shall automatically shut down the power to the aggregate belt feeder whenever the depth of aggregate is less than the target depth of flow. A second device shall be located where the device will monitor the movement of the aggregate belt by detecting revolutions of the belt feeder. The devices for monitoring no flow or belt movement shall automatically shut down the power to the aggregate belt when the aggregate belt movement is interrupted. The device to detect revolutions of the belt feeder will not be required where the aggregate delivery belt is an integral part of the drive chain. To avoid erroneous shutdown by normal fluctuation, a delay of 3 seconds will be permitted between sensing and shutdown of the operation.

203-15.5 Mixing and Spreading Equipment. The microsurfacing shall be mixed in continuous pugmill mixers of adequate size and power for the type of microsurfacing to be placed. All indicators shall be in conformance with the provisions of these special provisions and shall be in working order prior to commencing mixing and spreading operations.

Mixer-spreader trucks shall be equipped to proportion the MSE, water, aggregate, mineral filler, and set-control additives by volume. Rotating and reciprocating equipment on mixer-spreader trucks shall be covered with metal guards.

The mixer-spreader truck shall not be operated unless low-flow and no-flow devices and revolution counters are in good working condition and functioning and metal guards are in place. Indicators required by these special provisions shall be visible while walking alongside the mixer-spreader truck.

Aggregate feeders shall be connected directly to the drive on the emulsion pump. The drive shaft of the aggregate feeder shall be equipped with a revolution counter reading to the nearest one-tenth of a revolution.

The identifying number of mixer-spreader trucks shall be at least three inches (75 mm) in height, located on the front and rear of the vehicle.

The microsurfacing mixture shall be spread by means of a spreader box conforming to the following requirements:

Spreader Box

The spreader box shall be capable of placing the microsurfacing a minimum of 12 feet (3.6 m) wide and shall have strips of flexible rubber belting or similar material on each side of the spreader box and in contact with the pavement to prevent the loss of microsurfacing from the box. Spreader boxes over eight feet (2.38 m) in application width shall have baffles, reversible motor driven augers or other suitable means to insure uniform application on superelevated sections and shoulder slopes. Spreader box skids shall be maintained in such

manner as to prevent chatter (wash boarding) in the finished mat. The spreader box in use shall be clean and free of microsurfacing and MSE at the start of each work shift.

The spreader box shall have a series of strike-off devices at the rear of the box. The leading strike-off device shall be fabricated of steel, stiff rubber or other suitable material. The number of strike-off devices shall be determined by the Contractor. The first strike-off device shall be designed to maintain close contact with the pavement during the spreading operations, shall obtain the thickness required, and shall be capable of being adjusted to the various pavement cross sections for application of a uniform microsurfacing finished surface. The final strike-off device shall be fabricated of flexible material suitable for the intended use and shall be designed and operated to ensure a uniform texture is achieved in the finished surface of the microsurfacing. The final strike-off device shall be cleaned or changed daily if problems with longitudinal scouring occur.

Flexible fabric drags attached to the rear of the spreader box shall not be used.

Wheel Path Depression (Rut) Box

The wheel path depression (rut) box shall be designed to have adjustable strike-off devices to regulate the depth and shall have a width of between five feet (1.52 m) and six feet (1.81 m). Hydraulic augers, or similar devices, shall be installed and shall be capable of moving the mixed material from the rear to the front of the filling chamber. These devices shall also be capable of guiding the larger aggregate into the center, deeper section of the wheel path depression, and forcing the finer material toward the outer edges of the spreader box.

The microsurfacing mixture, to be spread in areas inaccessible to the controlled spreader box, may be spread by other methods upon approval of the Engineer.

203-15.6 Measurement And Payment. The contract price paid per square yard for Microsurfacing Type II & Type III shall include full compensation for complete in place, furnishing all labor, material, water, tools, and equipment, incidentals, tack coat and rut filling if required necessary to complete the work as specified herein.

ADD NEW SUBSECTION 203-17 TO READ AS FOLLOWS:

203-17 BONDED WEARING COURSES – GAP GRADED MIX DESIGN

203-17.1 General Summary. This work includes producing and placing bonded wearing course (BWC). Bonded wearing course consists of gap graded and polymer modified hot mix asphalt (HMA) placed over a membrane of polymer modified asphaltic emulsion in a single pass with an integrated paving machine.

Bonded wearing course shall conform with the specifications for HMA Type A under Section 39, "Hot Mix Asphalt," of the Caltrans Standard Specifications. Use the Standard construction process.

203-17.2 Submittals. With the job mix formula (JMF) submittal, submit:

1. Film thickness for HMA on a Contractor Job Mix Formula Proposal form
2. Target residual rate for asphaltic emulsion membrane

Within three business days following the first delivery of asphaltic emulsion, submit test results to the City for asphaltic emulsion properties performed on a sample taken from asphaltic emulsion delivered. Test results must be from an AASHTO accredited laboratory. Test results must comply with the table "Asphaltic Emulsion Membrane."

Within 1 business day of each job site delivery of asphaltic emulsion, submit to the City of Oakland Testing Lab a 2-quart sample and a Certificate of Compliance in compliance with Caltrans Section 6-1.07, "Certificates of Compliance," of the Standard Specifications. Ship each sample so that it is received at the Transportation Laboratory within 48 hours of sampling. Label each asphaltic emulsion sampling container with:

1. Emulsion producer and location
2. Asphaltic emulsion type
3. Percent of water
4. Sampling location, time and date
5. Contract number
6. Resident Engineer

Each day BWC-G is placed, submit the residual and application rate for asphaltic emulsion membrane. During production, submit certified volume or weight slips for the materials supplied.

203-17.3 Quality Control and Assurance. Sample BWC-G in two 1-gallon metal containers. Sample HMA from either a truck or the material transfer device (MTV) hopper. Perform sampling and testing at the specified frequency for the following quality characteristics:

BWC-G Minimum Quality Control

Quality Characteristic	Test Metho	Minimum Sampling and Testing	Location of Sampling	Requirement
Aggregate gradation	CT 202	1 per 750 tons and any remaining part. Take samples in two 1-gallon metal cans	CT 125	JMF \pm Tolerance ^a
Sand equivalent (min.) ^b	CT 217			47
Asphalt binder content (%)	CT 379 or 382	1 per 2,500 tons but not less than 1 per paving day	Truck or MTV Hopper	JMF \pm 0.45
HMA moisture content (%, max.)	CT 226 or CT 370			1.0
Aggregate moisture content at continuous mixing plants ^c	CT 226 or CT 370	2 per day during production	CT 125	--
Percent of crushed particles	CT 205	As necessary and designated in the QCP. At least once per project		90
Coarse aggregate (%, min.) Two fractured faces				85
Fine aggregate (%, min.) (Passing No. 4 sieve and retained on No. 8 sieve.)				12
One fractured face				35
Los Angeles Rattler (% max.) Loss at 100 rev.	CT 211			45
Loss at 500 rev.				25
Fine aggregate angularity (% min.)	CT 234			--
Flat and elongated particles (%, max. by weight @ 3:1)	CT 235			12-foot straightedge and must-grind
Smoothness	Section 39-1.12			
Asphaltic Emulsion Membrane	Various		At least once per paving day	Delivery truck
	ASTM D 2995	QC plan At the job site		Submitted target application rate \pm 0.02 gallons per square yard under ASTM D 2995

Notes:

a The tolerances must comply with the allowable tolerances in "Aggregate."

b Report the average of 3 tests from a single split sample.

c For adjusting the plant controller at the HMA plant.

The Engineer samples for acceptance testing and tests for:

Acceptance					
Quality Characteristic				Test Method	Requirement
Aggregate gradation					
Sieve	1/2-inch	3/8-inch	No. 4	CT 202	JMF \pm Tolerance ^a
3/8"	X	--	--		
No. 4	--	X	X		
No. 8	X	X	X		
No. 200	X	X	X		
Asphalt binder content (%)				CT 379 or 382	JMF \pm 0.45
Sand equivalent (min.) ^b				CT 217	47

Percent of crushed particles coarse aggregate (% min.) Two fractured faces	CT 205	90
Fine aggregate (% min) (Passing No. 4 sieve and retained on No. 8 sieve.) One fractured face		85
HMA moisture content (%, max.)	CT 226 and CT 370	1.0
Smoothness	Standard Specifications Section 39-1.12	12-foot straightedge and must-grind
Asphalt binder	Various	Standard Specifications Section 92
Asphaltic emulsion membrane	Various	"Materials"
Asphaltic emulsion membrane	ASTM D 2995	Submitted target residual rate \pm 0.01 gallons per square yard

Notes:

- a The tolerances must comply with the allowable tolerances in "Aggregate."
- b The Engineer reports the average of 3 tests from a single split sample.

Sample asphaltic emulsion under AASHTO T 40. For each job site delivery of asphaltic emulsion, take a 2- quart sample in the presence of the Engineer. Take samples from the delivery truck mid-load from a sampling tap or thief. If the sample is taken from the tap, draw and discard 4 quarts before sampling. If the Contractor unloads asphalt binder or asphaltic emulsion into bulk storage tanks, do not use material from the tanks until the Contractor submits test results for a sample taken from the bulk storage tank performed by an AASHTO accredited laboratory.

203-17.4 Materials.

203-17.4.1 Asphaltic Emulsion Membrane

Asphaltic emulsion for membrane must comply with:

Asphaltic Emulsion Membrane

Properties	Test Method	Specification	
		Min.	Max.
Saybolt-Furol viscosity, at 25 °C, s Sieve test on original emulsion (at time of delivery), % 24-hour storage stability, %	AASHTO T59	20 - -	100 0.05 1
Residue by evaporation, %	California Test 331	63	--
Tests on residue from evaporation test:			
Torsional recovery, measure entire arc of recovery, at 25 °C, %	California Test 332	40	--
Penetration (0.01 mm) at 25 °C If using PG 76-22 PM asphalt binder If using PG 64-28 PM asphalt binder	AASHTO T49	50 70	150 200

203-17.4.2 Asphalt Binder. The grade of asphalt binder mixed with aggregate for HMA must be PG 64-16 PM.

203-17.4.3 Aggregate. The aggregate for HMA in BWC-G must comply with the 3/8-inch grading specified in the aggregate gradation table:

Aggregate Gradation (Percent Passing)

HMA (Bonded Wearing Course – Gap Graded)

3/8-inch HMA		
Sieve Sizes	Target Value Limits	Allowable Tolerance
1/2"	100	—
3/8"	80-100	TV ±6
No. 4	25 – 40	TV ±7
No. 8	19 – 32	TV ±5
No. 16	16 – 22	TV ±5
No. 30	10 – 18	TV ±4
No. 50	8 – 13	TV ±4
No. 100	6 – 10	TV ±2
No. 200	4 – 7	TV ±2

Before the addition of asphalt binder or lime treatment, aggregate must comply with:

Aggregate Quality

Quality Characteristic	Test Method	Requirement
Percent of crushed particles	CT 205	
Coarse aggregate (% min.) Two fractured faces		90
Fine aggregate (% min) (Passing No. 4 sieve and retained on No. 8 sieve.) One fractured face		85
Los Angeles Rattler (% max.) Loss at 100 Rev. Loss at 500 Rev.	CT 211	12 35
Sand equivalent ^a (min.)	CT 217	47
Fine aggregate angularity (% min.)	CT 234	45
Flat and elongated particles (% max. by weight @ 3:1)	CT 235	25

Note:

^a Reported value must be the average of 3 tests from a single sample.

Do not use reclaimed asphalt pavement in BWC-G.

203-17.5 Hot Mix Asphalt Design Requirements.

203-17.5.1 Hot Mix Asphalt for Job Mix Formula. Determine the proposed JMF from a mix design that complies with:

Hot Mix Asphalt for Job Mix Formula

Quality Characteristic	Test Method	Requirement
Film thickness, (µm min.)	Asphalt Institute MS-2 Table 6.1 Note a	10.0
Drain Down (% max.)	AASHTO T-305 ^b	0.1%

Notes:

^a Film thickness is calculated based on effective asphalt content and determined as follows:

$$FT = \left(\frac{P_{be}}{SA \times G_b \times 1000} \right) \times 10^6$$

where:

FT = Film Thickness in µm

P_{be} = Effective asphalt content by weight of aggregate using Lab Procedure LP-4.

SA = Estimated surface area of the aggregate blend in m²/kg from Table

6.1 in the Asphalt Institute Manual Series No. 2 (MS-2).

G_b = Specific gravity of asphalt binder

b Combine aggregate and asphalt at binder supplier's recommended mixing temperature. Coated aggregates that fall through the wire basket during loading will not be considered as "drain down" and are returned to the basket before conditioning at 350 °F for one hour.

The Optimum Binder Content (OBC) must be greater than 5.2 percent by weight of dry aggregate. Voids in mineral aggregate, voids filled with asphalt, dust proportion, and stabilometer value are not required for the JMF.

203-17.5.2 Job Mix Formula Verification. The Engineer verifies the JMF by testing for compliance with the specifications for:

1. Aggregate quality
2. Aggregate gradation (JMF TV ± tolerance)
3. Asphalt binder content (JMF TV ± tolerance)
4. Film Thickness

203-17.6 Construction.

203-17.6.1 Mixing. Aggregate must not be more than 350 °F when mixed with asphalt binder. For continuous mixing, the completed mixture must not be more than 350 °F at the mixer discharge. **Do not store HMA more than 8 hours.**

203-16.6.2 Spreading and Compacting Equipment. Use an integrated distributor-paver capable of spraying the asphaltic emulsion membrane, spreading the HMA, and leveling the mat surface in 1 pass.

Apply asphaltic emulsion membrane at a uniform rate for the full paving width. The asphaltic emulsion membrane must not be touched by any part of the paver including wheels or tracks.

If the spray bar is adjusted for changing pavement widths, the paver must prevent excess spraying of asphaltic emulsion beyond 2 inches of the HMA edge.

Use a material transfer vehicle (MTV) to receive HMA directly from the truck (without dumping on the ground) and deliver to the paver's receiving hopper or feed system. The MTV must:

1. Remix the HMA with augers before loading the paver
2. Have sufficient capacity to prevent stopping the paver

The paver must have a full-width, heated vibratory screed that uniformly spreads and finishes the HMA. Compact HMA with steel-tired, 2-axle tandem rollers. Each roller must weigh from 126 to 172 pounds per linear inch of drum width.

203-17.6.3 Transporting, Spreading and Compacting. Apply asphaltic emulsion membrane on dry or damp pavement with no free water. Apply asphaltic emulsion when the atmospheric and pavement temperatures are above 45 °F.

Before spreading HMA, apply asphaltic emulsion membrane under Section 94, "Asphaltic Emulsions," of the Standard Specifications. Apply emulsion at a temperature from 120 to 180 °F and in a single application at the residual rate specified for the condition of the underlying surface. Choose a target residual rate from the following:

Asphaltic Emulsion Membrane Target Residual Rate

Surface to Receive Asphaltic Emulsion Membrane	Target Residual Rates (gallons per square yard)
PCC pavement	0.09 -
Dense, compacted, new HMA pavement	0.11 -
Open textured, dry, aged or oxidized AC pavement	0.13 -

If Contractor request and the Engineer authorizes, you may change the asphaltic emulsion membrane application rates.

Spread HMA after applying asphaltic emulsion membrane and before the asphaltic emulsion membrane has spread beyond the area to be covered by the HMA. Do not apply asphaltic emulsion membrane more than once.

Construct a transverse joint when HMA remains in the paver for more than 30 minutes.

Do not reintroduce into the paving process HMA spread over asphaltic emulsion membrane.

Do not overlap or hot lap HMA. Pave through lanes after paving adjacent:

1. Shoulders
2. Tapers
3. Transitions
4. Road Connections
5. Driveways
6. Curve Widening
7. Turnouts
8. Turn Pockets
9. Ramps

For BWC-G placed on areas adjacent to through lanes that extend into the through lanes, cut the bonded wearing course to a neat, straight vertical line at the lane line.

If Contractor spills asphaltic emulsion into the paver hopper, stop paving and remove and dispose of the contaminated material.

When measured on the surface immediately behind the screed, the HMA must be at least 280 °F and the temperature across the mat should not vary by more than 25 °F. Do not take the temperature within 2 feet of the edge of the pavement. For each paver used, compact HMA with 2 coverages using 2 rollers with the vibrators turned off. Complete the first coverage before the surface temperature drops cover the exposed load until you transfer the mixture to the MTV. You may omit tarpaulins if the time from discharge to truck until transfer to the MTV is less than 30 minutes.

Do not allow traffic on BWC-G until the surface temperature is below 160 °F.

203-17.6.4 Smoothness If BWC-G is below 240 °F. Complete all compaction before the surface temperature drops below 180 °F.

If the atmospheric temperature is below 70°F, cover loads in trucks with tarpaulins. The tarpaulins must completely

placed over HMA constructed under the same project:

1. The top layer of the HMA must comply with smoothness specifications before placing bonded wearing course.
2. BWC-G must comply with straightedge and must-grind specifications.

For BWC-G placed over existing asphalt concrete, only the straightedge specifications for smoothness apply. Remove and replace BWC-G not complying with the must-grind and straightedge specifications, except you may grind bonded wearing course for correcting smoothness:

1. At a transverse joint separating the BWC-G from pavement not constructed under the same project
2. Within 12 feet of a transverse joint separating the pavement from a bridge deck or approach slab

Place BWC-G on adjacent traveled way lanes so that at the end of each work shift, the distance between the ends of BWC-G layers on adjacent lanes is between 5 feet and 10 feet. Place additional BWC-G along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional bonded wearing course to form temporary conforms. You may place Kraft paper or another approved bond breaker under the conform tapers to facilitate the taper removal when paving operations resume.

203-17.6.5 Conform Tapers Place shoulder conform tapers concurrently with the adjacent lane's paving.

Place additional bonded wearing course along the pavement's edge to conform to road connections and private drives. Hand rake, if necessary, and compact the additional bonded wearing course to form a smooth conform taper.

203-17.7 Measurement and Payment. Bonded Wearing Course - Gap Graded shall be measured by the ton. Full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in placing bonded wearing course, as shown on the Project Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer shall be considered as included in the Contract unit price paid for "Bonded Wearing Course - Gap Graded" and no additional compensation shall be allowed therefor.

Asphaltic Emulsion Membrane shall be measured by the ton. Full compensation for furnishing all labor, material, tools, equipment and incidentals, and for doing all the work involved in placing asphaltic emulsion membrane, as shown on the plans, as specified in the Standard Specifications and these Special Provisions,

and as directed by the Engineer shall be considered as included in the Contract unit price paid for "Asphaltic Emulsion Membrane (BWC-G)" and no additional compensation shall be allowed therefor.

SECTION 207 – GRAVITY PIPE

ADD THE FOLLOWING TO THE SECTION HEADING:

The Contractor shall have the option to use alternative pipe materials for the construction or replacement of sanitary sewer work according to the table shown below unless specifically stated otherwise on the plans. Except for irrigation water line, pipes and fittings made with Polyvinyl Chloride (PVC) are not allowed. If specific pipe materials are shown in the plans, Contractor shall not have the option of using other pipe materials.

The Contractor shall state the pipe type planned for use and supply any certification required by the specifications no later than the project pre-construction meeting. Only one pipe type shall be used on a reach between sewer structures.

PIPE COVER AND MATERIAL REQUIREMENTS

PIPE DIAMETER (inches)	LESS THAN 3 FEET	3 TO 15 FEET	15 FEET PLUS
8 TO 15	DIP VCP w/ concrete encasement*	VCP	VCP w/concrete bedding* RCP Class IV
18 TO 36	VCP w/ concrete encasement* RCP Class V	VCP RCP Class III	VCP w/concrete bedding* RCP Class IV

DIP Ductile Iron Pipe, Class II/52 as per AWWA A H3-65

VCP Extra Strength Vitrified Clay Pipe as per ASTM C-700

RCP Reinforced Concrete Pipe with rubber gasket joint

* Concrete encasement or bedding shall be included in the unit price of VCP installed.

1. The following table shall be used for establishing pipe strengths for reinforced concrete pipe:

Pipe Class	I	II	III	IV	V
Minimum Ultimate D-Load lbs/ft of diameter/lf	1,200	1,500	2,000	3,000	3,750

2. Where Ductile Iron Pipe (DIP) is specified in the plans for sanitary sewer pipe, the Contractor shall use Protecto 401 (or approved equal) Ceramic Epoxy-Lined DIP Class II/52 with a minimum of 40 mils thickness lining. DIP shall have mechanical joints.
3. Existing six-inch sewer mains shall be replaced with eight-inch sewer pipe, except as shown on the Plans or when directed by the Engineer.
4. Lining an existing six-inch sewer main is not permitted unless shown on the plans.
5. Where pipe rehabilitation type 1, 2, 3 and 4 are specified in the plans, the following methods shall be used:
 - Type <1>:** Rehabilitate existing sanitary sewer pipe by installing CIPP liner in accordance with Subsection 500-1.4.
 - Type <2>:** Rehabilitate existing sanitary sewer pipe with SDR 17 HDPE pipe by pipe-expanding in accordance with Subsection 500-1.6.
 - Type <3>:** Replace existing sanitary sewer by Open-Trench Excavation in accordance with Section 306-1.
 - Type <4>:** Construct new sanitary sewer by Open-Trench Excavation in accordance with Section 306-1.

207.1 NONREINFORCED CONCRETE PIPE.

DELETE THE SUBSECTION.

207-3 LINED REINFORCED CONCRETE PIPE.

REPLACE SUBSECTION 207-3 TO READ:

207-3 LINED REINFORCED CONCRETE PIPE.

207-3.1 General. These specifications apply to reinforced concrete pipe (RCP) manufactured with HDPE lining. No polyvinyl chloride lining is allowed. The material properties for HDPE shall comply with the specification for concrete embedment liner in section 207-3.2. The HDPE liner shall be lined 360 degrees inside circumference of the pipe. The interior joint of the pipe shall be welded with HDPE welding (cap) strip using electro-fusion welding. At the connection of the pipe and sewer structure (maintenance Hole) wall the interior lining shall be welded using extrusion-welding method. HDPE-lined RCP shall conform to the provision in ASTM C 76, the minimum 28-day concrete compressive strength shall be the minimum compressive strength specified in ASTM C 76 for the particular pipe design.

207-3.2 Concrete Embedment Liner. This section covers the specifications and guidelines for manufacturing high density polyethylene (HDPE) embedment liner for RCP and sewer structures. References to American Society for Testing and Materials (ASTM):

1. D 1505 Test Method for Density of Plastics by the Density-Gradient Technique.
2. D 1603 Test Method for Carbon Black in Olefin Plastics.
3. D 5199 Standard Test Method for Measuring Nominal Thickness of Geo-textiles and Geo-membrane.
4. D 5596 Standard Test Method for Microscopic Evaluation of the Dispersion of Carbon Black in Polyolefin Geo-synthetics.
5. D 6693 Standard Test Method for Determining Tensile Properties of Nonreinforced Polyethylene and Non-reinforced Flexible Polypropylene Geo-membranes.
6. D 1204 Standard Test Method for Linear Dimensional Changes of Non-grid Thermoplastic Sheeting or film at Elevated Temperature.
7. D 696 Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30° C and 30° C With a Vitreous Silica Dilatometer.
8. D 746 Standard test Method for Brittleness Temperature of Plastics and Elastomers by Impact.
9. D 570 Standard Test Method for Water Absorption of Plastics.
10. E 96 Standard Test Method for Water Vapor Transmission of Material.

207-3.3 Post Award and Submittals.

- a. All work for and in connection with the installation of the lining, field seaming and welding joints shall be completed in strict conformity with all applicable instructions and recommendations of the liner manufacture.
- b. All surfaces in contact with corrosive or erosive environments or environments susceptible to mechanical damage shall be lined with an approved HDPE independent anchor embedment liner.
- c. At the request of the Engineer, Pre-Caster or End User, samples, datasheets, installation instructions, etc. will be provided. Included with the shipment of liner, submit certified test reports that the liner and material are manufactured in accordance with standards specified herein.

207-3.4 Qualifications.

- a. The HDPE liner specified in this section shall be furnished by a Manufacture that is fully experienced, reputable and qualified in the manufacturing of the materials. The manufacture must have at least 10 years manufacturing experience.
- b. Locking independent anchors must be of the same material as that of the liner, and shall be integrally extruded with the sheet in a one step process.
- c. Liner shall demonstrate minimum pull-out strength of 14,000 pound per square foot (psf).
- d. HDPE liner exposed to U.V. must be protected with 1.5- 3% carbon black and comply with ASTM D 1603, and D 5596.
- e. Liner in below grade installations, not exposed to U.V. should be light in color to facilitate camera inspections, U.V. protection is not required.

207-3.5 Material Properties.

- a. The material used in the embedment liner, and in all welding strips shall be made from 97-98% virgin high-density polyethylene.
- b. Plasticizer shall not be added to the resin formulation.
 - c. Embedment sheet, and welding strips shall be free of holes, pinholes, bubbles, blisters, excessive contamination by foreign matter, and nicks and cut on roll edges.
- d. The cap strips shall be made from HDPE, and have good impact resistance and have an

elongation sufficient to bridge up to $\frac{1}{4}$ inch settling cracks.

- e. Cap strip shall be approximately 4 inches wide or greater, and shall be equivalent to liner.
- f. Material shall maintain a repairable state through its lifecycle by methods approved, and recommended by the manufacturer.
- g. Embedment sheets shall have the following physical properties when tested in accordance with Table 1.
- h. Raw resin shall have the following properties when tested in accordance with Table 2.

Table 1: Material Properties

Property	Test Method	Nominal Value				Testing Frequency
Thickness, mm (mil)	ASTM D 5199	2.00 (80)	3.00 (120)	4.00 (160)	5.00 (200)	Every 5th roll
Density, g/cm ³	ASTM D 1505	0.94	0.94	0.94	0.94	One / 100,000 ft ²
Tensile Properties	ASTM D 6693					
Strength@yield, lb/in ² (Mpa)	Type IV, Bumbbell G.L.=2.0 in (50 mm)	2,100 (14.5)	2,100 (14.5)	2,100 (14.5)	2,100 (14.5)	One/100,000 ft ²
Elongation @ Break, %		500	500	500	500	
Stud Pull Strength ¹ , lb/ft ² (kN/m ²)		>14,000 (669.89)	>14,000 (669.89)	>14,000 (669.89)	>14,000 (669.89)	One / product
Carbon Black Content/ Pigment Content, %						
Black Liner	ASTM D 1603, mod	2-3	2-3	2-3	2-3	One /100,000 ft ²
Gray Liner	ASTM D 5630, mod	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	
Carbon Black Dispersion ²	ASTM D 5596	Note 2	Note 2	Note 2	Note 2	One /100,000 ft ²
Notched Constant Tensile Load, hours	ASTM 5397	400	400	400	400	One / formulation
Coefficient of Linear Thermal Expansion, per °C	ASTM D 696	1.20E-04	1.20E-04	1.20E-04	1.20E-04	One / product
Low Temperature Brittleness, °C	ASTM D 746	-77	-77	-77	-77	One / product
Dimensional Stability, % (each direction)	ASTM D 1204	±1.0	±1.0	±1.0	±1.0	One / product One / product
Water Absorption, %	ASTM D 570	0.1	0.1	0.1	0.1	One / product
Water Vapor Transmission, (g/m ² /day)	ASTM E 96	<0.01	<0.01	<0.01	<0.01	One / product

¹Note: Concrete must have a compressive strength of at lease 4,000 lb/in² (27,600 Kpa).

²Note: Despersian only applies to near spherical agglomerates. 9 of 10 views shall be category 3.

Table 2: Raw Material Properties

Property	Test Method	Value	Testing Frequency
Density. g/cm ³	ASTM D 1505	0.932	1/resin lot
Melt Flow, g/10min	ASTM D 1238 (190/2.16)	≤1.0	1/resin lot
OIT, minutes	ASTM D 3895 1 atm/200°C	100	1/formulation

207-3.6 Material Supply and Handling

Material Supply

- a. Embedment sheets shall be supplied in roll form, pre-fabricated tubes or panels.
- b. Cap strips shall be supplied in 4 inch widths or greater.

Material Handling

- a. Materials are to be handled as to prevent damage.
- b. The on-site storage location for geo-membrane material, provided by the contractor to protect the liner from punctures, abrasions and excessive dirt and moisture. Storage area should have the following characteristics:
 1. Level (no wooden pallets).
 2. Smooth
 3. Dry
 4. Protected from theft and vandalism

207-3.7 Welding Procedures and Testing Program

Welding Procedure

- a. Only welding techniques approved by the manufacturer are to be used. Approved welding techniques are as follows:
 1. Factory butt-welding.
 2. Wedge welding
 3. Extrusion welding
 4. Electro-fusion welding.
- b. Hot air welding is not allowed except for the purpose of temporarily tack welding sheets together.
- a. Pipe joints should be welded using the Electro-Fusion process as developed by GSE Lining Technology, and DemTec (or equivalent), whenever possible.
- b. Welding contractors must be approved by the manufacturer, and be able to demonstrate welding proficiency.
- e. Field welded joints must be made water tight prior to the weld. Any joints leaking should be repaired using SealGuard® 2 expanding foam grout or equivalent before weld is attempted.

Weld Testing Program

- a. A suitable weld-testing program should be instituted that meets the approval of the Engineer, the Contractor, and the liner manufacturer prior starting of any welding procedures. Testing methods may include both destructive, and non-destructive testing.
- b. Testing on embedded material must be non-destructive.
- c. Test methods may include spark testing, vacuum testing, and pull testing.
- d. Holidays found in welds should be ground out re-welded and tested.

207-16 ABS OR PVC COMPOSITE PIPE.

DELETE ALL REFERENCES TO PVC PIPE OR FITTINGS.

207-17 PVC GRAVITY PIPE.

DELETE THE SUBSECTION.

207-19 POLYETHYLENE (PE) SOLID WALL GRAVITY PIPE.

207-19.1 General.

ADD THE FOLLOWING TWO SENTENCE TO THE END OF THE SUBSECTION:

HDPE pipe used for direct burial shall be SDR 11. HDPE pipe used for the pipe-expanding method of Subsection 500-1.6 shall be SDR 17.

REPLACE SUBSECTION 207-19.3 WITH THE FOLLOWING:

207-19.3 Pipe Acceptance. When manufactured, each lot of pipe, liner, and fittings shall be inspected for defects and tested in accordance with ASTM D3350. The liner or pipe shall be homogeneous throughout, uniform in color, free of cracks, holes, foreign materials, blisters or deleterious faults.

The Contractor shall supply written certification by the manufacturer that materials used in the manufacture of the pipe and the pipefittings conform to these specification requirements. The Contractor shall also supply written certification that all resins/pellets used are from a single producer. Failure to meet this requirement will result in rejection of the pipe or liner during shop drawing review.

For testing purposes, a production lot shall consist of all pipe or liner having the same marking number. It shall include any and all items produced during any given work shift and must be so identified as opposed to previous or ensuing production.

ADD NEW SUBSECTION 207-25 TO READ AS FOLLOWS:

207-25 POLYETHYLENE (PE) LARGE DIAMETER (36 INCH DIAMETER OR GREATER) PROFILE WALL PIPE.

207-25.1 General. Polyethylene (PE) profile wall pipe and fittings for use in gravity flow sanitary sewers and storm drains, and for use as liners for sanitary sewers shall comply with ASTM F894.

207-25.2 Material Composition. Pipe fittings shall be made from a plastic compound meeting the requirements of type III, class C, category 5, grade P 34 as defined in ASTM D 1248 and with established hydrostatic design basis (HDB) of not less than 1250 psi for water at 73.4 degrees F determined in accordance with method ASTM D2837. Materials meeting the requirements of cell classification PE 334433 C or higher cell classification in accordance with ASTM D 3350 are also suitable.

Materials other than those specified above may be used as part of the profile construction (for example, as a core tube to support the shape of the profile during the processing, provided that these materials are compatible with the PE material, are completely encapsulated in the finished product, and in no way compromise the performance of the PE pipe product in the intended use.

Materials shall meet the chemical resistance tests of 210-2.3.3.

207-25.3 Test Requirements. Pipefittings shall meet the requirements of the section titled "Requirements" of ASTM F 894. The Engineer will require certification by the manufacturer that the test results comply with specifications requirements. Sampling and inspection shall meet the requirements of the section titled "Sampling, Inspection, and Retest" of ASTM F 894.

207-25.4 Marking. Each standard and random length of pipe shall be clearly marked with the following information: the nominal pipe size (in inches); the legend "PE sewer and drain pipe"; the RSC classification; the material designation: P-34 grade or cell classification; the manufacturer's name; the production code and plant location; and manufacture date.

207-25.5 Dimensions. Pipe dimensions shall comply with dimensions given in Table I of ASTM F 894. Pipe shall have a RSC as shown on the Plans. RSC is defined in ASTM F 894.

SECTION 209 – PRESSURE PIPE

209-1 IRON PIPE AND FITTINGS.

209-1.1 Ductile Iron Pipe (DIP).

209-1.1.1 General.

ADD THE FOLLOWING TO THE END OF SUBSECTION 209-1.1.1 TO READ:

Where Ductile Iron Pipe (DIP) is specified in the plans for sanitary sewer pipe, the Contractor shall use Protecto 401 (or approved equal) Ceramic Epoxy Lined DIP Class II/52 with a minimum of 40 mils thickness lining. The DIP shall have mechanical joints. The inside and outside surfaces of cast iron and ductile iron pipe and fittings for general use shall be coated with a bituminous coating 1 mil (0.0254mm) thick in accordance with ANSI A21.51.

SECTION 210 -- PAINT AND PROTECTIVE COATINGS

210-1 PAINT.

210-2 PLASTIC LINER.

DELETE ALL SUBSECTIONS OF SECTION 210-2 EXCEPT FOR SUBSECTION 210-2.33 Chemical Resistance Test (Pickle Jar Test).

210-5 POLYVINYL CHLORIDE (PVC) COATINGS.

DELETE THE SUBSECTION.

SECTION 211 - MATERIAL TESTS

REPLACE SUBSECTION 211-1.1 TO READ:

211-1.1 Laboratory Maximum Density. Laboratory maximum density shall be determined by California Test Method No. 216, Part II.

REPLACE SUBSECTION 211-1.2 TO READ:

211-1.2 Field Density. Field site shall be determined by California Test Method 231.

ADD NEW SUBSECTION 211-7 TO READ:

211-7 IMPORT FILL MATERIAL.

The following subsection shall be used for all City projects where fill material is imported for any purpose.

211-7.1 Definitions.

- (1) **Import Material:** Any fill identified for import to the project site from an offsite location, including but not limited to: soil, gravel, crushed rock, rock dust, crushed concrete, sand, compost and biosolids (organic matter recycled from sewage).
- (2) **Source Area:** The location from which the Import Material originated.
- (3) **Chemical of Concern:** Any chemical identified for analysis per 211-7.2.2.
- (4) **Pathogen of Concern:** Any pathogen identified for analysis per 211-7.2.2.

211-7.2 General.

1. **Import Material Certification.** The Contractor shall submit an original, signed copy of the Import Material Certification Form (**Attachment 12** at the end of these Special Provisions) to the Engineer at least 15 working days prior to delivering Import Material to the construction site. A separate form shall be submitted for each separate Import Material and Source Area. The Contractor shall attach the following documentation to the Import Material Certification Form:
 - c. Chemical and Pathogen of Concern analysis results for the Import Material, including laboratory data sheets, chain-of-custody documentation, description of sample collection methods, and any additional information pertinent to assessing the potential for the Import Material to be contaminated by Chemicals or Pathogens of Concern;
 - d. Class A (pathogen reduction), Exceptional Quality (low heavy metals concentrations) documentation if the Import Material is biosolids.
2. **Sampling and Analysis of Import Material.** Unless otherwise agreed to in writing by the Engineer, the Contractor shall comply with the sampling, handling and analytical protocol outlined below.
 - a. The Contractor shall collect samples per the frequency outlined in Table 211-7.2(A).

Table 211-7.2(A). Sampling Frequency for Import Material Characterization¹

Volume of Import Material	Sampling Frequency
< 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1,000 cubic yards + 1 sample for each additional 500 cubic yards
>5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample for each additional 1,000 cubic yards

¹Source: Department of Toxic Substances Control, "Information Advisory: Clean Imported Fill Material", October 2001.

All samples shall be representative of Import Material conditions at the time of import. Composite samples shall be considered acceptable unless analysis for volatile organic compounds (VOCs) is required, in which case individual discrete samples shall be submitted for analysis. Composite samples shall consist of no more than four discrete samples. All compositing of samples must be performed by a California State-certified laboratory. The sampling, handling, and preservation shall be completed in accordance with the procedures outlined in EPA Document SW-846.

- b. All analyses of chemicals and pathogens shall be performed by a California State-certified laboratory. Table 211-4.2(B) outlines, by Source Area land use history, the Chemicals of Concern and prescribed analytical methods to be followed for characterization of Import Material that is soil or aggregate (not recycled).

**Table 211-7.2(B). Required Analyses by Source Area Land Use History –
Soil and Aggregate (Not Recycled)**

Source History	Chemicals of Concern + Analytical Methods
----------------	-------------------------------------------

Virgin, undeveloped property	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191)
History of residential use	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015)
History of agricultural activity	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015); organo-chlorine pesticides (EPA method 8081A or 8080A); organo-phosphorus pesticides (PEA method 8141A); chlorinated herbicides (EPA method 8151A)
History of commercial / industrial activity	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015); VOCs (EPA method 8021 or 8260B, as appropriate, and combined with collection by EPA method 5035); semi-VOCs (EPA method 8270C); PCBs (EPA method 8082 or 8080A) ¹

¹For railroad properties, the Contractor must also analyze Import Material for chlorinated herbicides per EPA method 8151A.

If the Contractor is unable to determine a complete land use history of the Source Area to the satisfaction of the Engineer, the Contractor shall be obliged to undertake all the analyses listed in Table 211-7.2(B).

Table 211-7.2(C) prescribes the analytical methods to be followed for characterization of Import Material that consists of the following recycled products: aggregate (e.g., crushed concrete, asphalt, etc.); compost; and biosolids.

Table 211-7.2(C). Required Analyses – Recycled Material

Import Material	Chemicals/Pathogens of Concern + Analytical Methods
Recycled aggregate	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015); PCBs (EPA method 8082 or 8080A)
Compost	heavy metals (EPA methods 6010B and 7471A); organo-chlorine pesticides (EPA method 8081A or 8080A); organo-phosphorus pesticides (PEA method 8141A); chlorinated herbicides (EPA method 8151A); fecal coliform (EPA method 1680); salmonella (EPA method 1682) ¹
Biosolids ²	heavy metals (EPA methods 6010B and 7471A); semi-VOCs (EPA method 8270C); PCBs (EPA method 8082 or 8080A)

¹List of required analyses based on *Compost Quality Standards and Testing Protocol*, Alameda County Waste Management Authority (2006)

²Biosolids must also have been designated Class A for pathogen reduction.

In addition to meeting the screening criteria outlined in 211-7.3 for the chemicals of concern listed in Table 211-7.2(C) above, all biosolids must:

- (1) be designated Class A per 40 CFR 503.8 (i.e., no detectable concentrations of the following pathogens: enteric viruses, fecal coliform, helminth ova, and salmonella); and
- (2) be designated Exceptional Quality (i.e., low heavy metals concentrations per Table 3 of 40 CFR 503.13).

The Contractor may use sewage plant data to confirm the Class A designation. For Chemicals of Concern, the Contractor must provide data from analyses run on stockpile samples of the actual material to be imported (i.e., general sewage plant data for the Chemicals of Concern listed in Table 211-7.2(C) above are insufficient).

3. **Verification by City:** The City may, at its option and at any time, collect samples of Import Material to verify that it meets the specifications outlined in 211-7. The Contractor shall fully cooperate in the collection of the samples.

If the resulting chemical or pathogen analyses indicate that the material does not meet the specifications outlined in 211-7, the Contractor shall be responsible for providing, to the satisfaction of the Engineer, subsequent sampling and analyses at the Contractor's sole expense to determine the extent of out-of-specification material delivered to the construction site.

If the Contractor uses Import Material that is, or is found to be, not in accordance with the specifications of 211-7, the Contractor shall promptly remove all out-of-specification Import Material. The Contractor shall verify, to the satisfaction of the Engineer, that all out-of-specification Import Material has been removed and any effects from its placement at the site have been mitigated sufficiently. The subsequent disposal of the out-of-specification Import Material shall be the sole responsibility and at the sole expense of the Contractor. The City shall not be liable for, nor will it pay, any additional costs incurred by the Contractor for the characterization, removal, disposal, or replacement of the out-of-specification Import Material.

211-7.3 Screening Levels for Import Material.

1. **All Chemicals of Concern, Except Lead.** No Import Material with one or more Chemicals of Concern at a concentration greater than the current San Francisco Bay Region Water Quality Control Board Environmental Screening Level (ESL) available at www.waterboards.ca.gov/sanfranciscobay/esl.htm shall be accepted ("Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater", Table A).
2. **Lead.** No Import Material with total lead concentrations at or greater than ten times the Soluble Threshold Limit Concentration (STLC) published in Title 22 of the California Code of Regulations shall be accepted. (As of January 1, 2008, the acceptable total lead concentration is <50 mg/kg.)
3. **Pathogens of Concern.** No Import Material with one or more Pathogens of Concern at detectable levels shall be accepted.

SECTION 213-ENGINEERING GEOSYNTHETICS

213-1 GENERAL.

NO PAVEMENT FABRIC SHALL BE USED, DELETE SUBSECTION

SECTION 214-TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

214-5 THERMOPLASTIC MATERIAL FOR TRAFFIC STRIPING AND MARKINGS.

214-5.1 General.

REPLACE THE LAST PARAGRAPH OF SUBSECTION 214-5.1 WITH THE FOLLOWING TWO PARAGRAPHS:

Thermoplastic traffic striping shall be reflectorized material applied to the road surface in a molten state by extrusion method or as approved by the Engineer. It shall have surface application of glass beads, which upon cooling to normal pavement temperature shall produce an adherent reflectorized stripe of the specified thickness and width, and shall be resistant to deformation by traffic. Thermoplastic material shall conform to State Specification PTH-02ALKYD (Alkyd Binder). Glass beads to be applied to the surface of the molten thermoplastic material shall conform to the requirements of State Specification 8010-004.

Thermoplastic striping application shall conform to Section 84.2.04 of State Specifications and the requirements included herein. Thermoplastic material shall be applied at a thickness of 0.125 to 0.188 inch. Glass beads shall be applied immediately to the surface of the molten thermoplastic material by an automatic bead dispenser closely behind the striped line. The glass bead dispenser shall be equipped with an automatic cut-off control that shall be synchronized with the cut-off of the thermoplastic material. Beads shall be applied at the rate of not less than 10 pounds per 100 square feet.

SECTION 215 – NOT USED

SECTION 216 – PRECAST REINFORCED CONCRETE BOX

SECTION 217 – BEDDING AND BACKFILL MATERIALS

217-2 TRENCH BACKFILL.

217-2.1 General.

REPLACE SUBSECTION 217-2.1 WITH THE FOLLOWING:

Trench backfill material shall consist of either crushed aggregate base conforming to 200-2 or broken/crushed portland cement concrete conforming to the requirements of Section 26 of the State of California Standard Specification for 3/4 inch, Class 2, aggregate base. Trench backfill material shall be free from organic material, trash, debris, rubbish, and other deleterious substances such as brick, glass, metal, etc. The maximum asphalt content shall not exceed two percent (2%) by weight of the material. Whenever practical, the contractor is required to use trench-excavated material for trench backfill, provided that such excavated material meets the above requirements. For restriction on storage of excavated material refer to 7-10.3.

217-2.3 Imported Backfill.

CHANGE THE FIRST PARAGRAPH OF SUBSECTION 306-1.3.5 TO READ:

306-1.3.7 Imported Backfill. The Contractor will use imported backfill materials at those locations and limits where the Engineer determines the use of native excavated material would not be to the best interest of the City. Imported backfill material shall consist of material conforming to 217-2.1.

ADD NEW SUBSECTION 217-5 TO READ:

217-5 Special Backfill. Special backfill shall be in those areas as shown on the plans, as directed by the Engineer, or as specified herein, and shall be imported backfill in accordance with the provisions of 217-2.3. Where the construction areas of pipe conduit are in reserves on the downhill side of an existing building foundation, or where such pipe conduit construction is 10 feet (3.05m) or closer to an existing building foundation, the Contractor shall use the following special backfill procedure:

- a. Trench excavation, pipe conduit laying, and backfill compaction to the original ground surface shall be completed in the same working day;
- b. Backfill material shall be placed in uniform layers not to exceed four inches (101mm) before compaction;
- c. Sufficient water shall be applied to compact the 4-inch (101mm) layer readily with mechanical compaction equipment approved by the Engineer;
- d. Ponding or jetting of the backfill material in areas of special backfill will not be allowed;

The City shall take at least one compaction test in each area of special backfill. All special backfill herein described shall be compacted to not less than ninety-five percent (95%) relative compaction as determined by California Test Method No. 216 or California Test Method No. 231.

Measurement and Payment. Measurement of pipe conduit with special backfill shall be by the linear foot and measured in accordance with the provisions of 306-1.6 for pipe and conduit. Payment for pipe and conduit with special backfill shall be made at the unit price bid per linear foot of pipe or conduit with special backfill. Such payment shall include full compensation for all material, labor, tools, equipment, and doing all the work necessary to construct the pipe or conduit with special backfill complete in place as specified herein.

PART 3 - CONSTRUCTION METHODS

Part 3 of the Special Provisions shall conform to Part 3 of the Standard Specifications except as modified herein.

SECTION 300-EARTHWORK

300-1 CLEARING AND GRUBBING.

300-1.3 Removal and Disposal of Materials.

ADD THE FOLLOWING PARAGRAPH TO THE BEGINNING OF SUBSECTION 300-1.3:

Sawcuts through bituminous pavement shall be six inches. Sawcuts through concrete pavement shall be full depth. No stomping of concrete pavement will be allowed. Where bituminous pavement overlies concrete pavement, the sawcut depth shall be to the bottom edge of the concrete.

300-1.3.2 (a) Bituminous Pavement.

DELETE THE SECOND SENTENCE OF THE SUBSECTION.

300-1.3.2 (b) Concrete Pavement.

DELETE THE SECOND SENTENCE OF THE SUBSECTION.

300-1.3.2. (c) Concrete Curb, Walk, Gutters, Cross Gutters, Driveways, and Alley Intersections.

REPLACE THE FIRST SENTENCE OF THE PARAGRAPH WITH THE FOLLOWING:

Concrete shall be removed to neatly sawed edges.

REPLACE THE LAST SENTENCE OF THE PARAGRAPH WITH THE FOLLOWING:

Curb and gutter shall be sawed on a neat line at right angles to the curb.

ADD THE FOLLOWING SENTENCE TO THE END OF THE SUBSECTION:

Sawcutting for curb ramps shall be to the exterior dimensions of the proposed ramp only. **No demolition work for sidewalks or curb ramps may be performed on a Friday.**

ADD NEW SUBSECTION TO READ:

300-1.3.3 Removal of Traffic Striping and Pavement Markings.

Traffic striping and pavement markings shall be removed before any change is made in the traffic pattern. Traffic Striping and pavement markings shall be removed to the fullest extent possible from the pavement by abrasive methods.

Any "shadows" left after the removal of pavement arrows, STOP legends or YIELD legends shall form a rectangle perpendicular to the street's center line. This rectangle shall be of sufficient size to encompass the totality of the pavement arrows and legends removed. Sand or other material deposited on the pavement shall be removed as the work progresses. Accumulations that might interfere with drainage or constitute a hazard to traffic will not be permitted.

Removal of traffic striping will be measured and paid for by the liner foot. Double or triple traffic stripes will be measured as two or three traffic stripes, respectively. Each square foot pavement markings removed will be considered as three liner feet of traffic stripe. In measuring traffic striping, a deduction will be made for gaps in broken stripings. All paint evident in these gaps shall be removed to the fullest extent possible as part of the traffic striping removal.

If no item is shown in the Proposal, the Engineer shall establish payment for required traffic striping and pavement markings removal in accordance with 3-2.

ADD NEW SUBSECTION 300-1.5 TO READ:

300-1.5 Heater Planing.

300-1.5.1 General.

Existing asphalt concrete pavement shall be heater-planed at the locations and to the dimensions shown on the plans and in accordance with these requirements.

The heater-planer machine shall have, in combination or separately, a means for heating and cutting the asphalt concrete roadway surface and blading the displaced material into windrows in one continuous forward motion. The blade's cutting width shall not be less than three feet (.91m). Planing operations shall not be carried on at any time where, if an open flame is used in the heater, there is danger of igniting entrapped gas from sewers or gas mains.

Heat shall be applied uniformly to the area to be planed and shall be accurately controlled according to weather conditions and the road surface being planed. The road surfacing to remain in place shall not be damaged in any way.

Prior to placement of an asphalt concrete overlay, the areas shown on the plan and the areas designated by the Engineer shall be heater-planed. The depth, width and shape of the cut shall be as indicated on the typical cross sections or as directed by the Engineer. The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the heater-planed area shall be neat and uniform.

Heater-planed pavement widths shall be continuous except for intersections at cross streets where the heater-planing shall be carried around the corners and through the conform lines.

The material from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be immediately removed from the work site. This disposal shall part of the heater-planer work and no separate measurement or payment will be made therefor. The removal crew shall follow within 150 feet of the planer, unless otherwise directed by the Engineer.

300-1.5.2 Measurement and Payment. Heater Planing will be measured by the square yard. The pay quantity will be the actual area of heater-planed surface, irrespective of the number of passes required.

The contract price paid per square yard of heater-planing shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in heater-planing the asphalt concrete roadway surface and disposing of material removed, all as specified herein and in the Special Provisions and as directed by the Engineer.

SECTION 301 – SUBGRADE PEPARATION, TREATED MATERIALS, AND PLACEMENT OF BASE MATERIALS

301-1 SUBGRADE PREPARATION.

ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 301-1:

On paving jobs, the Contractor shall lower all structures (e.g. maintenance Holes, water valves, etc.) to the grading depth if it is expected that the surface will be graded and remain unpaved for more than five working days.

301-1.6 Adjustment of Maintenance Hole Frame and Cover Sets to Grade.

ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 301-1.6:

Concrete grade rings for extensions shall be a maximum of six inches thick. Extensions will be limited to a maximum height of 18 inches. All structures shall be clearly marked or referenced, covered with building paper, and paved over. Adjustment of maintenance Holes shall be made after overlay resurfacing has been completed.

301-2 UNTREATED BASE.

301-2.4 Measurement and Payment.

ADD THE FOLLOWING TO THE END OF THE SUBSECTION TO READ:

Crushed Aggregate Base Payment: Full compensation for labor material, equipment and incidentals to deliver and compact the crushed aggregate base to the limit specified in the plans and special provisions for crushed aggregate base shall be paid for other bid items of work involved, and no additional compensation will be allowed therefor.

Processed Miscellaneous Base Payment: Full compensation for labor material, equipment and incidentals to deliver and compact the processed miscellaneous base to the limit specified in the plans and special provisions for processed miscellaneous base shall be paid for other bid items of work involved, and no additional compensation will be allowed therefor.

SECTION 302 - ROADWAY SURFACING

302-1 COLD MILLING OF EXISTING PAVEMENT

302-1.1 General

ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 302-1.1

The milled pavement shall not remain unpaved no longer than 2 working days or as specified in the Plans and Specifications for each roadway segment. Specific streets if specified in the Plans and Specifications cannot have a milled surface during the weekends. For each consecutive calendar day in excess of the 2 working days, the Contractor shall pay to the City or the City may deduct from monies due the Contractor, the sum of \$500.00 per paving segment per day, unless otherwise provided in the contract documents.

302-4.3.2 SPREADING.

ADD THE FOLLOWING TO SUBSECTION 302-4.3.2:

Spreading shall conform to the requirements of Section 302-4.3.2 of the Standard Specification and these Special Provisions.

The slurry seal shall not be applied when either atmospheric or pavement temperature is 60 degrees Fahrenheit and falling but may be applied when either the atmospheric or pavement temperature is 55 degrees Fahrenheit and rising. The slurry seal shall not be applied during periods of abnormally high relative humidity. Slurry seals shall not be applied when raining or foggy.

The slurry seal mixture shall not be applied prior to 8:00 am and shall cease by 3:00 pm, except if approved by the Engineer. Approval of application after 3:00 pm will only be for the purpose of completing the section of work. No more than 25,000 square yards (225,000 square feet) of slurry seals shall be placed per crew per day.

