CONTRACT SPECIFICATIONS

Contract No. C-610H

Town of Danville

(Including Notice to Bidders,
Special Provisions, Proposal and Contract)

Project Plans Included in Appendix

for the

2024/25 Pavement Rehabilitation Project

DANVILLE, CALIFORNIA

For use in conjunction with the State of California Department of Transportation, Standard Specifications dated 2022, the current Town of Danville Standard Plans and the latest General Prevailing Wage Rates, and other standards referenced in the plans and Special Provisions. All bidders and subcontractors who perform work under this contract must be registered with the California Department of Industrial Relations pursuant to Senate Bill SB 854 (2013-2014).

Bids Open: Tuesday, March 4, 2025 at 2:00 p.m. PST at the address below.

811 Know what's below. Call before you dig.

Note: There is **NO** pre-bid meeting. Bidders are encouraged to visit the site on their own prior to submitting a bid.

CONTRACT SPECIFICATIONS
TABLE OF CONTENTS

A. NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that the Town Council of the Town of Danville, State of California, hereby calls for electronic and sealed bid proposals to be received by the City Clerk of the Town of Danville, 500 La Gonda Way, Danville, CA on or before March 4, 2025 U.S. Pacific Time Zone, verified at www.time.gov. Electronic submittal of bids is required and must be submitted by email to bids@danville.ca.gov. Upon submittal of bids, an automatic email confirmation will be sent to the bidder acknowledging receipt. If the automatic email confirmation is not received, bidders must contact the person listed in the questions section on page 2 of this notice to bidders by 2:00 pm on Tuesday, March 4, 2025, to verify the bid has been received.

The Town will allow electronic submittal of bids until 2:00 pm on Tuesday, March 4, 2025. Original documents of the bid submittal must be post marked on or before Tuesday, March 4, 2025 and received within five (5) business days of the electronic submittal. **Bids that are not submitted timely in both electronic and hard copy forms will not be considered.**

Description of Work. These bids shall cover all the furnishing of all labor, material, equipment, mechanical workmanship, transportation and services which are required for **2024/25 Pavement Rehabilitation Project, Contract No. C-610H.** The work generally includes, but is not limited to, preparatory tree trimming, removal and replacement of existing Portland Cement Concrete curb, sidewalk, curb ramp, removal and replacement of existing asphalt concrete pavement (dig-outs), pavement cold planning, installation of hot mix asphalt concrete, removal, removal and replacement of new traffic signal loop detectors, adjusting to grade of survey monument castings, water valve castings, storm drain and sanitary sewer manhole covers, and other utility lids, removal and replacement of existing pavement striping and markers, traffic control, and other items that are required by the plans, standard specifications, or these Special Provisions.

Bids are required for the entire work described herein.

Engineer's Estimate. The estimated cost of construction is approximately $3,834,523.

Contractor's License Requirement. The bidder and all subcontractors of the bidder shall possess a valid California contractor's license issued by the Contractor's State License Board (www.cslb.ca.gov) for the type(s) of work they are proposing to perform at the time the bid is submitted. The bidder shall possess at a minimum the following California contractor's license: Class A "General Engineering Contractor". **The Contractor must be properly licensed as a contractor from contract award through contract acceptance (California Public Contract Code §10164).**

Contractor Registration Requirement. Pursuant to California Labor Code Section 1771.1(a), a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. To register, go to:

http://www.dir.ca.gov/Public-Works/PublicWorks.html

Bidding Procedures. Bids must be submitted electronically by email to bids@danville.ca.gov no later than the time and date set forth in the Notice to Bidders section above. The subject of the email

must include the contractor's name and CIP #. Bidders will receive an email response that bids have been received. **Bidders are encouraged to familiarize themselves with the electronic submittal requirements.** Late bids will not be accepted.

Bids must be made on a proposal form which is included with the contract specifications and must be signed by the bidder. Original documents of the bid submittal must be postmarked and received no later than set forth in the Notice to Bidders section above and must be accompanied by a deposit in the amount shown on the Bidder's Bond which is part of the Proposal, sealed within a bid envelope, addressed and mailed to:

> "Sealed Bid – CIP C-610H, Town of Danville, City Clerk, 500 La Gonda Way, Danville, California 94526"

The deposit may be cashier's check, certified check (certified without qualification and drawn on a solvent bank of the State of California or a National Bank doing business in the State of California), or bid bond, made payable to the TOWN OF DANVILLE, or the bid will not be considered. This deposit is to serve as agreed liquidated damages should the party or parties to whom the contract is awarded fail to enter into the contract after the award, or fail to give the bond required for the faithful performance of the contract, or fail to furnish any other bond required by law.

At 2:00 p.m. the electronic bid proposals will opened by the City Clerk of the Town of Danville and publicly read by the City Clerk or his/her authorized representative via Zoom conference. Bidders can view the bid opening by visiting:

https://us02web.zoom.us/j/86805802020
Webinar ID: 868 0580 2020

All bids received after this time will not be accepted.

The bids, together with a report of the bidders and the respective amounts of the bids, will be presented to the Town Council of the Town of Danville, on March 18, 2025 at 5:00 p.m.

The successful bidder shall furnish a performance bond and a payment bond.

Questions. Direct any questions to:

Nader Salama, P.E.
Town of Danville | 500 La Gonda Way | Danville, CA 94526
Ph. 925-314-3348
nsalama@danville.ca.gov

Obtaining Plans and Contract Specifications. In conformance with Public Contract Code §20103.7, prospective bidders can download plans and contract specifications at no charge from the Town of Danville website at:

http://www.danville.ca.gov/336/RFPs-Bids

It is the bidder's responsibility to regularly check this website for any addenda that may be issued prior to the bid opening date. Failure to acknowledge receipt of an issued addendum will be

cause for a submitted bid to be deemed non-responsive. To receive automatic e-mail notifications of changes to the page, you must subscribe to "Notify Me":

http://www.danville.ca.gov/list.aspx

To be included on the official Plan Holder's List, bidders must send your name, company name, address, and phone numbers and email address to engineering@danville.ca.gov. The Plan Holder's List will be made available upon written request. Please note it is not a requirement to be included on the Plan Holder's List to bid on the project.

Prevailing Wage Rates. This Project is subject to the prevailing wage requirements applicable in Contra Costa County for each craft, classification or type of worker needed to perform the work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. These prevailing wage rates are available online at http://www.dir.ca.gov/DLSR. Each Contractor and Subcontractor must pay no less than the specified rates to all workers employed to work on the Project. The schedule of per diem wages is based upon a working day of eight (8) hours. The rate for holiday and overtime work must be at least time and one-half. The Contract will be subject to compliance monitoring and enforcement by the California Department of Industrial Relations, pursuant to Labor Code Section 1771.4.

Nondiscrimination. This Contract is subject to state contract nondiscrimination and compliance requirements pursuant to the Government Code, Section 12990.

Payment of Withheld Funds. The Contractor may elect to receive 100% of the progress payments due under the contract from time to time, without retention of any portion of the payment by the Town, by depositing securities of equivalent value with the Town in conformance with Public Contracts Code Section 22300, Section 9-1.065, Payment of Withheld Funds, of the Standard Specifications and the sample escrow agreement included in this packet at page C-9. Such securities, if deposited by the Contractor, will be valued by the Town and the Town's decision on valuation of the securities will be final. If the Contractor elects not to deposit retention funds into an escrow account, then the Town will withhold 5% of each payment as retention pursuant to Public Contracts Code Section 7201.

Material Substitution Pre-Bid Approval. In accordance with Public Contract Code Section 3400, the Town has established a procedure which permits bidders to have their proposed unlisted "or equal" product or service submittals evaluated prior to the project bid opening. This procedure does not apply where products or services have been limited by specific designation per Public Contract Code Section 3400(b). The intent of the prequalification process is not for bidders to submit all of their proposed "or equal" products, but only those that would, if rejected, affect the bidder's bid amount. Proposals shall be submitted no later than 14 calendar days prior to the date of the bid opening. Proposals shall be accompanied by complete technical and descriptive data necessary to determine equality of the material, product, thing, or service. Samples shall be provided when requested. The burden of proof as to availability, comparative quality, suitability, and performance of the proposed substitution shall be upon the bidder. The bidder will not be reimbursed for any work or costs necessary for making the substitution workable. Proposals will be evaluated and deemed accepted, rejected, or incomplete by the Town; the Town will be the sole judge as to such matters. If the substitution is accepted, bidders will be notified by addenda.

Addenda. Any addenda issued prior to the bid opening shall constitute part of the Contract Documents. Subject to the limitations of Public Contract Code Section 4104.5, Town reserves the right to issue addenda prior to bid time.

The Town Council reserves the right to reject any or all bids and any or all items of such bids.

BY ORDER OF THE TOWN COUNCIL
TOWN OF DANVILLE
STATE OF CALIFORNIA

City Clerk of the Town of Danville
State of California

B. SPECIAL PROVISIONS

SECTION 1. CONTRACT SPECIFICATIONS AND PLANS

1.1 General

The work shall be done in accordance with the standards referenced in the documents insofar as they apply and in accordance with the following Special Provisions.

In case of conflict between contract components, refer to Standard Specification Section 5-1.02.

1.2 Definitions and Terms

As used herein, unless the context otherwise requires, the following terms have the following meaning:

BMP's: Construction Best Management Practices

Department of Transportation: The Town of Danville.

Director of Transportation: The Town Manager of the Town of Danville.

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

Laboratory: The laboratories authorized by the Engineer to test materials and work involved in the contract.

Standard Specifications: The 2022 edition of the Standard Specifications of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the Town or its corresponding agency, office or officer acting under this contract

State: The Town of Danville.

State Highway Engineer: The City Engineer of the Town of Danville.

SWPPP: Storm Water Pollution Prevention Plan.

Transportation Building, Sacramento: Town Offices, Town of Danville.

Punch List: An inventory prepared by the Town of contract items of work, or portions thereof, that are incomplete, deficient, or not in conformance with the contract plans, specifications, contract change orders, or other contract documents.

Date of Completion: The date established by the contract documents by which all work encompassed by the contract must be completed.

SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS

2.1 General

The bidder's attention is directed to the Standard Specifications Section 2, "Bidding", and these Special Provisions for the requirements and conditions which must be observed in the preparation of the proposal form and the submission of the bid.

The form of bidder's bond mentioned in the last paragraph in Standard Specifications Section 2-1.34, "Bidder's Security", is found at page P-11.

SECTION 3. AWARD AND EXECUTION OF CONTRACT

3.1 General

The bidder's attention is directed to the provisions in Standard Specifications Section 3, Contract Award and Execution, and these Special Provisions.

SECTION 4. START OF JOB SITE ACTIVITIES, TIME, DELAYS, AND LIQUIDATED DAMAGES

4.1 General

Attention is directed to the provisions in Standard Specifications Sections 8.1.04, "Start of Job Site Activities", 8-1.05, "Time"; 8-1.07, "Delays", and 8-1.10, "Liquidated Damages", and these Special Provisions.

A. Beginning of Work; Time of Completion. The Contractor shall begin work as directed in the written Notice to Proceed and shall diligently perform the work to completion before the expiration of **50 working days.**

The Contractor shall pay to the Town of Danville the sum of $5,200 per calendar day for each day's delay in finishing the work in excess of the number of working days specified above.

Working days, as defined herein, are those days shown on the *Working Day Calendars (5-day)* published by Caltrans and available on their website at:

http://www.dot.ca.gov/hq/construc/calendar/index.htm

Holidays are defined in Section 1 of the Standard Specifications. The Town of Danville will utilize these holidays when preparing the Weekly Statement of Working Days even though holidays recognized by the Town may differ. The Contractor shall note that the Town offices are closed between Christmas and New Year's Day in recognition of the Town's annual furlough. In addition, the Town recognizes two holidays for Christmas instead of one holiday per the Standard Specifications. Inspections by Town personnel will not be available during the furlough and during the additional Christmas holiday even though working days will accrue. Special authorization must be granted by the Engineer in order for the Contractor to perform field work during these days. If special authorization is not granted, no field work shall be accomplished.

B. Liquidated Damages. If the contractor fails to complete this contract and this work within the time fixed (allowance being made for contingencies as provided herein), he becomes liable to the Town of Danville for all its loss and damage caused by the delay. Because, from the nature of the case, it is and will be impracticable and extremely difficult to ascertain and fix the Town of Danville's actual damage from any delay in performance, it is agreed that Contractor will pay as

liquidated damages to the Town of Danville, the amounts indicated above, for each and every calendar day's delay in finishing the work in excess of the working days prescribed above. This amount is the result of the parties' reasonable endeavor to estimate fair average compensation for each calendar day's delay in finishing the work. If the liquidated damages are not paid, the Town of Danville may, in addition to its other remedies, deduct those damages from any money due or to become due Contractor under this contract. If the Town for any cause authorizes or contributes to a delay, suspension of work or extension of time, its duration shall be added to the time allowed for completion, but it shall not be deemed a waiver nor be used to defeat any right of the Town to damages for noncompletion or delay hereunder. Pursuant to Government Code Section 4215, the Contractor shall not be assessed liquidated damages for delay in completion of the work when such delay was caused by the failure of the Town or the owner of a utility to provide for removal or relocation of existing utility facilities.

C. Preconstruction Conference. Before the issuance of the Notice to Proceed, a preconstruction conference will be held at the Town Offices at 500 La Gonda Way, Danville, CA to discuss with the Contractor the scope of the work, contract drawings, specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution of and satisfactory completion of the project as required. The Contractor's representative at this conference shall include all major superintendents for the work and may include major subcontractors.

SECTION 5. GENERAL

5.1 Miscellaneous

5.1.01 Documents Integrated

The project plans, drawings and specifications including but not limited to the Notice to Contractors, these Special Provisions, bonds, affidavits, insurance certificates and the Contractor's accepted Proposal are all incorporated into the contract. They are intended to cooperate so that anything exhibited in the plans or drawings not mentioned in the specifications or Special Provisions, or vice versa, is to be executed as if exhibited, mentioned and set forth in both, to the true intent and meaning thereof when taken altogether. Differences or conflicts between these integrated documents shall be finally determined by the Engineer.

5.1.02 Previous Disqualification, Removal or Other Prevention of Bidding

Pursuant to Public Contract Code Section 10162, the bidder shall complete, under penalty of perjury, the questionnaire in the Proposal (page P-6) relating to previous disqualification, removal or other prevention of bidding of the bidder, or officers or employees of the bidder because of violation of law or a safety regulation.

A bid may be rejected if bidder (or an officer or employee who has a proprietary interest) has been disqualified, removed or otherwise prevented from bidding on or completing a federal, state or local project because of a violation of law or a safety regulation.

No Contractor or subcontractor may bid on, be awarded or work on this contract if they are ineligible to perform work pursuant to Section 1777.1 or Section 1777.7 of the Labor Code. As required by Public Contract Code Section 6109(b), any contract between the Contractor and a debarred subcontractor is void as a matter of law. Any public money paid to a debarred subcontractor for work on this project shall be returned to the Town and the Contractor shall be responsible for payment of wages to employees of the debarred subcontractor.

5.2 Payments; Bonds; Insurance; Failure to Perform

5.2.01 Payments

Unit prices furnished by the Contractor shall be used only as a basis for determining progress payments or authorized changes in the work. No adjustment in the quantities will be made due to any Contractor's claims for additional labor and materials, unless such additional work is specifically requested in writing by the Engineer.

All quantities designated on bid sheets as "Final Pay Item Quantities" shall be paid for in accordance with the following section:

> When the estimated quantities for a specific portion of the work are designated on the bid sheets as final pay quantities, said estimated quantities shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If such dimensions are revised and such revisions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the changes in the dimensions. The estimated quantities for such specific portion of the work shall be considered as approximate only and no guarantee is made that the quantities that can be determined by computations, based on the details and dimensions shown on the plans, will equal the estimated quantities. No allowance will be made in the event that the quantities based on computations do not equal the estimated quantities.
>
> When portions of an item have been designated on the bid sheets as final pay quantities, portions not so designated will be measured and paid for in accordance with the applicable provisions of these specifications and the Special Provisions.

All quantities not designated as "Final Pay Item Quantities" will be paid for as "Approximate Pay Quantities." These quantities shall be measured during construction and paid for as shown on bid sheet.

The last day of each calendar month is the cutoff day for submittal of requests for partial payment. Within seven days after receiving a request for partial payment, the Engineer shall determine whether the request is proper. If the Engineer determines that the request is not proper, it shall be returned to the Contractor with an explanation. The Engineer's decision as to partial payment is final. The Town of Danville shall issue to Contractor a certificate for the amount determined to be due, minus 5% thereof pursuant to Public Contract Code Section 9203, but not until defective work and materials have been removed, replaced and made good. All properly submitted requests for partial payment shall be paid within 30 days as required by Public Contract Code Section 20104.50. Failure of the Town to meet this deadline will entitle Contractor to interest as specified in Section 20104.50. No reduction in the 5% retention will be allowed.

Full compensation for performing all the work as shown on the plans, as specified in these Standard Specifications and Special Provisions, including furnishing all labor, materials, tools, equipment and incidentals and performing all alterations necessary to complete the work, shall be considered as included in the contract price bid for the various items of work, and no additional compensation will be allowed therefor.

Contractor's attention is directed to Section 5.3.01 "Changes in the Work", 5.3.02 "Force Account", 5.3.03 "Change Order", and 5.3.04 "Claims for Extra Work" of these Special Provisions.

5.2.02 Payments Withheld

A. The Town of Danville or its agent may withhold any payment, or because of after-discovered evidence nullify a certificate for payment, to such extent and period of time only as may be necessary to protect the Town of Danville from loss because of:

1. Defective work not remedied or uncompleted work.
2. Claims filed or reasonable evidence indicating probable filing.
3. Failure to properly pay subcontractors or for material or labor.
4. Reasonable doubt that the work can be completed for the balance then unpaid.
5. Damage to another contractor.
6. Damage to the Town of Danville, other than damage due to delays.
7. Damage to utilities or other properties.
8. Failure to submit certified payroll reports.

B. The Town of Danville shall use reasonable diligence to discover and report to the Contractor, as the work progresses, the materials and labor which are not satisfactory to it, so as to avoid unnecessary trouble or cost to the Contractor in making good any defective work or parts.

C. Thirty-five calendar days after the Town of Danville accepts the project and files its notice of completion of the entire work, it shall issue a certificate to the Contractor and pay the balance of the contract price after deducting all amounts withheld under this contract, provided the Contractor shows that all claims for labor and materials have been paid, no claims have been presented to the Town of Danville based on acts or omissions of the Contractor, and no liens or withhold notices have been filed against the work or site, and provided there are not reasonable indications of defective or missing work or of late-recorded notices of liens or claims against Contractor.

D. Thirty calendar days prior to the date established as the contract completion date, the Town will initiate the preparation of a "punch list." The Contractor is advised that the Town will withhold an amount equal to 150% of the value of all "punch list" items from the last progress payment due the Contractor. The value of "punch list" items will be determined by the Engineer.

The date of acceptance of all contract work is considered to be the date that a final inspection by the Engineer is complete, and all deficiencies in the work, including "punch list" items, are verified to be corrected. The Engineer may for good causes, including but not limited to changed or latent field conditions, amend the initial "punch list" prior to final acceptance.

E. The Contractor may elect to receive 100% of the progress payments due under the contract from time to time, without retention of any portion of the payment by the Town, by depositing securities of equivalent value with the Town in conformance with Public Contracts Code Section 22300, and the sample escrow agreement included in this packet at page C-9. Such securities, if deposited by the Contractor, will be valued by the Town and the Town's decision on valuation of the securities will be final.

5.2.03 Guaranty and Bonds

Concurrently with the execution of the contract, Contractor shall furnish: (1) a surety bond in an amount equal to at least one-hundred percent (100%) of the contract price as security for the faithful performance of this contract, and (2) a separate surety bond in an amount equal to at least one-hundred percent (100%) of the contract price unless a greater percentage is required by the Special Provisions, as security for the payment of all persons performing labor and furnishing materials in connection with this contract.

Replace Item 2 in Section 3-1.05 of the Standard Specifications with the following:

> "2. Performance Bond to guarantee the faithful performance of the Contract. This bond must be equal to at least 100 percent of the total bid."

The form of each bond shall be satisfactory to the City Attorney. The bonds shall be supplied by sureties licensed to issue such bonds in the State of California.

The two contract bonds noted above and required by Standard Specifications Section 3-1.05, "Contract Bonds" (as amended), shall continue in full force and effect for the duration of the guaranty period. Examples of Performance and Payment bond forms for this purpose are included in the Contract Section (pages C-5 and C-7).

A material guaranty for a period of 12 months from the date of acceptance will be required for this contract and shall conform to the Standard Specifications Section 6-3.06, "Guarantee".

Full compensation for furnishing the guaranty and bonds will be considered as included in the contract price or prices paid for the items of work involved and no additional compensation will be allowed therefor.

5.2.04 Insurance

In lieu of the insurance requirement of Standard Specifications Section 7-1.06, the following insurance requirements shall apply to this contract.

For purposes of this section and Section 5.2.05 below, the following parties shall be identified as the indemnified parties: The Town of Danville, including their elected and appointed officials, officers, directors, employees, agents, and volunteers.

A. Minimum Scope of Insurance: Prior to commencing work and during the entire term of the Agreement, Contractor shall procure and maintain the following insurance policies in these minimum amounts:

1. Insurance Services Office Commercial General Liability Coverage (occurrence Form CG 0001), two million dollars ($2,000,000) per occurrence for bodily injury, personal injury, and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to the work to be performed under this Agreement, or the general aggregate limit shall be at least twice the required occurrence limit.

2. Insurance Services Office Form Number CA 0001 covering Automobile Liability, Code 1, two million dollars ($2,000,000) per accident for bodily injury and property damage.

3. Workers' Compensation as required by the State of California, and Employers' Liability Insurance, one million dollars ($1,000,000) per accident for bodily injury or disease.

B. Endorsements: Each general liability and automobile liability insurance policy shall be endorsed with the following specific language:

1. The indemnified parties are to be covered as additional insureds with respect to liability arising out of work performed by or on behalf of the Contractor.

2. For any claims related to this Agreement, Contractor's insurance coverage shall be considered primary insurance as respects the indemnified parties. Any insurance or self-insurance maintained by the indemnified parties shall be excess of the Contractor's insurance and shall not contribute with it.

3. This insurance shall act for each insured and additional insured as though a separate policy had been written for each. This, however, will not act to increase the limit of liability of the insuring company.

4. The insurer waives all rights of subrogation against the indemnified parties.

5. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the indemnified parties.

6. Each insurance policy required by this Agreement shall provide that coverage shall not be canceled, except after 30 days prior written notice has been given to the Town.

C. Verification of Coverage: Contractor shall provide to the Town all certificates of insurance with original endorsements affecting coverage required by this paragraph. Certificates of such insurance shall be filed with the Town on or before commencement of performance of this Agreement. The Town reserves the right to require complete, certified copies of all required insurance policies at any time.

D. Acceptability of Insurers: All insurance companies providing coverage to Contractor for purposes of this Agreement shall be authorized by the Insurance Commissioner of the State of California to transact business within the State of California and shall have an A.M. Best's rating of no less than "A:VII".

E. Deductibles and Self-Insured Retentions: Any deductibles or self-insured retention's must be declared to and approved by the Town. At the Town's option, Contractor shall demonstrate financial capability for payment of such deductibles or self-insured receptions.

F. By signing a contract, the successful bidder acknowledges that he is aware of the provisions of Labor Code §3700 which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with that Code, and that he will comply with such provisions before commencement of the work of this contract. On signing the contract, Contractor shall give the Town: (1) a certificate of consent to self-insure issued by the

Director of Industrial Relations, or (2) a certificate of Workers' Compensation insurance issued by an admitted insurer, or (3) an exact copy or duplicate thereof certified by the Director or the insurer.

5.2.05 Hold Harmless and Indemnity

To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the indemnified parties (as defined in Section 5.2.04 above), from and against all claims, damages, losses and expenses, including but not limited to reasonable attorneys' fees, arising from or related to the negligent acts, errors or omissions of Contractor, its employees or agents in the performance of this Agreement. This indemnity shall apply to all claims and liability regardless of whether any insurance policies are applicable. The policy limits do not act as a limitation upon the amount of indemnification to be provided by Contractor.

Notwithstanding the foregoing, nothing herein shall be construed to require Contractor to indemnify the Indemnified Parties from any claim arising from the active negligence or willful misconduct of the Indemnified Parties.

If, through acts of neglect on the part of the Contractor, any other contractor or any other subcontractor shall suffer loss of damage on the work, the Contractor agrees to settle with such other contractor or subcontractor by agreement or arbitration. If such other contractor or subcontractor asserts a claim against the Indemnified Parties on account of any damage alleged to have been so sustained, the Town shall notify the Contractor who shall indemnify and hold harmless the Indemnified Parties against such claims.

As required by Public Contract Code Section 9201, the Town shall provide timely notice to Contractor of any third-party claims received by the Town relating to this Contract. The Town reserves the right to settle any such claim at any time.

5.2.06 Failure to Perform

If the Contractor at any time refuses or neglects, without fault of the Town of Danville, to supply sufficient materials or workers to complete this agreement and work as provided herein, for a period of 10 days or more after written notice thereof by the Town, the Town may furnish same and deduct the reasonable expenses thereof from the contract price.

If the failure to perform or the manner of performance results in a threat to public health or safety, the Town may, after making a reasonable attempt to contact Contractor, perform necessary emergency work and deduct the reasonable cost of it from the amount owed to Contractor.

5.2.07 Termination of Control

Attention is directed to Standard Specifications Section 8-1.13, "Contractor's Control Termination". If the Contractor's control of the work is terminated or he abandons the work and the contract work is completed in conformance with the provisions of Public Contract Code Section 10255 (State Contract Act), any dispute concerning the amount to be paid by the Town to the Contractor or his surety, under the provisions of Section 10258 of the Act, shall be subject to arbitration in accordance with the section of these Special Provisions entitled "Arbitration." The surety shall be bound by the arbitration award and is entitled to participate in such arbitration proceedings.

5.2.08 Arbitration

A. Agreement of the Parties. By entering into the contract both parties agree to submit all claims arising under or relating to the contract, which remain unresolved after exhaustion of all

remedies available under the contract to independent arbitration prior to litigation. Except as otherwise provided herein, the arbitration shall be conducted under Public Contract Code Section 10240 and following. See also Standard Specifications Section 9-1.22, "Arbitration". "Claim" means a demand for monetary compensation or damages asserted by one party to this contract against the other party, arising under or relating to this contract which remains unresolved after exhausting all contractual remedies except arbitration (see Standard Specifications Section 9-1.17D, "Final Payment and Claims"). The arbitration provided for in this contract shall be "de novo."

B. Subcontractors and Suppliers. All contracts valued at more than $15,000 between the general contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Town by all terms and provisions of this contract, including the arbitration provision.

5.2.09 Assignment of Antitrust Actions

The following provisions of Public Contract Code Section 7103.5 and Government Code Sections 4553 and 4554 shall be applicable to the Contractor and all subcontractors:

“In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties.”

“If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.”

“Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.”

5.3 Changes

5.3.01 Changes in the Work

The Town, without invalidating the Contract, may order extra work, make changes by altering, or delete any portion of the work as specified here, or as deemed necessary or desirable by the Engineer. All such work shall be executed under the conditions of the original Contract except that any claim for extension of time and additional costs caused thereby shall be adjusted at the time of ordering such change or extra work.

Extra work shall be that work not shown or detailed on the plans and not specified. Such work shall be governed by all applicable provisions of the Contact Documents.

In giving instructions, the Engineer shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work. Otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless pursuant to a written order by the Engineer, and no claim for an addition to the total amount of the Contract shall be valid unless so ordered.

It is mutually understood that it is inherent in the nature of municipal construction that some changes in the plans and specifications may be necessary during the course of construction to adjust them to field conditions, and that it is of the essence of the Contract to recognize a normal and expected margin of change. The Engineer shall have the right to make such changes from time to time in the Plans, in the character of the work, and ensure the completion of the work in the most satisfactory manner without invalidating the Contract.

Payment for all changes ordered by the Engineer involving installation of work essential to complete the Contract shall be subject to negotiation if no basis of payment is provided for herein.

Upon demand of either the Contractor or the Engineer an equitable adjustment satisfactory to both parties shall be made as the basis of payment for extra work. The prices agreed upon and any agreed-upon adjustment in contract time shall be incorporated in the written order issued by the Engineer, which shall be written so as to indicate acceptance on the part of the Contractor as evidenced by his signature. In the event prices cannot be agreed upon, the Owner reserves the right to terminate the Contract as it applies to the items in question and make such arrangements as it may deem necessary to complete the work, or it may direct the Contractor to proceed with the items in question on a force account basis as provided below.

5.3.02 Force Account

Attention is directed to the provisions in Standard Specifications Sections 9-1.04, "Force Account", current State of California Labor Surcharge & Equipment Rental Rate Book, and these Special Provisions.

Add to Section 9-1.04A “General” the following:

> “Records. The Contractor’s representative and the Engineer shall compare the records of the work performed as ordered on a force account basis at the end of each day on which the work is performed. Copies of these records shall be made on suitable forms provided for this purpose and signed by both the Engineer and the Contractor’s representative. All claims for work done on a force account basis shall be certified and submitted to the Engineer by the Contractor, and such statements shall be filed with the Engineer not later than the 20th day of the month following that in which the work was actually performed.”

Add to Section 9-1.04B “Labor” the following:

> “Supervision and Overhead. No allowance shall be made for general superintendence. The cost of supervision and overhead is presumed to be included in the Force Account labor payment.”

5.3.03 Change Order

The value of change order work shall be determined and paid for with a Change Order in one of the following ways unless paid by force account:

A. By unit prices mutually agreed upon by the Owner and Contractor; or

B. By the Contractor's estimate and the Engineer's acceptance of a lump sum. The Contractor shall do such extra work and furnish material and equipment upon receipt of an approved Contract Change Order or other written order of the Engineer and, in the absence of such approved Contract Change Order or other written order of the Engineer, the Contractor shall not be entitled to payment for such extra work. Payment for extra work required to be performed pursuant to the provisions of this section, in the absence of an executed Contract Change Order, will be made by force account as provided herein, or as agreed to by the Contractor and the Engineer. However, in no case shall work be undertaken without written notice from the Engineer to proceed with the work.

5.3.04 Claims for Extra Work

If the Contractor claims that any instructions involve extra cost under this Contract, he shall give the Engineer written notice thereof within 48 hours after the receipt of such instructions, and in any event before proceeding to execute the work, except in an emergency endangering life or property, and the procedure shall then be as provided for under "Changes in the Work". No cash claim shall be valid unless so made.

5.3.05 Control of Work Inspection

Whenever the Contractor varies the period during which work is carried on each day, he shall give due notice to the Engineer so that proper inspection may be provided. Control of work shall be in accordance with Standard Specifications Section 5.

5.4 Subcontracting; Labor

5.4.01 Subcontracting

The Subletting and Subcontracting Fair Practices Act (California Contract Code §§4100-4113) is incorporated here. A sheet for listing the subcontractors, as required by the Act, is included in the Proposal Section (page P-5). No listed subcontractor shall be substituted without written authorization from the Town. Excerpts from the Code are included below.

Attention is directed to Standard Specifications Section 5-1.13, "Subcontracting", and Section 2-1.33C, "Subcontractor List", and these Special Provisions. Each bidder shall list in this proposal:

A. The name and location of the place of business of each subcontractor who will perform work or labor or render services to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of one percent of the prime contractor's total bid or ten thousand dollars ($10,000), whichever is greater.

B. The portion of the work, which shall be done by each such subcontractor. Only one subcontractor shall be listed for each such portion.

C. If a prime contractor fails to specify a subcontractor or if a prime contractor specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the prime contractor's total bid, the prime contractor agrees that

he or she is fully qualified to perform that portion himself or herself, and that the prime contractor shall perform that portion himself or herself. If after award of contract, the prime contractor subcontracts, except as provided for in §4107 or §4109, any such portion of the work, the prime contractor shall be subject to the penalties named in §4111.

D. A prime contractor whose bid is accepted may not:

a. Substitute a person as subcontractor in place of the subcontractor listed in the original bid, except that the Town may, except as otherwise provided in §4107.5, consent to the substitution of another person as a subcontractor in any of the following situations:

i. When the subcontractor listed in the bid, after having had a reasonable opportunity to do so, fails or refuses to execute a written contract for the scope of work specified in the subcontractor's bid and at the price specified in the subcontractor's bid, when that written contract, based upon the general terms, conditions, plans, and specifications for the project involved or the terms of that subcontractor's written bid, is presented to the subcontractor by the prime contractor.

ii. When the listed subcontractor becomes insolvent or the subject of an order for relief in bankruptcy.

iii. When the listed subcontractor fails or refuses to perform his or her subcontract.

iv. When the listed subcontractor fails or refuses to meet the bond requirements of the prime contractor as set forth in §4108.

v. When the prime contractor demonstrates to the awarding authority, or its duly authorized officer, subject to the further provisions set forth in §4107.5, that the name of the subcontractor was listed as the result of an inadvertent clerical error.

vi. When the listed subcontractor is not licensed pursuant to the Contractors License Law.

vii. When the Town determines that the work performed by the listed subcontractor is substantially unsatisfactory and not in substantial accordance with the plans and specifications, or that the subcontractor is substantially delaying or disrupting the progress of the work.

viii. When the listed subcontractor is ineligible to work on a public works project pursuant to §1777.1 or §1777.7 of the Labor Code.

ix. When the Town determines that a listed subcontractor is not a responsible contractor.

Prior to approval of the prime contractor's request for the substitution, the Town shall give notice in writing to the listed subcontractor of the prime contractor's request to substitute and of the reasons for the request. The notice shall be served by certified or registered mail to the last known

address of the subcontractor. The listed subcontractor who has been so notified has five working days within which to submit written objections to the substitution to the Town. Failure to file these written objections constitutes the listed subcontractor's consent to the substitution.

If written objections are filed, Town shall give notice in writing of at least five working days to the listed subcontractor of a hearing by the Danville Town Council on the prime contractor's request for substitution.

b. Permit a subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid, without the consent of the Town.

c. Other than in the performance of "change orders" causing changes or deviations from the original contract, sublet or subcontract any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which his or her original bid did not designate a subcontractor.

E. A prime contractor violating any of the provisions of this chapter violates his or her contract and the Town may exercise the option, in its own discretion, of (1) canceling his or her contract or (2) assessing the prime contractor a penalty in an amount of not more than 10 percent of the amount of the subcontract involved, and this penalty shall be deposited in the fund out of which the prime contract is awarded. In any proceedings under this section the prime contractor shall be entitled to a public hearing and to five days' notice of the time and place thereof.

F. Violation of this chapter by a licensee under Chapter 9 (commencing with §7000) of Division 3 of the Business and Professions Code constitutes grounds for disciplinary action by the Contractors State License Board, in addition to the penalties prescribed in §4110.

No subcontractor may work on this Contract if they are ineligible to perform work pursuant to Section 1777.1 or Section 1777.7 of the Labor Code. As required by Public Contract Code Section 6109(b), any contract between the Contractor and a debarred subcontractor is void as a matter of law. Any public money paid to a debarred subcontractor for work on this project shall be returned to the Town and the Contractor shall be responsible for payment of wages to employees of the debarred subcontractor. To check the debarment status of a subcontractor, use the Excluded Parties List System (EPLS) maintained by the General Services Administration at:

https://www.sam.gov/portal/public/SAM

5.4.02 Prevailing Wage Scale

The minimum compensation to be paid for all labor performed under this Contract shall be the prevailing rate as determined by the Director of the Department of Industrial Relations for this area. The Contractor and all his subcontractors shall pay at least these rates to all persons on this work, including all travel, subsistence, and fringe benefit payments provided for by applicable collective bargaining agreements.

Pursuant to Labor Code Section 1773, the Director of the Department of Industrial Relations has ascertained the general prevailing wage rates per diem, and for holiday and overtime work, in the locality in which this work is to be performed, and for each craft, classification, or type of worker needed to execute this Contract. Those rates are incorporated here.

This schedule of wages is based on a working day of eight hours unless otherwise specified; and the daily rate is the hourly rate multiplied by the number of hours constituting the working day. When less than that number of hours is worked, the daily wage rate is proportionately reduced, but the hourly rate remains as stated.

The job site of each contract, for the purpose of Section 1773.2 of the Labor Code, shall be the Town Offices, 510 La Gonda Way, Danville, CA.

All skilled labor not listed above must be paid at least the wage scale established by the collective bargaining agreement for such labor in the locality where such work is being performed. If it becomes necessary for the Contractor or any subcontractor to employ any person in a craft, classification or type of work (except executive, supervisory, administrative, clerical or other nonmanual workers as such) for which no minimum wage rate is specified, the Contractor shall immediately notify the Town of Danville which shall promptly determine the prevailing wage rate for that type of work and furnish the Contractor with the minimum rate based thereon, which shall apply from the time of the initial employment of the person affected and during the continuance of such employment.

5.4.03 Labor Nondiscrimination

No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for violation of this chapter. (Reference: Labor Code Section 1735; Standard Specifications Section 7-1.02I(2).)

Attention is also directed to the requirements of the California Fair Employment and Housing Act (Government Code Sections 12900-12996), to the regulations promulgated by the Fair Employment and Housing Commission to implement the Act, an opportunity requirement in the Special Provisions.

5.4.04 Hours of Labor

Except as provided for in Labor Code Section 1815, no worker employed at any time on this work by the Contractor or any subcontractor shall be required or permitted to work longer than eight hours in one calendar day or 40 hours in one calendar week. Pursuant to Labor Code Section 1813, the Contractor shall forfeit twenty-five dollars ($25) for each violation of this restriction. As further required by Labor Code Section 1813, the Town shall report all such violations to the Division of Labor Standards Enforcement.

5.5 Materials

5.5.01 Alternative Methods of Construction

Whenever certain of the plans or specifications provide that more than one specified method of construction or more than one specified type of construction equipment may be used to perform portions of the work and leave the selection of the method of construction or the type of equipment to be used up to the Contractor, it is understood that the Town does not guarantee that every such method of construction or type of equipment can be successfully used throughout all or any part of any project. It shall be the Contractor's responsibility to select and use the alternative or alternatives, which will satisfactorily perform the work under the conditions encountered. In the event some of the alternatives are not feasible or it is necessary to use more than one of the alternatives on any project, full compensation of any additional cost involved shall be considered as included in the

contract price paid for the item of work involved and no additional compensation will be allowed therefor.

5.5.02 Submittals

Contractor shall submit to the Town, in triplicate, submittal of all proposed items to be incorporated into the work, as described more specifically in Section 10, in adequate time before installation for review and approval. Items not approved shall not be used in the work.

The Contractor shall provide submittals for all materials, product data, working/shop drawings, diagrams, schedules, or other data prepared by the Contractor in accordance with the Contract requirements. The submittals shall not modify any Contract requirement.

The Contractor shall provide Certificates of Compliance from its material suppliers, in advance of the work, certifying that all materials to be used on the project conform to the requirements of these specifications. In conformance with Section 6-3.05E, "Certificates of Compliance," of the Standard Specifications, each submittal will be signed by the manufacturer of the material and state that the material complies with the Contract. The Town reserves the right to refuse to permit the use of material based on a Certificate of Compliance alone.

At a minimum, Contractor shall provide submittals as follows or as directed by the Engineer:

Emergency Names and Phone Numbers
CPM Schedules
Public Notification
Traffic Control Plan (Vehicular and Pedestrian)
Water Pollution Control Plan
Hot Mix Asphalt
Tack Coat
Concrete Mix Design
Loop detector
Pavement Marker
Thermoplastic Pavement Markings and Traffic Striping

Submittals shall be received by the Engineer at least five (5) working days in advance of commencing the applicable work. No work may begin on those items prior to final approval of the submittals by the Engineer.

Submittals shall be shown on the construction schedule and shall not be critical path items of work.

All required submittals, except as noted, shall be reviewed by the Owner or Engineer and returned to the Contractor within ten (10) working days from the date of receipt by the Engineer. In addition, the Contractor shall allow the Town equivalent time periods to review re-submittals for any previously rejected or incomplete submittals.

No work may begin under contract until the CPM Schedule and Traffic Control Plan have been approved by the Engineer. Time required for review and approval of these items shall not constitute a basis for time extension.

The Engineer's review of Contractor shop drawing submittals shall not relieve the Contractor of the entire responsibility for the correctness of details and dimension. The Contractor shall assume all

responsibility and risk for any misfits due to any errors in Contractor submittals. The Contractor shall be responsible for the dimensions and the design of adequate connections and details. Acceptance by the Engineer of a substitute item proposed by the Contractor shall not relieve the Contractor of the responsibility for full compliance with the Contract Documents and for adequacy of the substitute item.

5.5.03 Preference for Materials

The Town of Danville desires to promote the industries and economy of the Town of Danville and the Contractor therefore promises to use the products, workers, laborers and mechanics of the Town in every case where the price, fitness and quality are equal.

5.6 Project Appearance; Safety and Convenience

5.6.01 Project Appearance

The Contractor shall maintain a neat appearance to the work. In any area visible to the public, the following shall apply:

A. When practicable, debris developed during construction of the project shall be removed or disposed of daily. All material shall be disposed of in accordance with the Standard Specifications Section 4-1.13, "Cleanup". The Contractor shall make arrangements for disposing of materials outside the highway right of way in accordance with Section 5-1.20B(4), “Contractor-Property Owner Agreement” of the Standard Specifications and shall pay all costs involved.

B. Full compensation for conforming to the requirements of this section shall be included in the contract price or prices paid for the various contract items of work and no additional compensation will be allowed therefor.

C. The Contractor shall eliminate refuse from the site as necessary and when directed by the Town in order to avoid an unsightly appearance or inconvenience to others.

D. Upon completion of the work the Contractor shall remove from the site all unused materials and all equipment belonging to or used by Contractor and all rubbish resulting from his work on this project. The site shall be left in a neat and presentable condition.

5.6.02 Public Convenience and Public Safety

Attention is directed to Standard Specifications Sections 7-1.03 and 7-1.04 which are modified here to provide that all costs required to comply with those sections shall be included in the contract price or prices paid for the various contract items of work and no additional compensation will be allowed therefor.

The Contractor shall maintain access to all off-street parking facilities within the project limits during construction. If access cannot be maintained or will need to be closed temporarily, the Contractor shall notify the Town, resident, and/or business owner(s) 72 hours in advance.

5.6.03 Noise Control Requirements

Noise control shall conform to the provisions in Standard Specifications Section 14-8.02, "Noise Control", and these Special Provisions and the Town's Noise Control Ordinance (Danville Municipal Code Section 4-2).

The noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

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

5.6.04 Excavation

A. Contractor shall comply with the provisions of Labor Code Section 6705, if applicable, by submitting to the Town of Danville a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during trench excavation.

B. The Contractor's attention is directed to Public Contract Code Section 7104, which requires the Contractor to promptly notify the Town of Danville when working on a contract involving the digging of trenches or excavations in excess of four feet below the surface, and when any of the following are encountered:

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

(2) Subsurface or latent physical conditions at the site differing from those indicated.

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

Such notification shall be in writing and shall be submitted to the Engineer prior to disturbing any of the above conditions.

5.6.05 Protection

Contractor shall use all means necessary to protect existing objects designated to remain and, in the event of damage, immediately make all repairs and replacements necessary to the approval of the Town's representative and at no additional cost to the Town.

If Contractor encounters unforeseen items during clearing and demolition work, he is to notify the Engineer prior to removal or demolition. The Contractor shall protect all existing utilities, trees, shrubbery, landscaping, irrigation facilities, buildings, fences, roadside signs, poles, mailboxes, and all other improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.

The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers unless specifically shown on the contract plans. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced for easy and accurate

restoration. All survey markers or points disturbed by the Contractor shall be accurately restored to the satisfaction of the Engineer by the Contractor at its own expense.

The Contractor shall protect all underground utilities and other improvements, which may be impaired during construction operations. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

The Contractor shall notify all utility companies 48 hours prior to any excavation so that their lines can be marked. Those to be notified include, but are not limited to:

Call Before You Dig, 811 or www.call811.com
Underground Service Alert (USA), 1-800-227-2600 or www.usanorth.org

The Contractor's attention is directed to the National Historic Preservation Act of 1966 (16 U.S.C. 470 and 36 CFR 800) which provides for the preservation of potential historical architectural, archaeological, or cultural resources (hereinafter called "cultural resources"). In the event potential cultural resources are discovered during subsurface excavations in the public street right-of-way or on public lands, the Contractor shall immediately cease all operations and shall immediately notify the Engineer.

5.6.06 Maintaining Traffic

Attention is directed to Standard Specifications Sections 7-1.03, "Public Convenience"; 7-1.04, "Public Safety"; and 12, "Temporary Traffic Control" and to the Section entitled "Public Safety" elsewhere in these Special Provisions. Nothing in these Special Provisions shall be construed as relieving the Contractor from his responsibility as provided in Section 7-1.04. All sections of the California Vehicle Code shall be in full effect except as provided hereinafter. Section 591 and any other section excluding roads under construction from certain requirements of the Vehicle Code shall be in effect only as permitted by the Engineer. The Engineer's permission shall not be construed to relieve any person from the duty of exercising due care.

On November 18, 2006 FHWA added part 634 to Title 23, Code of Federal Regulations concerning worker visibility. This regulation has defined "high-visibility safety apparel" as personal protective safety clothing that is intended to provide conspicuity during both daytime and nighttime usage and that meet or exceed the Performance Class 2 or 3 requirements of the ANSI/ISEA 107-2004 publication entitled "American National Standard for High-Visibility Safety Apparel and Headwear."

On November 24, 2008, the FHWA's final rule on worker visibility was included in the California Manual on Uniform Traffic Control Devices by means of Traffic Operations Policy Directive 08-07. This change broadened the applicability to workers within the right-of-way of any street or highway in California. All workers performing work within the public right-of-way must wear high-visibility safety apparel at all times.

Standard Specifications Section 12-1.03 is modified here to provide that all flagging costs shall be included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

One lane of traffic (minimum 12 feet per lane) shall be open to vehicular traffic for the entire length of the project at all times. Striping and/or cones, barricades, and flagmen properly marked shall be used to delineate the traffic lane. Access to driveways shall be maintained at all times. No traffic lanes may be closed before 9:00 a.m. or after 4:00 p.m. without written permission from the Engineer.

When entering or leaving roadways which bear public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.

The use of fluorescent traffic cones to direct traffic away from excavations shall be considered lane closure.

The provisions in this section may be modified or altered if, in the opinion of the Engineer, public traffic will be better served and work expedited. Such modifications or alterations shall not be adopted until approved in writing by the Engineer.

All hauling on Town streets shall be on a haul route approved by the Engineer.

5.6.07 Dust Control

Dust control shall conform to Section 14-9.03, "Dust Control", Section 17, “Watering”, and Section 18, “Dust Palliative” of the Standard Specifications, and these Special Provisions.

5.6.08 Damage Repair and Restoration

Attention is directed to Standard Specifications Section 5-1.39, "Damage Repair and Restoration", and the sections entitled "Contractor's Responsibility for the Work and Materials" and “Contractor’s Responsibility for Damage” of these Special Provisions.

Damage to other existing facilities occurring prior to the performance of the work provided for in this contract shall be repaired or reconstructed by the Contractor, as directed by the Engineer, and such work will be paid for as extra work as provided in Section 5.3.01 of these Special Provisions.

5.6.09 Obstructions

Attention is directed to Section 5-1.36, “Property and Facility Preservation”, Section 5-1.39, “Damage Repair and Restoration”, Section 7-1.05, “Indemnification”, Section 7-1.06, “Insurance”, and Section 15, "Existing Facilities” of the Standard Specifications, and these Special Provisions.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to, conductors of petroleum products, oxygen, chlorine and toxic gases; natural gas pipelines greater than six (6) inches in diameter or operating at pressures greater than 60 psi (Gage); underground electric supply cables which do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical conductors with potential to ground of more than 300 volts. The Contractor shall notify the Engineer at least 24 hours before performing any work in the vicinity of such facilities.

The Contractor shall protect from damage utility and other nonhighway facilities that are to remain in place, be installed, relocated, or otherwise rearranged. Attention is directed to Section 5-1.36D, “Nonhighway Facilities” of the Standard Specifications.

Information on the drawings relating to existing utility lines and services is from the best sources presently available. All such information is furnished only for information and is not guaranteed. Test pits shall be excavated as required to determine exact locations of existing utilities.

Perform work and provide necessary materials to disconnect or relocate existing utilities as indicated. Record existing utility termination points before disconnecting. Preserve in operating condition all active utilities traversing the site and designated to remain.

If the utility facilities mentioned above are not removed or relocated by the times specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by those times, the Town will compensate the Contractor for such delays to the extent provided in Standard Specifications Section 8.1.07, Delays, and not otherwise, except as provided in Standard Specifications Section 5-1.36D, Nonhighway Facilities.

Attention is directed to the references in Standard Specifications Section 9-1.04 “Force Account”, regarding payment for extra work by force account which is modified to provide that all payment for extra work by force account will be as specified in Section 5.3.02 of these Special Provisions.

5.6.10 Order of Work

Order of work shall conform to the provisions in these Special Provisions.

As a first order of work, obtain an encroachment permit and submit public notification written notices for approval by the Town of Danville.

No work may begin under contract until the Engineer has approved the Progress Schedule and Traffic Control Plan. Time required for review and approval of these items shall not constitute a basis for time extension.

5.6.11 Schedule

Progress schedules will be required for this Contract and shall conform to Section 8-1.02 "Schedule" of the Standard Specifications and these Special Provisions.

5.6.12 Mobilization

Mobilization shall conform to Standard Specifications Section 9-1.16D, "Mobilization".

5.6.13 Watering

Watering shall conform to provisions in Section 17, "Watering" of the Standard Specifications.

5.6.14 Correspondence Identification

All Contractor's correspondence to the Town of Danville shall prominently note on the document being transmitted, the *Contract Name* and *Contract Number* found on the contract specifications. (e.g. contracts, insurance, preliminary notices, submittals, letters, etc.).

SECTION 6. (Not Used)

SECTION 7. (Not Used)

SECTION 8. MATERIALS

8.1 Miscellaneous

8.1.01 General

Attention is directed to Standard Specifications Section 6, "Control of Materials", and these Special Provisions, Section 5.5.

8.1.02 Tests and Inspections

The Contractor shall notify the Engineer 24 hours, excluding weekends and holidays, prior to all required inspections, tests, or approvals.

The Town will make, or have made, such inspections and tests as the Engineer deems necessary to see that the work is being accomplished in accordance with the requirements of the Special Provisions. Unless otherwise specified in the Special Provisions, the cost of such inspection and testing and first re-test will be borne by the Town. In the event such inspections or tests reveal non-compliance with the requirements of the Special Provisions, the Contractor shall bear the cost of corrective measures deemed necessary by the Engineer, as well as the cost of subsequent re-inspection and re-testing. Neither observations by the Engineer nor inspections, tests, or approvals by others shall relieve the Contractor from the Contractor's obligation to perform the work in accordance with the Special Provisions. The Contractor shall bear the inspection costs for any inspection time lost, based on the Town's established rates, due to the work not being ready for inspection or the Contractor's failure to appear at the work site for any test or inspection which has been scheduled by the Contractor.

If any work that is to be inspected, tested, or approved is covered without concurrence of the Engineer, it shall be uncovered for inspection, testing, or approval. All costs of uncovering and recovering work exposed for inspection, testing, or approval shall be at the Contractor's expense.

The Contractor shall permit on-site videotaping, still photography, or motion picture photography of the construction project. The Contractor shall cooperate with and shall coordinate with Town personnel or their authorized representatives in its efforts to carry out such videotaping and or photography.

SECTION 9. DESCRIPTION OF WORK

9.1 General

These bids shall cover all the furnishing of all labor, material, equipment, mechanical workmanship, transportation and services which are required for **2024/25 Pavement Rehabilitation Project, Contract No. C-610H.** The work generally includes, but is not limited to, preparatory tree trimming, removal and replacement of existing Portland Cement Concrete curb, sidewalk, curb ramp, removal and replacement of existing asphalt concrete pavement (dig-outs), pavement cold planning, installation of hot mix asphalt concrete, removal, removal and replacement of new traffic signal loop detectors, adjusting to grade of survey monument castings, water valve castings, storm drain and sanitary sewer manhole covers, and other utility lids, removal and replacement of existing pavement striping and markers, traffic control, and other items that are required by the plans, standard specifications, or these Special Provisions.

9.1.01 Contract Plans

The work shall conform to the Contract Plans, all of which form a part of this specification. Up to five sets of Contract Plans and Special Provisions will be furnished to the Contractor without charge. Additional sets will be furnished on request at the cost of reproduction.

9.1.02 Permits and Licenses

Contractor shall at Contractor's expense, obtain all necessary permits and licenses for the construction of each improvement, give all necessary notices and pay all fees and taxes required by law and by the contract documents. Permits required include but are not necessarily limited to overload permit and encroachment permits. Temporary use permit(s) shall be the responsibility of the Contractor to obtain temporary use permits for the use of any private property as a staging area, equipment and/or material storage yard, etc. Use permit conditions will vary and the Contractor should contact the Town of Danville Planning Department for specific requirements prior to submitting a bid. No work shall commence without these permits. Contractor shall comply with all conditions of the permits.

All permits required from the Town of Danville shall be issued without charge; however, the Contractor and all of his subcontractors shall obtain and pay for a business license from the Town of Danville prior to commencing work. For information about obtaining a business license, call 925-314-3312.

9.1.03 Potential Claims and Dispute Resolution

Attention is directed to Standard Specifications Section 5-1.43, “Potential Claims and Dispute Resolution”, as the exclusive claim requirement and procedures for Contractor. All Potential Claim Records shall be presented to the Town in a detailed written form rather than on Caltrans forms, however, the detailed written form must contain all information required on Caltrans form CEM-6201 available for download at http://www.dot.ca.gov/hq/construc/forms/cem6201.pdf.

SECTION 10. CONSTRUCTION DETAILS

10.1 Mobilization (Bid Item 1)

10.1.01 General

Refer to California Public Contracts Code §10104 for Mobilization requirements and Section 1-1.07B of the Standard Specifications for the definition of Mobilization.