No application of slurry mixture shall be permitted when the temperature of the pavement to be surface is below 50°F or when the air temperature is below 60°F in the shade or when in the opinion of the Engineer, road conditions, road temperatures, imminence of rain, wetness or dampness are not conducive to successful results.

The surface shall be fogged with water directly preceding the spreader. The slurry mixtures shall be of the desired consistency when deposited on the surface. Total time of mixing shall not exceed four (4) minutes. A sufficient amount of slurry shall be carried in all parts of the spreader at all times so that complete coverage is obtained. No lumping, balling or unmixed aggregate shall be permitted. No segregation of the emulsion and aggregate fines from the coarse aggregate will be permitted. If coarse aggregate settles to the bottom of the mix, slurry will be removed from the pavement. No excessive breaking of the emulsion will be allowed in the spreader box. No streaks such as caused by oversized aggregate will be left in the finished pavement. Ridges (especially at existing raised pavement markers) and washboarding in the finished product will not be allowed.

The slurry seal shall be placed at an average rate of 15 pounds per square yard. Actual rate to be determined by the surface being sealed and the aggregate gradation. The Engineer will monitor and approve the application rate throughout the project.

The slurry seal mixture shall be applied so that the joint between the asphalt and the concrete gutter is filled but not overlapping. Any application or spillage beyond this joint shall be removed or cleaned up by the Contractor to the Engineer's satisfaction. Gutter spills shall be cleaned immediately.

All termination lines of slurry sealing shall be neat and straight. The Contractor shall accomplish this by providing and installing roofing paper, or an approved equal header material at all limits of work. Longitudinal joints shall be at the crown of the street or at the edge of travel lines.

No excessive buildup or unsightly appearance shall be permitted on longitudinal or transverse joints. Burlap drags shall be used.

Approved squeegees shall be used to spread slurry in non-accessible areas to the slurry mixer. Care shall be exercised in leaving no unsightly appearance from handwork.

At any time the quality of the mix or human effort is not to the Engineer's satisfaction, the job shall be discontinued until a correction is made which is satisfactory to the Engineer.

Wheel tracks in the slurry shall be repaired to the Engineer's satisfaction.

Gutters, curbs, sidewalks, driveways and other structures adjacent to the pavement to be slurry sealed shall be cleaned of excess slurry seal to the Engineer's satisfaction.

All incidental work such as surfacing of driveway aprons and returns shall be done concurrently with the surfacing of the street proper. Slurry seals shall not overlap the concrete gutter but shall leave a neat, straight edge. The edges of the limits of the slurry seal application on both sides of the street shall be maintained in a neat and uniform line. Care will be taken to avoid leaving ridges at the lap joints between adjoining center of the lane. In no case will ridges be allowed in the normal wheel track of vehicles. The forward speed of the slurry spreader shall be adjusted to eliminate corrugations or surface irregularities in the slurry coat that are caused by excessive speed.

The Contractor shall furnish and maintain in good operating condition all tools and equipment necessary to do the work with a minimum of inconvenience to the public and shall employ sufficient personnel to operate all equipment efficiently and skillfully.

The Contractor shall remove any excess slurry from concrete gutters, sidewalks, driveways, etc., before the end of the workday. The Contractor shall not continue work on the following day until all excess slurry is removed as determined by the Engineer.

ROLLING. The finished surface of the slurry seal shall be rolled by a self-propelled 10 ton pneumatic roller with a tire pressure of 50 PSI and equipped with a water spray. The rolling shall commence as soon as the slurry seal has cured sufficiently so as not to pick up on the tires of the roller.

SWEEPING. All streets shall be swept within 24 hours and 48 hours after placing the seal and as often as necessary to remove loose aggregate from the roadway. The use of any sweeper that causes damage to the seal coat shall not be permitted. The sweepers shall be self-propelled vacuum, regenerative air, or rear broom pickup, with water spray bars to reduce dust. If necessary, more than one type of sweeper shall be used. Sidewinder sweepers or brooms that windrow material and do not remove it shall not be used. Completion of sweeping shall be evidenced by the absence of loose aggregate in gutters and driveways. Attention is directed to the sweeping of areas with excessive raveling as directed by the Engineer. Special attention (blowers, hard sweeping, etc.) shall be required in sweeping driveways and under and around parked vehicles clear of loose aggregate. The Contractor shall also be responsible for removal of all aggregate from sidewalks and other affected areas. The Contractor shall provide a minimum of three (3) sweepers per slurry application crew to sweep all streets within 24 hours after spreading slurry application solely dedicated to post application sweeping separate and in addition to surface preparation sweepers.

The slurry seal shall be swept a minimum of five times as follow:

- Two times within 8 hours
- One time prior to striping
- One time immediately prior to project acceptance

The Contractor shall refrain from using fuel or solvent of any kind for cleaning tool and equipment in such a manner as to permit spillage of diesel fuel or solvent on the pavement, curbs, gutters, parkways or other adjoining area.

REPLACE SUBSECTION 302-4.5 TO READ:

302-4.5 Measurement and Payment (Slurry Seal). Aggregate and polymer modified asphaltic emulsion for Slurry Seal shall be paid for at the Contract Unit Price per square yard of slurry seal. The Contract Unit Price per square yard for slurry seal shall include full compensation for furnishing materials, water, retardant, aggregate and polymer modified asphaltic emulsion, surface preparation, traffic striping removal, rolling and sweeping, labor, materials, tools, equipment and incidentals, spreading, finishing work, and for meeting all requirements of the Special Provisions for installation of slurry seal complete in place as shown on the plans and specified in these Special Provisions, or as directed by the Engineer.

REVISE SUBSECTION 302-5.4 TO READ:

302-5.4 Tack Coat.

CHANGE THE FIRST SENTENCE OF THE FIRST PARAGRAPH TO READ:

If the asphalt concrete pavement is being constructed directly upon an existing hard-surfaced pavement, a tack coat of PG64-10 paving asphalt at an approximate rate of 0.25 L/m² (0.05 gallon per square yard) or SS-1 h emulsified asphalt at an approximate rate of 0.25 L/m² to 0.45 L/m² (0.05 to 0.10 gallon per square yard) shall be uniformly applied upon the existing pavement preceding the placement of the asphalt concrete.

CHANGE THE THIRD PARAGRAPH TO READ:

The contact surfaces of all cold pavement joints, curbs, gutters, maintenance Holes, and the like shall be painted with either Grade SS-1h emulsified asphalt or PG64-10 paving asphalt immediately before the adjoining asphalt concrete is placed.

ADD NEW SUBSECTION 302-5.10 TO READ:

302-5.10 Asphalt Concrete Curbs.

302-5.10.1 Description. This work shall consist of constructing asphalt concrete curbs as indicated on the plans.

302-5.10.2 Materials. Asphalt concrete shall conform to provisions set forth in the Standard Specifications under "Asphalt Concrete." Maximum aggregate size shall be 3/8 inch (9.5mm). Asphalt concrete shall be dense graded. The amount of asphalt binder used in asphalt concrete for curbs shall be increased not less than one percent (1%) by weight of the aggregate over the amount of asphalt binder used in the asphalt concrete placed on the traveled way. Unless shown on the plans or Special Provisions, the type of mix shall be 1/2" Maximum Aggregate, Medium 15% recycled Asphalt, Type A, conforming to 400-4, or as directed by the Engineer. The courses shall be to the dimensions shown on the plans or Special Provisions.

302-5.10.3 Construction. Asphalt concrete curbs shall be constructed true to line and grade. They shall be shaped and compacted with an extrusion machine or other equipment capable of shaping and compacting the material to the required cross section.

302-5.10.4 Measurement and Payment. The length of asphalt concrete curbs to be paid for will be the horizontal length of curb actually constructed within the limits indicated on the plans. Measurement will be to the nearest foot, measured along the curb line.

The price paid per linear foot of asphalt concrete curbs shall include full compensation for furnishing all labor, materials, tools and equipment, and for doing all work including excavation, disposal of waste material, backfill, and all other incidental work involved in furnishing and installing the concrete curbs complete in place as shown on the plans and herein specified.

302-7 PAVEMENT FABRIC.

302-7.2 Placement.

302-7.2.2 Tack Coat.

302-7.2.2.1 General

CHANGE THE FIRST SENTENCE OF THE FIRST PARAGRAPH TO READ:

The tack coat shall be PG 64-10 paving asphalt.

Pavement Markings and Striping: Unless otherwise directed by the Engineer, pavement markings and striping shall conform to the following requirements:

- a. All pavement markings and striping shall be in white thermoplastic. Thermoplastic material and its application shall conform to 310-5.6.1.
- b. Pavement marking letter height shall be eight (8) feet per Caltrans standard.
- c. Speedbump striping shall conform to the pattern shown in Standard Detail T-6. Each undulation shall be striped before it is opened to traffic. **Streets must be clear except during construction hours.**
- d. If permanent striping cannot be installed prior to opening of the speedbump to traffic, the Contractor shall install temporary striping using white construction grade tape conforming to CALTRANS Specifications. Temporary striping shall be replaced within ten working days.

10. **Payment** for speedbump restoration, pavement marking and for speedbump striping shall be included in the bid price for other work, and shall include full compensation for furnishing labor, materials, tools and equipment and for installing temporary reflective tape. No additional payment shall be made.

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS.

ADD THE FOLLOWING TO SECTION 303-5:

Concrete for sidewalks, curb and gutters, access ramp, curb ramps, and driveways shall conform to 201-1, "Portland Cement Concrete." Sawcutting for curb ramps shall be to the exterior dimensions of the curb ramp.

Expansion joints, 1/4 inch wide, shall be installed in curb, gutter, and sidewalks at each side of a structure (e.g. curb ramps) and at the ends of curb returns. Weakened plane joints 1-inch deep shall be placed in the curb, gutter and sidewalks at 10-foot intervals.

303-5.1 Requirements.

303-5.1.1 General.

ADD THE FOLLOWING PARAGRAPHS TO THE END OF SUBSECTION 303-5.1.1:

If the sidewalk curb return area is disturbed by the Contractor's operations, a curb ramp in accordance with the latest State of California, Department of Transportation, Standard Specifications and Standard Plans shall be constructed with the Engineer's approval. It shall be the Contractor's responsibility to coordinate the relocation or readjustment of interfering utility boxes.

Installation of underground facilities, such as building sewer, water and gas services, utility boxes, etc., shall be completed in the sidewalk area before constructing sidewalks, driveways or curb ramps.

At locations where sidewalk and driveways are to be constructed having unsatisfactory subbase material as determined by the Engineer, said material shall be removed to a depth of four inches (4") minimum and replaced with ATSM C 131 Test Grading B crushed miscellaneous base conforming to the Standard Specifications and no separate payment shall be made. Crushed miscellaneous base shall be compacted in accordance with the Standard Specifications. The Contractor shall remove unsuitable subbase material as part of demolition operations and no separate payment shall be made.

Sidewalk, curb and gutter construction or repairs may be required at locations adjacent to project curb ramps. All repairs will be performed within City's right-of-way, unless directed otherwise by the Engineer.

The Contractor shall construct or repair concrete sidewalk, curb, and gutter at various locations as directed by the Engineer. Unless directed otherwise by the Engineer, the Contractor shall remove defective concrete

by saw cutting along existing score lines, and as marked in white paint by the Engineer. Concrete shall be cut full depth with a power driven concrete saw acceptable to the Engineer as hereinafter specified and removed so as to have a vertical joint between the existing and new concrete. Demolition, removal and disposal of material required to complete the work is included in the price bid for the various bid items of work and no additional compensation shall be allowed therefore. Existing concrete, not scheduled for removal but damaged by the contractor's operations shall be replaced in accordance with these Specifications and no separate payment shall be made.

Areas next to new sidewalk, back of curb and driveway where forms have been removed shall be back filled with Class "A" imported topsoil as specified in Section 212-1 and 308-2 of the Standard Specifications and these Special Provisions and mechanically compacted to ninety percent (90%) relative compaction to the level of existing sidewalk, driveway and curb. Class "A" imported topsoil shall be included as part of concrete curb and gutter work and no separate payment shall be made.

Expansion joints shall be constructed in the concrete curb and gutter at each side of driveways, returns and structures. Expansion joint material shall be the same as for sidewalk expansion joint filler material. Weakened plane joints 3/4" deep and 1/4" wide shall be constructed at regular intervals not to exceed ten (10) linear feet. The exposed surfaces of the curb and gutter shall be troweled to a smooth surface and shall be scored transversely and broom finished to the Engineer's satisfaction.

Number 4 steel rebars shall be doweled into existing curb and gutter at saw-cut locations and no separate payment shall be made.

ADD NEW SUBSECTION 303-5.1.1.1 TO READ:

303-5.1.1.1 Curb Ramp Requirement for Contractor-Damaged Curb Return Areas. If the sidewalk curb return area is disturbed by the Contractor's operations for trenching or other work not related to sidewalk repair or curb ramp installation, a curb ramp in accordance with City Standards shall be constructed under the Engineer's direction. It shall be the Contractor's responsibility to coordinate the relocation or readjustment of interfering utility boxes. The cost of this curb ramp shall be included in the price paid for the related work, and no additional payment shall be made.

ADD NEW SUBSECTION 303-5.1.1.2 TO READ:

303-5.1.1.2 Detectable Warnings. The detectable warning shall provide sound attenuation different than the adjacent paving and be federal yellow in color. The material used to provide color shall be an integral part of the walking surface. Detectable dome warning tiles or strips shall be made of polymer plastic or approved equal. The closest corner of the bottom left and bottom right truncated dome tile shall be set 6" from flowline.

ADD NEW SUBSECTION 303-5.1.1.3 TO READ:

303-5.1.1.3 Replacement of Damaged Utility Boxes for Curb Ramp Work. The Contractor is responsible for coordinating with the various utilities for relocation or readjustment of the various utility boxes within the new curb ramp locations. Should the Contractor choose to readjust existing utility boxes within the plane of the new curb ramp, the Contractor shall protect the existing improvements as required by 7-9.

The "Request for Replacement Utility Box for Curb Ramp Work" form (**Attachment 10** at the end of these Special Provisions) lists utility companies that have agreed to provide free replacement utility boxes for those previously damaged or unavoidably broken during construction of curb ramps. Existing utility boxes damaged as a result of the Contractor's negligent construction activities **will not** be replaced free of charge. The Contractor shall complete and sign this form, and provide it (and a photocopy) to the Engineer for signature for each requested utility box replacement. The Contractor is then responsible for transmitting this form to the respective utility. This form provides written certification to the utility companies that a free replacement box is requested because either the existing utility box was broken, or the Contractor exercised due diligence when excavating for the new curb ramp and the existing box was unavoidably damaged.

In certain cases the replacement boxes may be delivered to the curb ramp site. In that case the Contractor must coordinate with the utility company in order to be present when the box is delivered. In other cases the Contractor may be able to pick up replacement boxes from the utility yard. Because it may take up to one or two days for the Contractor to receive replacement boxes, the Contractor shall properly barricade the excavated curb ramp in accordance with 7-10.

Payment: Full compensation for providing the labor and materials for the replacement of damaged utility boxes shall be considered as included in the price paid for the bid items of work involved, and no additional compensation will be allowed therefor.

ADD NEW SUBSECTION 303-5.1.1.4 TO READ:

303-5.1.1.4 Extra Wide Ramps to Accommodate City Utility Boxes within Curb Ramp Areas. Many City utility boxes are located within the curb return area at intersection corners. To facilitate curb ramp construction, it is intended that as many City utility boxes as possible remain in the curb ramp area and be incorporated into the new curb ramps. In order to accomplish this objective, existing City utility boxes may remain if their lids can be reset in the plane of the new ramps. Similarly, the central ramp portions of curb ramps may be constructed wider than the required four feet in order that existing City utility boxes may remain in place with their lids reset in the plane of the new ramps. (In this case, the width of the detectable warning dome paver area shall equal the width of the revised ramp.) With the Engineer's approval, vertical obstructions may remain in the two "wings" of the type E ramp, provided there is a four-foot path of travel behind the curb ramp. (See also 307-2.4.1 for relocation of City utility boxes in curb ramp areas.)

Payment: The unit price for each curb ramp includes up to 125 square feet of concrete pavement as described in Subsection 303-5.9g. The Contractor shall be compensated for the additional cost of constructing curb ramps with more than 125 square feet of concrete ramp area. The unit prices for sidewalk, curb gutter and detectable warning dome pavers shall be used for additional quantities of these items because of the larger ramp areas needed to accommodate City utility boxes within curb return areas.

ADD NEW SUBSECTION 303-5.1.1.5 TO READ:

303-5.1.1.5 Ancillary Work for Concrete Sidewalk, Driveway, and Curb and Gutter Construction.

All repairs will be performed within City's right-of-way, unless directed otherwise by the Engineer.

The Contractor shall repair or construct concrete sidewalk, curb, and gutter at various locations as directed by the Engineer. Unless directed otherwise by the Engineer the Contractor shall remove defective concrete by saw cutting along existing score lines, and as marked in white paint by the Engineer. Concrete shall be cut full depth with a power driven concrete saw acceptable to the Engineer as hereinafter specified and removed so as to have a vertical joint between the existing and new concrete. Demolition, removal and disposal of material required to complete the work is included in the price bid for the various bid items of work and no additional compensation shall be allowed therefore. Existing concrete, not scheduled for removal but damaged by the contractor's operations shall be replaced in accordance with these Specifications and no separate payment shall be made.

- a. **Concrete Saw Cutting:** Defective sidewalk, driveway, curb and gutter marked for removal shall be first cut with a power driven concrete saw acceptable to the Engineer. The concrete shall be saw cut in a straight line along existing score lines to the full depth of the existing concrete section. Sawcutting shall be full depth. No stomping shall be allowed.

Cutting of concrete with picks or pneumatic pavement breakers will not be permitted. If for any reason the concrete does not break on the line marked out by the Engineer, the Contractor shall saw out the broken portion and new concrete shall be placed in this area without payment. The Contractor shall not allow silt-laden water, generated from their saw cutting operations to flow into the public storm system or be deposited into the public right-of-way. The Contractor shall be responsible for removing silt material from the job site.

- b. **1'-Wide Asphalt Concrete Plug:** Removal of one feet of adjacent AC pavement will be necessary in order to construct the forms for concrete curb ramps and gutters. After the concrete forms have been removed, the Contractor must provide a 1'-wide AC plug between the new concrete gutter and/or curb ramp construction and the existing asphalt concrete roadway. The contractor may elect to provide a temporary AC Plug with cutback and provide permanent plugs for many locations at a subsequent date. The Asphalt concrete plug pavement shall be a minimum of six inches in thickness. The asphalt concrete mix for permanent AC plugs shall be $\frac{1}{2}$ " Maximum Aggregate, Medium Type A Bituminous Pavement Mixture PG64-10 with 15% reclaimed asphalt pavement (RAP). The Contractor shall furnish originals of certified weigh master certificates indicating the actual net weight of asphalt concrete placed on the job site at the end of each workday.

- c. **Asphalt Concrete Pavement Regrading More than Three Feet from Flowline:** Where directed by the Engineer, AC pavement adjacent to curb ramps shall be regraded so as to provide a maximum grade of five percent (5%) within the four feet next to the flowline of the curb ramp. This work may entail grinding of the existing AC pavement to meet the ADA required grades should the work quality be acceptable to the Engineer. Alternatively, this work may entail sawcutting and excavating to remove AC pavement and regrading with sufficient AC to meet the required ADA grade. The permanent asphalt concrete mix for this AC regrading shall be $\frac{1}{2}$ " Maximum Aggregate, Medium Type A Bituminous Pavement Mixture PG64-10 with 15% reclaimed asphalt pavement (RAP). The Contractor shall furnish originals of certified weigh

master certificates indicating the actual net weight of asphalt concrete placed on the job site at the end of each workday.

In some areas the adjacent AC pavement may be underlain with portland cement concrete (PCC) pavement. In most cases it will be sufficient to remove the overlying AC pavement layers to permit regrading with new AC pavement overlay to the required ADA slopes. Should it be required to remove PCC pavement to provide the required ADA slopes, payment for the PCC removal shall be paid for with a negotiated change order.

- d. **Remove Concrete Gutter:** Concrete gutter shall be removed where directed by the Engineer. Removal, off-hauling and disposal of existing concrete gutter shall occur at locations where concrete curb has been overlain by asphalt concrete pavement. Concrete gutter shall not be reconstructed where it has been overlain.
- e. **Unclassified Excavation for Concrete Work:** Material that is unsuitable beyond a depth of four inches (4") for sidewalk, driveway, curb and gutter repairs shall be excavated and disposed of as directed by the Engineer. The Engineer shall determine the limits and depth of excavation in the field.
- f. **Processed Miscellaneous Base for Concrete Work:** Where directed by the Engineer or at locations where unsuitable material was excavated, the Contractor shall place processed miscellaneous base. Processed miscellaneous base material shall conform to Section 200-2.5 of the Standard Specifications. Processed miscellaneous base shall be compacted in accordance with Sections 301-1.3 and 306-1.3.2 of the Standard Specifications.
- g. **Tree Stump Removal:** Where directed by the Engineer, the Contractor shall remove street tree stumps. Stump removals shall be performed by a Vermeer 665-A stump cutter or approved equal. Stump diameter shall be measured at breast height, four and a half feet (4.5') above grade. Stump removal includes: removing up to four (4) vertical feet of trunk above grade; grinding stump and root crown to a depth of twenty-four inches (24") below finished top of curb grade; grinding any root crown/buttress roots within three feet (3') horizontally of the side of the trunk (measured at thirty-six inches (36)" above grade if possible) to a depth of twenty-four (24") below finished top of curb grade. Any and all roots must be removed from the planting strip and opened sidewalk, driveway, curb, gutter and street paved area.

All debris generated by stump/root removal shall be removed from the job site by the Contractor as part of their stumping operation and no separate payment shall be made. The area beneath the sidewalk, curb, gutter and street pavement section voided by removal of debris generated by stump/root removal shall be replaced with crushed miscellaneous base. Placement of crushed miscellaneous base shall be considered as part of stump removal work and no separate payment shall be made.

The planter strip area, located between the sidewalk and back of curb, voided by removal of debris generated by stump/root removals shall be back-filled with Class "A" Imported Topsoil, as specified in Section 212-1 and 308-2 of the Standard Specifications and these Special Provisions and compacted to ninety percent (90%) relative compaction, and level with the sidewalk. Class "A" imported topsoil shall be included as part of stump removal work and no separate payment shall be made.

All organic material generated by street tree stump/root removal shall be cleaned from the street and sidewalk and left in a neat pile at curb side and the area made safe until it can be removed by the contractor.

The Contractor must move all debris, soil, etc., if needed, for City staff to inspect stump grinding locations or any other necessary inspections.

- h. **Tree Root Pruning:** The Contractor shall demolish and remove all defective sidewalk, driveway, curb, gutter and street pavement damaged by street tree roots as directed by the Engineer. The tree root pruning area shall consist of the entire area where sidewalk is removed, or as directed by the Engineer. Where directed by the City Arboricultural inspector, the Contractor shall prune street tree surface roots with approved hand tools or a Rayco model RG 1635A root grinder, or approved equal. Root pruning shall involve grinding the entire soil area exposed by the demolition, except where directed by the City Arboricultural inspector to use hand tools, to a depth of twelve inches (12") below finished sidewalk grade in demolished sidewalk areas and to a depth of twenty-four (24) inches below finished sidewalk grade in demolished curb, gutter, or street pavement areas. All debris generated by root pruning shall be removed from the job site by the Contractor as part of their root pruning operation and no separate payment shall be made. The Contractor must move grindings, soil, etc., if needed, for staff to evaluate trees during stress testing, or any other necessary inspections.

The area beneath the sidewalk, curb, gutter and street pavement section voided by removal of debris generated by root pruning shall be replaced with crushed miscellaneous base. Placement of crushed miscellaneous base shall be considered as part of root pruning work and no separate payment shall be made.

The planter strip area, located between the sidewalk and back of curb, voided by removal of debris generated by street tree root pruning shall be backfilled with Class "A" Imported Topsoil, as specified in Section 212-1 and 308-2 of the Standard Specifications and these Special Provisions and compacted to ninety percent (90%) relative compaction, and to the level of the sidewalk. Class "A" imported topsoil shall be included as part of root pruning work and no separate payment shall be made.

The City of Oakland shall provide staff to, (a) define the size of the new tree well that will be created when the sidewalk is repaired, (b) ensure that mechanical equipment does not damage trees or protected root zones, (c) stress test trees for stability once root cutting is done, and (d) ensure tree wells and planting strips are filled to grade and not left as tripping hazards.

THE CONTRACTOR MUST PROVIDE STAFF TO ASSIST CITY STAFF WITH TREE STABILITY TESTING. The Contractor's staff must be on site and readily available each day.

- i. **Asphalt Concrete Pavement:** Where directed by the Engineer, asphalt concrete paving shall be placed between new concrete curb and/or gutter construction and the existing asphalt concrete roadway. Asphalt concrete paving shall be six (6) inches in thickness and mechanically compacted with a Wacker, BS 60Y vibratory rammer with an eleven (11") inch by thirteen (13") inch shoe or approved equal. The Contractor shall furnish originals of certified weigh master certificates indicating the actual net weight of asphalt concrete placed on the job site at the end of each workday.
- j. **Repair & Replace Water Service:** Where directed by the Engineer, the Contractor shall replace domestic water service installations damaged by normal construction operations resulting from, but not limited to, encasement of service lines in concrete sidewalk, deteriorated water service but functional due to pressure of concrete walk, and damage caused by intrusion of street tree roots. The Contractor shall replace damaged water services from the meter connections to the property line. Damaged water services shall be immediately shut off at the meter location and replaced with 3/4" galvanized or copper conduit with approved couplings. The occupants of properties affected shall be notified by the Contractor before the discontinuance of water service. If occupant or property owner is not home the Contractor shall leave a note, acceptable to the Engineer, securely fastened to the front door, notifying the resident of the water service shut off and the repair work made. The replacement/repair of domestic water services shall conform to the latest edition of the Uniform Plumbing Code.

Damage to domestic water services caused by the Contractor's negligence will be repaired at the Contractor's expense and no separate payment shall be made.

- k. **Repair & Replace Underdrain:** Drains shall be constructed beneath the sidewalk to connect building drains to curb outlets and to serve low areas on adjacent property as shown on City Standard Detail D-13 or as directed by the Engineer.

The drain shall be a 3-inch diameter pipe for a 6-inch curb face, and a 4-inch diameter pipe for an 8-inch curb face or greater. The invert of the drain shall be located 1/2-inch above the gutter flow line. The drainpipe shall have a minimum 2-inch clearance from top of curb and be laid on a straight grade with a minimum slope of 1/8 inch per foot and terminate 1 inch back of the curb face.

The curb drain may be constructed using pipe materials specified in City Standard Detail D-13 or other pipe materials approved by the Engineer. The pipe shall be suitably joined in accordance with the manufacturer's standard jointing system.

- l. **Remove Hazard by Grinding:** At locations selected by the Engineer, raised concrete sidewalk hazards shall be removed by grinding. Before grinding commences, the Engineer will clearly mark the approved limits of removal for the Contractor. No more than one- and one-half inches (1-1/2 inches) in thickness shall be removed from a sidewalk slab by grinding. Contiguous areas removed by grinding shall be no larger than ten square feet (10 SF).

The Contractor shall not allow the dispersal of rock or dust during the grinding process. Gutters and inlets shall be protected and cleaned of silt resulting from the Contractor's grinding operation.

- m. **Pedestrian Barricades:** At locations selected by the Engineer, the Contractor shall install pedestrian barricades in accordance with City Standard Detail M-1.

- n. **Bituminous Repairs:** Where directed by the Engineer, preliminary repair shall consist of:

- The removal and disposal of broken sidewalk, driveway, curb and gutter, then patching of defective and hazardous conditions.
- Ramping and/or patching of defective and hazardous conditions.

Temporary bituminous repair shall be mechanically compacted in place on a surface free of water, foreign material and dust. Upon completion, the bituminous repair shall be true to grade and free of surface irregularities. Where ramping is affected, the finished grade slope shall be not less than 1:12 (rise: run ratio).

The bituminous mixture used for temporary repair shall conform to Type III, Class 'D' Asphalt Concrete as specified in Subsection 400-4.3, and of bitumen conforming to Grade AR-4000 as specified in Subsection 203-1.2 of the Standard Specifications. A tack coat of either AR-1000 paving asphalt, applied at an approximate rate of 0.05 gallon per square yard or Type SS-1 emulsified asphalt applied at an approximate rate 0.05 to 0.10 gallon per square yard shall be applied to the defective surface prior to placement of the temporary bituminous surfacing.

303-5.4 Joints.

303-5.4.2 Expansion Joints.

ADD NEW PARAGRAPH TO THE END OF SUBSECTION 303-5.4.2:

One-quarter inch (6.4mm) expansion joints shall be placed in the curb and gutter at each side of structures, driveways and curb returns. Expansion joints shall also be placed in the sidewalks on each side of driveways. If slipform equipment is used in curb and gutter construction, weakened plane joints 1-inch deep at 10-foot intervals may be substituted for expansion joints, if approved by the Engineer.

303-5.5 Finishing.

303-5.5.2 Curb.

ADD THE FOLLOWING TO THE END OF SUBSECTION 303-5.5.2:

Concrete curb shall be constructed or repaired where directed by the Engineer. Unless otherwise directed by the Engineer, the defective concrete shall be sawed with a concrete saw as hereinafter specified and removed in sections so as to have a vertical joint between the old and the new concrete.

At locations where sidewalk and driveways are to be constructed having unsatisfactory subbase material as determined by the Engineer, said material shall be removed to a depth of four inches (4") minimum and replaced with ATSM C 131 Test Grading B crushed miscellaneous base conforming to the Standard Specifications and no separate payment shall be made. Crushed miscellaneous base shall be compacted in accordance with the Standard Specifications. The Contractor shall remove unsuitable subbase material as part of demolition operations and no separate payment shall be made.

Areas next to new sidewalk, back of curb and driveway where forms have been removed shall be back filled with Class "A" imported topsoil as specified in Section 212-1 and 308-2 of the Standard Specifications and these Special Provisions and mechanically compacted to ninety percent (90%) relative compaction to the level of existing sidewalk, driveway and curb. Class "A" imported topsoil shall be included as part of concrete curb and gutter work and no separate payment shall be made.

Expansion joints shall be constructed in the concrete curb and gutter at each side of driveways, returns and structures. Expansion joint material shall be the same as for sidewalk expansion joint filler material. Weakened plane joints 3/4" deep and 1/4" wide shall be constructed at regular intervals not to exceed ten (10) linear feet. The exposed surfaces of the curb and gutter shall be troweled to a smooth surface and shall be scored transversely, and broom finished to the Engineer's satisfaction.

No. 4 steel rebars shall be doweled into existing curb and gutter at saw-cut locations and no separate payment shall be made.

If replaced curbs featured color painted curbs, the Contractor shall paint new curbs to match previous paint color.

303-5.5.3 Walk.

ADD THE FOLLOWING TO THE END OF SUBSECTION 303-5.5.3:

Where integrated new concrete sidewalk and concrete driveway is constructed, the transverse slope of the sidewalk shall be downward toward the curb at the rate of 1/4 inch per foot, except at street intersections where the intersecting streets have different sidewalk widths or different curb grades at the curb returns, in which case, the slope shall be varied as directed by the Engineer. In all cases, the transverse slope shall be such that if continued to the curb, the walk will meet the grade at the top of the curb. Where a portion of the existing concrete sidewalk and concrete driveway is to remain in place, the areas to be removed will be marked out by the Engineer. The new sidewalk shall be constructed between the existing concrete sidewalk and the new curb as directed by the Engineer.

The sidewalk surface shall be scored as directed by the Engineer so that the area within scored sections does not exceed 15 square feet (1.39 square meter) and fine-hair broom finished to the Engineer's satisfaction. Score lines and surface treatments constructed in concrete sidewalks and/or driveways shall match existing score lines and surface treatments contiguous to the new and/or replacement work.

Concrete sidewalk may be constructed monolithically with curb or with curb and gutter only if indicated on the plans or in the Special Provisions or upon written approval of the Engineer. The concrete mix for the entire monolithic construction shall contain lampblack in the amount of one pound (0.45kg.) per cubic yard (.765 cubic meter). A score line parallel to the curb face shall be made at normal locations such as the back of curb. Templates acceptable to the Engineer shall be used to set curb face forms and to check grading. The Contractor shall provide templates for the Engineer for use, if so requested. If in the opinion of the Engineer, unsatisfactory results are obtained, monolithic construction shall be discontinued, and the remaining sidewalk shall be constructed separately from the curb and gutter using lampblack in the concrete for sidewalk, curb and gutter.

Expansion joint material 1/4" thick conforming to the Standard Specifications shall be placed at each side of driveways, returns and structures. Expansion Joint filler materials shall be fiber matrix, saturated with bitumen previously cut to proper dimensions and contours. Weakened plane joints 3/4" deep and 1/4" wide shall be constructed at regular intervals not to exceed ten (10) linear feet.

Installation of underground facilities, such as building sewers, water and gas services, etc., shall be completed in the sidewalk area before constructing concrete sidewalk, concrete driveways and curb ramps.

The Contractor shall protect all completed work from acts of vandalism, damage and, in particular, guard against damage to the pavement edge of recently constructed concrete gutter. Vandalized and/or damaged work shall be replaced by the Contractor at no cost to the City.

303-5.5.4 Gutter.

ADD THE FOLLOWING TO THE END OF SUBSECTION 303-5.5.4:

Concrete gutter shall be constructed or repaired where directed by the Engineer. Unless otherwise directed by the Engineer, the defective concrete shall be sawed with a concrete saw as hereinafter specified and removed in sections so as to have a vertical joint between the old and the new concrete.

At locations where sidewalk and driveways are to be constructed having unsatisfactory subbase material as determined by the Engineer, said material shall be removed to a depth of four inches (4") minimum and replaced with ATSM C 131 Test Grading B crushed miscellaneous base conforming to the Standard Specifications and no separate payment shall be made. Crushed miscellaneous base shall be compacted in accordance with the Standard Specifications. The Contractor shall remove unsuitable subbase material as part of demolition operations and no separate payment shall be made.

Areas next to new sidewalk, back of curb and driveway where forms have been removed shall be back filled with Class "A" imported topsoil as specified in Section 212-1 and 308-2 of the Standard Specifications and these Special Provisions and mechanically compacted to ninety percent (90%) relative compaction to the level of existing sidewalk, driveway and curb. Class "A" imported topsoil shall be included as part of concrete curb and gutter work and no separate payment shall be made.

Expansion joints shall be constructed in the concrete curb and gutter at each side of driveways, returns and structures. Expansion joint material shall be the same as for sidewalk expansion joint filler material. Weakened plane joints 3/4" deep and 1/4" wide shall be constructed at regular intervals not to exceed ten (10) linear feet. The exposed surfaces of the curb and gutter shall be troweled to a smooth surface and shall be scored transversely, and broom finished to the Engineer's satisfaction.

No. 4 steel rebars shall be doweled into existing curb and gutter at saw-cut locations and no separate payment shall be made.

303-5.9 Measurement and Payment.

CHANGE SUBSECTION 303-5.9 TO READ:

303-5.9 Measurement and Payment.

- a. Measurement for concrete sidewalk, driveways, curbs, gutters and curb ramps shall be made in horizontal planes.
- b. These payment sections include two payment methods for curbs and gutters. Item **Concrete Curb and Gutter** below pays for curb and gutter together by the linear foot. In contrast, Item **Concrete Curb** is for curbs (measured by the linear foot) and Item **Concrete Gutter** is for gutters (measured by the square foot.)
- c. Unless a separate item is included in the bid sheet for concrete saw cutting, the payment for **Concrete Saw Cutting** shall be included in the price paid for related concrete items, and no additional payment will

be made.

- c. **Unclassified Excavation for Concrete Work** shall occur only at locations shown on the plans or where the Engineer determines the sub-base material to be unsuitable. Unclassified Excavation shall be measured for payment by the cubic yard. The price paid per cubic yard for unclassified excavation to remove unsuitable material, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in excavation operation, and including, loading and off-hauling of excavated material, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- d. **Processed Miscellaneous Base for Concrete Work** shall occur only at locations shown on the plans or where the Engineer determines the sub-base material to be unsuitable. Processed miscellaneous base shall be measured for payment by the cubic yard. The price paid per cubic yard for processed miscellaneous base shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved, and compaction, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- e. **1'- Wide Asphalt Concrete Plug**, both temporary and permanent, shall be performed in accordance with the Standard Specifications and these Special Provisions at locations shown on the plans or approved and marked in the field by the Engineer. Asphalt concrete plugs, temporary and permanent, within one foot of the flow line shall be included in the price paid for related concrete items (e.g., concrete gutter, curb ramps etc.) and no additional payment shall be made.
- f. **Asphalt Concrete Pavement Regrading More than Three Feet from Flowline** shall be performed in accordance with the Standard Specifications and these Special Provisions at locations shown on the plans or approved and marked in the field by the Engineer. Asphalt concrete pavement regrading more than one foot distant from the flowline shall be measured and paid for by the square foot. The price paid per square foot for Asphalt Concrete Pavement Regrading More than Three Feet from Flowline shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved including removing AC pavement by grinding or sawcutting/excavating, removal and disposal of spoils, compacting underlying surface and placing AC pavement, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer. The removal of PCC pavement, if necessary to accomplish this work, shall be paid for by a negotiated change order.

- g. **Concrete Curb Ramps, All Types** shall be constructed as shown on the latest State of California, Department of Transportation, Standard Specifications and Standard Plans.

Where curb ramps are to be constructed within new concrete curb and gutter and concrete sidewalk areas that require replacement due to the Contractor's trenching or other operations, full compensation shall be considered as included in the unit prices paid for the various items of work involved and no additional compensation will be allowed therefor.

New or replacement curb ramps not constructed as a result of the Contractor's trenching or other operations shall be paid for by the unit price paid per each curb ramp. The price bid shall be considered to include full payment for all materials, labor, equipment and incidentals required to construct the curb ramps in accordance with the latest State of California, Department of Transportation, Standard Specifications and Standard Plans. Such compensation shall include Extra-wide curb ramps constructed to allow existing City utility boxes to remain in the new curb ramp shall also be paid for by the unit price for each curb ramp with no additional compensation allowed. (See Subsection 303-5.5.3.2.)

Concrete curb ramp includes details shown in the State of California, Department of Transportation Revised Standard Plan A88A and Specifications, either as directed by the engineer or shown in plans. In addition, the price also includes the 1'-wide AC plug and existing gutter width. If gutter width does not exist, construct a new 2' wide gutter.

Sawcutting for curb ramps shall be to the nearest score lines outside the curb ramp. Concrete sidewalk replacement within these score lines shall be included in the 250 square feet of concrete paid for each curb ramp. Replacement of damaged sidewalk outside the score lines mentioned in this paragraph shall be paid for by the square foot of concrete sidewalk.

The contract price paid per each concrete curb ramp shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in constructing concrete curb ramps (including demolition work, off-hauling of concrete, formwork, 160 square feet of concrete work, drainage pipe if required, stripping of formwork, utility box realignment or replacement, relocating

signs, removal and disposal of existing asphalt, concrete and dirt, preparation of subgrade, and placement of Class II aggregate base compacted to 90%, and temporary 12" AC plug). These concrete curb ramps shall be constructed as designed on the project plans, complete in place, as specified in the Standard Specifications and these Special provisions, or as directed by the Engineer.

Some curb ramp installations will require additional concrete work in excess of the 160 square feet included in the curb ramp pay item. In these cases, the Contractor shall be paid for additional sidewalk, curb and gutter in accordance with their respective unit prices.

Refer to Subsection 303-5.1.1.1 for curb ramps installed to mitigate the effects of the Contractor's trenching or other operations in the curb return area.

- h. Construct new or remove and replace **Concrete Sidewalk** only at locations shown on the plans or approved and marked in the field by the Engineer. Concrete sidewalk shall be measured for payment by the square foot. The price paid per square foot for remove and replace or construct new concrete sidewalk, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in removing and replacing concrete sidewalk, and including all demolition work, off-hauling of concrete, and formwork, utility box realignment or replacement, concrete placement, stripping of formwork, and backfilling behind forms, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- i. Construct new or remove and replace **Concrete Driveway** only at locations shown on the plans or approved and marked in the field by the Engineer. Concrete driveway shall be measured for payment by the square foot. The price paid per square foot for concrete driveway, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in removing and replacing concrete driveway, and including all demolition work, off-hauling of concrete, and formwork, utility box realignment or replacement, concrete placement, stripping of formwork, and backfilling behind forms, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- j. Construct new or remove and replace **Concrete Alley Sections** only at locations shown on the plans or approved and marked in the field by the Engineer. Concrete alley sections shall be measured for payment by the square foot. The price paid per square foot for concrete alley sections, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in removing and replacing or constructing new concrete alley sections, and including all demolition work, off-hauling of concrete, and formwork, utility box realignment or replacement, concrete placement, stripping of formwork, and backfilling behind forms, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- k. Construct new or remove and replace **Concrete Curb and Gutter** shall occur only at locations shown on the plans or approved and marked in the field by the Engineer. Concrete curb and Gutter shall be specified on the plans as to type per City Standard Detail S-1 and shall be measured for payment by the linear foot. Concrete curb and gutter (transition sections at returns and inlets included) shall be combined as a unit as shown on bid items and will be measured for payment by the linear foot along the curb line. When the gutter transitions from one width to another around a curb return, the measurement for each width will be made to the center of the curb return unless noted otherwise on the plans.

The price paid per linear foot for concrete curb and gutter, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in removing and replacing concrete curb and gutter, and including all demolition work, off-hauling and disposal of concrete, formwork, utility box realignment or replacement, concrete placement, stripping of formwork, backfilling behind forms and painting curbs to match color of previous curbs, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer. The removal and replacement of concrete curb and gutter adjacent to new curb ramps shall be included as part of construction of concrete curb ramps, and no separate payment shall be made.

- l. Construct new or remove and replace **Concrete Curb** shall occur only at locations shown on the plans or approved and marked in the field by the Engineer. Concrete curb shall be measured for payment by the linear foot. The price paid per linear foot for concrete curb, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in removing and replacing concrete curb, and including all demolition work, off-hauling and disposal of concrete, formwork, utility box realignment or replacement, concrete placement, stripping of formwork, backfilling behind forms and painting curbs to match color of previous curbs, complete in place, as shown on the plans, as specified

in the Standard Specification and these Special Provisions, or as directed by the Engineer. The removal and replacement of concrete curb adjacent to new curb ramps shall be included as part of construction of concrete curb ramps, and no separate payment shall be made.

- m. Construct new or remove and replace **Concrete Gutter** shall occur only at locations shown on the plans or approved and marked in the field by the Engineer. Concrete gutter shall be measured for payment by the square foot. The price paid per square foot for concrete gutter, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in removing and replacing concrete gutter, and including all demolition work, off-hauling of concrete, formwork, concrete placement, stripping of formwork, and backfilling behind forms, including temporary AC plug, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer. The removal and replacement of concrete gutter adjacent to new curb ramps shall be included as part of construction of concrete curb ramp, and no separate payment shall be made. However, the unit cost for curb ramps does not include payment for concrete gutters wider than two feet; the additional square feet of gutters wider than 2' next to the curb ramp shall be paid for at the square foot unit price bid for concrete gutters.
- n. **Retrofit Detectable Warning Dome Pavers** shall occur only at locations shown on the plans or approved and marked in the field by the Engineer. Existing ramps without dome pavers may require retrofitting with Detectable Warning Dome Pavers. Median cuts shall be measured for payment by each. The price paid by each to provide retrofit detectable warning dome pavers at existing curb ramps shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in installing retrofit warning dome pavers, complete in place, as specified in the Standard Specifications, these Special Provisions and the Project Plans, or as directed by the Engineer.
- o. **Tree Root Pruning** shall be performed in accordance with the Standard Specifications and these Special Provisions at locations shown on the plans or approved and marked in the field by the Engineer. Root pruning shall be measured for payment by the square foot. The price paid per square foot for root pruning, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in root pruning, and including all root removal in sidewalk, driveway, curb and gutter, and street paved area, root pruning debris removal, and backfilling void areas with crushed miscellaneous base or imported topsoil, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer. Liquidated damages may be assessed in accordance with subsection 6-9.1 for delays in placement of topsoil.
- p. **Tree Stump Removal** shall occur only at locations shown on the plans or approved and marked in the field by the Engineer. Stump removal shall be measured for payment by diameter inches. The price paid per diameter inches for stump removal, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in stump removal, and including all root removal in sidewalk, driveway, curb and gutter, and street paved area, debris removal, and backfilling void areas with crushed miscellaneous base or imported topsoil, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- q. **Remove Hazard by Grinding** shall be performed in accordance with the Standard Specifications and these Special Provisions at locations shown on the plans or approved and marked in the field by the Engineer. Remove hazard by grinding shall be measured for payment per each location. The price paid per each location for remove hazard by grinding, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in remove hazard by grinding, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- r. **Repair and Replace Water Service** shall be performed in accordance with the Standard Specifications and these Special Provisions. Repair and replace water service shall be measured for payment per each location. The price paid per linear foot for repair and replace of water service, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in repair and replacement of water service, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.
- s. **Repair and Replace Sidewalk Underdrain** shall be performed in accordance with the Standard Specifications and these Special Provisions. Repair and replace underdrain shall be measured for

payment per linear foot. The price paid for each repair and/or replacement of sidewalk underdrain, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in repair/replacement of cast iron drain (including placement within a new curb), complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.

t. **Bituminous Repair** shall be performed in accordance with the Standard Specifications and these Special Provisions at locations shown on the plans or approved and marked in the field by the Engineer. Bituminous repair shall be measured for payment per square foot. The price paid per square foot for bituminous repair, shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals, and for doing all work involved in bituminous repair, complete in place, as shown on the plans, as specified in the Standard Specification and these Special Provisions, or as directed by the Engineer.

ADD NEW SUBSECTION 303-9 TO READ AS FOLLOWS:

303-9 INSTALLATION OF MAINTENANCE HOLES, CLEANOUTS AND APPURTENANCES.

303-9.1 General.

303-9.1.a Structure Excavation and Backfill. Structure excavation and backfill shall conform to the applicable requirements of 300-3 and 306-1.

303-9.1.b Rock Base. Prior to placing the concrete maintenance Hole base, a minimum of eight inches of rock base or crushed rock approved by the Engineer shall be placed upon the earth subgrade and compacted to 90 percent (90%) relative compaction by mechanical means.

303-9.1.c Concrete Maintenance Hole Base. Concrete maintenance Hole base shall be constructed as shown on the Plans and Standard Details and shall conform to the applicable requirements of Section 303. The concrete shall be vibrated to density and screened so that the first precast maintenance Hole section will be placed on a level uniform bearing surface for the full circumference. An approved metal forming ring shall be used to form a level joint groove in the fresh concrete of the maintenance Hole base to receive the first precast maintenance Hole section. Sufficient mortar or Ramnede shall be deposited on the base to assure a watertight seal between base and maintenance Hole wall or the first precast maintenance Hole section shall be placed on the concrete base before the concrete has set. The first section shall be properly located and plumbed.

303-9.1.d Placing Precast Maintenance Hole Sections. Precast maintenance Hole sections shall be carefully inspected prior to installation. Sections with chips or cracks in the tongue shall not be used. The ends of precast maintenance Hole sections shall be cleared of foreign materials.

The precast sections shall be installed in a manner that will result in a watertight joint. Rubber "O" Ring gaskets or preformed flexible joint sealant shall be installed in strict conformance with the manufacturer's recommendations. Only pipe primer furnished by the gasket manufacturer will be approved. If leaks appear in the maintenance Holes, the inside joint shall be caulked with non-shrink epoxy mortar to the satisfaction of the Engineer.

303-9.1.e Maintenance Hole Channels. Maintenance Hole channels shall be constructed as shown on the Plans and Standard Details and with smooth transitions to ensure unobstructed flow through the maintenance Hole. All sharp edges or rough sections that tend to obstruct flow shall be removed. Where a full section of pipe is laid through a maintenance Hole, a neatly cut half pipe shall be laid to form the channel. The exposed edge of the pipe shall be completely covered with mortar. All mortar surfaces shall be troweled smooth. Breaking out the top half section of pipe after installation is not acceptable.

303-9.1.f Drop Connection/Drop Connection Maintenance Hole. Drop connection and drop connection maintenance Hole shall be constructed at all locations per city specifications and per plans or as directed by the Engineer. The drop assembly shall be connected to the sewer pipe with an approved adapter. The lower elbow shall be supported by concrete poured monolithically with the maintenance Hole base. It shall be an outside drop connection unless it is specified on plans as an inside drop connection.

303-9.1.g Flexible Joints. Flexible joints shall be provided not more than 1-1/2 feet from maintenance Hole walls. Pipes entering maintenance Holes shall be laid out on firmly compacted base rock or crushed rock approved by Engineer.

303-9.1.h Pipe Stubouts For Future Sewer Connections. Maintenance Hole stubouts for future sewer connections shall be installed as shown or required by the Engineer. Maximum and minimum length outside the maintenance Hole wall shall be shown on the Standard Details. Pipes in precast walls or maintenance Hole base shall be constructed in accordance with details shown on the Plans. Compacted base rock or crushed rock approved by Engineer as specified herein before shall be placed upon the earth under all stubouts.

Semi-permanent plugs shall be installed in the stubout ends with gasket joints similar to the sewer pipe being used. Plugs shall be capable of withstanding all internal or external pressures without leakage. All plugs shall be adequately braced to prevent blowoffs.

303-9.1.i Permanent Plugs. Interior contact surfaces of all pipes to be cut off or abandoned shall be cleaned. Concrete plugs shall be constructed in the end of all pipe 18 inches or less in diameter. Minimum length of concrete plugs shall be 8 inches. For pipe 21 inches and larger, the plugs may be constructed of common brick or concrete block. The exposed face of block or brick shall be plastered with mortar. All plugs shall be watertight and capable of withstanding all internal and external pressures without leakage.

303-9.1.j Maintenance Hole Extensions. Extensions shall be installed in conformance with the details shown on the Plans and to a height to match finished grade. Grade rings shall be lined in mortar with the sides plumb and tops level. Joints shall be sealed as specified for maintenance Hole sections. Extensions shall be watertight.

303-9.1.k Maintenance Hole Frames and Covers. Frames and covers shall be installed on top of maintenance Holes to prevent all infiltration of surface water or groundwater into maintenance Holes. Frames shall be set in a bed of mortar with mortar carried over the flange of the ring as shown on the Plans. Frames shall be set so cover tops are flush with surface of adjoining pavement or ground surface, unless otherwise shown or directed. Concrete maintenance Hole collars shall be provided and installed as shown on the Standard Details. Maintenance Hole covers and frames for maintenance Holes identified as ones likely to be periodically submerged in wet weather events shall be prevented from blowing off during sewer surcharging by installation of maintenance Hole frames with bolted lids, and bearing surfaces shall be sealed with a neoprene gasket, if shown on plans.

303-9.1.l Maintenance Hole Over Existing Sewers. Maintenance Holes shall be constructed over existing operating sewerlines at locations indicated. Excavation shall be as specified. Flow through existing sewerlines shall be maintained at all times. New concrete and mortar work shall be protected for a period of seven days after concrete has been placed. The Contractor shall advise Engineer of plans for diverting sewage flow and obtain the Engineer's approval before starting. The Engineer's approval shall not relieve the Contractor of the responsibility for maintaining adequate flow capacity at all times and adequately protecting new and existing work.

The new maintenance Hole base shall be constructed under and around the existing sewer as specified herein. The top half of the existing pipe shall be neatly removed within the new maintenance Hole, the edges covered with mortar, and troweled smooth.

303-9.1.m Connection to Existing Maintenance Holes. Sewers shall be connected to existing maintenance Holes at locations indicated. The Contractor shall provide all diversion facilities and perform all work necessary to maintain sewage flow in existing sewers during connection to the maintenance Holes. The Contractor shall break out existing maintenance Hole bases or grouting as necessary and regROUT to provide smooth flow into and through existing maintenance Holes.

303-9.1.n Special Maintenance Holes. Special maintenance Holes shall be constructed in conformance with the applicable requirements of Section 303 and as shown on the Plans.

303-9.1.o Sewer Cleanouts. Cleanout construction shall be as shown on the Plans and Standard Details. The cleanout shall be the same material as the main line sewer unless approved otherwise by the Engineer.

303-9.1.p Maintenance Hole Steps. Maintenance Hole steps if specified on plans shall be installed as shown on the Standard Details.

303-9.2 Structure Testing.

303-9.2.a Vacuum Testing. All project maintenance Holes shall be vacuum tested. The Contractor shall furnish all materials, equipment and labor for making a vacuum test. Vacuum test procedures and requirements shall be as follows:

1. After completion of the maintenance Hole barrels but prior to backfilling and grade ring installation, all maintenance Hole openings shall be sealed with plugs and a rubber ring "donut" type plug inserted inside the cone opening.
2. A small vacuum pump shall be attached to a hose connected to the plug and 4 psi of vacuum shall be applied.
3. The vacuum shall be permitted to stabilize at 3.5 psi for one minute; then the test shall begin.
4. The maintenance Hole must maintain vacuum such that no greater than 0.5-psi of vacuum shall be lost during the specified test period.
5. The specified test period is as follows:

Maintenance Hole Depth (Ft.)	Test Period (Min.)
0-5	4.5
5-10	5.5
10-15	6.0

Greater than 15	6.5
6. Maintenance Holes failing the test shall be patched as required and re-tested.	
7. A vacuum regulator shall be provided on the vacuum pump such that no pressure greater than 10 psi can be applied to the maintenance Hole during the test. All maintenance Holes not meeting the leakage test or are unsatisfactory from a visual inspection shall be repaired to the Engineer's satisfaction.	

303-9.2.b Hydrostatic Testing. At the Contractor's option and with the Engineer's approval, hydrostatic testing may be substituted for vacuum testing. The test shall consist of plugging all inlets and outlets and filling the maintenance Hole with water to a height determined by the Engineer. Leakage in each maintenance Hole shall not exceed 0.1 gallon per hour per foot of head above the invert. All maintenance Holes that do not meet the leakage test or are unsatisfactory from a visual inspection shall be repaired to the Engineer's satisfaction. Contractor is responsible for supplying water for testing.

303-9.3 Payment. The unit prices in the Bid shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work, including any rework, involved in, or appurtenant to each item as shown on the Plans or in the Specifications.

Maintenance Holes, including new maintenance Holes or replacement of existing maintenance Holes, regardless of depth, will be paid for at the unit price bid for each or per linear foot depth (measured from sewer pipe flowline to maintenance Hole rim) of maintenance Hole complete in place. Such payment shall include excavation; removal of existing maintenance Holes; replacing or installing a new maintenance Hole with drop connections if required; the disposal of excavated material and debris; the removal and disposal of contaminated material not paid by separate item; supplying and placement of backfill material or special backfill material; constructing invert; furnishing and installing castings; HDPE manufactured or in-placed lining whenever specified in the plans; trench shoring; providing sewer by-pass flow; saw-cutting; reconnection work to existing or new pipe or conduit; restoration of the street surface, including permanent and temporary resurfacing; traffic striping not paid by separate item and all other work necessary to complete the work.

Special maintenance Holes constructed, complete in place, will be paid for at the respective unit prices bid for each. Appurtenances shown or specified will be considered part of the maintenance Hole and no direct or additional payment will be made therefor.

Drop connections for maintenance Holes, regardless of size and depth, constructed complete, in place, if specified in a separate bid item in the bid schedule, will be paid for at the unit price bid for each.

Sewer cleanouts or lampholes, regardless of size and depth, constructed complete, in place will be paid for at the unit price bid for each.

SECTION 306 – OPEN TRENCH CONDUIT CONSTRUCTION

306-1 GENERAL.

306-2.9 Pipe Laying.

ADD NEW SUBSECTION 306-2.9 TO READ:

Pipe will be inspected in the field before and after laying. If any cause for rejection is discovered in a pipe after it has been laid, it shall be subjected to rejection. Any corrective work shall be approved by the Engineer and shall be at no cost to the Agency.

When connections are to be made to any existing pipe, conduit, or other appurtenances, the actual elevation or position of which cannot be determined without excavation, the Contractor shall excavate for, and expose, the existing improvement before laying any pipe or conduit. The Engineer shall be given the opportunity to inspect the existing pipe or conduit before connection is made. Any adjustments in line or grade that may be necessary to accomplish the intent of the plans will be made.

306-3 TRENCH EXCAVATION.

306-3.1 General

ADD THE FOLLOWING PARAGRAPH TO THE END OF SUBSECTION 306-1:

Where directed to pothole to verify the depths of underground utility crossings, the Contractor shall excavate to locate said underground utility crossings and relay this depth information to the Resident Engineer. Unless there is a bid schedule shown for this work, payment for this work shall be considered

included in sewer pipe rehabilitation work. No additional payment shall be made.

The work for pothole shall include full compensation for signage, traffic control, excavation, backfill with standard compaction, temporary and permanent resurfacing, etc., and providing all labor, equipment and materials incidental to this work.

306-3.2 Removal of Surface Improvements.

ADD THE FOLLOWING THREE PARAGRAPHS TO THE END OF THE SUBSECTION 306-3.2:

The existing pavement (i.e. asphalt concrete, and/or concrete) within the area of a sanitary sewer trench may be greater in thickness or of different materials than the trench resurfacing section specified in 306-1.5. No extra payment will be made for removal of asphalt concrete that differs in thickness by 2" (plus or minus) from the approximate existing pavement thickness shown on the plans.

Bituminous pavement, concrete pavement, curbs, gutters, sidewalks or driveways shall be sawcut prior to trenching and excavation for point repairs, sewer rehabilitation, sewer replacement and relief sewer installation. Saw cutting shall be 6" deep for bituminous pavement and full depth for concrete. Stomping of concrete pavement will not be allowed.

Where approved by the Engineer to extend a point repair excavation, the Contractor may precut the pavement edge for the excavation with a jackhammer. Prior to replacement of surface improvements, the pavement edges shall be neatly trimmed by saw cutting.

306-3.3 Removal and Abandonment of Existing Conduits and Structures.

ADD THE FOLLOWING PARAGRAPH TO THE END OF THE SECTION:

Payment for Removal of Existing Structures. The plugging, abandonment and removal of conduit and structures, unless paid by a separate bid item, shall be considered part of the pipeline construction or rehabilitation work or part of other work and no additional payment shall be made.

ADD NEW SUBSECTION 306-3.3.1 TO READ:

306-3.3.1 Removal and Replacement of Building Sewers.

Building sewers conflicting in grade with the construction of pipe conduits shall be re-laid to clear the pipe conduit in accordance with applicable provisions of the Standard Specifications or the Special Provisions or as directed by the Engineer. Payment shall be made at the unit price bid per linear foot of building sewer.

REPLACE SUBSECTION 306-3.4 WITH THE FOLLOWING:

306-3.4 Minimum and Maximum Pipe Zone Trench Width.

a) **Rigid Pipe.** For rigid pipe, the minimum and maximum width of trench permitted shall be as indicated on the Plans or Standard Details.

Additional payments or deductions from the Contract Unit Price for trench excavation for conduits will be based upon a calculated volume. The width used in calculating the excavation volume for prefabricated conduit will be the maximum width of trench shown on the Plan and measured at the top of pipe. In the case of sewers or storm drains formed and cast in place, such excavation volume will be based upon the outside width of the structure being constructed plus three feet (0.9m).

Additional payment or deductions from Contract Price for trench resurfacing will be based upon an area determined by the maximum trench width as specified herein.

If the maximum trench width is exceeded, the Contractor shall provide additional bedding, another bedding type, or higher pipe strength, as shown on Plans or approved by the Engineer, at no additional cost to the Agency.

b) **Flexible Thermoplastic Pipe.** For flexible thermoplastic pipe, trench width shall be in accordance with ASTM D 2321 or as indicated on the Plans.

REPLACE SUBSECTION 306-3.5 WITH THE FOLLOWING:

306-3.5 Maximum Length of Open Trench. Except with the Engineer's written permission, the maximum length of open trench at any one time shall be 300 feet (91 meters).

ADD NEW SUBSECTION 306-3.7 TO READ:

306-3.7 Payment for Contaminated Material Disposal.

a. **Class I Material Disposal:**

b. A contract change order shall be used to handle all work including handling, transporting and disposing of Class I materials as specified in the Special Provisions. The unit bid price provided in the Bid Schedule for Class I material disposal work shall be considered full compensation for all labor, materials, tools, environmental monitoring, dust control measures, site health and safety control, site security, equipment, and incidentals necessary to handle, transport and dispose of Class I material as specified herein.

including but not limited to, all supervision, fees, permits and licenses, insurance, preparing and implementing a health and safety plan, staging, preparing and implementing a work plan, temporary storage of material work plan, safety equipment, preparing and submitting necessary documentation to the transporter and the disposal facility in accordance with local, state, and federal regulations. The Contractor shall submit invoices, landfill weight tickets, waste manifests, and other documentary evidences of offsite hauling and disposal of excavated Class I materials.

- c. **Class II Material Disposal:** The unit bid price provided in the Bid Schedule for handling, transporting and disposing of Class II material shall be considered full compensation for labor, materials, tools, environmental monitoring, dust control measures, site health and safety control, site security, equipment, and incidentals necessary to handle, transport and dispose of Class II material as specified herein, including but not limited to, all supervision, fees, permits and licenses, insurance, preparing and implementing a health and safety plan, staging, preparing and implementing a work plan, temporary storage of material work plan, safety equipment, preparing and submitting necessary documentation to the transporter and the disposal facility in accordance with local, state, and federal regulations. The Contractor shall submit invoices, landfill weight tickets, waste manifests, and other documentary evidences of offsite hauling and disposal of excavated Class II materials.
- d. **Class III Material Disposal:** The unit price provided in the Bid Schedule for handling, transporting and disposing of Class III materials shall be considered full compensation for all labor, materials, tools, environmental monitoring, dust control measures, site health and safety control, site security, equipment, and incidentals necessary to handle, transport and dispose of Class III material as specified herein, including but not limited to, all supervision, fees, permits and licenses, insurance, preparing and implementing a health and safety plan, staging, preparing and implementing a work plan, temporary storage of material work plan, safety equipment, preparing and submitting necessary documentation to the transporter and the disposal facility in accordance with local, state, and federal regulations. The Contractor shall submit invoices, landfill weight tickets, waste manifests, and other documentary evidences of offsite hauling and disposal of excavated Class III materials.

ATTACHMENTS

No.	Attachment Name	Ref. Section
1	Submittal List	2-5.3.3
2	Material Submittal	2-5.3.3
3	Material or Product or Method Substitution Request	3-1.1
4	Contractor's Claim Submittal Form	3-7
5	As-Built Plans Certification Form	6-8
6	Operation Hours	601-1.1
7	Holiday Restricted Streets	601-1.1
8	Limited Operation Areas	601-1.1
9	Project Information Sign	7-12.1
9A	Barricade Sign	7-12.1
10	Request for Replacement Utility Box for Curb Ramp Work	303-5.1.1.a
11	Door Hangers	7-12.2
12	Imported Materials Certification Form	211-4
12	Subsection 211-4 Special Provisions for Imported Material or Backfill	211-4
13	Monthly Asset Form	9-3.2
14	Telecommunications Wiring Standards	209-5.3.4.1
15	2010 Revised Standard Plan RSP A87A, A88A, A88B, A90A, A90B	General

Attachment 1 – Sample Submittal List

CONTR=Contractor; SUPPL= Supplier

Subsection 2-5.3.3

NO.	REQUIRED SIGNATURES		ITEM	TYPE	SPECIFICATION NO.
1	CONTR	SUPPL	Imported Materials Certification Form		4-1
	CONTR		Construction Schedule		6-1
	CONTR		As-Built Plans		6-8
	CONTR		Traffic Control Plan		7-10.1
	CONTR		Injury and Illness Prevention Plan		7-10.4.5.d
	CONTR		Trench Shoring		2-5.3.2
	CONTR	SUPPL	Backfill	Crushed Aggregate Base	200-2.2
	CONTR	SUPPL	Backfill	Misc. Aggregate Base	200-2.2
	CONTR	SUPPL	Subbase	Selected Subbase	200-2.6
	CONTR	SUPPL	Concrete	Sidewalks, curbs, gutters, ramps, sewer structures, etc.	201-8
	CONTR	SUPPL	Steel Reinforcement	Steel Reinforcement for Concrete	201-2
	CONTR	SUPPL	Screenings	Cover aggregate for chip seal screenings	200-1.2.1
	CONTR	SUPPL	Paving Materials	Paving Asphalt	203-1
	CONTR	SUPPL	Paving Materials	Liquid Asphalt	203-2
	CONTR	SUPPL	Paving Materials	Emulsified Asphalts	203-3
	CONTR	SUPPL	Paving Materials	Emulsion-Aggregate Slurry	203-5
	CONTR	SUPPL	Paving Materials	Asphalt Concrete	203-6
	CONTR	SUPPL	Paving Materials – AC Top Course or AC Overlay	½" Maximum Aggregate, Medium 15% recycled Asphalt, Type C2, PG64-10	203-6
	CONTR	SUPPL	Paving Materials – AC Lower Courses	3/4" Maximum Aggregate, Medium 15% recycled Asphalt, Type B, PG64-10	203-6
	CONTR	SUPPL	Paving Materials	Recycled AC – Hot Mixed	203-11
	CONTR	SUPPL	Paving Materials	Asphalt Paint	203-8
	CONTR	SUPPL	Paving Materials	Sealcoat	203-9
	CONTR	SUPPL	Pipe	Reinforced Concrete Pipe	207-2
	CONTR	SUPPL	Pipe	Vitrified Clay Pipe	207-8
	CONTR	SUPPL	Pipe	Cast Iron Pipe	207-9
	CONTR	SUPPL	Pipe	PE Solid Wall Pipe	207-19
	CONTR	SUPPL	Joints, Fittings & Couplings		208
	CONTR	SUPPL	Electrical Components	Anchor Bolts, Nuts and Washers	209-3.2
	CONTR	SUPPL	Electrical Components	Standards	209-3.3
	CONTR	SUPPL	Electrical Components	Conduit	209-3.5
	CONTR	SUPPL	Electrical Components	Pull Box	209-3.8
	CONTR	SUPPL	Electrical Components	Service Pedestal	209-3.12

	CONTR	SUPPL	Electrical Components	Wire/Conductors	209-4.2
	CONTR	SUPPL	Electrical Components	Fuse	209-4.3.2
	CONTR	SUPPL	Electrical Components	HPS Luminaire	209-4.4
	CONTR	SUPPL	Electrical Components	Photocell	209-4.7
	CONTR	SUPPL	Electrical Components	LED Luminaire	209-4.9
	CONTR	SUPPL	Electrical Components	Signal Cable	209-5.3
	CONTR	SUPPL	Electrical Components	Fiber Optic Cable	209-5.3.4
	CONTR	SUPPL	Electrical Components	Underground Fiber Splice Closures	209-5.3.4.7
	CONTR	SUPPL	Electrical Components	Ethernet Edge Switch	209-5.3.4.8
	CONTR	SUPPL	Electrical Components	Hub Switch	209-5.3.4.9
	CONTR	SUPPL	Electrical Components	Controllers	209-5.4
	CONTR	SUPPL	Electrical Components	GPS Based Time Source Receiver	209-5.4.1b
	CONTR	SUPPL	Electrical Components	LED Signal Heads	209-5.5
	CONTR	SUPPL	Electrical Components	LED Countdown Ped Heads	209-5.6
	CONTR	SUPPL	Electrical Components	Signal Mounting Assemblies	209-5.7
	CONTR	SUPPL	Electrical Components	Video Detection	209-5.8.4
	CONTR	SUPPL	Electrical Components	Polara Push Button	209-5.9
	CONTR	SUPPL	Electrical Components	Splice Chamber	209-5.10
	CONTR	SUPPL	Electrical Components	IISNS	209-5.11
	CONTR	SUPPL	Electrical Components	PTZ Camera	209-5.12
	CONTR	SUPPL	Electrical Components	EVP	209-5.13
	CONTR	SUPPL	Paint	Traffic Striping, Curb Marking, etc.	214-4
	CONTR	SUPPL	Paint	Reflective Traffic Striping	214-4
	CONTR	SUPPL	Imported Materials Certification Form	Subbase, Aggregate Base, Fill, Topsoil, etc.	211-7, 217, 801-2.2
	CONTR	SUPPL	Chip Seal	Chip Seal Materials	302-2
	CONTR	SUPPL	Maintenance Hole Components	Ram-Nek for Sealing MH Sections	303-9.1
	CONTR	SUPPL	Pipe Rehabilitation	Cured-in-Place Liner Pipe (CIPP) HDPE Pipe Expanding; or Deformed/Reformed HDPE	500-1.4 500-1.6 500-1.7
	CONTR	SUPPL	Repair Sleeve	HDPE Repair Sleeve	500-1.3.6
	CONTR	SUPPL	Pipe Saddles	Polyethylene	500-1.3.9

*All specification designations refer to the Standard Specifications for Public Works Construction (Green Book), 2015 Edition; these Special Provisions; and the City of Oakland Standard Details for Public Works Construction, 2002 Edition. This list is intended to be comprehensive, but no claim for their completeness is implied, and submittal of each and every item on the lists shall not relieve the Contractor of supplying all information needed, or of complying with any of the other requirements of the specifications. Revised lists may be issued and items may be added to the list supplied.

Attachment 2 Material Submittal

Subsection 2-5.3.3

Supplier/Manufacturer: _____

Address: _____

Telephone: _____ Fax: _____

Item Description: _____ Spec. #: _____

Use of Item: _____

Note to the Supplier: The attached project special provisions modify the 2009 Standard Specifications for Public Works Construction (Green Book). These special provisions detail the requirements for the proposed material. Please review the special provisions, the Green Book and the text in the box below to ensure that the proposed material meets the project specifications. Include this signed form with all necessary documents for the material submittal.

I certify that the proposed material is in compliance with the contract specifications

- with no exceptions.
- with exceptions as noted.

Submittal Item Number _____
(Use numbering system from Attachment 1.)

Signature of Supplier's Representative: _____ Date: _____

Signature of Contractor's Representative: _____ Date: _____

Submittal Review

- No exceptions taken Exceptions taken as Noted Reviewed
- Rejected Revise and Resubmit
- Review Not Required Submit Specified Item
- _____

Review is only for the general conformance with the project design concept and general compliance with the information provided in the Contract Documents. The Contractor is responsible for conformance with all requirements of the Contract Documents, including, but not limited to, dimensions that shall be field verified, fabrication processes and construction techniques, coordination of work, and satisfactory performance of all work. Deviations from the Contract Documents are not reviewed unless specifically requested by the Contractor in writing. Review on resubmission will only cover designated changes on this submittal and other changes specifically identified by the Contractor.

CITY OF OAKLAND OPW, Bureau of Engineering and Construction

Comments:

Reviewer:

Date:

Attachment 3

MATERIAL OR PRODUCT OR METHOD SUBSTITUTION REQUEST

Subsection 3-1.1

NOTE: Provide six sets of this completed form and attachments for each separate substitution request.

To: **City of Oakland** Project Number: _____

Project Name: _____

A. We hereby submit for your consideration the following product instead of the specified item:

1. Section _____ Sub-article _____
2. Specified Item _____
3. Proposed Substitution (Mfr., Type, Model, Rehabilitation, etc.) _____

B. Complete all of the following:

1. We propose providing the City a cost credit (including costs for changes by other trades) of \$ _____. Does this substitution offer earlier delivery or less construction time? (Yes_____) (No_____) How much and why? _____ (hours/days/weeks)

2. How does this substitution affect any dimensions, layouts, profiles or details of other trades/methods as shown on the drawings? _____

3. Has this substitution been coordinated with the remainder (or other portions being affected) of the project? _____

4. What are the specific differences between this substitution and the specified item? _____

C. Attach the following items as applicable. Check box if item is attached to this substitution request.

<input type="checkbox"/> a. Manufacturer' technical data	<input type="checkbox"/> d. Drawings & description of changes required by other trades
<input type="checkbox"/> b. Laboratory test or performance results	<input type="checkbox"/> e. Samples
<input type="checkbox"/> c. Drawings & diagrams of the proposed product / method	<input type="checkbox"/> f. Manufacturer's guarantee & maintenance instructions

D. The undersigned agrees to pay for all design, testing, changes to the Contract Documents, and construction costs incurred as a result of the acceptance of this substitution, at no cost to the City.

E. Submitted by (Firm): _____

Signature: _____ Title: _____ Date: _____

Attachment 4
Contractor's Claim Submittal Form

Section 3-7

Under penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code Section 12650 et. Seq., the undersigned,

Name	Title	Company
-------------	--------------	----------------

hereby certifies that the claim for additional compensation or time, if any, made herein for the work on this contract is a true statement of the actual costs incurred and time sought, and is fully documented and supported under the contract between the parties.

Dated _____

/s/ _____

Subscribed and sworn before me this _____ day of _____, 200____.

Notary Public
My Commission Expires _____

Attachment 5
As-Built Plans Certification Form

Section 6-8

Date: _____

To: OPW, Bureau of Engineering and Construction
Attn: _____
250 Frank H. Ogawa Plaza, Suite 4344
Oakland, Ca 94612

Re: Project No.: _____

Project Title: _____

The enclosed As-Built plans are submitted as required by Section 6-8 "Completion and Acceptance" of the contract specifications.

As the representative of _____, the General Contractor for the above referenced project, I hereby certify that all improvement work for said project has been completed in conformance with the original plans and specifications and changes noted on these As-Built plans.

Signed: _____

Title: _____

Contractor's License Number: _____

Attachment 6: OPERATION HOURS

Subsection 601-1.1

Street Name	Work Period	North Bound	South Bound	East Bound	West Bound
Mandela Parkway	7 AM – 7 PM	Road closed to through traffic	Road closed to through traffic	NA	NA

The Contractor shall also:

- a) Provide five copies of the traffic control plan to the Engineer for review 10 working days before construction.
- b) Restore and reopen all traffic lanes outside of the Work Period shown above.
- c) Provide emergency vehicle access at all times.
- d) Provide flagger control as required.

Attachment 7: HOLIDAY RESTRICTED STREETS

Subsection 601-1.1

Antioch St: All
Bancroft Ave: 57th to 75th Ave.
Broadway: All
Clay St: 7th St. to San Pablo
College Ave: All
Dimond Ave: Montana to MacArthur Blvd.
Frank Ogawa Plaza: All
El Embarcadero: All
Foothill Blvd: Lakeshore Ave. to 73rd Ave.
Franklin St: 7th St. to Broadway
Fruitvale Ave: E 12th to E 22nd
 & School St. to Lyman Rd.
Grand Ave: All
Harrison St: 5th St. to 27th St.
Havenscourt Blvd: Camden to MacArthur
 Blvd.
Jack London Square: All
Lake Park Ave: All
Lakeside Dr: All
Lakeshore Ave: 12th St. to Prince
LaSalle Ave: N End to Moraga Ave.
MacArthur Blvd: Excelsior to High St.;
 & Seminary to 76th Ave.
Medau Place: All
Montana St: MacArthur Blvd. to Fruitvale
Mountain Blvd: Moraga to Colton Blvd.
Park Blvd: E 18th St. to 5th Ave.
 & Hampel to Glendora
Piedmont Ave: Broadway to Pleasant Valley
Pleasant Valley: All
Seminary Ave: Avenal to Monadnock

Telegraph Ave: All
Webster St: 6th St. to Broadway
West Grand: Broadway to Telegraph
West MacArthur: Harrison to Manila
Williams: MLK Jr. Way to Telegraph

5th St: Market to Broadway
7th St: Broadway to Madison
8th St: MLK Jr. Way to Madison
9th St: MLK Jr. Way to Madison
10th St: MLK Jr. Way to Madison
11th St: Brush to 12th St. Dam
12th St: Brush to 1st Ave.
13th St: Broadway to Harrison
14th St: Brush St. to 12th St. Dam
15th St: Broadway to Harrison
16th St: Clay to Telegraph
17th St: Brush to Lakeside Dr.
18th St: Brush to Telegraph
19th St: Castro to Lakeside Dr.
20th St: Castro to Harrison St.
21st St: MLK Jr. Way to Harrison St.
22nd St: MLK Jr. Way to Harrison St.
1st Ave: E 12th St. to Foothill
3rd Ave: E 18th St. to Park Blvd.
35th Ave: San Leandro St. to E 15th St.;
 & Suter St. to Kansas St.
68th Ave: Foothill to MacArthur
73rd Ave: E 14th St. to MacArthur
East 14th St: 1st Ave. to San Leandro Limits
East 18th St: Lakeshore Dr. to 8th Ave.

Attachment 8

LIMITED OPERATION AREAS

Subsection 601-1.1

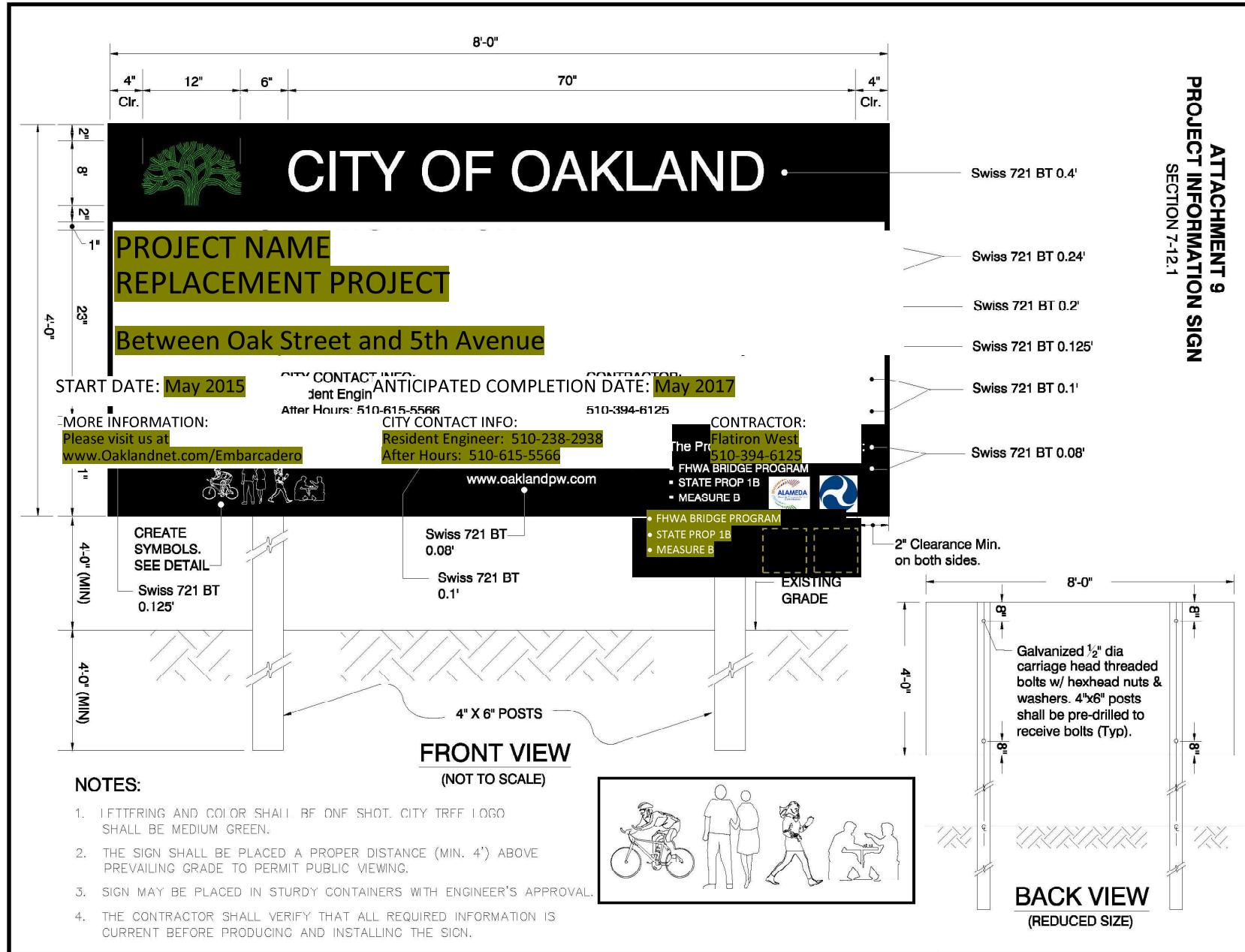
Adeline St: 1st St. to 7th St.
Ardley Ave: E 31st St. to MacArthur Blvd.
Bancroft: 42nd Ave. to San Leandro Limits
Bancroft Way: E14th St. to 47th Ave.
Bayo Vista Ave: Harrison to Oakland Ave.
Beaumont Ave: 14th Ave. to Park Blvd.
Bond St: 42nd Ave. to Bancroft Ave.
Broadway: All
Broadway Terrace: Broadway to Glenbrook Dr.
Brush St: 5th St. to W Grand
Camden St: Foothill Blvd. to Seminary Ave.
Castro St: 5th St. to San Pablo Ave.
Chatham Rd: Beaumont Ave. to Park Blvd.
Chester St: 5th St. to 7th St.
Claremont Ave: All
College Ave: All
Coliseum Way: High St. to 50th Ave.
Doolittle Dr: All
Edes Ave: Hegenberger Rd. to 98th Ave.
Edwards Ave: All
El Embarcadero: All
Foothill Blvd: 1st Ave. to MacArthur Blvd.
Franklin St: 7th St. to Broadway
Fruitvale Ave: Alameda Limits to Whittle
Grand Ave: Broadway to Mandana Blvd.
International Blvd/14th Ave: All
Northgate Ave: All
Harold St: All
Harrison St: 5th St. to Bayo Vista Ave.
Havenscourt Blvd: All
Hawley St: 69th Ave. To 73rd Ave.
Hegenberger Rd: All
High St: All
International Blvd: All
Keith Ave: College Ave. to Broadway
Lakepark Ave: Grand Ave. to Wesley Ave.
Lakeshore Ave: 12th St. to Mandana Blvd.
Lakeside Dr: Harrison St. to Oak St.
Lincoln Ave: All
MacArthur Blvd: Fairmount Ave. to Seminary Ave.
 & 73rd Ave. to San Leandro City Limits
Madison St: 5th St. to Lakeside Dr.
Mandana Blvd: Grand Ave. to Lakeshore Dr.
Mandela Parkway: All
Market St: 5th St. to Aileen St.
Miles St: Forest St. to Patton St.
MLK Jr. Way: All
Montana St: MacArthur Blvd. to Coolidge Ave.
Moraga Ave: All
Mountain Blvd: Thornhill Dr. to Park Blvd.
Oak St: Lakeside Dr. to 5th St.
Oakland Ave: All
Park Blvd: All
Peralta St: 5th St. to 8th St.
Piedmont Ave: All

Pleasant Valley Ave: All
Redwood Rd: 35th Ave. To Skyline Blvd.
San Leandro St: All
San Pablo Ave: All
Snake Rd: Mountain Blvd. to Shepherd Canyon Rd.
Seminary Ave: San Leandro St. to MacArthur Blvd.
Shattuck Ave: All
Telegraph Ave: All
Thornhill Dr: Moraga Ave. to Mountain Blvd.
Webster St: 7th St. to Broadway
W Grand Ave: All
W MacArthur Blvd: All
1st Ave: All
5th Ave: All
14th Ave: All
22nd Ave: Foothill Ave. to 23rd Ave.
23rd Ave: All
29th Ave: Estuary Bridge to International Blvd.
33rd Ave: E 12th St. to E 14th St./ International Blvd.
34th Ave: E 12th St. to E 14th St.
35th Ave: San Leandro St. to Redwood Rd.
37th Ave: San Leandro St. to E 12th St.
42nd Ave: E 14th St./ International Blvd. to Foothill
46th Ave: E 12th St. to E 14th St./International Blvd.
66th Ave: Oakport Rd. to E 14th St./International Blvd.
69th Ave: San Leandro St. to Hawley St.
73rd Ave: All
81st Ave: San Leandro St. to E 14th St.
98th Ave: All
E 8th St: All
E 12th St: 1st Ave. to 46th Ave.
E 14th St. (International Blvd): All
E 15th St: 1st Ave. to 14th Ave.
E 18th St: Lakeshore Ave. to 14th Ave.
5th St: Oak St. to Market St. & Mandela Parkway to Peralta St.
6th St: Oak St. to Jackson St. & Broadway to Market St.
7th St: 7th Ave. To 7th St. Maritime Terminal
11th St: Market St. to Oak St.
12th St: Broadway to Fallon St.
12th St. Dam: All Roadway Facilities
14th St: Market St. to Oak St.
17th St: Harrison St. to Brush St.
18th St: Market St. to MLK Jr. Way
19th St: MLK Jr. Way to Harrison St.
20th St: San Pablo Ave. to Lakeside Dr.
27th St: San Pablo Ave. to Harrison St.
27th St: San Pablo Ave. to MLK Jr. Way
35th St: Market St. to MLK Jr. Way
36th St: Market St. to MLK Jr. Way
40th St: All

51st St: Telegraph Ave. to Broadway

52nd St: MLK Jr. Way to Telegraph Ave.

ATTACHMENT 9
PROJECT INFORMATION SIGN
SECTION 7-12.1



**Attachment 9A:
Barricade Sign**



**OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF ENGINEERING AND CONSTRUCTION**

**PARDON OUR DIGGING
Work Description:**

CITY PROJECT NUMBER:

CONSTRUCTION INFORMATION:

CONTRACTOR NAME AND PHONE NUMBER:

NOTES:

1. SIGN SHALL BE 8.5" X 11".
2. SIGN SHALL BE WHITE EXCEPT FOR TREE ICON AND BORDER.
3. TREE ICON AND 0.1" THICK BORDER SHALL BE GREEN.
4. FONT STYLE SHALL BE ARIAL.
5. SIGN SHALL BE SECURED TO TYPE I BARRICADE.
6. SIGN SHALL BE LAMINATED ON CARD STOCK.
7. "CITY PROJECT NUMBER", "CONSTRUCTION INFORMATION", "CONTRACTOR NAME AND PHONE NUMBER" TEXT SHALL BE 0.2".

Attachment 10

Request for Replacement Utility Box for Curb Ramp Work

Subsection 303-5.1.1.a

TO:

- AT&T:** Otis Thompson (510) 645-7007
- EBMUD North Yard:** Everything North of Broadway to the Berkeley/Emeryville Border; Rick Pinguolo (510) 287-0831; fax (510) 758-6038
- EBMUD South Yard:** Everything South of Broadway to San Leandro Border, John Hyden tel (510) 287-0837 / 287-0838 / 287-0839; fax (510) 276-5643
- PG&E Electric:** Mark Augustin; tel (415) 716-7714; fax (510) 437-2289
- PG&E Gas:** Mark Augustin; tel (415) 716-7714; fax (510) 437-2289

Intersection Location:

Corner (i.e. N, NE, etc.) _____

Utility Box Dimensions: _____

Contractor Name and Telephone #: _____ (____)_____

I certify that a free replacement utility box is needed because

- either the existing box was damaged (pre-existing condition), or
- the existing box was unavoidably damaged by my crew while exercising due diligence to protect the existing improvements.

Sketch or Comments:

Contractor's Representative

Date

Approved by
City of Oakland Resident Engineer

Date

Attachment 11
Door Hangers - Edit in Accordance with Project



CONSTRUCTION NOTICE

PROJECT NAME: Citywide Preventive Maintenance Resurfacing

PROJECT NO.: C427720

TYPE OF WORK: Roadway resurfacing and traffic striping along San Pablo Avenue, between 17th Street to 19th Street, and between 21st Street to MLK JR Way.

WHEN: June 8th, 2016 to June 20th, 2016 between 9:00AM and 4:00PM. Look for barricades for specific time of parking restrictions posted on your block.

DESCRIPTION: The improvements consist of roadway resurfacing along San Pablo Avenue, between 17th Street to 19th Street, and between 21st Street to MLK JR Way. Final traffic striping will be performed upon completion of resurfacing work.

IMPACTS: During roadway resurfacing work, segments of the street may be closed to traffic for short periods of time. A designated path with barricades and detour signs will be in place.

FOR MORE INFORMATION, CONTACT:

CONTRACTOR:

Company Name
Address
Address
Office: phone number
Questions: email address

OAKLAND PUBLIC WORKS

Name
Resident Engineer
City of Oakland
Phone number
Email address

THANK YOU IN ADVANCE FOR YOUR COOPERATION

Attachment 12

Imported Materials Certification Form

Subsection 211-7

PROJECT INFORMATION

Number: _____ Name: _____

Location or Street Address: _____

CONTRACTOR / SUBCONTRACTOR IMPORTING MATERIAL

Name: _____ Street Address: _____

City: _____ State: _____ Zip Code: _____ Phone No.: _____

Fax No. _____ Email: _____

SOURCE AREA OWNER

Name: _____ Street Address: _____

City: _____ State: _____ Zip Code: _____ Phone No.: _____

Fax No. _____ Email: _____

IMPORT MATERIAL TYPE (Select One)

- Soil
- Aggregate – Not Recycled Specify Type: _____
- Recycled Aggregate Specify Type and Past Uses: _____

- Biosolids
- Compost

SOURCE AREA LAND USE HISTORY (Check all current and past uses)

- Residential
- Agricultural
- Commercial / Industrial
- None (i.e., virgin undeveloped)

SPECIFICS

Quantity (in cubic yards): _____ Placement and Use: _____

I hereby certify that the Import Material identified above meets the City of Oakland specifications of Section 211-4 Import Fill Material. I further certify that if the Import Material is determined not to be in compliance with these specifications that I will immediately and diligently remove all out-of-specifications Import Material and dispose of it in accordance with all applicable laws and regulations, conduct necessary sampling to verify that all out-of-specification Import Material has been removed, and verify to the satisfaction of the City and appropriate regulatory agencies that any adverse impacts to surrounding soils, waters or other materials have been mitigated sufficiently. I agree to conduct these activities at my sole expense with no cost to the City.

I declare under penalty of perjury that I am authorized to execute this certification and that the foregoing information is correct.

Signature: _____ Date: _____

Printed Name: _____ Title: _____

Attachment 12

Subsection 211-7 Imported Material or Backfill

ADD NEW SUBSECTION 211-7 TO READ:

211-7 IMPORT FILL MATERIAL.

The following subsection shall be used for all City projects where fill material is imported for any purpose.

211-7.1 Definitions.

- (5) **Import Material:** Any fill identified for import to the project site from an offsite location, including but not limited to: soil, gravel, crushed rock, rock dust, crushed concrete, sand, compost and biosolids (organic matter recycled from sewage).
- (6) **Source Area:** The location from which the Import Material originated.
- (7) **Chemical of Concern:** Any chemical identified for analysis per 211-7.2.2.
- (8) **Pathogen of Concern:** Any pathogen identified for analysis per 211-7.2.2.

211-7.2 General.

- 3. **Import Material Certification.** The Contractor shall submit an original, signed copy of the Import Material Certification Form (**Attachment 12** at the end of these Special Provisions) to the Engineer at least 15 working days prior to delivering Import Material to the construction site. A separate form shall be submitted for each separate Import Material and Source Area. The Contractor shall attach the following documentation to the Import Material Certification Form:
 - c. Chemical and Pathogen of Concern analysis results for the Import Material, including laboratory data sheets, chain-of-custody documentation, description of sample collection methods, and any additional information pertinent to assessing the potential for the Import Material to be contaminated by Chemicals or Pathogens of Concern;
 - d. Class A (pathogen reduction), Exceptional Quality (low heavy metals concentrations) documentation if the Import Material is biosolids.
- 4. **Sampling and Analysis of Import Material.** Unless otherwise agreed to in writing by the Engineer, the Contractor shall comply with the sampling, handling and analytical protocol outlined below.
 - a. The Contractor shall collect samples per the frequency outlined in Table 211-7.2(A).

Table 211-7.2(A). Sampling Frequency for Import Material Characterization¹

Volume of Import Material	Sampling Frequency
< 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1,000 cubic yards + 1 sample for each additional 500 cubic yards
>5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample for each additional 1,000 cubic yards

¹Source: Department of Toxic Substances Control, "Information Advisory: Clean Imported Fill Material", October 2001.

All samples shall be representative of Import Material conditions at the time of import. Composite samples shall be considered acceptable unless analysis for volatile organic compounds (VOCs) is required, in which case individual discrete samples shall be submitted for analysis. Composite samples shall consist of no more than four discrete samples. All compositing of samples must be performed by a California State-certified laboratory. The sampling, handling, and preservation shall be completed in accordance with the procedures outlined in EPA Document SW-846.

- b. All analyses of chemicals and pathogens shall be performed by a California State-certified laboratory. Table 211-7.2(B) outlines, by Source Area land use history, the Chemicals of Concern and prescribed analytical methods to be followed for characterization of Import Material that is soil or aggregate (not recycled).

**Table 211-7.2(B). Required Analyses by Source Area Land Use History –
Soil and Aggregate (Not Recycled)**

Source History	Chemicals of Concern + Analytical Methods
----------------	-------------------------------------------

Virgin, undeveloped property	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191)
History of residential use	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015)
History of agricultural activity	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015); organo-chlorine pesticides (EPA method 8081A or 8080A); organo-phosphorus pesticides (PEA method 8141A); chlorinated herbicides (EPA method 8151A)
History of commercial / industrial activity	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015); VOCs (EPA method 8021 or 8260B, as appropriate, and combined with collection by EPA method 5035); semi-VOCs (EPA method 8270C); PCBs (EPA method 8082 or 8080A) ¹

¹For railroad properties, the Contractor must also analyze Import Material for chlorinated herbicides per EPA method 8151A.

If the Contractor is unable to determine a complete land use history of the Source Area to the satisfaction of the Engineer, the Contractor shall be obliged to undertake all the analyses listed in Table 211-7.2(B). Table 211-7.2(C) prescribes the analytical methods to be followed for characterization of Import Material that consists of the following recycled products: aggregate (e.g., crushed concrete, asphalt, etc.); compost; and biosolids.

Table 211-7.2(C). Required Analyses – Recycled Material

Import Material	Chemicals/Pathogens of Concern + Analytical Methods
Recycled aggregate	heavy metals (EPA methods 6010B and 7471A); asbestos (OSHA method ID-191); TPH (modified EPA method 8015); PCBs (EPA method 8082 or 8080A)
Compost	heavy metals (EPA methods 6010B and 7471A); organo-chlorine pesticides (EPA method 8081A or 8080A); organo-phosphorus pesticides (PEA method 8141A); chlorinated herbicides (EPA method 8151A); fecal coliform (EPA method 1680); salmonella (EPA method 1682) ¹
Biosolids ²	heavy metals (EPA methods 6010B and 7471A); semi-VOCs (EPA method 8270C); PCBs (EPA method 8082 or 8080A)

¹List of required analyses based on *Compost Quality Standards and Testing Protocol*, Alameda County Waste Management Authority (2006)

²Biosolids must also have been designated Class A for pathogen reduction.

In addition to meeting the screening criteria outlined in 211-7.3 for the chemicals of concern listed in Table 211-7.2(C) above, all biosolids must:

- (1) be designated Class A per 40 CFR 503.8 (i.e., no detectable concentrations of the following pathogens: enteric viruses, fecal coliform, helminth ova, and salmonella); and
- (2) be designated Exceptional Quality (i.e., low heavy metals concentrations per Table 3 of 40 CFR 503.13).

The Contractor may use sewage plant data to confirm the Class A designation. For Chemicals of Concern, the Contractor must provide data from analyses run on stockpile samples of the actual material to be imported (i.e., general sewage plant data for the Chemicals of Concern listed in Table 211-7.2(C) above are insufficient).

4. **Verification by City:** The City may, at its option and at any time, collect samples of Import Material to verify that it meets the specifications outlined in 211-7. The Contractor shall fully cooperate in the collection of the samples.

If the resulting chemical or pathogen analyses indicate that the material does not meet the specifications outlined in 211-7, the Contractor shall be responsible for providing, to the satisfaction of the Engineer, subsequent sampling and analyses at the Contractor's sole expense to determine the extent of out-of-specification material delivered to the construction site.

If the Contractor uses Import Material that is, or is found to be, not in accordance with the specifications of 211-7, the Contractor shall promptly remove all out-of-specification Import Material. The Contractor shall verify, to the satisfaction of the Engineer, that all out-of-specification Import Material has been removed and any effects from its placement at the site have been mitigated sufficiently. The subsequent disposal of the out-of-specification Import Material shall be the sole responsibility and at the sole expense of the Contractor. The City shall not be liable for, nor will it pay, any additional costs incurred by the Contractor for the characterization, removal, disposal, or replacement of the out-of-specification Import Material.

211-7.3 Screening Levels for Import Material.

4. **All Chemicals of Concern, Except Lead.** No Import Material with one or more Chemicals of Concern at a concentration greater than the current San Francisco Bay Region Water Quality Control Board Environmental Screening Level (ESL) available at www.waterboards.ca.gov/sanfranciscobay/esl.htm shall be accepted ("Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater", Table A).
5. **Lead.** No Import Material with total lead concentrations at or greater than ten times the Soluble Threshold Limit Concentration (STLC) published in Title 22 of the California Code of Regulations shall be accepted. (As of January 1, 2008, the acceptable total lead concentration is <50 mg/kg.)
6. **Pathogens of Concern.** No Import Material with one or more Pathogens of Concern at detectable levels shall be accepted.

Attachment 15

2010 Revised Standard Plan RSP A87A, A88A, A88B, A90A, A90B

http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspa87a.pdf

http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspa88a.pdf

http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspa88b.pdf

http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspa90a.pdf

http://www.dot.ca.gov/hq/esc/oe/project_plans/highway_plans/stdplans_US-customary-units_10/viewable_pdf/rspa90b.pdf

ATTACHMENT 17

CONTRACTOR OVERFLOW EMERGENCY RESPONSE PLAN

Contractor Overflow Emergency Plan

Contractor who contracts with the City of Oakland to conduct sanitary rehabilitation work shall have an Overflow Emergency Response Plan (OERP). The OERP shall be submitted and approved by the City prior to begin work. In addition to the OERP submittal requirement, the Contractor may be required to take additional training, attends a mandatory preconstruction meeting and provide hands on demonstration to ensure it is in compliant with all required responsibilities handing an active Sanitary Sewer Overflow (SSO). Below are process parameters and guidance to be included in the Contractor's OERP.

The OERP shall include:

1. Contractor's representative: Name and telephone number of a competent person who can obtain resources and supervise the work in the event of a spill.
2. City of Oakland contacts for active spill:
Project Leads and Supervisors II's
 - a. **Manager/Supervisor II** - Johnny Nicks 510.615.5567 or Ameal McLaurin 510.615.5590
 - b. **Supervising Civil Engineer** – Wen Chen 510.238.6697
 - c. **Resident Engineer** - TBD
 - d. **Oakland Call-Center (Oak311)** – (510)-5566.
3. A process for containing, diverting and returning the spill back to the sewer system
4. A process for mitigating the Spill and proposed material and equipment to be used for this effort.
5. A process for containment and containment for work causes a backup into private property.
6. Protocol for SSO occurs during non-business hours the contractor shall contact the Oakland Call-Center (Oak311) immediately to report the active over-flow so that a Service Request (SR) can be generated. **(510)-615-5566**
 - a. Call the Listed Supervisor II and or Supervising Civil Engineer
 - b. Begin the containment protocol and mitigate the spill
 - i. Take photographs of the spill
 - ii. Photograph the clean-up/ mitigation efforts
 - iii. Photograph the area post cleanup to illustrate the condition as a result of your clean-up efforts.
7. Note, the Contractor shall follow the same notification protocol informing the city for SSO caused by their own operation. The contract shall bear all expenses to abate and cleanup and at no cost to the City. Should additional assistance from the City is needed to mitigate such spill, expenses will be tracked, and a bill will be issued to the contractor.
8. Mandatory Pre-construction Meeting: Prior to the start of any work related to the City of Oaklands Sewer Collection system, the contractor shall attend a pre-construction meeting to review the OERP. The City shall provide guidance and discuss the communication strategy in the event an SSO occurs. This meeting will cover the following so that contractors and city staff are properly trained, aware of SSO response protocol and, consistently follow the OERP.
 - i. Using appropriate tools and equipment to contain and/or mitigate an overflow;
 - ii. Using appropriate tools and equipment to clear a blockage in sewer pipes in varying sizes (6 inches – 24 inches in diameter);

- iii. Using appropriate tools and equipment to bypass a blockage in large-diameter sewer pipes (30 inches or greater);
- iv. Using appropriate tools, equipment, and procedures, to investigate and/or test for water quality contaminants in affected waterways;
- v. Properly documenting an overflow event;
- vi. Accurately completing SSO field reports, draft CIWQS SSO reports, and certified CIWQS SSO reports, in a timely manner;
- vii. Appropriately notifying regulatory agencies and affected municipalities and/or utilities, when an overflow has occurred, and advising/warning the public, when the overflow may cause a nuisance to (or otherwise affect) human health and safety.

The Provisions provided will act as a guide for your OERP development. More information is available at <https://www.oaklandca.gov/documents/2019-asset-management-implementation-plan-and-sewer-system-management-plan> (2019 Asset Management Implementation Plan and Sewer System Management Plan, Appendix C – City of Oakland Overflow Emergency Response Plan).

SECTION 5. Technical Special Provisions Specifications

**SECTION 5.
Technical Special Provisions
Specifications**

PART 9

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SECTION 5 – TECHNICAL SPECIAL PROVIVIONS

PART 9 – STORM WATER TREATMENT UNIT & DIVERSION PIPING INSTALLATION

SECTION 900 – GENERAL

900-0 GENERAL.

All work under this Contract shall conform to the Standard Specifications (Greenbook 2015 Edition), these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

900-1 SCOPE OF WORK.

The work to be done under this contract includes the installation of the Contech Dual Stage Hydrodynamic Separator (DSBB 11-24-150) and the RCP piping diversion system at the location near the intersection of Mandela Parkway and 24th Street in the City of Oakland as shown on the Plans and specified in these Specifications. The DSBB will be furnished by the City. The Contractor shall coordinate with the DSBB manufacturer for the delivery of DSBB to the jobsite, and shall be responsible for off-loading and installing the DSBB and appurtenances.

The work shall include, but not limited to, mobilization, traffic control, temporary fencing and barricade, clearing and grubbing, water pollution control, dust control, control of ground and surface waters, construction survey and staking, installation of shoring system; removal and disposal of existing RCP piping; removal and replacement of existing concrete and asphalt concrete pavements, sidewalks, driveways, curbs and gutters where required, saw cutting; installation of signage, pavement markings and traffic striping; removal and disposal of debris and materials, conducting soil testing, excavation of existing soil, disposal of excavated materials, preparation of subgrade, supplying and placement of structure base materials and pipe bedding materials; structure excavation and backfill; trench excavation and backfill; roadway excavation and backfill; furnishing and installation of materials and components of the storm water treatment unit, sump, riser, manhole/access hatches; supplying and placement of structural concrete, junction boxes, weir wall, pipe collars; installing 72" and 96" RCP piping; furnishing and installation of manholes, manhole frames and covers; furnishing and placement of imported backfill materials, permanent and temporary resurfacing, protection of existing facilities and utilities; fence replacement, as well as furnishing and installation of the associated appurtenances necessary or required to satisfactorily complete the work as shown on the Plans and required in these Specifications.

The Contractor shall do all work incidental to legally and satisfactorily complete the work including the furnishing of all supervision, labor, materials, supplies, tools, equipment, transportation, utility coordination, applicable taxes, permits, and any other necessary or required incidental work essential to accomplish the work, whether or not shown on the plans or required in these specifications. The cost of all such incidental work shall be included in the lump sum bid price and no additional or direct payment will be made therefor.

Bidders shall make a field reconnaissance of the project areas prior to bidding in order to visualize and have full comprehension of the scope and extent of the work.

900-2 MEASUREMENT AND PAYMENT.

Payments to complete all work under this Contract as shown on the Plans and/or specified in these Specifications are by unit basis items in either lump sum or unit price as provided in the Bid Schedule, and shall be considered as full compensation to complete the work, and no additional compensation will be allowed therefor.

Not all work shown on the Plans or specified in these Specifications is identified as pay items listed in the Bid Schedule. For work that does not have a pay item identified and listed in the Bid Schedule and/or for work that is not called out as potential Extra Work, its payment shall be considered as included in the other listed lump sum or unit price bid items of work, and no additional compensation will be allowed therefor.

900-2.1 REVOCABLE CONTRACT ITEMS.

Items noted as "Revocable" in the Bid Schedule may be deleted entirely or in part at the sole discretion of the City as per Section 3-2.5 of the Standard Specifications. The provisions of Section 3-2.2.2 "Increases of More Than 25 Percent" and Section 3-2.2.3 "Decreases of More Than 25 Percent" shall not apply to entire or partial deletion of Revocable items.

The Contractor shall confirm with the Engineer in writing prior to starting any work on revocable contract items.

900-3 CONSTRUCTION SCHEDULE.

After notification of award of Contract and prior to start of any work, the Contractor shall submit to the Engineer a BAR CHART SCHEDULE setting forth the sequence, in which construction phases will proceed, for review.