Add to Section 9-1.16D “Mobilization” the following:

Mobilization includes preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site, for the establishment of all offices, buildings and other facilities necessary for work on the project, and for all other work and operations which must be performed or costs incurred prior to beginning work on the various items on the project site.

The Contractor’s attention is directed to the location of the project site within immediate vicinity of retail shopping areas and public schools. The contractor shall also note the high volume of bicycle and pedestrian traffic. The Contractor shall familiarize himself with the project site conditions before initiating any work. Safety of open trenches and other construction work areas is the contractor’s sole responsibility.

10.1.02 Construction Storage and Staging

The construction storage and staging areas is considered the State-owned area as discussed in Section 5-1.32 of the Standard Specifications.

Add to Section 5-1.32 "Areas for Use" the following:

Mobilization includes the erection and operation of construction storage and staging areas in coordination with Town representative.

All materials and equipment must be securely stored within the construction storage and staging area during non-work hours. The area must be kept clean in accordance with Section 5-1.31 of the Standard Specifications. Any damage caused by the contractor's access to the area must be repaired and restored in accordance with Section 5-1.39 of the Standard Specifications.

Personal vehicles of your employees must not be parked on the traveled way or shoulders, including sections closed to traffic. Personal vehicles of employees must not occupy any public parking stalls in any part in the Town of Danville, with the exception of the construction storage and staging area as approved by the Town.

10.1.03 Tree Preservation

Refer to Section 5-1.36E "Landscape" of the Standard Specifications. Add to Section 5-1.36E the following:

Protect all existing trees within the boundaries of the project from damage. Avoid compacting the soil within the drip line of each existing trees and assure regular watering.

10.1.04 As-Built Plans

Upon completion of the work and prior to project acceptance, Contractor shall submit final "As-Built" Plans that shall include all changes, both design and construction, with all shop drawings, including adequate sketches, dimensions, and notes. All revisions including those occurring during construction will be included in the Final "As-Built" Plans set.

10.1.05 Payment

Add to Section 9-1.16D "Mobilization" the following:

The contract lump sum price paid for Bid Item 1 "Mobilization" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in mobilization and demobilization, complete in place, including tree preservation, construction project funding signs and as-built plans, as necessary for the work shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Mobilization will be paid on a lump sum basis based on a percentage completed each month.

10.2 Water Pollution Control Program (Bid Item 2)

10.2.01 General

Add to Section 13-1.03D:

You are responsible for penalties assessed or levied on you or the City as a result of your failure to comply with the provisions in this section "Water Pollution Control," including, but not limited to,

compliance with the applicable provisions of the Manuals, and Federal, State, and local regulations and requirements as set forth therein. See “Retention of Funds” sub-section later in this special provision.

Penalties as used in this section shall include fines, penalties and damages, whether proposed, assessed, or levied against you or the City, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of citizen suits. Penalties shall also include payments made or costs incurred in settlement for alleged violations of the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations.

Notwithstanding any other remedies authorized by law, the Town may retain money due to you under the contract, in an amount determined by the Town, up to and including the entire amount of Penalties proposed, assessed, or levied as a result of your violation of the Permit, the Manuals, or Federal or State law, regulations or requirements. Funds may be retained by the Town until final disposition has been made as to the Penalties. You shall remain liable for the full amount of Penalties until such time as they are finally resolved with the entity seeking the Penalties.

Retention of funds for failure to conform to the provisions in this section, “Water Pollution Control,” shall be in addition to the other retention amounts required by the contract. The amounts retained from you for failure to conform to provisions in this section will be released for payment on the next monthly estimate for partial payment following the date when an approved WPCP has been implemented and maintained, and when water pollution has been adequately controlled, as determined by the Engineer.

During the first estimate period that the Contractor fails to conform to the provisions in this section, “Water Pollution Control,” the Town may retain an amount equal to 25 percent of the estimated value of the contract work performed.

Add to Section 13-2.01A:

This project disturbs less than 1 acre of soil. Prepare a Water Pollution Control Program.

Add to Section 13-2.04:

Implementing the WPCP is paid for as Water Pollution Control. This includes all work associated with implementing your authorized WPCP, including furnishing, constructing, maintaining, removing, and disposing of water pollution control materials, including, but not limited to, fiber rolls, polyethylene plastic sheeting, gravel bags, silt fencing, and inlet protection.

Add to Section 13-4.03C(2):

All materials and equipment must be securely stored within the construction storage and staging area during non-work hours. The area must be kept clean in accordance with Section 5-1.31 of the Standard Specifications. Any damage caused by the contractor’s access to the area must be repaired and restored in accordance with Section 5-1.39 of the Standard Specifications.

Add to Section13-4.03E(4):

Personal vehicles of your employees must not be parked on the traveled way or shoulders, including sections closed to traffic. Personal vehicles of employees must not occupy any public parking stalls in any part in the Town of Danville, with the exception of the construction storage and staging area as approved by the Town.

10.2.02 Payment

Add to Section 13-2.04:

"Water Pollution Control" will be paid for on a lump sum basis. Payment will be made according to Section 13-2.04 of the Standard Specifications, with 75% of the item total paid upon authorization of the WPCP and the final 25% of the item paid upon Contract acceptance.

10.3 Temporary Traffic Control (Bid Item 3)

10.3.01 General

Refer to Section 7-1.03 "Public Convenience", Section 7-1.04 "Public Safety" and 12-1 "General", 12-3 "Traffic -Handling Equipment and Devices", 12-4 "Maintaining Traffic", 12-5 "Traffic Control for Lane Closure", 12-7 "Temporary Pedestrian Walkways", and 12-8 Temporary Pavement Delineation" of the Standard Specifications for specific requirements of this section. Refer also to Section 12 of these Special Provisions.

Add to Section 12-1.01 "General" the following:

Traffic control during construction shall be the responsibility of the Contractor. All traffic control devices shall be in accordance with the most recent California Manual on Uniform Traffic Control Devices (California MUTCD).

Submit a temporary traffic control (TTC) plan fifteen (15) calendar days prior to beginning of work. The plan must be in conformance with these specifications and approved by the Engineer prior to beginning work. Any revisions to the approved traffic control plan must be submitted to the Engineer for approval a minimum of two working days prior to intended use of revised traffic control plan. Open full width of the traveled way for use by public traffic on Saturdays, Sundays and designated holidays; after 3:00 p.m. on Fridays and the day preceding designated holidays; and when construction operations are not actively in progress. TTC shall be coordinated with the local school schedule to minimize traffic delay during pick-up and drop-off times.

Add to Section 12-4.01 "General", the following:

Local authorities are defined as, but not limited to, Town of Danville, Contra Costa County Sheriff's Department, California Highway Patrol, local Fire Department, United States Post Office, local waste management companies, local transit agencies, Emergency Response Companies and/or all businesses or regular users whose ability to perform their daily job will be affected by road closures, detours or general work by the Contractor.

If necessary, provide traffic control to allow the Engineer to mark out dig outs or areas to be reconstructed.

The traffic control plan must include all locations, which involve all project improvements and shall indicate each stage of work, signage, flashing arrow signs, flagman, detour routes, and any other pertinent information. The traffic control plan shall be reviewed and approved by the Engineer before the Contractor is allowed to begin work. The Town reserves the right to modify any portion of the plan.

The traffic control plan must include a pedestrian detour plan to route pedestrian traffic around the work area. Custom signage shall be installed to direct pedestrians to cross at adjacent intersections/crosswalks and indicate the portions of sidewalk that will be closed to pedestrian traffic, as

directed by the Engineer. Contractor shall maintain safe pedestrian access to adjacent businesses during all phases of construction.

The location of traffic control devices shall be checked by the Contractor especially at the beginning of the work period and periodically throughout the work day, to ensure that the devices are properly placed and maintained.

Conduct all operations with the least possible obstruction and inconvenience to the public. The Contractor must have under construction no greater length or amount of work than can be completed within a workday with due regards to the rights of the public.

Work shall be accomplished in such a manner as to provide access to all intersecting streets and adjacent properties whenever possible. If access to any property cannot be provided, then adequate nearby parking shall be provided and maintained until direct access can again be restored. If during the course of the work, it is necessary to restrict access to certain driveways for an extended period of time, notify the affected residents and businesses, in writing, at least forty-eight (48) hours in advance.

To minimize the disruption to public traffic:

1. Permit local traffic to pass through the work with the least possible inconvenience or delay.
2. Permit buses to safely stop and load/unload passengers at adjacent bus stop while providing sufficient room for traffic to pass. Maintain pedestrian access to bus stop.
3. Maintain existing driveways, commercial and residential, within the vicinity of the work area, keeping them open and in good, safe condition at all times.
4. Remove or repair any condition resulting from the work that might impede traffic or create a hazard.
5. Keep existing traffic signal and roadway lighting systems in operation throughout the construction work.

To protect the right of abutting property owners:

1. Conduct the construction so that the least inconvenience as possible is caused to abutting property owners.
2. Maintain ready access to houses or businesses along the line of work, including ramps over bypass.
3. Notify all parties at least five (5) days, and again in 48 hours, in advance of work which would affect their access.

Where paving work is being performed on the roadway to be used by traffic, complete the work to the finished grade before the end of the workday unless otherwise directed by the Engineer.

The Contractor is responsible for providing adequate safeguards, safety devices, protective equipment, and any other needed actions to protect life, health, and safety of the public, and to protect property in connection with the performance of the work covered by the contract. The Contractor must perform any measures or actions the Town or the Engineer may deem necessary to protect the public and property.

The full width of the traveled way shall be open for use by public traffic on designated legal holidays, and when construction operations are not actively in progress.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

All holes, trenches, etc., in pavement areas shall be covered with 1 inch steel plates, shimmed with temporary asphalt on edges, by 4:30 p.m. each work day. As an option to the Contractor, the holes, trenches, etc., can be backfilled and all areas within pavement areas have temporary asphalt toppings. The temporary asphalt shall be regularly maintained. All areas shall be completely restored within fifteen (15) working days after the work has been completed at that location. All open excavations which are not actively involved in construction activity shall be adequately barricaded against entry by pedestrians or animals.

Where existing road signs are in conflict with the proposed work, relocate such signs to temporary or permanent locations as directed by the Engineer.

Replace “Reserved” in Section 12-5 “Traffic Control System for Lane Closure” with the following:

During traffic striping and pavement marker placement using bituminous adhesive, control traffic with a stationary or a moving lane closure. A flashing arrow sign used in a moving lane closure must be truck-mounted. Operate the flashing arrow sign in the caution display mode whenever it is being used on a 2-lane, 2-way highway. During other activities, control traffic with stationary lane closures. For a stationary lane closure made only for the work period, remove components of the traffic control system from the traveled way and shoulder, except for portable delineators placed along open trenches or excavation adjacent to the traveled way at the end of each work period.

10.3.02 Written Notices

Add to Section 7-1.03 “Public Convenience” the following:

The Contractor must distribute an approved written notice to all affected residents, businesses, property owners, tenants, and applicable parties. Said notice must be delivered not more than 10 calendar days nor less than 7 calendar days in advance of the work. Such notice must state the following:

1. Project Name and Project Number
2. Description of work
3. Map illustrating the project boundaries
4. Address to the Town’s website where up-to-date project information will be posted.
5. Expected dates for start and completion of construction as well as work hours
6. The name, address, and 24-hour telephone number of the Contractor.
7. Instructions on alternate ingress/egress or parking areas on the day when construction will obstruct access.

Notices must be distributed to all property owners and/or tenants who reside on the street or on the immediately adjacent side streets or driveways that will be obstructed or impacted by the construction operation. Obstruction shall be defined as a blockage of more than five minutes.

Each notice shall be hand delivered or securely attached to the building’s front door in the event that the business is closed. A draft copy of the notice shall be provided to the Engineer for approval, prior to distribution.

Five working days prior to construction activities the Contractor shall notify the Town Engineer.

Notice shall be given for general construction activity in an area as well as specific activities which will, in any way, inconvenience the property owner/tenant or affect their operations or access to their property.

At least two weeks in advance of any lane closure, road closure, excavation in the public right-of-way, or parking prohibition, all emergency services, public transportation services, post office, garbage collection services, and other agencies shall be notified by the Contractor in writing of the locations, time and date of the closure. In case of schedule changes, the emergency services, etc., shall be notified by telephone at least two days in advance of the closure or prohibition. A list of contacts is below:

Fire District:	**Transit Agency:**
San Ramon Valley Fire Protection District 1500 Bollinger Canyon Road San Ramon, CA 94583 (925) 838-6600 info@srvfire.ca.gov	County Connection c/o Moises Cordero 2477 Arnold Industrial Way Concord, CA 94520 (925) 680-2020 – Dispatch (925) 348-0295 - Mobile cordero@countyconnection.com
Police Department:	**Post Office:**
Danville Police Services c/o Administrative Lieutenant 510 La Gonda Way Danville, CA 94526 (925)314-3700	Danville Square Post Office c/o Postmaster 23 Railroad Avenue Danville, CA 94526 (925) 314-9650
Recycling Collection:	**Garbage Collection:**
Valley Waste Management 2685 North Main Street Walnut Creek, CA 94597 (925) 935-8900	Republic Services (Allied Waste) 441 North Buchanan Circle Pacheco, CA 94553 (925) 685-4716 Service@awsccc.com
Eugene O'Neill (Tao House) Shuttle Stop:	**Museum of the San Ramon Valley:**
National Park Service c/o Tom Leatherman P.O. Box 280 FedEx 1000 Kuss Road Danville, CA 94526 (510) 232-1542 x6301 Work (510) 778-4171 Mobile	Museum of the San Ramon Valley c/o Jerry Warren 205 Railroad Avenue or P.O. Box 39 Danville, CA 94526 (925) 837-3750 srvmuseum@sbcglobal.net
Underground Service Alert:	**Kinder Morgan Energy Partners L.P.:**
USA North 811 4005 Port Chicago Highway, Suite 100 Concord, CA 94520 (800) 227-2600	Kinder Morgan 1550 Solano Way Concord, CA 94520 (925) 798-8587

The Contractor is responsible for keeping the Danville Police Department and San Ramon Valley Fire Protection District informed of obstructions to either public or private roads caused by his operations. Emergency traffic shall be given access to their destination through the project area.

10.3.03 Coordination with Local School

The construction schedule will likely coincide with regular school sessions. Care must be taken by the Contractor to avoid obstructing or otherwise interrupting the drop-off and pick-up of students, and to prevent unauthorized access to the construction area from students and others. To address child safety concerns, and to coordinate with school activities, the Contractor shall meet regularly with San Ramon Valley Unified School District officials and the school principals before and during the construction process to discuss issues of common concern.

Contact information:

Green Valley Elementary School	Vista Grande Elementary School
Attn: Donna Grim, Principal 1001 Diablo Rd, Danville, CA 94526 Phone: 925-855-5400	Attn: Megan Keefer 667 Diablo Rd, Danville, CA 94526 Phone: 925-314-1000
St. Isidore School	Sycamore Valley Elementary School
Attn: Carol Bender, Principal 435 La Gonda Way, Danville, CA 94526 Phone: 925-837-2977	Attn: Patricia Kawahara, Principal 2200 Holbrook Dr, Danville, CA 94506 Phone: 925-855-2800

10.3.04 Holidays and Special Events

Replace Section 12-4.02C(3)(f) "Closure Restrictions for Designated Holidays and Special Days" with the following:

No project activity is allowed on designated Town of Danville holidays. The Contractor's schedule must reflect this activity prohibition and no additional working days will be granted. Said holidays include:

New Year's Day	January 1st
Martin Luther King Day	Third Monday of January
Presidents' Day	Third Monday of February
Memorial Day	Final Monday of May
Independence Day	July 4th
Labor Day	First Monday in September
Veterans' Day	November 11th
Thanksgiving	Fourth Thursday in November plus Friday after Thanksgiving
Christmas Holidays	December 25th plus Day after or day before Christmas
Holiday Furlough	Days between Christmas Holidays and New Year's Day

If the dates above designated by an * fall on a Saturday or Sunday, the holiday will instead be observed on either the preceding Friday or the following Monday.

No project activity is allowed during Special Events. An event scheduled for a Saturday or Sunday often requires set-up on the preceding Friday afternoon. The Contractor's schedule must reflect this

activity prohibition and no additional working days will be granted:

Danville Farmer's Market	Every Saturday	Ends at 2:00 p.m.
1st Quarter Sidewalk Sale	1st Friday in February	Begins at 9 a.m.
Earth Day Celebration	3rd Saturday in April	Daylight hours
Devil Mountain Run	1st Sunday in May	Begins at 6 a.m.
Spring Wine & Chocolate Stroll	2nd Thursday in May	Begins at 5 p.m.
Doggie Night	4th Thursday in May	Begins at 4 p.m.
Moonlight Movie	2nd Friday in June	Begins at 7:30 p.m.
Danville Fine Arts Faire	3rd Sat & Sun in June	Daylight hours
Moonlight Movie	4th Friday in June	Begins at 7:30 p.m.
4th of July Parade	July 4th	Begins at 8 a.m.
Thursday Night Street Festival	2nd Thursday in July	Begins at 3 p.m.
Hot Summer Nights Car Show	3rd Thursday in July	Begins at 2 p.m.
Moonlight Movie	3rd Friday in July	Begins at 7:30 p.m.
Thursday Night Street Festival	1st Thursday in August	Begins at 3 p.m.
Moonlight Movie	1st Friday in August	Begins at 7:30 p.m.
Hot Summer Nights Car Show	2nd Thursday in August	Begins at 2 p.m.
Moonlight Movie	2nd Friday in August	Begins at 7:30 p.m.
Art & Wine Stroll	3rd Thursday in August	Begins at 3 p.m.
First Day of School	4th Monday in August	All day
Heartland Antiques & Art Faire	1st Monday in Sept	Daylight hours
Danville d'Elegance CarShow	3rd Sunday in Sept	Daylight hours
Run for Education	2nd Sunday in October	Ends at 10 a.m.
Danville Fall Craft Festival	4th Sat & Sun in Oct	Daylight hours
Spirit of Danville Holiday Shopping	2nd Thursday in Nov	Daylight hours
Lighting of the Old Oak Tree	4th Friday in Nov	Begins at 4 p.m.

10.3.05 Temporary Pavement Delineation

Add to Section 12-6 "Temporary Pavement Delineation" of the Standard Specifications the following:

Whenever work activities obliterate pavement delineation, place temporary or permanent pavement delineation before opening the traveled way to traffic. Alternatively, use channelizing devices, cones, and tubular markers in conformance with Sections 6F.63 through 6F.65 of the 2014 California MUTCD, Revision 3. Place lane line and centerline pavement delineation for traveled ways open to traffic.

Add Section 12-6.02B "Temporary Lane Line and Centerline Delineation" as follows:

Temporary pavement markers must be the same color as the lane line or centerline markers being replaced. Temporary pavement markers must be one of the temporary pavement markers on the Authorized Material List for short-term day or night use, 14 days or less, or long-term day or night use, 180 days or less. Alternatively, use channelizing devices, cones, and tubular markers in conformance with Sections 6F.63 through 6F.65 of the 2014 California MUTCD.

Add to Section 12-6.03C “Temporary Edge Line Delineation” as follows:
Temporary, removable, construction-grade striping and pavement marking tape must be one of the types on the Authorized Material List. Apply temporary, removable, construction-grade striping and pavement marking tape under the manufacturer's instructions. Alternatively, use channelizing devices, cones, and tubular markers in conformance with Sections 6F.63 through 6F.65 of the 2014 California MUTCD, Revision 3.

Establish the alignment for temporary pavement delineation, including required lines or markers. Surfaces to receive an application of paint or removable traffic tape must be dry and free of dirt and loose material. Do not apply temporary pavement delineation over existing pavement delineation or other temporary pavement delineation. Maintain temporary pavement delineation until it is superseded or you replace it with a new striping detail of temporary pavement delineation or permanent pavement delineation.

When the Engineer determines the temporary pavement delineation is no longer required for the direction of traffic, remove the markers, underlying adhesive, and removable traffic tape from the final layer of surfacing and from the existing pavement to remain in place. Remove temporary pavement delineation that conflicts with any subsequent or new traffic pattern for the area.

Whenever lane lines or centerlines are obliterated, the minimum lane line and centerline delineation must consist of temporary pavement markers placed longitudinally at intervals not exceeding 24 feet. The temporary pavement markers must be temporary pavement markers on the Authorized Material List for short-term day or night use, 14 days or less, or long-term day or night use, 180 days or less. Place temporary pavement markers under the manufacturer's instructions. Cement the markers to the surfacing with the adhesive recommended by the manufacturer, except do not use epoxy adhesive to place pavement markers in areas where removal of the markers will be required.

For temporary lane line or centerline delineation consisting entirely of temporary pavement markers, place the markers longitudinally at intervals not exceeding 24 feet.

Add to Section 12-6.03D “Temporary Traffic Stripe Tape” as follows:
Apply temporary traffic stripe tape under the manufacturer's instructions. Slowly roll the tape with a rubber-tired vehicle or roller to ensure complete contact with the pavement surface. Apply the tape straight on a tangent alignment and on a true arc on a curved alignment. Do not apply the tape when the air or pavement temperature is less than 50 degrees F unless the installation procedures are authorized beforehand.

The temporary traffic stripe tape must be complete in place at the location shown before opening the traveled way to traffic.

Add Section 12-6.03D(3) “Temporary Traffic Stripe Paint” as follows:
Apply 1 or 2 coats of temporary traffic stripe paint for new or existing pavement.

The painted temporary traffic stripe must be complete in place at the location shown before opening the traveled way to traffic. Removal of painted temporary traffic stripe is not required.

Add Section 12-6.03D(4) “Temporary Pavement Marking Tape” as follows:
Apply temporary pavement marking tape at the locations shown. The tape must be complete in place at the location shown before opening the traveled way to traffic.

Add Section 12-6.03D(5) “Temporary Pavement Marking Paint” as follows:
Apply and maintain temporary pavement markings consisting of painted pavement markings at the locations shown. The painted temporary pavement marking must be complete in place at the location shown before opening the traveled way to traffic. Removal of painted temporary pavement marking is not required.

Apply 1 or 2 coats of temporary pavement marking paint for new or existing pavement.

Add Section 12-6.03D(6) “Temporary Pavement Markers” as follows:
Place temporary pavement markers under the manufacturer's instructions. Cement the markers to the surfacing with the manufacturer's recommended adhesive, except do not use epoxy adhesive in areas where removal of the pavement markers is required.

You may use retroreflective pavement markers instead of temporary pavement markers for long-term day or night use, 180 days or less, except to simulate patterns of broken traffic stripe. Retroreflective pavement markers used for temporary pavement markers must comply with section 81-3 except the waiting period before placing pavement markers on new asphalt concrete surfacing as specified in section 81-3.03 does not apply. Do not use epoxy adhesive to place pavement markers in areas where the removal of the pavement markers is required.

Temporary pavement markers must be complete in place before opening the traveled way to traffic.

10.3.06 Maintaining Traffic

Add to Section 12-4.01, “General”:
Construction is within Town of Danville and State owned public right-of-way. Provisions must be made for the safe passage of vehicular and pedestrian traffic around the area of the work at all times. Every effort must be made by the Contractor to permit unobstructed pedestrian and bicycle access along the existing pathways during construction. Pedestrian access facilities must be provided through construction areas within the right of way as shown on the plans and as specified herein. Pedestrian walkways and bikeways must be surfaced with asphalt concrete, Portland cement concrete or wood. The surface must be skid resistant and free of irregularities.

The fact that rain or other causes may force suspension or delay of the work does not relieve you from your responsibility for maintaining both pedestrian and vehicle traffic around the project and providing local access as specified herein. You must at all times keep on the job such materials and equipment as may be necessary to keep streets and pathways within the project area open to the public and in good repair.

Should you fail, in the opinion of the Engineer, to provide all the materials, work force and equipment necessary to maintain public access around the work area as set forth herein, the Town, upon the recommendations of the Engineer, may take steps necessary to suspend the Contract. The Town may then, upon such suspension, cause such work to be done as may be necessary to maintain public access, and charge same against you and sureties including overhead and legal expenses.

Take all necessary measures to obtain a normal flow of traffic to prevent accidents and to protect the work throughout the construction stages until completion of the work. Make the necessary arrangements to provide and maintain barriers, cones, guards, barricades, and construction warnings and regulatory signs. Take measures necessary to protect all other portions of the work during construction and until completion, providing and maintaining all necessary barriers, barricade lights, guards, temporary crossovers and watchmen.

In addition to the foregoing traffic control and safety measures, immediately implement any measures requested by the Engineer to ensure the proper flow of traffic and the protection of the public and the safety of the workers. Maintain at all times the ability to respond to calls from the Danville Police and San Ramon Valley Fire Protection District during non-working hours to replace or provide additional traffic control or safety devices as shall be required by the Police Department.

Personal vehicles of the Contractor's employees must not be parked on the paved shoulders or the traveled way, including any section closed to public traffic.

At the end of each day's work, and at other times when construction operations are suspended, all equipment and other obstructions shall be removed from that portion of roadway open for use by public traffic. No longitudinal joint shall be left during non-working hours.

10.3.07 Flaggers

Add to Section 12-1.03 "Construction" the following:

Provide flaggers at any location where free-flowing 2-way traffic cannot be accomplished due to construction and if it becomes necessary, in the opinion of the Engineer, to properly move traffic through the construction area, flagmen shall be present to slow down and reroute traffic. Flagmen shall be on duty the entire period the roadway is constructed. A minimum of three flagmen shall be on duty during all cold plane and paving operations. Where flagmen are not visible to each other, additional flagmen shall be added as required by the Engineer, or the Contractor must use radios.

10.3.08 Payment

Add to Section 9 "Payment" of the Standard Specifications the following:

"Temporary Traffic Control" will be paid for on a lump sum basis based on a percentage complete each month.

Add to Section 12-1.04, "Payment": The contract lump sum price paid for Bid Item 3 "Traffic Control" includes full compensation for furnishing all labor (including preparation of the Traffic Control Plan and flaggers when necessary), materials (including flashing arrow signs, barricades, door hangers and temporary traffic delineation), tools, equipment, and incidentals and for doing all the work involved in traffic control, complete in place, including all work necessary to provide for the convenience & safety of the public, temporary pedestrian passage (ramps, walkways, etc.), and to facilitate the performance of the contract work as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The contract unit price paid for Bid Item 3 shall also include costs associated with two "Portable Changeable Message Sign" and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in portable changeable message sign installation and maintenance, complete in place, including placing, maintaining, trailering, moving from site to site, and protection, as shown on the plans, as specified in the Standard Specifications and these

special provisions, and as directed by the Engineer.

Replace Section 12-1.04 “Payment” with the following:

100% of the flagging costs will be paid as part of Temporary Traffic Control.

Replace Section 12-3.01C “Construction” with the following:

Furnishing, installing, maintaining, moving, removing traffic control equipment and devices and performing lane closures ordered by the Engineer will be paid as part of Temporary Traffic Control bid item.

Replace Section 12-3.02D “Payment” with the following:

Payment for barricades described for a traffic control system will be paid as part of Temporary Traffic Control.

Replace Section 12-3.11D “Payment” with the following:

Payment for construction area signs described for a traffic control system will be paid as part of Temporary Traffic Control.

The adjustment provisions in Section 4-1.05, "Changes and Extra Work," of the Standard Specifications, shall not apply to Bid Item 3 “Temporary Traffic Control”. Adjustments in compensation for traffic control system will be made only for increased or decreased traffic control system required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary.

Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account," of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work. The lump sum amount for Bid Item 3 “Traffic Control” as set forth in the Bid Schedule will be made in the form of monthly, prorated payments, no part of which will be approved for payment under the Agreement until the initial progress schedule and schedule of values have been furnished as specified herein.

10.4 Solid Waste Disposal and Recycling Report (Bid Item 4)

10.4.01 General

Refer to Section 14-10 of the Standard Specifications for specifications on solid waste disposal and recycling report. The Town of Danville expects its contractors, as part of its bid, to consider the economic benefits of recycling construction and demolition materials. As such, the Contractor shall include, as part of its contract cost, the recycling of construction and demolition materials. At least 50% of job-site waste shall be diverted from landfills.

10.4.02 Green Halo

Obtain the names of local recyclers from Central Contra Costa Solid Waste Authority at (925) 906-1801 or by visiting Green Halo at www.greenhalosystems.com or at (888)-525-1301. Create an account with Green Halo as instructed in Appendix D.

10.4.03 Solid Waste Disposal and Recycling Report

Replace Section 14-10.02A(1) with:
14-10.02A(1) Submittals
Submit a Solid Waste Disposal and Recycling Report for the project using the Green Halo on-line software. Show the types and amounts of project-generated solid waste taken to or diverted from landfills or reused in accordance with the 50% diversion requirement of this project.

10.4.04 Payment

Add Section 14-10.02A “Payment”:

Solid Waste Disposal and Recycling Report (Bid Item 4) will be paid for on a lump sum basis. Payment will be made upon submittal of the final Solid Waste Disposal and Recycling Report.

The contract lump sum price paid for Bid Item 4 "Solid Waste Disposal and Recycling Report" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in preparing and submitting the solid waste disposal and recycling report, as specified in plans, the Standard Specifications, and the special provisions, and as directed by the Engineer.

Full compensation for recycling, including diversion of 50% of job-site waste from landfills, shall be considered as included in the contract prices paid for the various contract items of work and no separate payment will be made therefor.

10.5 Schedule (Bid Item 5)

10.5.01 General

Refer to Section 8-1.02 “Schedule” of the Standard Specifications for specifications on the required Schedule.

10.5.02 Payment

Add to Section 8-1.02D(10), “Payment”:
The contract lump sum price paid for Bid Item 5 "CPM Schedule" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in developing, preparing, obtaining approval of, revising, amending, and implementing the CPM schedule, as specified in plans, the Standard Specifications, and the special provisions, and as directed by the Engineer.

10.6 Selective Tree Trimming (Bid Item 6)

10.6.01 General

Refer to Section 17-2 “Clearing and Grubbing” of Standard Specifications:

10.6.02 Materials

Not Used.

10.6.03 Construction

Add to Section 17-2.03B “Clearing” of Standard Specifications the following:

When required by Contractor's operations, prior to performing any paving operations, trees, shrubs, and other vegetation that may be subject to having their leaves or branches broken off and falling onto existing pavement or into asphalt concrete shall be neatly trimmed. Trimming shall not exceed what is necessary to clear Contractor's equipment.

Quality Assurance

All trimming work shall be performed under direct supervision of and in conformance with recommendations of an arborist certified by the Western Chapter of the International Society of Arboriculture. Submit copies of supervising arborist's certification to Engineer prior to performing any work.

Quality Control

Contractor shall be held responsible for any damage to trees, vegetation, or private property caused by its construction operations or trees that die after improper pruning or trimming. At Town's option, Contractor shall be assessed for value of damage to trees, vegetation or private property based upon International Society of Arborculture's Standard method of valuation.

Furnish all tools and equipment and employ trained tree trimmer personnel under direction of arborist to operate all equipment and perform all handwork efficiently and skillfully.

Order of Work

1. Trimming shall be performed only on trees or vegetation requiring work in order to conform to parameters set forth in this Section, unless otherwise directed by Engineer.

2. Identify all trees and vegetation determined to require trimming with temporary chalk paint markings on adjacent street travel way for review by Engineer prior to beginning any cutting operations.

3. A list verifying address and/or location of all trees or vegetation to be trimmed or shall be prepared by Contractor and submitted to Engineer for review by Town's designated landscape specialist.

4. Contractor shall notify all property occupants when trees or vegetation is to be trimmed in accordance with Section 10.1 of these Contract Specifications. Distribute notifications and post temporary no parking restrictions per this Section a minimum of 72 hours in advance of any cutting operations.

"No Parking" zones shall be established where necessary to accomplish trimming operations.

Trimming

Limbs of trees, shrubs, and other vegetation or other obstructions shall be trimmed to a minimum height of 14 feet 6 inches above roadway, as measured from lip of gutter, and to 7 feet above sidewalk, as measured from the back of sidewalk. Crown of tree shall be balanced if necessary. Balancing of tree crown shall be accomplished by thinning, reducing end weights, shortening long heavy limbs, removing deadwood, weak limbs, and sucker growth. Prune back limbs to an appropriate lateral branch.

Do not tear or rip tree limbs. All pruning cuts shall be clean cuts.

Stub or ledge cuts shall not be left after the removal of limbs. Limbs to be removed shall be undercut to prevent breaks or tearing of bark. Final cuts shall be made nearly flush with parent branch or trunk leaving a callus ring.

Portion of trunks or parent limbs from which limbs over 1½“ diameter have been removed shall be immediately sealed with a commercial type tree sealer.

Trees and vegetation shall be trimmed in such a manner as not to injure adjacent trees, plants, and/or improvements which are to be preserved.

All trimmings and debris generated from these operations shall be removed completely from both the public right of way and adjacent private property and properly disposed of in accordance with standard specification section 4-1.13 Cleanup.

Safety

Add to Section 17-2.03B “Clearing” of Standard Specifications the following:

Trimming work shall be performed in a safe and proper manner adhering to Division of Occupational Safety and Health (Cal/OSHA) standards and ANSI regulations.

This section references occupational safety and health standards in Chapter 4 (Safety Orders) of California Code of Regulations (CCR) that are enforced by Cal/OSHA, in particular Title 8 worker safety and health standards:

Subchapter 7. General Industry Safety Orders
Group 3. General Plant Equipment and Special Operations
Article 12. Tree Work, Maintenance or Removal

Section 3423. Electrical Hazards, General

(a) Employees engaged in tree work operations such as, but not limited to, tree trimming, maintenance and removal in proximity to electrical equipment and conductors, shall be instructed regarding the following:

(1) To consider all such equipment to be energized with potentially fatal voltages, never to be touched (contacted) either directly or indirectly.

(2) Electrical shock will occur when a person, by either direct contact or indirect contact with an energized electrical conductor, energized tree limb, tool, equipment, or other object, provides a path for flow of electricity to a grounded object or to the ground itself. Simultaneous contact with two energized conductors phase to phase will also cause electric shock that may result in serious or fatal injury.

(3) Electrical shock may occur as a result of ground fault when a person stands near a grounded object. For example, if an uninsulated aerial device with its outriggers down comes into contact with a conductor.

(4) In the event of a downed energized electrical conductor or energized grounded object, there exists hazard of step potential.

(b) (1) Employees shall not perform tree trimming activities within 10 feet of high voltage energized power lines and conductors unless employee meets requirements of subsection (c).

(2) A qualified tree worker shall be permitted to perform tree trimming activities within 10 feet, but no closer than 1 foot, of energized low voltage (600 volts or less) power lines and conductors, provided that qualified tree worker is trained and competent in the following:

(A) Skills and techniques necessary to identify components of an electrical system, including the ability to distinguish exposed live parts from other parts of electric equipment;

(B) Skills and techniques necessary to determine difference between low and high voltage energized conductors and equipment;

(C) Minimum approach distances that must be maintained as specified in this section corresponding to voltages to which an employee will be exposed, and

(D) Skills and work practices necessary to avoid contact with electrical lines and conductors, including use of personal protective equipment and insulating or non-conductive tools.

(c) Line clearance tree trimming operations as defined in Section 2700 of High-Voltage Electrical Safety Orders (related to electrical equipment and conductors in excess of 600 volts) shall be conducted in accordance with Article 38 of High-Voltage Electrical Safety Orders. Only qualified line clearance tree trimmers, or trainees, as defined in Section 2700 of the High-Voltage Electrical Safety Orders shall be permitted to perform such line clearance tree trimming work.

NOTE: Sections 2940.2 and 2951 of High-Voltage Electrical Safety Orders provide minimum approach distances and requirements for line clearance operations.

(d) Metal core rope used in a climbing system shall not be used in proximity to energized electrical equipment and conductors.

10.6.04 Payment

Payment for Selective Tree Trimming will be at contract as lump sum bid price for acceptably trimmed tree, shrub or other vegetation feature.

10.7 Remove & Replace PCC Curb and Gutter (Type A) (Bid Item 7); Remove & Replace PCC Sidewalk (Bid Item 8), and Remove, Replace PCC Curb Ramp (Bid Item 9), Remove & Replace Rolled PCC Curb (Bid Item 10), and Remove & Replace PCC Valley Gutter (Bid Item 11)

10.7.01 General

Refer to Section 73 “Concrete Curbs and Sidewalks” and Section 90-2 “Minor Concrete” of the Standard Specifications for specifications on furnishing and placing minor concrete for curbs, sidewalks, driveways and associated concrete improvements.

Bar reinforcement must conform to Section 52-1.02B “Bar Reinforcement” of the Standard Specifications and ASTM A615 for Grade 40.

Refer to following Standard Plans (Appendix B): Caltrans Standard Plan A88A, Contra Costa County Standard Plan CD20, and Town Standard Plans 105, 107, 110, and 112.

10.7.02 Materials

Revise the first sentence in Section 73-1.02A of Standard Specifications to read as follows:

“Cementitious material content of concrete must be at least 505 lb/cu yd.”

Add to Section 73-1.02A “General” the following:

Add lamp-black color admixture in proportions that will allow the cured concrete surface to match any existing adjoining concrete surface.

Replace first paragraph in Section 73-1.02B with the following:

Install prefabricated detectable warning surface under requirements of Department of General Services, Division of State Architect. Finished surfaces of detectable warning surface must be free from blemishes. Color of detectable warning surface will be yellow color no. 33538 or FED-STD-595. Surface-applied detectable warning surfaces are not allowed. Manufacturer must provide written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is defect in dome shape, color fastness, sound-on-cane acoustic quality, resilience, or attachment. Warranty period must begin upon acceptance of contract.

10.7.03 Construction

All PCC improvements must be completed before street overlay start.

Add to Section 73-1.03 “Construction” of Standard Specifications the following:

Work shall consist of installing Portland Cement Concrete (PCC) curb ramps, and reconstructing damaged portions of PCC improvements, including cutting and removal of conflicting tree roots (under direction of a California state licensed arborist), placement of aggregate base, 95% compacted native material, and Grade 40 reinforcing steel. Work areas are marked with white paint at work sites.

All PCC replacement features shall be installed at straight grade between PCC conform points, such that depressed areas caused by subsidence or other similar base failure defects are removed, unless otherwise shown on plans or directed by Engineer.

Add to Section 73-1.03A the following:

Construct new sidewalk and new curb monolithically. Repair at your expense the existing private landscaping and irrigation systems adjacent to the back of new sidewalk damaged during construction of new facilities. Repairs must fully restore equal to, or better than, original landscaping and irrigation as determined by the Engineer.

Gutters shall be included whenever plans and contract specifications refer to existing and new curbs, and no additional compensation will be allowed for removal and replacement of gutters that are adjacent to curbs. Depressed driveway sections of curb and sidewalk shall be replaced at same horizontal locations as existing PCC features, and no additional compensation will be allowed for installation of depressed driveway sections of PCC features. Prior to final acceptance, as directed by the Engineer, water test curbs with gutters on slopes of 0.75% or flatter and paved surfaces to verify proper drainage. Any ponding of water greater than 0.25 inch depth will be considered as evidence of poor work techniques and must be corrected by removing and replacing those portions of curb and gutter as necessary to comply with the requirements of this special provision, at no additional expense to the Town. Before placing concrete, verify that forms and site constraints allow the required dimensioning and slopes shown. Immediately notify the Engineer if you encounter site conditions that will not accommodate the design details.

Portions of PCC curb and sidewalk repairs are located adjacent to existing storm drain inlets (SDI). SDI curb and sidewalk transitions shall be replaced at same horizontal locations as existing curb and sidewalk transitions, such that surface drainage across repaired portions of PCC features will flow continuously into inlets without any ponding of water, to satisfaction of Engineer. No additional compensation will be allowed for installing PCC curb and sidewalk transitions to existing storm drain inlets.

All existing concrete improvements shall be sawcut to a neat straight line at limits of removal as shown on plans.

Determine actual location of all existing utilities and other improvements that will be encountered in its construction operations, and ensure that such utilities or other improvements are adequately protected from damage due to such operations. Take all possible precautions for protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary. If it is necessary to relocate or move property of any public utility or franchise holder, Contractor shall contact appropriate utility or franchise holder. Notify appropriate utility or agency for any existing utility lines that are damaged or exposed during construction.

Engineer may remove locations or specify additional locations within, adjacent, or near project limits. Additional locations shall be paid for at the bid price of appropriate bid items and no additional compensation will be allowed therefore.

Subgrade shall be scarified, watered and thoroughly compacted to 95% relative compaction. Unsuitable material shall be removed and replaced with new material compacted at its optimum moisture content to bring improvements to proper grade. Backfill at back of walk shall be placed and compacted to conform to existing grades.

Class 2 aggregate base or aggregate sub-base shall be placed under concrete improvements, as shown on plans, and shall conform to Section 26 "Aggregate Bases" of Standard Specifications.

Subgrade and concrete forms shall be wet immediately in advance of placing concrete.

New PCC shall be sprayed uniformly with clear curing compound. Material, method, and rate of application shall conform to Section 90-1.03B(3), "Curing Compound Method," of Standard Specifications except that only non-pigmented curing compounds conforming to requirements of ASTM Designation: C 309, Type 1, Class B, or of AASHTO Designation: M 148, Type 1-D, shall be used.

Finished surface of concrete improvements shall not vary more than 0.01 feet above or below adjacent finished surface, and shall have soft broom finish.

All new PCC improvements shall be doweled to existing PCC improvements as shown on plans and as directed by Engineer using 12” long No. 3 rebar. Generally, dowels shall be placed 3’ on center longitudinally when adjacent to existing PCC improvements with a minimum of two equally spaced dowels. Two equally spaced dowels shall be placed at each conform to existing PCC sidewalk or curb ramp and at each full width expansion joint. Dowels shall be drilled for tight fit and epoxied in place. Drilling and grouting of dowel reinforcement shall conform to plans, and to Section 51-1.1C(3) "Bonding" of Standard Specifications.

Joints:

1. Expansion joints: Expansion joints shall be placed at 200-foot spacing and at all changes in horizontal alignment.

2. Weakened Plane Joints shall be placed at all driveway edges and transversely at not more than 8 foot spacing, per Detail “B” on Town Standard Plan 107.

3. Score Marks shall be placed transversely at not more than 4’ spacing between deep joints and longitudinally along back of curb, per Detail “B” on Town Standard Plan 107.

Clean any discolored concrete by abrasive blast cleaning or another method approved by Engineer. Any necessary repairs shall be made by removing and replacing entire section of concrete between scoring lines.

All existing hardscape, landscaping, irrigation sprinkler heads and lines, yard drain pipes, utility boxes, and other improvements located near existing back of sidewalk shall be protected from damage or restored to satisfaction of Engineer. Hardscape includes wood header boards, brick planter walls, brick bands, and rocks. Adjust utility boxes to grade if encountered in new ramp.

Add to Section 73-2.03A and Section 73-3.03 of the Standard Specifications the following:

Before placing concrete, verify that forms and site constraints allow the required dimensioning and slopes shown. Immediately notify the Engineer if you encounter site conditions that will not accommodate the design details.

Prior to acceptance of concrete improvements, Contractor shall perform gutter flow test in presence of Engineer, in which a volume of water is allowed to flow the full length of new gutter sections from high point to discharge point. If, after all gutter flow ceases, any areas of gutter found where water depth

exceeds ¼ inch, Contractor shall remove such curb & gutter section and pour new curb & gutter to alleviate such ponding at no additional expense to the Town. Grinding of gutter surface will be allowed, but only to a total depth of ¼ inch. Filling gutter low spots will not be allowed.

Removal and replacement of concrete improvements may require removal of some asphalt concrete, PCC sidewalk, curb and gutter as shown on plans and as directed by Engineer. This work is to be paid for at contract unit prices for Remove & Replace PCC Curb and Gutter, Remove & Replace PCC Sidewalk, and Remove & Replace PCC Valley Gutter.

Curb Ramps:

This work shall consist of removing and replacing existing curb ramps/sidewalk with American with Disability Act (ADA) compliant curb ramps. Constructing Portland Cement Concrete (PCC) Curb ramps shall include placement of aggregate base, 95% compacted native material, and Grade 40 reinforcing steel.

Curb ramps shall be case C or F (as noted on plans) per the 2015 Caltrans Standard Plan A88A and as detailed on the plans unless otherwise noted. New curb ramps shall be constructed within one working day following the beginning of demolition of existing sidewalk or curb ramps. For each curb ramp not constructed within the time allowed, the Contractor will be fined $500 per working day.

At locations where curb ramps are to be installed on street corners, lay out minimum dimensions at the back of ramp so that no slopes are steeper than maximum slopes specified on standard plan A88A. All score joints, and conforms to be constructed perpendicular to curb line unless otherwise shown on standard plan A88A or contract plans.

Curb Ramp Detectable Warning Surfaces (DWS):

Each new curb ramp to have a DWS. Cost for placement of DWS is included in unit price for Install or Replace PCC Curb Ramp.

Curb ramp DWS to consist of raised truncated domes constructed or installed on curb ramps.

Replace the second paragraph of Section 73-1.03A “General”.

Surface mounted detectable warning surfaces will not be allowed. Stamped into surface detectable warning surfaces will not be allowed either.

Prefabricated DWS to meet requirements established by Department of General Services, Division of State Architect and be attached in conformance with manufacturer's recommendations. Finished surfaces of DWS to be free from blemishes.

10.7.04 Payment

Replace “Payment” Sections 73-1.04, 73-2.04, and 73-3.04 with the following:

“Minor Concrete (Type A Curb and Gutter and Rolled PCC Curb)”, shall be paid by the lineal footage based on actual measured length and will include full compensation for bar reinforcement, sawcutting, base repair/installation, patching and repaving of asphalt concrete (HMA Plug) with permanent, and for doing all the work involved in constructing the curb complete in place.

Note: The Engineer measures curbs and gutters for payment including curb transitions and depressions along driveways and curb ramps.

“Minor Concrete (Sidewalk and Valley Gutter)” will be paid by the square footage based on actual surface measurement of length multiplied by width calculation and shall include full compensation for demolition, removal, disposal, excavation and preparation of sub-grade; furnishing, root cutting, placing and compacting aggregate base; furnishing and placing all reinforcement; drilling and grouting dowel reinforcement; utility box grade adjustment; furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the sidewalk complete in place. The adjoining curb at curb ramps will be paid separately.

Note: Sidewalks which are contiguous with curb will be measured from a point 6 inches behind the face of curb. Sidewalk with retaining curb must be measured horizontally from a point 6 inches behind the face of curb to the back of the retaining curb.

Minor Concrete work (Curb Ramps) will be paid for as each and the contract unit prices for Curb Ramp replacing/installing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in construction of concrete improvements, including but not limited to sawcutting (PCC or Asphalt Concert), root cutting, excavation, subgrade preparation, removal and disposal of existing Portland Cement Concrete (including sidewalk, curb, gutter…), asphalt concrete, and other excess materials, imported borrow, aggregate base, Portland Cement Concrete, asphalt concrete, reinforcing steel, dowels, detectable warning surfaces, retaining curbs, joints, abutting curb and gutter, concrete aprons around storm drain inlets, valley gutter, asphalt concrete, adjustment to grade of existing utility boxes and manhole lids, removal and restoration of existing hardscape (including wood header boards, brick planter walls, brick bands, brick walkways, and rocks), landscape, and irrigation, replacement of sidewalk sub-drains, furnishing and applying curing compound, clean up, and other incidental work, as shown on the plans, as specified in the Standard Construction Specifications, these specifications, and as directed by the Engineer and no additional compensation will be allowed therefore.

10.8 15 FT Pavement Conform Grind (Bid Item 12), and 5 FT Pavement Edge Grind (Bid Item 13)

10.8.01 General

Refer to County Standard Plan CA51 (Appendix B).

Refer to Section 39-3 of the Standard Specifications for specifications.

Refer to Section 19-2 of the Standard Specifications for specifications on Roadway Excavation

10.8.02 Materials

HMA for temporary tapers must be of the same quality that is used for the HMA overlay or comply with the specifications for minor HMA in section 39-2.07.

10.8.03 Construction

Add to Section 39-3.04 “Cold Planing Asphalt Concrete Pavement” of Standard Plans with the following:

On streets designated for overlay, pavement across full length to lip of existing gutters, at cross street, pavement edge, and at other locations shown on plans or designated by Engineer, shall have

a wedge of pavement removed to facilitate placement of overlay. Wedge removal at edge of pavement shall be to a depth of 2 inches below existing lip of gutter or adjacent asphalt concrete pavement.

Cold planing shall be used for pavement wedge removal. Planing machine shall have cutter head at least 5 feet wide. Final cut shall result in uniform surface. Outside lines of planed area shall be neat and uniform.

If utility castings are encountered within wedge removal width, said castings shall be protected by performing wedge removal using hand tools or other approved method.

Length of pavement wedge removal will be measured in lineal feet along lip of gutter and along line cut at intersections and other locations. Width shall be 5 feet along gutter, or as required by County Standard Plan CA51.

Schedule cold planing activities to ensure that cold planing, placement of HMA, and reopening the area to traffic is completed during the same work shift. If you do not complete HMA placement before opening the area to traffic, you must:

1. Construct temporary HMA taper to level of existing pavement
2. Place HMA during next work shift in **not more than 48 hours**
3. Submit corrective action plan that shows you will complete cold planing and placement of HMA in same work shift. Do not restart cold planing activities until Engineer approves corrective action plan.

Do not use heating device to soften pavement. Cold planing machine must be:

1. Equipped with cutter head width that matches planing width. If cutter head width is wider than cold plane area shown, submit to Engineer a request for using wider cutter head. Do not cold plane unless Engineer approves your request.
2. Equipped with automatic controls for longitudinal grade and transverse slope of cutter head and:

    a. If ski device is used, it must be at least 30 feet long, rigid, and a 1-piece unit. Entire length must be used in activating sensor.
    b. If referencing from existing pavement, cold planing machine must be controlled by self-contained grade reference system. System must be used at or near centerline of roadway. On adjacent pass with cold planing machine, joint-matching shoe may be used.

3. Equipped to effectively control dust generated by planing operation
4. Operated so that no fumes or smoke is produced.

Replace broken, missing, or worn machine teeth.

Grade Control and Surface Smoothness requirements:

1. Furnish, install, and maintain grade and transverse slope references.
2. Depth, length, width, and shape of cut must be as shown or as ordered. Final cut must result in neat and uniform surface. Do not damage remaining surface.

3. Completed surface of planed HMA pavement must not vary more than 0.02 foot when measured with 12-foot straightedge parallel with centerline. With straightedge at right angles to centerline, transverse slope of planed surface must not vary more than 0.03 foot.
4. Where lanes are open to traffic, drop-off between adjacent lanes must not be more than 0.15 foot.

Temporary HMA Taper requirements:

Use same quality HMA for temporary tapers used for HMA overlay or comply with specifications for minor HMA in Section 39 of Standard Specifications.

If drop-off between existing pavement and planed area at transverse joints cannot be avoided before opening to traffic, construct temporary HMA taper. HMA temporary taper must be:

1. Placed to level of existing pavement and tapered on slope of 30:1 (horizontal:vertical) or flatter to level of planed area
2. Compacted by any method to produce smooth riding surface

Completely remove temporary tapers before placing permanent surfacing. Remove cold planed material concurrent with planing activities so that removal does not lag more than 50 feet behind planer.

Material planed from roadway surface, including material deposited in existing gutters or on adjacent traveled way, shall be immediately swept clean, removed from work site, and disposed of as provided in Section 4.1.13 "Cleanup," of Standard Specifications. Clean up crew shall follow within 50 feet of planer.

10.8.04 Payment

Pavement Cold Planing for “5 feet Pavement Edge grind” (Bid Item 13) will be measured by linear foot of five-foot-wide edge grind, and for “15 FT Pavement Conform” (Bid Item 12) by the square footage based on actual surface measurement of length multiplied by width calculation. Quantity to be paid for will be actual length or area of surface planed irrespective of number of passes required to achieve the specified area and depth.

10.9 2” Hot Mix Asphalt (Bid Item 15), 4” AC Dig-Out Repair (Bid Item 14), and Hot Mix Asphalt Speed Lumps (Bid Item 16)

10.9.01 General

Refer to Section 39-2 “Hot Mix Asphalt” of the Standard Specifications for specifications on producing and placing Type A HMA using the standard construction process.

Aggregate gradations must conform to Section 39-2.02B(4)(b) of Standard Specifications. Maximum aggregate size shall be 3/4 inch for Cameo Drive, and Max Aggregate size shall be 1/2” for the rest of the project.

10.9.02 Materials

Asphalt binder shall be PG64-10.

Delete the second paragraph of section 39-2.01A(1) of the Standard Specifications in Section 39 “Hot Mix Asphalt”.
Warm-mix asphalt technology must not be used.

Add to Section 39-2.01B(10) “Tack Coat” of the Standard Specifications the following:

Tack coat shall be Grade SS-1h asphaltic emulsion.

10.9.03 Construction

Add to section **39-2.01C(1)** of the Standard Specifications in Section 39-2 “Hot Mix Asphalt” the following:

Do not place the final lift of hot mix asphalt until all underlying improvements have been installed.

Prior to applying hot mix asphalt, cover all manholes, valve and monument covers, grates, or other exposed facilities located within the area of application, using a plastic or oil resistant construction paper secured to the facility being covered by tape or adhesive. Reference in advance the facilities to be covered with a sufficient number of control points to locate the facilities after the hot mix asphalt has been placed. After completion of the hot mix asphalt operation, expose all covered facilities, remove and disposed of all plastic or paper cover material in a satisfactory manner. Removal of existing traffic striping, legends, and raised pavement markers.

HMA placed in the top layer of the surfacing must be obtained from only one hot mix asphalt plant.
At locations where the HMA is to be placed is inaccessible to an asphalt paver or spreader box, spread the HMA by methods that will obtain the specified results and compacted to the required lines, grades and cross sections.
When the plans show areas where new paving 8-feet or less in width, the HMA may be spread in these areas with a spreader box. The spreader box must be self-supported by wheels or tracks and have a screed that will produce a compacted surface of uniform smoothness and texture conforming to the provisions in Standard Specifications Section 39-2.05A(3)(b), “Spreading and Compacting Equipment.”

Place additional HMA along the transverse edge at each lane's end and along the exposed longitudinal edges between adjacent lanes. Hand rake and compact the additional HMA 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.
Construct new structural section to match the elevation of the existing pavement's edge before placing HMA over the existing pavement.