To maintain the storm conveyance capacity/capability of the existing storm drain system during winter months, the Contractor shall schedule the work between April and October and must complete all the underground work before the start of the rain season. Reference Section 906-2 for the temporary stormwater diversion requirements of dry weather flow during construction.

The construction schedule shall represent a practical plan to complete the work within the contract time. In preparing the schedule, the Contractor shall review and coordinate the time schedule for the work to be done by the utility companies and such progress schedule shall reflect the utility companies' activity. The schedule shall show the starting and completion dates for all major items or phases of the work.

A schedule showing the work completed in less than the contract time, which is found to be practical by the Engineer, shall be considered to have float. The float is the time between the scheduled completion of the work and the contract completion date. Float is not for the benefit of either the Engineer or the Contractor. It is a resource to both parties.

If the Contractor desires to make a major change in the method of operations after commencing construction, or if the schedule fails to reflect the actual progress, the Contractor shall submit to the Engineer a revised construction schedule in advance of beginning revised operation.

A schedule found to be impractical for the preceding reason or any other reason shall be revised by the Contractor and resubmitted at no extra cost to the Agency.

The Contractor shall refer to Section 1.1 Notice to Bidders for the Contract Days, and Section 6-7.2 regarding Working Days and working hours. The Contractor may be allowed to work after 5:00pm on weekdays or work on Saturdays and Sundays only with the Engineer's written permission. The Contractor shall submit requests with justifications in writing.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 6-1 for additional requirements.

900-3.1 Construction Sequencing/Phasing Plan.

The Contractor shall develop a Construction Sequencing/Phasing Plan in coordination with the Construction Schedule to show the project will be completed within the contract time, and all underground work including backfill completed prior to the start of the rain season.

If for any reasons beyond the City or Contractor's control and the underground work cannot be completed prior to the start of the rain season, the Contractor shall promptly backfill the site, complete the paving, button up the site, and safely reopen the roadway for traffic. The existing 96" RCP storm drain system must also be completely restored/reconnected to resume the full storm conveyance capacity/capability. The remaining contract work may not resume until the next dry weather season.

The Contractor shall develop the Construction/Sequencing Plan such that if the underground work cannot be completed prior to the start of the rain season, the work that is partially completed must be in such a condition that it will:

- a) allow the full resumption of the storm conveyance capacity/capability of the existing 96" SD system during the winter months,

- b) allow the site to be backfilled and buttoned up, and the roadway safely reopened for vehicular traffic,
- c) allow the subsequent phase to proceed smoothly without unnecessary rework

The Construction Sequencing/Phasing Plan shall include, at a minimum, the following items:

- 1) sequencing/order or work including the completion the junction boxes, demolition of the 96" RCP, completion of the 96" RCP bypass and collars, completion of the 72" RCP, and completion of the trash capture device,
- 2) temporary backfill, roadway paving, re-opening the roadway for traffic (in case the underground work is delayed),
- 3) provisions and details for concrete and rebar reconnection work, including rebar couplers, and protection of exposed rebar from corrosion (in case the underground work is delayed),
- 4) temporary seals and plugs of openings in the junction box structures (in case the underground work is delayed),
- 5) completion of all remaining work, including final roadway backfill, pavement, and striping.

As an example, the construction sequencing plan may identify the first order of work to include the completions of the 96" SD bypass system, the two junction boxes (excluding the diversion weir wall in Junction Box 2), and the connection of the two junction boxes to the existing 96" RCP at the upstream and downstream ends. The next order of work would include the completions of the trash capture device, the 72" RCP, and the diversion weir wall in Junction Box 2.

The Contractor is responsible to develop the Construction Sequencing/Phasing Plan based on the Contractor's means and method. The Construction Sequencing/Phasing Plan and Construction Schedule shall be submitted to the Engineer for review and approval.

Developing and following the order in the Construction Sequencing/Phasing Plan is considered part of the Contract, and do not relieve the Contractor from meeting all the contract terms, including Contract Time and Liquidated Damages.

Any work items identified in the Construction Sequencing/Phasing Plan that are determined by the Engineer to be beyond the original contract scope and at no fault of the Contractor will be considered as Extra Work to be compensated under a negotiated contract change order.

900-3.2 Preconstruction Activities and Submittals Prior to Notice to Proceed.

Within fifteen (15) calendar days from the issuance of the Notice of Intent to Award, and in advance of the issuance of the Notice to Proceed (NTP), the Contractor shall:

- 1. Submit a BAR CHART SCHEDULE, which identifies the duration of each activity or phase, and sets forth the sequence in which construction will proceed. The schedule shall identify work items that are in critical path.
- 2. Perform potholing, soil sampling and testing, obtain landfill/dump site approval, prepare and submit critical submittal, and perform other preconstruction activities to prepare for the construction.
- 3. Contractor shall submit all critical submittals, including those with the long lead time. Critical submittals include, but not be limited to:

- Construction Sequencing/Phasing Plan
- Traffic Control Plan, including Traffic Detour Plan
- Health and Safety Plan
- Sheeting, Shoring, and Bracing Plan
- Groundwater Dewatering Plan
- Temporary Stormwater Diversion Plan
- Temporary Discharge and Special Discharge Permits from City of Oakland and EBMUD
- Concrete Mix Design and Reinforcement Shop Drawings
- Disposal and Transport Plan for excavated materials
- Landfill/dump site classification and approval

900-4 SUBMITTAL REQUIREMENTS.

Submittal requirements shall be in accordance with the Standard Specifications and these Special Provisions and Technical Special Provisions.

Unless allowed otherwise by the Engineer, the Contractor shall submit **one (1)** original and **two (2)** copies of all submittals to the Engineer. Each submittal item shall include a colored Contractor Submittal Summary form, of which an original will be provided by the Engineer. The forms will be filled out completely and legibly on colored paper.

Each set of submittals shall be bound in a three-ring binder, at least two inches in thickness, and include numbered index tabs separating each submittal. Submittal index tabs shall follow the numbering system identified in the list below. Subsequent re-submittals, including the original and all copies shall be submitted in loose-leaf form.

900-5 SUBSURFACE DATA.

The following inspections, explorations and tests of subsurface conditions at the work site were performed for this project:

1. GEOTECHNICAL DESIGN REPORT – Mandela Parkway Trash Capture Device – Oakland, California April 2023, by Wood Rodgers
2. GEOTECHNICAL AND ENVIRONMENTAL REPORT OF SOIL BORINGS, Mandela Parkway, Oakland, California July 2019, by SLR
3. ENVIRONMENTAL CHARACTERIZATION REPORT, Mandela Parkway Trash Capture Project, Oakland, California, August 10, 2023

The above-referenced investigations and reports in their entirety are available for review upon request. Contact Tiffany Pham at the City of Oakland Public Works Agency, Bureau of Design and Construction, 250 Frank Ogawa Plaza, Suite 4314, telephone (510) 238-3397. Boring logs and laboratory analytical results from these reports are included in the Appendices of these documents. This information is provided for general guidance only. Only the 'technical data' contained within the report shall be considered part of the Contract Documents. The 'technical data' contained in this report upon which the Contractor may rely consists of the attached boring logs and laboratory analyticals. The Contractor may rely upon the general accuracy of such data. The remaining portions of the report are not part of the Contract Documents. Except for reliance on the 'technical data', the Contractor may not rely on, or make any claim against the City with respect to the following:

- The Completeness of such reports for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.
- Other data, interpretations, opinions, and information contained in such reports.
- Any Contractor interpretation of or conclusions drawn from any 'technical data' or any other such data, interpretations, opinions, or information.

900-5.1 Removal of Asbestos and Hazardous Substances.

When the presence of asbestos or hazardous substances is not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or hazardous substances 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 such asbestos or hazardous substance will be performed by a negotiated contract change order.

Any additional delays that the Contractor suffers shall be remedy for by additional work day(s) allowed for per contract change order.

900-6 PROJECT APPEARANCE.

The Contractor shall use only chalk-based marking paint for all construction information painted on the street, sidewalks, or any other visible surface.

Broken Portland cement concrete, asphalt concrete, soil, debris, and any other material developed during construction shall be disposed of concurrently with its removal. Stockpiling shall be permitted only with the prior written acceptance of the Engineer and only in approved locations.

The Contractor shall sweep the streets within the project area with a power pick-up sweeper and the streets washed down using a high-pressure washer a minimum of once daily, or as directed by the Engineer, for the duration of the project. A Wet/Dry vacuum system shall be used to vacuum sawcut slurry.

The Contractor shall provide a water truck for dust control during construction hours when excavation and/or backfill operations and other operations causing dust, including clean-up operations, are being conducted.

The Contractor is advised that the disposal of solid waste, sewage, industrial waste, or other polluted waters into the public storm drain system is prohibited.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 7-8 for additional requirements.

900-7 PRESERVATION OF PROPERTY.

The Contractor shall submit video inspection of the job site to the Engineer, for review, prior to the start of construction, for the purpose of providing a record of existing conditions.

Only new USB flash drive with MP4 or AVI digital video format shall be used. Each USB flash drive shall be labeled and dated appropriately. The video shall provide a view encompassing the entire project area, including 25 feet on each side of the project boundary prior to excavation, with sufficient clarity and scope to the satisfaction of the Engineer. The Contractor shall submit these USB flash drives with a written log noting any existing defects or irregularities in the existing pavement or sizes and type of vegetation along the proposed alignment. The log shall also state the location (by station), date, and time the video was made. Upon acceptance by the Engineer, the USB flash drives shall become the property of the Agency.

If the Contractor plans to drive sheeting, the Contractor shall video inspect nearby structures prior to driving the sheeting. This video inspection shall be included in the site video above, and shall be accompanied by a similar log that notes street address and existing defects or irregularities.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 7-9 for additional requirements.

900-8 SAFETY.

The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damages, injury, or loss to:

- a. All employees on this project and all other persons who may be affected thereby; and
- b. All the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody, or control of the Contractor or any of the Contractor's subcontractors; and
- c. The work of the Agency or other separate contractors.

The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the safety of persons or property or their protection from damage, injury, or loss.

The Contractor shall erect and maintain, as required by existing conditions and the progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.

The Contractor shall designate a Site Safety and Health Officer who is a responsible member of the Contractor's organization and whose duty shall be the prevention of accidents.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 7-10 for additional requirements.

900-8.1 Health and Safety Plan.

The Contractor shall develop a Health and Safety Plan (HASP) that outlines the measures to be taken to ensure the safety and health of workers and the public. The HASP shall include, at a minimum, the following components:

1. Project description and scope: provide a brief description of the project and its scope, including the location, duration, and size of the project.
2. Hazard assessment and identification: include a hazard assessment and identification that identifies potential hazards associated with the project. This assessment should be based on a review of project plans, site inspections, and other relevant information.
3. Control measures: describe the control measures that will be implemented to address the identified hazards. This may include engineering controls, administrative controls, and personal protective equipment.
4. Site-specific safety and health plan: include site-specific safety and health rules that workers and other personnel must follow while on the project site. These rules may include requirements for personal protective equipment, safe work practices, and emergency procedures.
5. Training and education: include provisions for training and education of workers and other personnel. This should include training on hazards associated with the project, the proper use of personal protective equipment, and emergency procedures.
6. Medical surveillance and first aid: include provisions for medical surveillance and first aid. This may include requirements for medical examinations, first aid training, and the availability of medical facilities and personnel on the project site.
7. Emergency response plan: include an emergency response plan that outlines the procedures to be followed in case of an emergency. This should include procedures for evacuation, communication, and response to injuries or other emergencies.
8. Recordkeeping and reporting: include provisions for recordkeeping and reporting of injuries, illnesses, and other incidents that occur on the project site. This may include requirements for incident reporting, documentation of training and education, and other recordkeeping requirements.

The Contractor shall have a Certified Industrial Hygienist (CIH) to develop a specific health and safety plan to handle and dispose excavated materials meeting all Federal, State, and local regulations. The Contractor shall perform soil sample collection and analyses as necessary to complete the landfill waste disposal acceptance determination, and/or appropriate landfill classification. The specific health and safety plan shall include, at a minimum, the following components:

1. Plan for removal, transportation, and disposal of excavated materials at an appropriate disposal site. This plan shall include safety procedures for handling and transporting the soil safely.
2. The appropriate landfill classification: The Contractor shall contact the landfill operator to determine the appropriate classification and ensure that they can accept the soil.
3. Worker protection plan, including safety procedures and the use of personal protective equipment.
4. Emergency response plan in case of an accident or spill during the removal or transportation of the soil.
5. Obtain necessary permits and approvals from local Cities and regulatory agencies before starting the excavation and transporting the excavated materials.

Payment for Health and Safety Plan, including conducting additional sample collection and analyses, and developing a specific health and safety plan to handle and dispose excavated materials, shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for performing all work required for Health and Safety Plan as specified in these Specifications.

Health and Safety Plan

Per Lump Sum

900-9 HANDLING AND DISPOSAL OF EXCAVATED SOIL.

The Contractor shall comply with all applicable Federal, State, and local laws and regulations pertaining to the work performed during the excavation and disposal of excavated materials.

The Contractor may refer to the Geotechnical and Environmental Report of Soil Borings and Environmental Characterization Report for analytical results of a soil boring at the site.

The excavated soil is expected to be disposed at an approved landfill, either as Class II or Class III landfill facility. The Contractor shall perform additional sample collection and analyses as necessary to complete the landfill waste disposal acceptance determination. If there are levels of contamination present that require special handling and disposal of certain excavated materials at a Class I landfill, either as California Hazardous Waste (Non-RCRA) or Federal Hazardous Waste (RCRA), any added work as a result of special handling and disposal at a Class I landfill will be considered as Extra Work to be compensated under a negotiated contract change order.

Full compensation for excavation and disposal of soil materials at Class II or Class III landfill shall be as per pay item "Excavation and Disposal" under Section 904-6.

Full compensation for performing soil sample collection and analyses shall be as per pay item "Health and Safety Plan" under Section 900-8.1.

Full compensation for added work as a result of Special Handling of Disposal of certain excavated materials at a Class I Landfill, including obtaining all necessary permits and paying fees, shall be paid under a negotiated contract change order.

900-10 NOTIFICATION FOR RESIDENTS, BUSINESSES AND SCHOOL.

The Contractor shall notify, in writing, residents, businesses, and schools within 300 feet radius of project limits a minimum of two (2) times prior to start of construction. The first notice shall be given to all residents, businesses, and schools within the project area seven (7) calendar days prior to any construction operation. If diversion pumping is required outside the project area, notification should be given to residents, businesses, and schools, at least 48 hours prior to any construction operation being performed in front of said residents, businesses, and schools. The second notice shall be given to residents, businesses, and schools 48 hours prior to any construction operation.

Both first (7 days) and second (48 hours) notices shall be in writing and submitted to the Engineer for review. Notices shall include the project name, describe the nature and duration of the Contractor's operations, and provide a toll-free telephone number at which a Contractor's representative may be contacted 24 hours per day for problems or emergencies encountered by residents, businesses, and schools. Answering machines and voice mail shall not be permitted.

A separate notice shall be given at least 48 hours and one working hour prior to any anticipated service/utility disruption or temporary closure of access to any driveway. The notice shall indicate the duration of the disruption. The Contractor shall submit a written request to the Engineer regarding the temporary closure of access to any driveway. No driveway access shall be closed by the Contractor at any time without prior written authorization from the Engineer.

If construction operations are delayed for any reason beyond the duration stipulated in the notices, the Contractor shall re-issue written notices at least 48 hours prior to any construction work that explain the delay and provide a revised schedule. All written notices to residents, schools, businesses, agencies, etc. shall be submitted to the Engineer for approval.

900-11 MOBILIZATION.

Mobilization shall include, but not be limited to, the following items:

- a. Arrange for and erect a work and storage area - The Contractor is responsible for making arrangements to acquire or rent a yard to keep their equipment and materials, so as to cause the least possible impact to the neighborhood and public.
- b. Portable Toilet – The Contractor shall provide a portable toilet for use by Contractor and Agency's employees and shall provide a continuous supply of toilet paper. Contractor shall clean and maintain each toilet at the direction of the Engineer or at least daily.
- c. Project Information Signs - The Contractor shall install and maintain project information signs at all times. Project information signs shall be securely mounted on barricades or electroliers (where permitted), or bolt sign to 4"X4" posts, or install the signs at locations designated by the Engineer or the City Inspector and be visible to all pedestrian and vehicular traffic entering the construction site. Should the signs be lost or damaged due to any reasons, the Contractor shall replace them at their own expense. Project information signs shall be returned to the City Inspector at the end of the project.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 9-3.4 and Section 7-12 for additional requirements.

Payment for Mobilization shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for performing all work required for Mobilization as specified in these Specifications. The bid amount for Mobilization shall not exceed 5% of the total contract amount.

Mobilization	Per Lump Sum
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900-12 WATER POLLUTION CONTROL AND EROSION CONTROL.

Contractor shall implement and maintain temporary erosion and sediment control for the project as required and as detailed in the most recent version of the Erosion Control and Sediment Control Field Manual for California, and the latest California Stormwater Quality Association (CASQA) BMP Handbook, Construction, for the entire duration of the project.

Best Management Practice (BMP) shall be as specified in the most current CASQA BMP construction handbook fact sheets, the Pollution Prevention Plan, and these project specifications.

Erosion and sediment control work shall consist of applying BMP's to control the discharge of stormwater pollutants from the project site. BMP's shall be used to cover all temporary erosion and sediment control situations that arise during construction including unanticipated field conditions year-round. These erosion and sediment control measures shall control and contain erosion-caused silt deposits and provide for the safe discharge of silt-free storm water into existing and proposed storm facilities.

The Pollution Prevention Plan, including all the appropriate BMP's for water pollution control and prevention, shall be implemented to ensure the project site is protected during all storm events for the entire duration of the project.

Contractor shall implement and maintain all water pollution control and prevention plan work for the project that shall include:

- a. Construction of any and all necessary systems to eliminate contaminants from entering the storm system.
- b. Clean up and control of the work site materials, spoils, and debris.
- c. Removal of contaminants produced by equipment used for the construction of the project.
- d. Prohibition of illicit discharge (non-rain water) into the storm system.
- e. Provision of all labor, materials, equipment, and apparatus not specifically mentioned herein or noted on the plans, but which are incidental and necessary to complete the work specified.

Contractor shall be responsible for ensuring that all sub-contractors, and suppliers are aware of all water pollution control measures and that they implement such measures. Failure to comply with the stormwater quality regulations and specifications will result in the issuance of verbal or written corrective notices, citations, fines, and/or a project stop order.

Contractor shall maintain erosion and sediment control measures daily. The name of the person responsible for the daily maintenance of these facilities shall be on record with the Engineer and Project Inspector, along with a phone number where they can be reached twenty-four (24) hours a day.

Temporary erosion and sediment control work shall consist of applying erosion control materials to embankment slopes, excavation slopes and other areas designated on the Water Pollution Control Plan, and installing sediment control such as, but not limited to, fiber roll, silt fence, inlet protection, gravel bags, headwall protection and stabilized construction entrances and exits, or other measures as specified in the Water Pollution Control Plan.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 7-8.6 for additional requirements.

Payment for Water Pollution Control and Erosion Control shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for performing all work required for Water Pollution Control and Erosion Control as shown on the Plans and/or as specified in these Specifications.

Water Pollution Control and Erosion Control	Per Lump Sum
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900-13 CONSTRUCTION SURVEY AND CONSTRUCTION STAKING.

Construction survey and construction staking shall include the work as described in the subsections listed below and the work shall be performed by, or under the direct supervision, of a California Licensed Surveyor.

900-13.1 Permanent Survey Marker.

Permanent Survey Markers shall be in accordance with the Standard Specifications and these Special and Technical Special Provisions.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 2-9.1 for additional requirements.

The Contractor shall comply with Section 2-9.1 Permanent Survey Markers of the Special Provisions regarding Pre and Post Construction Monument Verification, the use of a California-Licensed surveyor for referencing the location and filing of a corner record with the County Surveyor of Alameda for all known project monuments prior to doing any construction work, and the reset of monuments. The Pre and Post Construction Monument Verification shall be performed within 25ft of the project limits.

900-13.2 Pre-construction Survey.

Prior to starting any paving removal or demolition work, the Contractor shall perform a pre-construction survey of the site and obtain pre-existing spot elevations of the roadway and curb and gutter. This information will be used to ensure the re-paving and curb/gutter replacement meet the original grade and elevations. At a minimum, the Contractor shall take at least three cross sections of the existing roadway within the project limits. The cross sections shall be spaced equally and/or at grade break locations and shall be perpendicular to the traffic lane direction. Each cross section shall extend from curb line to curb line and shall include the elevation: a) at the top of curb, b) at the gutter flow line, and c) at all the grade breaks. The Contractor shall submit this information to the Engineer.

The Contractor shall field determine the invert elevations of the existing 96" RCP as shown on the Plans and submit this information to the Engineer prior to construction/installation of any concrete structures, piping, or the DSBB device.

900-13.3 Construction Staking.

The Contractor shall perform all construction staking for this project. Construction staking shall be performed to ensure that all the improvements are constructed as per the line and grade and stationing and offsets as shown on the plans.

Payment for all work under Construction Survey and Construction Staking shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for performing all work required for Construction Survey and Construction Staking, including Pre and Post Construction Monument Verification as shown on the Plans and/or as specified in these Specifications.

Construction Survey and Construction Staking

Per Lump Sum

SECTION 901 – DUAL STAGE HYDRODYNAMIC SEPARATOR

901-1 GENERAL.

The Contractor shall install the City-furnished Dual Stage Hydrodynamic Separator (DSBB 11-24-150) in accordance with the notes and details shown on the drawings and in conformance with these specifications.

The Contractor shall coordinate with the DSBB manufacturer, Contech, for the delivery of the DSBB to the job site, and shall be responsible for off-loading and installing the DSBB and appurtenances at the site.

901-1.1 Unloading, Storage, and Handling.

The DSBB will be shipped to the job site, and it is the responsibility of the Contractor to offload the unit(s) and place in the exact site of installation. The Contractor shall provide a safe delivery site and suitable access for Contech's delivery trucks, and shall provide traffic control for unloading. The Contractor shall also provide at least two people to assist in the unloading of the products, and supply a crane of sufficient lift and reach capacity and rigging for lifting system(s) and/or system components off delivery trucks. The Contractor shall set in place and all related construction and site activity to and from the system, including subgrade preparation and placement of base materials.

The bulk of the DSBB system will arrive in two pieces (top "half" and bottom "half"), ramneck sealant and the internal components will be preinstalled in the base. The heaviest pick weight is approximately 105,000 lbs. Additionally, there will be four (4) risers and four (4) hatches that will be placed at grade and grouted to the finished grade.

The Contractor shall exercise care in the storage and handling of the DSBB and all components prior to and during installation. Any repair or replacement costs associated with events occurring after delivery is accepted and unloading has commenced shall be borne by the contractor. The DSBB and all components shall always be stored indoors and transported inside the original shipping container until the unit(s) are ready to be installed. The DSBB shall always be handled with care and lifted according to OSHA and NIOSA lifting recommendations and/or contractor's workplace safety professional recommendations.

901-1.2 Installation.

The Contractor shall furnish all labor, equipment, materials and incidentals required to install the DSBB device and appurtenances in accordance with the drawings and these specifications.

Grading and excavation site shall be properly surveyed by a Contractor's registered professional surveyor, and clearly marked with excavation limits and elevations. After the site is marked, the Contractor shall contact local utility companies and/or USA to check for underground utilities. All grading permits shall be approved by governing agencies before commencement of grading and excavation. Soil conditions shall be tested in accordance with the governing agencies requirements. All earth removed shall be transported, disposed, stored, and handled per governing agencies standards. It is the responsibility of the contractor to install and maintain proper erosion control measures during grading and excavation operations.

Excavation, subgrade preparation, and backfill for the DSBB installation shall be performed in accordance with the Plans and these Specifications. Subgrade preparation and placement of base materials shall be inspected and approved by the Engineer prior to lifting and placing the DSBB concrete structures in proper position per plans.

The Contractor shall be responsible for connecting the 72" RCP inlet and outlet piping to the DSBB system.

After installation, the Contractor shall demonstrate that the DSBB has been properly installed at the correct location(s), elevations, and with appropriate components. All components associated with the DSBB and its installation shall be subject to inspection by the Engineer at the place of installation. In addition, the Contractor shall demonstrate that the DSBB has been installed per the manufacturer's specifications and recommendations.

901-2 DSBB PERFORMANCE.

- Function: The DSBB is a pre-engineered inline hydrodynamic separation system composed of multiple sediment removal chambers, a screening system designed to capture and store solid debris such as foliage and litter in a dry state above the static water line, and an oil skimmer to capture oils, grease, and other hydrocarbons.
- Removal Efficiencies: The DSBB is capable of capturing and retaining 100% of all trash or debris

equal to or greater than 4.7 mm. The DSBB will not release material during flow events greater than the design flow rate.

- C. Hydraulic Capacity: The DSBB provides a rated hydraulic capacity, which is consistent with governing water treatment regulations. The hydraulic capacity is supported by independent third-party lab testing of the screen material. The lab testing is done over a range of 5 flows and the water height and head loss recorded to create a curve. Sizing of the screens treatment flow capacity is based upon the orifice coefficient related to the independent lab testing.
- D. Storage Capacity: The DSBB will have multiple sediment removal chambers for storage of sediments and other non-floatable pollutants. The DSBB has an oil skimmer to capture hydrocarbons. The skimmer is equipped with storm boom. The storm boom is capable of capturing up to 180% of its weight in oils & grease along with other emulsified and free floating hydrocarbons.
- E. Pollution Separation: The DSBB is equipped with a screening system capable of capturing and storing solid debris such as foliage and litter in a dry state above the static water line. The screening system is located directly under the systems access hatch(s) to allow easy maintenance and removal of captured debris.

901-3 PERFORMANCE AND DESIGN DATA.

SITE SPECIFIC DATA – MANDELA & 24 th STREET - OAKLAND	
<i>Full Capture Trash Flow Rate</i>	160 CFS
<i>Peak Flow Rate</i>	170 CFS
<i>Screen System Storage Capacity</i>	263.33 CF
<i>Sediment Storage Capacity</i>	1138.50 CF

901-4 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

901-5 MEASUREMENT AND PAYMENT.

Payment for the installation of the DSBB shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the off-loading and installation of the DSBB and appurtenances as shown on the Plans and/or as specified in these Specifications.

Installation of DSBB

Per Lump Sum

SECTION 902 - TRAFFIC CONTROL

902-0 GENERAL.

Traffic Control shall be in accordance with the Standard Specifications, these Special and Technical Special Provisions, and Caltrans Standard Specifications where applicable.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 600 and Section 601 for additional requirements.

902-1 TRAFFIC CONTROL.

The Contractor shall submit a Traffic Control Plan to the Engineer before proceeding with any work on this project. This plan shall be designed to maintain traffic circulation to abutting streets within the limits of this project. If traffic detoured to another street is permitted, it is the Contractor's responsibility to provide adequate control and signing through the detour route. All cost associate with the detour shall be included in the contract price paid for other items of work and no additional compensation will be allowed therefor.

The Mandela Parkway northbound between 24th Street and Campell Street will be closed to traffic, and part of this closed street will be designated as construction area for contractor's use and for project construction. Contractor shall submit a Traffic Control Plan with a Traffic Detour Plan for the Engineer's review and approval. The Traffic Control Plan shall incorporate the following provisions and requirements:

- a. The Mandela Parkway northbound between 24th Street and Campell Street will be closed to traffic.
- b. The Mandela Parkway northbound traffic, including sidewalk and bike lane, shall be detoured to 24th Street, up Peralta Street, and back on Mandela Parkway via 26th Street.
- c. The Mandela Parkway northbound between the project construction area and Campell Street, including the existing driveway from the local business to Mandela, shall remain opened to allow the local business to enter and exit the parking area. Contractor shall provide temporary striping and signage with clear directions to direct traffic safely in and out of the parking area.
- d. Pedestrians/bicyclists may be directed to using the existing sidewalk/path in the existing median park upon approval by the City. Signage with clear directions for diverting routes shall be provided.

Construction shall be organized so as to cause the least possible inconvenience to traffic. Traffic control and detours used shall conform to the principles set forth by the current edition of the STATE OF CALIFORNIA BUSINESS, TRANSPORTATION AND HOUSING AGENCY DEPARTMENT OF TRANSPORTATION "California Manual on Uniform Traffic Control Devices for Streets and Highways."

The Contractor shall provide all required signs, barricades, k-rails, lights, high level flag trees and devices.

All signs and other warning devices shall be provided by the Contractor, and shall become his property after completion of the Contract. The cost of providing, installing, and maintaining signs, lights, flares, barricades, and other facilities as directed by the Engineer for the convenience and direction of public traffic shall be included in the contract price paid for other items of work and no additional compensation will be allowed therefor.

Those parts of public streets, right-of-ways and sidewalks that are occupied by the Contractor shall be immediately vacated by him and returned to public use when his use thereof is no longer necessary for the prosecution of the work.

Set up and removal of detours, temporary striping, and barriers during construction shall be done by the Contractor.

902-2 BICYCLE AND PEDESTRIAN ACCESSES.

1. Bicycle access and pedestrian access shall be as follows:
 - a. Pedestrians and bicyclists shall not be led into direct conflicts with work site vehicles, equipment, or operations.
 - b. Pedestrians and bicyclists shall not be led into direct conflicts with mainline traffic moving through or around the work site.
 - c. Pedestrians and bicyclists shall be provided with a convenient travel path that replicates as nearly as possible the most desirable characteristics of sidewalks/footpaths, and bike paths.

- d. Every effort shall be made to separate pedestrian and bicyclist movements from both work site activity and adjacent traffic. Whenever possible, signing will be used to direct pedestrians or bicyclists to street crossings in advance of an encounter with a temporary traffic control zone. Signs shall be placed at intersections so that pedestrians or bicyclists are not confronted with mid-block work sites that will induce them to skirt the temporary traffic control zone or make a mid-block crossing. It must be recognized that pedestrians will only infrequently retrace their steps to make a crossing. Consequently, ample advance notification of sidewalk closure is critically important. See Caltrans Traffic Manual, Chapter 5 Section 5-07.3 for typical traffic control device usage and techniques for pedestrian movement through work zones.
- 2. Except allowed otherwise, no equipment will be allowed to be parked within any traffic lanes or medians after work hours.
- 3. Provide a minimum of two (2) electric arrow boards for lane reductions at all times.

902-3 OTHER REQUIREMENTS.

- 1. All traffic lane diversions and separations shall be delineated with Type II barricades, 28" traffic cones or 48" delineators spaced 25' O.C. The tapered transitional length shall be 150' minimum. Post "KEEP RIGHT" or "KEEP LEFT" signs on high-level flagtrees or Type II barricades at the beginning of each diversion or separation.
- 2. The Contractor shall be responsible for informing the public of the traffic conditions existing within the construction area at all times by placement of appropriate warning and advisory signs. The Contractor shall provide and maintain all traffic control and safety items. The Contractor assumes sole and complete responsibility for the job and site conditions including safety of all persons and property, from start until final acceptance of construction. This requirement shall apply continuously twenty-four (24) hours/day and shall not be limited to normal work hours.
- 3. Prior to start of any work, Contractor shall post "NO STOPPING TOW-AWAY ZONE" signs as specified in permit from City of Oakland. Contractor shall also hand out flyers with notice of work, company name and address, representative person, and telephone number at least twenty-four (24) hours in advance of any work.
- 4. The Contractor shall install and maintain C18 "ROAD CONSTRUCTION AHEAD" signs 7' high on a 4"x4" wood post or a convenient electrolier in advance during the construction. Signs must be a minimum of 300' in advance of the construction area on all the approach streets.
- 5. All open excavation areas, with the approval of the Engineer, shall be barricaded with Type III barricades at the end of the excavation that faces oncoming traffic. The longitudinal edge of pavement excavation shall be delineated with Type II barricades spaced 25' O.C. Attach "OPEN TRENCH" signs to barricades 100' O.C.
- 6. K-rail shall be used if excavation is more than one foot deep. A.C. deep lift to be placed immediately after excavation within traffic lanes.
- 7. All open post hole or columns footings excavations shall be backfilled or securely covered with 1 1/8" plywood and barricaded at the end of each workday.
- 8. Provide flagman for lane closure and pedestrian protection.
- 9. Flaggers shall be certified by the American Traffic Safety Services Association (ATSSA) or the National Safety Council (NSC). Flaggers' certification shall be maintained current and valid for the duration of the project.

902-4 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

902-5 MEASUREMENT AND PAYMENT.

Payment for Traffic Control shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for Traffic Control and Traffic Detour as shown on the Plans and/or as specified in these Specifications.

Traffic Control

Per Lump Sum

SECTION 903 – UTILITIES

903-0 GENERAL.

Utility location shall be in accordance with the Standard Specifications, and these Special and Technical Special Provisions.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 5 for additional requirements.

903-1 LOCATION.

The Contractor shall contact the Regional Notification Center, Underground Service Alert (USA) at 811, for field location of all utilities at least 2 working days prior to excavation.

The Contractor shall notify the Engineer if any existing utilities would potentially conflict with the work. If any design changes are necessary due to the conflicts, the Contractor shall allow sufficient time for the Engineer to revise the project plans as necessary.

The Contractor shall protect and assume liability for all utilities from damage by their forces during the construction period.

903-2 UTILITY CONFLICTS.

Existing utilities shown on the plans are for information only and their locations are approximate. The Contractor shall assume full responsibility for the location of all existing utilities prior to the commencement of any construction activity. The Contractor shall perform utility potholing to verify the location and elevation of utilities.

The Contractor shall be responsible for locating all the major trunk lines and service laterals as shown on the Drawings prior to excavation or shoring, including in the areas where the service laterals may not be shown on the Drawings but could reasonably be expected to exist. Any service laterals damaged by the Contractor shall be promptly repaired with the approval of the Engineer, at no cost to the Agency.

For any major trunk line utilities that are not marked or identified on the Plans and are found to be in conflict with the work, the Contractor shall promptly notify the Engineer and shall perform necessary work as directed by the Engineer to resolve the conflict. Added work due to unforeseen major trunk line utility conflicts shall be performed, measured and paid for as “Changes in Work” in accordance with the Standard Specifications and these Special Provisions.

903-3 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

903-4 MEASUREMENT AND PAYMENT.

Payment for work required under this Section shall be considered as included in other lump sum or unit price bid items of work, and no additional compensation will be allowed therefor.

SECTION 904 – EARTHWORK, DEMO, EXCAVATION AND BACKFILL

904-1 GENERAL.

Earthwork shall be in accordance with the Standard Specifications, these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

Reference the applicable Sections of the Standard Specification and Special Provisions for additional requirements.

904-2 DEMO & CLEARING AND GRUBBING.

Clearing, grubbing and removal of obstructions shall be in accordance with the Standard Specifications and these Special Provisions. The work shall include, but is not limited to, removal of the following: existing 96" RCP, AC pavement, curb and gutter, concrete pad, concrete driveways, sidewalk, and all other existing obstructions so designated on the plans.

The Contractor shall remove concrete/AC pavement and curb and gutter to the limits as shown on the plans by saw-cutting. Any and all pavement damaged by the Contractor shall also be saw-cut and removed as directed by the Engineer. Slurry from saw-cutting to be cleaned up by wet/dry shop vacuum.

Saw-cutting shall be considered as incidental work and no separate payment will be allowed therefor.

All cleared and grubbed materials shall be hauled and disposed of, outside the right-of-way, at a suitable location and in a lawful manner by the Contractor.

The Contractor shall comply with all Federal, State, and local regulations regarding storage, hauling, and disposal of cleared and grubbed materials.

904-3 EXCAVATION & DISPOSAL.

The work shall include all excavations (shown or not shown on the plans) to the depth and dimensions required for the installation of the DSBB, RCP Piping, Junction Boxes, Pipe Collars, Manholes and other structures, plus hauling and disposal of surplus excavated materials at a Class II or Class III landfill facility.

The work shall include earthwork excavation, roadway excavation required for the grading and construction of the roadway, structural excavation for construction of concrete structures and other facilities, and trench excavation for installation of RCP piping.

The excavated soil will be disposed at an approved Class II or Class III landfill facility.

The Contractor shall provide all weight tags for soil disposal to receive progress payments. In case the Contractor cannot provide weight tag for soil disposal, and only upon the approval of the Engineer, the Engineer may allow a conversion factor of no more than 1.6 TON/CY.

The Contractor shall perform sample collection and analyses to complete the landfill waste disposal acceptance determination.

Refer to Section 900-9 for additional information regarding handling and disposal of excavated soil.

904-4 BACKFILL AND STRUCTURAL BACKFILL.

The work shall include soil backfill, trench backfill, and structural backfill of various materials (shown or not shown on the plans) required for the installation of the DSBB, RCP Piping, Junction Boxes, Pipe Collars, Manholes and other work as shown on the Plans.

The work shall include importing, placing, grading, and compacting suitable native materials and/or imported materials.

All backfills must be free of organic matter and other deleterious substances such as brick, glass, metal, or other unsatisfactory material.

Native material from the upper 6ft of excavation may not be suitable for backfill. Native material from the rest of the excavation may not be used for backfill unless it meets the requirements of these Specifications.

Structural backfill shall be compacted to at least 95% relative compaction for the following areas:

- a. within 2 feet from each side and top of each concrete structure
- b. within 3 feet below the finished roadway

For areas not required to be compacted to 95%, backfill shall be compacted to at least 90% relative compaction.

All structural backfills, including backfill for roadway construction, shall be Class 1 Aggregate Subbase in conformance with Section 25-1.02B of the Caltrans Standard Specifications, or must have a sand equivalent value of at least 20 and comply with the gradation requirements shown in the following table:

Sieve size	Percentage passing
3"	100
No. 4	35-100
No. 30	20-100

Trench backfill on top of pipe bedding shall be Class 2 Aggregate Base $\frac{3}{4}$ " maximum, in conformance with Section 26 of the Caltrans Standard Specifications, and shall be compacted to 95% relative compaction. Aggregate gradation and aggregate quality characteristics for Class 2 Aggregate Base shall conform to Section 26-1.02B of the Caltrans Standard Specifications.

904-5 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions. Submit backfill materials, including structure backfill and trench backfill.

904-6 MEASUREMENT AND PAYMENT.

Payment for Demo and Clearing and Grubbing shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for Demo and Clearing and Grubbing as shown on the Plans and/or as specified in these Specifications.

<i>Demo & Clearing and Grubbing</i>	<i>Per Lump Sum</i>
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Payment for Excavation and Disposal shall be by unit price per ton and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, for handling and disposal at a Class II or Class III landfill, and for performing all work required for Excavation and Disposal as shown on the Plans and/or as specified in these Specifications.

<i>Excavation and Disposal</i>	<i>Per Ton</i>
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Payment for Backfill and Structural Backfill shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for Backfill and Structural Backfill as shown on the Plans and/or as specified in these Specifications.

<i>Backfill and Structural Backfill</i>	<i>Per Lump Sum</i>
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SECTION 905 – SHEETING, SHORING AND BRACING

905-0 GENERAL.

Trench sheeting, shoring, and bracing shall be in accordance with the Standard Specifications and these Special and Technical Special Provisions.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 7-10.4.2.1 for additional requirements.

905-1 TRENCH SHEETING, SHORING, AND BRACING.

The design of the shoring and bracing system, either temporary or being used as permanent, is the sole responsibility of the Contractor. The shoring plan shall be prepared by a State of California Registered Engineer and experienced in the design of earth retaining structures. The shoring and bracing system shall provide for watertight shoring. Groundwater encountered at or the bottom of the trench shall be mitigated per Section 906-Dewatering.

Work shall consist of installation of the necessary shoring, sheeting, and/or bracing to prevent sloughing in of the trench side walls, protect of any existing utilities and related structures (e.g., manholes, vaults, etc.); and protection of surface improvements such as curb and gutter, trees, sidewalks, foundations, concrete slabs, pavement, or any adjacent ground surface from caving in or settling. The Shoring plan shall provide for resistance of lateral earth pressures, hydrostatic pressure, and lateral loads for traffic, construction equipment, and spoils. Shoring shall extend into competent (stiff or stronger) soils.

Review of the shoring and bracing plan by the Engineer shall in no way relieve the Contractor if complete responsibility for providing effective and safe shoring and bracing of the construction area. Shoring and bracing submittal shall demonstrate coordination with the Contractor designed dewatering method and submittal, and the removal and replacement of unsuitable soil, if required.

The shoring and bracing system submittal shall include design assumptions, calculations, and information on Contractor's proposed method of installation and removal of all or part of the shoring system. It shall note the maximum design load to be carried by the various members of the support system and detailed excavation support drawings showing all pertinent dimensions, spacings, and relationships among the components of the shoring, as well as construction sequence and scheduling.

The shoring and bracing system submittal shall also include, the method of bracing, the full excavation depth and depth(s) below the main excavation to which the support system will be installed, a detailed sequence of construction and bracing removal, and detailed drawings and descriptions of the method to be used by Contractor to monitor shoring and adjacent ground/structure movements. The system shall be designed to account for hydrostatic pressures to fully draw down the groundwater level behind the shoring at least one foot below the excavation bottom.

The wale and bracing systems shall be sufficiently rigid to prevent disturbance to on-site utilities and avoid cracking of the existing asphalt concrete pavements. The selection of the steel sheet piling section shall be by the Contractor and shall satisfy the requirements of the Plans and this Special Provisions.

Installation and/or removal of the support system shall not cause settlement or heave of the ground surface nor produce construction vibrations that could damage adjacent utilities or structures.

Where interlocking steel sheet piling is to be removed, the Contractor shall take measures to prevent bonding of concrete against the piling and limit disturbance upon withdrawal of the piling. If sheet piling is extracted, all voids shall be filled with controlled density fill. Should interlocking steel sheet piling be removed and settlement of pipe or structures result, Contractor shall re-level pipe or structure to design grade by pressure grouting. Contractor shall submit grouting plan, prior to implementation, to Engineer for approval.

If sheet piling is allowed to be left in place, the top of sheet piling shall be removed to an elevation equivalent to the top of concrete structure, or at least 18" below the bottom of the pipe where applicable.

At locations where an existing pipe or other utility must extend through the face of a trench or excavation, the Contractor's trench and structure sheeting, shoring, and bracing procedures shall include provisions to protect the existing pipe or other utility, safely support the earth above and below it, and to minimize infiltration of groundwater.

Contractor shall perform a pre-construction and post-construction survey of any structures and/or foundations located within a 2:1 plane extending from the bottom of the excavation to the surface.

Contractor shall monitor existing structures and/or foundations for shifting, settlement, or damage resulting from the construction activities, including dewatering and shoring.

The shoring system shall be designed to ensure sufficient depth of toe embedment to provide lateral stability at the base of the shoring system and prevent heave and boiling through the base of the excavation.

Insufficient shoring of the trench and/or negligence by the Contractor shall not constitute an emergency street closure. The Contractor shall backfill the trench and reassess the method of operation, if necessary, to ensure continued traffic access.

Permanent sheet piling, if allowed, shall only be used on the west side and east side of the junction boxes as shown on Plans, and shall be continuous vertical interlocking steel sheet piling, and the concrete for the junction boxes shall be continuously cast against the irregular permanent steel sheet piling and shall fill all flutes and/or indents.

The permanent sheet piling, wale and bracing system shall conform to the detailed Sheeting, Shoring, and Bracing Plans prepared by the Contractor.

Installation of permanent sheet piling shall be in accordance with the manufacturer's recommendations and directions. Sheet piling shall maintain vertical during driving. Steel sheet piles shall be maintained to an alignment that, following installation of braces and completion of excavation, results in the minimum concrete wall thickness conforming to the wall thickness indicated on the plans.

The exposed faces of permanent steel sheet piles against which concrete is to be cast shall be thoroughly cleaned of soil and all loose scale removed.

905-2 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

The Contractor shall submit to the Engineer calculations and detailed drawings prepared, signed, and stamped by a Registered Civil or Structural Engineer showing the design of the shoring plan and bracing system. The calculations shall include earth pressure diagrams, anticipated deflections, and pre-load needs for internal bracing. The drawings shall include details of top protection, any special reinforcing tips, splices, fabricated additions to plain piles, driving, and cut-off method. The drawings shall show the layout of the sheet piling and include fabricated sections, corners, complete dimensions, minimum section properties, details of piling, and driving sequence.

Submittal for permanent sheet piling, if allowed by the Engineer, shall include the following info:

- a. Permanent sheet piling materials conforming to ASTM A 328, "Steel Sheet Piling," ASTM A 690, "High Strength Low-Alloy Steel H-Piles and Sheet Piling for Use in Marine Environments," or ASTM A 572, "High-Strength Low-Alloy Columbium-Vanadium of Structural Steel."
- b. The drawings shall show details and dimensions of templates and other temporary guide structures for installing the piling. Pre-load values for internal bracing shall be shown. Proposed details shall be submitted of any portions of the wale and bracing system to be left embedded in place within the reinforced concrete walls.
- c. Manufacturer's directions and recommendations.
- d. Pile driving operation, and a template or driving frame suitable for aligning, supporting, and maintaining the steel sheet piling in the correct position during setting and driving.
- e. Certificates shall be submitted for each shipment providing information on the piling type, dimensions, chemical composition, mechanical properties, section properties, heat number, and mill identification mark.
- f. Descriptive information of the pile driving equipment shall be submitted. This information shall include manufacturer's name, model numbers, capacity, rated energy, hammer details, cushion material, and helmet.

The Contractor shall submit to the Engineer, for review a copy of the Contractor's CAL/OSHA Excavation Permit.

905-3 MEASUREMENT AND PAYMENT.

Payment for Sheeting, Shoring, and Bracing shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for Shoring, Sheeting, and Bracing, including Permanent Sheet Piling, as shown on the Plans and/or as specified in these Specifications.

Sheeting, Shoring, and Bracing

Per Lump Sum

SECTION 906 – DEWATERING

906-0 GENERAL.

Dewatering shall be in accordance with the Standard Specifications and these Special and Technical Special Provisions.

Reference the applicable Sections of the Standard Specification and Special Provisions, including Section 7-8.6.4 for additional requirements.

906-1 DEWATERING.

Water shall be lowered to at least three feet below the bottom of DSBB, piping and concrete junction box structures to facilitate subgrade preparation and placement of pipe bedding and aggregate base materials.

Contractor is advised that groundwater control represents a significant construction consideration. Before dewatering commences, the Contractor shall submit plans of the proposed dewatering system to the Engineer for review, and apply for any required discharge permits.

The dewatering system plans shall be in sufficient detail to indicate power source, size of pumps, piping, appurtenances, placement of wells, and the ultimate disposal point of the water; and to permit the Engineer to review the overall completeness and effectiveness of the proposed system. The submittal shall also show means of evaluating drawdown time in real-time (e.g. piezometers). Review of the dewatering plans by the Engineer in no way relieves the Contractor of complete responsibility for providing effective and safe dewatering of the construction areas. The control of groundwater shall be such that softening of the bottom of excavations or formation of “quick” conditions or “boils” do not occur.

Dewatering systems shall be designed and operated to prevent removal of natural soils. Dewatering system submittal shall demonstrate coordination with the contractor designed shoring and bracing method and submittal, and the removal and replacement of unsuitable soil, if required. If a well point system is deemed by the Contractor to be required, the Contractor shall submit a well design to the Engineer for acceptance. Said well design shall be prepared by a California Registered Geotechnical Engineer or California Registered Civil Engineer qualified and experienced to perform such designs. The Contractor shall obtain any necessary permits for construction and destruction of the wells including any permits necessary from the local and/o state jurisdictions as appropriate.

Groundwater pumping shall not remove fines from below grade. Wells shall be cased, and filter(s) shall be provided to prevent such pumping of fines. If any dewatering well pumps out fines, pumping shall be terminated and a new well shall be properly constructed at a different location with a revised design which eliminates the pumping of fines.

Effluent from dewatering shall be discharged legally in compliance with the local, state, and federal regulations. Reference Section 906-3 below.

Contractor shall perform a pre-construction and post-construction survey of any structures and/or foundations located within a 2:1 plane extending from the bottom of the excavation to the surface.

Contractor shall monitor existing structures and/or foundations for shifting, settlement, or damage resulting from the construction activities, including dewatering and shoring.

Dewatering system may require dewatering tanks, filtering system, desilting system, portable generators, and security personnel (mainly for monitoring pump operations during non-construction periods) which shall be furnished by the Contractor.

906-2 TEMPORARY STORMWATER DIVERSION SYSTEM.

Contractor shall provide necessary measures, including not limited to, pumps, piping, tanks, power source, to control and divert or bypass the stormwater from the existing 96" RCP storm pipe system to allow for construction of the improvements.

It's estimated that there is a summer flow of around 15cfs from the 96" storm system that must be managed and controlled.

Diverted stormwater shall be discharged legally in compliance with the local, state, and federal regulations. Reference Section 906-3 below.

906-2.1 Plugging and Diversion of Storm Flows.

The Contractor shall adhere to the following list of general conditions to perform the work required to divert storm flow.

1. The Contractor shall divert/pump 100 percent of the upstream storm flow from the section of pipe to be removed or replaced until the new pipe is completely in place and ready for use. Diversion of storm flow shall be accomplished by pumping and/or by rerouting with diversion mechanisms in upstream storm systems that have available capacity.
2. Diversion pumping equipment and piping shall be tested for leaks prior to pumping storm. Leak testing shall be performed any time the diversion pumping system is disassembled, reassembled, and/or modified. No leaks in the diversion piping shall be permitted.
3. At no time shall the storm system become surcharged due to diversion of storm flow. Surcharge shall be defined as the storm flow rising above the crown of the pipe and within five (5) feet of any manhole rim. No diversion shall be implemented or left in place once the system is surcharged.
4. The Contractor shall take all necessary measures to ensure that storm flow does not spill onto the street or onto or into private properties. The Contractor shall be responsible for all costs associated with the clean-up or damage from any storm spills resulting from diversion of flows.

906-2.2 Storm Diversion Plan.

The Contractor shall submit a Storm Diversion Plan for the Engineer's review and approval.

The Diversion Plan for each stage of diversion and/or pumping shall include, but not be limited to, a storm drain map showing all storm invert and street surface elevations at the manholes in the areas affected by the diversion, anticipated peak storm flows, locations of plugs, and calculated water surface elevations. The Contractor shall indicate on the map the critical manholes in the diversion area where the system may become surcharged.

If bypass pumping is proposed, the Diversion Plan shall include the location, number, and sizes of pumps, diameter and layout of piping, valves, and structure of manifolding. The system shall include a stand-by pump, manifolded to the system for redundancy, in the event that any one pump becomes inoperable. The system shall also have sufficient spare parts and extra piping in the event that any pipe run needs to be replaced.

The Contractor shall provide all material, labor, and equipment to pump or divert storm flows. Bypass pipes, fittings, and manifolds shall be made of metal, solid wall HDPE, or solid wall PVC.

Where diversion piping crosses intersecting streets or blocks access to driveways, the Contractor shall place diversion piping below street grade and either cover with recessed steel plates, or backfill and cover with temporary pavement.

Diversion piping placed on the street surface within the vehicular traveled way shall be protected with K-railing. The Contractor shall remove all diversion piping and barricades at the completion of diversion operations and shall restore the surface of the pavement to the original or better condition.

The Contractor shall continuously monitor the storm flow surface elevation in manholes within the area affected by the diversion to ensure compliance with the general conditions.

906-3 TEMPORARY DISCHARGE AND SPECIAL DISCHARGE PERMITS.

Contractor shall apply for any required discharge permits from the City, East Bay Municipal Utility District (EBMUD), and/or Regional Water Quality Control Board prior to starting construction. Unless approved otherwise by regulatory agencies and the City, effluent from groundwater dewatering may not be allowed to be discharged into existing storm drain system.

Contractor shall contact the City of Oakland and EBMUD and shall apply and pay for permit fees for any required permits for temporary or special discharges into existing storm or sanitary sewer systems. Permit applications will require engineering calculations to be prepared by a California Registered Civil Engineer qualified and experienced to perform such calculations.

906-3.1 Special Discharge Permit.

Storm and/or groundwater discharges to the sanitary sewer from the project will require a special discharge permit from EBMUD. Contractor must complete the Special Discharge Permit Application. EBMUD's processing of the application can take two to three weeks. Contractor must pay an annual fee of \$2,900, plus wastewater treatment charges at \$1.48/Ccf. In addition to site specific requirements, the permit will contain the following conditions:

- a. Wastewater must be pretreated, including sediment control, prior to discharge to the sanitary sewer and must meet the EBMUD Wastewater Ordinance discharge limits.