HMA Overlay/Inlay consists of installation of a 2” thick layer of AC overlay at locations shown on plans. AC leveling work to produce a uniform final longitudinal centerline line and a uniform final cross slope shall be included in the work.

Pavement edge joins and match lines shall be neatly and cleanly cut prior to excavation. Cutting shall be by sawcutting or grinding, or as approved by Engineer.

Clean and thoroughly sweep all roadway surfaces immediately prior to applying tack coat.

Add to Section **39-2.01C(3)(f)** the following:

Tack coat shall be applied to all surfaces prior to placement of new AC, with exception that tack coat is not required to be applied to aggregate base surfaces. Application rate shall be 0.10 gallons per square yard at locations where paving mat is not used. Application rate at locations where paving mat is used shall be as specified in the above section entitled Engineered Pavement Reinforcing Mat.

Area to which paint binder has been applied shall be closed to public and heavy construction traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond limits of construction.

Contractor is responsible for damage to existing infrastructure, and any AC, liquid asphalt or asphalt emulsion stains. Damage shall be cleaned by sandblasting or any other method satisfactory to Engineer.

AC shall be placed on all existing surfacing, including turnouts, left turn pockets and public and private road connections as directed by Engineer. Sufficient raking shall be done so that asphalt shall “feather out” at gutter edges.

All existing drainage patterns are to be maintained unless otherwise directed by Engineer.

Finished AC surfaces that do not meet all specified surface tolerances shall be brought within tolerance by abrasive grinding (with fog seal coat on areas that have been ground). Deviations in excess of 0.03” that cannot be brought into specified surface tolerances by abrasive grinding shall be corrected by either removal and replacement or placing an AC overlay. Method will be at the option of Contractor with approval of Engineer. All corrective work shall be at Contractor’s expense, including traffic control cost.

When abrasive grinding is used to bring finished AC surface to specified surface tolerances, additional abrasive grinding shall be performed as necessary to extend the area ground in each lateral direction so that lateral limits of grinding are at a constant offset from and parallel to nearest lane line or pavement edge, and in each longitudinal direction so that grinding begins and ends at lines normal to pavement centerline, within the ground area. All ground areas shall be neat rectangular areas of uniform surface appearance.

Schedule paving operations so that each layer of AC is placed on all contiguous lanes of a traveled way during each work shift. Additional AC shall be placed along transverse edge at end of each lane, and along exposed longitudinal edges between adjacent lanes, and shall be hand raked and compacted to form temporary conforms. Kraft paper or other approved bond breakers may be placed under conform tapers to facilitate removal of taper when paving operations resume.

Conform tapers adjacent to curbs and at turnouts shall be placed concurrently with paving of adjacent lane. AC at conform lines shall be raked to a minimum depth and smoothed with hot hand irons to ensure a good bond between existing and new material.

AC Dig-out Repairs:

Add Section 39-2.01C(18) to the Standard Specifications in Section 39-2 “Hot Mix Asphalt” with the following:

39-2.01C(18) Base Failure Repair

39-2.01C(18)(1) General

Provide flaggers and/or traffic control to allow the Engineer to mark out pavement failure areas.

Remove existing asphalt concrete pavement by sawcut and excavation in accordance with Section 39-3.01C of Standard Specifications or by cold-planing method to the depth and dimensions marked by the Engineer in the field and replace with HMA. Compact subgrade or base material to 95% relative compaction to a depth of 6", and replace with AC.

The Engineer determines the exact limits of pavement failure repair by marking the existing pavement in white paint. The minimum width of roadway section to be removed must not be less than 4 feet unless otherwise noted on the plans.

HMA for pavement failure repair must Hot Mix Asphalt (Type A) as specified elsewhere in these Special Provisions. Compaction must conform to section 39-2.01C(15)(b) except an pneumatic-tired roller is not required.

Dispose of removed material.

Apply tack coat to the bottom (if subgrade is asphalt concrete) and all vertical surfaces of the existing roadway section within the pavement failure repair area. The surface must be:
1. Textured uniformly
2. Compacted firmly
3. Without depressions, humps, and irregularities

If the base is excavated beyond the specified plane, replace it with HMA. The Town does not pay for this HMA. Damage to pavement which is to remain in place must be repaired to a condition satisfactory to the Engineer, or the damaged pavement must be removed and replaced with new HMA if ordered by the Engineer. Repairing or removing and replacing pavement damaged outside the limits of pavement to be reconstructed will be at your expense.
Complete base failure repair in a lane before the lane is specified to be opened to traffic under Section 12-4 "Maintaining Traffic".

10.9.04 Payment

Replace Section 39-2.01A(3)(C) "Payment" of Standard Specifications with the following:

"HMA Overlay "2"Hot Mix Asphalt - Bid Item 15" will be paid by ton based on actual measured weight. You must provide weigh tags from each delivery truck to the Engineer upon arrival of the truck in order to be paid for each load of HMA. Payment includes tack coat and removal of existing traffic striping.

"4" AC Dig-out Repair – Bid Item 14" will be paid by square foot based on actual measured length multiplied by width calculation according to the specified depth. Payment includes tack coat.

"Hot Mix Asphalt Speed Lumps – Bid Item 16"; payment will be made on a per-unit basis, and the contract unit prices for replacing or installing speed lumps shall include full compensation for providing all labor, materials, tools, equipment, and incidentals, as well as for performing all work necessary for the removal of existing speed humps/lumps and the installation of new speed lumps.

Note: Contractor will receive no additional payment for pavement failure repair beyond the area marked out by the Engineer due to availability or limitations of your equipment.

Replace “Not Used” in Section 22-1.04 of the Standard Specifications with the following:

Full compensation for Finishing Roadway will be considered as included in the contract price or prices paid for the various items of work and no separate payment will be made therefor.

10.10 Traffic Loop Detectors (Bid Item 17) and Traffic Video Detection System (Camera) (Bid Item 18)

10.10.01 General

Refer to Section 87-1.03V “Detectors” of the Revised Standard Specifications for specifications on replacing Inductive Loop Detectors.

10.10.02 Materials

Loop detector wire must be Type 1. Round/circle loops and pre-formed loops are not acceptable unless otherwise directed in the Plans. Front loop (closest to limit line) must be Type E, modified to include additional loop turns similar to Type D. Remaining loops must be Type E.

Use Type 1 loop wire if the wire will be covered by an HMA overlay. Use Type 2 loop wire if the loop wire will not be covered by an HMA overlay. Use Type B lead-in cable. Preformed loops shall adhere to Section 87-1.03V(3) of the Revised Standard Specification.
Sealant for filling slots must be hot-melt rubberized asphalt.

Use iTERIS video detection system or approved equivalent:

1. General

This specification sets forth the minimum requirements for a system that detects vehicles on a roadway using a multi-sensor detection system.

The multi-sensor system shall utilize two different sensors of different technologies, video imaging and radar, to detect and track licensed and unlicensed vehicles at distances over 500 feet (152 meters). The sensor system shall fuse vehicle information from the two sensors to provide highly accurate and precise detection for simultaneous stop bar presence detection, advanced detection, and special or advanced applications.

1.1 System Hardware

The multi-sensor detection system (MSDS) shall consist of up to four hybrid video camera/radar sensors, up to two detection processors (DP) capable of processing from one to two sensors each, one Central Control Unit (CCU), (either 19” rack for 332 Cabinet) input/output extension modules, video surge suppressors, HDMI monitor and a pointing device, or any combination thereof.

The MSDS will be deployed at locations where site conditions and roadway geometry vary. The MSDS system may also be deployed at locations where existing cabinets or equipment exist. Existing site configurations will dictate the availability of cabinet space and MSDS usage.

1.2 System Software

The system shall include software that discriminately detects the presence of individual vehicles and bicycles in a single or multiple lanes using only the video image. Detection zones shall be defined using only an embedded software application. A monitor a keyboard and a pointing device are used to place the zones on a video image. A minimum of 32 video detection zones and 16 radar detection zones plus 5 trip lines per sensor shall be available.

A separate computer shall not be required to program the detection zones. In addition to creating vehicle and bicycle zones, the system shall automatically define a pedestrian crossing area in front of the stop bar zones. The system shall provide a tracking mechanism that counts pedestrian volume moving within this crossing area, and also determine the average, maximum, and minimum speed of pedestrians moving within this crossing zone. The system shall also provide discrete outputs when pedestrians are in the crosswalk during normal crossing phases (one for each direction of travel) and when a red phase input has been detected. The system shall also provide a visual indication on the video image that a pedestrian is in the crosswalk.

1.3 The MSDS shall be made in the U.S.A. in compliance with FTA “Buy America” regulations.

MSDS Hardware

2.1 Detection Processor (DP) System Interfaces

The DP shall be a single-rack detector card width, and provide provision for up to two sensors per DP. It may be possible for the DPs to be embedded in the CCU to provide a single cabinet interface. The following interfaces shall be provided on each video detection processor:

2.1.1 Video Input

Each DP will be supplied with video from the MSDS Sensor via Ethernet cables plugged into the front of the Central Control Unit. The interface connectors shall be RJ-45 type.

2.1.2 Video Lock LED

A LED indicator shall be provided to indicate the presence of the video signal. The LED shall illuminate upon valid video synchronization and turn off when the presence of a valid video signal is removed.

2.1.3 Contact Closure Output

Open collector (contact closure) outputs shall be provided. Four (4) open collector outputs shall be provided for the Detection Processor rack-mount configuration. Additionally, the MSDS shall allow the use of extension modules to provide up to 32 open collector contact closures per sensor input. Each open collector output shall be capable of sinking 30mA at 24VDC. Open collector outputs will be used for vehicle detection indicators as well as discrete outputs for alarm conditions. The DP outputs shall be compatible with industry standard detector racks assignments.

2.1.4 Logic Inputs

Logic inputs such as delay/extend or delay inhibit shall be supported through the appropriate detector rack connector pin or front panel connector in the case of the I/O module. For DPs and extension modules, 4 inputs shall be supported via detector rack interface. The I/O module shall accommodate eight (8) inputs through a 15-pin "D" connector.

2.1.5 Detection LEDs

Detection status LEDs shall be provided on the front panel. The LEDs shall illuminate when a contact closure output occurs. Rack-mounted video processors shall have a minimum of four (4) LEDs. Rack-mounted extension modules shall have two (2), four (4) or eight (8) LEDs (depending upon extension module type) to indicate detection.

Where the DP's are integrated into the CCU the detection LEDs shall be displayed virtually on the setup tool.

2.1.6 Test Switches

The front panel of the DP shall have detector test switches to allow the user to manually place vehicle and bicycle calls on each DP output channel. The test switch shall be able to place a momentary call.

Where the DP's are integrated into the CCU the detector test switched shall be activated virtually through the setup tool.

2.2 Both the DP and EM shall be specifically designed to mount in a standard detector rack, using the edge connector to obtain power, provide contact closure outputs and accept logic inputs (e.g. delay/extend). No adapters shall be required to mount the DP or EM in a standard detector rack and no rack rewiring shall not be required.

2.3 DP printed circuit boards (PCBs) shall be conformally coated in accordance with Caltrans and NEMA specifications.

2.4 On-board Memory

The DP shall utilize non-volatile memory technology to store on-board firmware and operational data.

2.5 Firmware Upgrade

The CCU shall enable the loading of modified or enhanced software through either the Ethernet or front-panel USB port (using a USB thumb drive) and without removing or modifying the CCU hardware. The upgrade will affect both the CCU and DP hardware when connected into a single system.

2.6 DP and EM Power

The DP and EM shall be powered by 12 or 24 volts DC. DP and EM modules shall automatically compensate for either 12 or 24 VDC operation. DP power consumption shall not exceed 7.5 watts. The EM power consumption shall not exceed 3 watts.

2.7 Operating Temperature

The MSDS shall operate satisfactorily in a temperature range from -30° F to +165° F (-34° C to +74°

C) and a humidity range from 0%RH to 95%RH, non-condensing as set forth in NEMA specifications.

MSDS CCU

The MSDS Central Control Unit (CCU) shall be supplied by the MSDS manufacturer.

3.1 Hardware

The CCU shall be supplied in three separate form factors. Users may choose one form factor for use within their controller cabinet system:

1. Standard One (1) Rack Unit (1U) 19" rack format. There shall be brackets to allow the CCU to be mounted under shelves where a 19" frame is not available.
2. Shelf-Mount format; TS1 version. The CCU shall be able to stand up on available shelf- space within the cabinet. All connections shall be made from the front of the CCU, including connections to separate DPs located within the cabinet.
3. Shelf-Mount format; TS2 version. The CCU shall be able to stand up on available shelf- space within the cabinet. All connections shall be made from the front of the CCU, and no external DPs will be required.

3.2 CCU Power

1. The 19" Rack-mount CCU shall be powered from an 110V or 230V, 50Hz or 60Hz supply. CCU power consumption shall not exceed 20 Watts.
2. The shelf-mount format CCU shall be powered from a 48V DC power supply. CCU power consumption shall not exceed 150 Watts.

3.3 Operating Temperature

The MSDS shall operate satisfactorily in a temperature range from -30° F to +165° F (-34° C to +74°

C) and a humidity range from 0%RH to 95%RH, non-condensing as set forth in NEMA specifications.

3.4 On-board Memory

The CCU shall utilize non-volatile memory technology to store on-board firmware and operational data.

3.5 Video Surge Suppression

The CCU shall incorporate surge suppression for each sensor input. The CCU shall be appropriately grounded to the cabinet ground rod using 14 AWG (2.5mm^2) minimum.

3.6 Power Surge Suppression

The CCU shall incorporate power surge suppression both on the input power and on the power supplied to the sensors. The CCU shall be appropriately grounded to the cabinet ground rod using 14AWG (2.5mm^2) minimum. Power Management

The CCU shall incorporate power management for the various parts of the MSDS such that if fault conditions are detected the power supply will safely shut down the power to that peripheral.

3.7 Power Management

The CCU shall incorporate power management for the various parts of the MSDS such that if fault conditions are detected the power supply will safely shut down the power to that peripheral.

3.8 Interfaces

3.8.1 Extension Modules

Extension modules (EM) shall be available to eliminate the need to rewire the detector rack, by enabling the user to plug an extension module into the appropriate slot in the detector rack to provide additional open collector outputs. The EM shall be available in both 2- and 4-channel configurations. EM configurations shall be programmable from the CCU. A separate I/O module shall also be available having 32 outputs through a 37-pin “D” connector on the front panel and 8 inputs through a 15-pin “D” connector using an external wire harness for expanded flexibility.

3.8.2 The CCU shall provide four ports for connection to sensors. The sensors may be any combination of MSDS Sensor or VDS Camera Sensor. The connector shall be an RJ-45 type.

3.8.3 The CCU shall provide four ports for connection to DPs. The connector shall be an RJ-45 type. These connectors will not be required for the Shelf-Mount TS2 version CCU.

3.8.4 The CCU shall provide 2 USB ‘A’ ports on the front panel of the rack mount CCU unit. These ports can be utilized for various functions. For example, keyboard and mouse functions during system configuration, USB storage devices can be utilized for bin data and video collection. The USB ports shall not require special mouse software drivers. The USB ports shall be used as part of system setup and configuration

3.8.5 The CCU shall provide an output to a monitor. The port shall be HDMI. The native resolution

of the monitor port shall be 1024 x 768.

3.8.6 Communications

An Ethernet communications port shall be provided on the front panel. The Ethernet port shall be compliant with IEEE 802.3 and shall use a RJ-45 type connector mounted on the front panel of the CCU. The Ethernet communications interface shall allow the user to remotely configure the system and/or to extract calculated vehicle/roadway information. The interface protocol shall be documented or interface software shall be provided. Each MSDS shall have the capability to be IP addressable. The DP shall support data rates of up to100Mbps.

3.8.7 The CCU shall provide an SDLC connection to the Traffic Controller. The connector shall be a 'D- 15' type, in compliance with NEMA TS-2 specifications.

3.8.8 The CCU shall provide an indicator when the SDLC port is active.

3.8.9 The CCU shall provide an indicator when the unit has power.

3.8.10 The CCU shall provide an indicator when the unit is on line.

3.8.11 The CCU shall provide a Wi-Fi connection. The connection shall be over a standard 2.4GHz connection. The Wi-Fi connection shall be enabled and disabled by a switch on the CCU. The CCU shall provide an indicator when the Wi-Fi connection is active.

3.8.12 The CCU shall provide a connection for a removable antenna. The antenna connection shall be a SMA Male type.

3.8.13 The CCU shall provide system status via an on-board Organic Light Emitting Diode display. The display shall indicate various system parameters, such as sensor health and DP health, firmware version and sensor air temperature. The display will be enabled with a switch on the CCU. The display will automatically disable 15 minutes after the button is pressed.

MSDS sensor

The MSDS sensor shall be supplied by the MSDS manufacturer and consists of two components: a camera sensor and a radar sensor (radar is optional for side streets).

4.1 The MSDS sensor shall utilize a single shielded outdoor rated CAT5E or CAT6 cable for power, communications and video. Cable termination at the camera shall not require crimping or special tools. The cable termination shall only require a standard wire stripper and a screw driver. No connectors (e.g. BNC) shall be allowed.

An optional RJ45 direct connector shall be made available if a user chooses to connect the sensor cable with RJ45 connections at the sensor.

4.2 Camera Sensor

4.2.1 The camera sensor shall allow the user to set the focus and field of view of the camera imager via the MSDS software. Sensor control from the controller cabinet shall communicate over a single Cat-5e or CAT6 cable. No additional wires shall be required.

4.2.2 The camera imager shall produce a useable video image of the features of vehicles under all roadway lighting conditions, regardless of time of day. The minimum range of scene luminance over which the camera shall produce a useable video image shall be the minimum range from nighttime to daytime, but not less than the range 0.003 lux to 10,000 lux.

4.2.3 The camera imager electronics shall include automatic gain control (AGC) to produce a satisfactory image at night for the MSDS algorithms.

4.2.4 The camera imager luminance signal to noise ratio (S/N) shall be more than 50 dB with the automatic gain control (AGC) disabled.

4.2.5 The camera imager shall employ three dimensional dynamic noise reduction (3D-DNR) to remove unwanted image noise.

4.2.6 The camera imager shall employ wide dynamic range (WDR) technology to compensate for wide dynamic outdoor lighting conditions. The dynamic range shall be greater than 100 dB.

4.3 The camera imager shall be digital signal processor (DSP) based and shall use a CCD sensing element and shall output color video with resolution of not less than 540 TV lines. The color CCD imager shall have a minimum effective area of 811(h) x 508(v) pixels.

4.3.1 The camera imager shall include an electronic shutter control based upon average scene luminance and shall be equipped with an auto-iris lens that operates in tandem with the electronic shutter. The electronic shutter shall operate between the range of 1/60th to 1/90,000th second.

4.3.2 The camera imager shall utilize automatic white balance.

4.3.3 The camera imager shall include a variable focal length lens with variable focus that can be adjusted, without opening up the camera housing, to suit the site geometry by means of a portable interface device designed for that purpose and manufactured by the detection system supplier.

4.3.4 The horizontal field of view shall be adjustable from 4.5 to 48 degrees. The sensor camera lens shall be a 12x zoom lens with a focal length of 3.5mm to 35mm. The sensor lens should yield a rectilinear image.

4.3.5 The sensor camera lens shall also have an auto-focus feature with a manual override to facilitate ease of setup.

4.3.6 The sensor shall incorporate the use of preset positioning that store zoom and focus positioning information. The sensor shall have the capability to recall the previously stored preset upon application of power.

4.3.7 The camera imager shall be housed in a weather-tight sealed enclosure. The housing shall allow the sensor camera to be rotated to allow proper alignment between the sensor camera and the traveled road surface.

4.3.8 The sensor camera enclosure shall be equipped with a sunshield. The sunshield shall include a provision for water diversion to prevent water from flowing in the camera sensor's field of view. The camera sensor enclosure with sunshield shall be less than

3.5" (89mm) diameter, less than 5.25" (133mm) long, and shall weigh less than 2.5 pounds (1.14kg) when the camera and lens are mounted inside the enclosure.

4.3.9 The enclosure shall be designed so that the pan, tilt and rotation of the camera sensor assembly can be accomplished independently without affecting the other settings.

4.3.10 Camera Lens

The camera sensor enclosure shall include a proportionally controlled Indium Tin Oxide (ITO) lens coating for the heating element of the front glass that maximizes heat transfer to the lens.

The output power of the heater shall vary with temperature, to assure proper operation of the lens functions at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure. The transparent coating shall not impact the visual acuity and shall be optically clear. The glass face on the front of the camera sensor enclosure shall have an anti-reflective coating to minimize light and image reflections.

4.3.11 When mounted outdoors in the enclosure, the camera sensor shall operate satisfactorily in a temperature range from -30° F to +140° F (-34 °C to +60 °C) and a humidity range from 0% RH to 100% RH. Measurement of satisfactory video shall be based upon DP system operation.

4.4 Radar Sensor

4.4.1 The radar sensor shall operate in the 24 GHz frequency band and shall operate without interference with other radar sensors connected to the MSDS.

4.4.2 The radar detection range shall be over 600 feet (180 meters) minimum, +/- 5%.

4.4.3 The radar sensor shall be able to track up to 64 independent objects simultaneously.

4.4.4 The radar sensor shall detect objects by utilization of four dimensions. Those dimensions shall be:

- Speed (Velocity)
- Distance (Range)
- Angle (Azimuth)
- Height (Elevation)

4.4.5 Object speed detection shall be within a range of 0 to 150 miles per hour +/- 1.0 miles per hour (240 km per hour ± 1.5 km per hour).

4.4.6 The radar sensor shall be able to detect vehicles in 1 to 6 traffic lanes.

4.4.7 The radar sensor shall be housed in a weather-tight sealed enclosure conforming to IP-67 specifications. The housing shall allow the radar to be adjusted to allow proper alignment between the sensor and the traveled road surface.

4.4.8 When mounted outdoors in the enclosure, the radar shall operate in a temperature range from - 30 ºF to +165 ºF (-34 °C to +74 °C) and a humidity range from 0% RH to 100% RH.

4.4.9 The radar sensor shall communicate with the sensor data combiner.

4.4.10 The radar sensor shall acquire its power from the sensor data combiner.

4.5 Both camera imager and radar sensors shall be housed in an overall, single enclosure assembly.

4.6 The overall size of the multi-sensor enclosure shall not exceed 14 inches x 15 inches x 17 inches (355mm x 380mm x 430mm).

4.7 The overall weight of the multi-sensor unit shall not exceed 11 pounds (5kg).

4.8 The effective projected area (EPA) shall not exceed 2.0 square feet (0.6 square meters).

4.9 The maximum power consumption for the multi-sensor assembly shall be less than 20 watts typical, 25 watts peak.

4.10 Recommended sensor placement height shall be 33 feet (or 10 meters) above the roadway, and over the traveled way on which vehicles are to be detected. For optimum detection the MSDS sensor should be centered above the traveled roadway. The camera shall view approaching vehicles at a distance not to exceed 350 feet (107 meters) for reliable detection (height to distance ratio of 10:100). Camera placement and field of view (FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

4.11 The video signal shall be fully isolated from the sensor enclosure.

4.12 Sensor Data Combiner

4.12.1 A sensor data combiner that combines sensor information from both video and radar sensors shall be employed.

4.12.2 The sensor data combiner shall supply primary power to each sensor unit.

4.12.3 The sensor data combiner shall facilitate digital communications between the sensor data combiner and each of the sensor units.

4.12.4 The sensor data combiner shall get its primary power from 48VDC from the CCU using shielded outdoor rated, Cat-5e or Cat-6 cable.

4.12.5 The sensor data signal shall be fully isolated from the mechanical enclosure

4.12.6 The sensor data combiner shall be housed in a weather-tight sealed enclosure conforming to IP- 67 specifications.

4.13 A weather-proof protective cover shall be provided shall be provided to protect all terminations at the sensor.

VDS Camera Sensor

The VDS camera sensor shall be supplied by the VDS manufacturer.

5.1 The VDS camera sensor shall utilize a single shielded CAT5E or CAT6 cable for power and video. Cable termination at the camera shall not require crimping or special tools. The cable termination shall only require a standard wire stripper and a screw driver. No connectors (e.g. BNC) shall be allowed.
An optional RJ45 direct connector shall be made available if a user chooses to connect the sensor cable with RJ45 connections at the sensor.

5.2 The camera sensor shall allow the user to set the focus and field of view via the VDS software. Camera sensor control from the controller cabinet shall communicate over a single Cat5e or CAT6 cable. No additional wires shall be required.

5.3 The camera shall produce a useable video image of the features of vehicles under all roadway lighting conditions, regardless of time of day. The minimum range of scene luminance over which the camera shall produce a useable video image shall be the

minimum range from nighttime to daytime, but not less than the range 0.003 lux to 10,000 lux.

5.4 The camera electronics shall include automatic gain control (AGC) to produce a satisfactory image at night for the VDS algorithms.

5.5 The imager luminance signal to noise ratio (S/N) shall be more than 50 dB with the automatic gain control (AGC) disabled.

5.6 The imager shall employ three dimensional dynamic noise reduction (3D-DNR) to remove unwanted image noise.

5.7 The camera imager shall employ wide dynamic range (WDR) technology to compensate for wide dynamic outdoor lighting conditions. The dynamic range shall be greater than 100 dB.

5.8 The camera shall be digital signal processor (DSP) based and shall use a CCD sensing element and shall output color video with resolution of not less than 540 TV lines. The color CCD imager shall have a minimum effective area of 811(h) x 508(v) pixels.

5.9 The camera shall include an electronic shutter control based upon average scene luminance and shall be equipped with an auto-iris lens that operates in tandem with the electronic shutter. The electronic shutter shall operate between the range of 1/60th to 1/90,000th second.

5.10 The camera shall utilize automatic white balance.

5.11 The camera shall include a variable focal length lens with variable focus that can be adjusted, without opening up the camera housing, to suit the site geometry by means of a portable interface device designed for that purpose and manufactured by the detection system supplier.

5.11.1 The horizontal field of view shall be adjustable from 4.5 to 48 degrees. This camera configuration may be used for the majority of detection approaches in order to minimize the setup time and spares required by the user. The lens shall be a 12x zoom lens with a focal length of 3.5mm to 35mm. The sensor lens should yield a rectilinear image.

5.12 The lens shall also have an auto-focus feature with a manual override to facilitate ease of setup.

5.13 The camera shall incorporate the use of preset positioning that store zoom and focus positioning information. The camera shall have the capability to recall the previously stored preset upon application of power.

5.14 The camera shall be housed in a weather-tight sealed enclosure. The housing shall allow the camera to be rotated to allow proper alignment between the camera and the traveled road surface.

5.15 The camera enclosure shall be equipped with a sunshield. The sunshield shall include a provision for water diversion to prevent water from flowing in the camera's field of view. The camera enclosure with sunshield shall be less than 3.5" (89mm) diameter, less than 5.25" (133mm) long, and shall weigh less than 2.5 pounds (1.14kg) when the camera and lens are mounted inside the enclosure.

5.16 The enclosure shall be designed so that the pan, tilt and rotation of the camera assembly can be accomplished independently without affecting the other settings.

5.17 Camera Lens

5.17.1 The camera enclosure shall include a proportionally controlled Indium Tin Oxide (ITO) lens coating for the heating element of the front glass that maximizes heat transfer to the lens. The output power of the heater shall vary with temperature, to assure proper operation of the lens functions at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure. The transparent coating shall not impact the

visual acuity and shall be optically clear.

5.17.2 The glass face on the front of the enclosure shall have an anti-reflective coating to minimize light and image reflections.

5.17.3 The glass face on the front of the enclosure will include a Titanium Dioxide shelf cleaning coating

5.18 When mounted outdoors in the enclosure, the camera shall operate satisfactorily in a temperature range from -30° F to +140° F (-34 °C to +60 °C) and a humidity range from 0% RH to 100% RH. Measurement of satisfactory video shall be based upon VDP system operation.

5.19 The camera shall be powered by 48VDC. Power consumption shall be 5 watts typical and 16 watts or less under worst conditions.

5.20 Recommended camera placement height shall be 33 feet (or 10 meters) above the roadway, and over the traveled way on which vehicles are to be detected. For optimum detection the camera should be centered above the traveled roadway. The camera shall view approaching vehicles at a distance not to exceed 350 feet (107 meters) for reliable detection (height to distance ratio of 10:100). Camera placement and field of view (FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

5.21 The video signal shall be fully isolated from the camera enclosure.

5.22 Cable terminations at the camera for video and power shall not require crimping tools.

5.23 A weather-proof protective cover shall be provided shall be provided to protect all terminations at the camera. No special tooling shall be required to remove or install the protective cap.

5.24 The camera assembly shall include a temperature sensor. The sensor will be polled by the VDS every minute and will supply the current air temperature. The VDS software will display this information on the On-Screen Display for each camera.

MSDS Software

6.1 General System Functions

6.1.1 Detection zones shall be programmed via an embedded application displayed on a video monitor and a keyboard and a pointing device connected to the CCU. The menu shall facilitate placement of detection zones and setting of zone parameters or to configure system parameters. A separate computer shall not be required for programming detection zones or to view system operation. All programming function shall occur on live video images and radar blips, no snapshots or still images are allowed.

6.1.2 The MSDS software shall store up to five completely independent detection zone patterns in non- volatile memory. The MSDS can switch to any one of the five different detection patterns within 1 second of user request via menu selection with the pointing device. Each configuration shall be uniquely labeled and able to be edited by the user for identification. The currently active configuration indicator shall be displayed on the monitor.

6.1.3 The MSDS shall detect vehicles and bicycles in real time as they travel across each camera detection zone.

6.1.4 The MSDS shall detect vehicles in real time as they travel across each radar detection zone.

6.1.5 The DP shall automatically define a pedestrian crossing area, and track pedestrians in real-time as they travel across this pedestrian crossing area in both directions of the camera image. The DP shall count pedestrians moving left-to-right, and right-to-left. The DP shall

measure the speed of pedestrians moving left-to-right, and right-to-left, and provide the minimum, maximum, and average speed of the pedestrians per the bin interval. These values shall be displayed on-screen for both directions, and an option shall be provided to the user to turn this on-screen display on or off. This data will be stored in local memory for later retrieval via a remote device. The data will be stored at the Bin Interval set in the system.

6.1.6 The VDP shall provide a discrete output when pedestrians are being tracked in the crosswalk. A separate output may be assigned to each direction of pedestrian travel.

6.1.7 The VDP shall provide a discrete output when pedestrians are crossing against a red phase. The VDP shall allow up to 4 phase inputs to be assigned to each crosswalk.

6.1.8 The MSDS shall accept new detection patterns from an external computer through the Ethernet port when the external computer uses the correct communications protocol for downloading detection patterns. A Windows™-based software designed for local or remote connection and providing video capture, real-time detection indication and detection zone modification capability shall be provided with the system.

6.1.9 The MSDS shall have the capability to automatically switch to any one of the stored configurations based on the time of day which shall be programmable by the user.

6.1.10 The MSDS shall send its detection patterns to an external computer through the Ethernet port when requested when the external computer uses the appropriate communications protocol for uploading detection patterns.

6.1.11 The MSDS shall default to a safe condition, such as a constant call on each active detection channel, in the event of unacceptable interference or loss of the video and/or radar signal.

6.1.12 The MSDS shall be capable of automatically detecting a low-visibility condition of the camera sensor such as fog and respond by placing all affected detection zones in a constant call mode. A user-selected alarm output shall be active during the low-visibility condition that can be used to modify the controller operation if connected to the appropriate controller input modifier(s). The system shall automatically revert to normal detection mode when the low-visibility condition no longer exists. An On-Screen Icon will be displayed while the system is in this mode.

6.1.13 Up to 32 detection zones per camera input shall be supported and each detection zone must be user-sizeable to suit the site and the desired vehicle detection region.

6.1.14 Up to 16 detection zones per radar input shall be supported and each detection zone must be user-sizeable to suit the site and the desired vehicle detection region.

6.1.15 Up to 5 trip lines per radar input shall be supported and each trip line must be user-positionable to suit the site and the desired vehicle detection application.

6.1.16 The system shall provide a Group output. When a user defined number of vehicles are present in the radar FOV the system shall activate an output.

6.1.17 The MSDS shall provide up to 32 open collector output channels per camera and 16 open collector outputs per radar input using one or more extension modules.

6.1.18 The MSDS shall provide discrete outputs when pedestrians are being tracked in the crosswalk. An output may be assigned to pedestrians crossing from left to right and a separate output may be assigned to pedestrians crossing from right to left.

6.1.19 The MSDS shall provide a discrete output when pedestrians are crossing against a red phase. The MSDS shall allow up to 4 phase inputs to be assigned to each crosswalk.

6.1.20 A single video detection zone shall be able to replace multiple inductive loops and the video detection zones shall be OR'ed as the default or may instead be AND'ed together to indicate vehicle presence on a single approach of traffic movement.

6.1.21 When a vehicle is detected within a detection zone, a visual indication of the detection shall activate on the video and radar overlay display to confirm the detection of the vehicle for the zone.

6.1.22 Detection shall be at least 98% accurate in good weather conditions, with slight degradation possible under adverse weather conditions (e.g. rain, snow, or fog) which reduce visibility. Detection accuracy is dependent upon site geometry, sensor placement, camera image quality and detection zone location, and these accuracy levels do not include allowances for occlusion or poor video due to sensor location or quality.

6.1.23 The MSDS shall provide dynamic zone reconfiguration (DZR). DZR sustains normal operation of existing detection zones when one zone is being added or modified during the setup process. The new zone configuration shall not go into effect until the configuration is saved by the operator.

6.1.24 Detection zone setup shall not require site specific information such as latitude and longitude to be entered into the system.

6.1.25 The RDS shall process the radar signals from each sensor at 50mS intervals. Multiple processors shall process all radar signals simultaneously.

6.1.26 The MSDS shall process the video input from each camera sensor at 30 frames per second. Multiple camera processors shall process all video inputs simultaneously.

6.1.27 The MSDS shall output a constant call during the background learning period of no longer than 3 minutes.

6.1.28 Detection zone outputs shall be individually configurable to allow the selection of presence, pulse, extend, and delay outputs. Timing parameters of pulse, extend, and delay outputs shall be user definable between 0.1 to 25.0 seconds.

6.1.29 Up to eight detection zones per camera view shall have the capability to count the number of vehicles detected. The count value shall be internally stored for later retrieval through the Ethernet port. The zone shall also have the capability to set a delay before the vehicle is counted. Timing parameters shall be user definable between 0.1 to 25.0 seconds.

6.1.30 The system shall provide an automatic count function per lane for each movement of vehicles, which includes through moving, right, and left turning vehicles. Once standard detection zones have been configured the system will determine the path of vehicles and begin to track them. The data shall also have the capability to be stored at 15 minutes intervals. The current count will be displayed on the video image. The current count display may be disabled by the user.

6.1.31 In addition, any valid detector output may be assigned to the automatic count. For each count the associated detector output will be pulsed for 100mS.

6.1.32 In addition to the count type zone, the MSDS shall be able to calculate average speed and lane occupancy for all of the video detection zones independently. These values shall be stored in non- volatile memory for later retrieval.

6.1.33 The MSDS shall have an “advance” zone type where raw detection output duration to the traffic controller is compensated for angular occlusion and distance.

6.1.34 The MSDS shall automatically count Queue lengths of vehicles. The data will be recorded by lane and stored in 15 minute bin intervals.

6.1.35 The VDS shall automatically count Red-Light Running vehicles. The data will be recorded by lane and stored in 15 minute bin intervals. An optional channel output may be configured

for each vehicle lane that is triggered when a red-light runner is detected.

6.1.36 The MSDS shall employ color overlays on the video output.

6.1.37 The MSDS shall have the ability to show controller phase status (green, yellow, or red) for up to 8 phases. These indications shall also be color coded.

6.1.38 The user shall have the ability to enable or disable the display of the phase information on the video output.

6.1.39 The MSDS shall have the capability to change the characteristics of a detection zone based on external inputs such as signal phase. Each detection zone shall be able to switch from one zone type (i.e. presence, extension, pulse, etc.) to another zone type based on the signal state. For example, a zone may be a "count" zone when the phase is green but change to a "presence" zone type when the phase is not green. Another application would be zone type of "extension" when the signal phase is green and then "delay" when red.

6.1.40 The MSDS software shall aid the user in drawing additional detection zones by automatically drawing and placing zones at appropriate locations with only a single click of the mouse. The additional zone shall utilize geometric extrapolation of the parent zone when creating the child zone. The process shall also automatically accommodate lane marking angles and zone overlaps.

6.1.41 The radar sensor shall have the capability to control the output of each radar detection zone based on a minimum or maximum speed. The minimum speed can be set from 0 mph (0 kph) to 249 mph (400 kph). The maximum speed can be set between 1 mph (1 kph) to 250 mph (402 kph).

6.1.42 When the user wishes to modify the location of a zone, the MSDS software shall allow the user move a single zone, multiple zones or all zones simultaneously.

6.1.43 When the user wishes to modify the geometric shape of the zone, the MSDS software shall allow the user to change the shape by moving the zone corner or zone sides.

6.1.44 On screen zone identifiers shall be modifiable by the user. The user shall be allowed to select channel output assignments, zone type, input status, zone labels or zone numbers to be the identifier.

6.1.45 The MSDS shall have the capability to show pedestrian activity in the crosswalk through a visual indication on the video output.

6.1.46 The MSDS software shall support bicycle type zones where the zone can differentiate between motorized vehicles and bicycles, producing a call for one but not the other.

6.1.47 Bicycle zone types shall only output when a bicycle is detected. Larger motorized vehicles such as cars and trucks that traverse a bicycle zone shall not provide an output.

6.1.48 The MSDS software shall provide the ability to assign a separate output channel for bicycle zones to allow traffic controllers to implement special bicycle timing.

6.1.49 Placement of bicycle type zones in vehicle lanes shall be allowed.

6.1.50 Upon detection of a bicycle, the video output overlay shall indicate active detection as well as providing a unique bicycle detection identifier to visually distinguish bicycle detection versus vehicle detection.

6.1.51 Up to six bicycle detection zones per camera view shall have the capability to count the number of bicycles detected in addition to their normal detection function. The count value shall be internally stored for later retrieval through the Ethernet port.

6.1.52 Automatic Traffic Volume Graph

The On-Screen Display shall include an Automatic Traffic Volume graph. This graph will display estimated Vehicles Per Hour (VPH) per movement for each camera view. The graph will display a rolling 24 hour period of VPH.

6.1.53 Occupancy Graph

The On-Screen Display shall include an Occupancy Graph. This graph will display estimated approach occupancy for each camera view. The graph will display a rolling 24 hour period of Occupancy.

6.1.54 Speed Graph

The On-Screen Display shall include a Speed Graph. This graph will display average speed of vehicles through the each sensor view for the last Bin Interval. The graph will display a rolling 24 hour period of Speed.

6.1.55 Radar Zone Data Display

Current conditions for the 16 radar zones shall be displayed on the video. The conditions are; un-configured, configured and inactive and configured and active.

6.1.56 Radar Trip Line and Activity Display

Current conditions of the 5 trip lines and any warning flags from the radar shall be displayed on the video.

6.2 User Interfaces

This section sets forth the minimum requirements for the MSDS to provide a single point interface to remote and local users. The MSDS shall also have the capability to stream up to four simultaneous video streams over an Ethernet interface.

6.3.1 The user interface shall provide capabilities to enable multiple rack-mounted detection processors to be locally and remotely accessed from a single point via an Ethernet connection.

6.3.2 The device shall allow the operator to view four videos simultaneously or any one video by controls embedded in the MSDS.

6.3.3 Local user access to video detection programming shall be limited to the detection processor unit that is currently being displayed on the monitor.

6.3.4 All local programming and setup parameters for the video detection processor shall be user accessible through the interface unit without requiring the user to swap user interface cables between video detection processors.

6.3.5 Remote access to the device shall be through the built-in Ethernet port via access software running on a Microsoft Windows based personal computer.

6.3.6 A Windows OS remote access firmware shall also be available for remote setup and diagnostics of the interface unit.

6.3.7 The MSDS shall support streaming video technology using H.264 standards to allow the user to monitor video detection imagery over the Ethernet interface. Motion JPEG streaming video shall not be allowed.

6.3.8 The interface unit shall allow eight independent streams, one from each detection processor, to be transported via Ethernet to four independent streaming video players simultaneously in D1 resolution.

6.3.9 The interface unit shall support the streaming and display of four concurrent streams in D1 resolution.

6.3.10 The interface shall allow the user to change the unit's Ethernet network settings of IP address, subnet mask and default gateway.

6.3.11 The MSDS shall allow the user to upload new application firmware through the use of the interface, remotely or on-site.

6.3.12 A Windows OS based application will be provided to remotely view video streams from the MSDS.

6.3.13 An iOS and Android based application shall be available to remotely access each configured MSDS on the agency's network. This application shall allow the user to choose between any number of pre-configured intersection locations. Using the iOS or Android device, the application will allow the user to view live video from any camera at that intersection, including vehicle and bicycle detections in real-time. The application will also allow the user to view individual intersection data, including turning movement counts and occupancy. The application will show each data set in time periods of day, week, or month, and have the capability of turning on or off right, left, and thru movement data for turning movement count data. The application will also allow the user to view current system diagnostic data, including the following, but not limited to; individual camera glare and low contrast information, system low contrast, constant call, alarm, reboots, logins, and menu access information.

6.3.14 A Windows based PC application shall be available to remotely access each configured MSDS on the agency's network. The application shall allow the user to choose multiple intersection locations to be displayed simultaneously on the screen. Intersections can be displayed in alphanumeric order. Groups of intersections can be configured to be displayed simultaneously to allow the user to monitor particular corridors of detection. Multiple groups may be configured in the application.

6.3.15 Data API

This section sets forth the minimum requirements for the VDS to provide data to remote systems via an API call.

6.3.16 The system shall provide zone status at a 100mS refresh rate. All programmed zones will be part of the data.

6.3.17 The system shall provide channel status at a 100mS refresh rate. All programmed channels will be part of the data.

6.3.18 The system shall provide aggregated count data at a 1 minute refresh rate. All count type, both manual and automatic, will be part of the data.

6.4 Fusion

Where a MSDS Multi-Sensor is utilized the system shall use data from both the video and radar sensors to determine if a vehicle is present.

SDLC Functionality

This section sets forth the minimum requirements for a full-function BIU and integrated MSDS detection communication. The MSDS shall provide outputs to the controller of vehicle calls from DPs that reside within the detector rack.

7.1 Functional Capabilities

The MSDS shall have the capability of monitoring phase information and passing that information and other system data such as "time" from the controller to video detection

processor modules. The DP shall also accept data from video processor modules and relay the information to the controller. The unit shall provide a maximum of 64 detector outputs to the controller via the SDLC interface.

7.2 Requirements

The module shall be in compliance with the following industry specifications:

- Transportation Electrical Equipment Specifications (TEES), August 16, 2002 (or latest edition), California Department of Transportation
- NEMA Standard Publication TS 1-1989 (or latest edition), Traffic Control Systems, National Electrical Manufacturers Association
- NEMA Standard Publication TS 2-2003, Traffic Controller Assemblies With NTCIP Requirements, Version 02.06 (or latest edition), National Electrical Manufacturers Association

7.3 Data Interfaces

The MSDS shall have two data interfaces:

- The interface to the controller shall be accomplished by the use of the TS-2 SDLC port and protocol in accordance with the TS-2 specifications. The module shall be able to be configured to respond to BIU addresses 8, 9, 10 and 11 or a combination thereof.
- The interface to communicate with card rack video detection processors shall be manufacturer specific.

7.4 SDLC Communication Indicators

One LED indicator shall be provided for the TS-2 SDLC interface. The indicator shall be used to inform the user of any communication activity on the SDLC port.

Installation

8.1 The cable to be used between the camera and the CCU in the traffic cabinet shall be Cat5e or Cat6, shielded, direct burial. This cable shall be suitable for installation in conduit or overhead with appropriate span wire. Shielded RJ-45 connectors shall be used where applicable. The Cat5e or Cat6 cable, RJ-45 connector, stripping and crimping tool shall be approved by the supplier of the video detection system, and the manufacturer's instructions must be followed to ensure proper connection.

8.2 The cabling between the Traffic Cabinet Interface (CCU) and the Sensor Head shall allow distances of up to 1000’.

8.3 The cabling between the Traffic Cabinet Interface (CCU) and Sensor Head shall be a continuous run and shall not include the use of power injectors, signal boosters or repeaters between the two devices.

8.4 The detection sensor shall be installed by factory-certified installers as recommended by the supplier and documented in installation materials provided by the supplier. Proof of factory certification shall be provided.

8.5 Coordinate installation of VDS with the Transportation department before saw cutting existing loops to minimize traffic disruptions.

Warranty

9.1 The supplier shall provide a limited three-year warranty on the MSDS.
9.2 During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory- certified personnel or factory-certified installers.
9.3 During the warranty period, updates to DP software shall be available from the supplier without charge.

Maintenance and Support

10.1 The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the video detection system. These parts shall be available for delivery within 30 days of placement of an acceptable order at the supplier's then current pricing and terms of sale for said parts.
10.2 The supplier shall maintain an ongoing program of technical support for the video detection system. This technical support shall be available via telephone, or via personnel sent to the installation site upon placement of an acceptable order at the supplier's then current pricing and terms of sale for on-site technical support services.
10.3 Installation or training support shall be provided by a factory-authorized representative and shall be a minimum IMSA-Level II Traffic Signal Technician certified.
10.4 All product documentation shall be written in the English language.

10.10.03 Construction

Add to Section 87-1.03V(2) of Revised Standard Specifications the following:

Vehicle detector installation is subject to review and approval by Contra Costa County Traffic Signal Maintenance staff, who work under contract for Town of Danville. Coordinate all inspections with Engineer, providing at least 48 hours advance notice. Do not disable any existing loops or put any new loops into service without first obtaining approval from County Traffic Signal Maintenance staff and Town Engineer. Prior to sawcutting for loops, acceptance of layout lines/locations by Engineer is required.

County and State (at State-owned signals) traffic signal maintenance staff must be present during transition from traffic actuated signal operation to timed signal operation, and back to traffic actuated signal operation after loop installation work is completed.

Except for preformed loops, all loops must be installed after HMA overlay is installed so that loop locations are visible after construction is completed.

Front loops to be placed 1 foot behind limit line stripe, or as directed by Engineer.

Each cable must be identified in pull-box nearest loop and in controller cabinet as to its “phase and loop number.”

All loops must be connected in series (electrically, not mechanically). Match existing configuration.

All splices and connections must be soldered.

Asphalt concrete must be used to fill all curb termination points.

10.10.04 Payment

Payment for Vehicle Detectors ("Detector Loop – Type E", "Detector Loop - Type E (Mod)" and "Preformed Loop") will be made for each replaced vehicle detector, as approved by Contra Costa County Traffic Signal Maintenance staff or City of San Ramon, based on each installed Type, including the detector loop wires, connection to existing or new handhole, and connection to existing pullbox, incidentals, testing, and performing all alterations necessary to complete the work.

Payment for Detector Lead-in Cable will be included in the Lump Sum bid item (per location) for Detector Loop.

Payment for Detector Handhole will be included in the Lump Sum bid item (per location) for Detector Loop.

10.11 Adjust Survey Monument Casting" (Bid Item 19), Adjust Sanitary Sewer Manhole Cover (Bid Item 20), Adjust Water Valve Casting (Bid Item 21), Adjust Storm Drain Manhole Cover (Bid Item 22), and Adjust AT&T Manhole Cover (Bid Item 23)

10.11.01 General

Refer to Section 71-5.013B "Frames, Covers, Grates, and Manholes" of Standard Specifications the following:

Contact Engineer prior to adjusting survey monuments as specified.

Lower existing survey monument castings, utility frames, covers, boxes, castings and manholes before cold planning and raise them to finished grade after placing final HMA pavement surfacing. Before opening any lane to traffic, complete permanent paving or surfacing. Adjustments and resetting of various facilities must comply with the facility owners' standards. You must gain facility owner approvals for this work prior to doing any work affecting these facilities. If a facility owner decides to perform adjustments and resetting using their own forces, no separate payment will be made to you for that item of work.

The following utility companies will adjust their facilities to Grade: AT&T, CCCSD (Contra Costa Central Sanitary District), PG&E, and Sprint. Contractor must coordinate with each utility company.

10.11.02 Materials

Add to Section 71-5.013B "Frames, Covers, Grates, and Manholes" of Standard Specifications the following:

If covers and frames can be removed without damage, re-use said covers and frames. If covers or frames are damaged, obtain replacement materials from applicable utility company, if available. If materials are not available, contractor shall provide materials. Install covers and frames according to the following table:

Bid Item	Description	Agency/ Manufacturer	Plan Number	Date
19	Survey Monument	Contra Costa County	CA40	3/11/2014
20	Sanitary Sewer Manhole	Central Contra Costa Sanitary	DWG-8 & DWG -12	2014
21	Water Valve	EBMUD	321-EA	1/30/1979
22	Storm Drain Manhole	Town of Danville	207	--

The following utility covers are not bid items, because adjustment needs to be performed by the agency. Contractor shall contact agency to coordinate adjustment.

Materials used to accomplish the adjustment must be at least equal in quality to those in the original structure, or as noted on the plans. Repair pavement damaged in making adjustments.

Adjustments of utility covers by the use of extension rings or other raising devices shall not be allowed unless approved by Engineer. Covers shall be non-rocking, and designed for a wheel load of no less than 10,000 pounds, or as required by each agency.

Survey Monument covers and frames shall be Forni Corp. (Ironsides), American Brass and Iron Foundry or Monroe Casting products, or approved equal. If use of a cover and frame other than those listed is proposed, submit information on alternate at pre-construction meeting.

Survey Monument Covers shall be marked "Monument". Sanitary Sewer Manhole Covers shall be marked “CCCSD”.

10.11.03 Construction

Add to Section 71-5.013B “Adjust Frames, Covers, Grates, and Manholes” of Standard Specifications the following:

Reference location of existing frames, covers, grates, and manholes with sufficient control points to locate after final paving operations. Use spray chalk or other non-permanent marking method.

Prior to application of paint binder, all utility covers not adjusted to final grade shall be painted with diesel oil and referenced on one set of drawings provided by Engineer. Immediately after paving, physically mark the asphalt concrete over these utility covers by a method acceptable to Engineer.

Exercise caution when adjusting covers so that underlying utilities are not disturbed.

If manhole adjustment involves excavation or concrete removal, place temporary cover to prevent entry of materials into manhole and pipes.

When covers are adjusted to final grade after placement of overlay, HMA backfill shall be 3/8” maximum, Type A.

Covers must be set flush with surrounding surface. Engineer shall be the sole judge as to acceptable final grade of each cover. If Engineer determines that a cover needs further adjustment, further adjustments shall be made at Contractor’s expense.

10.11.04 Payment

Payment for Adjust Frames, Covers, Grates, and Manholes to Final Grade will be made for each adjusted structure in conformance with standards established by agencies or utility companies. The price bid shall include all excavation, backfill, compaction, equipment, labor, tools, material, and all other incidentals necessary to satisfactorily complete the work.

Work is subject to inspection and acceptance by applicable agency or utility company before payment is issued.

Town reserves the right to eliminate any or all of cover adjustment bid items if agencies or utility companies elect to perform the work using their own forces. No payment will be issued for eliminated bid items.

Section 9-1.06 “Changed Quantity Payment Adjustments” of Standard Specifications does not apply to these bid items.

10.12 Traffic Legend, Striping, and Raised Pavement Markers (Bid Items 21 through 32)

Bid Item 21 “Thermoplastic Traffic Stripe (Detail 2)”,
Bid Item 22 “Thermoplastic Traffic Stripe (Detail 22)”,
Bid Item 23 “Thermoplastic Traffic Stripe (Detail 23)”,
Bid Item 24 “Thermoplastic Traffic Stripe (Detail 38B)”,
Bid Item 25 “Thermoplastic WCW 12” Line Stripe”,
Bid Item 26 “Thermoplastic YCW 12" Line Stripe”,
Bid Item 27 “Thermoplastic LL Stripe”,
Bid Item 28 “Thermoplastic Type I and Type VI Arrows”,
Bid Item 29 “Traffic Stripe Text Legend”,
Bid Item 30 “Traffic Stripe “STOP” Legend”,
Bid Item 31 “Thermoplastic Decorative X-Walk”,
Bid Item 32 “Reflective Blue Pavement Marker”

10.12.01 General

Refer to Section 13-4.03E(8) “Thermoplastic Striping and Pavement Parkers”, Section 84-1 “General”, Section 84-2 “Remove Traffic Stripes and Pavement Markings”, Section 81-8.03B “Remove Pavement Markers”, Section 84-2, "Traffic Stripes and Pavement Markings" and Section 81-3 “Pavement Markers” of Standard Specifications for installing traffic stripes, pavement markings, and markers. Markings must conform to Part 3 “Markings” of the California MUTCD 2014 Edition (FHWA’s MUTCD 2009 Edition, as amended for use in California

Refer also to following standard plans (Appendix B): Caltrans Standard Plans A20A, A20B, A20D, A24A, and A24D; and Town Standard Plan 117.

10.12.02 Materials

Add to Section 84-2.02 “Materials” the following:

Certificates of compliance must be furnished for temporary and permanent striping and pavement markers, unless on Caltrans approved list of pre-qualified and tested signing and delineation materials and products.

Retroreflectivity of the thermoplastic pavement markings must conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic pavement markings must have a minimum initial retroreflectivity of 250 mcd m-2 lx-1. Yellow thermoplastic pavement markings must have a minimum initial retroreflectivity of 150 mcd m-2 lx-1.

10.12.03 Construction

Add to Section 12-6 “Temporary Pavement Delineation” of Standard Specifications the following:

Before the permanent pavement markings are applied, the Contractor must provide “cat-track” marking layout for review and approval of the Engineer. Changes, if any, to the marking layout as a result of the Engineer’s review is the responsibility of the Contractor. If the Contractor fails to obtain the Engineer’s approval of the marking layout prior to the permanent marking installation, changes to the permanent markings as required by the Engineer, including removal and replacement, is the Contractor’s responsibility.

Where striping joins existing striping, as shown on the plans, begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern.

Thermoplastic traffic stripes shall be applied at the minimum thickness and application rate as specified below. The minimum application rate is based on a solid stripe of 4 inches in width.

Minimum Stripe Thickness (inch)	Minimum Application Rate (lb/ft)
0.079	0.27

Thermoplastic pavement markings and pavement striping must be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

Reflectorized markers must be installed accurately at the locations called for in the Contract Documents or as required by the latest edition of the California MUTCD.

Place temporary reflective pavement markers as required for controlling and routing traffic through project area. Temporary or permanent pavement delineation acceptable to Engineer shall be in place prior to opening of street to traffic. Temporary reflective pavement markers shall be firmly attached to pavement in conformance with manufacturer’s instructions, and shall be same color as permanent markers to be placed at that location.

Add to Section 84-2.03A “General” the following:

Striping, markings, and markers must be installed at locations of existing striping, markings, and markers unless otherwise shown on plans or directed by Engineer.

New traffic legends and striping must generally coincide with original striping locations, and must include blue pavement markers at all fire hydrant locations. Contractor must provide “cat tracking” for all striping. Engineer reserves right to modify layout. No permanent striping may be installed until cat-tracking is approved by Engineer.

Replacement striping shown on plans is schematic only.

Existing traffic striping is to be replaced with thermoplastic in compliance with Section 84-2 of Standard Specifications, unless otherwise noted on plans.

Reflective blue fire hydrant pavement markers must be installed in conformance with MUTCD Figure 3B-102.

Installation of permanent striping, markers, and markings must be completed within ten calendar days after original markings are removed or destroyed.

Completed stripes must have clean and well-defined edges. Maximum deviation from designated position of stripe must not exceed ½" in any 100-foot length of stripe, including gaps. Roadway markings must conform to shapes and dimensions of standard markings.

Surfaces that are to receive traffic stripes, markings, or markers must be thoroughly clean, free from loose materials and dry; and such areas must be prepared by Contractor to satisfaction of and with methods approved by Engineer.

Advance spotting of angle points, end points and other control points must be placed.

Pavement Markers

Refer to Sections 81-3.03A "General", 81-3.03B "Hot Melt Bituminous Adhesive" and 81-3.03C "Epoxy Adhesive" of the Standard Specifications for adhesive for pavement markers.

Add to Section 81-3.03A "Construction – General":
The portion of the street surface, which will receive the pavement markers, must be free of dirt, oil, moisture, or any other material that would adversely affect the bonding of the adhesive.

Adhesive must be placed in sufficient quantity to completely cover the bottom of the marker with no voids and with slight excess after the marker has been pressed into place. The marker must be protected against impact until the adhesive has hardened.
Reflective blue fire hydrant pavement markers shall be installed in conformance with MUTCD Figure 3B-102.

10.12.04 Payment

Replace second sentence in Section 84-2.04 and 81-3.04 "Payment" of Standard Specifications with the following:

Quantities of Thermoplastic Traffic Legends and Raised Pavement Markers "Bid Items: 28, 29, 30, and 31" will be paid by actual counts installed.

Thermoplastic Traffic Stripe "Bid Items: 21, 22, 23, 24 25, 26, 27, and 31 will be paid by the lineal footage based on actual measured length, regardless of number of individual stripes comprising a striping detail and regardless of stripe width including layout and approval of 'cat-tracking' by the Engineer.

Payment for retroreflective markers associated with any stripe detail is included in the unit cost and no separate payment will be made.

Placement and removal of temporary striping is included in each bid item.

Removal of existing traffic striping, legends, and raised pavement markers are included under the installation of HMA bid item and no additional payment will be made.

SECTION 11. STORM WATER POLLUTION CONTROL MEASURES

All contractors and subcontractors working on Town of Danville projects are required to comply with the pollution control measures shown in Appendix C.

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

C. PROPOSAL SECTION

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Proposal to the Town of Danville

2024/25 Pavement Rehabilitation Project
Contract No. C-610H

Name of Bidder _____

Business P.O. Box _____

City, State, Zip _____

Business Street Address _____
(Please include even if P.O. Box used)

City, State, Zip _____

Telephone No. Area Code ( )_____

Fax No. Area Code ( )_____

Contractor License No. _____

DIR Registration No. _____

Description of Work and Proposed Agreement

The work for which this bid is submitted is for construction in conformance with the special provisions (including the payment of not less than the State general prevailing wage rates or Federal minimum wage rates), the project plans described below, including any addenda thereto, the contract annexed hereto, and also in conformance with the standards referenced on the cover of the Contract Specifications and within the Special Provisions.

Bids are to be submitted 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.

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 (a) or (b), as follows:

(a) 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;

(b) (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 Town of Danville's Final Estimate of cost.

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.

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.

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 Town of Danville, and that discretion will be exercised in the manner deemed by the Town of Danville to best protect the public interest in the prompt and economical completion of the work. The decision of the Town of Danville respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

If this bid shall be accepted and the undersigned shall fail to enter into the contract and furnish the two bonds in the sums required by the State Contract Act, with surety satisfactory to the Town of Danville, within eight days, not including Saturdays, Sundays and legal holidays, after the bidder has received notice from the Town of Danville that the contract has been awarded, the Town of Danville 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 security accompanying this bid shall operate and the same shall be the property of the Town of Danville.

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 he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this bid is accepted, that he will contract with the Town of Danville, in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefor the following prices, to wit:

Spec Section	Bid Item	Description	Qty	Unit	Unit Price	Total
10.1	1	Mobilization	1	LS		
10.2	2	Water Pollution Control Program	1	LS		
10.3	3	Temporary Traffic Control	1	LS		
10.4	4	Solid Waste Disposal and Recycling Report	1	LS		
10.5	5	Schedule	1	LS		
10.6	6	Selective Tree Trimming	1	LS		
10.7	7	Remove & Replace PCC Curb & Gutter (Type A)	450	LF		
10.7	8	Remove & Replace PCC Sidewalk	250	SF		
10.7	9	Remove and Replace PCC Curb Ramp	46	EA		
10.7	10	Remove & Replace Rolled PCC Curb	120	LF		
10.7	11	Remove & Replace PCC Valley Gutter	550	SF		
10.8	12	15 FT Pavement Conform Grind	16,710	SF		
10.8	13	5 FT Pavement Edge Grind	68,828	LF		
10.9	14	4" AC Dig-Out Repair	30,000	SF		
10.9	15	2" Hot Mix Asphalt	16,841	Ton		
10.9	16	Hot Mix Asphalt Speed Lumps	14	EA		
10.10	17	Traffic Loop Detectors	3	EA		
10.10	18	Traffic Video Detection System (Camera)	3	EA		
10.11	19	Adjust Survey Monument Casting	102	EA		
10.11	20	Adjust Sanitary Sewer Manhole Cover	109	EA		
10.11	21	Adjust Water Valve Casting	178	EA		
10.11	22	Adjust Storm Drain Manhole Cover	12	EA		
10.11	23	Adjust AT&T Manhole Cover	2	EA		
10.12	24	Thermoplastic Detail 2 Stripe	75	LF		
10.12	25	Thermoplastic Detail 22 Stripe	1,010	LF		
10.12	26	Thermoplastic Detail 23 Stripe	5,460	LF		
10.12	27	Thermoplastic Detail 38B Stripe	240	LF		
10.12	28	Thermoplastic YCW 12" Line Stripe	100	LF		
10.12	29	Thermoplastic WCW 12" Line Stripe	1,730	LF		
10.12	30	Thermoplastic LL Stripe	1,480	LF		
10.12	31	Thermoplastic Type I and IV Arrows	33	EA		
10.12	32	Thermoplastic "STOP" Legend	53	EA		
10.12	33	Thermoplastic Speed Lumps Striping	14	EA		
10.12	34	Thermoplastic Continental X-Walk	250	LF		
10.12	35	Reflective Blue Pavement Marker	100	EA		

TOTAL BID: $_____

NOTE: The contract, if it is to be awarded, will be awarded to the bidder submitting the lowest responsible "Total Bid". The Town reserves the right to reject any and all bids.

The quantities given in the Notice to Contractors, Proposal, and Contract forms are approximate only, being given as a basis for the comparison of Proposals, and the Town does not, expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any item or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Engineer. No allowance will be made for anticipated profit on work that is deleted or decreased.

Subcontractor List

The Bidder shall list the name and address of each subcontractor to whom the Bidder proposes to subcontract portions of the work in an amount in excess of one-half of one percent of the total bid or $10,000, whichever is greater, in accordance with the Subletting and Subcontracting Fair Practices Act, commencing with Section 4100 of the Public Contract Code, and as required by the provisions in Section 2.1.01, "General," of the Special Provisions. In accordance with California Public Contract Code Section 4104, State contractor licenses shall be listed for all subcontractors.

Note: Replace the second paragraph of Section 2-1.33A "General" of the Standard Specifications with the following: "On the Subcontractor List you may either submit the bid item numbers, and the percentage of each item subcontracted with your bid or email the information to engineering@danville.ca.gov within 24 hours after bid opening".

______________________ **Subcontractor Business Name**	______________________ **Subcontractor Business Name**
Email address: ______________	**Email address:** ______________
______________________ **Street Address**	______________________ **Street Address**
________ **City** ________ **County**	________ **City** ________ **County**
________ **State** ________ **Zip**	________ **State** ________ **Zip**
______________________ **Description of Work to be Subcontracted**	______________________ **Description of Work to be Subcontracted**
______________________ **California State Contractor License No(s).**	______________________ **California State Contractor License No(s).**
______________________ **DIR Registration No.**	______________________ **DIR Registration No.**
________ **Bid Item No(s). (See Note Above)** ________% **Percentage (See Note Above)**	________ **Bid Item No(s). (See Note Above)** ________% **Percentage (See Note Above)**

______________________ **Subcontractor Business Name**	______________________ **Subcontractor Business Name**
Email address: ______________	**Email address:** ______________
______________________ **Street Address**	______________________ **Street Address**
________ **City** ________ **County**	________ **City** ________ **County**
________ **State** ________ **Zip**	________ **State** ________ **Zip**
______________________ **Description of Work to be Subcontracted**	______________________ **Description of Work to be Subcontracted**
______________________ **California State Contractor License No(s).**	______________________ **California State Contractor License No(s).**
______________________ **DIR Registration No.**	______________________ **DIR Registration No.**
________ **Bid Item No(s). (See Note Above)** ________% **Percentage (See Note Above)**	________ **Bid Item No(s). (See Note Above)** ________% **Percentage (See Note Above)**

(Attach additional sheets if needed)

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

Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder

☐ has

☐ has not

(Check one box above)

been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any State or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the boxes provided. The above Statement is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

☐ yes

☐ no

(Check one box above)

If the answer is “yes”, attach a separate sheet explaining the circumstances

Public Contract Code Section 10232 Statement

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement and Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Non-Collusion Affidavit

(Title 23 United States Code Section 112 and Public Contract Code Section 7106)

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

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

Note:The above Non-Collusion Affidavit is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Non-Collusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution

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Debarment and Suspension Certification

Title 49, Code of Federal Regulations, Part 29

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

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

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

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Certification. The Town may confirm the Contractor's Debarment and Suspension Status using the General Services Administration's Excluded Parties List System (EPLS) available at:

https://www.sam.gov/portal/public/SAM

Public Works Contractor Registration Certification

Pursuant to Labor Code Sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html or http://www.dir.ca.gov/Public-Works/Public_Works_Notices.html for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code Sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Bidder: _____

DIR Registration Number: _____

Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.

2. Bidder shall include the requirements of Labor Code Sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.

3. If awarded the contract, contractors and subcontractors must submit certified payroll records to the Labor Commissioner using the DIR's electronic certified payroll reporting (eCPR) system.

4. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: _____

Name and Title: _____

Dated: _____

Accompanying this Bid is _____

(NOTE: INSERT THE WORDS "CASH ($ _____)," "CASHIER'S CHECK," "CERTIFIED CHECK," OR "BIDDER'S BOND," AS THE CASE MAY BE.)

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

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

IMPORTANT NOTICE

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

_____

_____

_____

_____

Licensed in conformance with an act providing for the registration of Contractors,

License No. _____ Classification(s) _____

Addenda - This Bid is submitted with respect to the changes to the contract included in addenda number(s)_____

(*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*.)

Signature Page

By my signature on this bid I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this Bid I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Non-collusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date:_____

_____

_____

_____

Signature and Title of Bidder

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Bidder's Bond

We, _____ as Principal,

and _____
as Surety are bound unto the Town of Danville, State of California, hereafter referred to as "Obligee", in the penal sum of ten percent (10%) of the total amount of the bid of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for _____

_____
(Copy here the exact description of work, including location as it appears on the proposal)

_____

for which bids are to be opened at _____ on _____
(Insert place where bids will be opened) *(Insert date of bid opening)*

NOW, THEREFORE, if the Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in conformance with the bid, and files two bonds with the Obligee, one to guarantee faithful performance of the contract and the other to guarantee payment for labor and materials as provided by law, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgement is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Dated: _____ , 20 ___ .

_____

_____

_____
Principal

_____
Surety

By _____
Attorney-in-fact

ACKNOWLEDGEMENT

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, _____
(Insert Name and Title of the Officer)

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(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

D. CONTRACT SECTION

(All of the following documents to be submitted by the successful bidder after the project is awarded.)

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Contract

Construction Agreement

TOWN OF DANVILLE

1) SPECIAL TERMS. These special terms are incorporated below by reference.

Parties:	Town of Danville
Contractor:	_____
	_____
	_____
Project:	_____
Contract No.:	_____
Completion Time:	As defined in Section 4.1.01(A) of these Special Provisions.
Liquidated Damages:	As defined in Section 4.1.01(B) of these Special Provisions.
Contract Price:	$_____ more or less, in accordance with finished quantities at unit bid price.

2) SIGNATURE & ACKNOWLEDGEMENT.

Town of Danville, by: _____
Town Manager

Effective Date: _____

Attest: _____
City Clerk

Contractor, by: _____
(DESIGNATED OFFICIAL CAPACITY IN THE BUSINESS)

Contractor, by: _____
(2nd SIGNATURE FOR CORPORATIONS PER CORPORATION CODE SECTION 313)

Date: _____

Note to Contractor: (1) Execute acknowledgement form below, and (CORPORATE SEAL)
(2) If a corporation, affix Corporate Seal

ACKNOWLEDGEMENT

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, _____
(Insert Name and Title of the Officer)

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(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

3) WORK CONTRACT. The contract for this project shall consist of: this Agreement and the special terms contained herein; the project plans, drawings and specifications including but not limited to the Notice to Contractors; the Contract Specifications, including the Special Provisions contained therein; Contractors Bid Proposal; all bonds, affidavits and insurance certificates; and any Change Orders approved by the Town as provided for in the Contract Specifications. All of these documents shall be integrated and are intended to cooperate with one another. Differences or conflicts between these integrated documents shall be finally determined by the Engineer.

4) TIME: NOTICE TO PROCEED. Contractor shall start work as directed in the specifications or the Notice to Proceed provided by the Town and shall complete all work within the time specified in Section 1 of this Agreement.

5) LIQUIDATED DAMAGES. Liquidated damages may be assessed as provided for in Section 4.1.01 of the Contract Specifications and in the amount provided for in Section 1 of this Agreement.

6) PAYMENTS. Payments to Contractor shall be reviewed and processed as provided for in Section 5.2 of the Contract Specifications.

7) INSURANCE. Contractor shall deliver to the Town of Danville for approval, a certificate evidencing that Contractor possesses the minimum insurance specified in Section 5.2.04 of the Contract Specifications.

8) BONDS. On signing this Contract, Contractor shall deliver to the Town of Danville for approval good and sufficient bonds with sureties in amount(s) specified in the Contract Specifications or Special Provisions and in the format provided in the Contract Specifications, guaranteeing faithful performance of this contract, payment for all labor and materials hereunder, and any needed remedies during the 12 month material guaranty period.

9) HOLD HARMLESS & INDEMNITY. Contractor agrees to hold harmless and indemnify the Town as provided for in Section 5.2.05 of the Contract Specifications.

10) ASSIGNMENT. This agreement binds the heirs, successors, assigns, and representatives of the Contractor; but Contractor cannot assign it in whole or in part, nor any monies due or to become due under it, without the prior written consent of the Town of Danville and Contractor's surety or sureties, unless they have waived notice of assignment.

11) NO WAIVER BY TOWN OF DANVILLE. Inspection of the work and/or materials, or approval of work and/or materials inspected, or statement by any officer, agent of the requirements of this Contract, or acceptance of the whole or any part of said work and/or materials, or payments therefor, or any combination of these acts, shall not relieve the Contractor’s obligation to fulfill this contract as prescribed; nor shall the Town of Danville be thereby stopped from bringing any action for damages or enforcement arising from failure to comply with any of the terms and conditions hereof.

12) LITIGATION COSTS. In the event either party commences legal action to enforce this Agreement, the prevailing party shall be entitled to reasonable costs and expenses, including attorney’s fees.

13) VENUE. In the event that suit shall be brought by either party hereunder, the parties agree that trial of such action shall be held exclusively in a state court in the County of Contra Costa, Martinez, California.

14) WORKER'S COMPENSATION CERTIFICATION. Contractor is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and Contractor will comply with such provisions before commencing the performance of the work of this Contract.

15) PROVISIONS DEEMED INSERTED. Every provision of law required to be inserted in the Contract Documents is deemed to be inserted, and the Contract Documents will be construed and enforced as though such provision has been included. If it is discovered that through mistake or otherwise that any required provision was not inserted, or not correctly inserted, the Contract Documents will be amended accordingly.

16) GUARANTY. Pursuant to Standard Specifications Section 6-3.06 "Guarantee", the Contractor guarantees the construction and installation of the work included in this project.

If any of the work is defective due to faulty workmanship, materials furnished, or methods of installation, or if the work or any part of it fails to operate properly as originally intended and in accordance with the Plans and Specifications due to any of the above causes, all within 12 months after the date on which this Contract is accepted by the Town or after relief from maintenance, the Contractor agrees to reimburse the Town, upon demand, for its expenses incurred in restoring the project, including the cost of any such equipment or materials replaced and the cost of removing and replacing any other work necessary to make such replacement or repairs, or, upon demand by the Town, to replace any such material and to repair the work completely without cost to the Town so that the work will function successfully as originally contemplated.

The Town shall have the unqualified option to make any needed replacements or repairs done by the Contractor. If the Town elects to have the work performed by the Contractor, the Contractor agrees that the repairs shall be made and such materials as are necessary shall be furnished and installed within a reasonable time after the receipt of demand from the Town. If the Contractor fails or refuses to comply with his obligations under this guaranty, the Town shall be entitled to all costs and expenses, including attorney's fees.

Approved as to Form:

By _____
City Attorney

Date _____

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Performance Bond

(To Accompany Contract)

Bond No. _____

WHEREAS, the Town of Danville, acting by and through the Development Services Department, has awarded to Contractor _____, hereafter designated as the "Contractor", a contract for the work described as follows:

_____

Contract Name Contract Number

AND WHEREAS, the Contractor is required to furnish a bond in an amount equal to at least one-hundred percent (100%) of the contract price in connection with said contract, guaranteeing the faithful performance thereof:

NOW, THEREFORE, we the undersigned Contractor and Surety are held firmly bound to the Town of Danville in the sum of _____ dollars ($_____), to be paid to said Town or its certain attorney, its successors and assigns: for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors or assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if the above bound Contractor, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the foregoing contract and any alteration thereof made as therein provided, on his or their part to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning, and shall indemnify and save harmless the Town of Danville, its officers and agents, as therein stipulated, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this _____ day of _____, 20__ _.

Correspondence or claims relating to this bond
Should be sent to the surety at the following
Address:

_____

_____

_____

_____

_____
Contractor

_____
Name of Surety **(SEAL)**

_____
By: Attorney-in-Fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

ACKNOWLEDGEMENT

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, _____
(Insert Name and Title of the Officer)

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(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Payment Bond

(Civil Code Section 9550)

WHEREAS, the Town of Danville, acting by and through the Development Services Department, hereafter referred to as "Obligee", has awarded to Contractor _____, hereafter designated as the "Principal", a contract for the work described as follows:

_____

Contract Name Contract Number

AND WHEREAS, said Principal is required to furnish a bond in an amount equal to at least one-hundred percent (100%) of the contract price in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen and other persons as provided by law.

NOW, THEREFORE, we the undersigned Principal and Surety are bound unto the Obligee in the sum of _____ dollars ($_____), for which payment, we bind ourselves, jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That if said Principal or its subcontractors shall fail to pay any of the persons named in Civil Code Section 9100, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by such claimant, or any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board for the wages of employees of the Principal and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the surety herein will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the surety will pay a reasonable attorney's fee to be fixed by the court.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 9100 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

Dated: _____, 20 ____

Correspondence or claims relating to this bond
Should be sent to the surety at the following
Address:

_____
Contractor

_____ _____
Name of Surety **(SEAL)**

_____ _____
By: Attorney-in-Fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

ACKNOWLEDGEMENT

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, _____
(Insert Name and Title of the Officer)

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(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (Seal)

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

Escrow Agreement for Security Deposits in Lieu of Retention

This Escrow Agreement is made and entered into by and between the Town of Danville, whose address is 510 La Gonda Way, Danville CA 94526, hereinafter called "Owner," and _____, hereinafter called “Contractor”, and
Contractor
_____, hereinafter called “Escrow Agent”.
Escrow Agent

For the consideration hereinafter set forth, the Owner, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for _____ in the amount of _____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the Escrow Agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of _____, and shall designate the Contractor as the beneficial owner.

(2) The Owner shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Owner makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor, and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

(8) Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (5) to (8), inclusive, of this Agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner:	On behalf of Contractor:
Title	Title
Name	Name
Signature	Signature
Address	Address
City/State/Zip Code	City/State/Zip Code

On behalf of Escrow Agent:

Title
Name
Signature
Address
City/State/Zip Code

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Owner	Contractor
Title	Title
Name	Name
Signature	Signature

TOWN OF DANVILLE
DEVELOPMENT SERVICES DEPARTMENT

INSTRUCTIONS FOR COMPLETING EXTRACT OF PUBLIC WORKS CONTRACT AWARD

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF APPRENTICESHIP STANDARDS

FORM DIR-PWC 100 (rev. 10/11)

The successful bidder shall complete the information on the following Form DIR-PWC 100 and return the form to the Town of Danville after the project has been awarded. The Notice to Proceed will not be issued until said form is satisfactorily completed and submitted. The contractor is responsible for disclosing the following information on the form:

Box 1	Name of General Contractor
Box 2	Contractor's License No.
Box 3	Mailing Address (Street Number or P.O. Box)
Box 4	City
Box 5	Zip Code
Box 6	Telephone Number
Box 7	General Contractor's Contact Email Address
Box 23	Classification or Type of Worker (carpenter, plumber, etc.) that will be employed by the Contractor(s)
Page 2	Listing of Sub-Contractors

Boxes not noted above will be completed by the Town of Danville. The completed form will be forwarded to the California Department of Industrial Relations, in conformance with California Labor Code §1776 and §1777.5. For more information about this requirement, refer to Caltrans Standard Specification Sections 7-1.02K(3) "Certified Payroll Records (Labor Code §1776)" and 7-1.02K(4) "Apprentices" respectively.

STATE OF CALIFORNIA – DEPARTMENT OF INDUSTRIAL RELATIONS

TO: California Department of Industrial Relations
Division of Apprenticeship Standards
P.O. Box 420603
San Francisco, CA 94142

FROM:

AWARDING AGENCY ID NUMBER

If you do not have an ID number please contact DAS

EXTRACT OF
PUBLIC WORKS CONTRACT AWARD

A CONTRACT TO PERFORM PUBLIC WORKS UNDER LABOR CODE SECTION 1777.5 HAS BEEN AWARDED TO:

1. NAME OF GENERAL CONTRACTOR			2. CONTRACTOR'S LICENSE NO
3. MAILING ADDRESS (STREET NUMBER OR P.O. BOX)		4. CITY	
		5. ZIP CODE	6. TELEPHONE NUMBER
7. GENERAL CONTRACTOR'S CONTACT EMAIL ADDRESS		8. ADDRESS/LOCATION OF PUBLIC WORKS SITE (INCLUDE CITY AND COUNTY):	
9. . NAME OF PROJECT		8a. County	
10. CONTRACT NUMBER	11. PROJECT NUMBER	12. DOLLAR AMOUNT OF CONTRACT AWARD	
13 . FIRST ADVERTISED BID DATE MONTH DAY YEAR	14 CONTRACT AWARD DATE MONTH DAY YEAR	12a ESTIMATED TOTAL PROJECT COSTS, IF DIFFERENT FROM ITEM 12 (see instructions).	
		15. WHICH STATUTE, IF ANY, APPLIES TO THIS PROJECT?	
16. STATE CONSTRUCTION BONDS YES NO If YES, List the Sources and Dollar Amount of Bond Proceeds: SOURCES DOLLAR AMOUNT		17. WILL YOU OPERATE A DIR-APPROVED LABOR COMPLIANCE PROGRAM (LCP) FOR THIS PROJECT? YES NO	
		18. IS THERE A PROJECT LABOR AGREEMENT (PLA) ASSOCIATED WITH THIS PROJECT? *If yes, please email a copy to cmupla@dir.ca.gov* YES NO	
19. STARTING DATE (ESTIMATED OR ACTUAL) (MM/DD/YYYY)		20. COMPLETION DATE (ESTIMATED OR ACTUAL) (MM/DD/YYYY)	
21. BRIEF DESCRIPTION OF WORK TO BE PERFORMED		22 NEW CONSTRUCTION REMODELING ALTERATION, DEMOLITION, REPAIR OR MAINTENANCE	
23. CLASSIFICATION OR TYPE OF WORKER (CARPENTER, PLUMBER, ETC.) THAT WILL BE EMPLOYED BY THE CONTRACTOR(S) Please list Sub-contractors and their worker classifications on page 2			
24. Is language included in the Contract Award to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code? YES NO			
25. SIGNATURE	26. TITLE	27. DATE	
28. PRINTED OR TYPED NAME	29. E-MAIL ADDRESS	30. TELEPHONE NUMBERS	
If different from above, name, title, and contact information of person responsible for carrying out Awarding Body's LCP or CMU responsibilities.			
31. NAME	32. TITLE	33. E-MAIL ADDRESS	34. TELEPHONE NUMBER

Duplication of this form is permissible

DIR-PWC 100 (rev. 10/11) successor to the DAS 13 form

To download this form, go to: www.dir.ca.gov/DAS/DIR_PWC_100Form.pdf

Extract of Public Works Contract Award (DIR-PWC 100 Form)

EXTRACT OF PUBLIC WORKS CONTRACT AWARD (Continued)

Listing of Sub Contractors

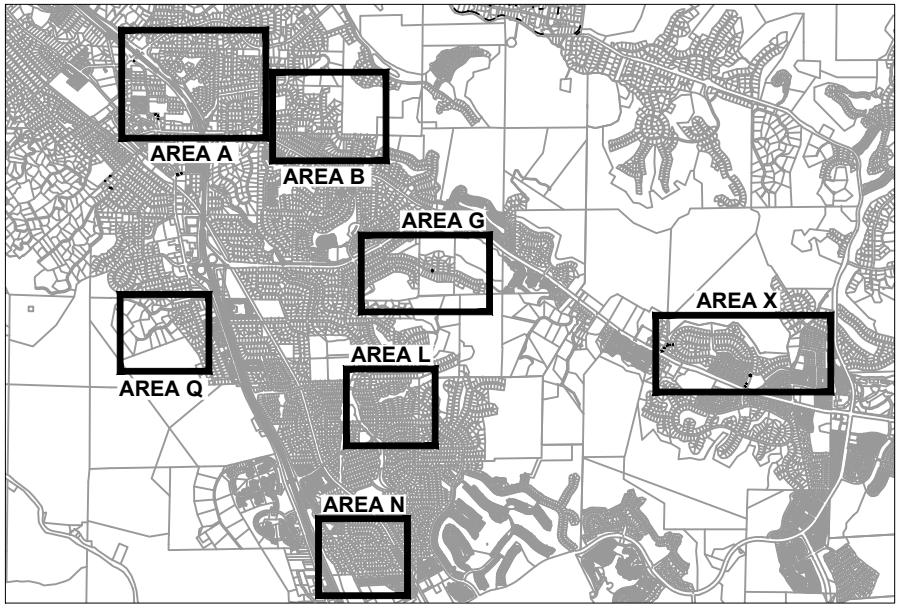
Con. Lic. #	Contractor	Classification of workers

DIR-PWC 100 (rev. 10/11) successor to the DAS 13 form

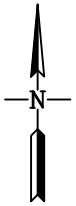
APPENDIX A
PLANS

Pavement Plans
Street Name List
Quantity Summary – Paving and Miscellaneous Items
Quantity Summary – Traffic Legend and Striping
Quantity Summary – ADA Curb Ramps

TOWN OF DANVILLE
2024/25 PAVEMENT REHABILITATION PROJECT CIP C-610H



VICINITY MAP
NOT TO SCALE



SHEET INDEX

GENERAL NOTES

1. ALL WORKMANSHIP, MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE LATEST REVISIONS OF THE TOWN OF DANVILLE STANDARD PLANS, CONTRA COSTA COUNTY STANDARDS, 2015 CALTRANS STANDARD PLANS AND SPECIFICATIONS AND THE 2012 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).

2. UNDERGROUND UTILITIES ARE NOT SHOWN AND MUST BE LOCATED BY THE CONTRACTOR PRIOR TO THE START OF PROPOSED WORK. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) 811 OR 800-227-2600, A MINIMUM OF 48 HOURS PRIOR TO START OF ANY EXCAVATION OR DEMOLITION OF EXISTING IMPROVEMENTS.

3. CONTRACTOR SHALL COORDINATE WITH UTILITIES TO HAVE THEIR FACILITIES ADJUSTED TO GRADE.

4. ANY DAMAGE TO EXISTING FACILITIES TO REMAIN INCLUDING, BUT NOT LIMITED TO, TREES, LANDSCAPING, SIGNS, MAILBOXES, IRRIGATION, FENCES, WALLS, SIDEWALK AND OTHER PAVEMENT SURFACES SHALL BE REPAIRED TO THE OWNERS SATISFACTION AND AT CONTRACTOR'S EXPENSE. CONTRACTOR SHALL RESTORE ANY AND ALL PAVEMENT AND OTHER FACILITIES OUTSIDE LIMITS OF WORK AFFECTED BY THE CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST.

5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY LOCATIONS, ELEVATIONS, ETC. OF EXISTING FACILITIES AND TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY FIELD CONFLICTS OR OMISSIONS.

6. TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, LATEST EDITION OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION CA MUTCD, STANDARD PLANS AND STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGGERS AND OTHER DEVICES TO PROVIDE SAFE PASSAGE OF PUBLIC VEHICULAR, BICYCLE AND PEDESTRIAN TRAFFIC.

7. THE CONTRACTOR SHALL REPAIR ANY STRIPING, CURB PAINT, PAVEMENT MARKING OR PAVEMENT MARKERS DAMAGED OR REMOVED TO MAKE ROOM FOR NEW CONSTRUCTION.

8. ALL NEW PEDESTRIAN CURB RAMPS AND DETECTABLE WARNING SURFACE (ADA TRUNCATED DOMES) SHALL BE CONSTRUCTED IN CONFORMANCE WITH CALTRANS REVISED STANDARD PLAN A88A AND CONTRACT SPECIFICATIONS. THE COLOR OF THE ADA TRUNCATED DOMES SHALL BE COLOR NUMBER 33538 (YELLOW), CONFORMING TO FEDERAL STANDARD 595B.

9. THE CONTRACTOR SHALL SUBMIT VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL AND SIGNING PLANS TO THE ENGINEER AT LEAST 5 WORKING DAYS PRIOR TO BEGINNING OF WORK. WORK SHALL NOT COMMENCE UNTIL THE TRAFFIC CONTROL PLAN IS APPROVED.

10. THE CONTRACTOR IS RESPONSIBLE TO CONFORM WITH EXISTING DRIVEWAY ADJACENT TO ASPHALT OVERLAY AND TO PROTECT ALL EXISTING IMPROVEMENTS DURING EDGE GRINDING.

11. THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING AND GRADING, ETC., AND IS TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS. THE MAXIMUM ACCEPTABLE GRADE CHANGES AT CONFORMS SHALL BE 1/8".

12. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. NO LIP WILL BE ALLOWED.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATE OFF-SITE DISPOSAL AND RECYCLING (WHERE POSSIBLE) OF ALL REMOVED OR DEMOLISHED BITUMINOUS PAVEMENT, CONCRETE REINFORCEMENT AND SPOILS AS REQUIRED BY THE ENGINEER AND PER THE CONTRACT DOCUMENTS.

14. ALL UTILITY FRAMES AND COVERS MUST BE ADJUSTED TO FINISH GRADE WITHIN 14 DAYS AFTER FINAL PAVING.

15. LOCATIONS OF ADA CURB RAMP REPLACEMENT, HMA DIKE, PCC REPAIRS, SUBDRAINS, AND VEHICLE DETECTION LOOPS SHOWN ON DRAWINGS ARE APPROXIMATE, EXACT LOCATIONS SHALL BE MARKED IN THE FIELD BY THE ENGINEER PRIOR TO CONSTRUCTION. SEE SUMMARY TABLES FOR FURTHER DETAILS.

16. VERIFY EACH PAVEMENT SECTION AND LIMITS WITH FIELD ENGINEER BEFORE COMMENCE OF PAVING WORK.

17. CROSSWALK WIDTH SHALL BE 10 FEET INSIDE DISTANCE (11 FEET O.C.) UNLESS OTHERWISE NOTED.

18. ALL BIKE LANES SHALL BE 5 FEET MINIMUM AND PARKING LANE 8 FEET MINIMUM.

LEGEND

INSTALL NEW 2" HMA OVERLAY

DETAIL NUMBER
LENGTH IN FEET

LL 12" WIDE WHITE LIMIT LINE

YCW YELLOW CROSSWALK

WCW WHITE CROSSWALK

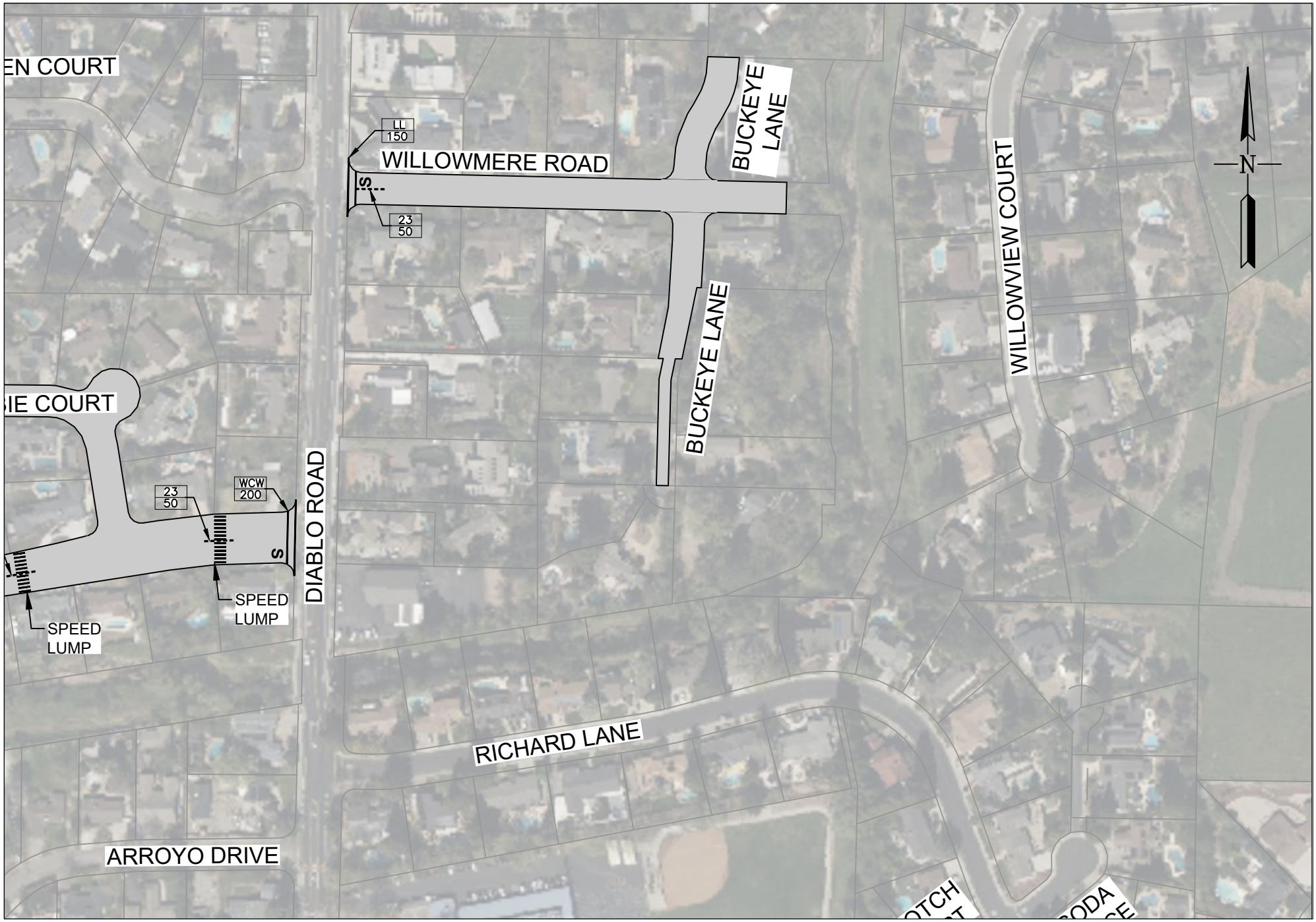
"STOP" LEGEND, 12" WHITE LINE & 50' DETAIL 23, UNLESS OTHERWISE NOTED. SEE TOWN STANDARD PLAN 117

CRXX REPLACE EXISTING CURB RAMP/SIDEWALK WITH NEW ADA CURB RAMP. SEE QUANTITY TABLE FOR DETAILS

TYPE IV ARROW (LEFT/RIGHT)

TYPE VII ARROW (LEFT/RIGHT)

TRAFFIC LOOP DETECTORS

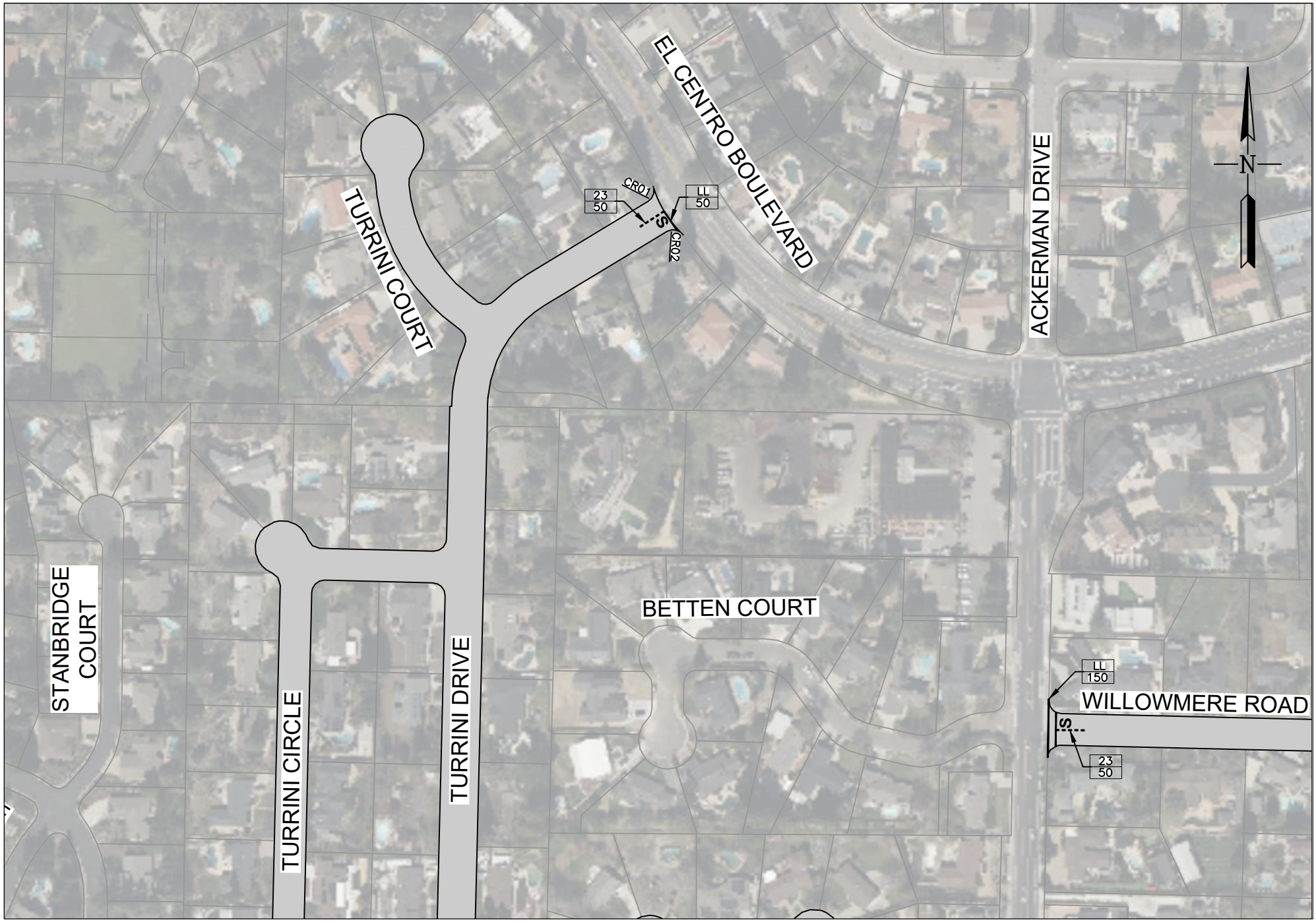


2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 1/5	**AREA A**	**NOT TO SCALE**	**PAGE**	**3/19**

2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 2/5	**AREA A**	**NOT TO SCALE**	**PAGE**	**4/19**

2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 3/5	**AREA A**	**NOT TO SCALE**	**PAGE**	**5/19**

2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 4/5	**AREA A**	**NOT TO SCALE**	**PAGE**	**6/19**



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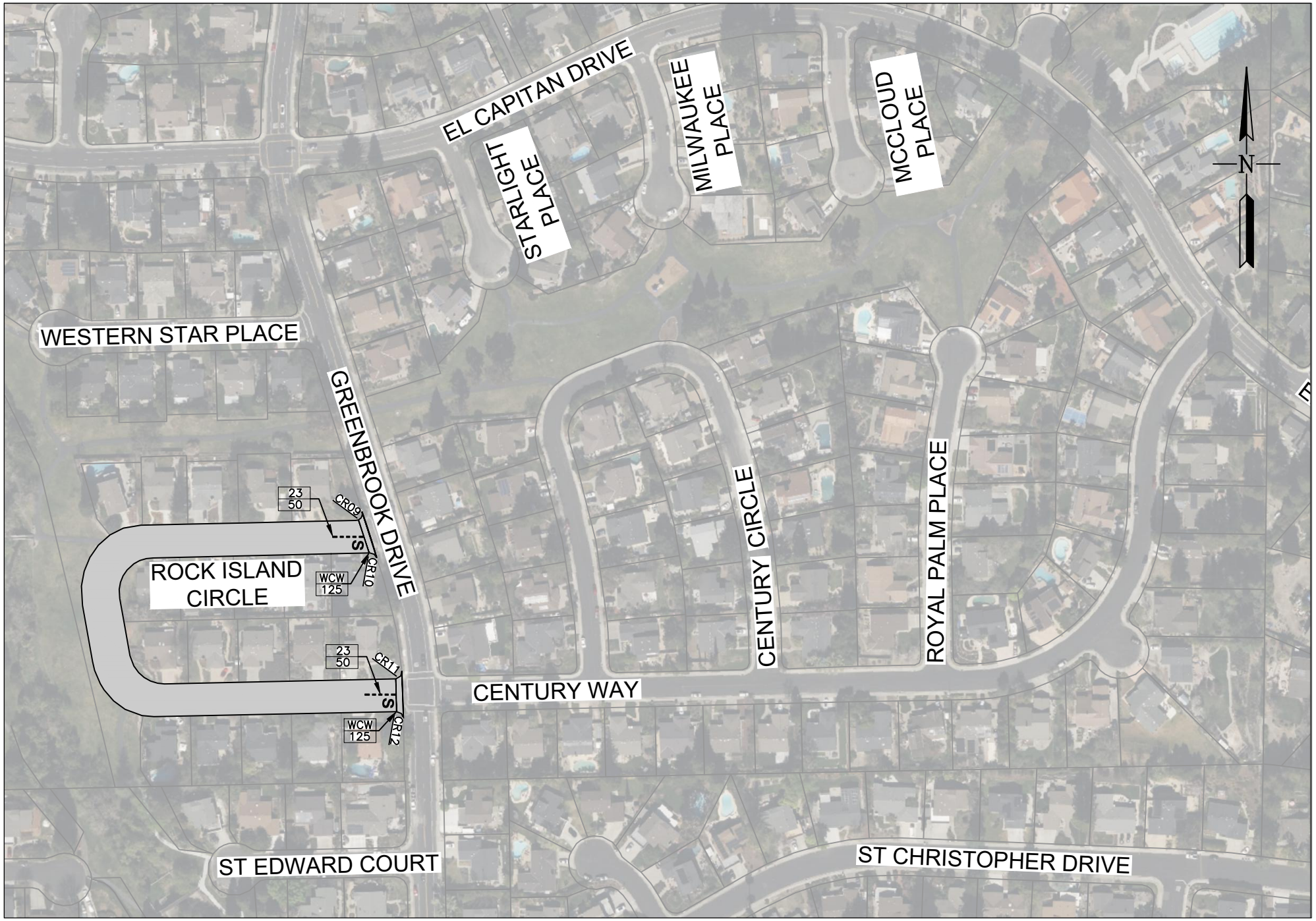
2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 1/1	**AREA B**	**NOT TO SCALE**	**PAGE**	**8/19**

2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 1/2	**AREA G**	**NOT TO SCALE**	**PAGE**	**9/19**

2024/25 PAVEMENT REHABILITATION PROJECT, C-610H			
SHEET 2/2	**AREA G**	**NOT TO SCALE**	**PAGE 10/19**



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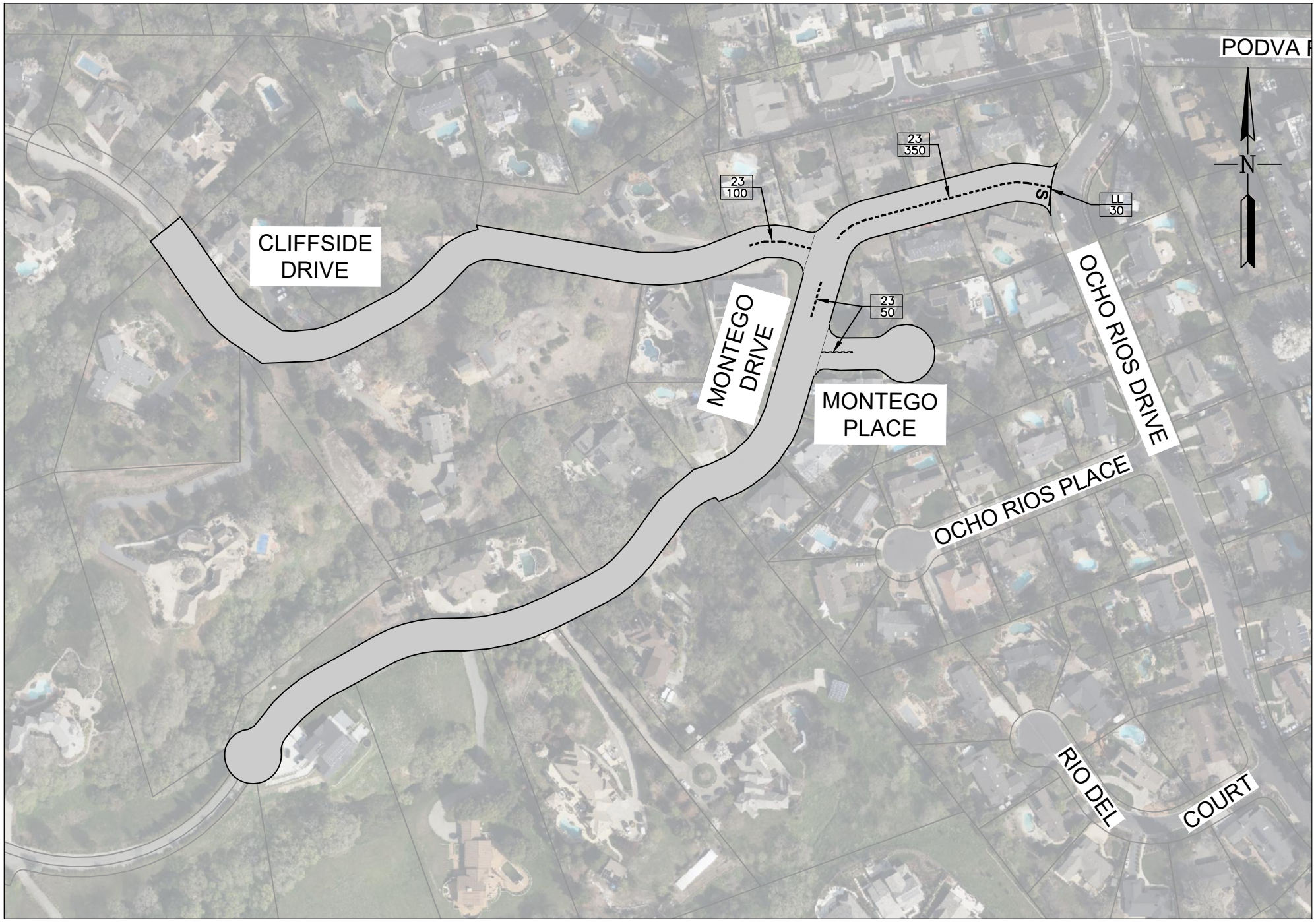
2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 1/1	**AREA N**	**NOT TO SCALE**	**PAGE**	**12/19**



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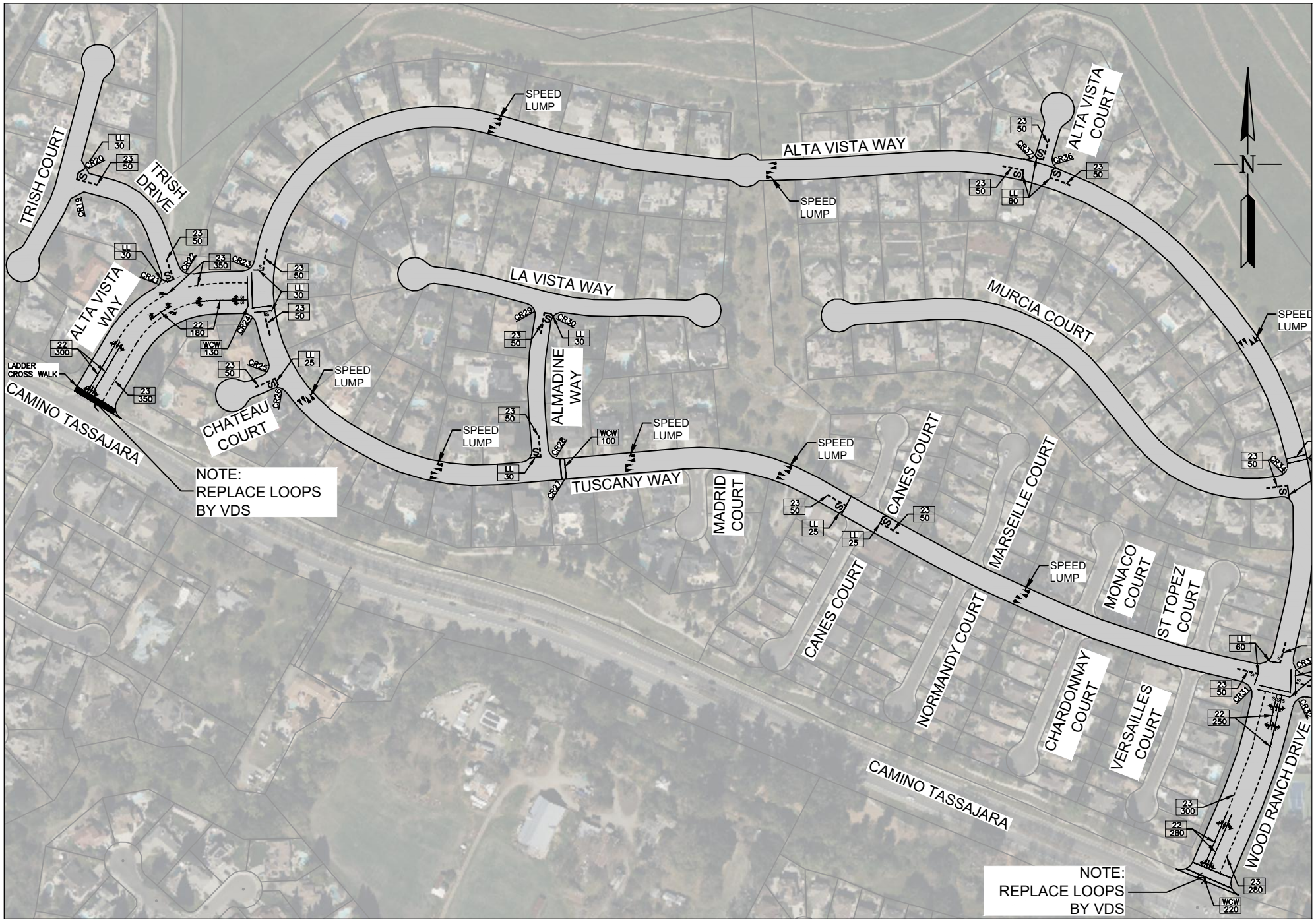

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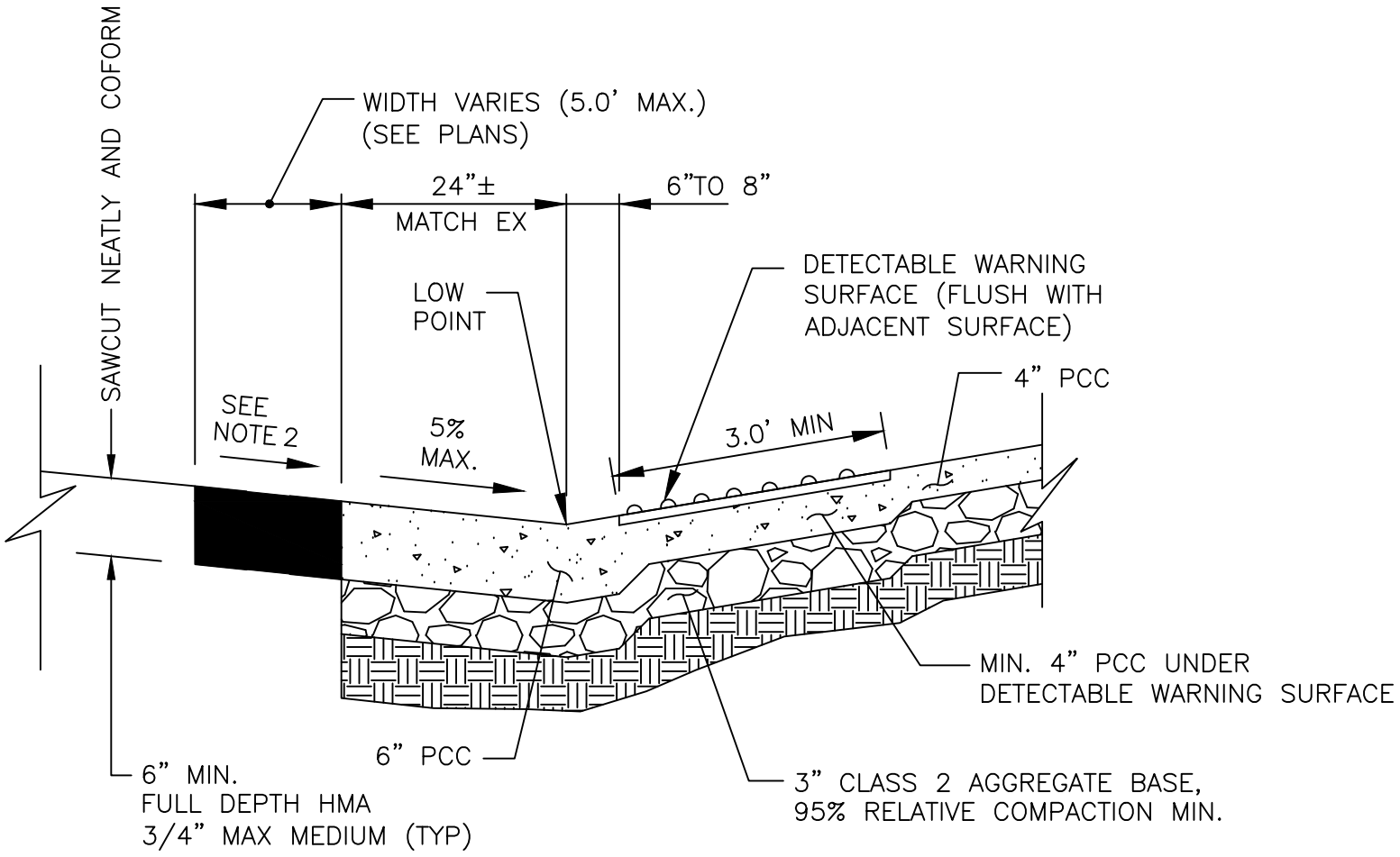
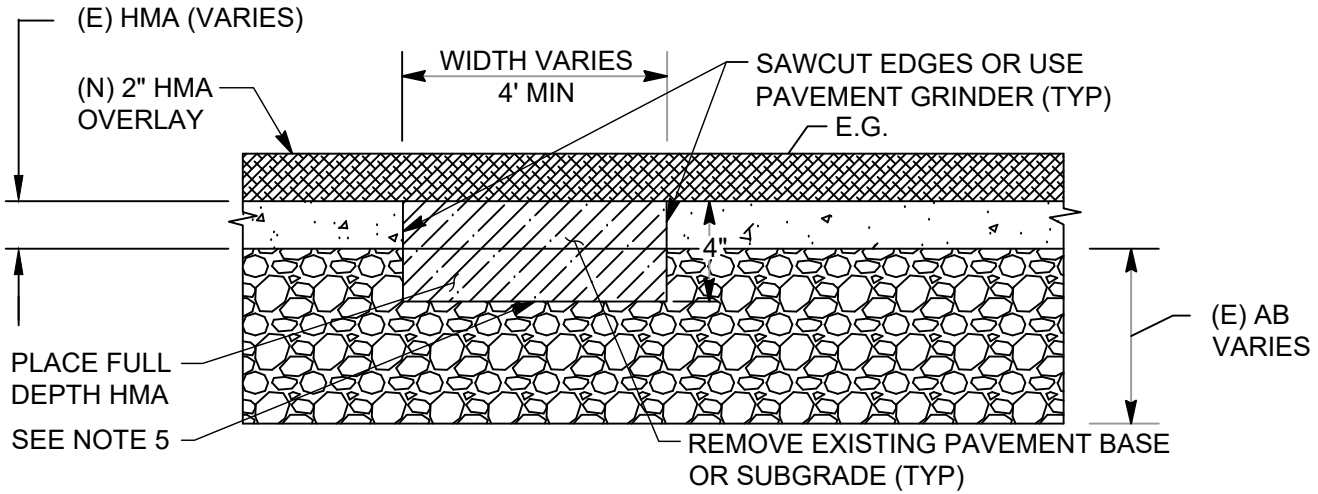
2024/25 PAVEMENT REHABILITATION PROJECT, C-610H			
SHEET 2/3	**AREA X**	**NOT TO SCALE**	**PAGE 15/19**

2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 3/3	**AREA X**	**NOT TO SCALE**	**PAGE**	**16/19**

NOTES

1. FOR DETAILS SEE CALTRANS STANDARD PLAN A88A (EXCEPT FOR LIMIT OF PAY)
2. AC PAVEMENT CROSS SLOPE SHALL BE 5% MAXIMUM WHERE POSSIBLE.
3. IN CASE THE RAMP SLOPE EXCEED 7.5%, EXTEND THE RAMP LENGTH TO 15 FT.
4. MINIMUM RAMP LENGTH IS 4 FT.