- b. Discharge to the sanitary sewer is prohibited during a rain event or within 24 hours after a rain event, which is defined as any precipitation greater than a drizzle.
- c. Discharges to the sanitary sewer must not exceed a flow rate permitted by EBMUD or the City of Oakland, whichever is the most stringent.
- d. Permission must be obtained from the City of Oakland to discharge to the sanitary sewer.
- e. Discharges to the sanitary sewer must be through a totalizing flow meter.
- f. A discharge log must be maintained recording the date, time, and total volume of all discharges to the sanitary sewer.

As part of the permit process, EBMUD will require a water sample prior to final approval of the discharge. Contractor must collect a sample post treatment and analyze for total oil and grease (hydrocarbon). Submittal and approval of the analytical data is required prior to beginning discharge to the sanitary sewer. A copy of the permit is included in the Appendix.

906-3.2 Temporary Discharge to Sanitary System.

Contractor must apply for and obtain a permit from the City of Oakland for Temporary Discharge to Sanitary System and must comply with all permit conditions. A copy of the permit application is included in the Appendix.

906-3.3 Temporary Discharge to Stormdrain System.

Contractor must apply for and obtain a permit from the City of Oakland for Temporary Discharge to Stormdrain System, and must comply with all permit conditions. A copy of the permit application is included in the Appendix.

906-4 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

Submit the Dewatering Plan with sufficient details that include power source, sizes of pumps, piping, appurtenances, placement of wells, and the ultimate disposal point of the water; and to permit the Engineer to review the overall completeness and effectiveness of the proposed system. The submittal shall also show means of evaluating drawdown time in real-time (e.g. piezometers). Review of the dewatering plans by the Engineer in no way relieves the Contractor of complete responsibility for providing effective and safe dewatering of the construction areas.

Submit the Temporary Stormwater Diversion plan with sufficient details that include power source, size of pumps, piping, appurtenances, and the ultimate disposal point of the water.

Submit a copy of all discharge permits.

906-5 MEASUREMENT AND PAYMENT.

Payment for Dewatering shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, including obtaining all required permits and paying all permit fees, and for performing all work required for Dewatering as shown on the Plans and/or as specified in these Specifications.

<i>Dewatering</i>	<i>Per Lump Sum</i>
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Payment for Temporary Stormwater Diversion System shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, including obtaining all required permits and paying all permit fees, and for performing all work required for Temporary Stormwater Diversion as shown on the Plans and/or as specified in these Specifications.

<i>Temporary Stormwater Diversion</i>	<i>Per Lump Sum</i>
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Full compensation for applying the required discharge permits, paying permit fees, and for compliance with the permit requirements shall be considered as included in the lump sum pay items for Dewatering and Temporary Stormwater Diversion, and no additional compensation will be allowed therefor.

SECTION 907 – SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS

907-1 SUBGRADE PREPARATION.

The subgrade shall be graded and prepared as shown on the plans and shall be in accordance with the Standard Specifications, these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

The subgrade to receive base materials must be firm, free from standing water, and free from loose or extraneous material.

The subgrade for installing base materials for asphalt pavement, concrete sidewalk, or driveway shall be scarified a minimum of 6 inches and compacted to 95% relative compaction as per Cal 216 Part II and Cal 231.

The subgrade for installing base materials for concrete structures (junction boxes, pipe collars, and DSBB) and for installing pipe bedding shall be undisturbed, and/or compacted to 95% relative compaction as required.

The Contractor may encounter unsuitable soil conditions beyond the subgrade shown on the drawings. In these instances, the Contractor shall, with the authorization of the Engineer, remove such soil and replace it with Class 2 aggregate base wrapped with geotextile fabric.

Contractor shall hire certified confined space inspector to perform compaction testing in trenches and pits that are greater than 5 feet deep.

907-2 AGGREGATE BASE, COARSE AGGREGATE, AND RCP PIPE BEDDING.

Aggregate base, coarse aggregate, and pipe bedding materials shall conform to the Standard Specifications, these Special and Technical Special Provisions, and Caltrans Standard Specifications where noted.

Aggregate base, coarse aggregate, and pipe bedding materials must be free of organic matter and other deleterious substances such as brick, glass, metal, or other unsatisfactory material. The maximum asphalt content for aggregate base or pipe bedding material shall not exceed two percent (2%) by weight of the material.

Aggregate base for concrete structures (junction boxes, pipe collars, NSBB, concrete curb and gutter, sidewalks/driveways) shall be Class 2 Aggregate Base 1-½" maximum, in conformance with Section 26 of the Caltrans Specifications. Aggregate gradation and aggregate quality characteristics for Class 2 aggregate base shall be in conformance with Section 26-1.02B of the State Specifications.

Coarse aggregate shall conform to Section 90-1.02C(4)(b), 1-1/2x3/4 inch in primary aggregate nominal size of the Caltrans Standard Specifications.

RCP pipe bedding shall conform to Section 306-6 of the Special Provisions. The maximum size of pipe bedding material shall be ¾" maximum, with the following gradation:

Sieve size	Percentage passing
1 ½"	---
1"	100
¾"	80-100
½"	20-60
3/8"	0-20
No. 4	0-5
No. 8	---

Pipe bedding shall be compacted to 95% relative compaction.

Class 2 aggregate base shall be moisture conditioned within 3% of optimum and compacted to not less than 95% relative compaction.

Compact the coarse aggregate material with at least 3-passes, each way, with a vibratory plate compactor prior to completing the encapsulation with geotextile fabric.

907-3 GEOTEXTILE FABRIC.

Geotextile fabric shall be nonwoven and wrapped around aggregate base materials, coarse aggregate, and bedding materials as shown on the drawings. Geotextile fabric shall be placed in compliance with the manufacturer's instructions, and without wrinkles. Overlap adjacent edges of geotextile fabric material at least 2 feet. Overlap the ends of the rolls at least 2 feet in the direction the aggregate base is spread. Geotextile fabric may be held in place with mechanical ties, staples, or pins. Do not operate equipment or vehicles directly on geotextile fabric unless otherwise approved by the Engineer.

The geotextile shall be furnished in protective wrapping to protect the fabric from ultraviolet radiation and abrasion due to shipping and handling.

The geotextile fabric shall be Mirafi 160N or approved equal.

907-4 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions. Submit material specifications for aggregate base and pipe bedding, and geotextile fabric.

907-5 MEASUREMENT AND PAYMENT.

Payment for Subgrade Preparation and Placement of Base Materials shall be considered as included in other items of work that require subgrade preparation and placement of base materials, or other lump sum or unit price bid items of work, and for performing all work required Subgrade Preparation and Placement of Base Materials, and no additional compensation will be allowed therefor.

SECTION 908 – REINFORCED CONCRETE STRUCTURES, CONCRETE, MORTAR, AND RELATED MATERIALS

908-1 CONCRETE STRUCTURES.

Concrete structures include junction boxes, weir wall, and pipe collars. Concrete structures shall be in conformance with the Standard Specifications, these Special and Technical Special Provisions, Section 51 of the 2022 Caltrans Standard Specifications, and ACI 318-19.

Reinforcement shall be in conformance with the Standard Specifications, these Special and Technical Special Provisions, Section 52 of the 2022 Caltrans Standard Specifications, and ACI 318-19.

Concrete and mortar shall be in conformance with the Standard Specifications, these Special and Technical Special Provisions, and Section 90 of the 2022 Caltrans Standard Specifications.

The compressive strength for concrete shall be 5,000psi ultimate compressive strength at 28 days.

Portland cement shall be ASTM C150 Type II.

Reinforcing bars shall conform to ASTM A615, Grade 60 Deformed Bars. Reinforcement details and installation shall be in accordance with ACI 318-19.

Waterstops shall be 6" center bulb type rubber waterstops. Hydrophilic waterstops shall be Sika Hydrotite CJ-0725-3K-ADH, or approved equal.

Subgrade preparation and placement of base materials shall be in accordance with Section 907.

908-2 MINOR CONCRETE STRUCTURES.

Minor concrete structures shall include replacement-in-kind of concrete curbs, gutters, driveway, concrete pavements, or sidewalk as shown on the Plans. Concrete for minor structures shall be in compliance with Section 90-2 of the 2022 Caltrans Standard Specifications, and shall have a minimum 28-day compressive strength of 3,000psi.

Concrete curb and gutter, driveway, pavement, and sidewalk shall conform to the City of Oakland's applicable standard details.

Concrete curb and gutter, driveway, pavement, or sidewalk, if removed, shall be replaced-in-kind and shall be restored to the pre-existing grade and elevations.

Reinforcement, if required, shall be in conformance with the Standard Specifications, these Special and Technical Special Provisions, and Section 52 of the State Standard Specifications. Reinforcing bars shall conform to ASTM A615, Grade 60 Deformed Bars.

908-3 ACCESS MANHOLES.

Access Manholes and appurtenant materials shall be in compliance with the Standard Specifications, these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

Male and female joints of manhole sections shall be sealed with a round rubber "O" ring gasket, or a preformed flexible joint sealant. The "O" ring shall conform to ASTM C443. The preformed flexible joint sealant shall conform to Federal Specifications SS-S00210, and be Kent Seal No. 2 as manufactured by Hamilton-Kent, or Ram-Nek as manufactured by K. T. Snyder Company, or approved equal. The size of the preformed joint sealant shall be as recommended by the manufacturer of the pre-cast manhole sections.

Precast access manhole sections shall be reinforced concrete and shall conform to ASTM C478, and meet the following requirements:

- a. The wall thickness shall not be less than 6"
- b. All sections shall be fully cured and shall not be shipped or subjected to loading until the design compressive strength has been reached.

Concrete grade rings for manhole extensions shall be a maximum of 6" thick. Extensions will be limited to a maximum height of 12 inches.

908-4 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

Provide shop drawings for all concrete structures, including junction boxes, pipe termination at junction boxes, pipe collars, and manholes. Submittal shall include:

- a. Concrete mix designs

- b. Reinforcement shop drawings, plans, sections, and all connection details for the junction boxes (including top slabs, bottom slabs, walls, pipe penetrations), weir walls, and pipe collars. Reinforcement details shall be in conformance with ACI 318-19.
- c. Water stops
- d. Manhole sections, and “O” ring gasket and/or preformed flexible joint sealant

908-5 MEASUREMENT AND PAYMENT.

Measurement for Concrete Structures shall be by the neat lines and dimensions of concrete structures shown on Plans. For structures cast against sheet piling, the final pay quantities do not include the volume of concrete required to fill the space between the neat line and the sheet piling, do not include the volume of concrete required to fill the flutes or indents in the steel sheet piling, and do not include any allowance for irregularities and/or misalignment of the sheet piling as installed.

Payment for Concrete Junction Box 1 shall be by unit price per cubic yard and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of Concrete Junction Box 1, including steel reinforcement, subgrade preparation and placement of base materials, as shown on the Plans and/or as specified in these Specifications.

Concrete Junction Box 1	Per Cubic Yard
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Payment for Concrete Junction Box 2 shall be by unit price per cubic yard and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of Concrete Junction Box 2, including steel reinforcement, subgrade preparation and placement of base materials, as shown on the Plans and/or as specified in these Specifications.

Concrete Junction Box 2	Per Cubic Yard
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Payment for 96" RCP Collars shall be by unit price per cubic yard and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of 96" RCP Collars, including steel reinforcement, subgrade preparation and placement of base materials, as shown on the Plans and/or as specified in these Specifications.

96" RCP Collars	Per Cubic Yard
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Payment for Concrete Weir Wall shall be by unit price per cubic yard and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of Concrete Weir Wall, including steel reinforcement, as shown on the Plans and/or as specified in these Specifications.

Concrete Weir Wall	Per Cubic Yard
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Payment for Access Manholes shall be by unit price per each and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of Access Manholes as shown on the Plans and/or as specified in these Specifications.

Access Manholes	Per Each
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Payment for Minor Concrete Structures shall be by unit price per cubic yard and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the replacement-in-kind of concrete curb and gutter, concrete pavement, concrete sidewalk, and concrete driveway as shown on the Plans and/or as specified in these Specifications.

Minor Concrete Structures	Per Cubic Yard
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SECTION 909 – MISCELLANEOUS METAL ITEMS

909-1 MANHOLE FRAMES AND COVERS.

Manhole frames and covers shall be in accordance with the Standard Specifications, Standard Details, these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

Manhole frames and covers shall be Type G Per City of Oakland Standard Detail D-12.

Cast iron frame and cover shall be class 30 minimum as per ASTM A-48. The bearing surfaces of the frames and covers shall be machined; and the covers shall seat firmly into the frames without rocking.

Manhole frame and cover shall be manufactured by South Bay Foundry, Hayward CA or approved equal.

Before leaving the foundry, the frames and covers shall be painted or dipped in asphalt paint.

Inner manhole lid shall have "City of Oakland" and "Storm" cast into the finished surface.

Inner and outer covers for junction boxes shall be bolted down.

Frames and covers shall exceed HS20 loading.

909-2 STEPS.

All steps, including steps for access manholes and junction boxes, shall be in accordance with the Standard Specifications, Standard Details, these Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

All steps shall be as shown on the Plans or Standard Details and shall conform to ASTM C478. Steps shall be reinforced copolymer plastic Model PS2-PF by M.A. Industries, or approved equal. Steps shall be installed per the manufacturer's instructions.

The Contractor shall confirm with the Engineer in writing prior to starting any work on furnishing and installing steps.

909-3 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

Submit shop drawings for manhole frames and covers, and steps.

909-4 MEASUREMENT AND PAYMENT.

Payment for 36" Manhole Frames and Covers shall be by unit price per each and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of Manhole Frames and Covers as shown on the Plans and/or as specified in these Specifications.

36" Manhole Frames and Covers	Per Each
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Payment for Steps shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of Steps inside the manholes and junction boxes as shown on the Plans and/or as specified in these Specifications.

Steps (Revocable)	Per Lump Sum
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SECTION 910 – REINFORCED CONCRETE PIPING

910-1 REINFORCED CONCRETE PIPING.

Reinforced Concrete Piping shall be in accordance with the Standard Specifications, these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

Reinforced Concrete Piping shall include pipes, fittings, bends, and elbows.

Reinforced Concrete Piping shall be Class V with a D-Load of 3,750. RCP piping shall have a minimum "B" wall thickness with neoprene rubber gasketed joints conforming to the requirements of ASTM Designation C443.

D-Load Test: All RCP piping shall be subject to a D-load test at the manufacturer's plant at the discretion of the Engineer.

Joint assembly design shall be reinforced concrete bell and spigot or tongue and groove type incorporating a fully restrained, with single or double gasket in accordance with ASTM C361. RCP piping at all changes of direction shall be fully restrained.

Pipe minimum and maximum lengths, except where required otherwise, shall be in accordance with Section 7.3 of ASTM C361.

For pipes connected to junction structures at inlets and outlets, place the ends of the pipes flush or cut them off flush with the structure face.

Clean and then seal each joint with the type of sealing material necessary to make a tight joint to prevent leakage and infiltration.

Store pipe above ground on adequate blocking. Keep pipe clean and fully drained at all times during storage. Handling and storage of RCP shall be in accordance with the pipe manufacturer's instructions. Proper facilities shall be provided for hoisting and lowering pipe into the trench without damaging the pipe or disturbing the bedding or the walls of the trench.

Lay pipes to lines and grades with the sections closely jointed. Lay pipes upgrade. Unless otherwise authorized by the Engineer, the laying of pipes on the bedding shall be started at the outlet end with the separate sections firmly joined together.

Proper facilities shall be provided for hoisting and lowering the section of pipe into the trench without damaging the pipe or disturbing the bedding and the sides of the trench. Any pipe which is not in alignment or which shows any undue settlement after laying shall be removed and relayed at the Contractor's expense.

Assembly of all joints shall be in accordance with the manufacturer's recommendations. Proper jointing maybe verified by the project inspector. If unusual jointing resistance is encountered or if insertion marks does not reach the flush position, the joint shall be disassembled, inspected for damage, the joint components recleaned and the assembly steps repeated.

The Contractor shall follow procedures and manufacturer's recommendation for receiving, storage and handling of the pipe. If a defective pipe is discovered after it has been installed, it shall be removed and replaced with a sound pipe in satisfactory manner at no additional cost to the Agency. All pipe and fittings shall be thoroughly cleaned before installation, shall be kept clean until they are used in the work and when laid, shall conform to the line and grades required. The bedding material shall be brought to proper grade and elevation prior to installation of pipe and assembly of joints. Depressions for pipe bell shall be provided. It shall be the Contractor's responsibility to ensure timely delivery and proper storage of all pipe materials.

All pipe, fittings, bends, elbows, pipe joints incorporated into the pipe, and manufactured fittings connecting pipes and structures shall be of one and only one manufacturer's brand and of the same type, quality, class, and size unless otherwise specified or detailed on the plans. All field cut pipes shall be accomplished by methods recommended by the pipe manufacturer.

The Contractor shall submit at his/her expense, shop, and material details of all special pipes for approval before the pipe shall be manufactured or used on the work.

All pipe and fittings delivered to the job site shall be marked by the manufacturer with such inventory and identifications as to be properly identified in the field as meeting the requirements herein and for the work.

Refer to other sections for excavation, subgrade preparation and placement of pipe bedding and trench backfill.

For the cast-in-place concrete collar at the 96" RCP pipe bend, refer to Section 908. In lieu of constructing the cast-in-place concrete collars, the Contractor may submit for the Engineer's consideration a request for substitution of the cast-in-place collars and the 96" RCP piping with an equal and equivalent piping system. Substitutions that might be considered by the Engineer include 96" RCP elbow with restrained joints, reinforced concrete steel cylinder pipe (AWWA C300), or prestressed concrete cylinder pipe (AWWA C301). Requests for substitution shall comply with Section 913 – Substitutions Procedures.

910-2 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard and Special Provisions.

Submit shop drawings for both 72" RCP and 96" RCP to include:

- 1.1. Pipe wall thickness
- 1.2. Type, size, location, and configuration of the reinforcement
- 1.3. List of station locations for the pipes, including the size, wall type, and maximum cover height
- 1.4. Method of excavation, bedding, and backfill for each location
- 1.5. Certificate of compliance for each pipe shipment. The certificate must:
 - a. Be signed by the manufacturer's quality control representative
 - b. State that all materials and workmanship comply with the specifications and authorized shop drawings

910-3 MEASUREMENT AND PAYMENT.

Payment for 72" RCP shall be by unit price per linear foot and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of 72" RCP as shown on the Plans and/or as specified in these Specifications.

72" RCP **Per Linear Foot**

Payment for 96" RCP shall be by unit price per linear foot and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the installation of 96" RCP as shown on the Plans and/or as specified in these Specifications.

96" RCP **Per Linear Foot**

SECTION 911 – ROADWAY SURFACING

911-1 HMA.

Hot Mix Asphalt shall conform to the Standard Specifications, these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

Produce and place Hot Mix Asphalt (HMA) Type A in accordance with Section 39 of the 2010 Caltrans Standard Specifications except otherwise specified in these Special Provisions.

Surface course: $\frac{1}{2}$ " maximum gradation, HMA Type A

Base course: $\frac{3}{4}$ " maximum gradation, HMA Type A

Asphalt binder for HMA Type A shall be PG 64-10 or PG 64-16 as specified in Section 92, "Asphalts."

Aggregate used in HMA Type A shall comply with $\frac{3}{4}$ -inch Types A and B as specified in Section 39-1.02E, "Aggregate."

If directed otherwise by the Engineer, the AC Upper Course and Lower Course shall comply with Section 203 – Bituminous Materials of the Special Provisions.

Asphalt pavement shall be restored to the original grade and elevations. Refer to Section 900-13.2 for Preconstruction Survey.

911-2 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard Specifications and Special Provisions.

911-3 MEASUREMENT AND PAYMENT.

Payment for Roadway Surfacing shall be by unit price per square foot and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the Roadway Surfacing as shown on the Plans and/or as specified in these Specifications.

Roadway Surfacing

Per Square Foot

SECTION 912 – TRAFFIC STRIPING AND PAVEMENT MARKINGS

912-1 TRAFFIC STRIPING AND PAVEMENT MARKINGS

Removal and replacement of pavement markings, traffic striping and pavement markers shall be in accordance with the Standard Specifications, these Special and Technical Special Provisions, and the 2022 Caltrans Standard Specifications where applicable.

The Contractor shall install and maintain temporary pavement striping and markers at all times throughout the project until permanent striping and marking are installed.

The Contractor shall perform a pre-construction site visit to record and document all affected traffic, striping, pavement markings and chatter bars to be used as a reference for the re-striping operation. New striping, markings, and chatter bars shall match existing conditions (thermoplastic or painted). Installation of striping, markings and chatter bars shall be completed within two days after completion of pavement construction. Contractor shall install all signs at the same time as striping and marking.

The Contractor shall make all requests in writing for cat-tracking to the Agency. Requests shall be made at least three (3) working days prior to contractor's need for the cat-tracks.

The Contractor shall remove all paint markings (i.e. USA, etc.) associated with this project as soon as trench backfill restoration is completed.

The Contractor shall install temporary reflectorized markers immediately after the paving operation and remove these markers after striping.

912-2 SUBMITTAL.

Submittal requirements shall be in accordance with the Standard and Special Provisions.

912-3 MEASUREMENT AND PAYMENT.

Payment for Traffic Striping and Pavement Markings shall be by lump sum and shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for performing all work required for the Traffic Striping and Pavement Marking as shown on the Plans and/or as specified in these Specifications.

Traffic Striping and Pavement Markings

Per Lump Sum

SECTION 913 – SUBSTITUTION PROCEDURES

Specified materials, products, equipment and systems required by the Specifications establish the standards of quality. Alternative products which are of equal quality and of required characteristics for the purpose intended may be proposed for use provided the Contractor complies with this Section.

Substitutions requested during bidding period, and accepted by Addendum prior to award of Contract, are included in Contract Documents and are not subject to requirements specified in this Section.

Changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by Contractor after award of Contract are considered to be requests for substitutions.

The Contractor must submit the request for substitution on or before 35 Calendar Days after the award of the contract. The City has discretion to consider a substitution request not submitted within the time set forth herein. If the City denies an untimely substitution request, the Contractor must use the specified materials and products.

Substitutions will only be authorized by a properly executed Change Order.

A request for substitution will be considered when:

- a. Specified product or method of construction cannot be provided within Contract Time.
- b. Requested substitution offers the City substantial benefits in cost and time savings.

The City will not consider a request for substitution if:

- a. The product or method cannot be provided as result of failure to pursue Work promptly or coordinate activities properly.
- b. There is no net reduction in Contract Sum or Contract Time results to City's benefit.
- c. It is indicated or implied on shop drawing, product data or sample submittals.
- d. Acceptance will require substantial revision of the Contract Documents or will substantially change the intent of the design.

All requests for substitution shall be by separate written requests from Contractor. Only one request for substitution will be considered for each product.

It shall be the responsibility of the Contractor to provide adequate data demonstrating the merits of the proposed substitution, including cost data and information regarding changes in related Work.

If the Contractor's request for substitution is approved, then the following applies:

- a. The Contractor bears all direct and indirect additional costs resulting from using the substitute material or product.
- b. The Contractor must credit the City with 50 percent of any net cost savings resulting from using the substitute material or product.

If a proposed substitution is not accepted, Contractor shall immediately provide the specified product or material.

The Contractor shall prepare a request for substitution and submit the request to Engineer for review. The City and Engineer will determine the acceptability of proposed substitutions and will notify Contractor in writing of acceptance or rejection. The determination by the City/Engineer shall be final. Acceptance and approval of substitutions shall be by the City.

Substitution requests shall include complete product data, including drawings and descriptions of products, fabrication details and installation procedures. Include samples where applicable or requested. Provide manufacturer's name and address, trade name of products, and model or catalog number. List fabricators and suppliers as appropriate. Substitution requests shall include detailed cost data, including a proposal for the net cost savings to the City.

By making requests for substitutions, Contractor:

- a. Represents that Contractor has personally investigated proposed substitute product and determined that, in combination with the cost or time savings, it is equal to or superior in all respects to that specified.
- b. Represents that Contractor will provide same warranty for substitution that Contractor would for the specified product.
- c. Will coordinate installation of accepted substitute, making such changes as may be required for Work to be compatible with substrates and adjacent materials, and complete in all respects.
- d. Waives claims for additional time related to substitution that may later become apparent.
- e. Certifies that cost data presented is complete and waives claims for additional costs related to substitution which may later become apparent.

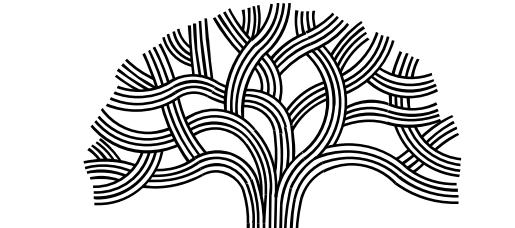
SECTION 6. Bid Drawings – Bound Separately

PLANS FOR THE CONSTRUCTION OF MANDELA PARKWAY TRASH CAPTURE DEVICE

CITY PROJECT NO. 1006066 RE-BID



THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT, THE CITY PUBLIC WORKS AGENCY, AND CALTRANS ELECTRICAL AT (510)622-5741 AT LEAST 48 HOURS (2 WORKING DAYS) PRIOR TO BEGINNING ANY EXCAVATION IN THE VICINITY OF UNDERGROUND FACILITIES.



CITY OF OAKLAND
BUREAU OF DESIGN AND CONSTRUCTION
250 FRANK H. OGAWA PLAZA
SUITE 4314
OAKLAND, CA 94612
PHONE (510) 238-7659
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WATERSHED & STORMWATER MANAGEMENT

Tom Faas
ACTING DIVISION MANAGER

WASTEWATER ENGINEERING MANAGEMENT

Jimmy Mack
DIVISION MANAGER

CONSTRUCTION MANAGEMENT

David Mai (Jun 14, 2023 19:04 PDT)
DIVISION MANAGER

BUREAU OF ENVIRONMENT

Kristin Harrington
ASSISTANT DIRECTOR

BUREAU OF MAINTENANCE AND INTERNAL SERVICES

Richard Batterby (Jun 14, 2023 14:11 PDT)
ASSISTANT DIRECTOR

ADA PROGRAMS

Abby Noyce
DIVISION MANAGER

DEPARTMENT OF TRANSPORTATION

John
DIVISION MANAGER

No. BY DATE REFERENCE

DRAWING TITLE
TITLE SHEET

DRAWING NO.

G1.1

INDEX OF SHEETS

SHEET NO.	DWG NO.	SHEET TITLE
1	G1.1	TITLE SHEET
2	G1.2	GENERAL NOTES, LEGEND AND ABBREVIATIONS
3	C1.1	DEMOLITION PLAN AND EXISTING CONDITIONS
4	C2.1	PLAN AND PROFILE 1
5	C2.2	PLAN AND PROFILE 2
6	C2.3	PAVING AND STRIPING PLAN
7	C3.1	CIVIL DETAILS
8	C3.2	DSBB-11-24-150 DETAILS
9	S1.0	GENERAL NOTES AND TYPICAL STRUCTURAL DETAILS
10	S2.1	STRUCTURAL DETAILS
11	S2.2	STRUCTURAL DETAILS
12	S2.3	STRUCTURAL DETAILS
13	X1.1	POLLUTION PREVENTION PLAN

PROJECT TEAM

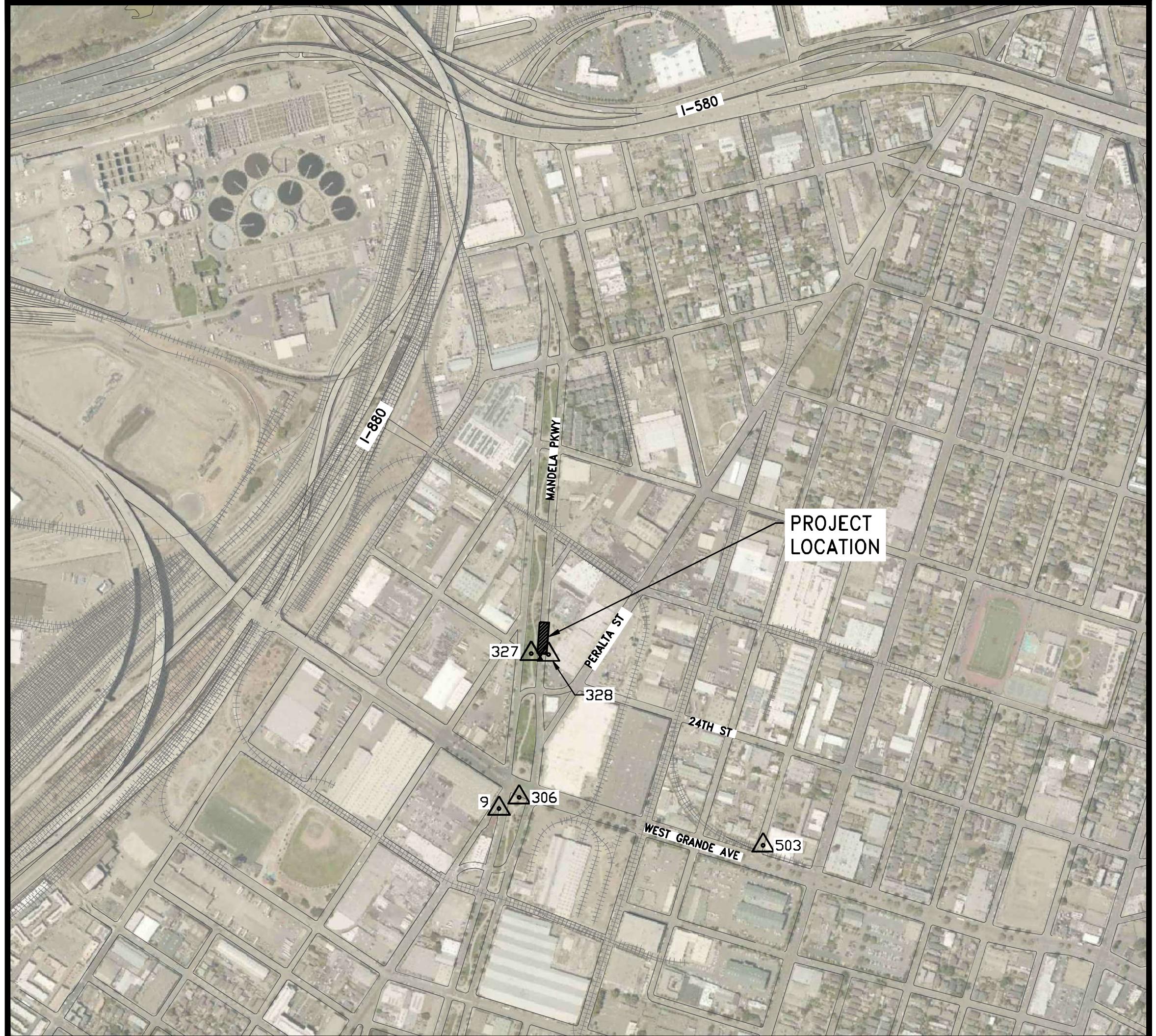
CIVIL ENGINEER

WOOD RODGERS, INC.
4670 WILLOW ROAD, SUITE 125
PLEASANTON, CA 94588
(925) 398-7914
CONTACT: MARY JANE KABALIN, PE

WOOD RODGERS, INC.
180 GRAND AVENUE, SUITE 775
OAKLAND, CA 94612
(510) 208-2402
CONTACT: MICHAEL MAI, PE

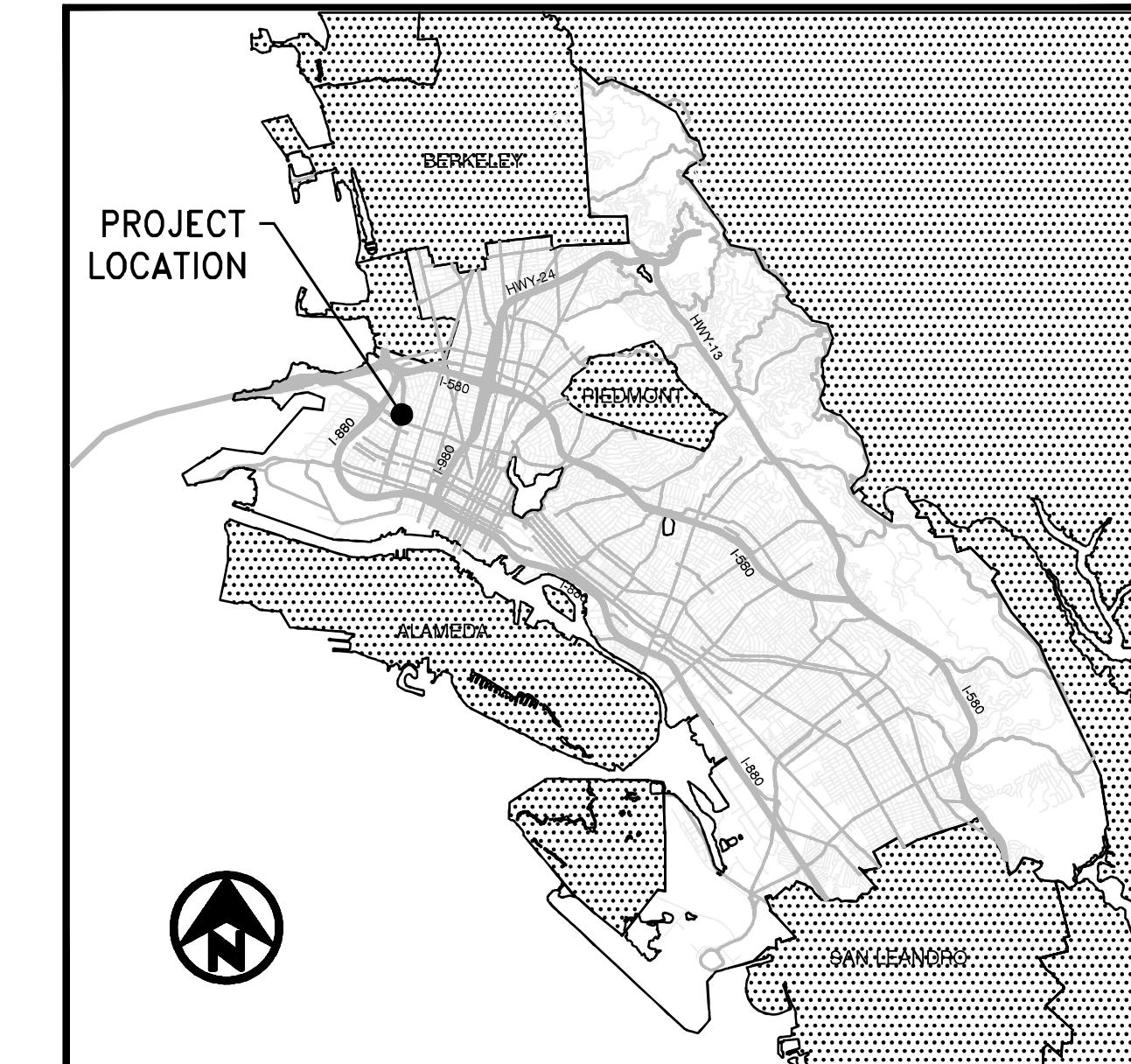
GEOTECHNICAL ENGINEER

WOOD RODGERS, INC.
1361 CORPORATE BOULEVARD
RENO, NV 89502
(775) 823-5225
CONTACT: JUSTIN McDUGAL, PE



LOCATION MAP

NOT TO SCALE



CITY OF OAKLAND MAP

Siew-Chin Yeong (Jun 14, 2023 09:19 PDT)
SIEW-CHIN YEONG
ASSISTANT DIRECTOR OF BUREAU OF DESIGN AND CONSTRUCTION

CHECKED BY	CHENG SOO
DESIGNED BY	MARY JANE KABALIN / CONG DUC MAI
DRAWN BY	CAELA BRAZELTON

GENERAL NOTES

1. ALL WORK, MATERIAL AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2015 EDITION, THE CITY OF OAKLAND STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION 2002 EDITION, THE APPLICABLE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) 2022 STANDARD SPECIFICATIONS, 2022 STANDARD AND REVISED STANDARD PLANS, AND 2022 SPECIAL PROVISIONS, THE CURRENT CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE PROJECT SPECIAL PROVISIONS. SIGNAL POLES AND ANY NEW FACILITIES TO BE INSTALLED IN THE STATE RIGHT-OF-WAY MAY NEED SOURCE INSPECTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT AND COORDINATE ANY INSPECTION WITH THE STATE REPRESENTATIVE. ANY CHANGES AND ADJUSTMENTS TO BE MADE TO THE STATE FACILITIES AS A RESULT OF SUCH INSPECTION SHALL BE PART OF THE CONTRACT COST AND NO ADDITIONAL PAYMENTS SHALL BE MADE.
2. IN ACCORDANCE WITH SPECIFICATIONS SECTION 7-9, THE CONTRACTOR SHALL REPAIR OR REPLACE ALL EXISTING IMPROVEMENTS DAMAGED OR REMOVED AS A RESULT OF CONSTRUCTION OPERATIONS. IN ADDITION, ANY EXISTING STATE FACILITIES DAMAGED AND/OR REMOVED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE REPAIRED AND/OR REPLACED IN-KIND BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE AND NO ADDITIONAL PAYMENT SHALL BE MADE.
3. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 AND CALTRANS ELECTRICAL AT (510) 622-5741 AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION AND REQUEST DELINEATION OF UNDERGROUND UTILITIES IN THE AREA TO BE EXCAVATED. NOTE THAT MARKINGS ARE ONLY VALID FOR FOURTEEN (14) DAYS. IF THE MOST RECENT REQUEST HAS ELAPSED THE 14-DAY PERIOD, THE CONTRACTOR NEEDS TO REQUEST USA TO RENEW MARKINGS.
4. THE LOCATION AND SIZE OF MAJOR UNDERGROUND FACILITIES AND UTILITIES SHOWN HEREON ARE SCHEMATIC IN NATURE, USING INFORMATION FURNISHED BY THE RESPECTIVE OWNER AGENCIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DATA WITH THE RESPECTIVE AGENCIES AND TAKING PROPER PRECAUTIONS TO PROTECT AND AVOID THE EXISTING FACILITIES AND UTILITIES. DAMAGE TO UTILITY LINES WILL BE REPAIRED BY THE RESPECTIVE AGENCY AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL NOT ALLOW DEBRIS AND SILT GENERATED BY CONSTRUCTION ACTIVITIES TO FLOW INTO THE PUBLIC STORM DRAIN SYSTEM NOR TO BE DEPOSITED IN THE PUBLIC RIGHT OF WAY, AS SPECIFIED IN SECTION 7-8.6 OF THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SUCH SILT MATERIAL FROM THE JOB SITE. FULL COMPENSATION TO FULFILL THIS WORK SHALL BE INCLUDED IN THE PRICE FOR THE VARIOUS ITEMS OF WORK, AND NO ADDITIONAL PAYMENT WILL BE ALLOWED.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK TO BE PERFORMED BY HIS/HER SUBCONTRACTORS, INCLUDING TRAFFIC CONTROL WORK, CONCRETE CONSTRUCTION, AND OTHERS.
7. THE CONTRACTOR SHALL PROVIDE TWO (2) SETS OF AS-BUILTS TO THE RESIDENT ENGINEER PRIOR TO FINAL PAYMENTS.
8. CONTRACTOR IS RESPONSIBLE FOR TAKING NECESSARY PRECAUTIONS TO ENSURE PEDESTRIAN SAFETY, INCLUDING APPROPRIATE SIGNAGE AND BARRICADES.
9. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL PULL BOX CONTENTS AFFECTED BY WORK TO ITS ORIGINAL STATE.
10. ALL SALVAGED EQUIPMENT SHALL BE DELIVERED TO THE MUNICIPAL SERVICE CENTER AT 7101 EDGE WATER DRIVE. CONTACT THE ELECTRICAL CONSTRUCTION & MAINTENANCE PLANNER AT (510) 615-3685 48 HOURS IN ADVANCE, PRIOR TO DELIVERY.
11. ALL ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
12. CONTRACTOR SHALL ADJUST TO FINISHED GRADE ALL AFFECTED MANHOLES, STREET MONUMENTS, WATER VALVE(S), GAS VALVE(S), UTILITY BOX(ES), CLEANOUT FRAMES, AND COVERS UNLESS OTHERWISE DIRECTED BY ENGINEER.
13. ALL EXISTING SIGNS ARE TO REMAIN UNLESS SPECIFICALLY DESIGNATED TO BE REMOVED, SALVAGED, OR RELOCATED. REMOVED SIGNS TO BE SALVAGED SHALL BE STORED AT THE CITY OF OAKLAND MAINTENANCE YARD LOCATED AT 7101 EDGEWATER DRIVE. THE CONTRACTOR SHALL RESTORE ALL THE EXISTING SIGNS. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE FOR THE VARIOUS WORK ITEMS AND NO ADDITIONAL PAYMENT SHALL BE MADE.
14. UNLESS OTHERWISE NOTED, ELEVATION OF EXISTING SURFACE AT CONFORM SHOWN IS APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER TO FINALIZE GEOMETRY AT CONFORM PRIOR TO CONSTRUCTION IN THE CONFORM AREAS.
15. THE CONTRACTOR SHALL CALL THE CITY OF OAKLAND ELECTRICAL DEPARTMENT AT (510) 615-5438 AND THE OFFICE OF INFORMATION TECHNOLOGIES AT (510) 238-2996 AT LEAST FIVE WORKING DAYS PRIOR TO STARTING WORK FOR FIELD MARKING OF ALL CITY ELECTRICAL AND FIRE ALARM FACILITIES. REFER TO 7-9 FOR SPECIAL REQUIREMENTS REGARDING DAMAGE TO CITY ELECTRICAL FACILITIES DURING CONSTRUCTION.
16. THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE UTILITY COMPANIES TO RESTORE OR ADJUST GRADES OF UTILITY BOXES, VALVES, AND FIRE HYDRANT, ETC. THIS IS PART OF THE CONSTRUCTION WORK, AND NO ADDITIONAL PAYMENT SHALL BE MADE.
17. EXISTING SIGNAL LOOP DETECTORS THAT ARE DAMAGED OR REMOVED DURING WORK BY THE CONTRACTOR SHALL BE REPLACED WITH NEW MATERIAL OR BETTER IN QUALITY AND ACCEPTABLE TO THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
18. THIS PROJECT HAS MONUMENTS AS SHOWN IN THE LAYOUT SHEETS. ALTHOUGH UNEXPECTED AT THIS TIME, ADDITIONAL MONUMENTS MAY BE PRESENT OF UNCOVERED AND SHALL BE CONSIDERED TO BE INCLUDED IN THE PROJECT REQUIREMENTS FOR MONUMENTS. THE CITY SURVEY OFFICE HAS PREPARED A CD OF KNOWN BENCHMARKS AND MONUMENTS IN ADOBE ACROBAT PDF FORMAT FOR USE BY THE CONTRACTOR.

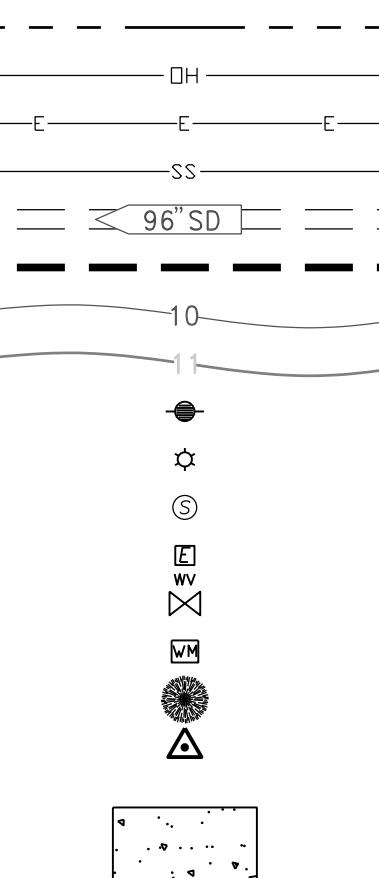
THE CONTRACTOR IS HEREBY ADVISED TO BECOME FAMILIAR WITH SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. THIS SECTION DEALS WITH THE REQUIREMENTS IMPOSED IN MONUMENT PRESERVATION AND PROTECTION AND THAT ARE PARTIALLY ASSIGNED TO THE CONTRACTOR BY VIRTUE OF THIS PROJECT'S SPECIFICATIONS. THE CONTRACTOR'S CALIFORNIA-LICENSED SURVEYOR SHALL REFERENCE THE LOCATION AND FILE A CORNER RECORD WITH THE COUNTY SURVEYOR OF ALAMEDA FOR ALL KNOWN PROJECT MONUMENTS BEFORE DOING ANY CONSTRUCTION WORK. THE CONTRACTOR SHALL PROVIDE OFFICIAL COPIES OF THE COUNTY'S CORNER RECORDS TO THE CITY SURVEYOR BEFORE DOING ANY CONSTRUCTION WORK ON THE PROJECT STREETS. THE CONTRACTOR SHALL NOTE THAT IT CAN TAKE ALAMEDA COUNTY RECORDS OFFICE UP TO FOUR WEEKS TO ACCEPT AND FILE CORNER RECORDS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE PAID FOR BID ITEM PRE & POST CONSTRUCTION MONUMENT VERIFICATION.

SURVEY MONUMENT.
IF IT IS NECESSARY TO REMOVE OR REPLACE A CITY MONUMENT IN CONJUNCTION WITH THE WORK ASSOCIATED WITH THIS CONTRACT, THE CONTRACTOR SHALL PROVIDE TWO WEEKS NOTIFICATION TO THE OFFICE OF THE CITY SURVEYOR AND, UNDER THE DIRECTION AND SUPERVISION OF THE CITY SURVEYOR, THE MONUMENT WILL EITHER BE TEMPORARILY REMOVED AND LATER REPLACED OR IT WILL BE RELOCATED TO ANOTHER LOCATION. THE UNIT PRICE FOR EACH BID ITEM RESET MONUMENT SHALL INCLUDE FULL COMPENSATION FOR ALL LABOR, MATERIALS, SURVEYING, AND FILING COSTS AS REQUIRED BY LAW FOR RESETTING / RELOCATING A MONUMENT. IN THE EVENT THAT RAISING A MONUMENT CREATES A WELL DEPTH GREATER THAN 15" FROM MONUMENT TO SURFACE, THE MONUMENT SHALL BE RESET AND ALSO PAID FOR BY BID ITEM RESET MONUMENT, IF THE CONTRACTOR SHALL REMOVE, DESTROY, OR DAMAGE ANY CITY MONUMENT WITHOUT PRIOR NOTIFICATION TO THE CITY SURVEYOR, THE CONTRACTOR SHALL REPLACE IT IN AN ALTERNATE LOCATION AS DIRECTED BY THE CITY SURVEYOR OR HIS REPRESENTATIVE. THE CONTRACTOR SHALL ABSORB ALL COSTS TO RESTORE OR REPLACE SUCH MONUMENTS. SUCH WORK SHALL INCLUDE ALL MATERIALS, LABOR, SURVEYING AND FILING COSTS AS MAY BE REQUIRED BY THE LAW. ALL MONUMENTS SHALL BE RAISED OR LOWERED TO THE FINISH GRADE DURING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL SHOW THE LOCATION OF ALL CITY MONUMENTS ON THE SUBMITTED STRIPING PLANS.

19. MONUMENT REGULATIONS

- A. HE CONTRACTOR'S ATTENTION IS DIRECTED SPECIFICALLY TO SECTION 8771 OF THE STATE'S BUSINESS PROFESSIONS CODE REQUIRING THE PRESERVATION AND PROTECTION OF MONUMENTS. THIS SECTION PROVIDES FOR SPECIFIC REQUIREMENTS BEFORE WORK CAN BE DONE AND THOSE REQUIREMENTS ARE OFTEN TIME CONSUMING. THE CITY OF OAKLAND WILL PROVIDE SUCH MAPPING AND FILING SERVICES AS ARE NECESSARY UPON TWO WORKING DAYS NOTICE FROM THE CONTRACTOR (DIRECTLY TO THE CITY SURVEYOR WITH A COPY TO THE INSPECTOR). IN COMPLIANCE WITH THIS LAW, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PROTECT ALL MONUMENTS WITHIN WORK AREAS SHOWN ON THE INDEX SHEET AND PLANS
- B. NO MONUMENTS MAY BE DISTURBED, NOR WORK PERFORMED WITHIN A 25 FOOT RADIUS OF SUCH MONUMENT UNTIL THE CITY SURVEYOR HAS MADE THE NECESSARY MEASUREMENTS AND ISSUED A WRITTEN AUTHORIZATION TO THE INSPECTOR.
- C. SHOULD THE CONTRACTOR, PRIOR TO SUCH AUTHORIZATION, DISTURB, REMOVE, OR DESTROY ANY MONUMENT, THE CITY HAS A FLAT CHARGE OF \$5,000 PER UNIT WHICH WILL BE DEDUCTED FROM THE NEXT PROGRESS (OR FINAL) PAYMENT. THE CONTRACTOR SHOULD NOTE THE, PER 8771 B&P, THE CITY HAS THE RIGHT TO WITHHOLD THE ISSUANCE OF A NOTICE OF COMPLETION UNTIL ALL OUTSTANDING ISSUES RELATING TO THE MONUMENTS ARE RESOLVED.
- D. IF ANY MONUMENT IS LAWFULLY REMOVED OR DESTROYED, THE CONTRACTOR SHALL SALVAGE THE FRAME, CASTING, AND MONUMENT DISK AND DELIVER THEM TO THE CITY SURVEYOR. IF THESE ITEMS ARE NOT SALVAGED AND/OR DELIVERED, THE CONTRACTOR SHALL REPLACE THE LOST UNITS, IN KIND, DELIVERED TO THE CITY SURVEYOR.
- E. NOT ALL MONUMENTS MAY BE SHOWN ON THE PLAN SHEETS. PRIOR TO THE START OF ANY CONSTRUCTION, THE CONTRACTOR SHALL BE REQUIRED TO IDENTIFY AND MARK ALL MONUMENTS WITH RED PAINT, OR IF FOUND IN UNPAVED AREA, WITH A 3 FOOT LATH FLAGGED AND PAINTED IN RED. PLEASE NOTE THAT STATE LAW MAKES NO DISTINCTION BETWEEN CITY MONUMENTS AND THOSE OF OTHER AGENCIES OR INDIVIDUALS.
- F. IN ADDITION TO MONUMENTS, THE CITY ALSO HAS VERTICAL MONUMENTATION (BENCHMARKS) WHICH ARE LOCATED ON THE PLAN SHEETS. IF A BENCHMARK IS TO BE DESTROYED, THE CITY WILL REQUIRE TWO WORKING DAYS ADVANCE NOTICE TO PRESERVE THE INFORMATION. THE CONTRACTOR, AT NO ADDITIONAL COST TO THE CITY, SHALL REPLACE THE MONUMENT IN A SUITABLE LOCATION TO BE DETERMINED BY THE CITY SURVEYOR. THE CITY WILL PROVIDE THE NECESSARY BRONZE DISK.
- G. THE CITY MAY, AT ITS SOLE DISCRETION, ELECT TO INSTALL A BENCHMARK TO BE SET IN A SIDEWALK OR CURB WHERE THERE WAS NONE BEFORE. THE CITY WILL PROVIDE A BRONZE DISK AND SPECIFY THE LOCATION FOR THE DISK TO BE REPLACED WHEN THE CONCRETE IS PLACED, AND DRESSED TO FINISH ALONG WITH THE CONCRETE SURFACE. THIS SHALL BE CONSIDERED AS PART OF THE COST OF THE CONCRETE REPLACEMENT AND THERE SHALL BE NO ADDITIONAL CHARGE TO THE CITY.
- H. SEE CITY OF OAKLAND STANDARD DETAIL S-9 (SHEET D-4) FOR MONUMENT AND BENCHMARK DETAIL.
- I. THE CONTRACTOR SHALL PROVIDE OFFICIAL COPIES OF THE COUNTY CORNER RECORDS TO THE CITY SURVEYOR BEFORE DOING ANY CONSTRUCTION WORK ON PROJECT STREETS. CONTRACTOR SHALL FILE CORNER RECORDS TO THE CITY IN BOTH HARD COPY AS WELL AS SINGLE ADOBE FILE FOR EACH CORNER RECORD.