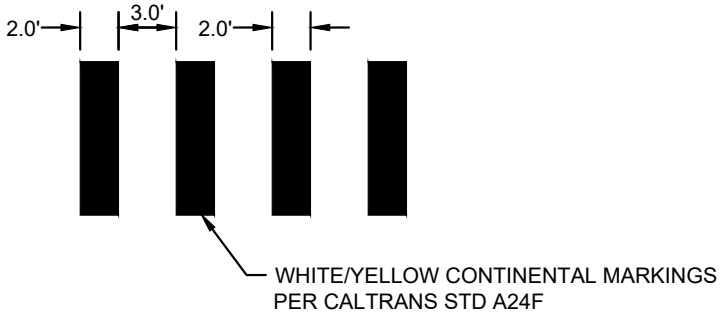




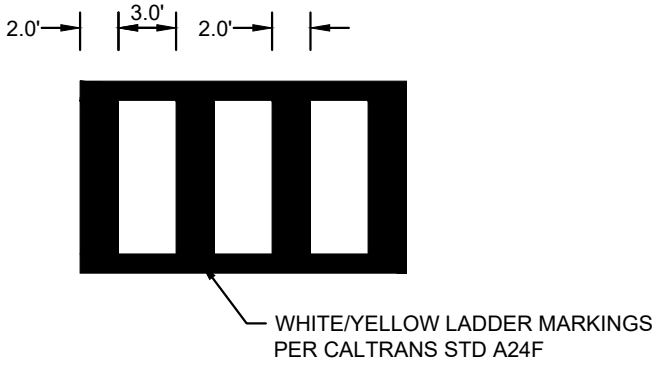
NOTES:

1. ALL DIGOUT REPAIR LOCATIONS ARE SCHEMATICALLY SHOWN ON PLAN SHEETS. EXACT LOCATIONS SHALL BE MARKED IN THE FIELD BY THE ENGINEER.
2. APPLY TACK COAT TO ALL VERTICAL SURFACES.
3. IF DIGOUT IS LOCATED WITHIN AREA OF TAPER OR CONFORM GRINDING, ADJUST DIGOUT DEPTH TO PROVIDE MIN. OF DIGOUT SECTION SHOWN ABOVE.
4. SEE CONTRA COSTA COUNTY STANDARD PLAN CA51 FOR TAPER AND CONFORM DETAILS.
5. RECOMPACT EXISTING ROAD BASE OR SUBGRADE TO 95% RELATIVE COMPACTION PRIOR TO PLACING HMA IN ACCORDANCE WITH SECTION 19 OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

TYPICAL SECTION - AC DIG-OUT AND REPAIR



CONTINENTAL CROSSWALK



LADDER CROSSWALK

CROSSWALK DETAILS

NTS

2024/25 PAVEMENT REHABILITATION PROJECT, C-610H				
SHEET 3/3	**DETAILS**	**NOT TO SCALE**	**PAGE**	**19/19**

2024/25 Pavement Rehabilitation Project Street List

CIP No. C-610H

No.	Street Name	Limit	
		From	To
1	ADOBE DR	HIGHBRIDGE LN (WEST)	END
2	ALMADINE WAY	TUSCANY WAY	LA VISTA WAY
3	ALTA VISTA CT	ALTA VISTA WAY	END
4	ALTA VISTA WAY	CAMINO TASSAJARA	1400 FT N/O TUSCANY WAY
5	BOBBIE CT	BOBBIE DR	END
6	BOBBIE DR	TURRINI DR	DIABLO RD
7	BOBBIE DR	HIGHBRIDGE LN	TURRINI DR
8	BUCKEYE LN	70 FT S/O WILLOWMERE RD	NORTH END
9	CAMINO RAMON PL	CAMINO RAMON	END OF PUBLIC STREET
10	CHARLES LN	ILO LN	END
11	CHATEAU CT	TUSCANY WAY	END
12	CLAYPOOL CT	TUNBRIDGE RD	END
13	CLIFFSIDE DR	280 FT W/O MONTEGO DR	1162 FT W/O MONTEGO DR
14	CLIFFSIDE DR	MONTEGO DR	280 FT W/O MONTEGO DR
15	DISCOVERY CT	WAINGARTH WAY	END
16	GLENHILL CT	TUNBRIDGE RD	END
17	GWEN CT	RICHARD LN	END
18	HOPE LN	467 FT E/O GREEN VALLEY RD	END
19	HOPE LN	GREEN VALLEY RD	467 FT E/O GREEN VALLEY RD
20	ILO LN	WEST EL PINTADO	END
21	LA VISTA WAY	WEST END	EAST END
22	MONTEGO DR	OCHO RIOS DR	260 FTW/O MONTEGO PL
23	MONTEGO PL	MONTEGO DR	END
24	MURCIA CT	ALTA VISTA WAY	END
25	PINEWOOD CT	AMBIENCE WAY	END
26	ROCK ISLAND CIR	SOUTHWEST CORNER	NORTHWEST CORNER
27	SAN CARLO CT	CAMINO RAMON PL	END
28	SAN PAULO CT	CAMINO RAMON PL	END
29	SAN VICENTE CT	CAMINO RAMON PL	END
30	ST RAMON CT	CAMINO RAMON	END
31	TRISH CT	END	END
32	TRISH DR	ALTA VISTA WAY	TRISH CT
33	TUNBRIDGE RD	OLD CREEK RD	SYCAMORE VALLEY RD
34	TUNBRIDGE RD	WHITESIDE CT	GLEN HILL CT
35	TUNBRIDGE RD	GLENHILL CT	END
36	TURRINI CIR	TURRINI DR (SOUTH)	TURRINI DR (NORTH)
37	TURRINI CT	TURRINI DR	END
38	TURRINI DR	BOBBIE DR	TURRINI CIR (NORTH)
39	TURRINI DR	TURRINI CIR (NORTH)	EL CERRO BLVD
40	TUSCANY CT	TUSCANY WAY	END
41	TUSCANY WAY	ALTA VISTA WAY	CANNES CT
42	TUSCANY WAY	WOOD RANCH DR	EAST END

No.	Street Name	Limit	
		From	To
43	TUSCANY WAY	CANNES CT	WOOD RANCH DR
44	VICTORIA PL	OLD BLACKHAWK RD	END
45	WAINGARTH WAY	HOPE LN	467 FT E/O GREEN VALLEY RD
46	WAINGARTH WAY	467 FT E/O GREEN VALLEY RD	GREEN VALLEY RD
47	WEST EL PINTADO	ILO LN	675 FT N/O DIABLO RD
48	WEST EL PINTADO	675 FT N/O DIABLO RD	DIABLO RD
49	WHITSIDE CT - WHITSIDE	TUNBRIDGE RD	END
50	WILLOWMERE RD	DIABO RD	END
51	WOOD RANCH DRR	TUSCANY WAY	CAMINO TASSAJARA

QUANTITY SUMMARY - TRAFFIC LEGEND, STRIPING, AND RAISED PAVEMENT MARKERS

(Contractor to verify quantities in field)

Area	Street Name	Limit		Dimensions			2" HMA (Ton)	Adjust Iron Covers to Final Grade (EA)					
		From	To	Length (LF)	Width (LF)	Area (SF)		Mon (EA)	SD MH (EA)	SS MH (EA)	WV (EA)	ATT	C&G R&R (LF)
AREA 'A'	WEST EL PINTADO	ILO LN	675 FT N/O DIABLO RD	720	37	26640	374.6	1	1	5	3	1	40
	CHARLES LN	ILO LN	END	392	25	9800	160.3			2	1		135
	WEST EL PINTADO	675 FT N/O DIABLO RD	DIABLO RD	675	37	24975	351.2	1		2	6	1	
	ILO LN - ILO	WEST EL PINTADO	END	1418	32	45376	660.6	1	1	4	7		427
	BOBBIE CT	BOBBIE DR	END	490	27	13230	186.0						0
	BOBBIE DR	TURRINI DR	DIABLO RD	832	37	30784	432.9	1		3	3		0
	ADOBE DR	HIGHBRIDGE LN (WEST)	HIGHBRIDGE LN (EAST)	965	33	31845	447.8	5	2	4	5		0
	TURRINI CIR	TURRINI DR (SOUTH)	TURRINI DR (NORTH)	1240	27	33480	493.3	1		4	0		85
	ADOBE DR	HIGHBRIDGE LN (EAST)	END	710	29	22408	337.6	4		4	4		0
	BOBBIE DR	HIGHBRIDGE LN	TURRINI DR	592	35	20720	291.4	1		2	3		0
	TURRINI CT	TURRINI DR	END	386	30	11580	185.3	0		1	2		21
	TURRINI DR	BOBBIE DR	TURRINI CIR (NORTH)	930	35	32550	457.7	2		2	0		95
	TURRINI DR	TURRINI CIR (NORTH)	EL CERRO BLVD	705	33	23265	327.2	3		3	3		95
AREA 'N'	ST RAMON CT	CAMINO RAMON	END	474	29	13746	215.8	6		3	4		0
	SAN VICENTE CT	CAMINO RAMON PL	END	198	33	7996	134.9	1		1	2		15
	CAMINO RAMON PL	CAMINO RAMON	END OF PUBLIC STREET	1750	33	57750	834.6	5		7	8		
	SAN PAULO CT	CAMINO RAMON PL	END	237	33	9359	154.1	1		1	3		
	SAN CARLO CT	CAMINO RAMON PL	END	235	33	9293	153.2	1		1	1		
AREA 'X'	ALTA VISTA WAY	CAMINO TASSAJARA	TUSCANY WAY	550	60	33000	464.1	3	1	1	1		
	TRISH CT	END	END	619	33	20427	309.8	3	1	2	4		
	ALTA VISTA WAY	TUSCANY WAY	1400 FT N/O TUSCANY WAY	1400	37	51800	728.4	0			0		
	MURCIA CT	ALTA VISTA WAY	END	1275	37	48290	701.6	6		4	5		
	TUSCANY WAY	ALTA VISTA WAY	CANNES CT	1700	37	62900	884.5	10	1	6	15		
	CHATEAU CT	TUSCANY WAY	END	156	27	6170	109.3	1		1	2		
	TRISH DR	ALTA VISTA WAY	TRISH CT	490	33	16170	227.4	1			0		
	TUSCANY WAY	WOOD RANCH DR	EAST END	1344	37	49728	721.8	5		4	6		
	ALTA VISTA CT	ALTA VISTA WAY	END	184	27	6926	119.9	1	1	1	2		
	TUSCANY WAY	CANNES CT	WOOD RANCH DR	1075	37	39775	559.3	5		4	10		

QUANTITY SUMMARY - TRAFFIC LEGEND, STRIPING, AND RAISED PAVEMENT MARKERS

(Contractor to verify quantities in field)

Area	Street Name	Limit		Dimensions			2" HMA (Ton)	Adjust Iron Covers to Final Grade (EA)					
		From	To	Length (LF)	Width (LF)	Area (SF)		Mon (EA)	SD MH (EA)	SS MH (EA)	WV (EA)	ATT	C&G R&R (LF)
	PINEWOOD CT	AMBIENCE WAY	END	462	25	17146	263.6	2		1	4		
	VICTORIA PL	OLD BLACKHAWK RD	END	819	27	22113	333.5	2		2	5		
	WOOD RANCH DRR	TUSCANY WAY	CAMINO TASSAJARA	552	57	31464	442.5	2			3		
	ALMADINE WAY	TUSCANY WAY	LA VISTA WAY	376	27	10152	142.8	0			0		
	TUSCANY CT	TUSCANY WAY	END	283	27	7641	130.0	2		1	2		
	LA VISTA WAY	WEST END	EAST END	782	27	23072	347.0	4		3	5		
AREA G	TUNBRIDGE RD	OLD CREEK RD	SYCAMORE VALLEY RD	515	37	19055	268.0			1	4		
	TUNBRIDGE RD	WHITESIDE CT	GLEN HILL CT	850	33	28050	394.5			3	7		
	TUNBRIDGE RD	GLENHILL CT	END	1390	33	45870	667.5			5	13		
	GLENHILL CT	TUNBRIDGE RD	END	275	29	7975	134.6			1	2		
	WHITSIDE CT	TUNBRIDGE RD	END	219	29	8334	139.7			1	2		
	CLAYPOOL CT	TUNBRIDGE RD	END	466	29	13514	212.5			2	1		
	ROCK ISLAND CIR	SOUTHWEST CORNER	NORTHWEST CORNER	225	37	8325	117.1	2			3		
	ROCK ISLAND CIR	NORTHWEST CORNER	NORTH END	440	29	12760	179.4	2			3		
	ROCK ISLAND CIR	SOUTH END	SOUTHWEST CORNER	405	29	11745	165.2	2			3		
	CLIFFSIDE DR	280 FT W/O MONTEGO DR	1162 FT W/O MONTEGO DR	882	25	22050	310.1	1		3	2		
	CLIFFSIDE DR	MONTEGO DR	280 FT W/O MONTEGO DR	280	25	7000	98.4	1		3	2		
	MONTEGO DR	OCHO RIOS DR	260 FTW/O MONTEGO PL	820	34	27880	392.1	4					251
	MONTEGO PL	MONTEGO DR	END	160	30	4800	67.5						
	GWEN CT	RICHARD LN	END	564	25	14100	220.8	2	1	2	6		107
	BUCKEYE LN	70 FT S/O WILLOWMERE RD	WILLOWMERE RD	339	18	6102	85.8	0	0	0	1		
	BUCKEYE LN	WILLOWMERE RD	NORTH END	168	21	3528	49.6	0	0	1	0		
	WILLOWMERE RD	DIABO RD	END	605	23	13915	195.7	0	1	0	0		
	WAINGARTH WAY	HOPE LN	467 FT E/O GREEN VALLEY RD	385	33	12705	178.7	2	1	1	0		
	WAINGARTH WAY	467 FT E/O GREEN VALLEY RD	GREEN VALLEY RD	467	33	15411	216.7	1	0	4	3		
	HOPE LN	467 FT E/O GREEN VALLEY RD	END	182	33	6006	84.5	2	1	2	4		
	HOPE LN	GREEN VALLEY RD	467 FT E/O GREEN VALLEY RD	415	33	13695	215.1	0	0	0	0		
	DISCOVERY CT	WAINGARTH WAY	END	198	33	6534	114.4	2	0	1	3		

QUANTITY SUMMARY - TRAFFIC LEGEND, STRIPING, AND RAISED PAVEMENT MARKERS

(Contractor to verify quantities in field)

Area	Detail 2 Stripe (LF)	Detail 22 Stripe (LF)	Detail 23 Stripe (LF)	Detail 38B (LF)	YCW 12" Line Stripe (LF)	WCW 12" Line Stripe (LF)	LL Stripe (LF)	TYPE I & IV Arrows (EA)	"STOP" Legend (EA)	SPEED LUMP STRIPING
A	75		1750	240	100	300	450	7	13	3
G			400			120	180		6	2
L			100			250			2	
N			380			100	250		5	
Q			500				30		1	
X		1010	2330			960	570	26	26	9
TOTAL	**75**	**1010**	**5460**	**240**	**100**	**1730**	**1480**	**33**	**53**	**14**

QUANTITY SUMMARY
PCC WORK AND ADA CASE C CURB RAMPS

Curb Ramp No.	Location
CR01	TURRINI DRIVE @ EL CENTRO BLVD
CR02	TURRINI DRIVE @ EL CENTRO BLVD
CR03	WHITSIDE COURT @ TURNBRIDGE ROAD
CR04	WHITSIDE COURT @ TURNBRIDGE ROAD
CR05	CLAYPOOL COURT @ TURNBRIDGE ROAD
CR06	CLAYPOOL COURT @ TURNBRIDGE ROAD
CR07	GLENHILL COURT @ TURNBRIDGE ROAD
CR08	GLENHILL COURT @ TURNBRIDGE ROAD
CR09	ROCK ISLAND CIRCLE @ GREENBROOK DRIVE
CR10	ROCK ISLAND CIRCLE @ GREENBROOK DRIVE
CR11	ROCK ISLAND CIRCLE @ GREENBROOK DRIVE
CR12	ROCK ISLAND CIRCLE @ GREENBROOK DRIVE
CR13	SAN CARLO COURT @ CAMINO RAMON PLACE
CR14	SAN CARLO COURT @ CAMINO RAMON PLACE
CR15	SAN PAULO COURT @ CAMINO RAMON PLACE
CR16	SAN PAULO COURT @ CAMINO RAMON PLACE
CR17	SAN VICENTE COURT @ CAMINO RAMON PLACE
CR18	SAN VICENTE COURT @ CAMINO RAMON PLACE
CR19	TRISH DRIVE @ TRISH COURT
CR20	TRISH DRIVE @ TRISH COURT
CR21	TRISH DRIVE @ ALTA VISTA WAY
CR22	TRISH DRIVE @ ALTA VISTA WAY
CR23	ALTA VISTA WAY @ TUSCANY WAY
CR24	ALTA VISTA WAY @ TUSCANY WAY
CR25	CHATEAU COURT @ TUSCANY WAY
CR26	CHATEAU COURT @ TUSCANY WAY
CR27	TUSCANY WAY ACROSS FROM ALMADINE WAY
CR28	ALMADINE WAY @ TUSCANY WAY
CR29	ALMADINE WAY @ LA VISTA WAY
CR30	ALMADINE WAY @ LA VISTA WAY
CR31	TUSCANY WAY @ WOOD RANCH DRIVE
CR32	TUSCANY WAY @ WOOD RANCH DRIVE
CR33	TUSCANY WAY @ WOOD RANCH DRIVE
CR34	MURICA COURT @ ALTA VISTA WAY
CR35	ALTA VISTA WAY ACROSS FROM MURCIA COURT
CR36	ALTA VISTA COURT @ ALTA VISTA WAY
CR37	ALTA VISTA COURT @ ALTA VISTA WAY
CR38	TUSCANY COURT @ TUSCANY WAY
CR39	TUSCANY COURT @ TUSCANY WAY
CR40	PINEWOOD COURT @ AMBIENCE WAY
CR41	VICTORIA PLACE @ OLD BLACKHAWK ROAD
CR42	VICTORIA PLACE @ OLD BLACKHAWK ROAD
CR43	WAINGARTH WAY @ HOPE LANE
CR44	WAINGARTH WAY @ HOPE LANE
CR45	DISCOVERY COURT @ WAINGARTH WAY
CR46	DISCOVERY COURT @ WAINGARTH WAY

APPENDIX B
APPLICABLE STANDARD PLANS

Caltrans Standard Plans 2015:

A20A	Pavement Markers and Traffic Lines Typical Details
A20B	Pavement Markers and Traffic Lines Typical Details
A20C	Pavement Markers and Traffic Lines Typical Details
A20D	Pavement Markers and Traffic Lines Typical Details
A24A	Pavement Markings Arrows
A24D	Pavement Markings Words
A87A	Curbs and Driveways
A88A	Curb Ramp Details
ES-5A	Electrical Systems (Detectors)
ES-5D	Electrical Systems (Detectors)

Contra Costa County Standard Plans:

CA40	Street Survey Monument
CA51	Typical HMA Conform Details and Overlays
CA55	Speed Bump

Central Contra Costa Sanitary District:

DWG-8	Standard Manhole & Frame Cover
DWG-10	Rodding Inlet
DWG-11	Rodding Inlet Frame & Cover
DWG-12	Manhole Adjustment To Finish Grade

East Bay Municipal Utility District:

Fig. 3B-102	Valve Pot Installation

Town of Danville Standard Plans:

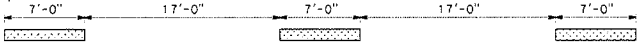
105	Typical Concrete Curbs
106	Typical Asphalt Dike
107	Typical Driveway
109	Sidewalk Drains
110	Sidewalk Doweling Details
112	Valley Gutter
114	Trench Backfill
117	Stop Sign Location
207	Manhole Frame and Cover
	Speed Lump

California MUTCD:

Fig 3B-102 (CA)	Reflective Blue Marker

CENTERLINES
(2 LANE HIGHWAYS)

DETAIL 1



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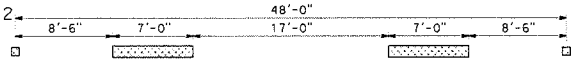

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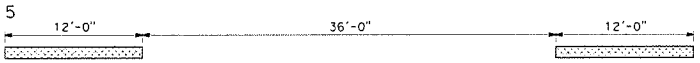
~~DETAIL 4~~ DETAIL 4 DELETED

DETAIL 5



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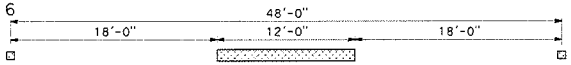

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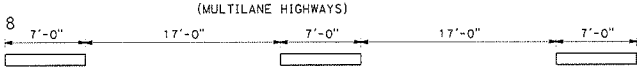
LANE LINES
(MULTILANE HIGHWAYS)

DETAIL 8



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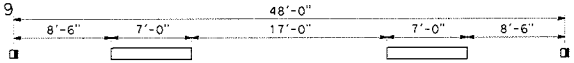
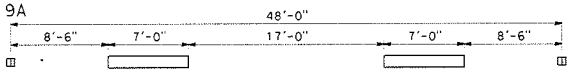


DETAIL 9A



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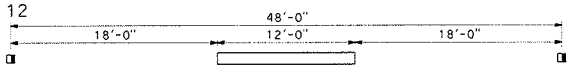
DETAIL 11

DETAIL 12



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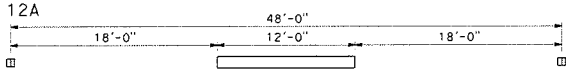

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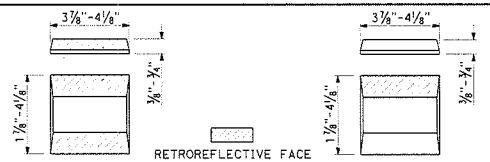
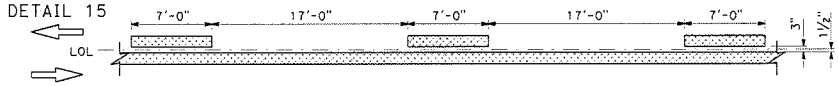


MARKER DETAILS

NO PASSING ZONES - ONE DIRECTION

DETAIL 15



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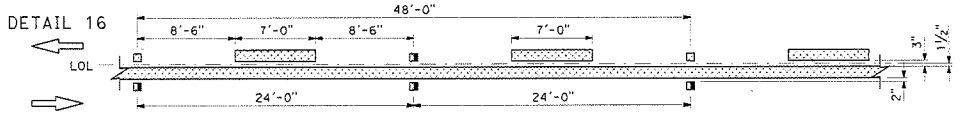

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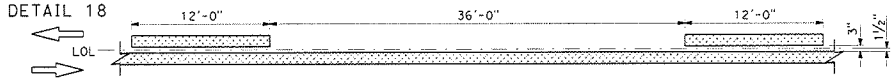
DETAIL 18



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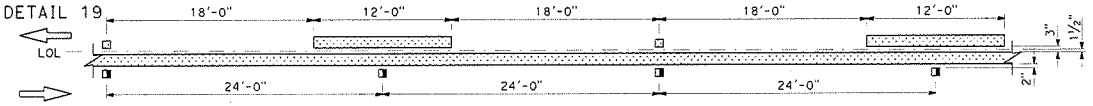

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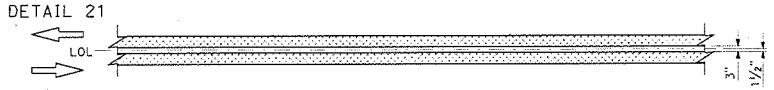
NO PASSING ZONES - TWO DIRECTION

DETAIL 21



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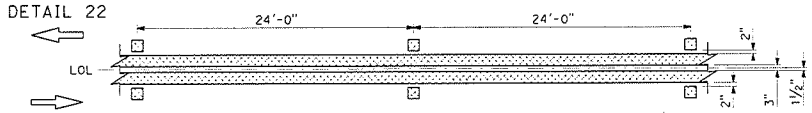

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LEGEND:

- TYPE C RED-CLEAR RETROREFLECTIVE MARKER
- TYPE D TWO-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE MARKER
- TYPE H ONE-WAY YELLOW RETROREFLECTIVE MARKER
- 6" WHITE LINE
- 6" YELLOW LINE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
PLANS APPROVAL DATE

Yue Wang
No. C82065
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20A

2023 STANDARD PLAN A20A

Return to Table of Contents

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
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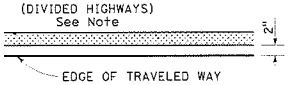
LEFT EDGE LINES

(DIVIDED HIGHWAYS)
See Note

DETAIL 24



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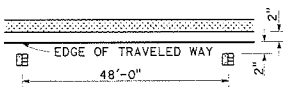

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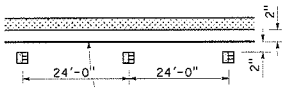
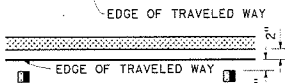


DETAIL 25B



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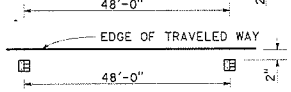

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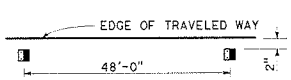

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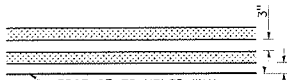

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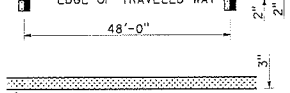

RIGHT EDGE LINES

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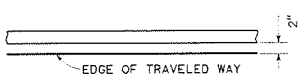
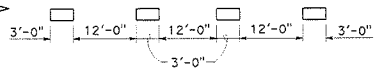
DETAIL 27B



RIGHT EDGE LINE EXTENSION THROUGH INTERSECTIONS

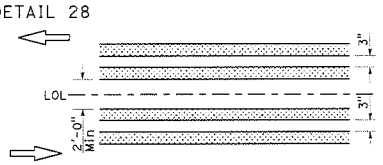
DETAIL 27C



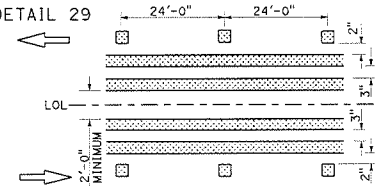
LEFT EDGE LINES NOTE:
On freeways use traffic stripe details with Type RY markers.

MEDIAN ISLANDS

DETAIL 28



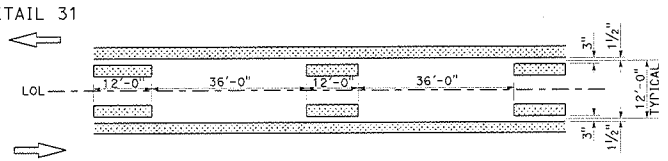
DETAIL 29



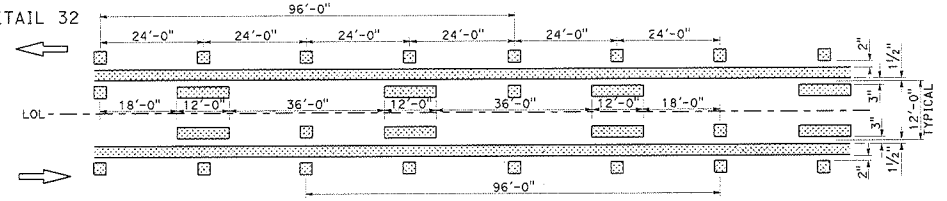
~~DETAIL 30~~ DETAIL 30 DELETED

TWO-WAY LEFT TURN LANES

DETAIL 31



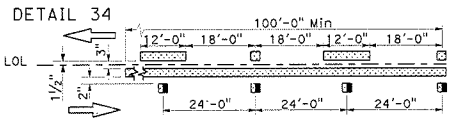
DETAIL 32



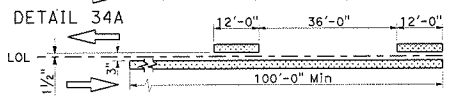
~~DETAIL 33~~ DETAIL 33 DELETED

INTERSECTION TREATMENTS

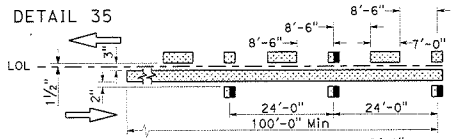
DETAIL 34



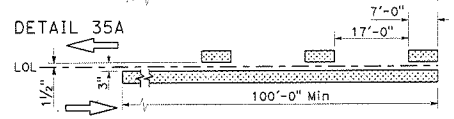
DETAIL 34A



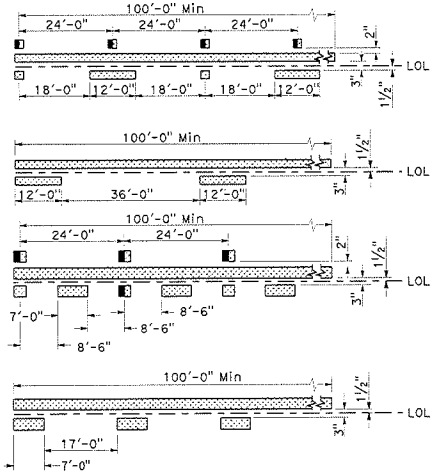
DETAIL 35



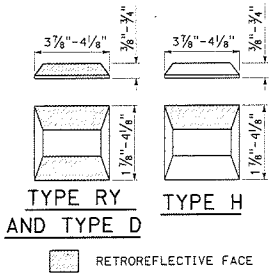
DETAIL 35A



CENTERLINE INTERSECTING STREET



MARKER DETAILS



LEGEND:

- TYPE D TWO-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE H ONE-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE RY RED-YELLOW RETROREFLECTIVE MARKER
- 6" WHITE LINE
- 6" YELLOW LINE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

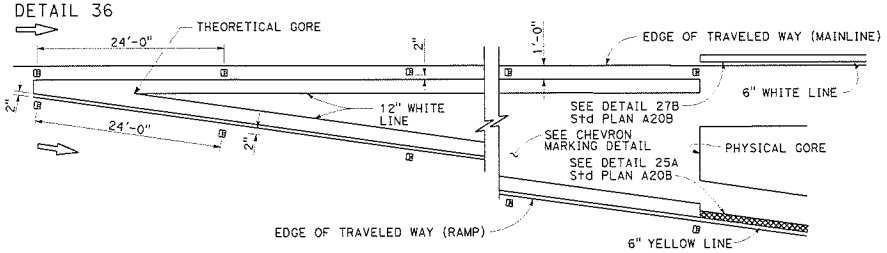
NO SCALE

A20B

Return to Table of Contents

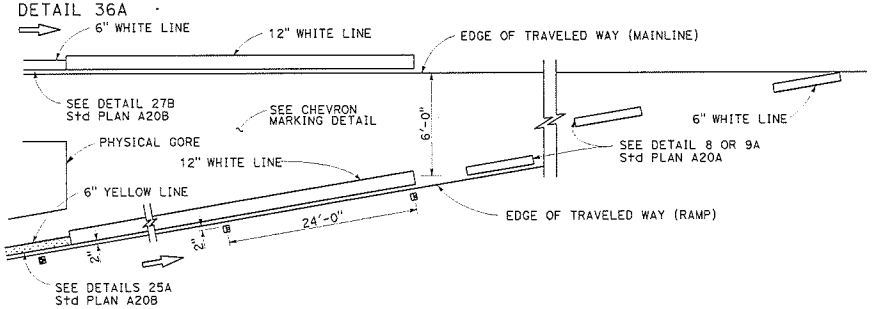
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT

DETAIL 36



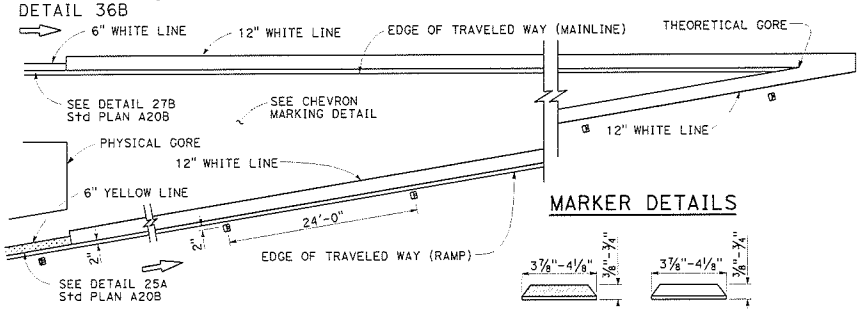
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

DETAIL 36A

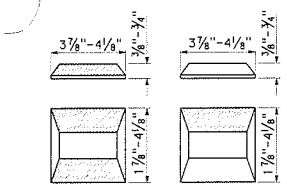


ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

DETAIL 36B



MARKER DETAILS



LEGEND:

- TYPE C RED-CLEAR RETROREFLECTIVE MARKER
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE MARKER
- TYPE RY RED-YELLOW RETROREFLECTIVE MARKER

RETROREFLECTIVE FACE

NOTES:

Install a minimum of 1 chevron in the gore area. If at least 1 chevron will not fit into the gore area, do not install chevrons.

Terminate chevron markings at physical gore.

Gore area chevron pavement markings shown. For Exit and Entrance Ramp channelizing lines details, see Details 36, 36A, and 36B.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

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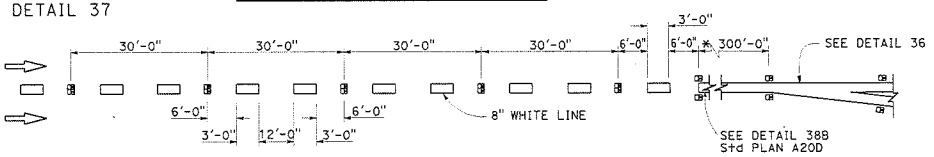
LANE DROP AT EXIT RAMPS

DETAIL 37

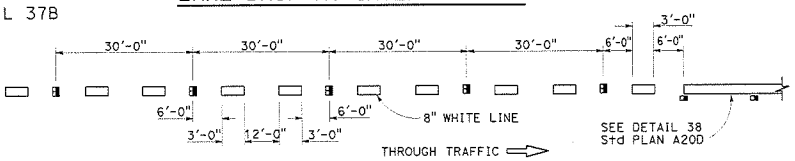


* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

~~DETAIL 37A~~ DETAIL 37A DELETED

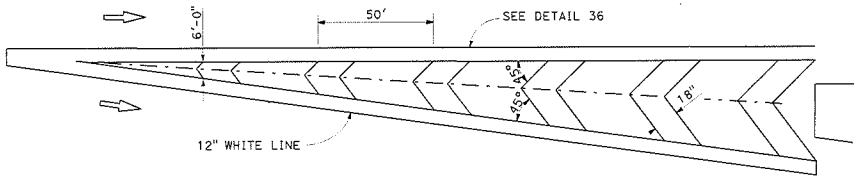
LANE DROP AT INTERSECTIONS

DETAIL 37B

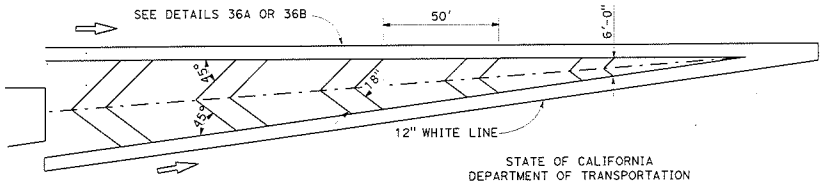


~~DETAIL 37C~~ DETAIL 37C DELETED

CHEVRON PAVEMENT MARKINGS AT EXIT RAMP GORE AREA



CHEVRON PAVEMENT MARKINGS AT ENTRANCE RAMP GORE AREA



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20C

2023 STANDARD PLAN A20C

Return to Table of Contents

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

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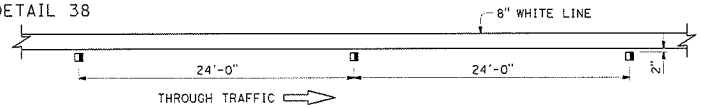
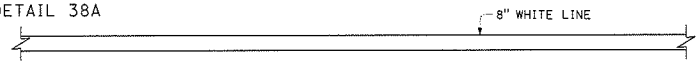
CHANNELIZING LINE

DETAIL 38



DETAIL 38A



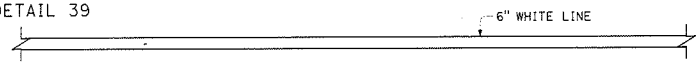
DETAIL 38B

~~DETAIL 38C~~ DETAIL 38C DELETED

DETAIL 38D
EXIT RAMPS ONLY

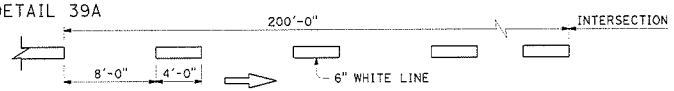
BIKE LANE LINE

DETAIL 39



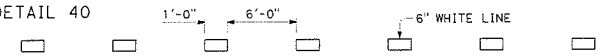
INTERSECTION LINE
BIKE LANE

DETAIL 39A



LANE LINE EXTENSIONS THROUGH INTERSECTIONS

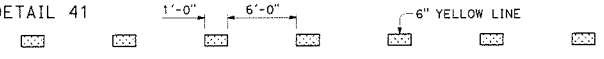
DETAIL 40



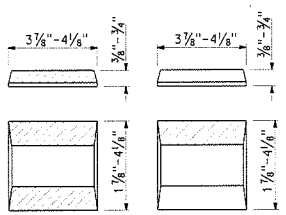
~~DETAIL 40A~~ DETAIL 40A DELETED

CENTERLINE EXTENSIONS THROUGH INTERSECTIONS

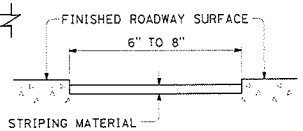
DETAIL 41



~~DETAIL 41A~~ DETAIL 41A DELETED



MARKER DETAILS



DETAIL FOR RECESSED TRAFFIC STRIPE

See Notes A and B

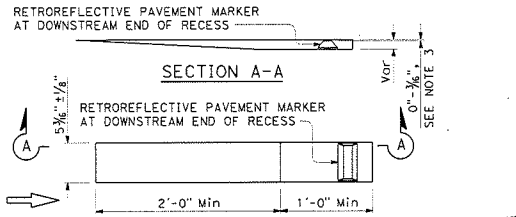
RECESSED NOTES:

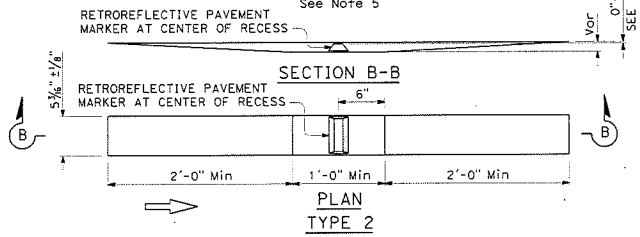
A. See typical traffic line details for pavement marking patterns.

B. See Standard Specifications for recess depth and recess striping material thickness.

LEGEND:

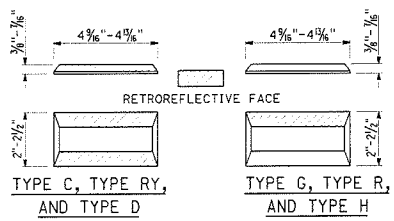
- TYPE C RED-CLEAR RETROREFLECTIVE MARKER
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE MARKER
- 6" YELLOW LINE





RECESS DETAIL FOR RETROREFLECTIVE PAVEMENT MARKER

See Note 4



RETROREFLECTIVE PAVEMENT MARKER FOR RECESSED INSTALLATION

See Notes 1 and 2

RECESSED MARKER NOTES:

1. See typical traffic line details for marker patterns to be used with recessed pavement markers.
2. The retroreflective pavement markers shown for recessed installations are not to be used for non-recessed installations.
3. The top of pavement markers installed in recesses shall be 0" to ⅛" below the pavement surface.
4. Use Type 1 recess for pavement markers with one-way retroreflective face. Use Type 2 recess for pavement markers with two-way retroreflective face.
5. For exit ramps, use Type 1 recess for Type R markers with one-way retroreflective face. Reverse the orientation of the recess and place the marker at the upstream end of the recess.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20D

Return to Table of Contents

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
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REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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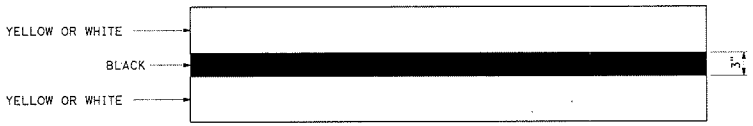
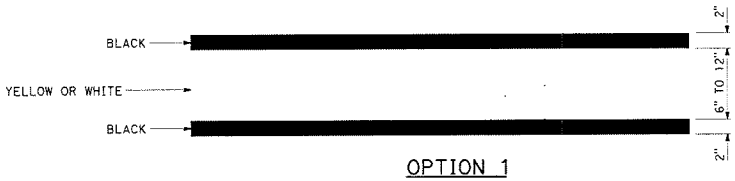


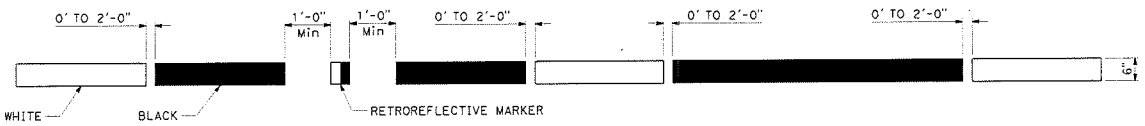
TYPICAL DOUBLE STRIPE CONTRAST DETAIL

NOTES:

1. See Standard Plans A20A, A20B, A20C, A20D and A20F for traffic lines typical details.
2. Detail 9 Traffic stripe shown. See project plans for traffic stripe details.



OPTION 1
TYPICAL LANE LINE OR RIGHT EDGE LINE CONTRAST DETAIL



OPTION 2
TYPICAL LANE LINE CONTRAST DETAIL
See Note 2

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC LINES
TYPICAL DETAILS
FOR CONTRAST STRIPING

NO SCALE

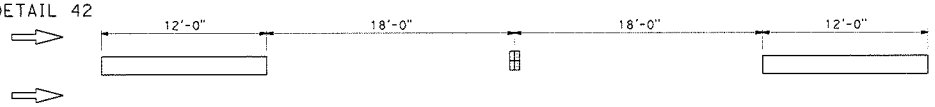
A20E

2023 STANDARD PLAN A20E

Return to Table of Contents

PREFERENTIAL LANE LINES

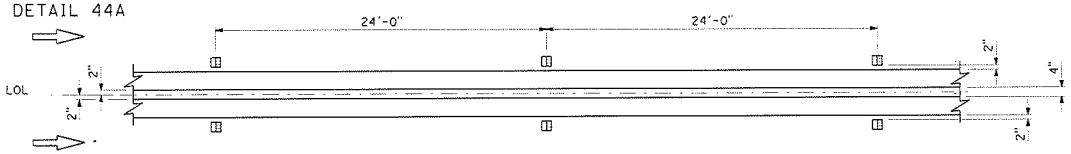
DETAIL 42



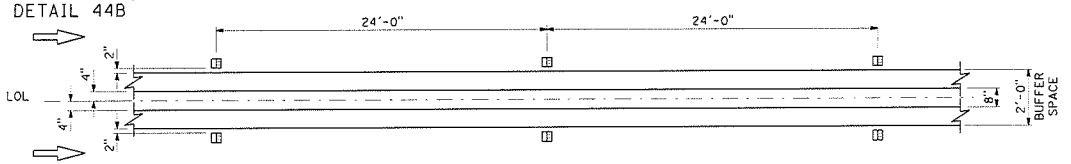
~~DETAIL 43~~ DETAIL 43 DELETED

~~DETAIL 43A~~ DETAIL 43A DELETED

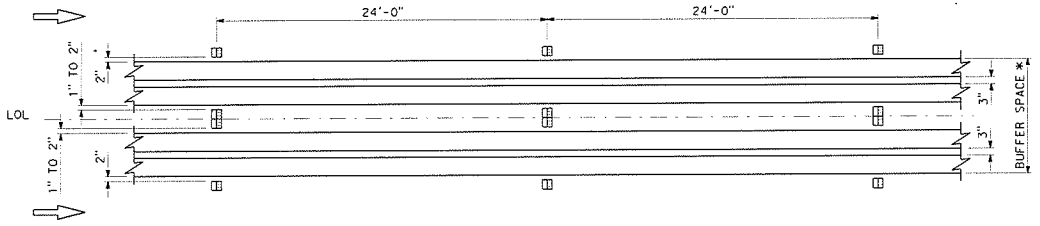
DETAIL 44A



DETAIL 44B



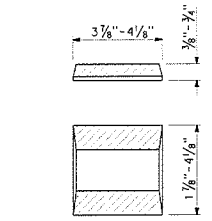
DETAIL 45



* See pavement delineation plan for dimension.

LEGEND:

- TYPE C RED-CLEAR RETROREFLECTIVE MARKER
- 8" WHITE LINE



TYPE C

MARKER DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023

PLANS APPROVAL DATE

Yue Wang No. C82065 Exp. 3-31-24 CIVIL STATE OF CALIFORNIA

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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES
TYPICAL DETAILS

NO SCALE

A20F

2023 STANDARD PLAN A20F

Return to Table of Contents

NOTES:

1. May be a limit line or crosswalk.
2. See Standard Plans A24F and A24G for crosswalk and pavement marker details.
3. For raised markers, place Type R one-way red retroreflective markers on outermost limit line or crosswalk line with red facing the intersection. For recessed markers, place Type R one-way retroreflective markers with red facing the intersection and as shown on Standard Plan A24G.
4. The distances and marker spacings may be adjusted based on site specific conditions, exit ramp geometry, or loop detectors.
5. See Standard Plan A20D for recess details.
6. See Standard Plan A24G for Type V arrow detail with Type R one-way red retroreflective markers.
7. The Type R marker body must be white in color.

LEGEND:

MARKERS

- TYPE C TWO-WAY RED-CLEAR RETROREFLECTIVE MARKER
- TYPE RY TWO-WAY RED-YELLOW RETROREFLECTIVE MARKER
- TYPE R ONE-WAY RED RETROREFLECTIVE MARKER

LINES

- 6" WHITE LINE
- 6" YELLOW LINE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

Yue Wang
No. C82065
EXP. 3-31-24
CIVIL
STATE OF CALIFORNIA

May 1, 2023
PLANS APPROVAL DATE

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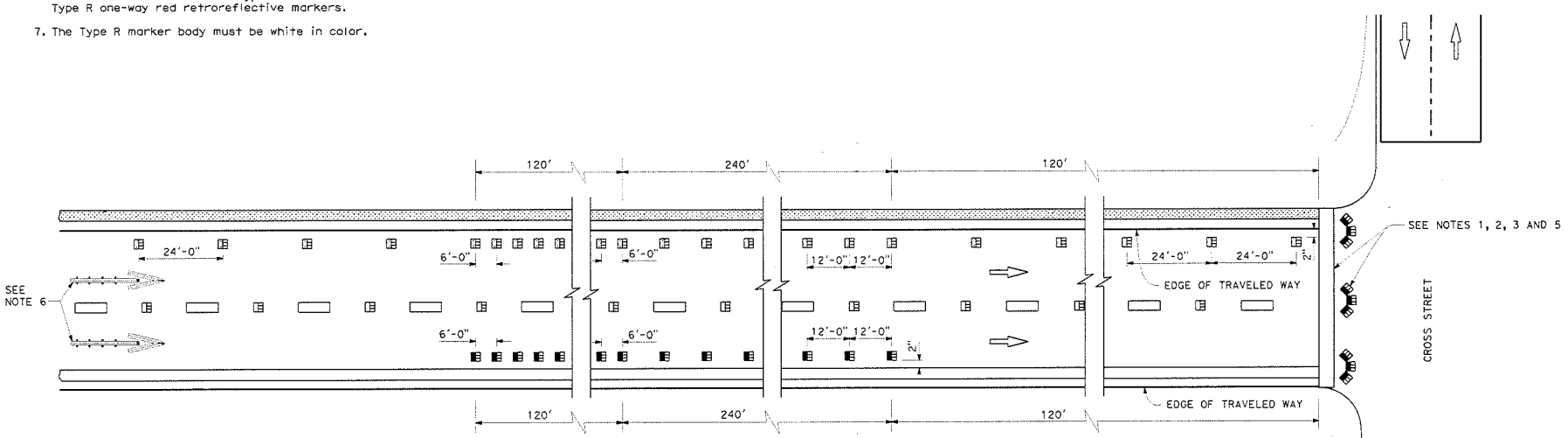
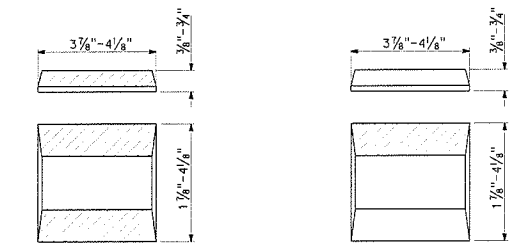




TYPE C AND TYPE RY

TYPE R
See Note 7

MARKER DETAILS

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

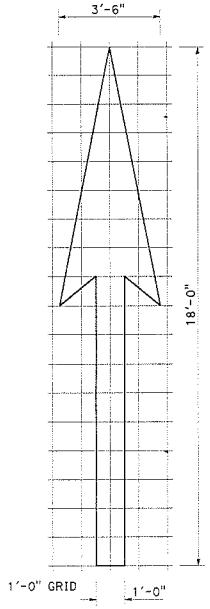
EXIT RAMP WITH ENHANCED PAVEMENT MARKERS FOR WRONG WAY DETAILS

NO SCALE

A20G

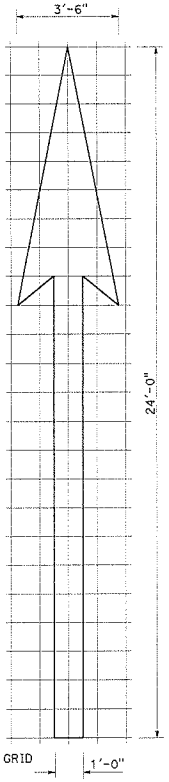
2023 STANDARD PLAN A20G

Return to Table of Contents



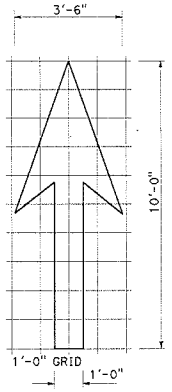
A=25 ft²

TYPE I 18'-0" ARROW



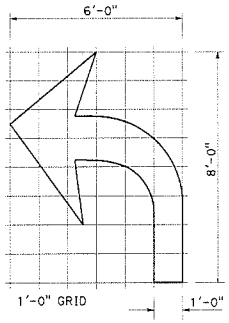
A=31 ft²

TYPE I 24'-0" ARROW



A=14 ft²

TYPE I 10'-0" ARROW



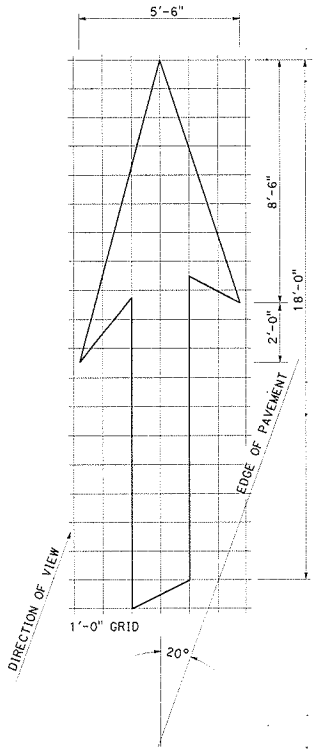
A=15 ft²

TYPE IV (L) ARROW

For Type IV (R) arrow, use mirror image.

NOTE:

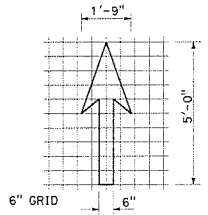
Minor variations in dimensions may be accepted by the Engineer.



A=42 ft²

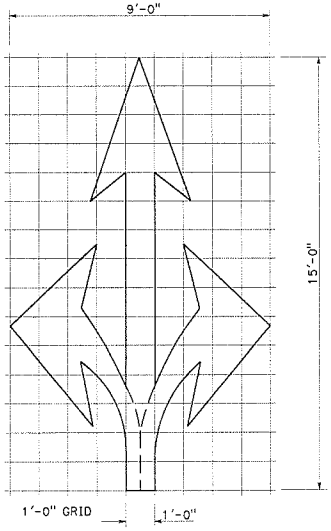
TYPE VI ARROW

Right lane drop arrow.
For left lane, use mirror image.



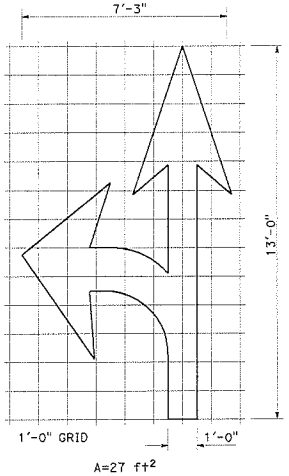
A=3.5 ft²

BIKE LANE ARROW



A=36 ft²

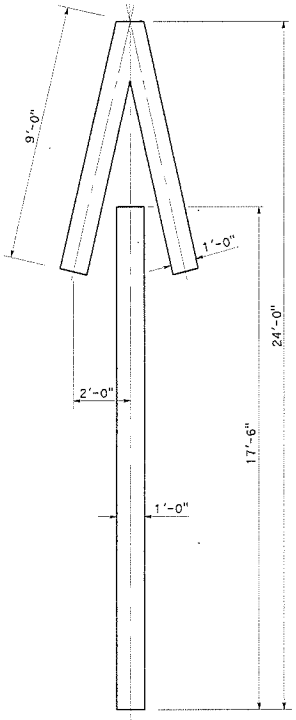
TYPE VIII ARROW



A=27 ft²

TYPE VII (L) ARROW

For Type VII (R) arrow, use mirror image.



A=33 ft²

TYPE V ARROW

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
ARROWS

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

Yue Wang
No. C82065
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

May 1, 2023
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

2023 STANDARD PLAN A24A

A24A

Return to Table of Contents

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
PLANS APPROVAL DATE

Yue Wang
No. C82065
EXP. 3-31-24
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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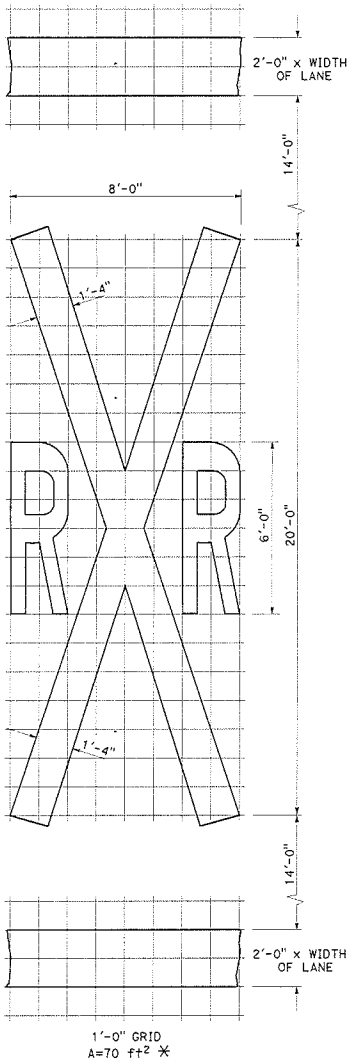
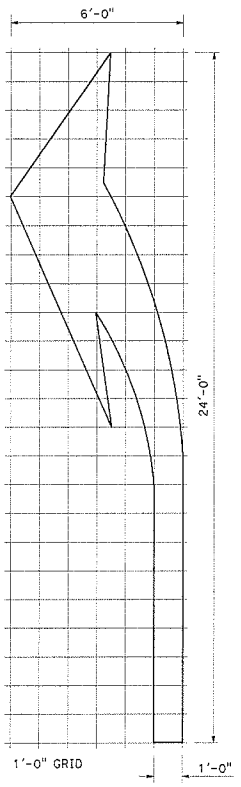


A=70 ft² *

RAILROAD CROSSING SYMBOL

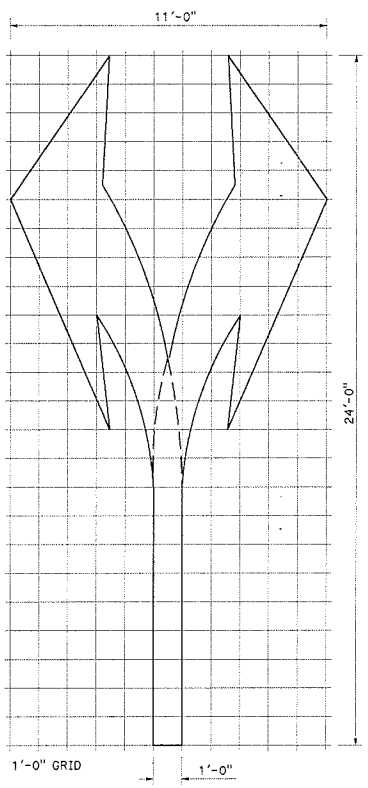
* 70 ft² does not include the 2'-0" x variable width transverse lines.



A=42 ft²

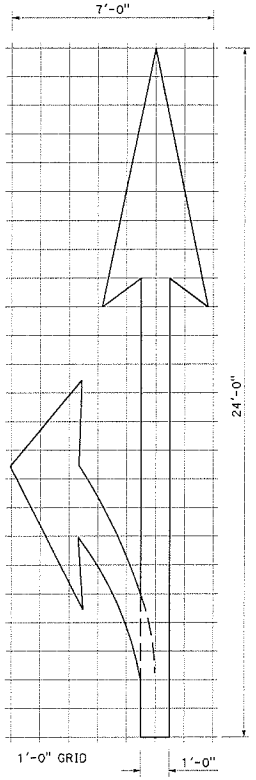
TYPE III (L) ARROW

For Type III (R) use mirror image.



A=73 ft²

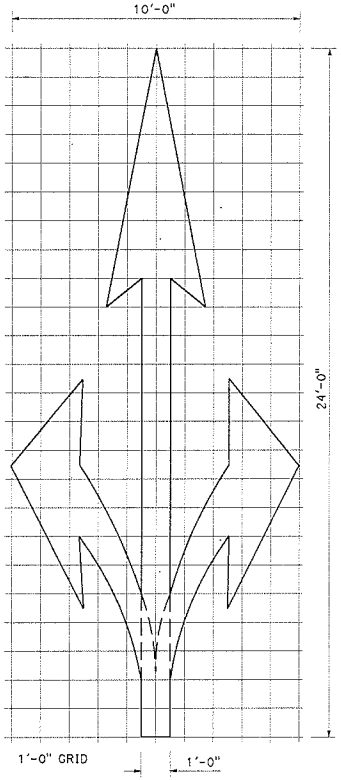
TYPE III (B) ARROW



A=45 ft²

TYPE II (L) ARROW

For Type II (R) use mirror image.



A=59 ft²

TYPE II (B) ARROW

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS ARROWS AND SYMBOLS

NO SCALE

A24B

Return to Table of Contents

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
PLANS APPROVAL DATE

Yue Wang
No. C82065
Exp. 3-31-24
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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NOTE:
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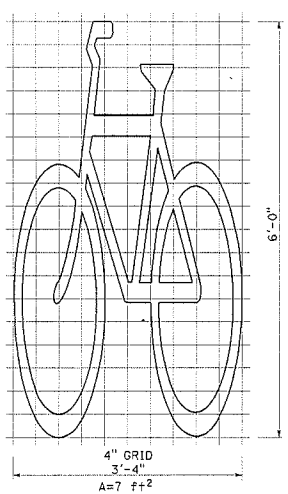
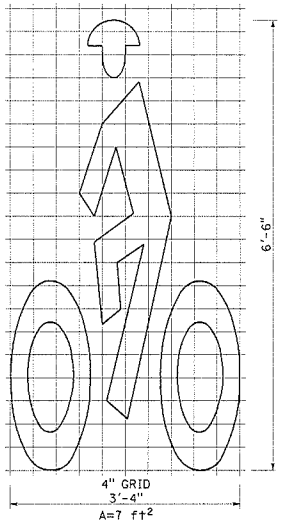
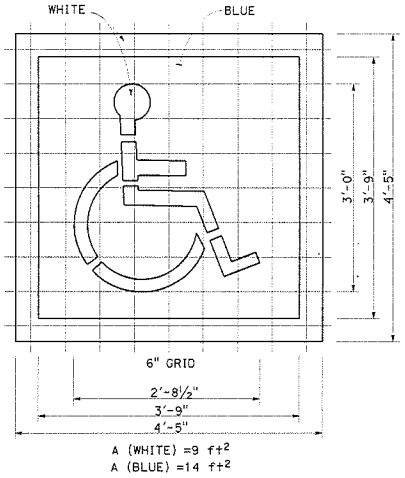


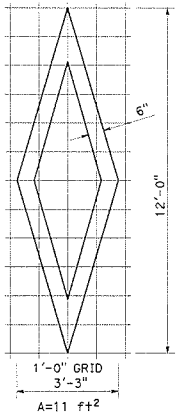
BIKE LANE SYMBOL WITHOUT PERSON



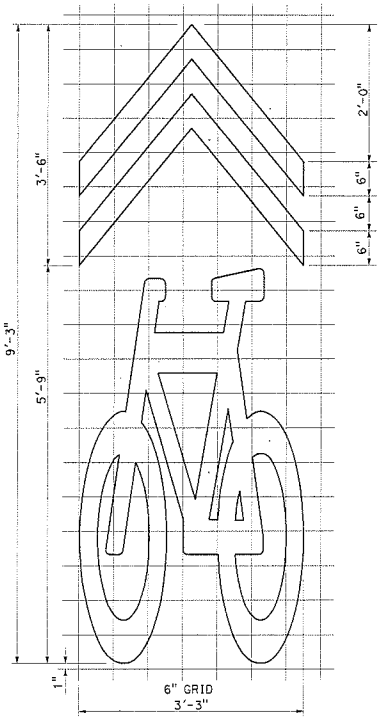
BIKE LANE SYMBOL WITH PERSON



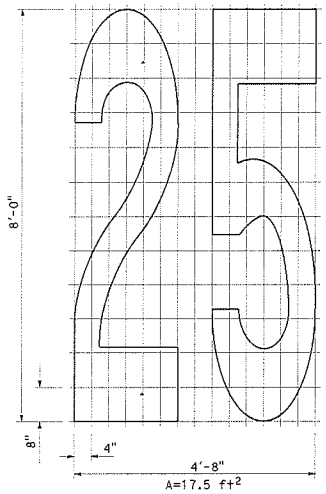
INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING

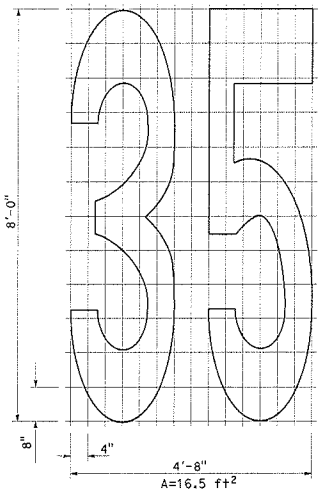


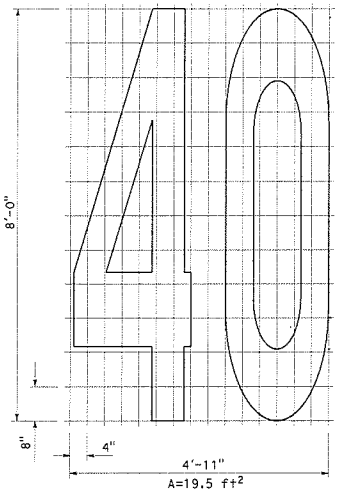
DIAMOND SYMBOL



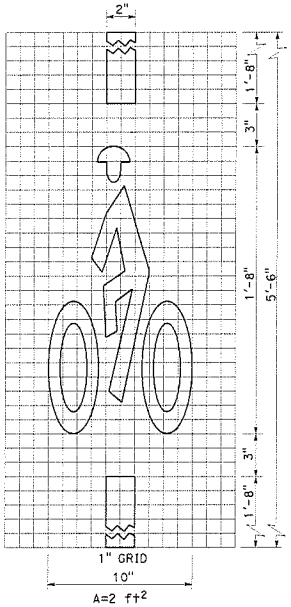
SHARED ROADWAY BICYCLE MARKING







NUMERALS



BICYCLE LOOP DETECTOR SYMBOL

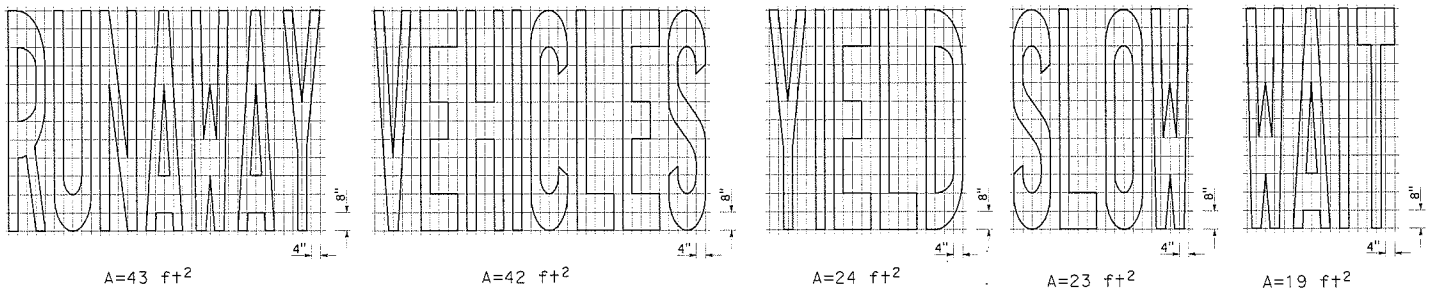
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS SYMBOLS AND NUMERALS

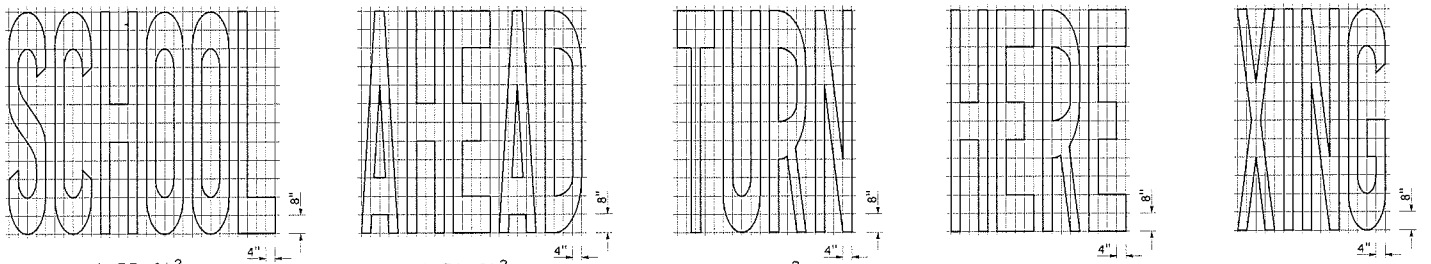
NO SCALE

A24C

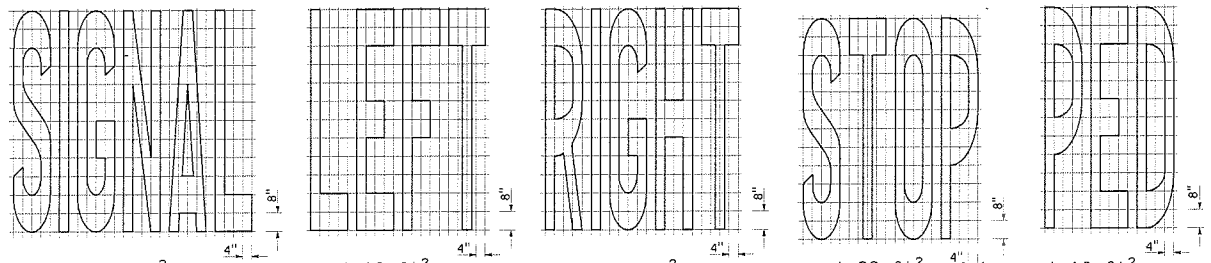
Return to Table of Contents



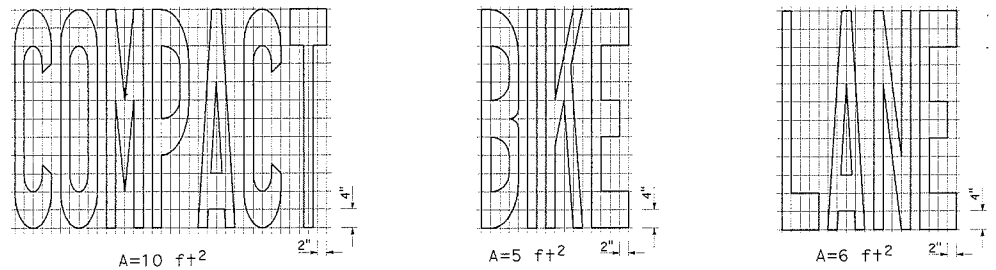
A=43 ft^2 A=42 ft^2 A=24 ft^2 A=23 ft^2 A=19 ft^2



A=35 ft^2 A=31 ft^2 A=24 ft^2 A=26 ft^2 A=21 ft^2



A=32 ft^2 A=19 ft^2 A=26 ft^2 A=22 ft^2 A=18 ft^2



A=10 ft^2 A=5 ft^2 A=6 ft^2

NOTES:

1. If a message consists of more than one word, it must read "UP", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.

WORD MARKINGS

ITEM	ft^2	ITEM	ft^2	ITEM	ft^2	ITEM	ft^2
XING	21	YIELD	24	BIKE	5	PED	18
AHEAD	31	SCHOOL	35	SLOW	23	COMPACT	10
WAIT	19	SIGNAL	32	STOP	22	RUNAWAY	43
LANE	6	TURN	24	LEFT	19	VEHICLES	42
RIGHT	26	HERE	26				

DIST | COUNTY | ROUTE | POST MILES TOTAL | PROJECT | SHEET NO. | TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
PLANS APPROVAL DATE

Yue Wang
No. C82065
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

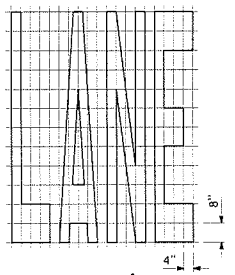
PAVEMENT MARKINGS
WORDS

NO SCALE

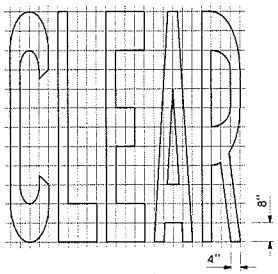
A24D

2023 STANDARD PLAN A24D

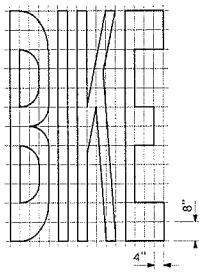
Return to Table of Contents



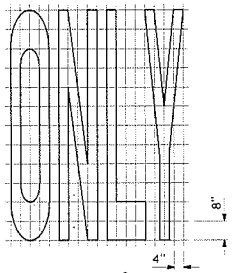
A=24 ft²



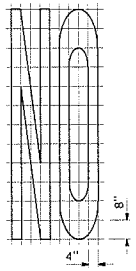
A=27 ft²



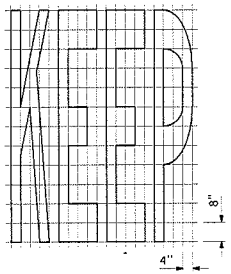
A=21 ft²



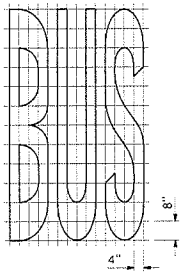
A=22 ft²



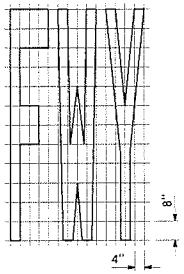
A=14 ft²



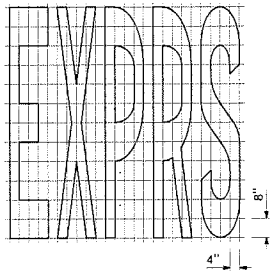
A=24 ft²



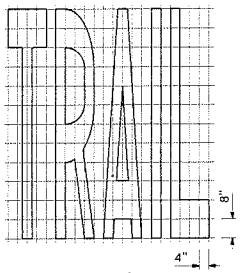
A=20 ft²



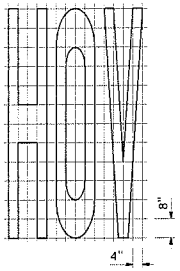
A=16 ft²



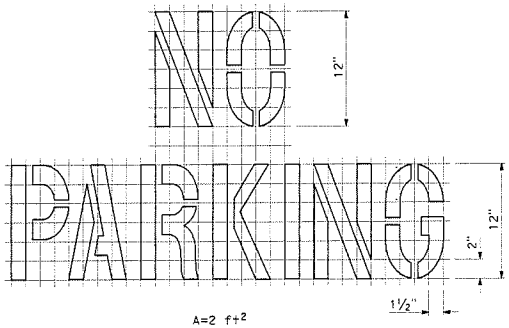
A=30 ft²



A=23 ft²



A=18 ft²



A=2 ft²
See Notes 5 and 6

NOTES:

1. If a message consists of more than one word, it must read "UP",i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number, or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

WORD MARKINGS			
ITEM	SQFT	ITEM	SQFT
LANE	24	NO	14
CLEAR	27	BIKE	21
KEEP	24	BUS	20
HOV	18	ONLY	22
TRAIL	23	FWY	16
EXPRS	30		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
PLANS APPROVAL DATE

Yue Wang
No. C82065
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER

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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS WORDS

NO SCALE

A24E

2023 STANDARD PLAN A24E

Return to Table of Contents

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023
PLANS APPROVAL DATE

Yue Wang
No. C82065
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CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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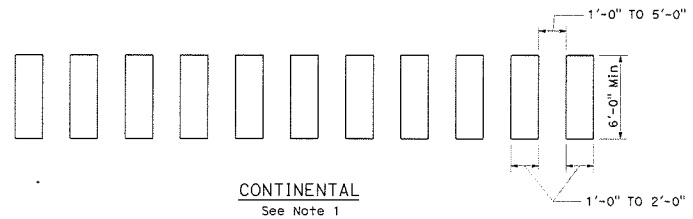
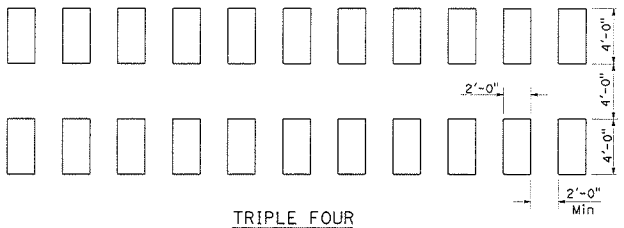
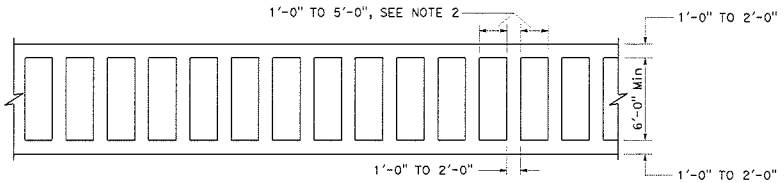


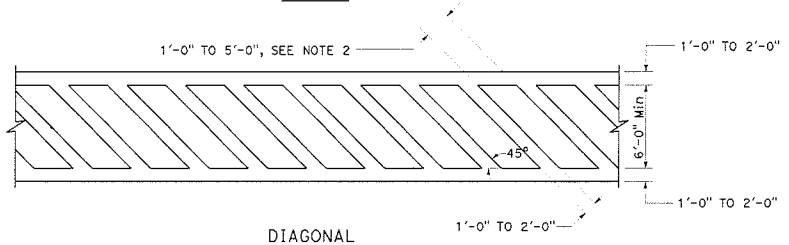
CONTINENTAL
See Note 1



TRIPLE FOUR
See Note 1



LADDER

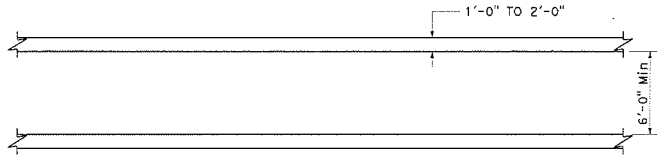


DIAGONAL

HIGHER VISIBILITY CROSSWALKS

NOTES:

1. Spaces between markings must be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 x width of longitudinal line.
3. All crosswalk markings must be white except those near schools must be yellow.



BASIC

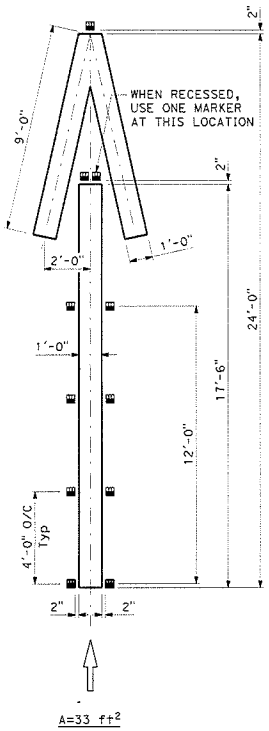
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
CROSSWALKS

NO SCALE

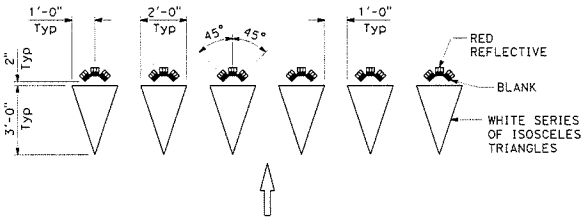
A24F

Return to Table of Contents



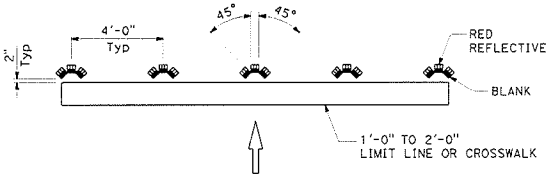
A=33 ft²

TYPE V ARROW AT EXIT RAMP



YIELD LINE AT EXIT RAMP

(Markers are not recessed)

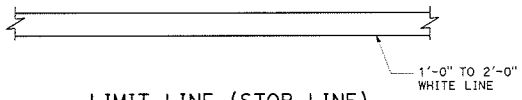


LIMIT LINE (STOP LINE) AT EXIT RAMP

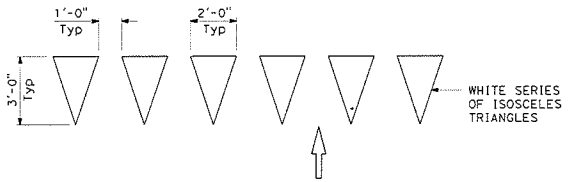
(Markers are not recessed)

NOTE:

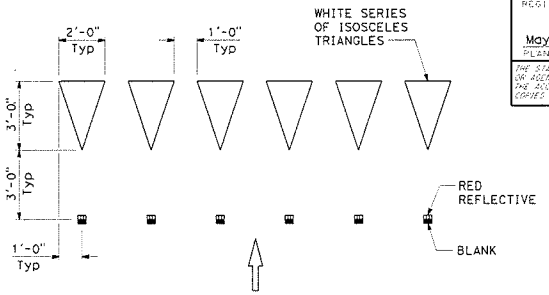
1. If there is crosswalk at the end of the exit ramp, place Type R markers in front of the first line for wrong way vehicle that travels up the ramp with the red reflective side facing the intersection.



LIMIT LINE (STOP LINE)

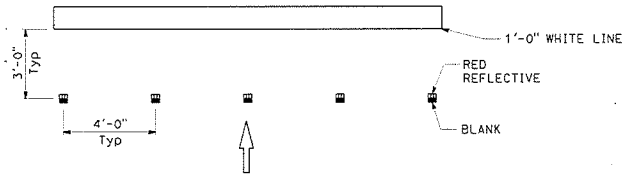


YIELD LINE



YIELD LINE AT EXIT RAMP

(Markers are recessed)

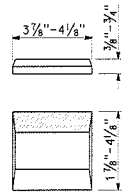


LIMIT LINE (STOP LINE) AT EXIT RAMP

(Markers are recessed)

LEGEND:

TYPE R ONE-WAY RED RETROREFLECTIVE MARKER



TYPE R

MARKER DETAILS

RETROREFLECTIVE FACE ON BACKSIDE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
Yue Wang
No. C82065
Exp. 3-31-24
CIVIL
STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

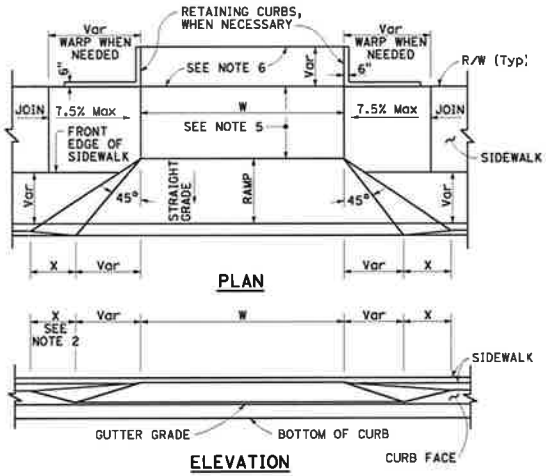
PAVEMENT MARKINGS YIELD LINES, LIMIT LINES AND WRONG WAY DETAILS

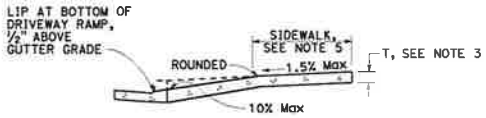
NO SCALE

A24G

2023 STANDARD PLAN A24G

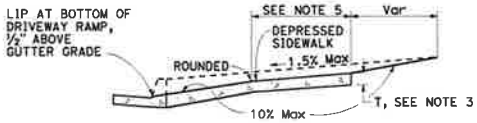
Return to Table of Contents





CASE A

Typical driveway, sidewalk not depressed



CASE B

Driveway with depressed sidewalk

SECTIONS

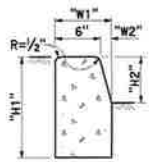
TABLE A

CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7½"	1½"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7½"	1½"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7¼"	1¼"
A3-8	8"	7"	7¾"	1¾"
B1-4	1'-0"	4"	7½"	2½"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7½"	2½"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8½"	3½"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"

CURB QUANTITIES

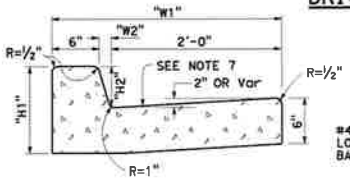
TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

DRIVEWAYS



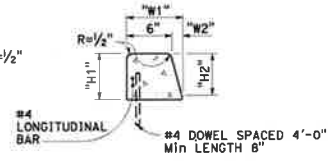
TYPE A1 CURBS

See Table A



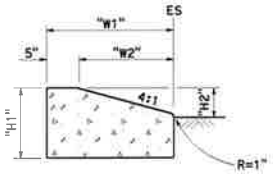
TYPE A2 CURBS

See Table A



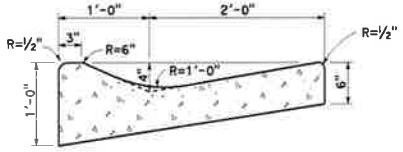
TYPE A3 CURBS

Superimposed on existing pavement
See Table A

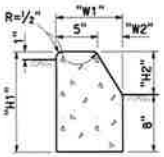


TYPE D CURBS

See Table A

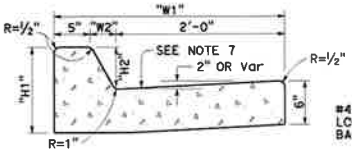


TYPE E CURB



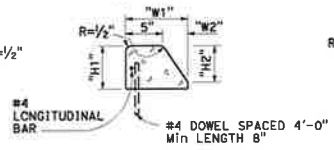
TYPE B1 CURBS

See Table A



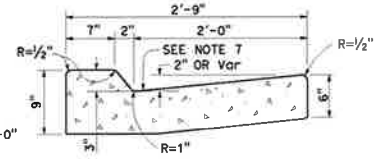
TYPE B2 CURBS

See Table A

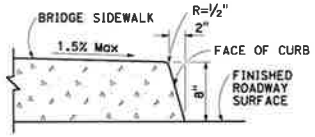


TYPE B3 CURBS

Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB

On Bridges

CURBS

NOTES:

1. Case A driveway section typically applies.
2. X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
3. Sidewalk and ramp thickness "T" at driveway shall be 4" for residental and 6" for commercial.
4. Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
5. Minimum width of clear passageway for sidewalk shall be 4'-2".
6. Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
7. Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

October 30, 2015

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

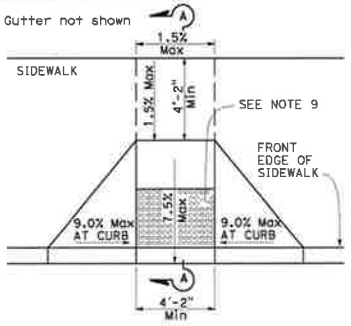
Michael Jansen No. 44788 Exp. 3-31-16 CIVIL STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

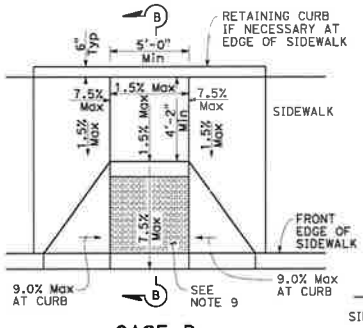
CURBS AND DRIVEWAYS

NO SCALE

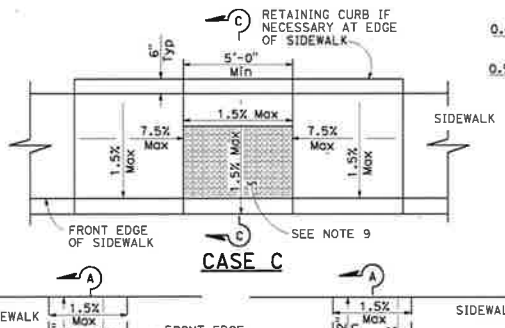
A87A



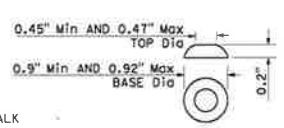
CASE A



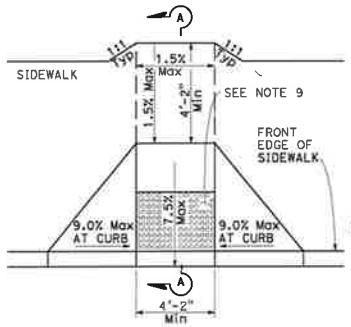
CASE B



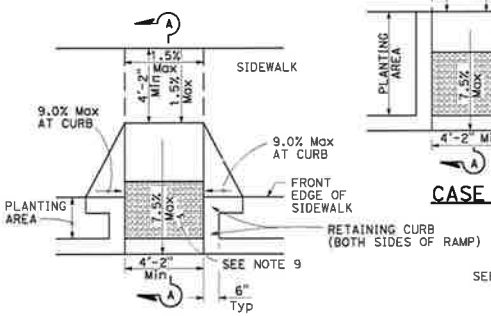
CASE C



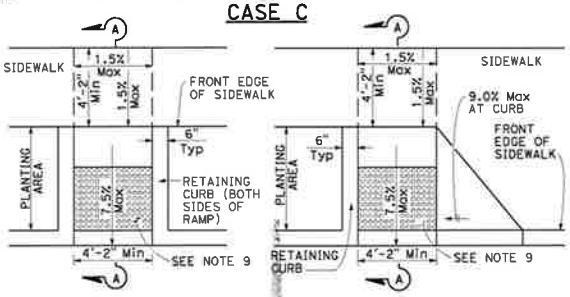
RAISED TRUNCATED DOME



CASE D

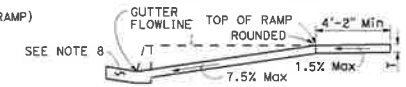


CASE E

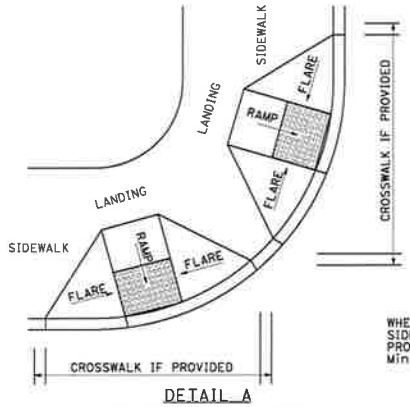


CASE F

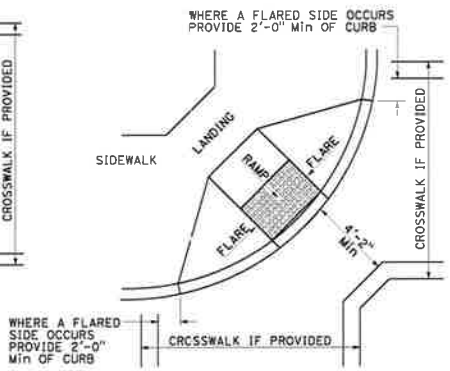
CASE G
See Note 4



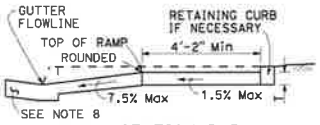
SECTION A-A



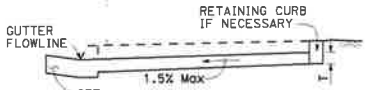
DETAIL A
TYPICAL TWO-RAMP CORNER INSTALLATION
See Note 1



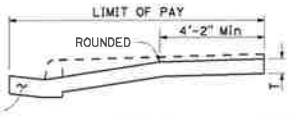
DETAIL B
TYPICAL ONE-RAMP CORNER INSTALLATION
See Notes 1 and 3



SECTION B-B
Depress entire sidewalk as required



SECTION C-C



RETROFIT PAY LIMITS
Existing curb and sidewalk

NOTES:

1. As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
2. If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
3. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
4. As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
5. If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-2".
6. Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
7. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
8. Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
9. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide curb ramp. Detectable Warning Surfaces shall conform to the requirements in the Standard Specifications.
10. Sidewalk and ramp thickness, "T", shall be 3½" minimum.
11. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
12. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.

RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE
See Note 9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER
July 15, 2016
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

Hector David Cordova
No. C41957
Exp. 3-31-18
CIVIL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED _____

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS

NO SCALE

RSP A88A DATED JULY 15, 2016 SUPERSEDES STANDARD PLAN A88A DATED OCTOBER 30, 2015 - PAGE 127 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP A88A

2015 REVISED STANDARD PLAN RSP A88A

3-30-16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

April 15, 2016
PLANS APPROVAL DATE

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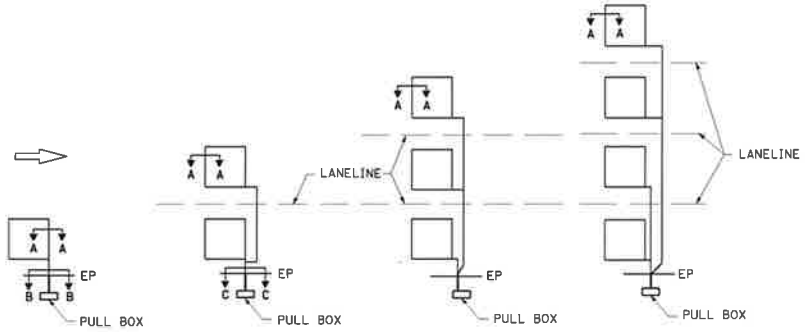
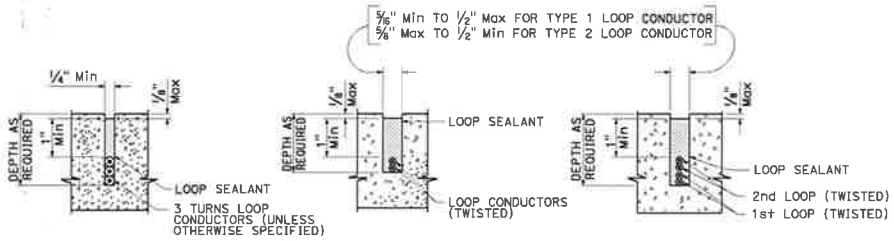
Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED _____



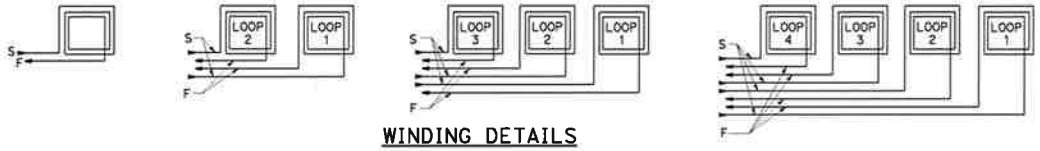
SAW CUT DETAILS

Type A loop detector configurations illustrated



SECTION A-A SECTION B-B SECTION C-C

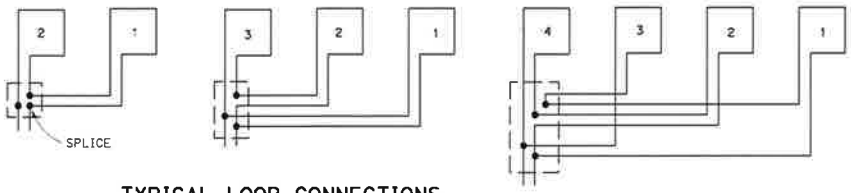
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



WINDING DETAILS

ABBREVIATIONS:

S - START
F - FINISH



TYPICAL LOOP CONNECTIONS

Dashed lines represent the pull box

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

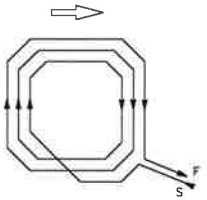
ELECTRICAL SYSTEMS (LOOP DETECTORS)

NO SCALE

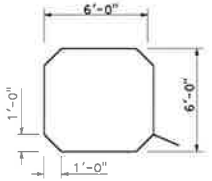
RSP ES-5A DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-5A DATED OCTOBER 30, 2015 - PAGE 445 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP ES-5A

2015 REVISED STANDARD PLAN RSP ES-5A

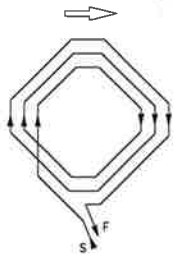


WINDING DETAIL

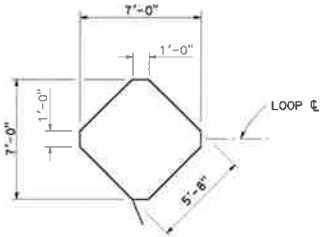


SAW CUT DETAIL

TYPE A LOOP DETECTOR CONFIGURATION

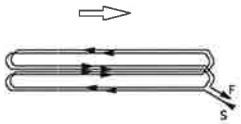


WINDING DETAIL

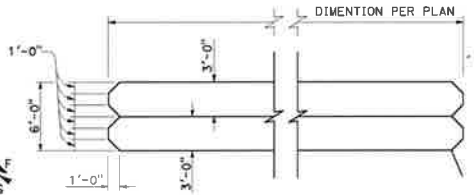


SAW CUT DETAIL

TYPE B LOOP DETECTOR CONFIGURATION

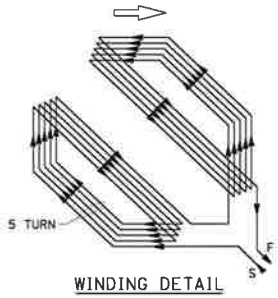


WINDING DETAIL

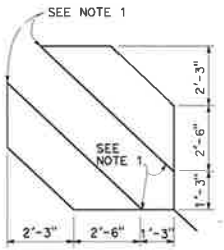


SAW CUT DETAIL

TYPE C LOOP DETECTOR CONFIGURATION

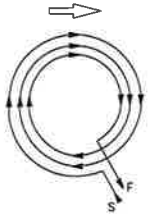


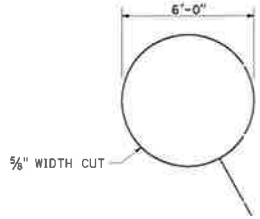
WINDING DETAIL



SAW CUT DETAIL

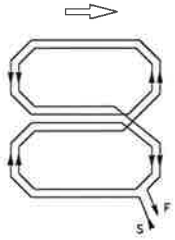
TYPE D LOOP DETECTOR CONFIGURATION

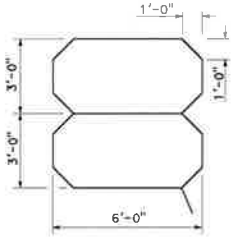




WINDING DETAIL SAW CUT DETAIL

TYPE E LOOP DETECTOR CONFIGURATION





WINDING DETAIL SAW CUT DETAIL

TYPE Q LOOP DETECTOR CONFIGURATION

NOTES:

1. Round corners of acute angle saw cuts to prevent damage to conductors.
2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.
3. Use Type D loops for limit line detection and bicycle lanes.

DIST#	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

April 15, 2016
PLANS APPROVAL DATE

Theresa Aziz Gabriel
No. E15129
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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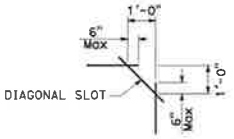
TO ACCOMPANY PLANS DATED _____



PLAN VIEW OF
DIAGONAL SLOT
AT CORNERS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5B DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-5B
DATED OCTOBER 30, 2015 - PAGE 446 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP ES-5B

2015 REVISED STANDARD PLAN RSP ES-5B

PUBLIC WORKS DIRECTOR

March 11, 2014

PLANS APPROVAL DATE

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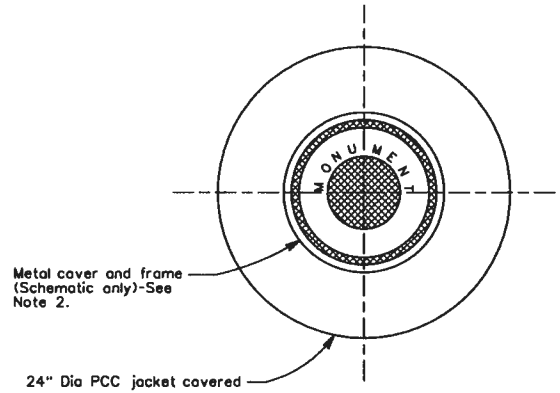
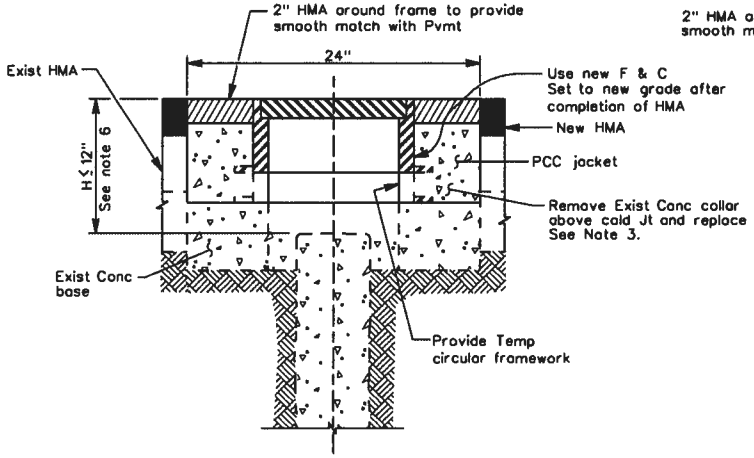
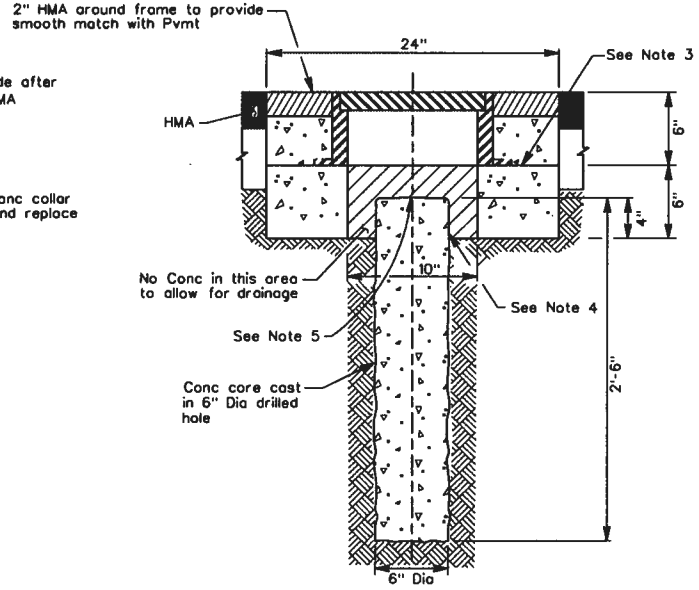
REGISTERED PROFESSIONAL ENGINEER — JULIA R BUEREN — No. 37937 — CIVIL — STATE OF CALIFORNIA





FRAME ADJUSTMENT DETAIL



NEW INSTALLATION DETAIL

NOTES:

1. Concrete for jacket and core shall contain not less than 590 lbs of cementious material per cubic yard, ½" maximum aggregate grading, in conformance with Section 90, "Concrete", of the California Department of Transportation's Standard specifications.
2. Approved covers and frames are those manufactured by Chrisp Co. Casting, Part No. 9277M or 9279 or approved equivalent. Covers shall be marked "Monument" shall be non-rocking and designed for a 15000 lb. wheel load.
3. 30# felt or ¼" layer of sand to create a "cold joint".
4. 6" diameter collar formed with 30# felt or non-metallic form tube (may be left in place).
5. Solid brass marker (2" to 2½" diameter top and 2" minimum shank) with distinctive punch and R.E. or L.S. number.
6. When "H" exceeds 12", a complete reconstruction of monument is required.

COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
MARTINEZ, CALIFORNIA

STANDARD PLAN

STREET SURVEY MONUMENT

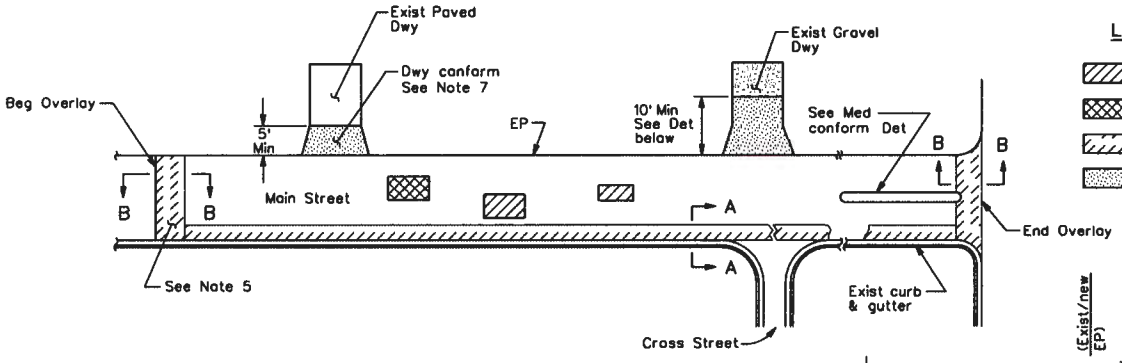
NO.	DATE	REVISION DESCRIPTION	BY

SCALE: NO SCALE | DATE: 3/14

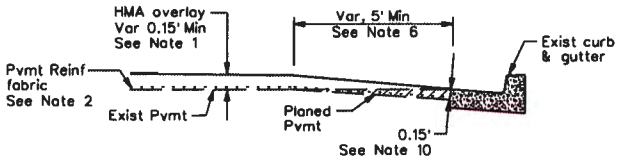
DRAWN BY: L. COSTA | PLAN NO. CA40

CHECKED BY: R. Zwemmer

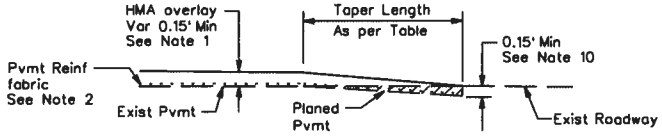
STD. PLAN CA40



PLANED ASPHALT CONFORM DETAILS

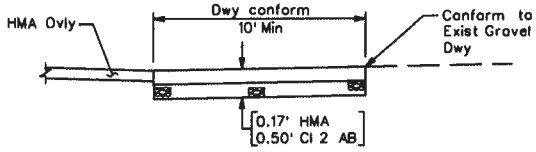


SECTION A-A TAPERED KEYCUT CONFORM DETAIL
with Curb

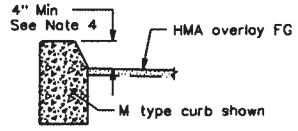


SECTION B-B LENGTH OF TAPER DETAIL

LENGTH OF TAPER BY DESIGN SPEED		
Overlay Thickness (feet)	Taper Length speed ≤ 45mph (feet)	Taper Length speed > 45mph (feet)
0.10	10	20
0.12	12	24
0.15	15	30
0.20	20	40
0.25	25	50
0.30	30	60
0.35	35	70
0.40	40	80



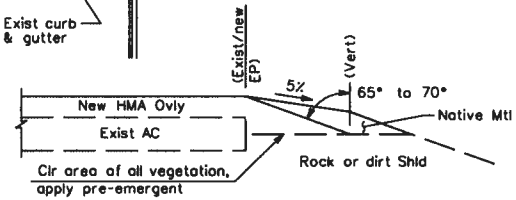
EXISTING GRAVEL DRIVEWAY CONFORM DETAIL



MEDIAN CONFORM DETAIL

LEGEND

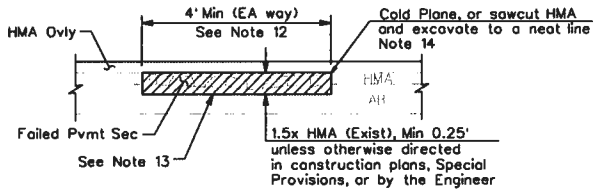
- Pvmt Failure Repair
- Base Failure Repair
- Tapered Conform-Cold Planed
- Tapered HMA



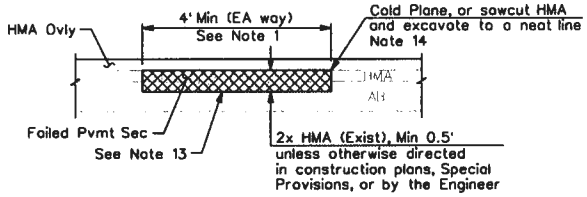
NOTES:

1) Safety edges shall be used on all roads posted 35 mph or higher with paved shoulders 4' or less.
2) Construct safety edge in conformance with project special provisions or Public Works Department Standard Provisions for Public Works Construction.

SAFETY EDGE



PAVEMENT FAILURE REPAIR DETAIL



BASE FAILURE REPAIR DETAIL

PUBLIC WORKS DIRECTOR
March 11, 2014
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
JULIA R BUEREN
No. 37937
CIVIL
STATE OF CALIFORNIA

NOTES:

1. Hot mix asphalt (HMA) overlay thickness shall be as specified by the Public Works Department.
2. Pavement reinforcing fabric shall be as required by the Public Works Department.
3. Paving at the gutter lip shall be placed per Standard Plan CA70 Detail A when conforming to S1-6, S1-8 curb, or PCC valley gutters.
4. When conforming to median curb, extend overlay to face of median curb regardless of curb type. If minimum remaining height of curb is less than 4", "Modified M3-8 Curb" per County Standard Plan CA71 shall be constructed.
5. For design speeds of 45 mph or less maximum grade break of taper shall not exceed 1%. For design speeds greater than 45 mph grade of taper shall not exceed 0.5%. Use "Length of Taper by Design Speed" table.
6. Planed width shall be such that the resultant slope of shoulder after overlay does not exceed 5%. The width of planing shall be approved by the Public Works Department.
7. HMA driveway conforms shall be tapered and no planing is required, unless otherwise specified by the Public Works Department.
8. Depth and dimensions of pavement failure repair shall be as specified by the Public Works Department.
9. Removal of failed pavement by cold planing the required depth and dimensions, or by sawcutting around failure to a neat line and removing failed pavement.
10. Conform thickness shall be 0.15' unless otherwise specified by the Public Works Department.
11. Place and compact native material per Public Works Department Standard Provisions or project special provisions to conform to new EP unless shown on project plans.
12. Limits of pavement failure repairs and base failure repairs shall be as marked in the field by the Engineer/Inspector.
13. For pavement failure repairs and base failure repairs recompact the existing road base or subgrade to 95% relative density prior to placing HMA in accordance with Section 19 of California Department of Transportation's Standard Specifications.
14. Place paint binder on all vertical cut faces prior to placing HMA.

NO.	DATE	REVISION DESCRIPTION	BY

COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
MARTINEZ, CALIFORNIA

STANDARD PLAN

TYPICAL HMA CONFORM DETAILS for OVERLAYS

SCALE: NO SCALE | DATE: 3/14
DRAWN BY: H. HUSSEY/L. COSTA | PLAN NO. CA51
CHECKED BY: M. HOLLINGSWORTH

STD. PLAN CA51

PUBLIC WORKS DIRECTOR
March 11, 2014
PLANS APPROVAL DATE

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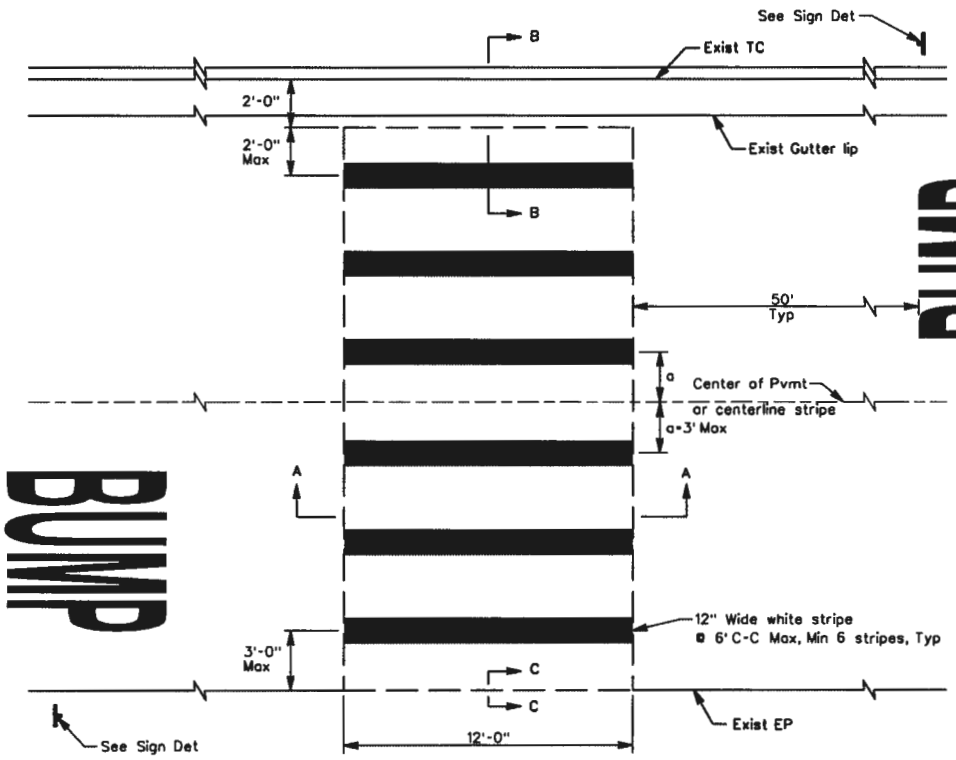
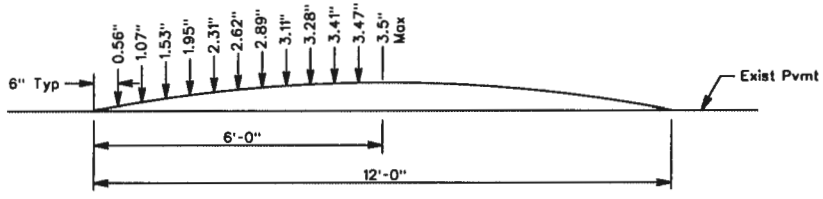
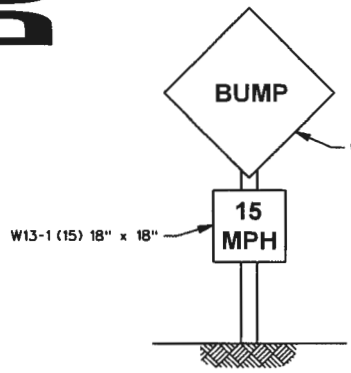
REGISTERED PROFESSIONAL ENGINEER
JULIA R BUEREN
No. 37937
CIVIL
STATE OF CALIFORNIA



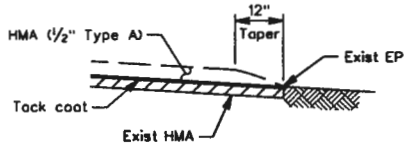
PLAN
NO SCALE



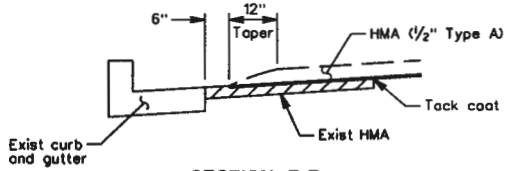
SECTION A-A
NO SCALE



SIGN DETAIL
NO SCALE



SECTION C-C
NO SCALE



SECTION B-B
NO SCALE

NOTES:

1. A template shall be used to construct bump to section dimensions shown.
2. Signs shall be in place prior to installation of HMA bump.
3. Type 1 barricades with flashers shall be placed immediately on each side of bump and maintained until pavement markings and stripes are installed.
4. Signs shall conform to California MUTCD and installed per County Standard Plan *CRS1.

NO.	DATE	REVISION DESCRIPTION	BY

COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
MARTINEZ, CALIFORNIA

STANDARD PLAN

SPEED BUMP

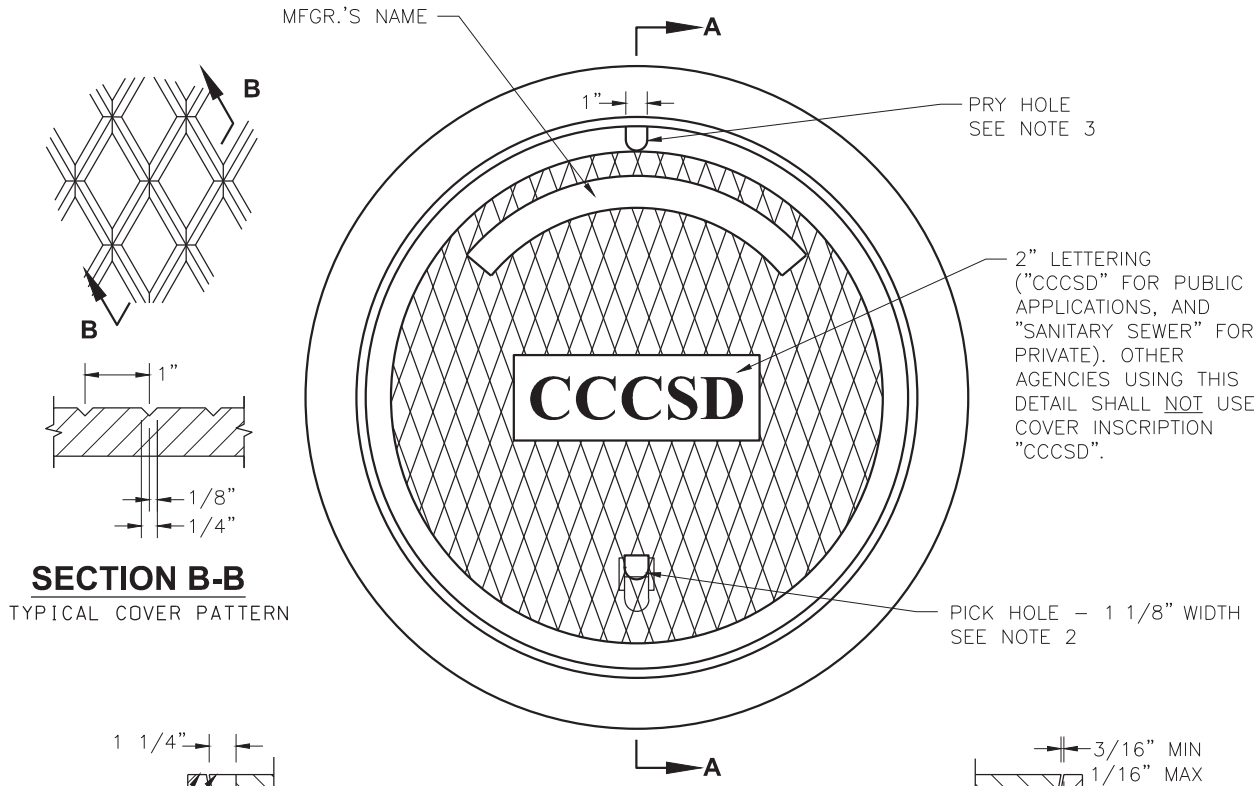
SCALE: NO SCALE	DATE: 3/14
DRAWN BY: L. COSTA	PLAN NO. CA55
CHECKED BY: M. HOLLINGSWORTH	

STD. PLAN CA55

CENTRAL CONTRA COSTA SANITARY DISTRICT

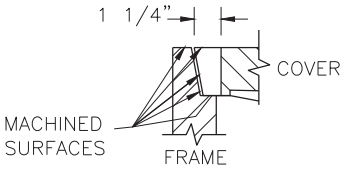
MARTINEZ, CALIFORNIA

STANDARD MANHOLE FRAME & COVER

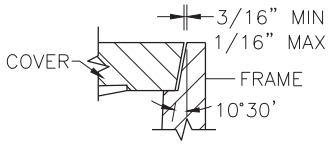


SECTION B-B
TYPICAL COVER PATTERN

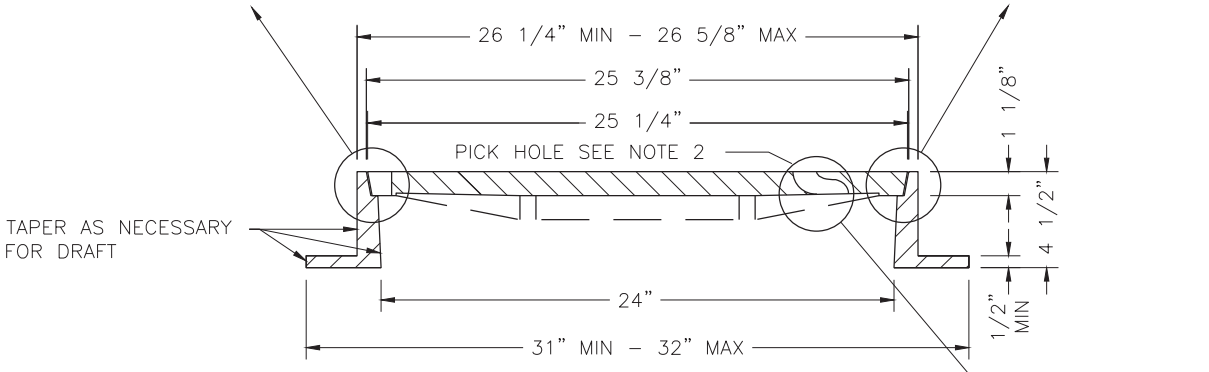
PLAN



DETAIL
PRY HOLE AND COVER BEVEL



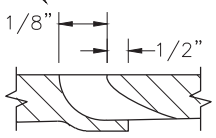
DETAIL
FRAME AND COVER BEVEL



SECTION A-A

NOTES:

1. COVER SHALL BE DESIGNED FOR HS–20 HIGHWAY LOADING.
2. PICK HOLE SHALL BE OPEN AND FIT A STANDARD PICK.
3. PRY HOLE SHALL BE LOCATED AT TOP CENTER OF THE MANHOLE COVER AS SHOWN.

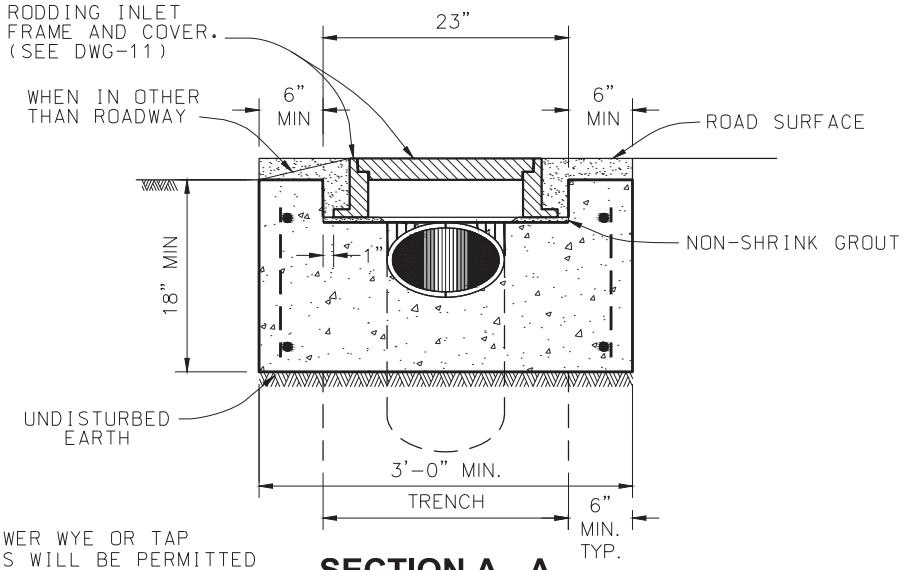


DETAIL
PICK HOLE

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

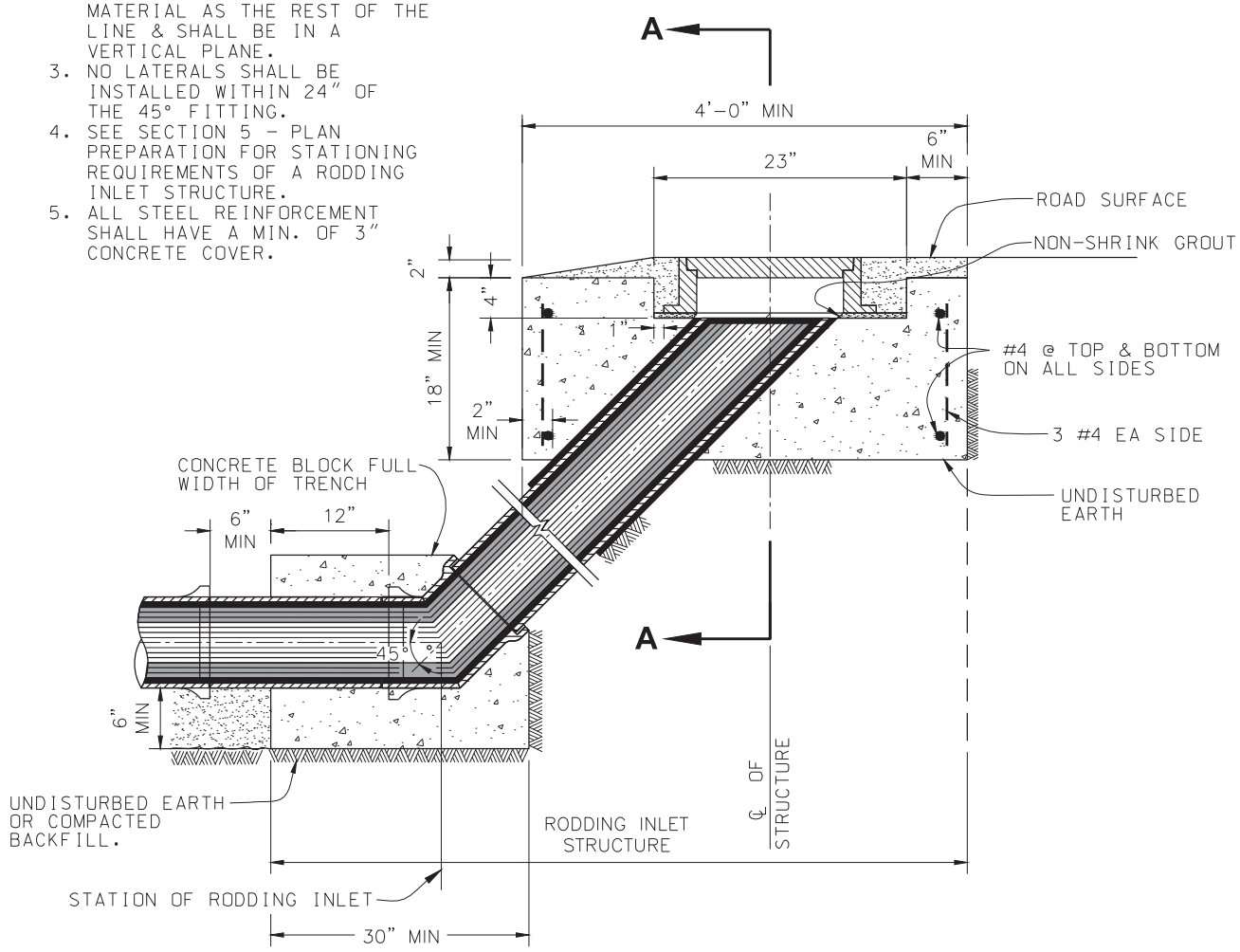
RODDING INLET



NOTES:

1. NO SIDE SEWER WYE OR TAP CONNECTIONS WILL BE PERMITTED IN RISER PIPE.
2. RISER PIPE SHALL BE THE SAME MATERIAL AS THE REST OF THE LINE & SHALL BE IN A VERTICAL PLANE.
3. NO LATERALS SHALL BE INSTALLED WITHIN 24" OF THE 45° FITTING.
4. SEE SECTION 5 - PLAN PREPARATION FOR STATIONING REQUIREMENTS OF A RODDING INLET STRUCTURE.
5. ALL STEEL REINFORCEMENT SHALL HAVE A MIN. OF 3" CONCRETE COVER.

SECTION A - A

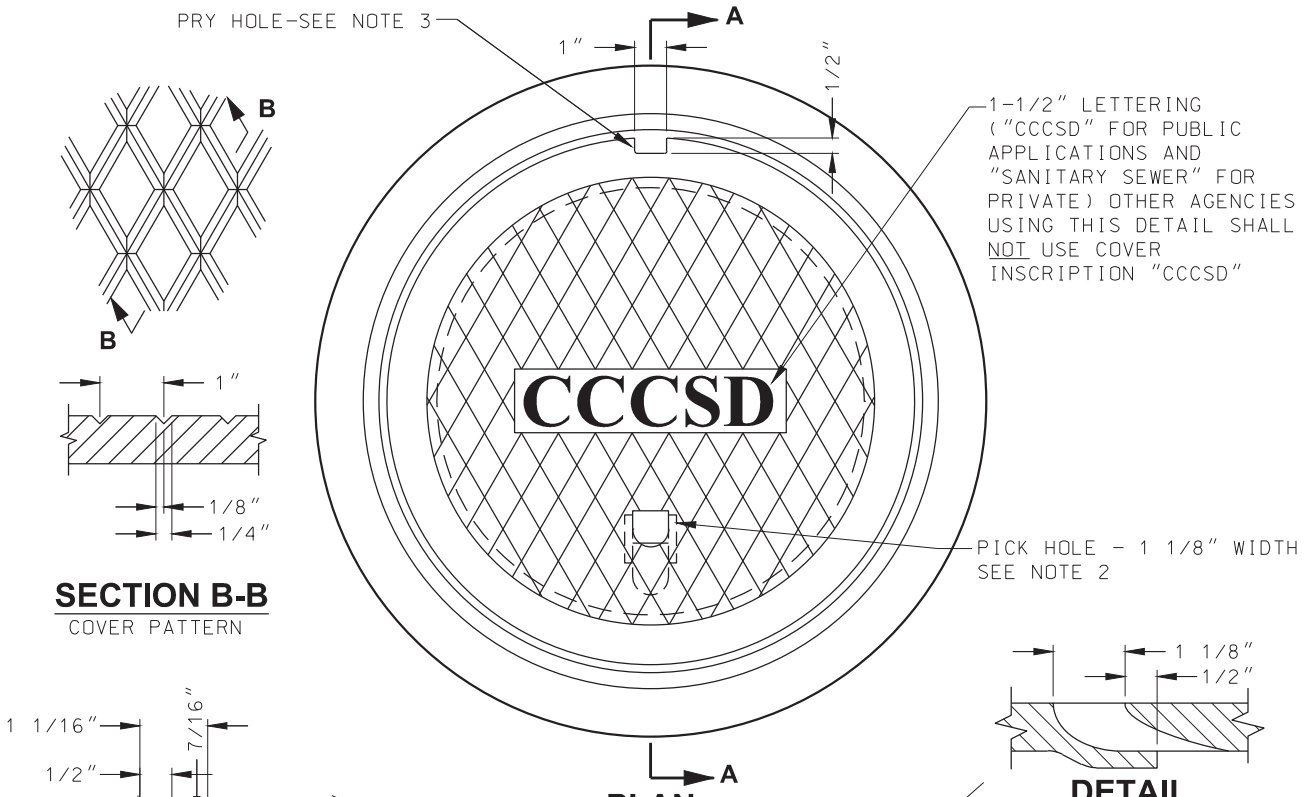


VERTICAL SECTION

CENTRAL CONTRA COSTA SANITARY DISTRICT

MARTINEZ, CALIFORNIA

RODDING INLET FRAME & COVER



SECTION A-A

NOTES:

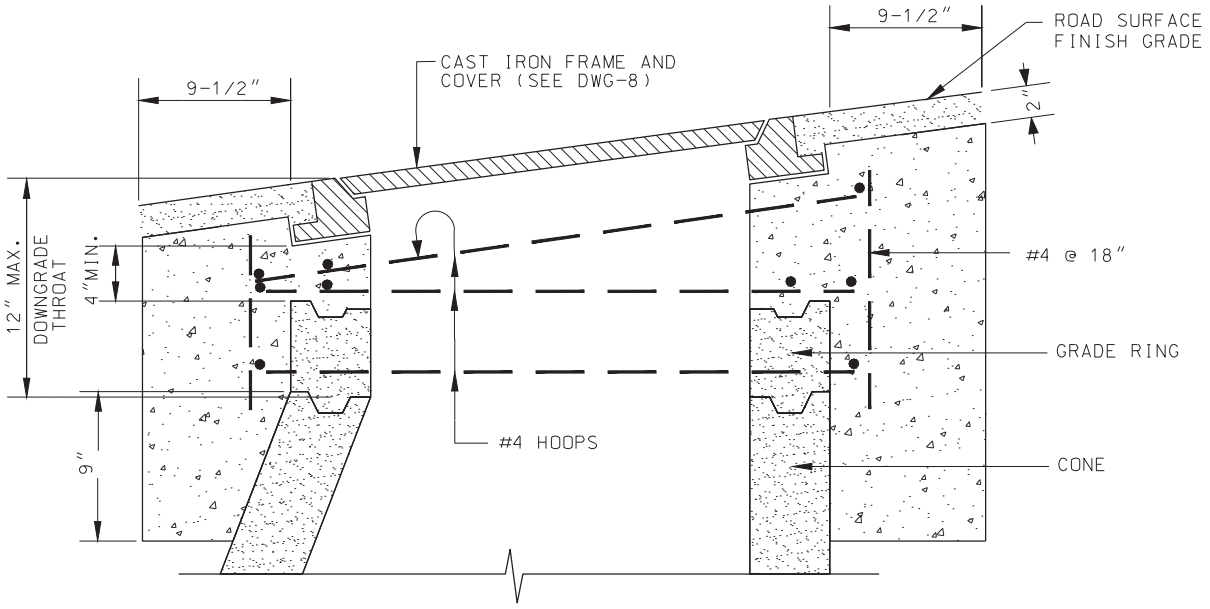
1. COVER SHALL BE DESIGNED FOR HS-20 HIGHWAY LOADING.
2. PICK HOLE SHALL BE OPEN AND FIT A STANDARD PICK.
3. PRY HOLE SHALL BE LOCATED AT TOP CENTER OF THE RODDING INLET COVER AS SHOWN.

CENTRAL CONTRA COSTA SANITARY DISTRICT

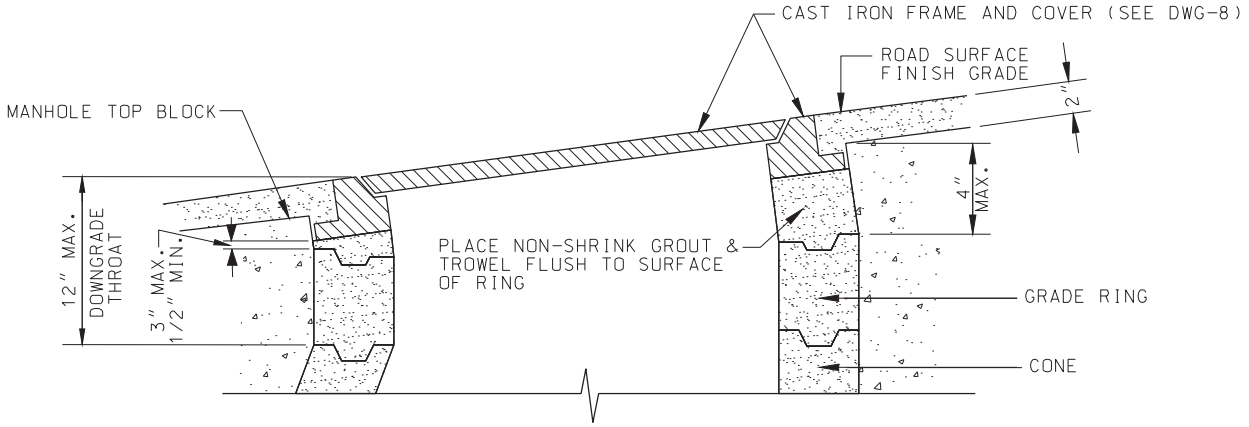
MARTINEZ, CALIFORNIA

MANHOLE ADJUSTMENT TO FINISH GRADE

PAVED AREAS



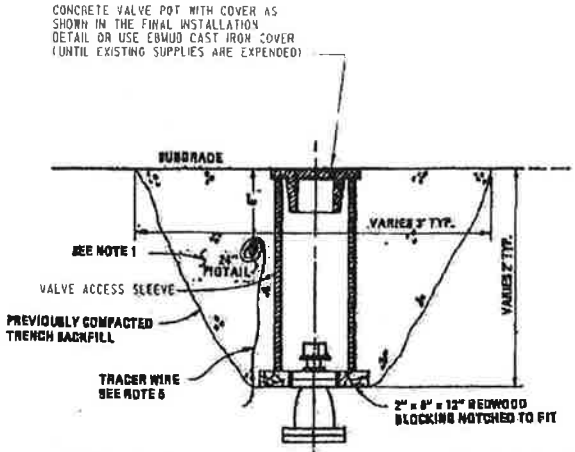
GREATER THAN 13% GRADE



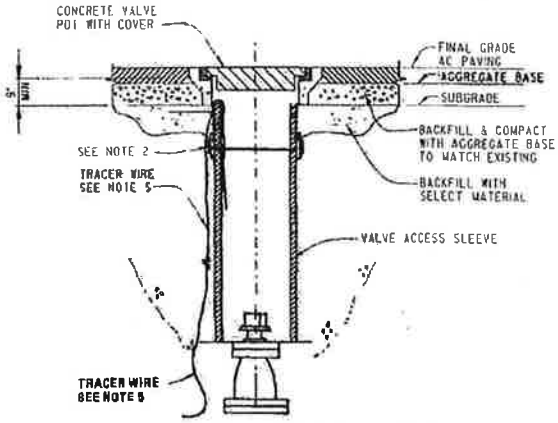
NOTE:

1. SEE DWG-1 FOR TOP BLOCK DETAILS

13% GRADE OR LESS

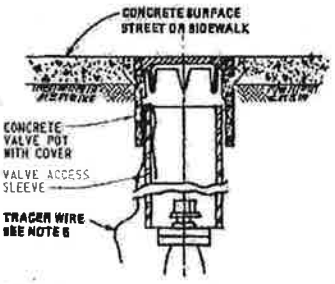


PRELIMINARY INSTALLATION PRIOR TO PLACING PAVING BASE

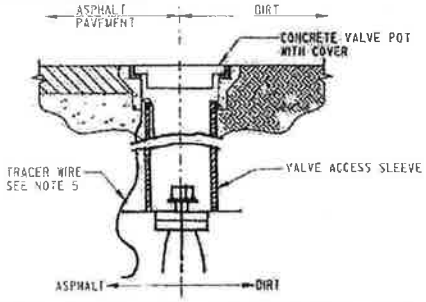


FINAL INSTALLATION AFTER PAVING IS COMPLETED

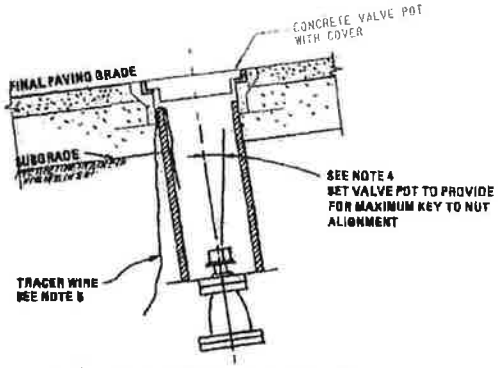
IN NEW A.C. STREET CONSTRUCTION



IN EXISTING CONCRETE PAVEMENT



IN EXISTING ASPHALT PAVEMENT OR DIRT



IN SLOPING GRADES

NOTE:

1. AGGREGATE BASE OR OTHER SUITABLE MATERIAL, FOR COMPACTION SEE SPECIFICATIONS.
2. USE REPAIR CLAMP, OR 3 WRAPS OF 2" WIDE PIPE TAPE, OR EQUIVALENT, TO HOLD JOINT IN ALIGNMENT WHILE PLACING CONCRETE.
3. VALVE ACCESS SLEEVE IS 8.625" O.D. STEEL PIPE, MIN. WALL 10 GA., MAX. SCHEDULE 40 OR SCHEDULE 40 PVC PIPE.
4. TOP OF VALVE COVER TO FIT FLUSH WITH FINISHED GRADE OF THE STREET OR RIGHT OF WAY.
5. NON-METALLIC MAINS REQUIRE TRACER WIRE TO BE EXTENDED INTO THE TOP OF THE VALVE POT, IN ACCORDANCE WITH E.B.M.U.D. SPECIFICATIONS.
6. ON STREET RESURFACING PROJECTS, INSTALL RISER RING(S), AS REQUIRED TO ALLOW GATE POT COVER TO CONFORM WITH ADJACENT SURFACES.

REVISED 31 OCT 1979

APPROVED
ASST. GEN. MGR. & CHIEF ENGINEER, R.P.E. NO. C-7624

DESIGNED BY EBMUD
DRAWN BY R.D.B.
MECH ELECT STRUCT
PIPELINE CORR AGW FROM

EAST BAY MUNICIPAL UTILITY DISTRICT
OAKLAND, CALIFORNIA

STANDARD DRAWING

VALVE POT INSTALLATION

SUPVR. PIPELINE BRCH. R.P.E. NO. C-13774
ENGRG. SVC. DIV. R.P.E. NO. C-3088
DIRECTOR OF ENGRG. R.P.E. NO. C-12441

SCALE NO SCALE
DATE 30 JAN. 79

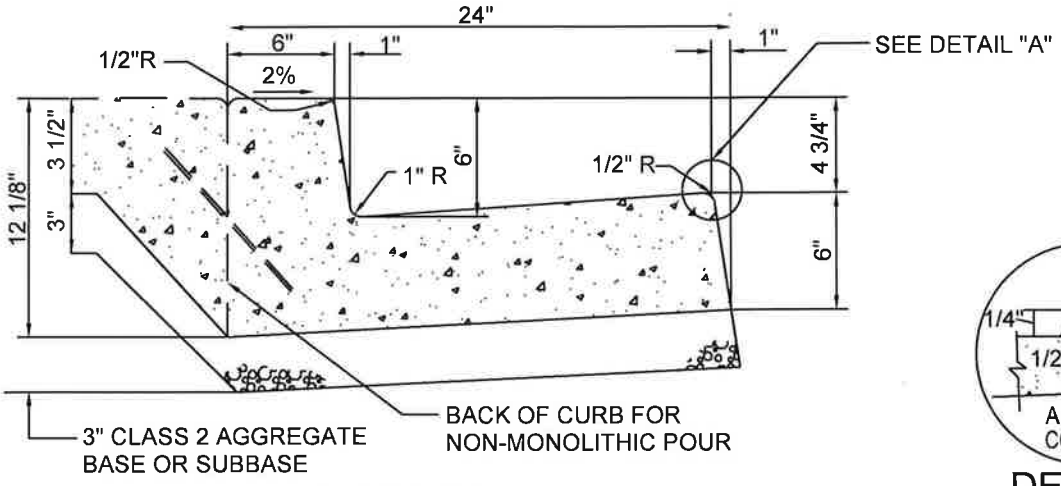
321-EA

DISTRIBUTION SYSTEM MAP NO.

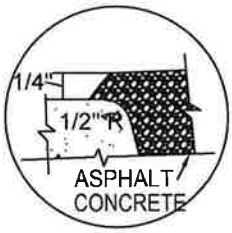
USER: rstandid
PLOT DATE: 4-NOV-1997 14:41
FILE: [engrdrafts-dgn]321ea.dgn

DANVILLE

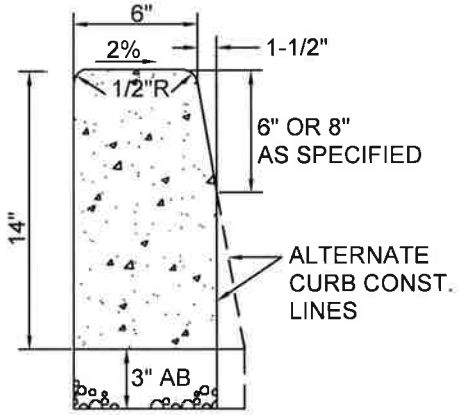
STANDARD PLAN



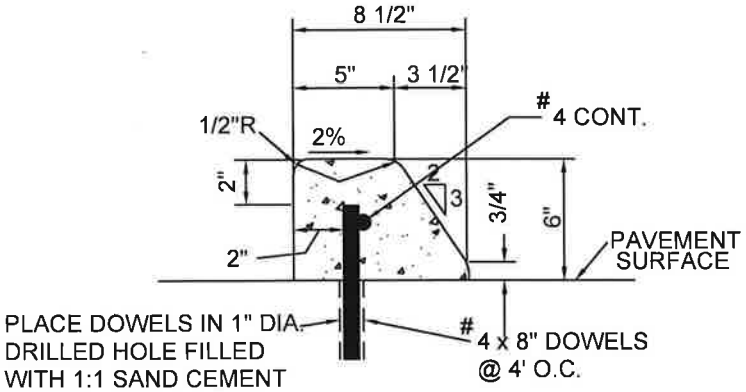
TYPE "A"



DETAIL A



TYPE "B"



TYPE "C"

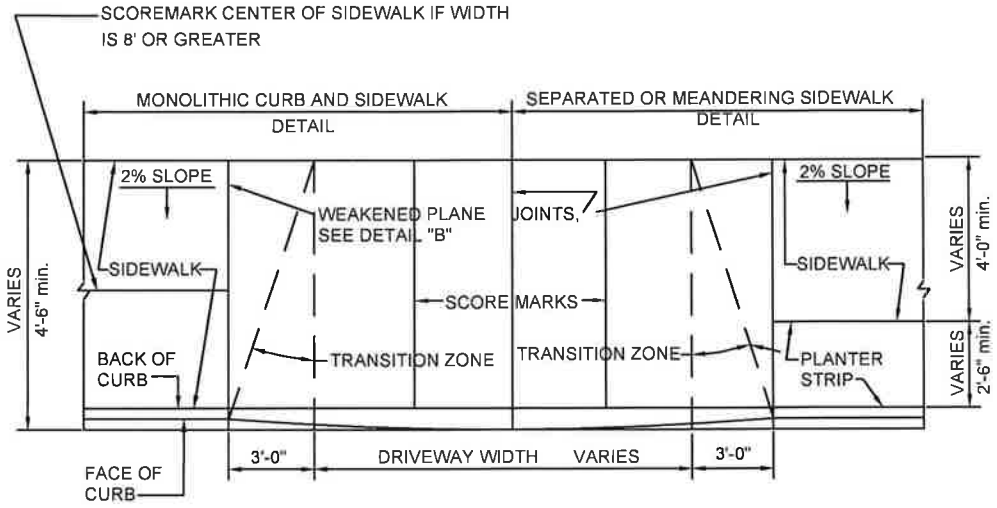
1. CONCRETE TO BE CLASS "B".
2. CURBS SHALL BE BACKFILLED (COMPACTED) PRIOR TO FINISH SUBGRADE.
3. THE RELATIVE COMPACTION OF MATERIAL BELOW ALL CURB, GUTTER AND SIDEWALK SHALL NOT BE LESS THAN 90%.

No.	Rev.	By

Scale NOT TO SCALE	Drawn By _____ Checked By_____	
TYPICAL CONCRETE CURBS	Approved By _____ _____ CITY ENGINEER RCE 31870 DATE	105 Sheet 1 of 1

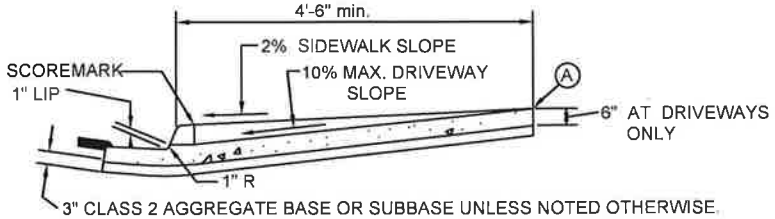
DANVILLE

STANDARD PLAN



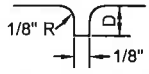
TYPICAL DRIVEWAY

(GUTTER NOT SHOWN)



POINT (A) TO BE ON A 2% SLOPE FROM TOP OF CURB UNLESS OTHERWISE APPROVED

SECTION



D=1" FOR WEAKENED PLANE JOINTS
D=1/4" FOR SCORE MARKS
JOINTS SHALL BE FORMED BY USE OF PLASTIC INSERTS

SCORE MARKS AND WEAKENED PLANE JOINTS

DETAIL "B"

NOTE

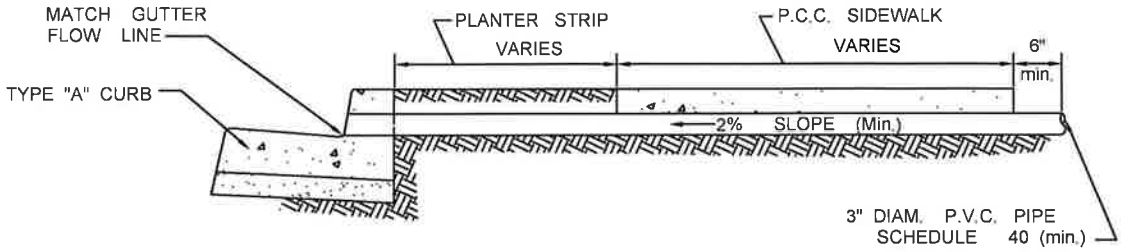
1. ALL CONCRETE TO BE CLASS B.

No.	Rev.	By

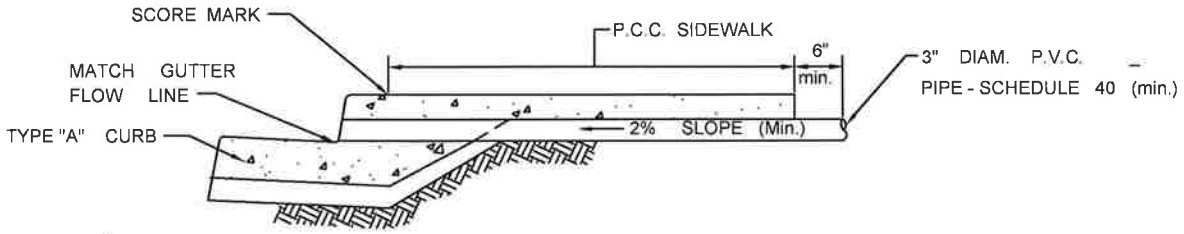
Scale NOT TO SCALE	Drawn By _____ Checked By _____	
TYPICAL DRIVEWAY	Approved By _____ _____ CITY ENGINEER RCE 31870 DATE	107 Sheet 1 of 1

DANVILLE

STANDARD PLAN



SIDEWALK DRAIN FOR SEPARATED SIDEWALK



SIDEWALK DRAIN FOR MONOLITHIC CURB AND SIDEWALK

NOTES

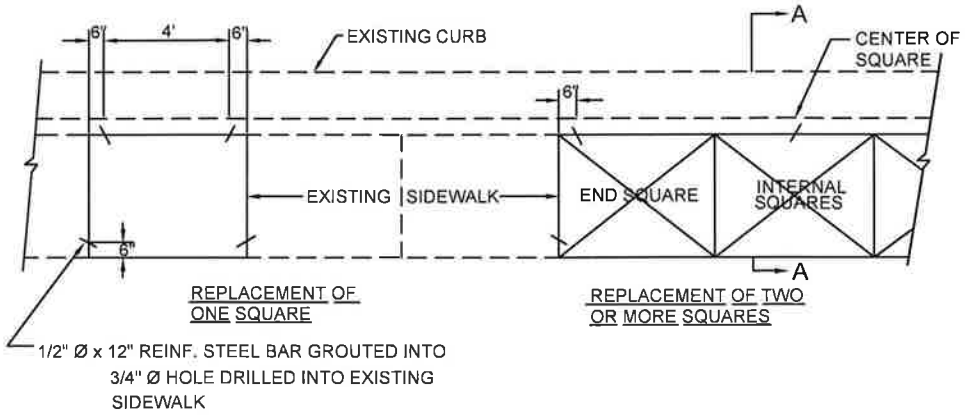
1. SIDEWALK DRAIN SHALL BE INSTALLED AT WEAKENED PLANE JOINTS.
2. SIDEWALK DRAIN SHALL BE INSTALLED ON THE LOW SIDE OF THE DRIVEWAY OR LOT WHERE APPLICABLE.

No.	Rev.	By

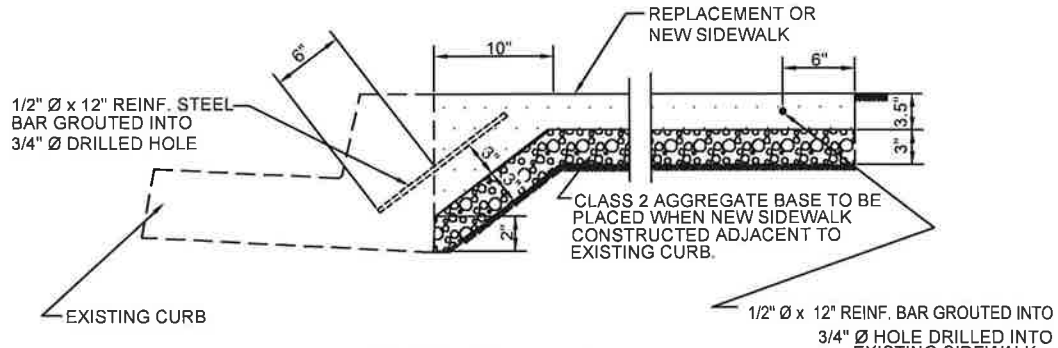
Scale NOT TO SCALE	Drawn By _____ Checked By _____	
SIDEWALK DRAINS	Approved By _____ _____ CITY ENGINEER RCE 31870 DATE	109 Sheet 1 of 1

DANVILLE

STANDARD PLAN



TYPICAL DOWEL INSTALLATION



SECTION A-A

NOTE:

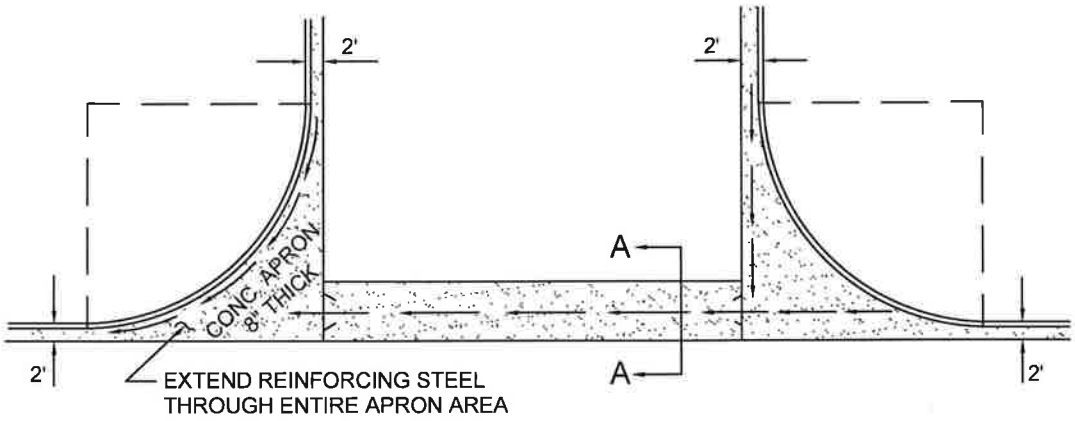
1. DOWELS TO BE PLACED AT A 30° ANGLE TO THE PERPENDICULAR.

No.	Rev.	By

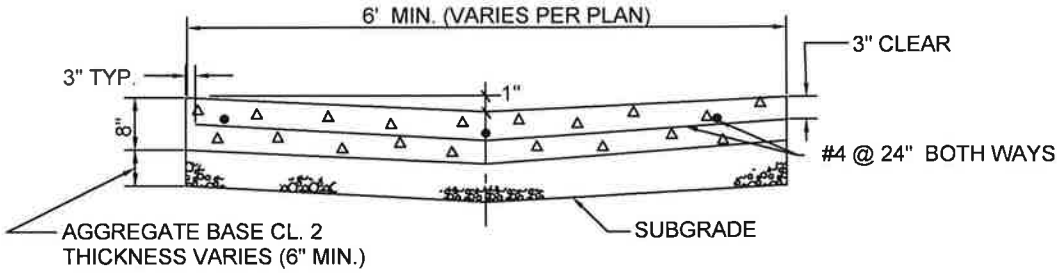
Scale NOT TO SCALE	Drawn By _____ Checked By _____	
SIDEWALK DOWELING DETAILS	Approved By _____ _____ CITY ENGINEER RCE 31870 DATE	110 Sheet 1 of 1

DANVILLE

STANDARD PLAN



PLAN



SECTION A - A

NOTE

1. VALLEY GUTTERS TO BE USED ONLY WHERE SPECIFICALLY APPROVED.

No.	Rev.	By

Scale NOT TO SCALE	Drawn By _____ Checked By _____	
VALLEY GUTTER	Approved By _____ _____ CITY ENGINEER RCE 31870 DATE	112 Sheet 1 of 1

DANVILLE

STANDARD PLAN

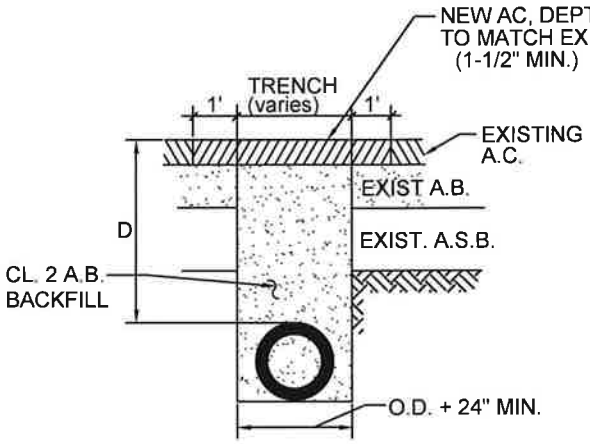


FIGURE 1

D= 18" or GREATER

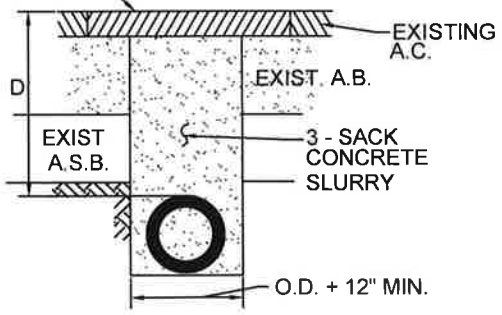


FIGURE 2

D=LESS THAN 18"

NOTES

1. ASPHALT OR CONCRETE STREETS SHALL BE OVERCUT ONE FOOT GREATER ON EACH SIDE THAN THE TRENCH WIDTH. (FIGURE1)
2. REMOVE TO PROPER DEPTH, INSTALL UTILITY AND BACKFILL.
3. CONTRACTOR MAY BE REQUIRED TO PLACE SAND BEDDING MATERIAL ON THE TRENCH FLOOR DEPENDING ON SOIL CONDITION AND TYPE OF PIPE USED.
4. COMPACTION-THE RELATIVE COMPACTION OF ALL TRENCH BACKFILL AS FOLLOWS: AB/ASB = 95% NATIVE = 90%.
5. NO JETTING IS ALLOWED UNDER ANY PAVED ROADWAY OR WITHIN A DISTANCE OF FOUR FEET FROM THE EDGE OF EXISTING PAVEMENT. BACKFILL SHALL BE COMPACTED BY IMPACT, VIBRATION OR ANY COMBINATION OF THESE. JETTING WILL BE ALLOWED ONLY WHEN MORE THAN FOUR FEET FROM THE PAVEMENT AND WHEN THE BACKFILL AND TRENCH ARE SUITABLE FOR JETTING AND SHALL BE SUPPLEMENTED WITH MECHANICAL COMPACTION IN FOUR FEET MAXIMUM LAYERS.