LEGEND



APPROX PARCEL BOUNDARY LINE
OVERHEAD ELECTRICAL LINE
UNDERGROUND ELECTRICAL LINE
SANITARY SEWER LINE
STORM DRAIN
SAWCUT EXTENTS
MAJOR CONTOUR
MINOR CONTOUR
POWER/TELEPHONE POLE
STREET LIGHT
SANITARY SEWER MANHOLE
ELECTRICAL BOX
WATER VALVE BOX
WATER METER/CONTROL BOX
TREE
SURVEY CONTROL POINT

CONCRETE HATCH

ABBREVIATIONS (INCLUDES BUT NOT LIMITED TO)

AB	AGGREGATE BASE	MH	MANHOLE
ABN	ABANDON	MAX	MAXIMUM
AC	ASPHALT CONCRETE	MIN	MINIMUM
APPROX	APPROXIMATE	MON	MONUMENT
AT&T	AT&T TELECOMMUNICATION	ML	MATCHLINE
AVE	AVENUE	N	NORTH/NORTHINGS
BART	BAY AREA RAPID TRANSIT	NA	NOT APPLICABLE
BP	BEGIN POINT	NTS	NOT TO SCALE
BLVD	BOULEVARD	NO	NUMBER
		(N)	NEW
CB	CATCH BASIN	OC	ON CENTER
CE	CITY ELECTRICAL	OD	OUTSIDE DIAMETER
C&G	CURB & GUTTER		
CI	CAST IRON		
CIPP	CURED-IN-PLACE PIPE	PG&E	PACIFIC GAS & ELECTRIC
CIR	CIRCLE	PSI	POUNDS PER SQUARE INCH
CL	CENTERLINE	PL	PROPERTY LINE
CNTL	CONTROL	PCC	PORTLAND CEMENT CONCRETE
CO	CLEANOUT	PI	POINT OF INTERSECTION
CONC	CONCRETE	PVC	POLYVINYL CHLORIDE PIPE
CONT	CONTINUE	PVT	PRIVATE
COO	CITY OF OAKLAND		
CR	CURB RAMP	RAP	RECLAIMED ASPHALT PAVEMENT
CTV	CABLE TELEVISION	RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE	RT	RIGHT
		RD	ROAD
DI	DRAINAGE INLET	R/W	RIGHT-OF-WAY
DIA	DIAMETER		
DIP	DUCTILE IRON PIPE	S	SLOPE/SOUTH
DR	DRIVE	SCH	SCHEDULE
DWG	DRAWING	SD	STORM DRAIN
DWY	DRIVeway	SIM	SIMILAR
		SS	SANITARY SEWER
E	ELECTRIC/EAST/EASTINGS	SPECS	SPECIFICATIONS
(E), EX	EXISTING	SP	SPECIAL PROVISIONS
EBCMUD	EAST BAY MUNICIPAL UTILITY DISTRICT	SL	STREET LIGHT
EG	EXISTING GROUND	ST	STREET
EL	ELEVATION	STA	STATION
EP	EDGE OF PAVEMENT	STL	STEEL
ETW	EDGE OF TRAVELED WAY	SW	SIDEWALK
		SD	STORM DRAIN
FC	FACE OF CURB	SS	SANITARY SEWER
FG	FINISHED GRADE	STR	STRUCTURE
FH	FIRE HYDRANT		
FL	FLOWLINE	T/TEL	TELEPHONE
FT	FEET	TC	TOP OF CURB
		TCD	TRASH CAPTURE DEVICE
G	GAS LINE	TS	TRAFFIC SIGNAL
GB	GRADE BREAK	TP	TELEPHONE POLE
GL	GUTTER LIP	TV	TELEVISION
GV	GAS VALVE	TYP	TYPICAL
ID	INSIDE DIAMETER	UG	UNDERGROUND
INV	INVERT	UPRR	UNION PACIFIC RAIL ROAD
JBOX	JUNCTION BOX	VCP	VITRIFIED CLAY PIPE
LF	LINEAR FEET	W	WATER/WEST
LAT	LATERAL	WL	WATER LEVEL
L	LENGTH	WR	WOOD RODGERS
		WV	WATER VALVE
		WWM	WELDED WIRE MESH
		WY	WAY

SURVEY BENCHMARK NOTES

CONTROL POINT TABLE				
PT#	NAVD88 ELEV	NORTHING	EASTING	DESCRIPTION
9	9.44	2124711.52	6044703.92	SET 1" BRASS DISK/WR CONTROL @ PERALTA/MANDELA TRIANGLE
306	10.13	2124771.06	6044811.28	SET MAG NAIL/BLANK WASHER
327	12.76	2125534.37	6044874.89	SET 1" BRASS DISK W/ PUNCH (WR CNTL)
328	21.50	2125529.05	6044966.88	SET RED/WHITE STICKER
503	10.17	2124516.50	6046105.97	FOUND COO BENCHMARK

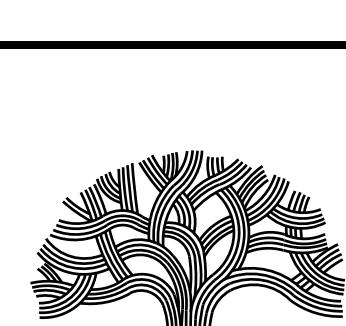
BENCHMARK

BENCHMARK THE BENCHMARK FOR THIS SURVEY IS A BRASS CITY OF OAKLAND PIN IN EASTERLY SIDEWALK OF MAGNOLIA ST. 55' NORTHERLY OF NORTHERLY LINE OF WEST GRAND AVE, 6' NORTH OF FIRE HYDRANT, 2' EAST OF FACE OF CURB IN FRONT OF 2210 MAGNOLIA STREET.

MON ID: 27Eh-REV 7.2.2021
CITY OF OAKLAND DATUM ELEVATION: 4.467'
NAVD88 DATUM ELEVATION: 10.167'

THE ELEVATION OF THE BENCHMARK WAS CONVERTED TO NAVD88 USING THE CITY OF OAKLAND CONVERSION DIAGRAM +5.7'

HORIZONTAL COORDINATES:
HORIZONTAL COORDINATES ARE BASED ON NAD83 CALIFORNIA STATE PLANE ZONE 3 UTILIZING THE CALIFORNIA SURVEYING AND DRAFTING SUPPLY REAL-TIME GPS NETWORK. DATA WAS COLLECTED IN SEPTEMBER 2022.



CITY OF OAKLAND

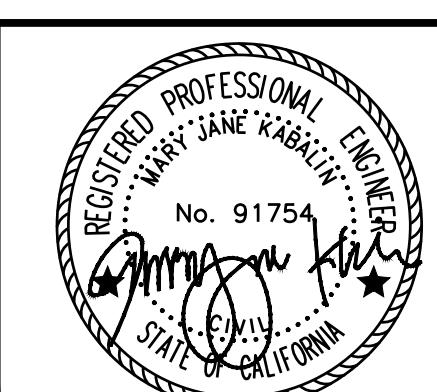
OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF DESIGN & CONSTRUCTION

250 FRANK H. OGAWA PLAZA, SUITE 4314
OAKLAND, CA 94612
(510) 238-7270
FAX (510) 238-6610

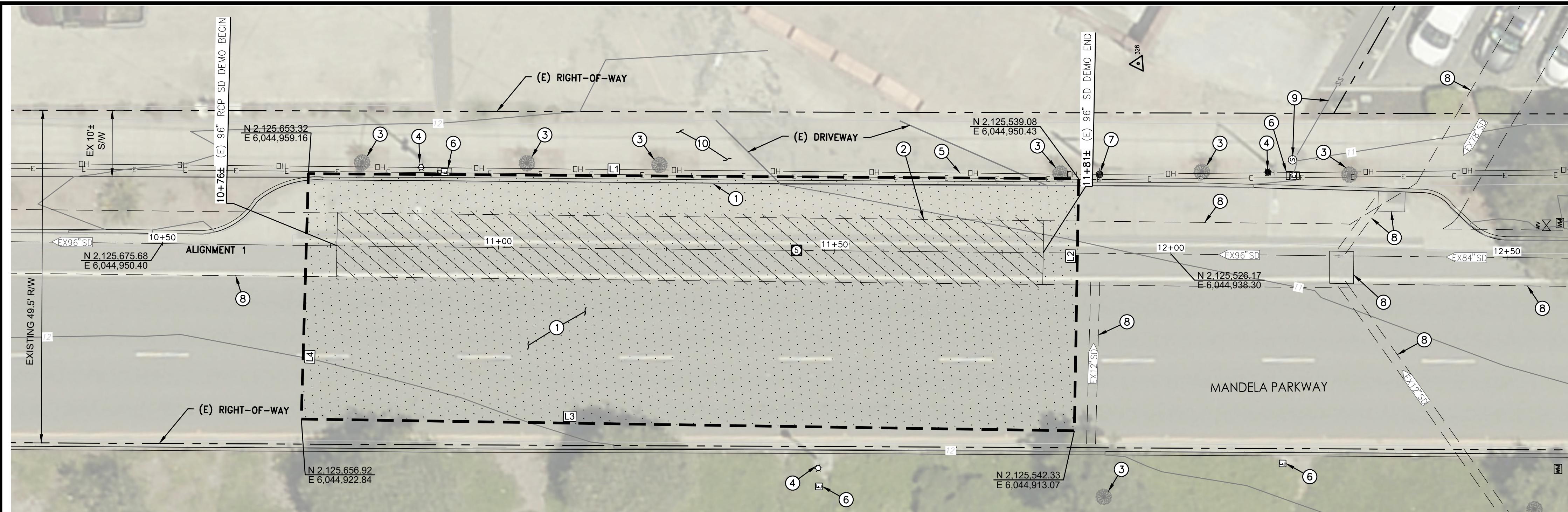
PLANS FOR THE CONSTRUCTION OF MANDELA PARKWAY TRASH CAPTURE DEVICE GENERAL NOTES, LEGEND AND ABBREVIATIONS

RF-BID

No.	DATE	BY	REFERENCE

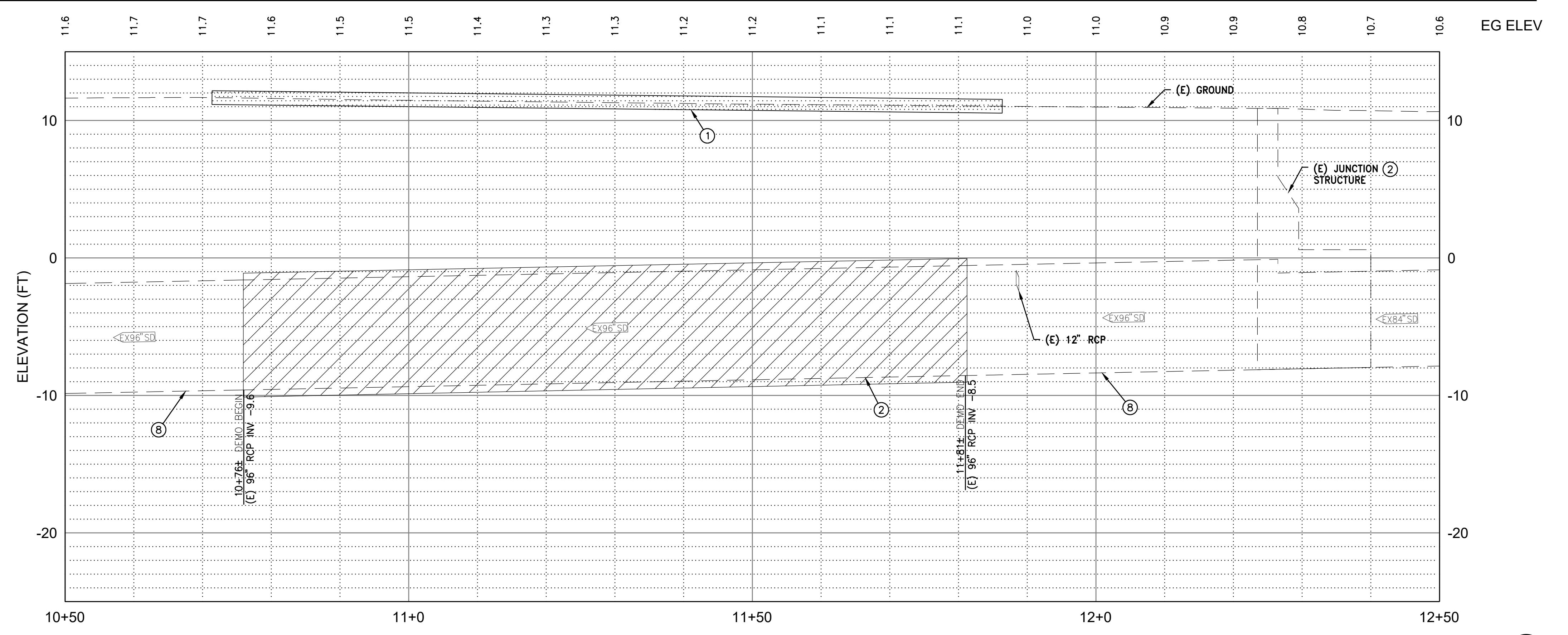


PROJECT NO.
1006066



SITE PLAN

SCALE: 1" = 10



PROFILE - ALIGNMENT 1

SCALE: 1" = 10' HORIZ
1" = 5' VERT



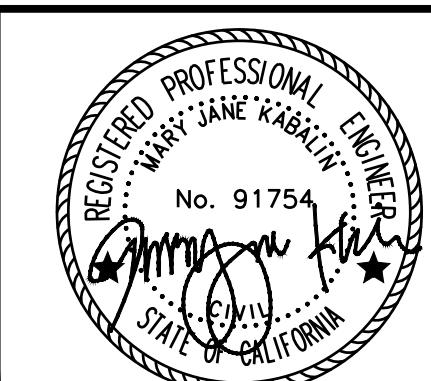
CITY OF OAKLAND

OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF DESIGN & CONSTRUCTION

250 FRANK H. OGAWA PLAZA, SUITE 4314
OAKLAND, CA 94612
(510) 238-7270
FAX (510) 238-2346

PLANS FOR THE CONSTRUCTION OF MANDELA PARKWAY TRASH CAPTURE DEVICE DEMOLITION PLAN AND EXISTING CONDITIONS RE-BID

No.	DATE	BY	REFERENCE



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

180 GRAND AVE, SUITE 775 TEL 510.208.2400
OAKLAND, CA 94612 FAX 510.208.2401

DESIGNED BY: CHECKED BY:
MARY JANE KABALIN MARY JANE KABALIN
DRAWN BY:
CATHERINE BRADLEY

PROJECT NO.
1006066

E: OWN	SHEET N C1
DEC 2023	<u>3</u> OF

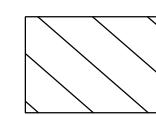
GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN WITH A TRAFFIC DETOUR PLAN FOR THE ENGINEER'S REVIEW AND APPROVAL. SEE SPECIFICATIONS FOR MORE INFO.
2. ALL EXCAVATION SPOILS, INCLUDING BUT NOT LIMITED TO, CONCRETE AND PAVEMENT EXCAVATION SHALL BE EXPORTED AND DISPOSED OF BY THE CONTRACTOR. THE PAVEMENT AND ROCK REMOVED FROM THE SITE SHOULD BE HAULED AND DISPOSED OF BY THE CONTRACTOR.
3. GAS AND ELECTRICAL UTILITY LINES ARE SHOWN FROM PG&E RECORD MAPS ONLY. THE LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SIZES AND LOCATIONS OF EXISTING FACILITIES BEFORE STARTING WORK AND NOTIFY ENGINEER OF ANY DISCREPANCY
5. REMOVAL AND REPLACEMENT OF CONCRETE CURB AND GUTTER PAN SHALL EXTEND TO THE NEAREST WEAKENED PLANE JOINTS. SIDEWALK REMOVAL AND REPLACEMENT, IF ANY, SHALL EXTEND TO THE NEAREST SCORE MARK.

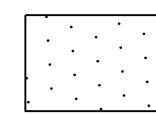
DEMOLITION NOTES

- ① SAWCUT AND DEMO (E) ASPHALT / CONCRETE CURB & GUTTER
- ② REMOVE & DISPOSE OF 105 LF (E) 96" RCP CULVERT
- ③ PROTECT IN PLACE (E) TREE
- ④ PROTECT IN PLACE (E) STREET LIGHT
- ⑤ PROTECT IN PLACE (E) OVERHEAD LINES
- ⑥ PROTECT IN PLACE (E) ELECTRICAL VAULT
- ⑦ PROTECT IN PLACE (E) POWER POLE
- ⑧ PROTECT IN PLACE (E) STORM DRAIN PIPE AND STRUCTURES
- ⑨ PROTECT IN PLACE (E) SANITARY SEWER PIPE AND STRUCTURES
- ⑩ PROTECT IN PLACE (E) SIDEWALK

HATCH LEGEND



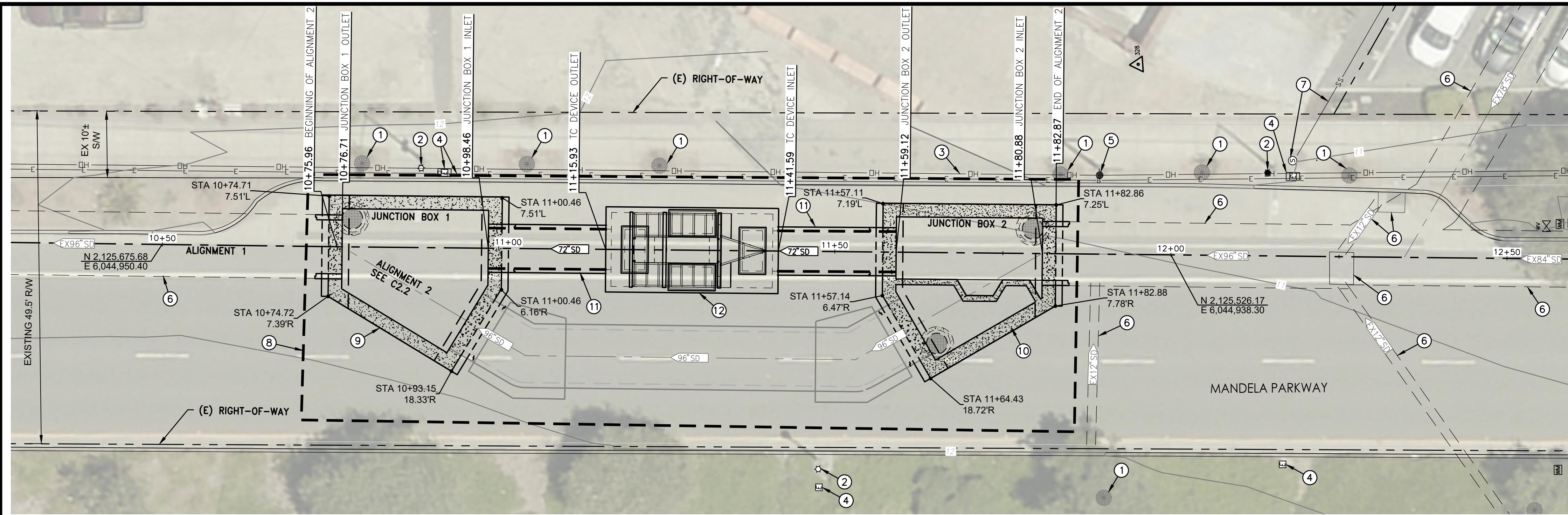
DEMO (E) PIPE



DEMO (E) CONCRETE / ASHPALT

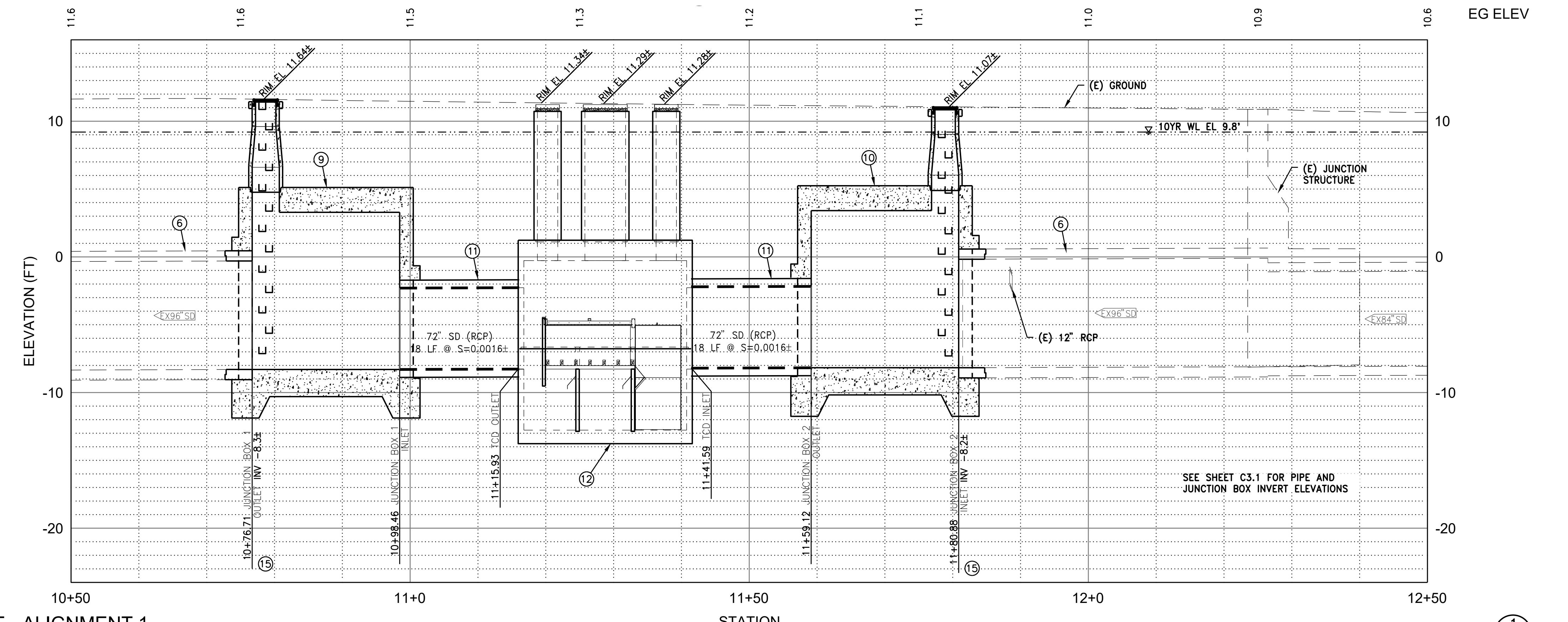
SAWCUT BOUNDARY LINE TABLE		
LINE #	LENGTH (FT)	BEARING
L1	114.57	N4° 22' 13.52"E
L2	37.50	S85° 01' 39.28"E
L3	115.00	S4° 52' 19.79"W
L4	36.50	N84° 20' 56.80"W

CONTROL LINE ALIGNMENT TABLE			
LINE #	STA BEGIN	STA END	BEARING
5	10+76.71	12+00.00	S4° 33' 14.46"W



SITE PLAN - ALIGNMENT 1

SCALE: 1" = 10'



PROFILE - ALIGNMENT 1

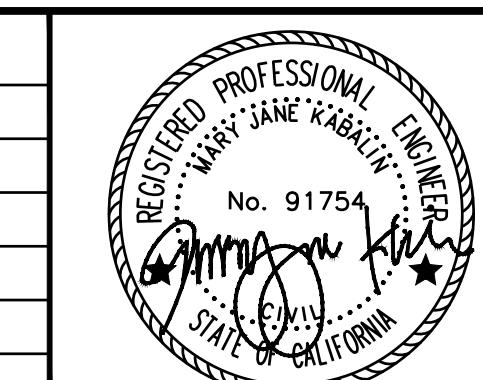
SCALE: 1" = 10' HORIZ
1" = 5' VERT



CITY OF OAKLAND
OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF DESIGN & CONSTRUCTION
250 FRANK H. OGAWA PLAZA, SUITE 4314
OAKLAND, CA 94612
(510) 238-7270
FAX (510) 238-2346

PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
PLAN AND PROFILE 1
RE-BID

No.	DATE	BY	REFERENCE



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
180 GRAND AVE, SUITE 775 TEL 510.208.2400
OAKLAND, CA 94612 FAX 510.208.2401
DESIGNED BY: CHECKED BY:
MARY JANE KABALIN MARY JANE KABALIN
DRAWN BY: CAELA BRAZELTON
DATE: DEC 2023

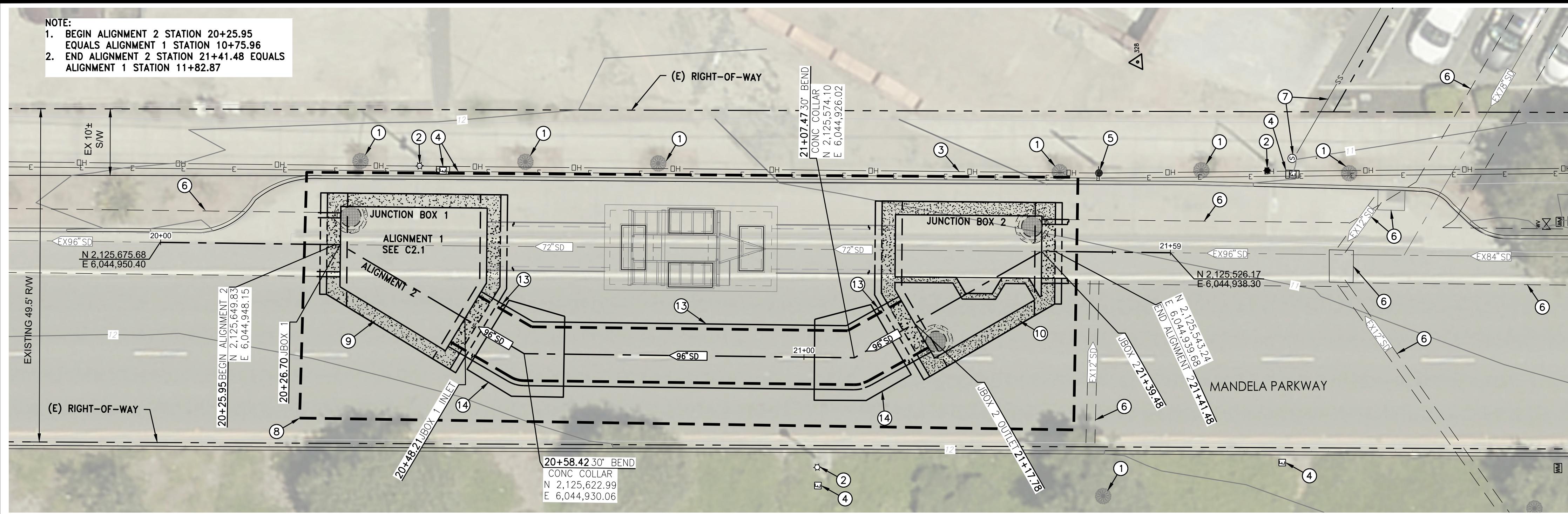
PROJECT NO.
1006066
SCALE:
AS SHOWN
SHEET NO.
C.2.1
4 OF 13

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN WITH A TRAFFIC DETOUR PLAN FOR THE ENGINEER'S REVIEW AND APPROVAL. SEE SPECIFICATIONS FOR MORE INFO.
2. COORDINATE WITH PG&E AND PROVIDE NECESSARY MEASURES TO PROTECT THE EXISTING OVERHEAD POWER LINE AND UNDERGROUND CONDUIT FROM PILE DRIVING AND/OR SHORING OPERATIONS

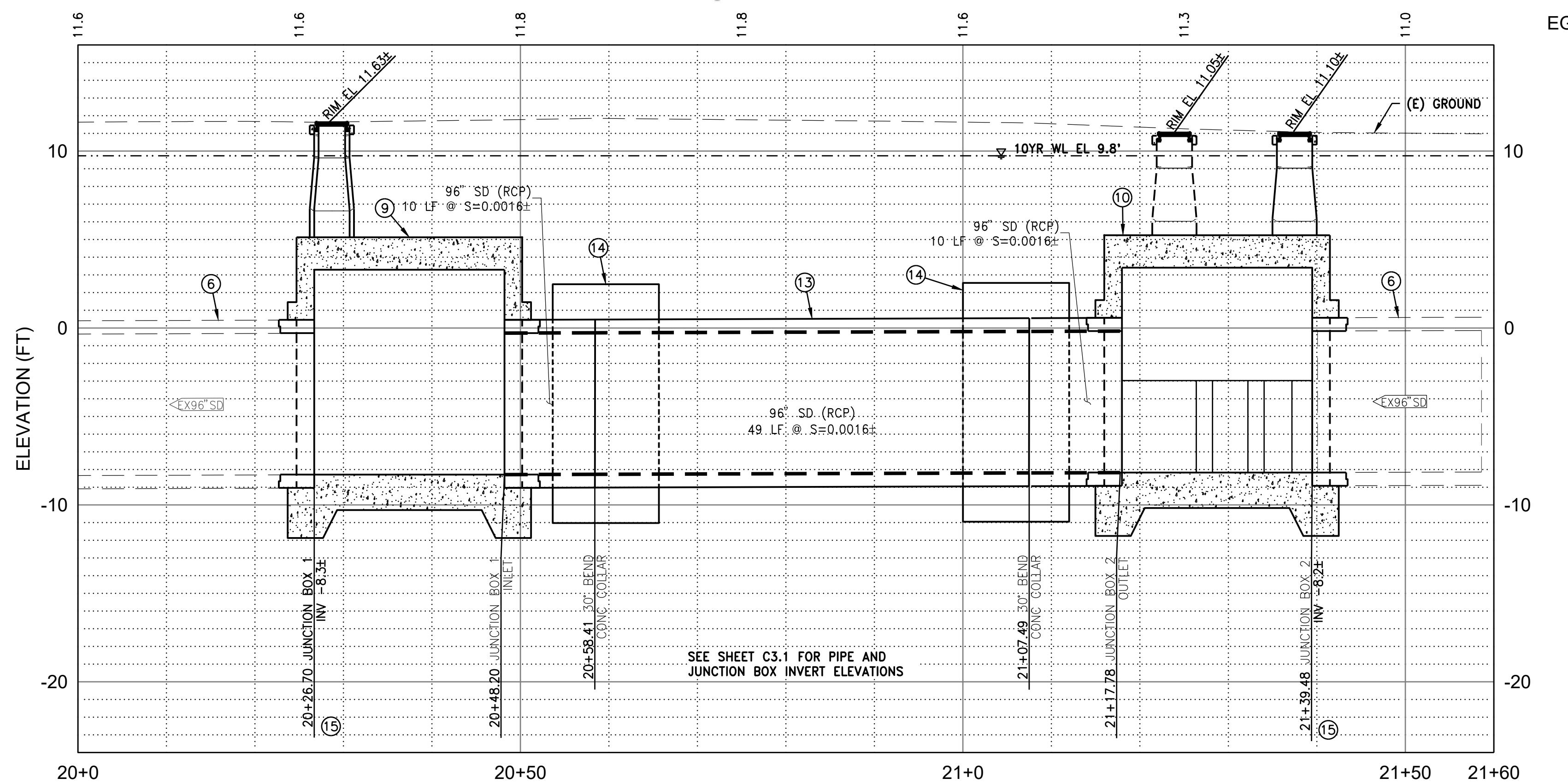
CONSTRUCTION NOTES

- ① PROTECT IN PLACE (E) TREE
- ② PROTECT IN PLACE (E) STREET LIGHT
- ③ PROTECT IN PLACE (E) OVERHEAD LINES
- ④ PROTECT IN PLACE (E) ELECTRICAL BOXES AND UNDERGROUND CONDUIT
- ⑤ PROTECT IN PLACE (E) POWER POLE
- ⑥ PROTECT IN PLACE (E) STORM DRAIN PIPE AND STRUCTURES
- ⑦ PROTECT IN PLACE (E) SANITARY SEWER LINE
- ⑧ REPAVE AND RESTRIPE ASPHALT TO (E) CONDITIONS PER CITY OF OAKLAND STANDARDS
- ⑨ INSTALL CONC JUNCTION BOX 1
REFER TO DETAIL 1 / C3.1
- ⑩ INSTALL CONC JUNCTION BOX 2
REFER TO DETAIL 2 / C3.1
- ⑪ INSTALL 72" DIA RCP
- ⑫ INSTALL TRASH CAPTURE DEVICE PROVIDED BY CITY.
CONTECH DSBB 11-24-150 TRASH CAPTURE DEVICE
REFER TO C3.2 FOR DETAILS
- ⑯ ALL INVERTS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION



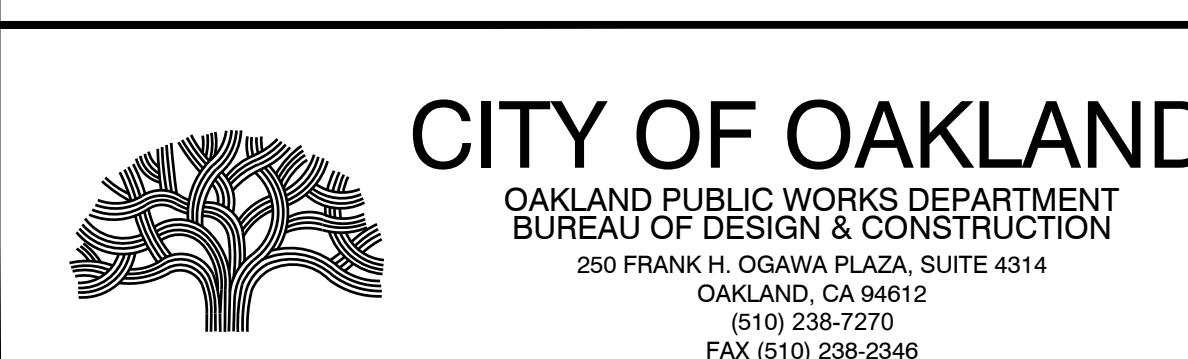
SITE PLAN - ALIGNMENT 2

SCALE: 1" = 10'



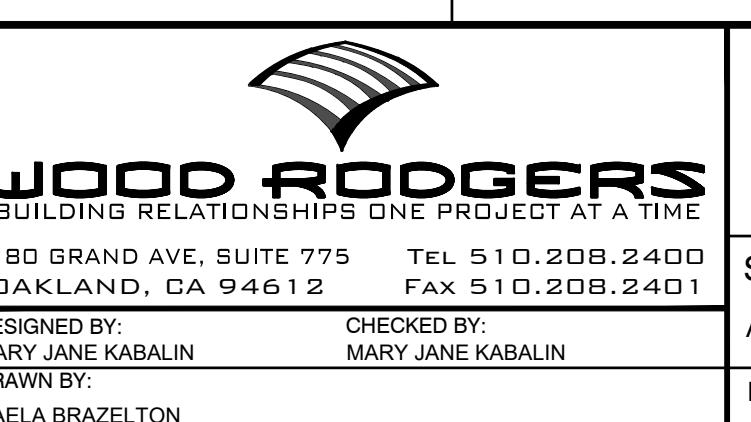
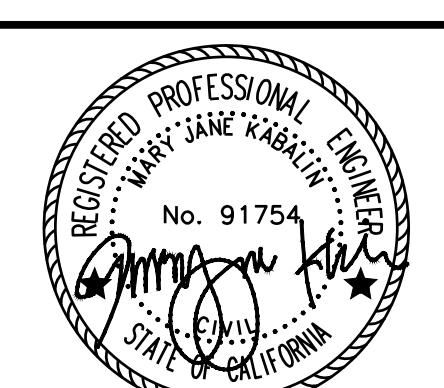
PROFILE - ALIGNMENT 2

SCALE: 1" = 10' HORIZ
1" = 5' VERT



**PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
PLAN AND PROFILE 2
RE-BID**

No.	DATE	BY	REFERENCE



PROJECT NO.
1006066

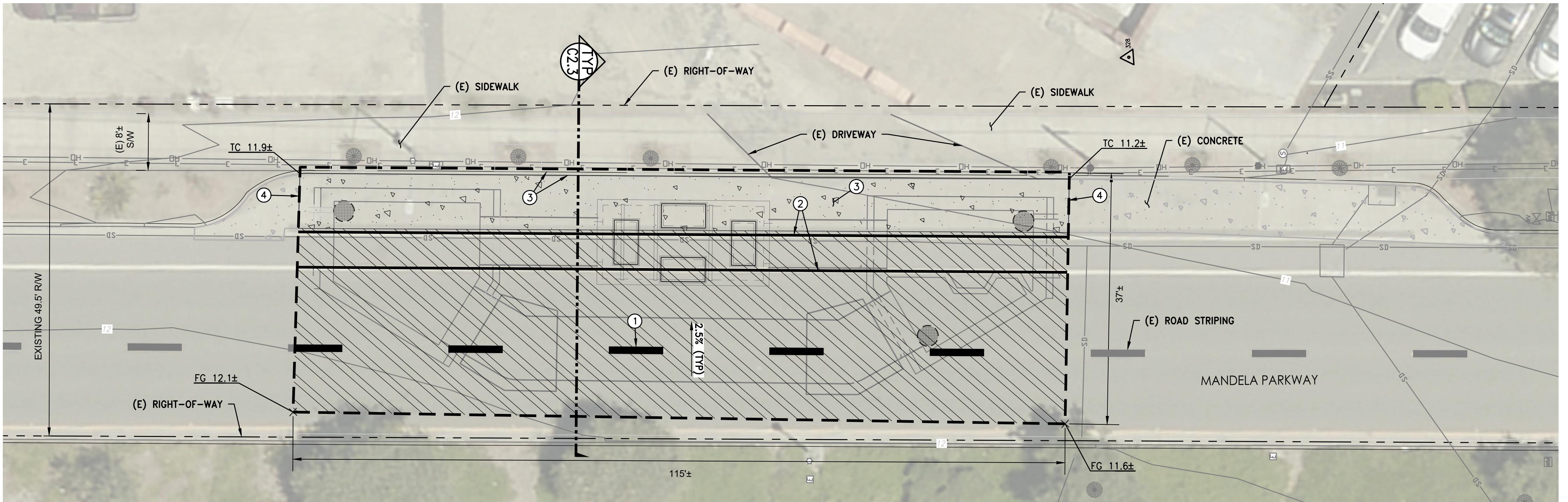
SCALE:
AS SHOWN
SHEET NO.
C.2.2
5 OF 13

GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN WITH A TRAFFIC DETOUR PLAN FOR THE ENGINEER'S REVIEW AND APPROVAL. SEE SPECIFICATIONS FOR MORE INFO.
2. COORDINATE WITH PG&E AND PROVIDE NECESSARY MEASURES TO PROTECT THE EXISTING OVERHEAD POWER LINE AND UNDERGROUND CONDUIT FROM PILE DRIVING AND/OR SHORING OPERATIONS

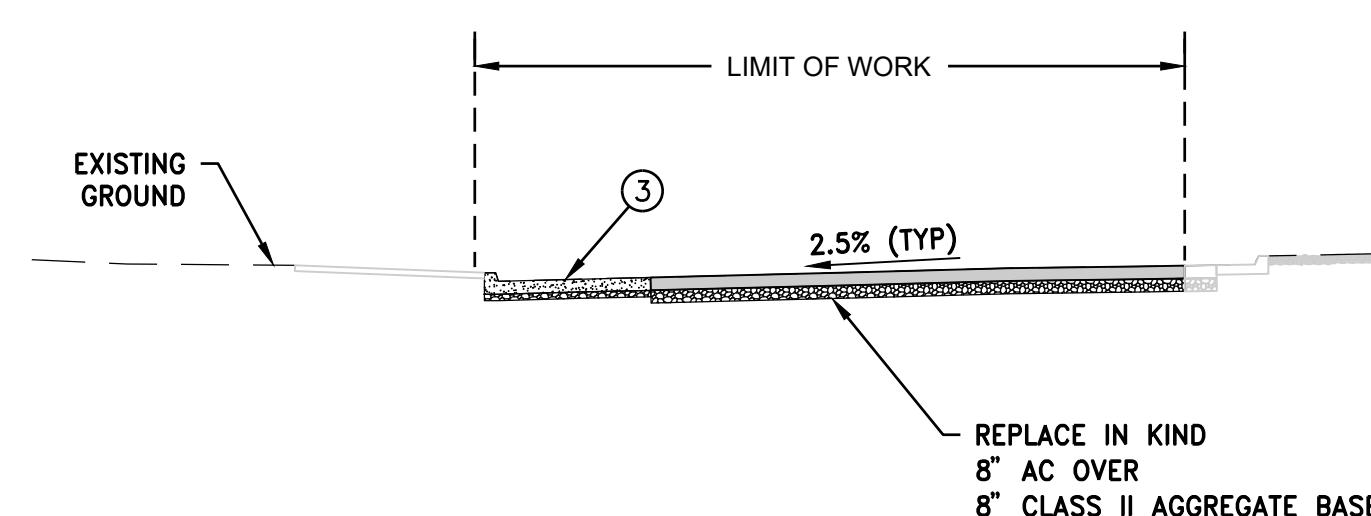
CONSTRUCTION NOTES

- ① PROTECT IN PLACE (E) TREE
- ② PROTECT IN PLACE (E) STREET LIGHT
- ③ PROTECT IN PLACE (E) OVERHEAD LINES
- ④ PROTECT IN PLACE (E) ELECTRICAL BOXES AND UNDERGROUND CONDUIT
- ⑤ PROTECT IN PLACE (E) POWER POLE
- ⑥ PROTECT IN PLACE (E) STORM DRAIN PIPE AND STRUCTURES
- ⑦ PROTECT IN PLACE (E) SANITARY SEWER LINE
- ⑧ REPAVE AND RESTRIPE ASPHALT TO (E) CONDITIONS PER CITY OF OAKLAND STANDARDS
- ⑨ INSTALL CONC JUNCTION BOX 1
REFER TO DETAIL 1 / C3.1
- ⑩ INSTALL CONC JUNCTION BOX 2
REFER TO DETAIL 2 / C3.1
- ⑪ INSTALL 96" DIA RCP.
CONTRACTOR HAS AN OPTION TO REQUEST FOR SUBSTITUTION OF THE CONCRETE COLLAR AND/OR 96" RCP WITH AN EQUAL/EQUIVALENT PIPING SYSTEM. SEE SPECS SECTION 913 FOR SUBSTITUTION PROCEDURES.
- ⑫ INSTALL CONC COLLAR. REFER TO DETAIL 1 / S2.3.
CONTRACTOR HAS AN OPTION TO REQUEST FOR SUBSTITUTION OF THE CONCRETE COLLAR AND/OR 96" RCP WITH AN EQUAL/EQUIVALENT PIPING SYSTEM. SEE SPECS SECTION 913 FOR SUBSTITUTION PROCEDURES.
- ⑬ ALL INVERTS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION

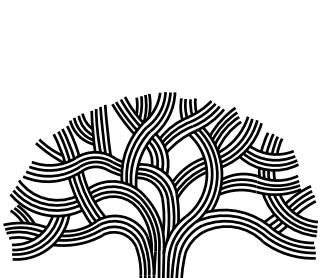


PAVING AND STRIPING PLAN

SCALE: 1" = 10'



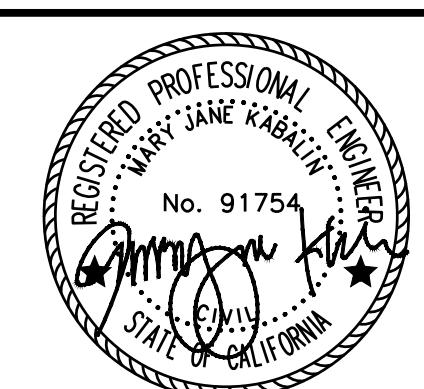
TYP
C2.3



CITY OF OAKLAND
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BUREAU OF DESIGN & CONSTRUCTION
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OAKLAND, CA 94612
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FAX (510) 238-2346

PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
PAVING AND STRIPING PLAN
RE-BID

No.	DATE	BY	REFERENCE



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
180 GRAND AVE, SUITE 775 TEL 510.208.2400
OAKLAND, CA 94612 FAX 510.208.2401
DESIGNED BY: MARY JANE KABALIN CHECKED BY: MARY JANE KABALIN
DRAWN BY: CAELA BRAZELTON

PROJECT NO.
1006066
SCALE:
AS SHOWN
SHEET NO.
C.2.3
6 OF 13
DRAWING NAME: J-JUGS 8792_CityofOakland_OndcallHydrologyStormwater_0nCallToLargtrashCaptureDeviceDesignMandelaCivilDwgImprovementPlansC2.3-PAVING_MTCdwg
PLOT DATE: 12-15-2023
PLOTTED BY: VLUU

TRAFFIC CONTROL NOTES

1. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN WITH A TRAFFIC DETOUR PLAN FOR THE ENGINEER'S REVIEW AND APPROVAL. SEE SPECIFICATIONS FOR MORE INFO.
2. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

STRIPING & PAVEMENT NOTES

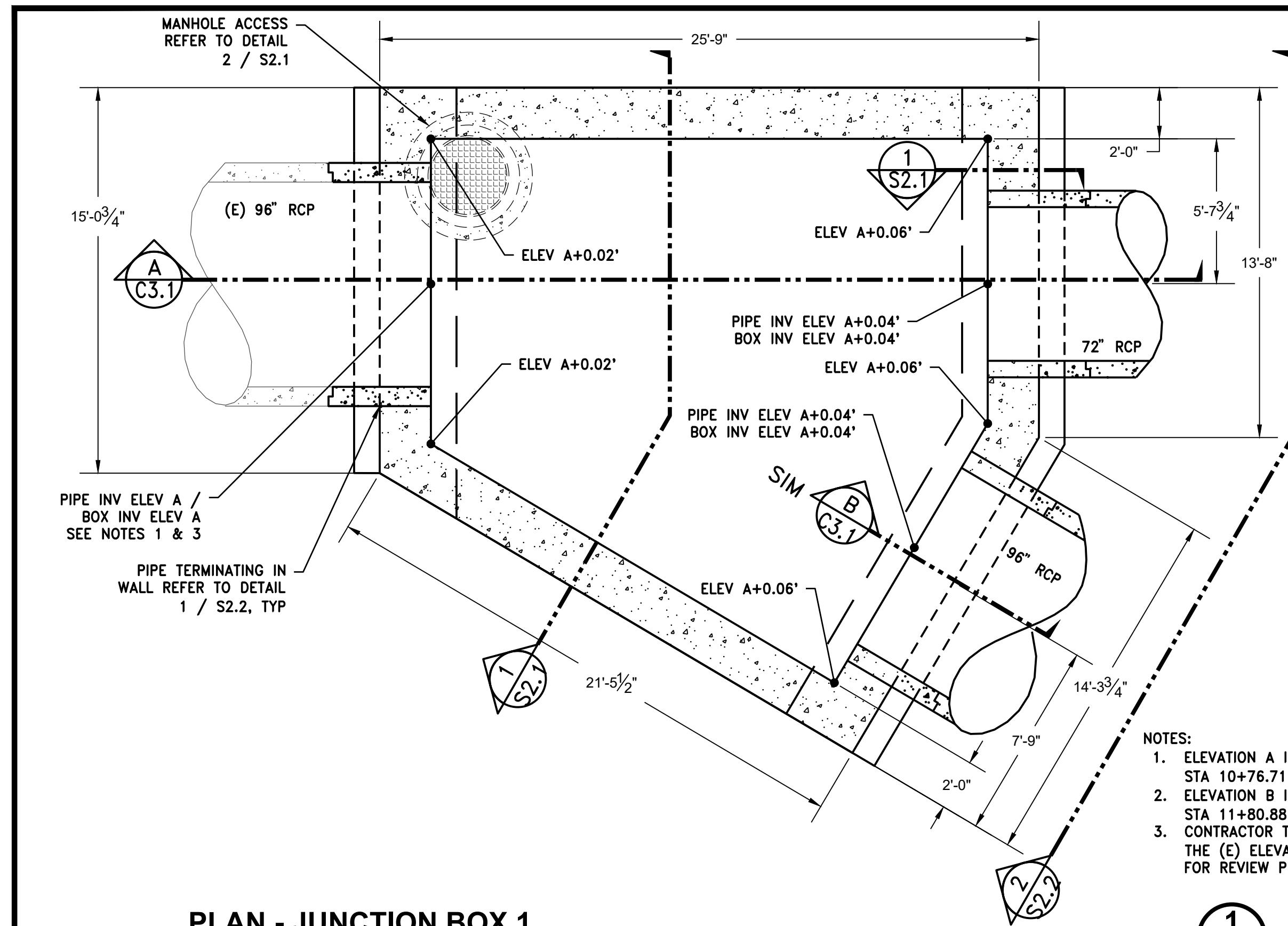
1. ALL PAVEMENT MARKINGS AND STRIPING SHALL BE THERMOPLASTIC.
2. STRIPING AND PAVEMENT MARKINGS SHALL BE IN STRICT CONFORMANCE WITH THE CA-MUTCD (LATEST EDITION) AND THE TECHNICAL SPECIFICATIONS LONGITUDINAL STRIPING EXCLUDED, PAVEMENT MARKINGS SHALL ALSO CONFORM TO THE CALTRANS SPECIFICATIONS (LATEST EDITION) SECTION 84.
3. SIGNING SHALL CONFORM TO THE CA-MUTCD (LATEST EDITION) AND CALTRANS SPECIFICATIONS (LATEST EDITION) SECTION 82.
4. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE REMOVED BY GRINDING PER CALTRANS STANDARDS SPECIFICATIONS SECTION 84-9.
5. THE CONTRACTOR SHALL ENSURE THAT THE APPROPRIATE STRIPING AND PAVEMENT MARKINGS ARE IN PLACE AT ALL TIMES. TEMPORARY STRIPING AND/OR PAVEMENT MARKINGS SHALL BE INSTALLED TO REPLACE ANY EXISTING STRIPING OR MARKINGS WHICH HAVE BEEN REMOVED. ANY CONFLICTING STRIPING SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR PRIOR TO REOPENING THE STREET TO TRAFFIC.
6. THE CONTRACTOR SHALL REPLACE ANY PAVEMENT DELINEATION AND TRAFFIC MARKINGS THAT ARE DAMAGED DURING THE COURSE OF WORK AT NO ADDITIONAL COST TO THE CITY.

CONSTRUCTION NOTES

1. PAINT LANE STRIPING IN ACCORDANCE WITH CALTRANS MUTCD LATEST EDITION PAVEMENT DELINEATION DETAIL NO. 9
2. PAINT BIKE LANE STRIPING IN ACCORDANCE WITH CALTRANS MUTCD LATEST EDITION PAVEMENT DELINEATION DETAIL NO. 27B
3. REPLACE IN KIND EXISTING CONCRETE STRUCTURES, INCLUDING 6" CURB & 8" GUTTER, PER CITY OF OAKLAND STANDARD DETAIL S-1, MODIFIED TYPE C CURB
4. TIE NEW CONCRETE TO EXISTING CONCRETE REFER TO DETAIL 3 / C.3.1
5. CONTRACTOR TO FIELD VERIFY ELEVATIONS AND SLOPES SHOWN ON PLANS

CONCRETE SURFACE AND MINOR CONCRETE SURFACE REPLACEMENT

REPLACE EXISTING ASPHALT AND AGGREGATE BASE IN KIND (8" AC ON TOP OF 8" CLASS 2 AB)



PLAN - JUNCTION BOX 1

SCALE:

1/4" = 1'-0"

MH FRAME & COVER
REFER TO DETAIL 2 / S2.1

STEPS PER CITY OF
OAKLAND
STD DETAIL D-12
AND CALTRANS STD
DETAIL D74

PIPE TERMINATING IN
WALL REFER TO DETAIL
1 / S2.2, TYP

(E) GROUND
RIM ELEV 11.64±

MANHOLE SHAFT
REFER TO DETAIL
2 / S2.1

TOP OF STRUCTURE

1'-8"

2'-0"

11'-7"

96" RCP OR
72" RCP

STORM DRAIN

UNDISTURBED GROUND

3'-0"

95% COMPAKTED SUBGRADE
AS DIRECTED BY ENGINEER

CLASS 2 AB -
95% RELATIVE
COMPACTION

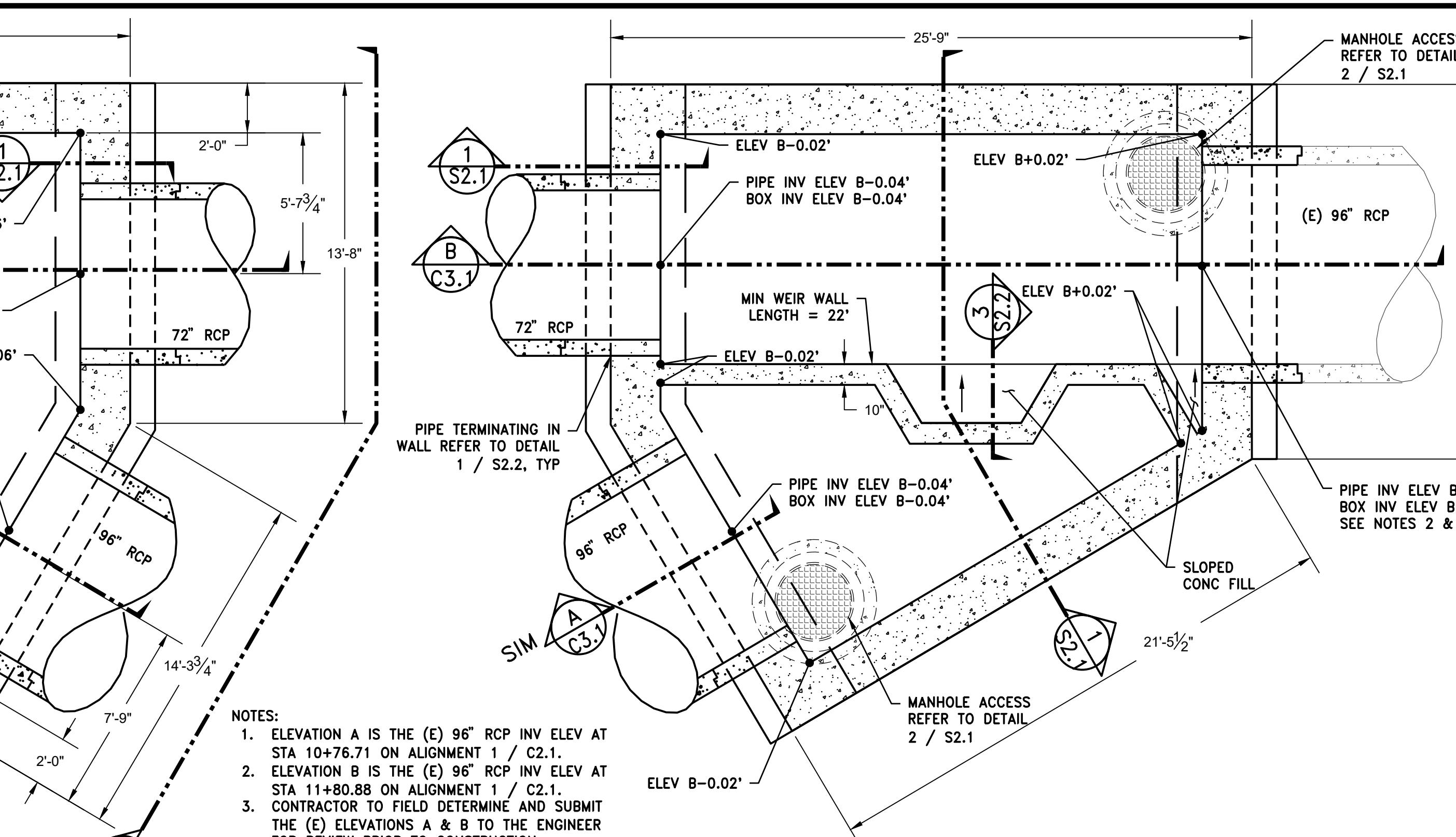
NONWOVEN GEOTEXTILE
FABRIC WRAPPED
AROUND CLASS 2 AB

SECTION - JUNCTION BOX 1

SECTION - JUNCTION BOX 1

SCALE:

1/4" = 1'-0"



PLAN - JUNCTION BOX 2

SCALE:

1/4" = 1'-0"

MH FRAME & COVER
REFER TO DETAIL 2 / S2.1

MANHOLE SHAFT
REFER TO DETAIL
2 / S2.1

TOP OF STRUCTURE

1'-8"

2'-0"

11'-7"

(E) 96" RCP

TOP WEIR WALL

STORM DRAIN

UNDISTURBED GROUND

3'-0"

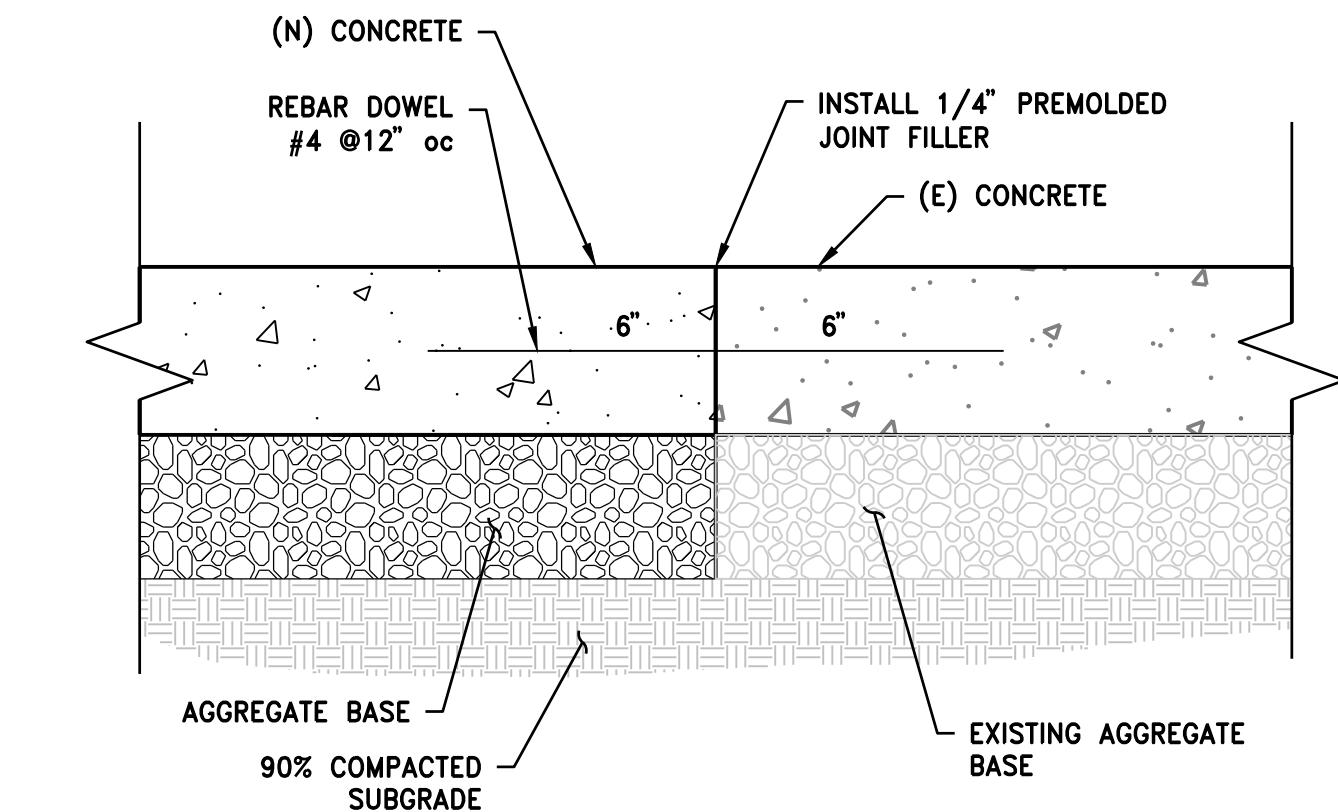
95% COMPAKTED SUBGRADE
AS DIRECTED BY ENGINEER

NONWOVEN GEOTEXTILE
FABRIC WRAPPED
AROUND CLASS 2 AB

SECTION - JUNCTION BOX 2

SCALE:

1/4" = 1'-0"



(N) CONC CONNECTION TO EXISTING

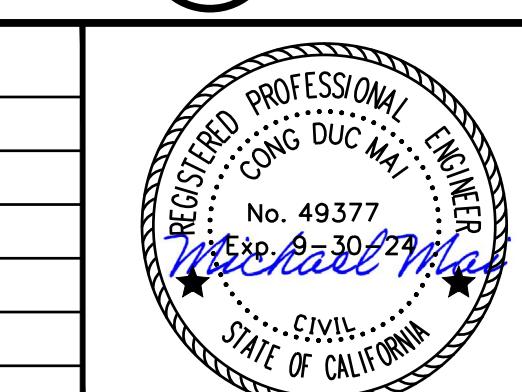
SCALE: NTS

ALL INVERTS TO BE FIELD VERIFIED
PRIOR TO CONSTRUCTION

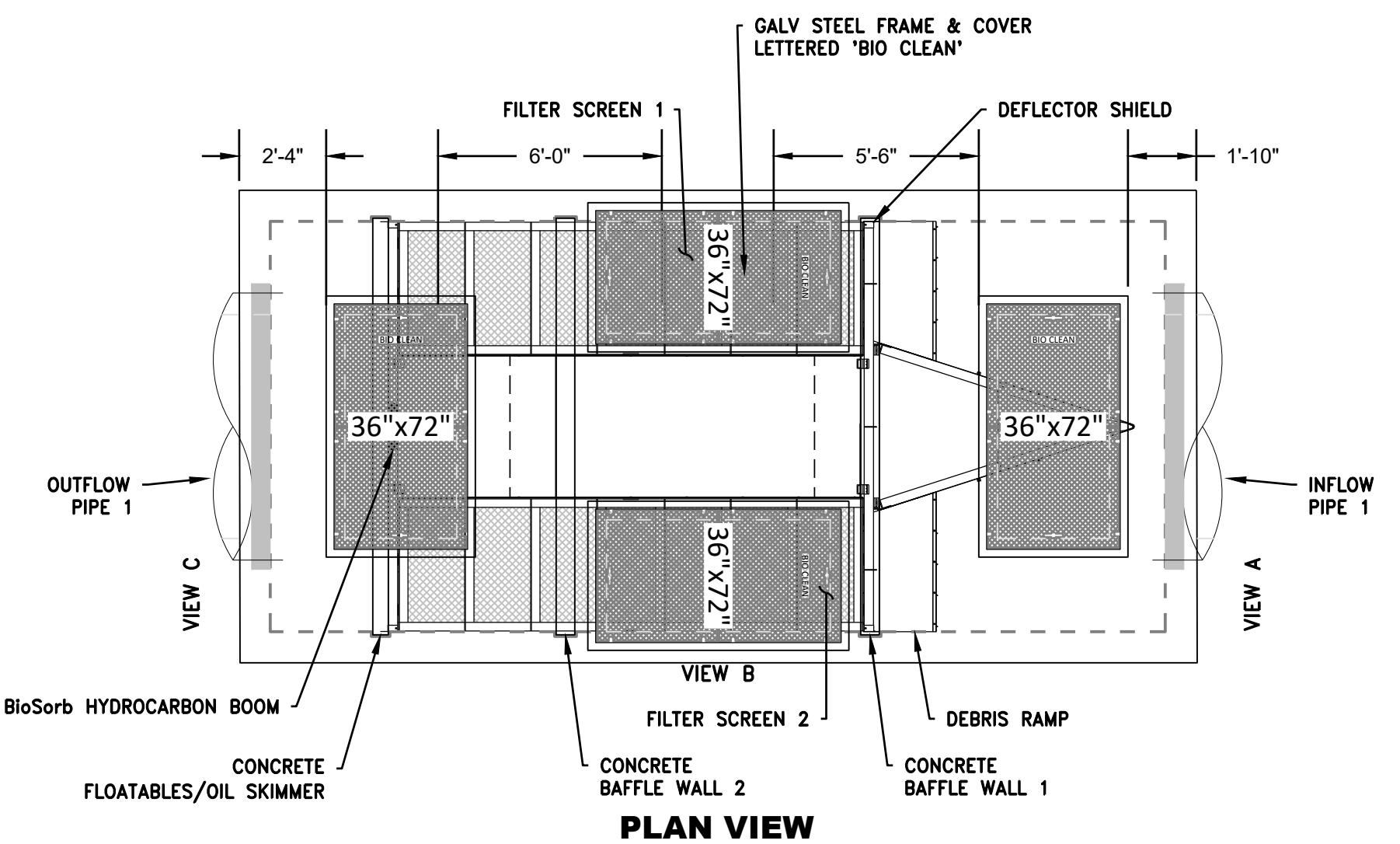


PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
CIVIL DETAILS
RE-BID

No.	DATE	BY	REFERENCE



PROJECT NO.
1006066
SCALE:
AS SHOWN
SHEET NO.
C.3.1
7 OF 13
DATE: DEC 2023
PLOT DATE: 12-12-23
PLOTTED BY: VLIU



DSBB PERFORMANCE DATA						
TREATMENT FLOW RATE (CFS)		----				
FULL CAPTURE TRASH FLOW RATE (CFS)			160.00			
SETTLING AREA (SF)			264.00			
LOADING RATE (GPM/SF)			272.00			
SCREEN SYSTEM STORAGE CAPACITY (CF)			263.33			
SEDIMENT STORAGE CAPACITY (CF)			1138.50			
FULL CAPTURE						
DSBB STORAGE CAPACITIES						
CAGE SCREEN CAPACITY						
	LENGTH (FT)	WIDTH (FT)	HEIGHT (FT)	TOTAL (CF)		
SCREEN 1	13.17	3.33	3.00	131.67		
SCREEN 2	13.17	3.33	3.00	131.67		
SEDIMENT CHAMBER CAPACITY						
CHAMBER 1	7.67	11.00	4.50	379.50		
CHAMBER 2	7.67	11.00	4.50	379.50		
CHAMBER 3	7.67	11.00	4.50	379.50		

SITE SPECIFIC DATA*			
PROJECT NUMBER	745111-010		
PROJECT NAME	OAKLAND TRASH CAPTURE - MANDELA PARKWAY AND CARY AVENUE		
PROJECT LOCATION	OAKLAND, CA		
STRUCTURE ID	MANDELA PARKWAY		
WATER QUALITY FLOW RATE (CFS)	---		
ULL CAPTURE TRASH FLOW RATE (CFS)	160.00		
PEAK FLOW RATE (CFS)	170.00		
PEAK STORM DURATION (YEARS)	N/A		
PIPE DATA	I.E.	MATERIAL	DIAMETER
IFLOW PIPE 1	-8.20	RCP	72
UTFLOW PIPE 1	-8.20	RCP	72
MM ELEVATION	11.28		
SURFACE LOADING REQUIREMENT	HS20		
FRAME AND COVER	(4) 36" x72"		
CORROSIVE SOIL CONDITIONS	NA		
KNOWN GROUNDWATER ELEVATION	-4.00		
NOTES: CONCEPT ONLY, NOT FOR PRODUCTION.			

GENERAL NOTES

BIO CLEAN TO PROVIDE ALL MATERIALS
UNLESS OTHERWISE NOTED.
ALL DIMENSIONS, ELEVATIONS,
SPECIFICATIONS, AND CAPACITIES ARE
SUBJECT TO CHANGE. FOR PROJECT
SPECIFIC DRAWINGS DETAILING EXACT
DIMENSIONS, WEIGHTS, AND ACCESSORIES
PLEASE CONTACT BIO CLEAN.

STALLATION NOTES

CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE DEBRIS SEPARATING BAFFLE BOX AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.

ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH).

ALL GAPS AROUND PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT PER MANUFACTURER'S STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.

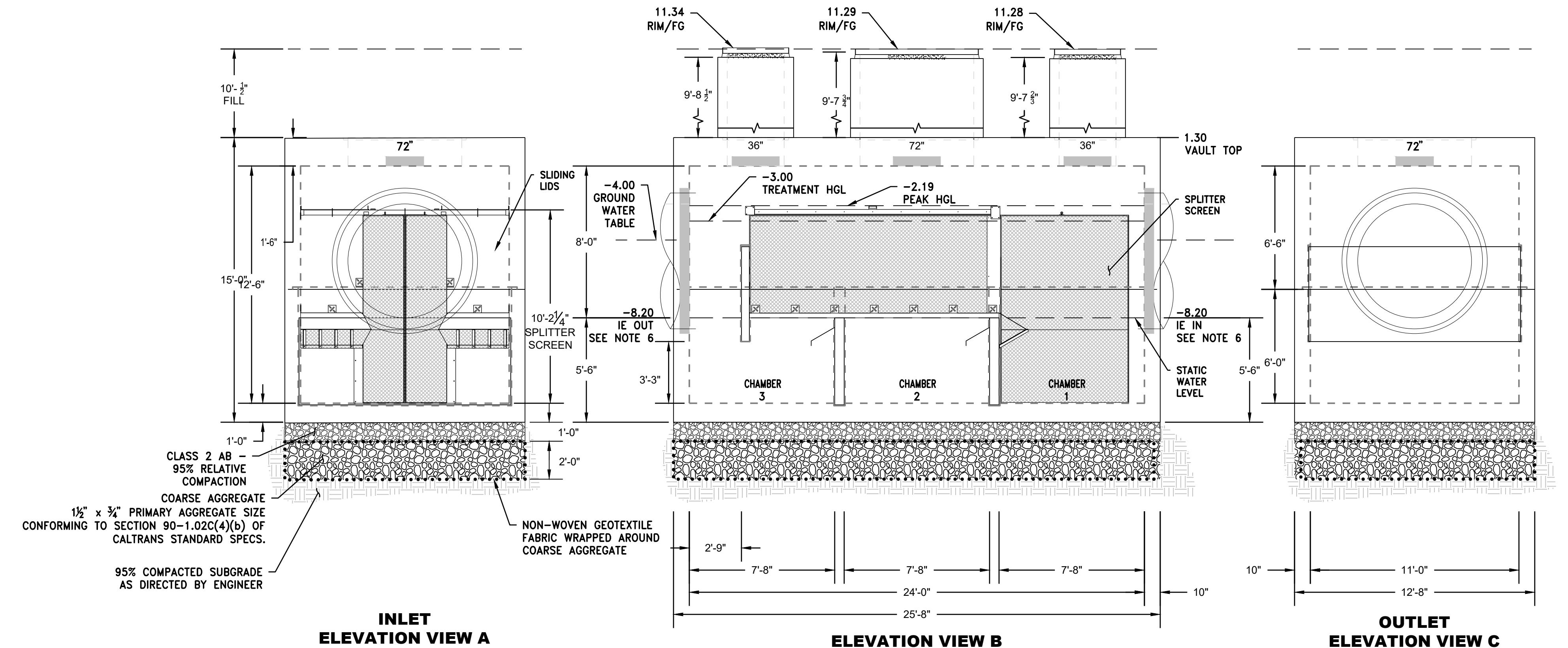
CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS AND COVERS. ALL COVERS SHALL BE SHIPPED LOOSE.

CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.

INTERNAL CAGES INSTALLED IN-FIELD.

ELEVATIONS SHOWN ARE APPROXIMATE.

CONTRACTOR TO FIELD VERIFY IN CONJUNCTION W/ FIELD VERIFYING INVERT ELEVATIONS OF (E) 96" RCP



CONTECH DSBB-11-24-150 DETAILS

SCALE·NT

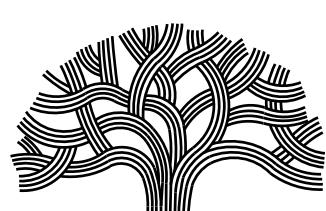
CONTECH[®] ENGINEERED SOLUTIONS LLC

THIS PRODUCT MAY BE PROTECTED BY ONE
OR MORE OF THE FOLLOWING US PATENTS:
6,428,692; 7,294,256; 7,846,327; 7,153,417;
7,270,747. RELATED FOREIGN PATENTS OR
OTHER PATENTS PENDING



PROJECT NO.
1006066

SCALE: AS SHOWN	SHEET NO. C3.2
DATE: DEC 2023	<u>8</u> OF <u>13</u>



CITY OF OAKLAND

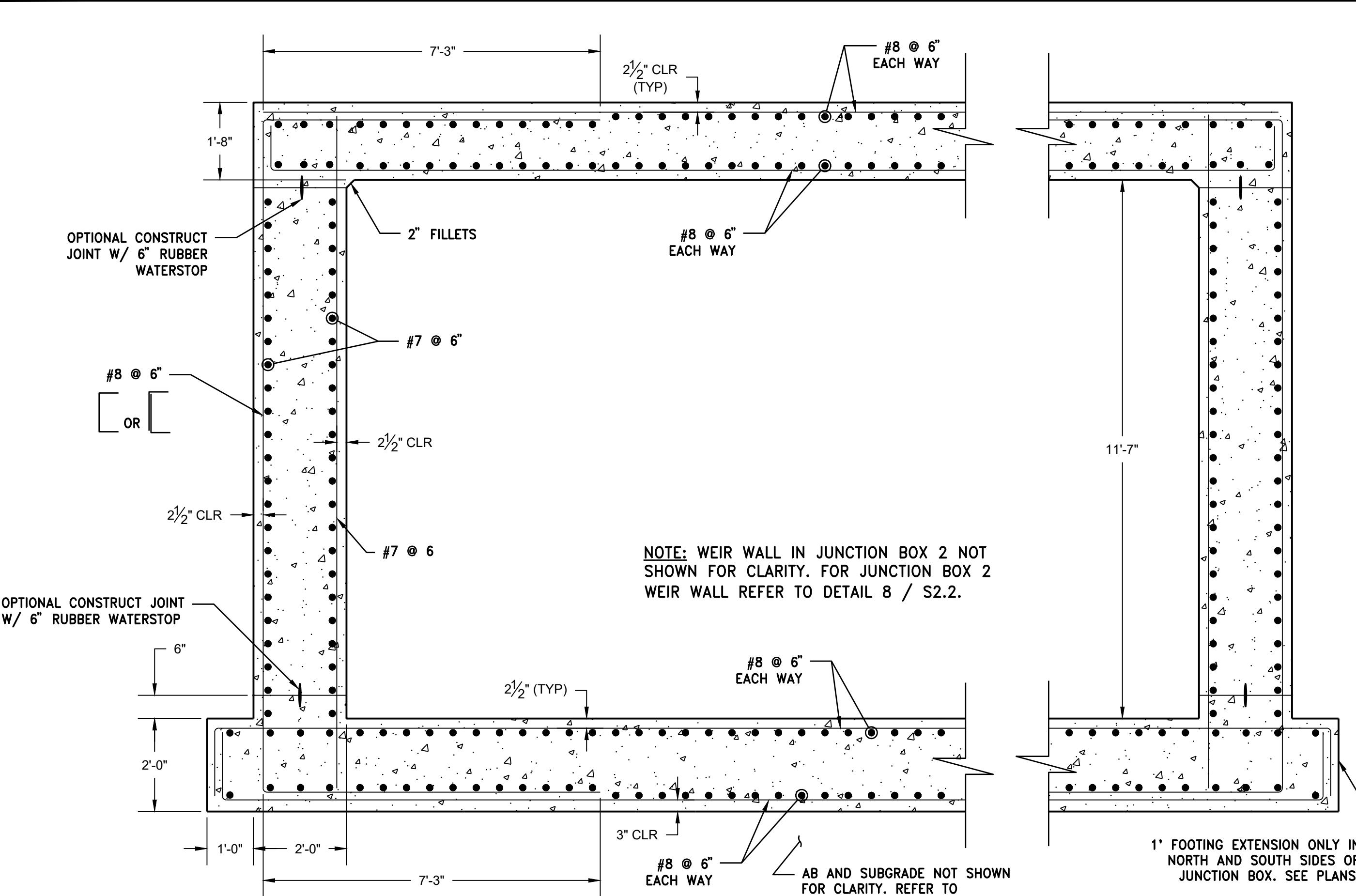
OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF DESIGN & CONSTRUCTION

PLANS FOR THE CONSTRUCTION OF MANDELA PARKWAY TRASH CAPTURE DEVICE DSBB-11-24-150 DETAILS RF-BID

No.	DATE	BY	REFERENCE

PROJECT NO.
1000000

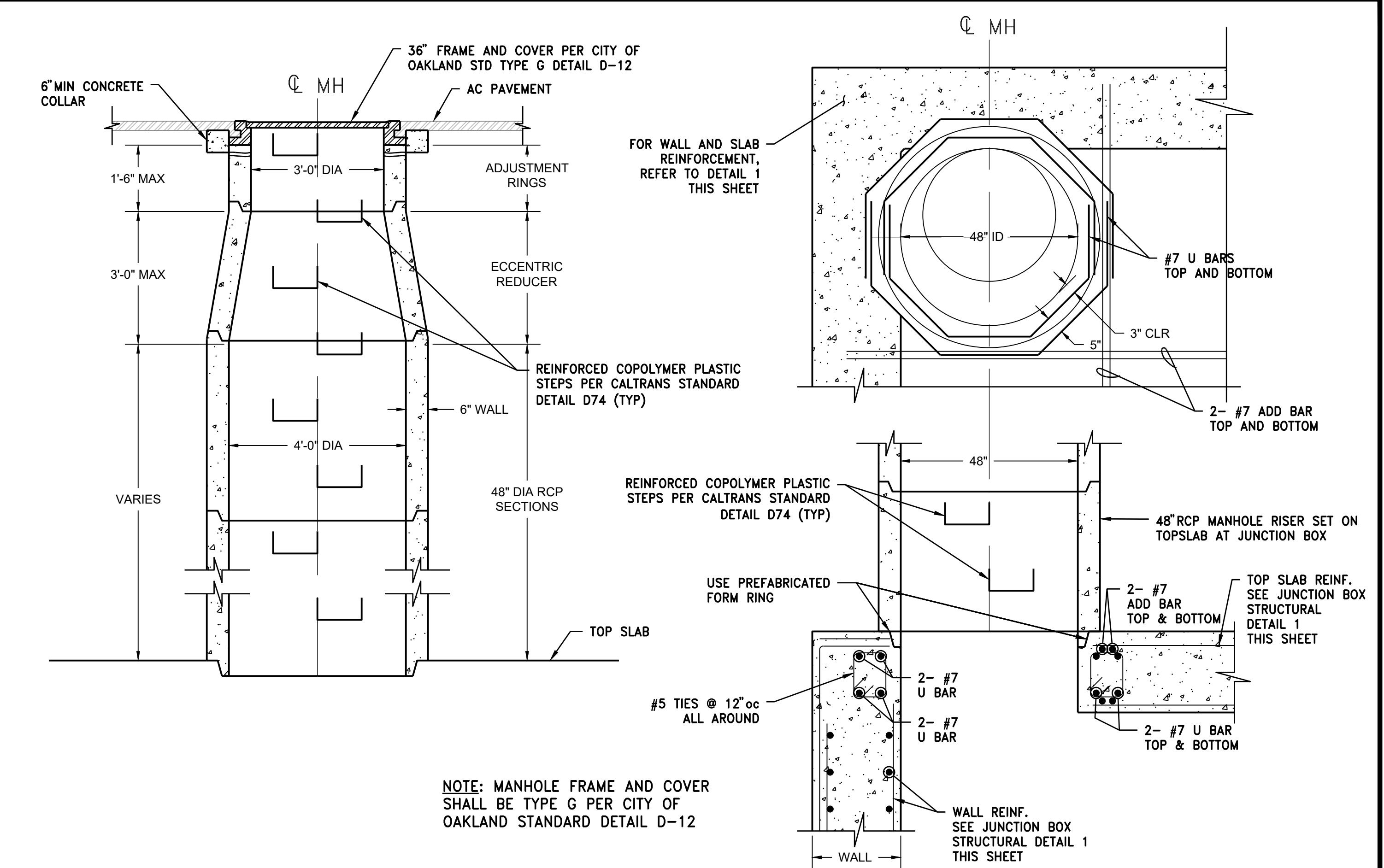
1006066



JUNCTION BOX 1 AND 2 TYPICAL SECTION

SCALE: 1/2" = 1'-0"

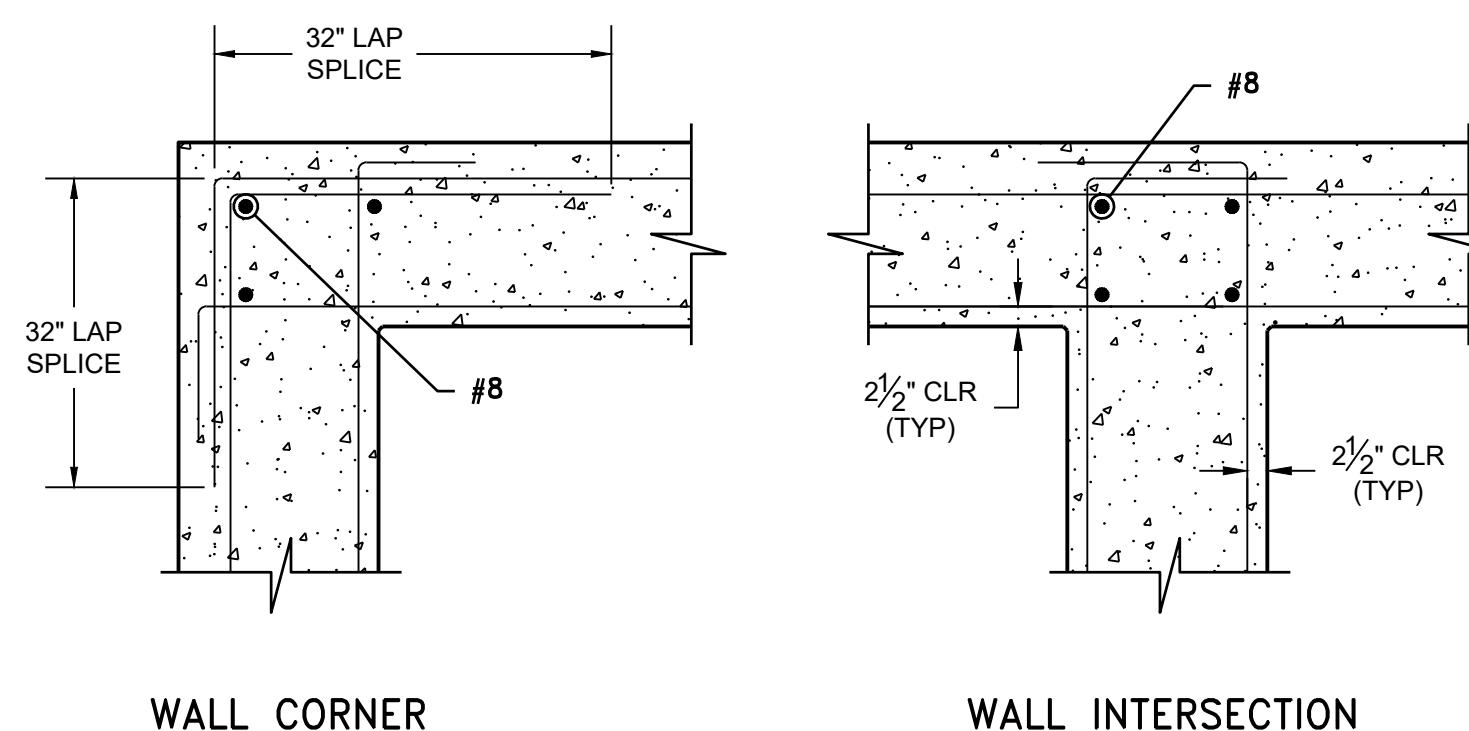
DETAIL 1
S2.1



48" ID REINFORCED MANHOLE WITH 36" OPENING - ECCENTRIC REDUCER

SCALE: 1/2" = 1'-0"

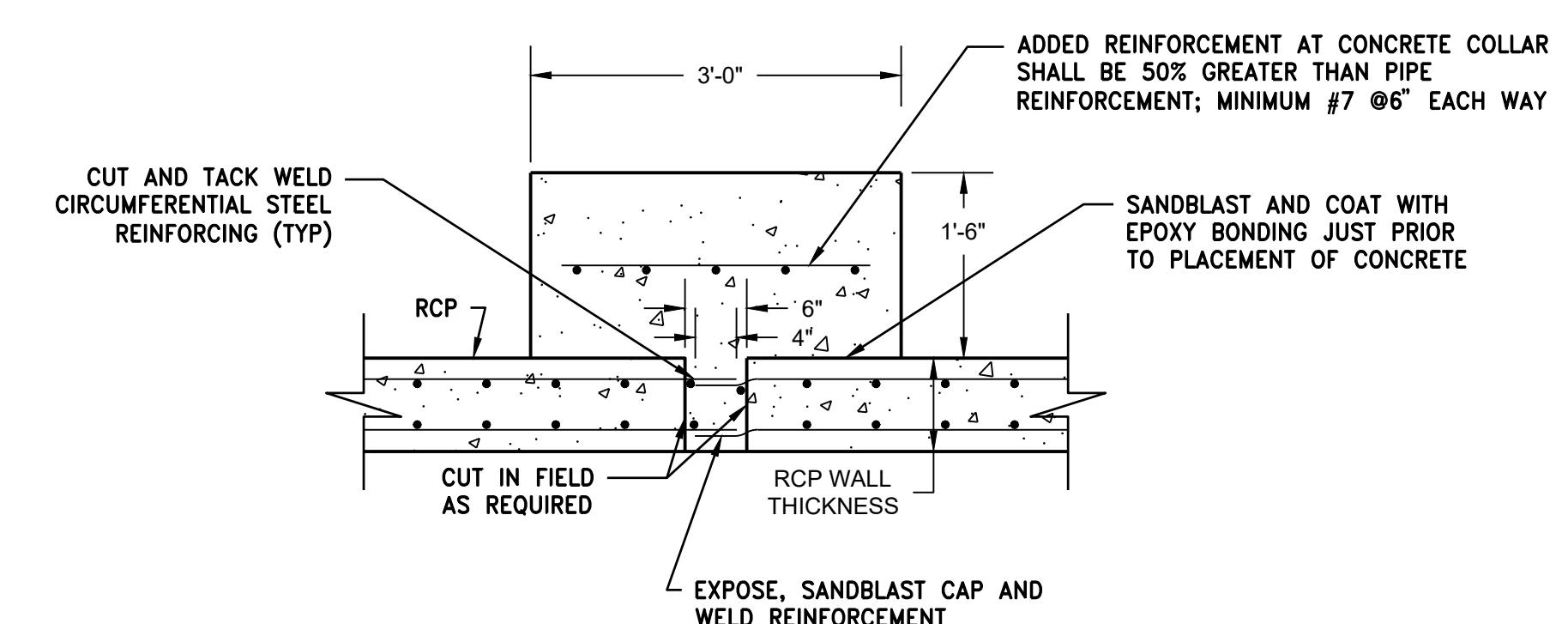
DETAIL 2
S2.1



REINFORCING STEEL AT WALL INTERSECTION

SCALE: 1/2" = 1'-0"

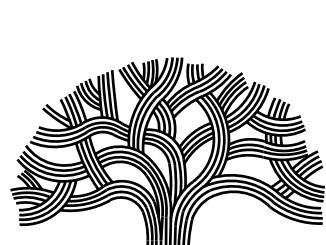
DETAIL 3
S2.1



FIELD CLOSURE / CONC COLLAR FOR RCP

SCALE: 3/4" = 1'-0"

DETAIL 4
S2.1



CITY OF OAKLAND
OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF DESIGN & CONSTRUCTION
250 FRANK H. OGAWA PLAZA, SUITE 4314
OAKLAND, CA 94612
(510) 238-7270
FAX (510) 238-2346

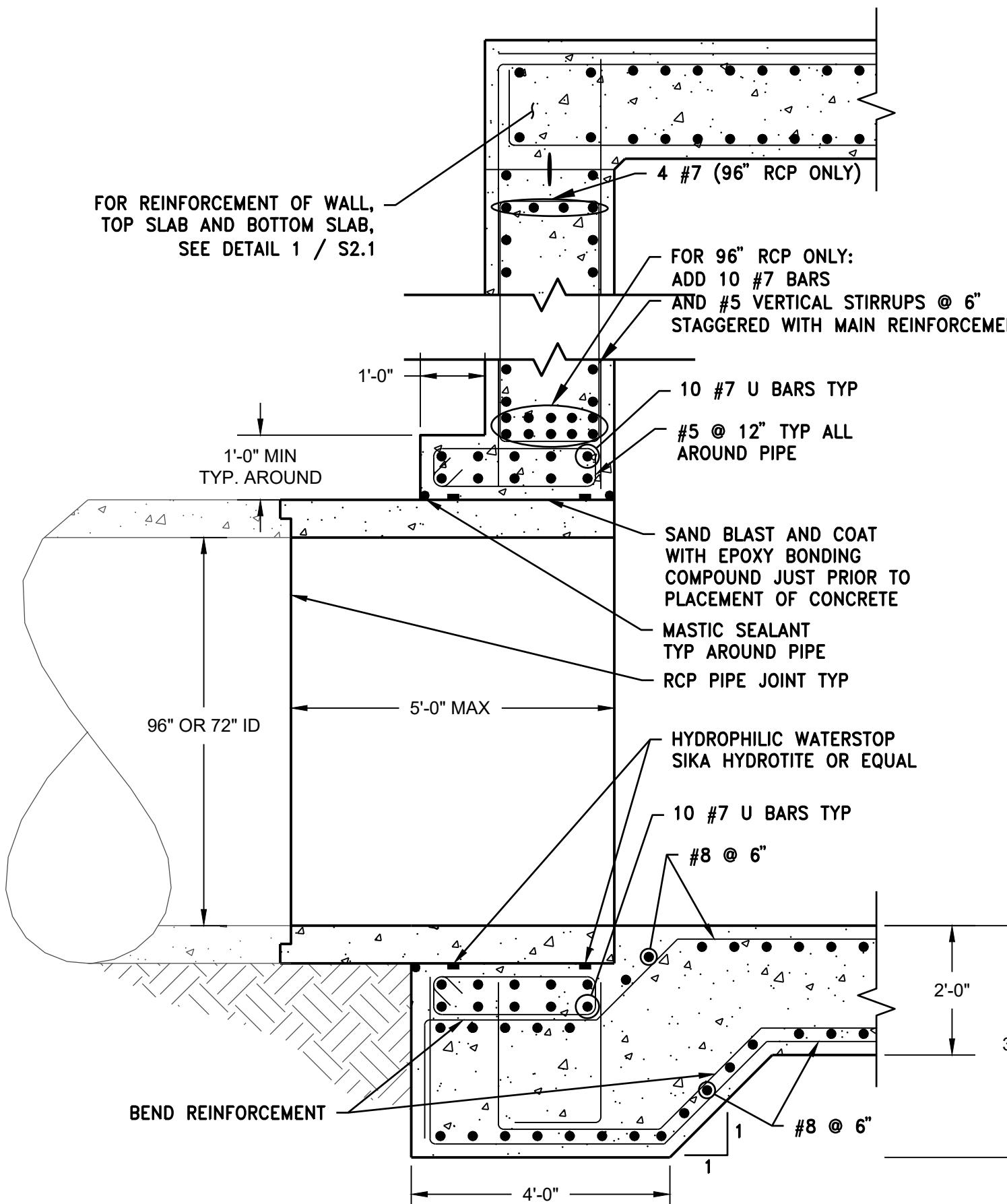
PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
STRUCTURAL DETAILS
RE-BID

No.	DATE	BY	REFERENCE



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
180 GRAND AVE, SUITE 775 TEL 510.208.2400
OAKLAND, CA 94612 FAX 510.208.2401
DESIGNED BY: CONG DUC MAI
DRAWN BY: JENNY PRIEST
CHECKED BY: CONG DUC MAI

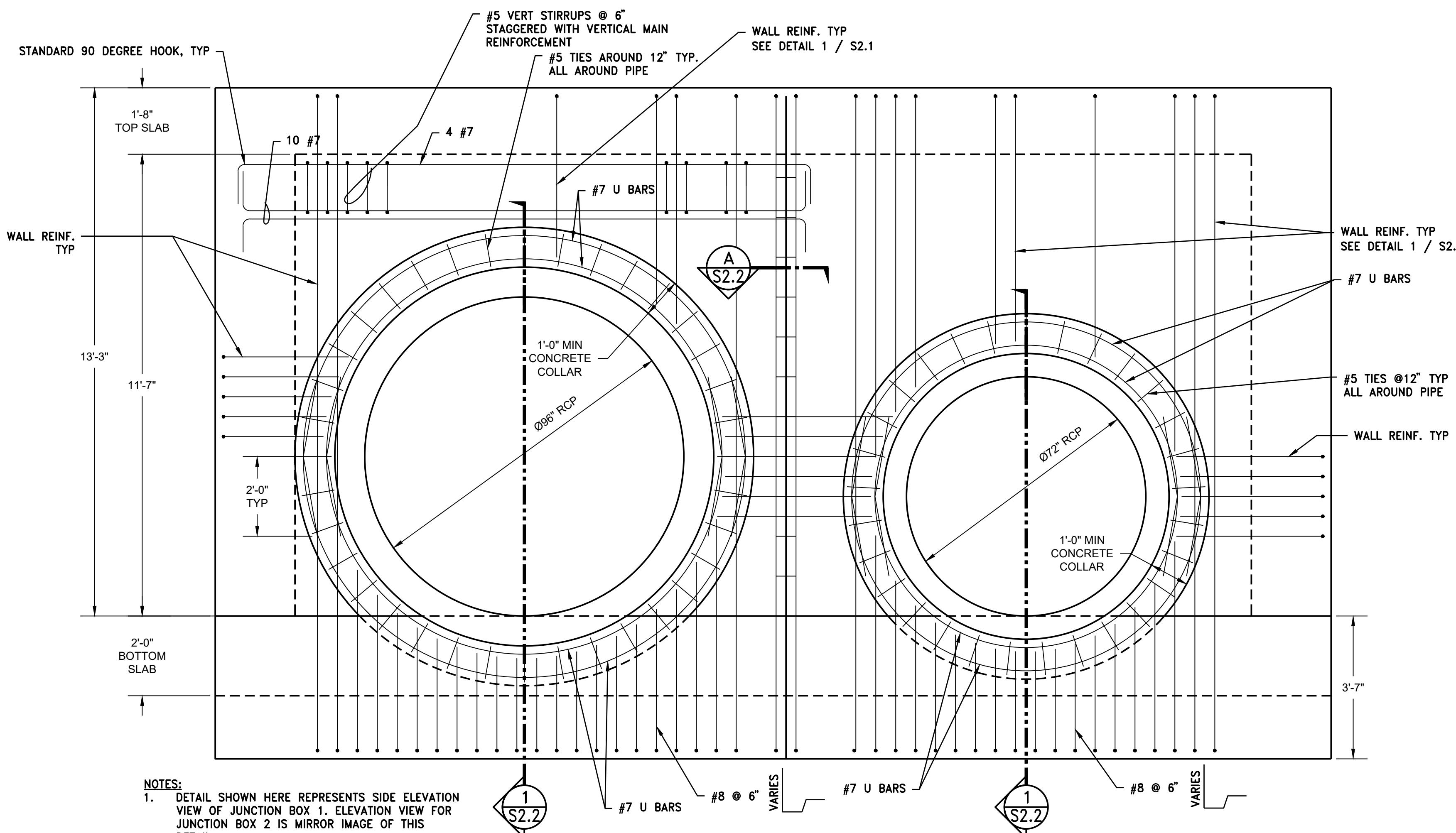
PROJECT NO.
1006066
SCALE:
AS SHOWN
SHEET NO.
S.2.1
10 OF 13
DRAWING NAME: J-JCbs/8792_CityofOakland_OncallHydrologyStormwater_01.dwg
PLOT DATE: 12-15-2023
PLOTTED BY: JENNY PRIEST



96 AND 72 INCH RCP TERMINATING IN WALL

SCALE: 1/2" = 1'-0"

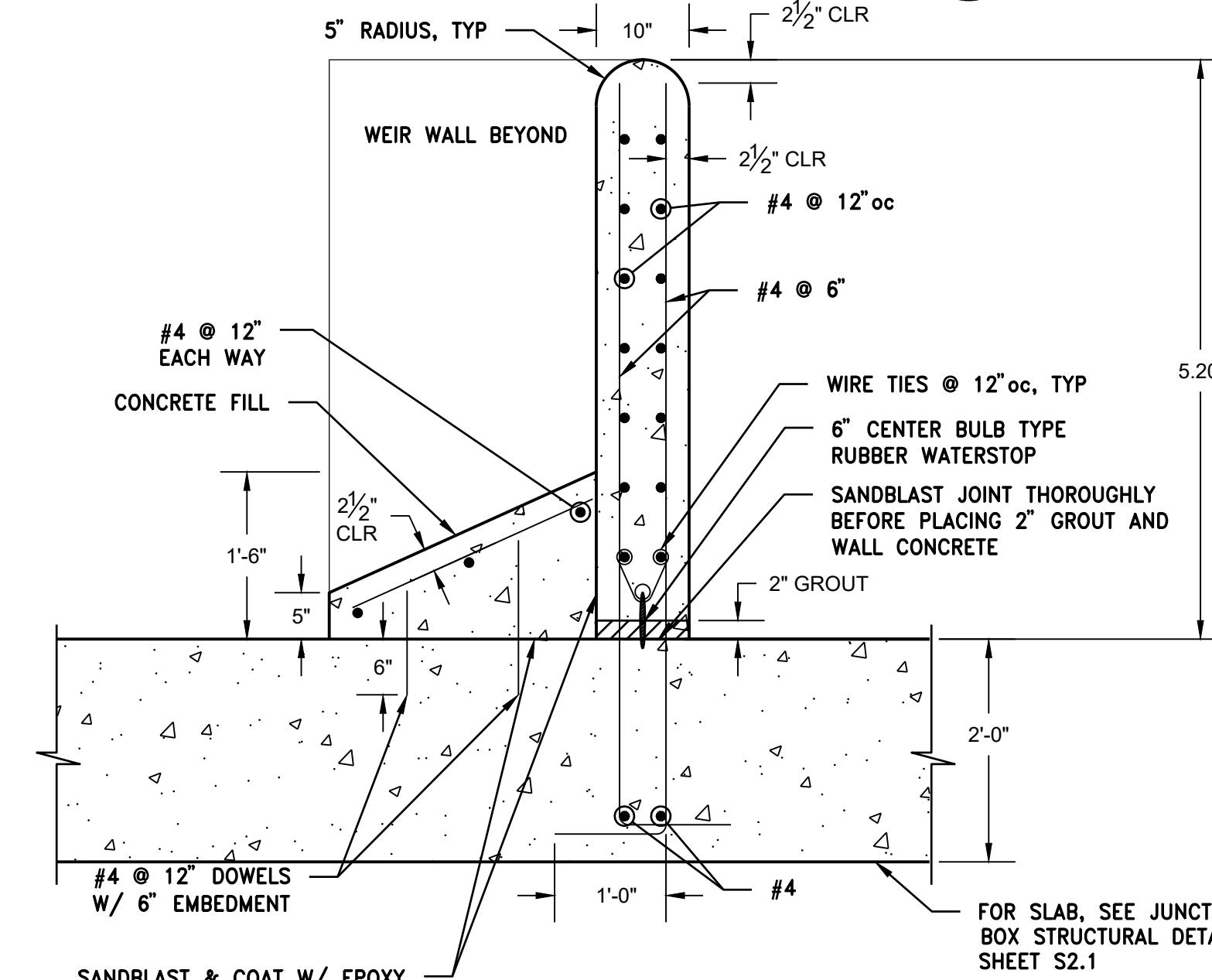
1
S2.2



REINFORCEMENT AT WALL OPENING FOR 96 AND 72 INCH RCP

SCALE: 1/2" = 1'-0"

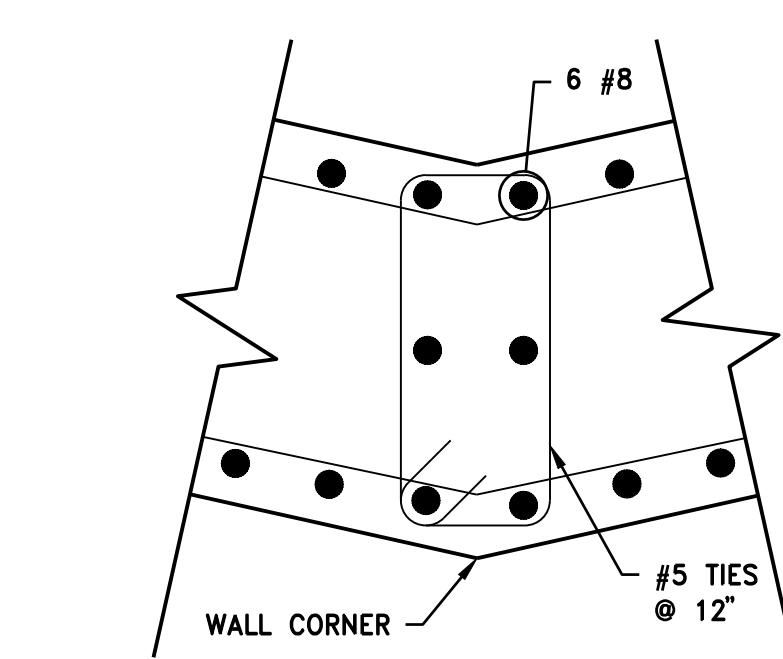
2
S2.2



REINFORCING AT WEIR

SCALE: 3/4" = 1'-0"

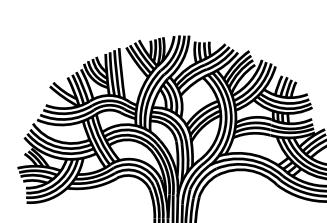
3
S2.2



REINFORCEMENT SECTION

SCALE: 1" = 1'-0"

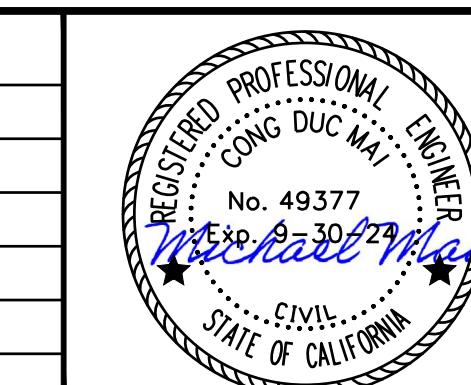
A
S2.2



CITY OF OAKLAND
OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF DESIGN & CONSTRUCTION
250 FRANK H. OGAWA PLAZA, SUITE 4314
OAKLAND, CA 94612
(510) 238-7270
FAX (510) 238-2346

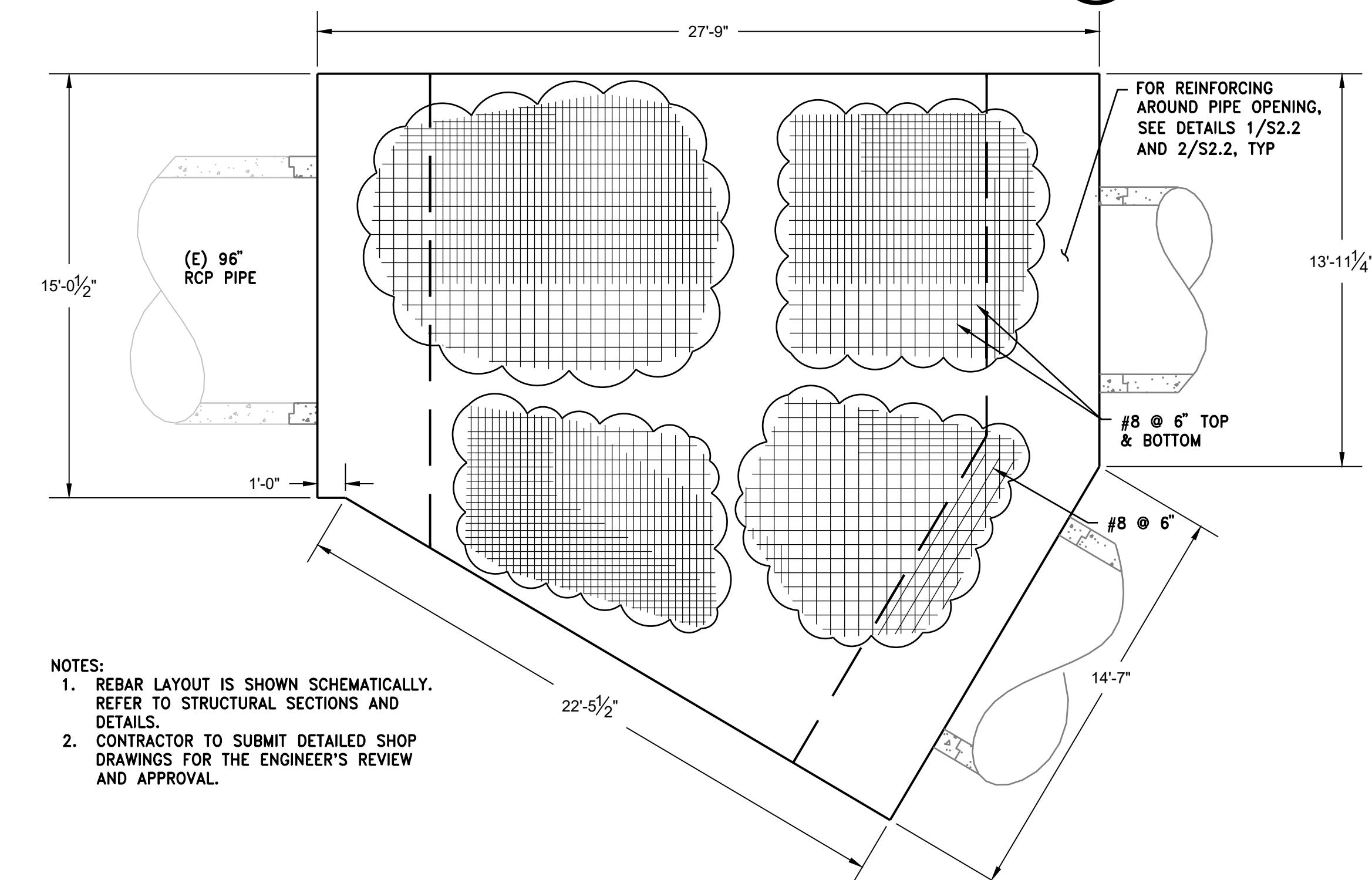
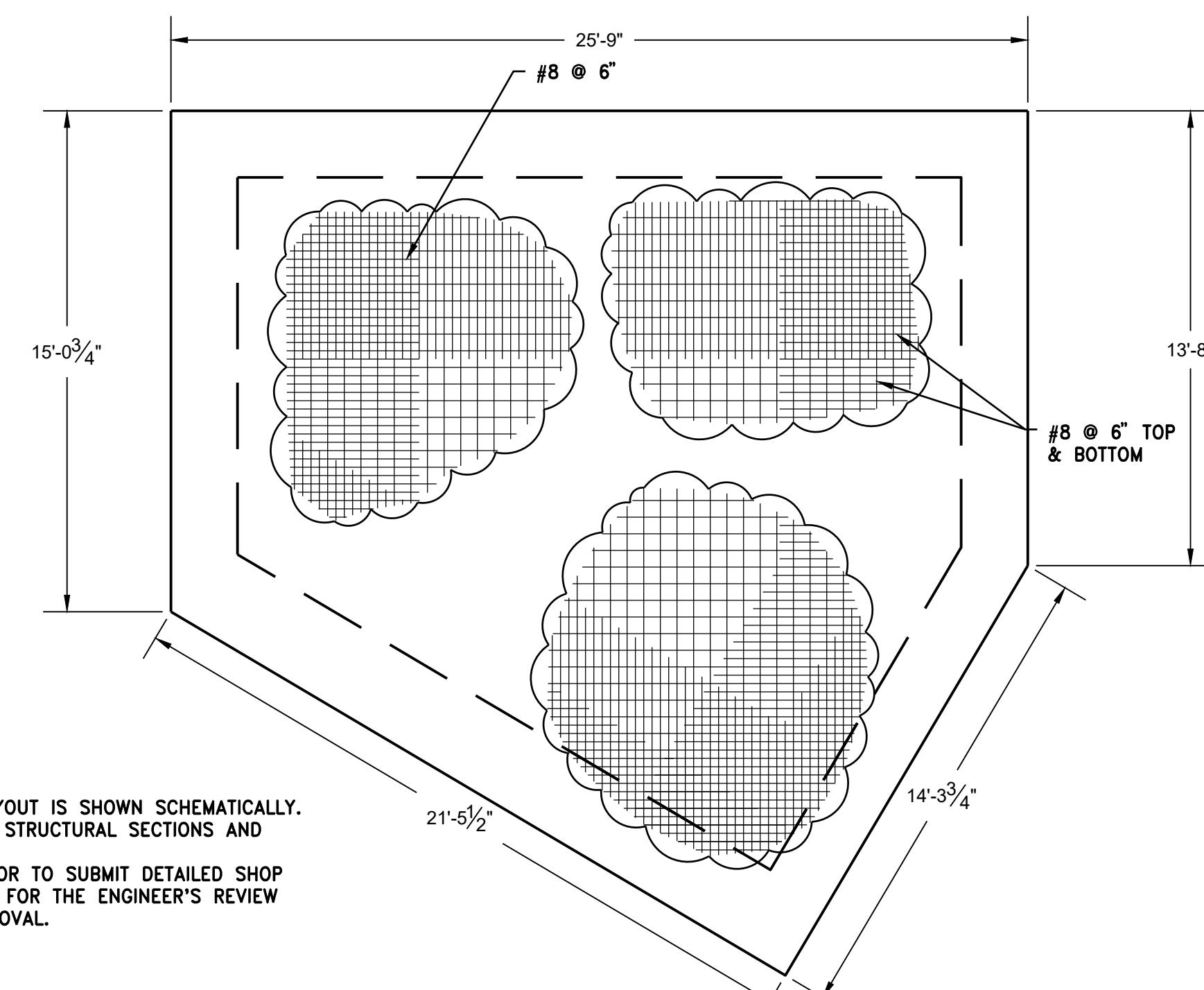
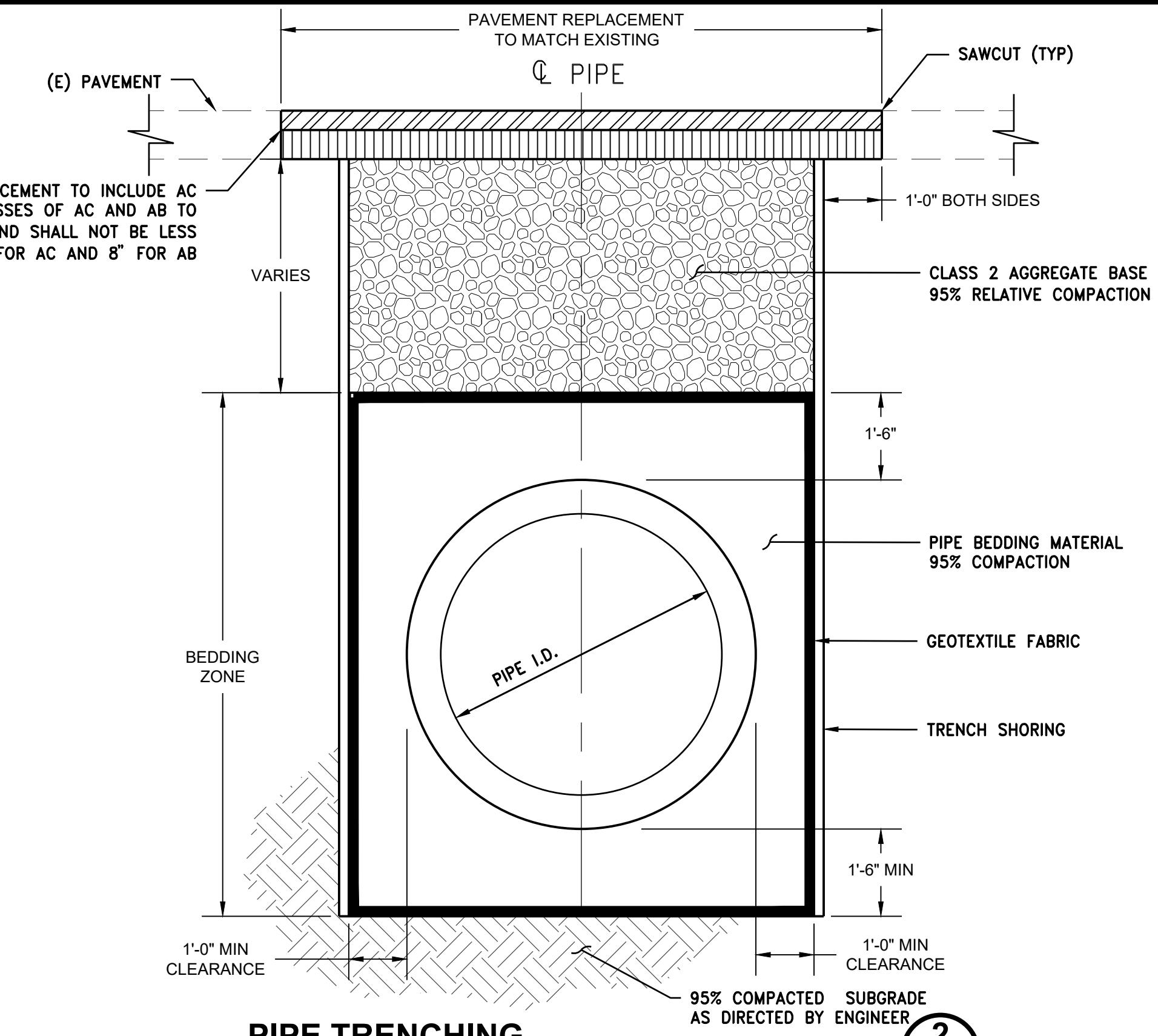
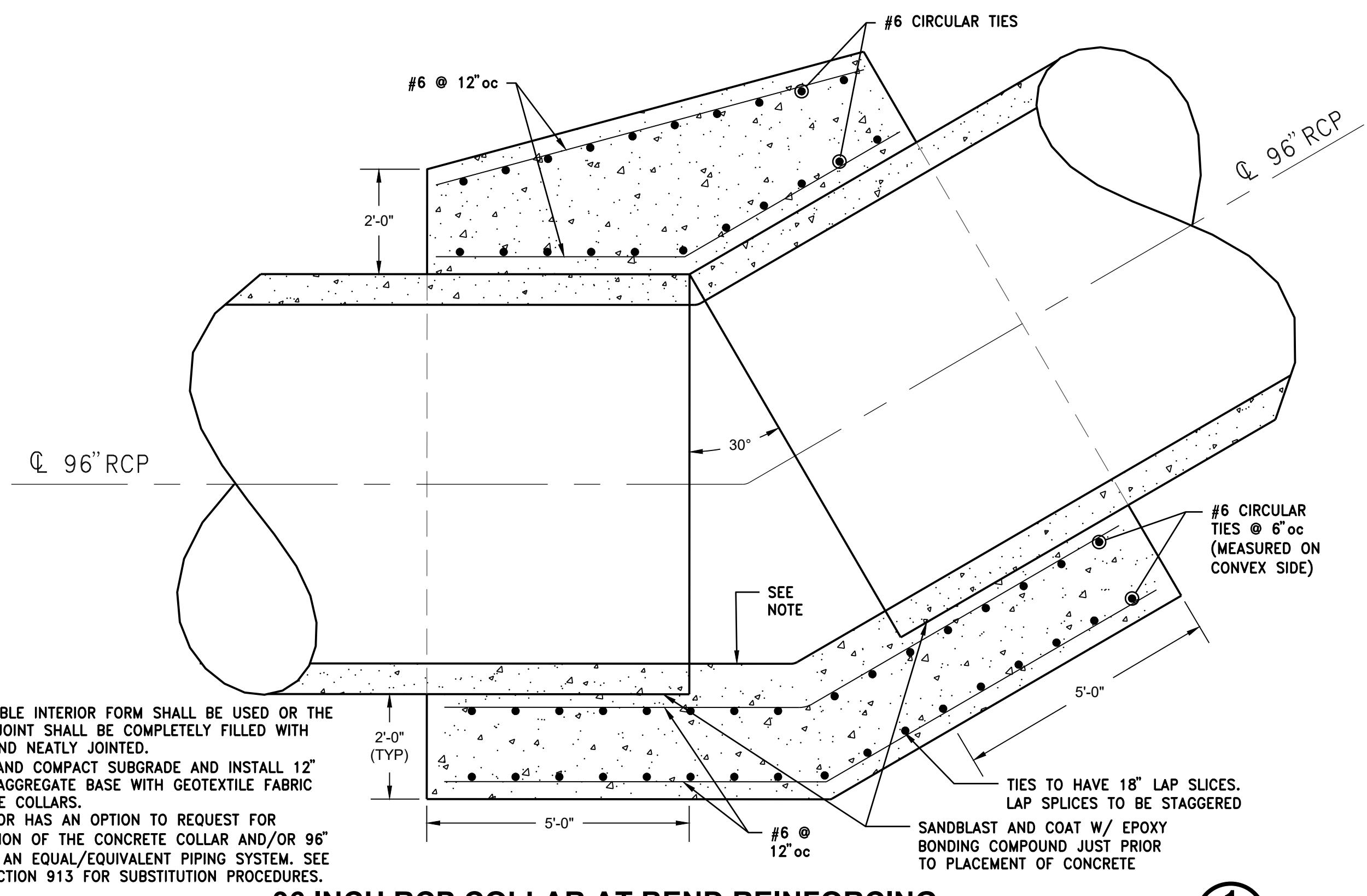
PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
STRUCTURAL DETAILS
RE-BID

No.	DATE	BY	REFERENCE



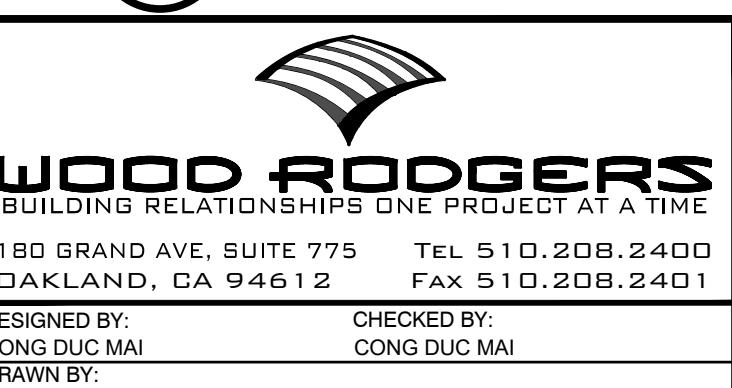
WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
180 GRAND AVE, SUITE 775 TEL 510.208.2400
OAKLAND, CA 94612 FAX 510.208.2401
DESIGNED BY: CONG DUC MAI
DRAWN BY: JENNY PRIEST
CHECKED BY: CONG DUC MAI
DATE: DEC 2023

PROJECT NO.
1006066
SCALE:
AS SHOWN
SHEET NO.
S2.2
11 OF 13



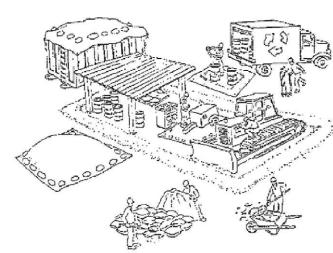
**PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
STRUCTURAL DETAILS
RE-BID**

No.	DATE	BY	REFERENCE



PROJECT NO.	1006066
SCALE:	AS SHOWN
SHEET NO.	S.2.3
12 OF 13	DATE: DEC 2023

Pollution Prevention - It's Part of the Plan



Materials storage & spill cleanup

Non-hazardous materials management

- Sand, dirt, and similar materials must be stored at least 10 feet (3 meters) from catch basins. All construction material must be covered with a tarp and contained with a perimeter control during wet weather or when rain is forecasted or when not actively being used within 14 days.
- Use (but don't overuse) reclaimed water for dust control as needed.
- Sweep or vacuum streets and other paved areas daily. Do not wash down streets or work areas with water.
- Recycle all asphalt, concrete, and aggregate base material from demolition activities. Comply with City of Oakland Ordinances for recycling construction materials, wood, gyp board, pipe, etc.
- Check dumpsters regularly for leaks and to make sure they are not overfilled. Repair or replace leaking dumpsters promptly.
- Cover all dumpsters with a tarp at the end of every work day or during wet weather.

Hazardous materials management

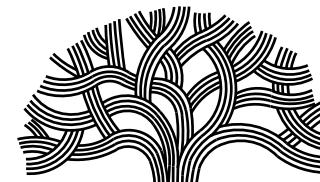
- Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state, and federal regulations.
- Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecasted.
- Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecasted within 24 hours.
- Be sure to arrange for appropriate disposal of all hazardous wastes.

Spill prevention and control

- Keep a stockpile of spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain.
- Never wash spilled material into a gutter, street, storm drain, or creek!
- Dispose of all containment and cleanup materials properly.
- Report any hazardous materials spills immediately! Dial 911 or City of Oakland Public Works Hotline at (510)615-5566

Construction Entrances and Perimeter

- Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- Sweep or vacuum any street tracking immediately and secure sediment source etc prevent further tracking.



CITY OF OAKLAND
OAKLAND PUBLIC WORKS DEPARTMENT
BUREAU OF DESIGN & CONSTRUCTION
250 FRANK H. OGAWA PLAZA, SUITE 4314
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FAX (510) 238-2346

**PLANS FOR THE CONSTRUCTION OF
MANDELA PARKWAY TRASH CAPTURE DEVICE
POLLUTION PREVENTION PLAN
RE-BID**

Make sure your crews and subs do the right job!

Runoff from streets and other paved areas is a major source of pollution and damage to creeks and the San Francisco Bay. Construction activities can directly affect the health of creeks and the Bay unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local creeks. Following these guidelines and the project specifications will ensure your compliance with City of Oakland requirements.

Vehicle and equipment maintenance & cleaning

- Inspect vehicles and equipment for leaks frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.
- Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or creeks.
- Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc



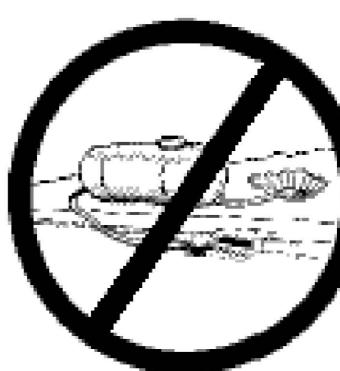
Earthwork & contaminated soils

- Keep excavated soil on the site where it will not collect in the street.
- Transfer to dump trucks should take place on the site, not in the street.
- Use fiber rolls, silt fences, or other control measures to minimize the flow of silt off the site.
- Earth moving activities are only allowed during dry weather by permit and as approved by the City of Oakland in the Field.
- Mature vegetation is the best form of erosion control. Minimize disturbance to existing vegetation whenever possible.
- If you disturb a slope during construction, prevent erosion by securing the soil with erosion control fabric, or seed with fast-growing grasses as soon as possible. Place fiber rolls down-slope until soil is secure.
- If you suspect contamination (from site history, discoloration, odor, texture, abandoned underground tanks or pipes, or buried debris), call the Engineer for help in determining what should be done, and manage disposal of contaminated soil according to their instructions.



Dewatering operations

- Effectively manage all run-on, all runoff within the site, and all runoff that discharges from the site. Run-on from off site shall be directed away from all disturbed areas or shall collectively be in compliance.
- Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.
- Be sure to notify and obtain approval from the Engineer before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the Engineer to determine what testing is required and how to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.



Saw Cutting

- Always completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, catch basin inlet filters, or sand/gravel bags to keep slurry out of the storm drain system.
- Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- If saw cut slurry enters a catch basin, clean it up immediately.



Paving/Asphalt Work

- Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- Protect gutters, ditches, and drainage courses with sand/gravel bags, or earthen berms.
- Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or

creeks. Collect sand and return it to the stockpile, or dispose of it as trash.

- Do not use water to wash down fresh asphalt concrete pavement.



Concrete, grout, and mortar storage & waste disposal

- Store concrete, grout, and mortar under cover, on pallets, and away from drainage areas. These materials must never reach a storm drain.
- Wash out concrete equipment/trucks off-site or into contained washout areas that will not allow discharge of wash water onto the underlying soil or onto the surrounding areas.
- Collect the wash water from washing exposed aggregate concrete and remove it for appropriate disposal off site.



Painting

- Never rinse paint brushes or materials in a gutter or street!
- Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink.
- Paint out excess oil-based paint before cleaning brushes in thinner.
- Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as hazardous waste.

DRAWING NAME: J-Jobs/8792_Clydon/Civil/Hydrology/Stormwater_08_Large trash Capture Device C4-1-p01.dwg



WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME
180 GRAND AVE, SUITE 775 TEL 510.208.2400
OAKLAND, CA 94612 FAX 510.208.2401
DESIGNED BY: CONG DUC MAI CHECKED BY: CONG DUC MAI
DRAWN BY: CAELA BRAZELTON DATE: DEC 2023

PROJECT NO. 1006066
SCALE: AS SHOWN SHEET NO. X1.1
DATE: DEC 2023 PLOT DATE: 12-12-23
PLOTTED BY: CAELA BRAZELTON

No.	DATE	BY	REFERENCE

DRAWING NAME: J-Jobs/8792_Clydon/Civil/Hydrology/Stormwater_08_Large trash Capture Device C4-1-p01.dwg

SECTION 7. Appendices – Bound Separately

Appendix A:

Sample Construction Contract

CITY OF OAKLAND CONTRACT OF PUBLIC WORKS

THIS CONTRACT is entered into this (Insert) day of (Insert Month), 2012 by and between (Insert Name of Contractor) (hereinafter referred to as "Contractor") and the **CITY OF OAKLAND**, a municipal corporation (hereinafter referred to as "City").

FOR AND IN CONSIDERATION of the promises hereinafter made, Contractor and City agree as follows:

Contractor will furnish all necessary machinery, tools, equipment, apparatus, and other means of construction. Further, Contractor will do all work and furnish the materials specified in the contract in the manner and time therein prescribed in the attached Schedule A, Contract Scope of Work/Deliverables, and in accord with the following: 1) Project Documents for (Insert Project Name and Number) and documents referenced and incorporated therein, 2) the Contractor's bid in the sum of (Insert dollar amount in alpha terms) and 0xx/100 Dollars (\$Insert dollar amount) dated (Insert bid date). The contract documents shall include all documents identified above and documents referenced thereinhereinafter referred to as the "Contract Documents." The Contract Documents shall constitute the contract between the parties as though all documents were attached hereto or herein repeated. The Contract Documents are intended to be cooperative and to provide for a complete work.

COMMENCEMENT OF WORK: In accord with the Project Documents work shall be commenced on the date of the Notice to Proceed issued by the City of Oakland and shall be completed within (Insert number of working days).

BONDS: The Contractor shall provide two good and sufficient surety bonds, which name the City of Oakland as insured. The Payment Bond shall be for One Hundred percent (100%) of the contract price to guarantee faithful payment to subcontractors, material suppliers, and laborers. The Performance Bond shall be One Hundred percent (100%) of the contract price.

The Payment Bond for this contract shall be in the amount of (Insert dollar amount in alpha terms) and xx/100 Dollars (\$Insert dollar amount). The Contractor shall maintain the bonds in full force and effect until the work is accepted by the City, and until all claims for material and labor are paid, and shall otherwise comply with the Civil Code.

CONTRACTOR'S LIABILITY: Contractor shall be responsible for all injuries to persons and for all damage to real or personal property of the City or others, caused by, or resulting from the negligence of itself, its employees, or its agents during the progress of, or connected with, the rendition of services hereunder. Contractor shall defend and hold harmless and indemnify the City, its officers and employees from all costs and claims for damages to real or personal property, or personal injury to any third party, resulting from the negligence, actions, or inaction of Contractor, Contractor's subcontractors, employees or agents, arising out of the contractor's performance of work under this Contract.

NUCLEAR WEAPONS POLICY: It is the policy of the City of Oakland to minimize the expenditure of City funds on goods and services produced by Nuclear Weapons Makers. In furtherance of this goal, the City of Oakland urges all contractors to avoid contracting for goods and services which are manufactured or provided by Nuclear Weapons Makers.

PREVAILING WAGE: The Contractor certifies and agrees that it will comply with the requirement to pay its employees prevailing wages as set forth in the City of Oakland Resolution No. 57103 C.M.S. City may request documentation to certify that the Contractor has paid its employees at the appropriate prevailing wage rate. In the event that the City determines that

Contractor has failed to pay any of its employees in accord with the appropriate prevailing wage rate, City shall report its findings to the Department of Labor and/or withhold the difference between the amount paid and amount owed for prevailing wages from any amount owed contractor until such time as the payment dispute is fully and finally resolved. This provision in no way creates any contractual or third party beneficiary relationship between any of Contractor's employees and the City, nor does it create any liability or duty on the City for Contractor's failure to make timely or appropriate payments to its employees, on behalf of its employees.

GENERAL LIABILITY, AUTO LIABILITY: Contractor shall maintain all insurance identified in the Project Documents for the duration of the contract. Contractor shall name all parties as "additional insurers" on its general liability policy that are required to be so named under the Insurance Requirements Section of the Project Documents.

WORKER'S COMPENSATION INSURANCE: Contractor hereby certifies that it is aware of, and will comply with Section 3700 of the California State Labor Code that requires every employer to be insured against liability for Workers' Compensation or to undertake self insurance before commencing any of the work.

AUDIT: Contractor shall permit authorized representatives of the City to have access to Contractor's books, records, accounts and any and all data relevant to this Contract, for the purpose of making an audit or examination during the term of the Contract and for a period of four years following the fiscal year of the last expenditure under this Contract.

DISCRIMINATION: Contractor agrees not to discriminate against any individual or company because of marital status, race, color, religion, ancestry, sex, sexual orientation, age, national origin, physical handicap, Acquired Immune Deficiency Syndrome (AIDS), or AIDS related conditions, or any other arbitrary basis.

OAKLAND BUSINESS LICENSE: Contractor has and will continue to maintain a current Oakland Business License during the term of this contract. Contractor shall insert in each of its subcontract agreements a provision, which requires its subcontractors to present proof that the subcontractor has obtained a current Oakland Business License during the term of this contract.

IN WITNESS WHEREOF: Contractor has hereto set his hand, and the City Administrator of the City of Oakland, by (Insert “Resolution No. [fill in number] C.M.S.” if Council approval was required, OR “Oakland Municipal Code Chapter 2.04” if the contract is within the City Administrator’s purchasing authority), thereunto duly authorized, has caused the name of the **CITY OF OAKLAND** to be affixed hereto, all in triplicate, the day and year first above written.

(Insert Name of Contractor)

Title: _____

Date: _____

Agency Director:

Date: _____

Approved as to Form and Legality:

City Attorney’s Office

Date: _____

CITY OF OAKLAND,
A municipal corporation

City Administrator’s Office

Date: _____

Accounting No: _____

Oakland Business License No: _____

Expiration Date: _____

Funding Source: _____

Appendix B:

Schedule Q – Insurance Requirements

Schedule Q

CONSTRUCTION CONTRACTOR INSURANCE REQUIREMENTS

(Revised 12/21/16)

Insurance Requirements

Section 1 Insurance Coverage Required of Contractors

Contractor shall procure, prior to commencement of service, and keep in force for the term of this contract, at Contractor's own cost and expense, the following policies of insurance or certificates or binders as necessary to represent that coverage as specified below is in place with companies doing business in California and acceptable to The City. If requested, Contractor shall provide the City with copies of insurance policies evidencing coverage shown below. The insurance listed hereunder shall be considered minimum requirements and any and all insurance proceeds in excess of the requirements shall be made available to the City.

- A. Commercial General Liability** insurance shall cover Bodily Injury, Property Damage and Personal Injury for Premises Operations, Products and Completed Operations, Independent Contractors and Contractual Liability. Coverage shall be at least as broad as Insurance Services Office Commercial General Liability coverage (occurrence Form CG 00 01).
 - I. Coverage** afforded on behalf of the City, Councilmembers, directors, officers, agents, employees and volunteer shall be primary insurance. Any other insurance available to the City, Councilmembers, directors, officers, agents, employees and volunteers under any other policies shall be excess insurance (over the insurance required by this Contract).
 - II. Limits of liability:**
Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than \$5,000,000 each occurrence, and \$5,000,000 products/completed operations aggregate. The general aggregate limit shall apply separately to this location/project or the general aggregate limit shall be twice the required occurrence limit.
- B. Automobile Liability Insurance.** Contractor shall maintain automobile liability insurance for bodily injury and property damage liability with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos). Coverage shall be at least as broad as Insurance Services Office Form Number CA 00 01.
- C. Worker's Compensation insurance** as required by the laws of the State of California.

Coverage shall include Employers Liability coverage with limits not less than \$1,000,000 each accident, \$1,000,000 policy limit bodily injury by disease, \$1,000,000 each employee bodily injury by disease. The Contractor certifies that he/she is aware of the provisions of section 3700 of the California Labor Code, which requires every employer to provide Workers' Compensation coverage, or to undertake self-insurance in accordance with the provisions of that Code. The Contractor shall comply with the provisions of section 3700 of the California Labor Code before commencing performance of the work under this Contract and thereafter as required by that code.

D. Pollution Liability:

- I. For Contractors engaged in: environmental remediation, emergency response, hazmat cleanup or pickup, liquid waste remediation, tank and pump cleaning, repair or installation, fire or water restoration or fuel storage dispensing, the Contractor must maintain Contractor's Pollution Liability Insurance of at least \$1,000,000 for each occurrence and \$2,000,000 in the aggregate.
- II. For Contractors engaged in transporting waste, then transportation (1st and 3rd Party) must be included with the pollution liability.
- III. Regardless of the coverage limits in I. through II. above, contractor's coverage must be compliant with the Motor Carrier Act of 1980, California Vehicle Code Sections **34630-34634** and California Health and Safety Code Section 25169

E. Professional Liability/Errors and Omissions insurance as appropriate for design/build operations with limits not less than \$2,000,000 each claim and \$2,000,000 aggregate. **If** the professional liability/errors and omissions insurance is written on a claims made form:

- I. The retroactive date must be shown and must be before the date of the contract or the beginning of work.
- II. Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract work.
- III. If coverage is cancelled or non-renewed and not replaced with another claims made policy form with a retroactive date prior to the contract effective date, the contractor must purchase extended period coverage for a minimum of three (3) years after completion of work.

F. Builders' Risk/Course of Construction Insurance (CP 10 30) covering all risks of loss in an amount equal to the completed value form with no coinsurance penalty provisions and in an amount equal to the initial contract sum, subject to subsequent modification of the contract sum. The insurance shall apply on a replacement cost basis. The insurance shall name as insured the City of Oakland, the Contractor and all subcontractors in the work. The insurance shall cover the entire work at the site identified in the Scope of Work, including reasonable compensation for architects' services and expenses made necessary by an insured loss. Insured property shall include portions of the work located away from the site but intended for use at the site and shall also cover portions of the work in transit. The policy shall cover the cost of removing debris, including demolition

as may be made legally necessary by the operation of any law, ordinance or regulation. The insurance shall be maintained in effect until the project has been accepted as substantially complete. The insurer shall waive all rights of subrogation against the City.

Section 2 Terms Conditions and Endorsements

The aforementioned insurance shall be endorsed and have all the following conditions:

Insured Status (Additional Insured): Contractor shall provide insured status using ISO endorsement CG 20 10 or its equivalent naming the City of Oakland, its Councilmembers, directors, officers, agents employees and volunteers as insureds in the Commercial General Liability policy for both ongoing and completed operations. **If**Contractor submits the ACORD Insurance Certificate, the insured status endorsement must be set forth on a CG 20 10 (or equivalent). A STATEMENT OF ADDITIONAL INSURED STATUS ON THE ACORD INSURANCE CERTIFICATE FORM IS INSUFFICIENT AND WILL BE REJECTED AS PROOF OF MEETING THIS REQUIREMENT; and

- A. Cancellation Notice: Contractor shall immediately provide written notice to the City of any notice of cancellation, notice of non-renewal, or any other material modification of the insurance coverages required to be provided under this Contract.
- B. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the contractor, its employees, agents and subcontractors.
- C. Certificate holder is to be the same person and address as indicated in the "Notices" section of this Contract; and
- D. Insurer shall carry insurance from an admitted company with a Best Rating of A **VII** or better.

Section 3 Deductibles and Self-Insured Retentions

Any deductible or self-insured retention must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductible or self-insured retentions as respects the City, its Councilmembers, directors, officers, agents, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and related investigations, claim administration and defense expenses.

Section 4 Replacement of Coverage

In the case of the breach of any of the insurance provisions of this Contract, the City may, at the City's option, take out and maintain at the expense of Contractor, such insurance in the name of Contractor as is required pursuant to this Contract, and may deduct the cost of taking out and maintaining such insurance from any sums which may be found or become due to Contractor under this Contract.

Section 5 Insurance Interpretation

All endorsements, certificates, forms, coverage and limits. of liability referred to herein shall have the meaning given such terms by the Insurance Services Office as of the date of this Contract.

Section 6 Proof of Insurance

Contractor will be required to provide proof of all insurance required for the work prior to execution of the contract, including copies of Contractor's insurance policies if and when requested. Failure to provide the insurance proof requested or failure to do so in a timely manner shall constitute ground for rescission of the contract award.

Section 7 Subcontractors

Should the Contractor subcontract out the work required under this agreement, they shall include all subcontractors as insureds under its policies or shall maintain separate certificates and endorsements for each subcontractor. As an alternative, the Contractor may require all subcontractors to provide at their own expense evidence of all the required coverages listed in this Schedule. If this option is exercised, both the City of Oakland and the Contractor shall be named as additional insured under the subcontractor's General Liability policy. All coverages for subcontractors shall be subject to all the requirements stated herein. The City reserves the right to perform an insurance audit during the course of the project to verify compliance with requirements.

Section 8 Waiver of Subrogation

Contractor waives all rights against the City of Oakland and its Councilmembers, officers, directors, and employees for recovery of damages to the extent these damages are covered by the forms of insurance coverage required above.

Section 9 Evaluation of Adequacy of Coverage

The City of Oakland maintains the rights to modify, delete, alter or change these requirements with not less than ninety (90) days prior written notice.

Section 10 Higher Limits of insurance

If the contractor maintains higher limits than the minimums shown above, the City shall be entitled to coverage for the higher limits maintained by the contractor.

<< END OF INSURANCE REQUIREMENTS >>

Appendix C:

- 1. Temporary Discharge To Sanitary System Application (City of Oakland)**
- 2. Temporary Discharge To Stormdrain System Application (City of Oakland)**
- 3. Special Discharge Permit Application (EBMUD)**

CITY OF OAKLAND

DALZIEL BUILDING • 250 FRANK H. OGAWA PLAZA • SUITE 4314 • OAKLAND, CALIFORNIA 94612
Oakland Public Works Department (510) 238-3437
Engineering Design & ROW Management Division FAX (510) 238-7227

TEMPORARY DISCHARGE
TO SANITARY SEWER SYSTEM APPLICATION

Applicant/Project Name _____

Location _____

Contact Name: _____ Phone # or Email: _____

Fill-out this application and submit the information listed below for City's review:

A. Flow _____ gpm Total Discharge Volume: _____ gallons

Groundwater or discharge flows into sanitary sewer system:

- Shall not exceed 15 gallons per minute for continuous discharge (24/7).
 1. No discharge when there is a forecast of rain, during any rain, and no sooner than two hours after the rain.

- Shall not exceed 50 gallons per minute if the following restrictions in placed:
 2. Discharge will only be during the off-peak hours of 9 a.m. to 5 p.m., Monday through Friday
 3. No discharge when there is a forecast of rain, during any rain, and no sooner than two hours after the rain.
 4. No discharge on Saturday, Sunday or on any holiday.

B. Duration _____ to _____

C. Site Inspection – Discharge Structure

Provide a structure that is easily accessible to the City staff to inspect the discharge. This structure may be a manhole or other underground structures.

D. East Bay Municipal Utility District (EBMUD) Permit

EBMUD Permit Number _____

E. Discharge Quality. Provide a water quality treatment process to address the removal of the elements discovered during groundwater or other water discharge exploration known to the applicant. This includes silt removal and treatment of adverse elements.

F. Discharge Flow Rate and Treatment Monitoring Plan

Provide a monitoring plan to assure compliance with the requirements stated in this application and report on the following:

1. Discharge flow rates and the flow limits stated in this application.
2. Water quality and compliance with the limits stated in the EBMUD permit application.

G. Penalties

In an event when discharge exceeds the agreed amount or the quality of water fails to meet the requirements stated in the application, the applicant shall be assessed \$10,000 for each incident.

H. Enclose the following supporting material:

- Site plan
- Inspection structure location
- Treatment process
- Discharge Rate
- Treatment monitoring plan
- EBMUD water quality treatment process plan

Upon approval of the discharge application, the applicant will be contacted to pick-up the application and submit a check made to the City of Oakland. The payment will cover the staff costs for review and approval of the application and follow-up site inspections.

G. Permits

When this application has completed and approved by the Public Works Department, the applicant will obtain permit(s) for the work from the permit counter on the 2nd floor of 250 FOP. The applicant will be required to secure one or all of the following permits:

- Excavation Permit
- Obstruction Permit
- Sewer (Connection) Permit

CITY OF OAKLAND



DALZIEL BUILDING • 250 FRANK H. OGAWA PLAZA • SUITE 4314 • OAKLAND, CALIFORNIA 94612
Oakland Public Works Department (510) 238-3437
Engineering Design & ROW Management Division FAX (510) 238-7227

The applicant acknowledges that the City makes no representations or warranties as to the capacity of the City infrastructure related to the discharge. By signing this permit application, applicant agrees that it will use the public street or easement area at its own risk, is responsible for the proper coordination of its activities with all other permittees, underground utilities, contractors, or workmen operating, within the discharge area and for the safety of itself and any of its personnel in connection with its entry under this document.

The applicant hereby waive, and does hereby release the City from any and all claims for damages arising out of the discharge of water into the City sanitary sewer system; and,

The applicant further does remise, release, and forever discharge and agree to defend, indemnify and save harmless, the City, its officers, agents and employees and each of them, from any and all actions, causes of actions, claims and demands of whatsoever kind or nature, and any damage, loss or injury which may be sustained directly or indirectly or by the undersigned and any other person or persons, and arising out of, or by reason of, the occupation of said public property and the discharge of water into the City's sanitary sewer system.

Applicants Signature

Date

Certification:

I understand that I am legally responsible for discharge of wastewater from the facility and for complying with the terms and conditions of this wastewater discharge permit. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Base on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fine and imprisonment for knowing violations.

For City Use Only

Date Received	Reviewed By	Reviewer phone	Application No.

Application # (for City use only): _____



CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA · OAKLAND, CALIFORNIA 94612-2033

Oakland Public Works Department
Bureau of Design and Construction

(510) 238-6715
FAX (510) 238-6412
TDD (510) 238-3254

TEMPORARY DISCHARGE TO STORMDRAIN SYSTEM APPLICATION

Applicant Name: _____

Applicant Email: _____ **Applicant Phone:** _____

Project Name: _____

Location: _____

Proposed Discharge Rate (gallons per minute)*: _____

Total Estimated Discharge Volume (gallons): _____

Duration of Discharge: _____ to _____
month day year month day year

***Please note the following limitations and restrictions:**

- Discharge shall not exceed 150 gallons per minute or 10% capacity of the stormwater conduit
- Discharge shall only occur between 8 AM and 4:30 PM (Monday – Friday)
- No discharge shall be allowed 24-hours before any forecast of rain, during rain, or 24-hours after rain
- No discharge shall be allowed on Saturday, Sunday, or on any holiday

The following information is required as part of the City's review process:

- NPDES or other permits from the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB)**
 - Documentation clearly showing the means to meet the discharge requirements established by the RWQCB prior to the discharge into the City's stormdrain system.
- Discharge Flow Rate and Treatment Monitoring Plan**
 - Provide a water quality treatment process to address the removal of adverse elements of the proposed discharge
 - Provide a monitoring plan to assure compliance with the requirements stated in this application and report on the following:
 1. Discharge flow rates, volumes, and limits stated in the approved permit
 2. Water quality and compliance with the discharge limits stated in the RWQCB permit

C. Site Plan or Layout Map

- The site plan or layout map shall clearly identify the location of the proposed discharge activity and all City facilities to be utilized. The map shall include the following elements:
 - **Legend:** describe the symbology used in the drawing
 - **North Arrow:** arrow showing north
 - **Project Boundary:** the limits of the project area should be clearly identified
 - **Street Names:** street names should be called out and clearly visible
 - **Drainage Pathway:** the drawing should clearly trace the flow pathway of the discharge from the discharge structure to the receiving body

D. Stormwater Conduit Capacity Analysis

- The hydraulic capacity of the stormwater conduit to be discharged to shall be determined and calculations shall be attached as a supplemental document
- The calculations shall be certified and stamped by a Professional Engineer (Civil) licensed in the State of California.
- The applicant shall demonstrate the proposed discharge rate meets the discharge requirements and can be safely conveyed by the City's stormdrain system

Other Information:

- The applicant is required to submit a completed application with the all requested information and documentation. Incomplete applications will not be reviewed.
- At least 72-hours prior to discharge, the applicant will inform the City of the planned discharge.
- Discharge shall only occur at locations approved by the City.
- At the City's request, the applicant shall provide necessary staff and time for the City to conduct an inspection of the discharge facilities.
- In the event public or private infrastructure or property is damaged as a result of discharged flows, the cost of all repairs will be borne by the applicant.
- **Penalties:** In an event when discharge exceeds the agreed amount or the quality of water fails to meet the requirements stated in the application, the applicant shall be assessed \$10,000 for each incident.

Application Checklist:

- Documentation showing compliance with NPDES/RWQCB permits (as applicable)
- Proposed discharge rate and volume
- Treatment monitoring plan
- Site plan or layout map
- Capacity analysis of City facilities to be utilized

The applicant acknowledges that the City makes no representations or warranties as to the capacity of the City infrastructure related to the discharge. By signing this permit application, applicant agrees that it will use the public street or easement area at its own risk, is responsible for the proper coordination of its activities with all other permittees, underground utilities, contractors, or workmen operating, within the discharge area and for the safety of itself and any of its personnel in connection with its entry under this document.

The applicant hereby waives, and does hereby release the City from any and all claims for damages arising out of the discharge of water into the City stormwater drainage system; and,

The applicant further does remise, release, and forever discharge and agree to defend, indemnify and save harmless, the City, its officers, agents and employees and each of them, from any and all actions, causes of actions, claims and demands of whatsoever kind or nature, and any damage, loss or injury which may be sustained directly or indirectly or by the undersigned and any other person or persons, and arising out of, or by reason of, the occupation of said public property and the discharge of water into the City's stormwater drainage system.

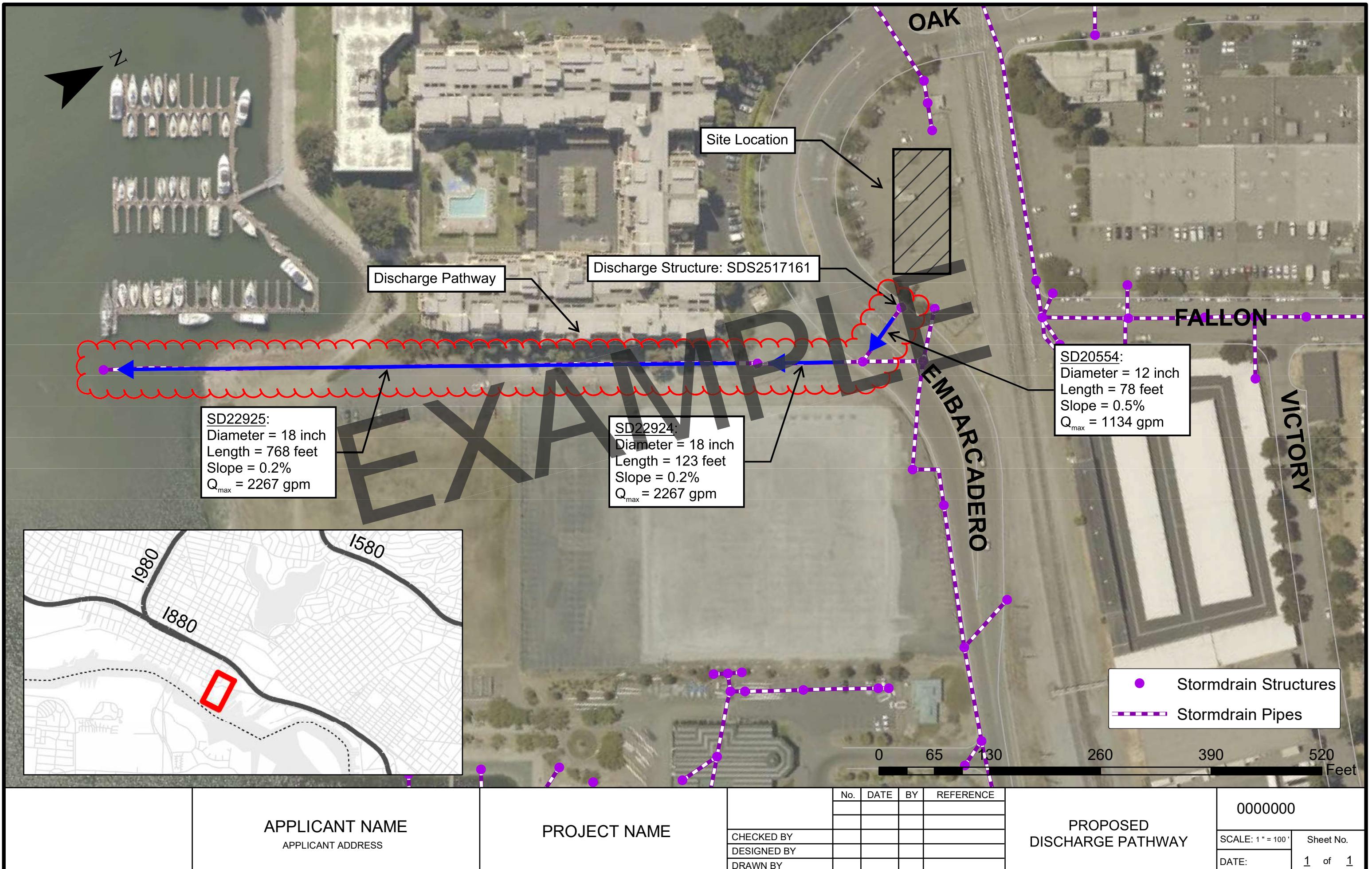
Applicant Signature

Print Name

Date

Certification:

I understand that I am legally responsible for the discharge to the City of Oakland's stormwater drainage system and for complying with the terms and conditions of this discharge permit. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fine and imprisonment for knowing violations.



CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA · OAKLAND, CALIFORNIA 94612-2033

Oakland Public Works Department
Bureau of Design and Construction

(510) 238-6715
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TDD (510) 238-3254

Pipe Capacity Analysis

Pipe Characteristics (circular):

- Pipe Diameter (D_0): 18 inch
- Manning's Roughness (n): 0.013 (RCP)
- Pipe Length (L): 300 ft
- Upstream Invert Elevation: 10.0 ft
- Downstream Invert Elevation: 7.0 ft

Calculations:

- Proposed Discharge (Q_P): 150 gpm = 0.33 cfs
- Area (A): 1.77 ft²
- Wetted Perimeter (P): 56.55 in = 4.71 ft

$$A = \pi(9 \text{ in})^2 = 254 \text{ in}^2 = 1.77 \text{ ft}^2$$

$$P = 2\pi(9 \text{ in}) = 56.55 \text{ in} = 4.71 \text{ ft}$$

- Hydraulic Radius (R): 0.38 ft

$$R = \frac{A}{P} = \frac{1.77 \text{ ft}^2}{4.71 \text{ ft}} = 0.38 \text{ ft}$$

- Slope (S_0): 1%

$$S_0 = \frac{rise}{run} = \frac{10' - 7'}{300'} = 1\%$$

- Maximum Pipe Flow (Q_{max}): 10.53 cfs

$$Q = VA = \left(\frac{1.49}{n}\right) AR^{\frac{2}{3}} S^{\frac{1}{2}} = \left(\frac{1.49}{0.013}\right) 1.77 \text{ ft}^2 \times (0.38 \text{ ft})^{2/3} \times (0.01)^{1/2} = 10.53 \text{ cfs}$$

- Proposed Pipe Capacity (Q_P/Q_{max}): 3%

$$\frac{Q_P}{Q_{max}} = \frac{0.33 \text{ cfs}}{10.53 \text{ cfs}} = 3\%$$





SPECIAL DISCHARGE PERMIT APPLICATION

PURPOSE: Special discharge permits are issued for short-term, limited volume discharge of many different types of wastewater or groundwater that meets special discharge criteria. An application must be completed when applying for a special discharge permit.

INSTRUCTIONS FOR COMPLETING APPLICATION

PLEASE TYPE OR PRINT THE REQUESTED INFORMATION

PERMIT NUMBER: The permit number will be provided by EBMUD

APPLICANT'S BUSINESS NAME: Enter the name of the business that has the legal responsibility for wastewater discharge, including responsibility for any enforcement actions or penalties imposed by the District

TAX ID: Enter the last 4 digits of the business' Federal Tax ID number.

SIC CODE: Enter the standard Industrial Classification Code. The code may be found in the United States Office of Management and Budget, Standard Industrial Classification Manual.

ADDRESS OF SITE DISCHARGING WASTEWATER: Enter the street address, side sewer, or manhole location of the site discharging the wastewater.

APPLICANT MAILING ADDRESS: Enter the applicant's mailing address

CONTACTS: Enter the name, title, and phone number of those persons thoroughly familiar with the information reported in this application.

CERTIFICATION: Enter the name and title of the person signing the application. The person signing the application must meet the signatory criteria of 40 CFR 403.12(1). Persons meeting this criteria include:

1. A responsible corporate officer, such as:
 - a. a president, vice president, secretary, treasurer, or other person performing similar policy or decision making functions, or;
 - b. a manager of one or more manufacturing, production or operating facilities. The facility must employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars). The person must have the authority to sign documents.
2. A general partner or sole proprietor.
3. A duly authorized representative. The duly authorized representative must be:
 - a. an individual having responsibility for the overall operation of the facility from which the wastewater discharge originates. Examples include plant manager, field superintendent, or environmental manager;
 - b. authorizes in writing the person described in paragraph 1. or 2. The written authorization must be submitted to the District.

RETURN THE SIGNED ORIGINAL APPLICATION TO:

East Bay Municipal Utility District
Environmental Services Division, MS 702
P.O. Box 24055
Oakland, CA 94623-1055

**QUESTIONS? CALL THE ENVIRONMENTAL SERVICES DIVISION HOTLINE AT 510-287-1651
OR EMAIL US AT CLEANBAY@EBMUD.COM**

PERMIT NUMBER (TO BE COMPLETED BY EBMUD)

PURPOSE: This information describes how the wastewater meets established criteria for a Special Discharge Permit.

1. Reasonable and cost effective means of recycling and reuse of the wastewater are unavailable.

Provide information describing what means were considered, and why they were not implemented.

2. The wastewater is unsuitable for discharge into the storm sewer. Provide explanation.

3. The wastewater is generated only within SD-1 wastewater service area. Provide location.

4. The wastewater meets source criteria. Describe the source and operations generating the wastewater. Include the Wastewater Source Category from Special Discharge Permit Standard Terms and Conditions. Section A,II.

5. The wastewater is discharged during a limited period of time.

MAXIMUM DISCHARGE DURATION (DAYS)

HOURS OF DISCHARGE

START DATE

6. Wastewater volume and flow will not exceed 100 gallons/minute.

TOTAL DISCHARGE VOLUME: (GALLONS)

7. Discharge to the sanitary sewer during a rain event may be prohibited.

Describe containment capacity during a 10-year rain events (3.16 inches of rainfall in a 24-hour period)

8. Treatment technology or best management practices have been identified that will result in the wastewater meeting discharge limits, and sediment or silt does not enter the collection system. Describe pretreatment or best management practices that will be used to ensure the wastewater discharge complies with EBMUD Wastewater Control Ordinance discharge limits or permit specific limits as necessary.

9. Include the following attachments with the application:

1. Schematic flow diagram of the pretreatment system. The diagram must accurately depict the pretreatment system as constructed. Field deviation from the diagram is not allowed, unless pretreatment system modifications are approved and permit revised prior to the discharge.

2. Site diagram. Show facility location, property lines, wastewater source, drainage plumbing, the side sewer, and sampling location. Applicant is responsible for obtaining local permits to use manholes or cleanouts for discharge.

3. Summarized list of all pollutant concentrations present in the wastewater so that known and potential pollutants present in the wastewater are characterized. Also include the complete certified laboratory analytical report.

PERMIT NUMBER (TO BE COMPLETED BY EBMUD)

APPLICANT BUSINESS NAME

SIC CODE

LAST 4 DIGITS OF BUSINESS' FEDERAL TAX ID NUMBER

ADDRESSES

ADDRESS FOR SITE DISCHARGING WASTEWATER

STREET

CITY

ZIP

APPLICANT MAILING ADDRESS

STREET

CITY

ZIP

CONTACTS

APPLICANT NAME

TITLE

EMAIL

PHONE

CONSULTANT NAME

TITLE

EMAIL

PHONE

CONTRACTOR NAME

TITLE

EMAIL

PHONE

CERTIFICATION

I understand that issuance of a Special Discharge Permit does not exempt or preclude the facility from being issued a Discharge Minimization or Pollution Prevention Permit.

I understand that I am legally responsible for discharge of wastewater from the facility and for complying with the Terms and Conditions of this Special Discharge Permit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME

TITLE

SIGNATURE

DATE

(SEE CERTIFICATION REQUIREMENTS ON INSTRUCTIONS)