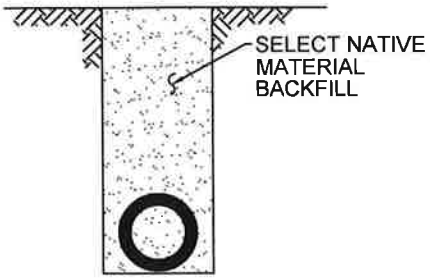


FIGURE 3

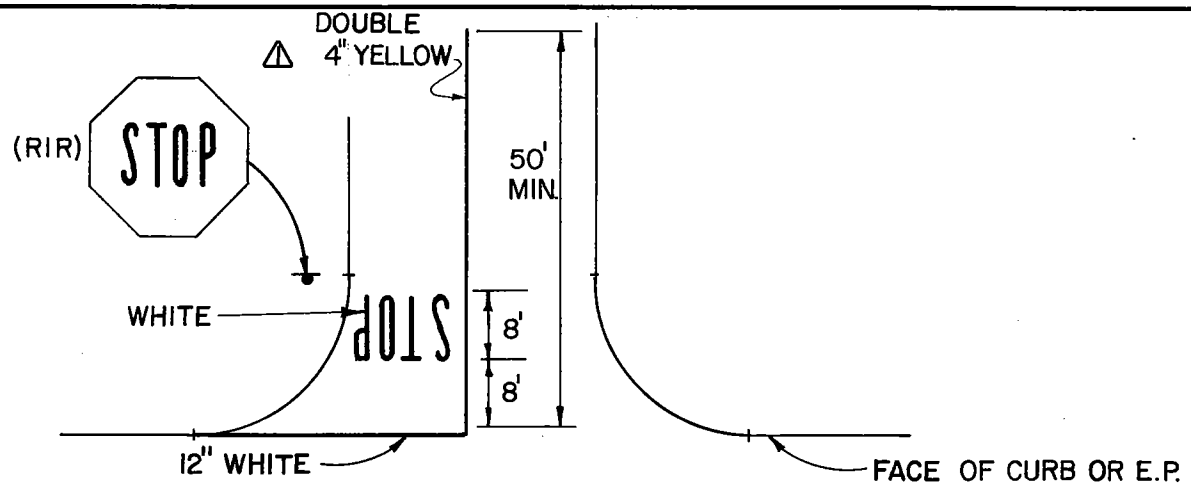
NON PAVEMENT AREAS

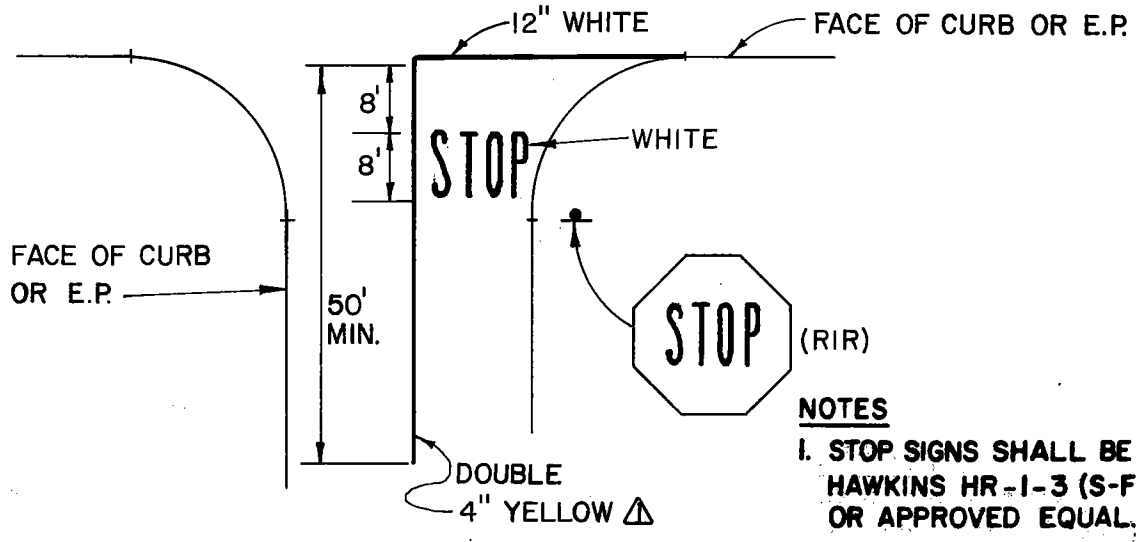
No.	Rev.	By

Scale NOT TO SCALE	Drawn By _____ Checked By _____	
TRENCH BACKFILL	Approved By _____ _____ CITY ENGINEER RCE 31870 DATE	114 Sheet 1 of 1

DANVILLE

STANDARD PLAN





NOTES

1. STOP SIGNS SHALL BE HAWKINS & HAWKINS HR-1-3 (S-F) 30" x 30" OR APPROVED EQUAL.
2. STREET-SIDE EDGE OF SIGN SHALL BE NOT LESS THAN 24" FROM FACE OF CURB.
3. ⚠ ALL PAVEMENT MARKINGS TO BE REFLECTIVE PAINT OR THERMO-PLASTIC AS SPECIFIED.
4. FOR POLE TYPE & INSTALLATION DETAIL, SEE CC 3051.

No.	Rev.	By
1	1-90	KMD

Scale NOT TO SCALE

Drawn By B.C. Checked By MZ

STOP SIGN LOCATION

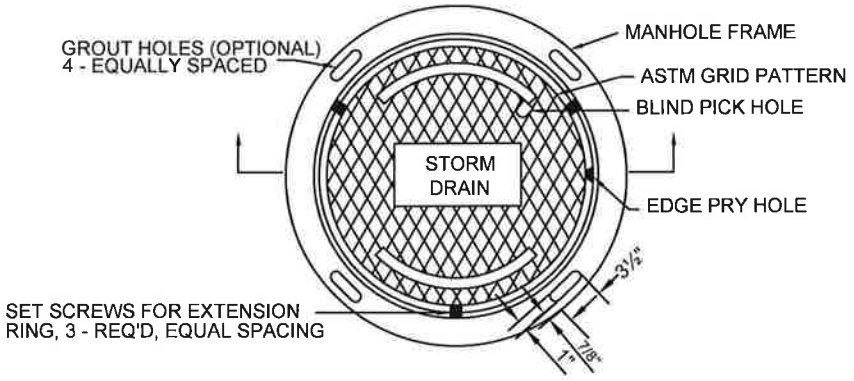
Approved By _____
CITY ENGINEER RCE 31870

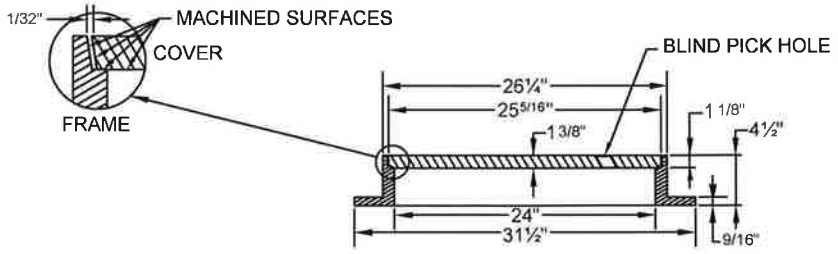
6/09/87
DATE

117
Sht. 1 of 1

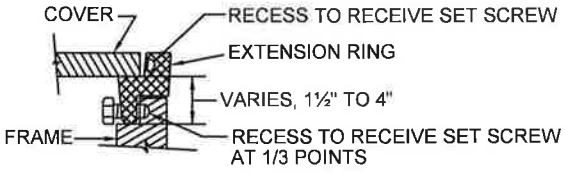
DANVILLE

STANDARD PLAN





TYPICAL FRAME AND COVER DETAIL



TYPICAL CAST IRON EXTENSION RING

NOTES

1. MANHOLE FRAME AND COVER SHALL BE PHOENIX IRON WORKS (OAKLAND) MODEL P-1090 OR PINKERTON FOUNDRY (LODI) MODEL A-640 OR AN APPROVED EQUAL.

No.	Rev.	By

Scale NOT TO SCALE	Drawn By _____ Checked By _____	
MANHOLE FRAME AND COVER	Approved By _____ _____ CITY ENGINEER RCE 31870 DATE	207 Sheet 1 of 1

SPEED LUMP DETAIL 1

STANDARDS FOR SPEED LUMPS
IN
TOWN OF DANVILLE

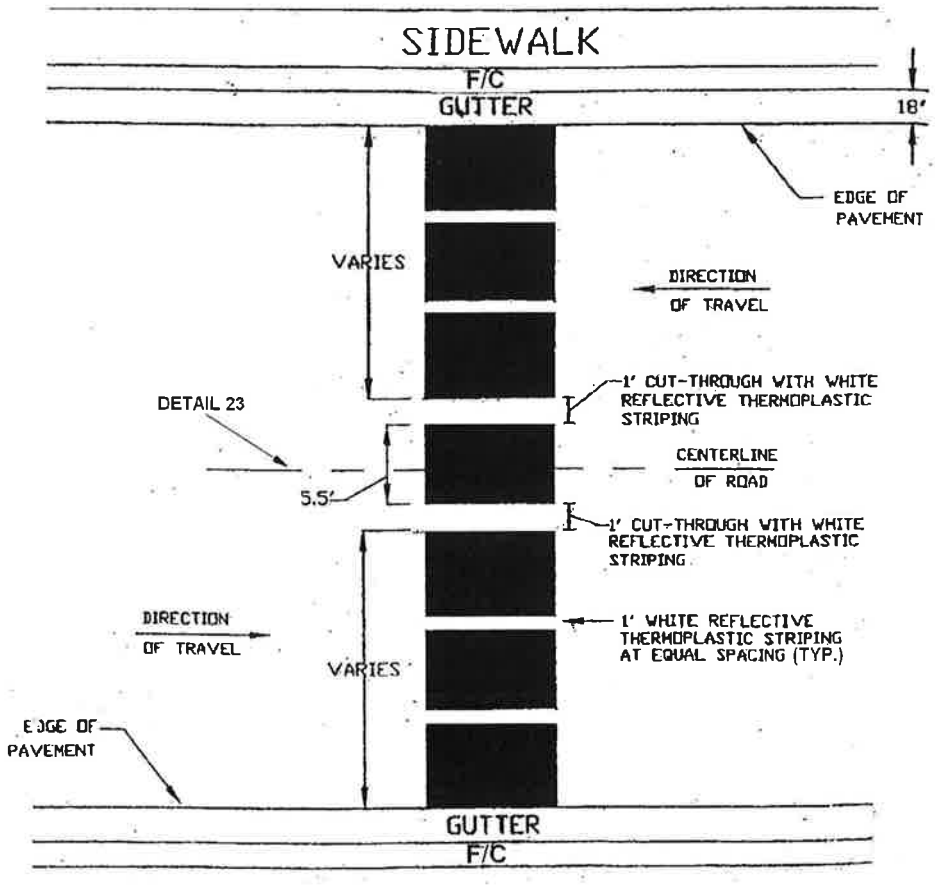
GENERAL NOTES:

The overall dimensions for a speed "lump" in the Town of Danville is 12 feet long by 3.5 inches high (maximum) by a variable width to accommodate the pavement width of the two-lane street. ~~The 3.5 inch high lumps are the most drastic, and lesser heights may be employed dependent upon the physical characteristics of the street in question, and the desired speed reduction.~~

Speed "lumps" are similar to speed "humps" except they are divided into three lumps with one foot of space between each lump. The space between the lumps is specifically designed to accommodate the axle width of emergency response vehicles. All lumps, regardless of street width, shall have a center lump with a width of 5.5 feet. The two outside lump widths shall be dependent on the width of the street.

As with speed humps, the speed lump must be distinguished from the more common "bump" often seen on private roads, parking lots, and driveways.

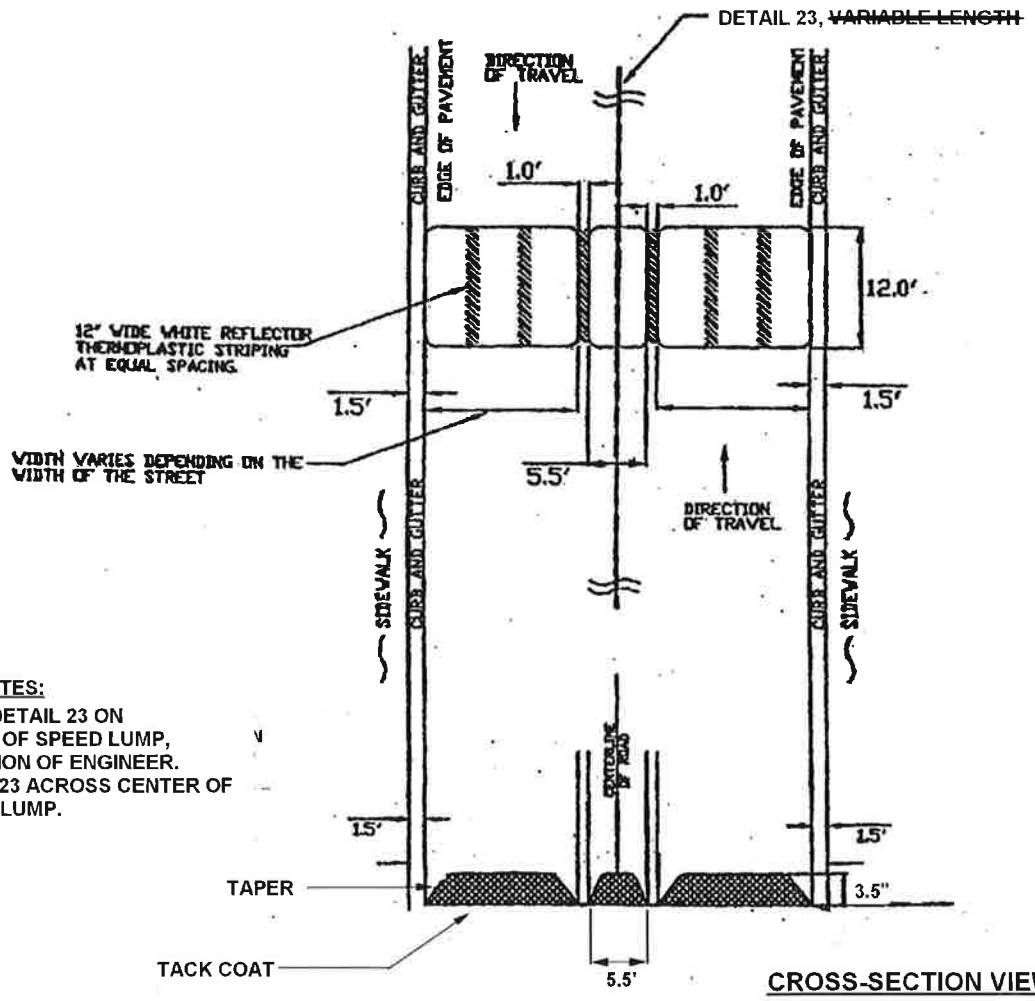
PLAN VIEW 1



SPEED LUMP DETAIL 2

SPEED LUMP DIAGRAM

PLAN VIEW 2



CROSS-SECTION VIEW

STRIPING NOTES:

1. 25' ~~OR 50'~~ DETAIL 23 ON EACH SIDE OF SPEED LUMP, AT DIRECTION OF ENGINEER.
2. 12' DETAIL 23 ACROSS CENTER OF OF SPEED LUMP.

PROFILE - TYPICAL CONSTRUCTION DETAIL

1. SPEED HUMP SHALL BE CONSTRUCTED USING TWO LIFTS OF AC, 3/8" MIX.
2. A TEMPLATE SHALL BE USED TO MAINTAIN A SMOOTH, CONSISTENT PROFILE.
3. A DEPTH GUAGE SHALL BE USED TO MEASURE THE REQUIRED INCREMENTAL AC DEPTHS, AS SHOWN.

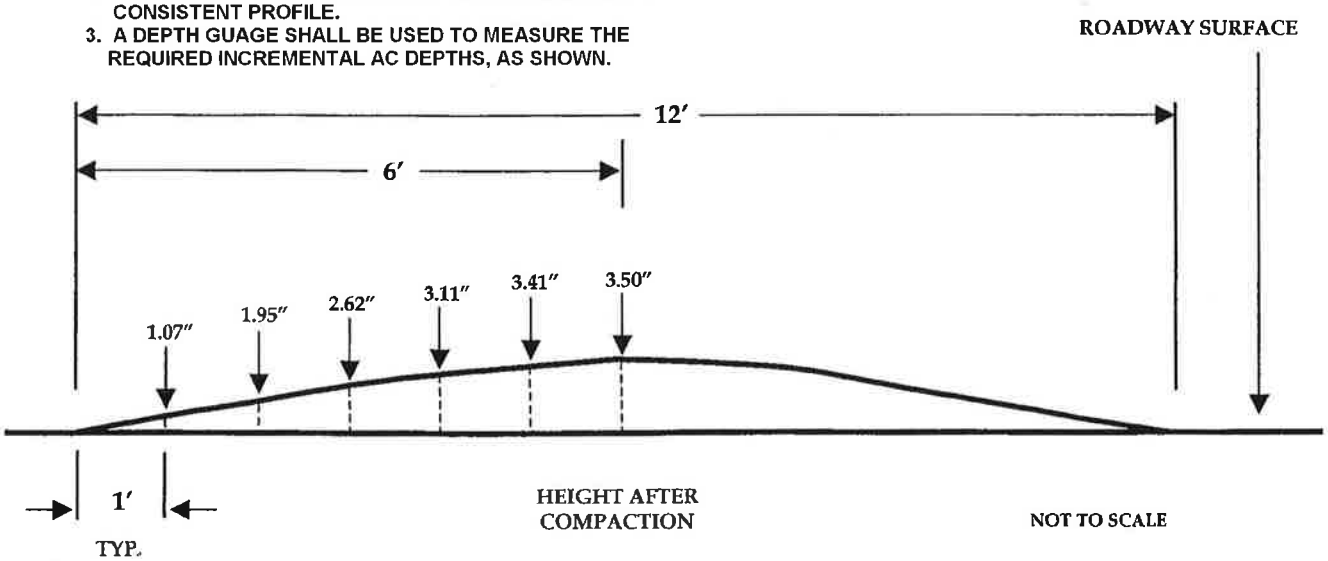
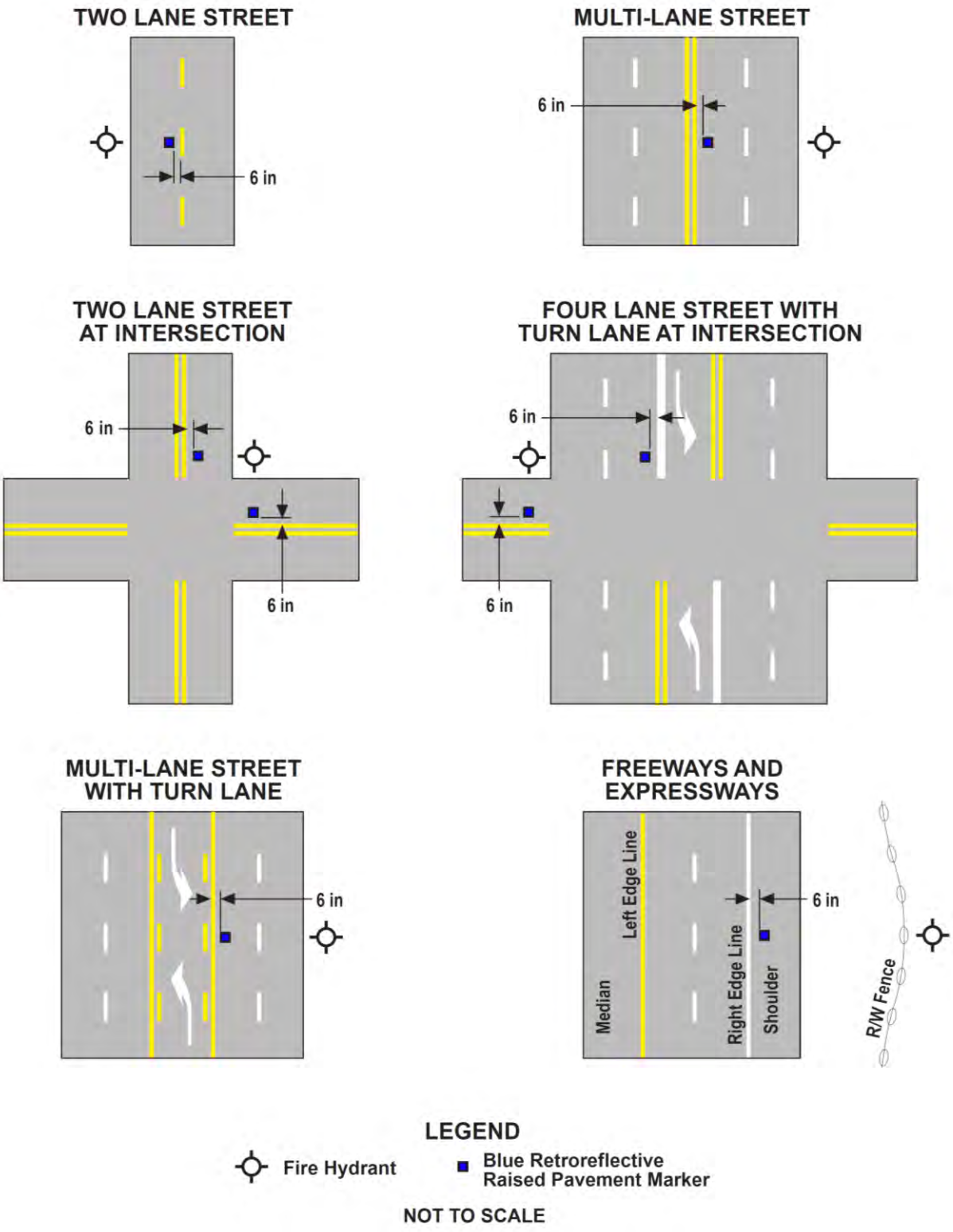


Figure 3B-102 (CA). Examples of Fire Hydrant Location Pavement Markers



APPENDIX C
STORMWATER POLLUTION PREVENTION

General Construction and Site Supervision

Earth Moving Activities

Stormwater Pollution Prevention for Sawcut Slurry

Roadwork and Paving

Fresh Concrete and Mortar Application

Painting and Application of Solvents and Adhesives

Pollution Prevention – It’s Part of the Plan

This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision

Landscaping, Gardening and Pool Maintenance

Painting and Application of Solvents and Adhesives

Fresh Concrete and Mortar Application

Roadwork and Paving

Earth-Moving Activities

Heavy Equipment Operation

For more information about the county-wide storm drain protection program and additional brochures, call:

Contra Costa
Clean Water Program
255 Glacier Drive
Martinez, CA 94553
1-800-NO-DUMPING

Spill Response Agencies

1. Dial 911
2. Governor's Office of Emergency Services Warning Center
   (800) 852-7550 (24 hours)

Local Pollution Control Agencies

Contra Costa Clean Water Program	(925) 313-2360
City of Antioch	(925) 779-7097
City of Brentwood	(925) 516-5169
City of Clayton	(925) 673-7308
City of Concord	(925) 671-3394
Contra Costa County	(925) 313-2259
Town of Danville	(925) 314-3342
City of El Cerrito	(510) 215-4367
City of Hercules	(510) 799-8242
City of Lafayette	(925) 299-3240
City of Martinez	(925) 372-3563
Town of Moraga	(925) 376-2590
City of Oakley	(925) 625-7003
City of Orinda	(925) 253-4231
City of Pinole	(510) 741-2065
City of Pittsburg	(925) 252-4110
City of Pleasant Hill	(925) 671-5261
City of Richmond	(510) 231-3011
City of San Pablo	(510) 215-3066
City of San Ramon	(925) 973-2800
City of Walnut Creek	(925) 943-5899

General Construction and Site Supervision

Best Management Practices for the Construction Industry

Contra Costa Clean Water Program

Storm Drain Pollution Prevention: It's Up to Us

In Contra Costa County, storm drains flow directly to local creeks, San Francisco Bay, and the delta with no treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain.

Eighteen cities, the County, and the County Flood Control District have joined together to educate local residents and businesses to fight storm drain pollution. We hope you will join us, by using the practices described in this pamphlet.

Advance Planning to Prevent Pollution

- Schedule excavation and grading activities for dry weather periods.
- Control the amount of runoff crossing your site (especially during excavation!) by using berms or drainage ditches to divert water flow around the site.
- Train your employees and sub-contractors. Make these brochures available to everyone who works on the site. Inform subcontractors about the new stormwater requirements and their own responsibilities. Refer to *Blueprint for a Clean Bay*, a construction best management practices guide available from the Contra Costa Clean Water Program.

Good Housekeeping Practices

- Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, and bermed if necessary. Make major repairs off-site.
- Keep materials out of the rain – prevent runoff contamination at the source. Cover up leaks, drips and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces.
- Never hose down "dirty" pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down and protect storm drain inlets.
- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster.
- Never clean out a dumpster by hosing it down on the construction site.
- Make sure portable toilets are in good working order. Check frequently for leaks.

Storm Drain Pollution from Construction Activities

Construction sites are common sources of stormwater pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay. As a contractor, site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

Materials/Waste/Handling

- Practice source reduction – minimize waste when you order materials. Order only the amount you need to finish the job.
- Use recyclable materials whenever possible.
- Dispose of all wastes properly. Many construction materials and wastes, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. (See the reference list of recyclers at the back of *Blueprint for a Clean Bay).* Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or streambed.

This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision

Landscaping, Gardening and Pool Maintenance

Painting and Application of Solvents and Adhesives

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City of Oakley	(925) 625-7003
City of Orinda	(925) 253-4231
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City of Pleasant Hill	(925) 671-5261
City of Richmond	(510) 231-3011
City of San Pablo	(510) 215-3066
City of San Ramon	(925) 973-2800
City of Walnut Creek	(925) 943-5899

EARTH MOVING ACTIVITIES

Best Management Practices for the Construction Industry

**Contra Costa
Clean Water Program**

Storm Drain Pollution Prevention: It's Up to Us

In Contra Costa County, storm drains flow directly to local creeks, San Francisco Bay, and the delta without treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain. Eighteen cities, the County, and the County Flood Control District have joined together to educate local residents and businesses to fight storm drain pollution. We hope you will join us by using the practices described in this pamphlet.

Who should use this brochure?

Bulldozer, Backhoe, and Grading Machine Operators
Dump Truck Drivers
Site Supervisors
General Contractors
Home Builders
Developers

Storm Drain Pollution from Earth-Moving Activities

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains if handled improperly. Soil erodes due to a combination of decreased soil stability, increased runoff, and increased flow velocity. Some of the most effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams and roughened ground surfaces.

What Can You Do?

During Construction

- ❑ Remove existing vegetation only when absolutely necessary.
- ❑ Consider planting temporary vegetation or implement other appropriate erosion controls on slopes where construction is not immediately planned.
- ❑ Protect downslope drainage courses, streams, and storm drains with silt fences or other controls to intercept and low the flow of sediment laden discharges.
- ❑ Use check dams or ditches to divert runoff around excavations.
- ❑ Cover stockpiles and excavated soil with secured tarps or plastic sheeting.
- ❑ Stockpile erosion controls during the wet season.

General Business Practices

- ❑ Schedule excavation and grading work for dry weather.
- ❑ Perform major equipment repairs away from the job site.
- ❑ When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- ❑ Do not use diesel oil to lubricate equipment or parts.

Detecting contaminated soil or groundwater

It is essential that all contractors and subcontractors involved in excavation and grading know what to look for in detecting contaminated soil or groundwater. See Blueprint for a Clean Bay, a construction best management practices guide available from Contra Costa Clean Water Program, for details.
Watch for any of these conditions:

- ✓ Unusual soil conditions, discoloration, or odor
- ✓ Abandoned underground tanks
- ✓ Abandoned wells
- ✓ Buried barrels, debris, or trash

If contamination is suspected, call the appropriate local agency for further guidance (see reverse).

This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

- **General Construction and Site Supervision**
- **Landscaping, Gardening and Pool Maintenance**
- **Fresh Concrete and Mortar Application**
- **Roadwork and Paving**
- **Earth Moving Activities**
- **Heavy Equipment Operation**
- **Painting and Application of Solvents and Adhesives**
- **Dewatering Activities**
- **Home Repair and Remodeling**

B A S M A A
Bay Area Stormwater Management Agencies Association

BASMAA gratefully acknowledges the City of Palo Alto and Alameda Countywide Clean Water Program for the original concept and text of this brochure.

For more information from countywide storm drain protection programs, and additional brochures, contact the storm-water program in your area (listed below) or by calling 1-888-BAYWISE.

Local Stormwater Quality Management Programs

Alameda Countywide Clean Water Program
951 Turner Court, Hayward, CA 94545
510-670-5543

Contra Costa Clean Water Program
255 Glacier Drive, Martinez, CA 94553-4897
925-313-2360

Fairfield-Suisun Urban Runoff Management Program
1010 Chadbourne Road, Fairfield, CA 94585
707-429-8930

Marin County Stormwater Pollution Prevention Program
P. O. Box 4186
San Rafael, CA 94913
415-499-6528

San Mateo Countywide Stormwater Pollution Prevention Program
555 County Center
Redwood City, CA 94063
650-599-1406

Santa Clara Valley Urban Runoff Pollution Prevention Program
699 Town & Country Village
Sunnyvale, CA 94086
800-794-2482

Vallejo Sanitation and Flood Control District
450 Ryder Street, Vallejo, CA 94590
707-644-8949

Bay Area Stormwater Management Agencies Association (BASMAA)
1515 Clay Street, Suite 1400
Oakland CA 94612
510-622-2326 or 1-888-BAYWISE

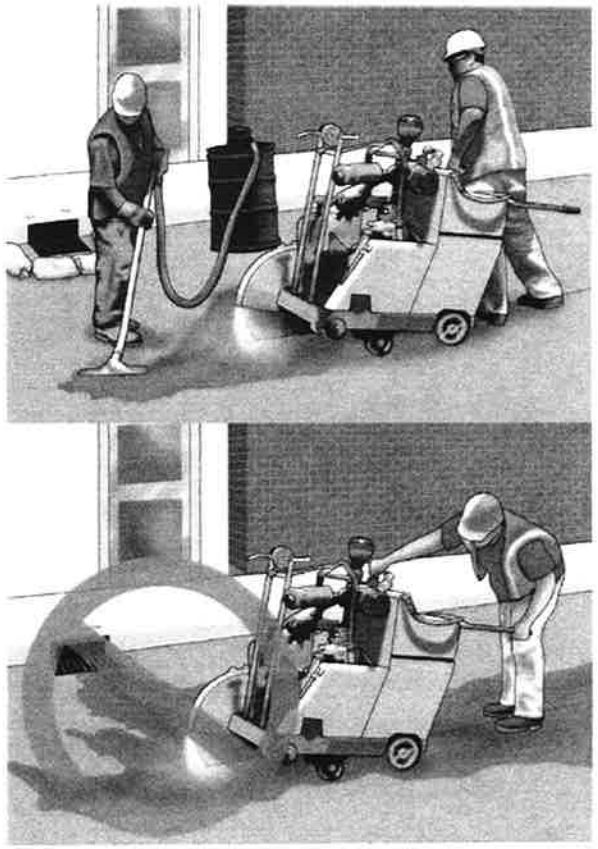
State Agencies

California Regional Water Quality Control Board
San Francisco Bay Region (510) 622-2300

Department of Toxic Substances *(for questions about hazardous waste, call the Public and Business Liaison Hotline, Regional Duty Officers at (800) 728-6942 or (800) 72TOXIC)*

Storm Water Pollution Prevention for

Sawcut Slurry



Best Management Practices for the Construction Industry

Why is Sawcut Slurry a Problem?

The slurry created when pavement is cut can enter storm drains and flow directly to local waterways. This slurry can be toxic to wildlife in a local creek, the creek, bay or ocean. It can also clog drains and cause flooding.

CAUTION: *If sawcut slurry from your job enters a storm drain, you have broken the law!*

Allowing slurry or other pollutants to enter a storm drain, or directly to a waterway, is a violation of local, state, and federal regulations. Violators are subject to fines and cleanup costs.

By following this three-step procedure when saw cutting you can protect the storm drain system, help environment, and avoid fines.

Minimize and Contain Slurry

Before you begin saw cutting, block the path to the nearest storm drain by placing sand bags (or equivalent) in the gutter or around the storm drain inlet. If you can lift the grate over the drain, place filter fabric underneath.

Even if the nearest drain is several blocks away, place a barrier in the gutter as near your site as practical to contain the slurry.

Use as little water as possible, to reduce the amount of slurry you must collect.

Barricade area where slurry is drying to prevent tracking by cars and foot traffic.

Collect Slurry

Clean up slurry with a wet vac as you work. Where wet slurry cannot be vacuumed, allow it to dry and then sweep up with a stiff broom at the end of the day.

Dispose of Slurry

Empty wet slurry into a well-contained area (where it will not run off into a gutter, street, or creek) and allow it to dry. A small amount of slurry may be mixed with dirt and left on the construction site. Where this is not possible, sweep up the dry slurry and dispose in the trash.

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Landscaping, Gardening and Pool Maintenance

Painting and Application of Solvents and Adhesives

Fresh Concrete and Mortar Application

Roadwork and Paving

Earth-Moving Activities

Heavy Equipment Operation

For more information about the county-wide storm drain protection program and additional brochures, call:

Contra Costa
Clean Water Program
255 Glacier Drive
Martinez, CA 94553
1-800-NO-DUMPING

Spill Response Agencies

1. Dial 911
2. Governor's Office of Emergency Services Warning Center
   (800) 852-7550 (24 hours)

Local Pollution Control Agencies

Contra Costa Clean Water Program	(925) 313-2360
City of Antioch	(925) 779-7097
City of Brentwood	(925) 516-5169
City of Clayton	(925) 673-7308
City of Concord	(925) 671-3394
Contra Costa County	(925) 313-2259
Town of Danville	(925) 314-3342
City of El Cerrito	(510) 215-4367
City of Hercules	(510) 799-8242
City of Lafayette	(925) 299-3240
City of Martinez	(925) 372-3563
Town of Moraga	(925) 376-2590
City of Oakley	(925) 625-7003
City of Orinda	(925) 253-4231
City of Pinole	(510) 741-2065
City of Pittsburg	(925) 252-4110
City of Pleasant Hill	(925) 671-5261
City of Richmond	(510) 231-3011
City of San Pablo	(510) 215-3066
City of San Ramon	(925) 973-2800
City of Walnut Creek	(925) 943-5899

Roadwork and Paving

Best Management Practices for the Construction Industry

**Contra Costa
Clean Water Program**

Storm Drain Pollution Prevention: It's Up to Us

In Contra Costa County, storm drains flow untreated directly to local creeks, San Francisco Bay, and the Delta. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. This pollution includes: spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze and paint products that people pour or spill into a street or storm drain. Chemicals are the number one water pollutant.

Eighteen cities, the County, and the County Flood Control District have joined together to educate local residents and businesses to fight storm drain pollution. We hope you will join us by using the practices described in this pamphlet.

Who should use this Brochure?

Road crews
Driveway/sidewalk/parking lot construction crews
Seal coat contractors
Operators of: grading equipment, paving machines, dump trucks, concrete mixers
Construction inspectors
General Contractors
Developers

Storm Drain Pollution from Roadwork

Road paving, surfacing, and pavement removal happen right in the street, where there are numerous opportunities for storm drain contamination by asphalt, saw-cut slurry, or excavated material. Extra planning is required to store and dispose of materials properly and guard against pollution of the storm drains and creeks.

What Can You Do? General Business Practices

- Develop and implement erosion/sediment control plans for embankment.
- Schedule excavation and grading work for dry weather.
- Check for and repair leaking equipment.
- Perform major equipment repairs in designated areas at your yard, away from the construction site.
- When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- Do not use diesel oil to lubricate equipment or parts.
- Recycle used oil, concrete, broken asphalt, etc., whenever possible.

During Construction

- Avoid paving and seal coating in wet weather, or when rain is forecast before fresh pavement will have time to cure.
- Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, etc.
- Use check dams, ditches or berms to divert runoff around excavations.
- Never wash excess material from exposed aggregate concrete or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- Cover stockpiles (asphalt, sand, etc.) and other materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- Catch drips from paver with drip pans or absorbent material (cloth, rags, etc.) placed under machine when not in use.
- Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags), or dig up and remove contaminated soil.
- Collect and recycle or appropriately dispose of excess abrasive gravel or sand.
- Avoid over-application by water trucks for dust control.

Asphalt/Concrete Removal

- Avoid creating excess dust when breaking asphalt or concrete.
- After breaking old pavement, be sure to remove all chunks and pieces.
- Make sure broken pavement does not come in contact with rainfall or runoff.
- Shovel or vacuum saw-cut slurry and remove from site. Cover or barricade storm drain during saw-cutting if necessary.
- Never hose down streets to clean up tracked dirt.

This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

General Construction and Site Supervision

Landscaping, Gardening and Pool Maintenance

Painting and Application of Solvents and Adhesives

Fresh Concrete and Mortar Application

Roadwork and Paving

Earth-Moving Activities

Heavy Equipment Operation

For more information about the county-wide storm drain protection program and additional brochures, call:

Contra Costa
Clean Water Program
255 Glacier Drive
Martinez, CA 94553
1-800-NO-DUMPING

Spill Response Agencies

1. Dial 911
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   (800) 852-7550 (24 hours)

Local Pollution Control Agencies

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Fresh Concrete and Mortar Application

Best Management Practices for the Construction Industry

Contra Costa Clean Water Program

Storm Drain Pollution Prevention: It's Up to Us

In Contra Costa County, storm drains flow directly to local creeks, San Francisco Bay, and the delta with no treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain. Eighteen cities, the County, and the County Flood Control District have joined together to educate local residents and businesses to fight storm drain pollution. We hope you will join us, by using the practices described in this pamphlet.

Who should use this brochure?

Masons and Bricklayers
Sidewalk Construction Workers
Patio Construction Workers
Construction Inspectors
General Contractors
Home Builders
Developers

What Can You Do?

- Both at your yard and the construction site, always store both dry and wet materials under cover, protected from rainfall and runoff. Protect dry materials from wind.
- Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from gutters, storm drains, rainfall, and runoff.
- Washout concrete mixers only in designated wash-out area, where the water will flow into containment ponds or onto dirt. Whenever possible, recycle washout by pumping back into mixers for re-use. Never dispose of washout into the street, storm drains, drainage ditches, or streams.

Storm Drain Pollution from Masonry and Paving

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks cause serious problems – and is prohibited by law.

During Construction

- Don't mix up more fresh concrete or cement than you will use in a day.
- Set up and operate small mixers on tarps or heavy plastic drop cloths.
- When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- Protect all storm drain inlets using filter fabric or other best management practices to capture and filter runoff carrying mortar or cement before it reaches the storm drain.
- When breaking up paving, be sure to pick up all the pieces and dispose of properly.
- Recycle large chunks of broken concrete at a landfill.
- Dispose of small amount of excess dry concrete grout and mortar in the trash.
- Never bury waste material.

This brochure is one of a series of pamphlets describing storm drain protection measures for specific types of construction industry activities. Other pamphlets include:

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Painting and Application of Solvents and Adhesives

Best Management Practices for the Construction Industry

Contra Costa Clean Water Program

Storm Drain Pollution Prevention: It's Up to Us

In Contra Costa County, storm drains flow untreated directly to local creeks, San Francisco Bay, and the Delta. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. This pollution includes: spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze and paint products that people pour or spill into a street or storm drain. Chemicals are the number one water pollutant.

Eighteen cities, the County, and the County Flood Control District have joined together to educate local residents and businesses to fight storm drain pollution. We hope you will join us by using the practices described in this pamphlet.

Who should use this brochure?

Painters	Dry Wall Crews
Paperhangers	Developers
Plasterers	Graphic Artists
General Contractors	Home Builders
Floor Cover Installers	

What Can You Do?

Keep all liquid paint products and wastes away from the gutter, street and storm drains. Liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes. When they are thoroughly dry, empty paint cans, spent brushes, rags, and drop cloths may be disposed of as trash.

Paint Removal

- Chemical paint stripping residue is a hazardous waste. For information on the proper disposal of hazardous waste, call 1-800 NO DUMPING.
- Chips and dust from marine paints or paints containing lead or tributyl tin are hazardous wastes. Dry sweep and dispose of appropriately.
- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up and disposed of as trash.
- When stripping or cleaning building exteriors with high-pressure water, block storm drains. Direct wash water onto a dirt area.

Painting Cleanup

- Never clean brushes or rinse paint containers into a street, gutter storm drain or stream.
- For water-based paints, paint out brushes to the extent possible, filter and reuse thinners and solvents. Dispose of excess liquids and residue as hazardous waste.

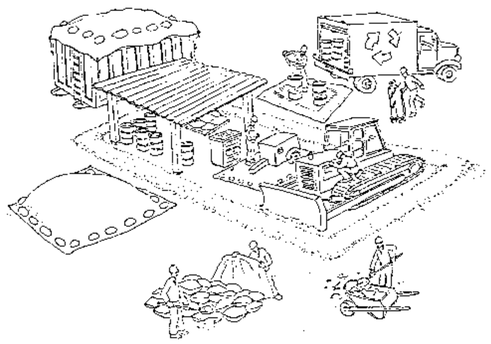
Storm Drain Pollution from paints, solvents, and adhesives

All paints, solvents, and adhesives contain chemicals that are harmful to the wildlife in our creeks and bay. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. It is especially important not to clean brushes in an area where paint residue can flow to a gutter, street or storm drain.

Recycle/reuse leftover paints whenever possible.

- Recycle excess water-based paint, or use up. Dispose of excess liquid, including sludges, as hazardous waste.
- Reuse leftover oil-based paint. Dispose of excess liquid, including sludges, as hazardous waste.

Pollution Prevention — It's Part of the Plan



Make sure your crews and subs do the job right!

Runoff from streets and other paved areas is a major source of pollution in San Francisco Bay. Construction activities can directly affect the health of 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 will ensure your compliance with local ordinance requirements.

Materials storage & spill cleanup

Non-hazardous materials management

- ✔ Sand, dirt, and similar materials must be stored at least 10 feet from catch basins, and covered with a tarp during wet weather or when rain is forecast.
- ✔ Use (but don't overuse) reclaimed water for dust control as needed.
- ✔ Sweep 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.
- ✔ Check dumpsters regularly for leaks and to make sure they don't overflow. Repair or replace leaking dumpsters promptly.

Hazardous materials management

- ✔ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, state, and federal regulations.
- ✔ Store hazardous materials and wastes in secondary containment and cover them during wet weather.
- ✔ 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 forecast 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!
- ✔ Report any hazardous materials spills immediately! Dial 911 or your local emergency response number.

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 rinsewater 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 is least likely to collect in the street. Transfer to dump trucks should take place on the site, not in the street.
- ✔ Use hay bales, silt fences, or other control measures to minimize the flow of silt off the site.

- ✔ Avoid scheduling earth moving activities during the rainy season if possible. If grading activities during wet weather are allowed in your permit, be sure to implement all control measures necessary to prevent erosion.
- ✔ 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 hay bales 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 your local fire department for help in determining what testing should be done.
- ✔ Manage disposal of contaminated soil according to Fire Department instructions.

Dewatering operations

- ✔ Reuse water for dust control, irrigation, or another on-site purpose to the greatest extent possible.
- ✔ Be sure to call your city's storm drain inspector 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 city inspector to determine what testing to do and 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, hay bales, sand bags, or fine gravel dams 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

- ✔ Do not pave during wet weather or when rain is forecast.
- ✔ Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- ✔ Place drip pans or absorbent material under paving equipment when not in use.
- ✔ Protect gutters, ditches, and drainage courses with hay bales, sand 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

- ✔ Be sure to store concrete, grout, and mortar under cover and away from drainage areas. These materials must never reach a storm drain.
- ✔ Wash out concrete equipment/trucks off-site or designate an on-site area for washing where water will flow onto dirt or into a temporary pit in a dirt area. Let the water seep into the soil and dispose of hardened concrete with trash.

- ✔ Divert water from washing exposed aggregate concrete to a dirt area where it will not run into a gutter, street, or storm drain.
- ✔ If a suitable dirt area is not available, collect the wash water 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. If you can't use a sink, direct wash water to a dirt area and spade it in.
- ✔ 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.

B A S M A A Bay Area Stormwater Management Agencies Association

Bay Area Stormwater Management Agencies Association (BASMAA)

1-888-BAYWISE

Storm drain polluters may be liable for fines of up to $10,000 per day!

APPENDIX D
RECYCLING/WASTE MANAGEMENT

Green Halo Account Creation Instructions

CLICK TO START

SELECT FOR FREE ACCESS

CLICK TO ADVANCE

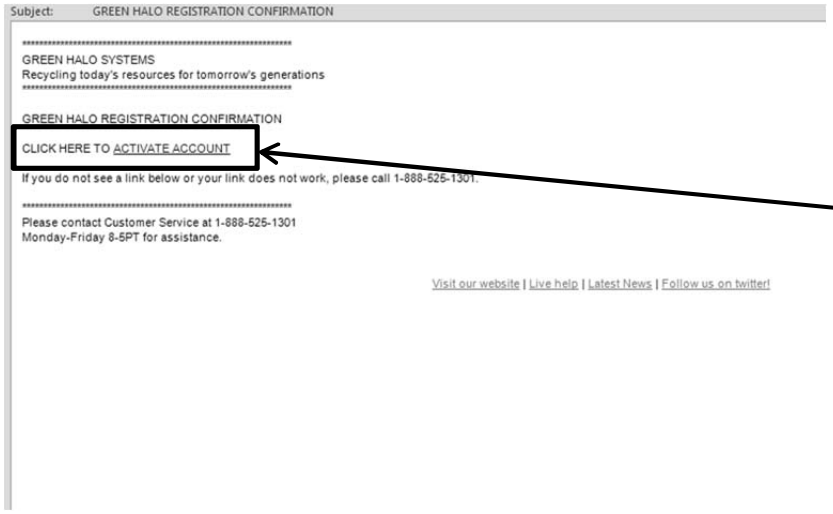
FILL-IN TO CREATE USER PROFILE

CLICK TO ADVANCE

VERIFY INFO IS CORRECT

CLICK TO ADVANCE

CHECK E-MAIL IN-BOX FOR AUTOMATED E-MAIL TO FINISH ACCOUNT ACTIVATION

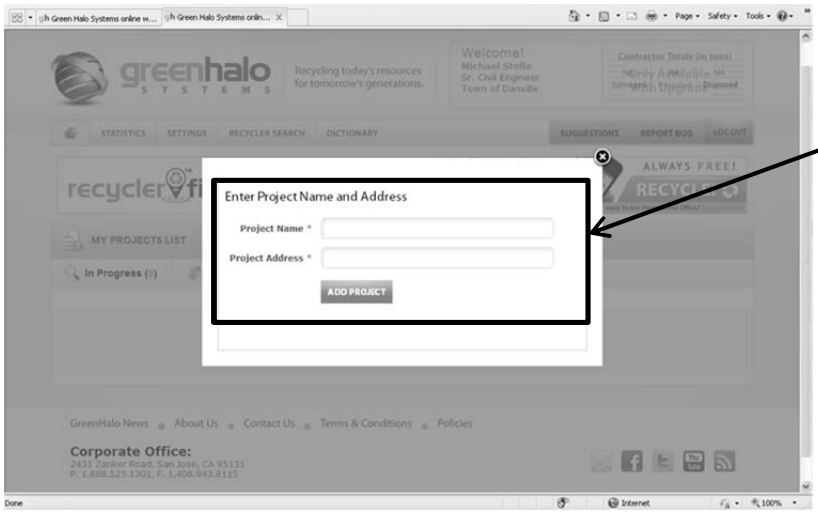


CLICK TO ACTIVATE


User Login
Email
Your Email
Password
LOGIN
Remember my log in
forgot password
TYPE-IN E-MAIL AND PASSWORD TO LOG-IN


Congratulations on activating your account!
Start Using Green Halo Now!
CLICK TO START

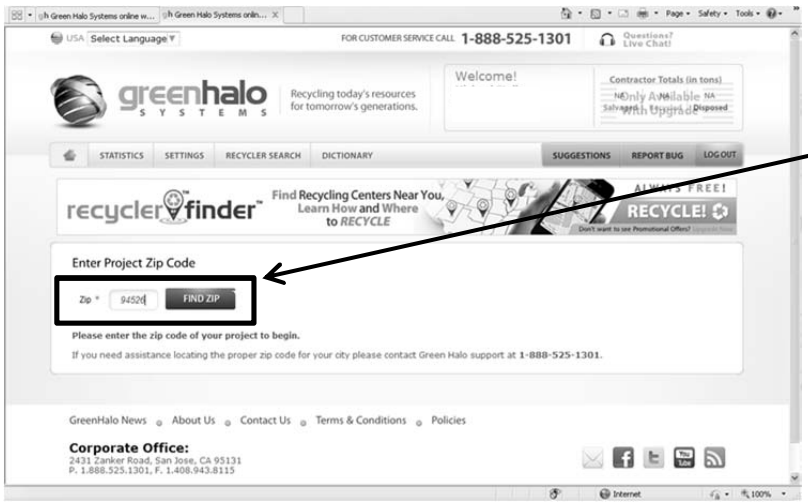

MY PROJECTS LIST
ADD ANOTHER PROJECT
No Projects.
CLICK TO ADD PROJECT



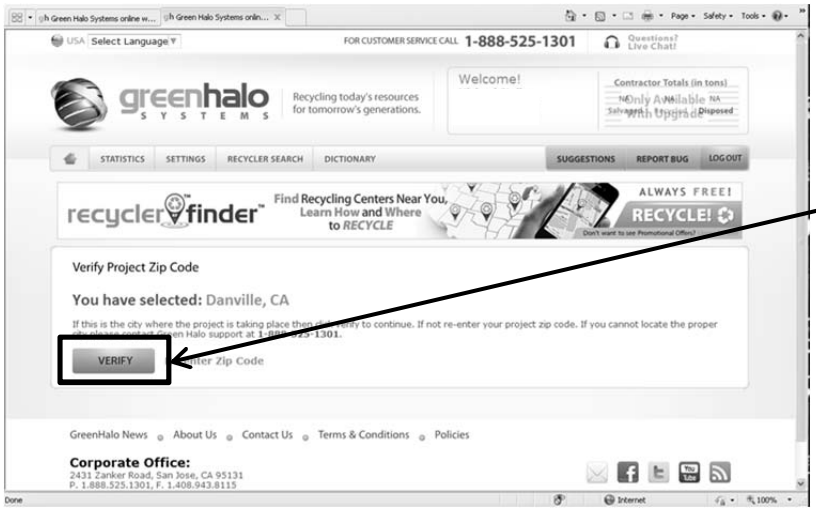
TYPE-IN PROJECT NAME AND ADDRESS. USE "CITY-WIDE" IF PROJECT HAS MULTIPLE LOCATIONS.

CLICK "OK"

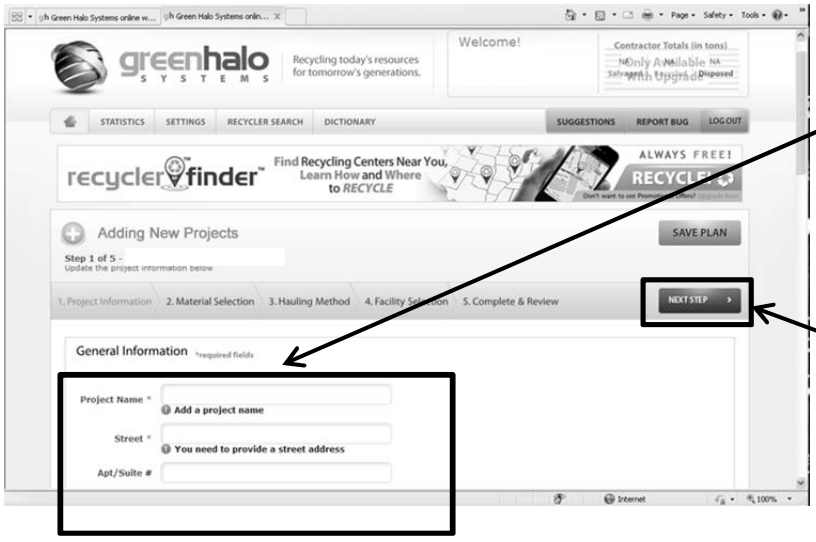
CLICK "START HERE"



CLICK "94526" FOR DANVILLE, CALIFORNIA



CLICK "VERIFY"



BEGIN TYPING IN PROJECT-SPECIFIC INFORMATION. THIS IS THE FIRST OF A FIVE STEP PROCESS.

CLICK TO ADVANCE TO THE NEXT STEP

APPENDIX E
NEW PUBLIC WORKS CONTRACTOR REGISTRATION LAW (SB 854) FACT SHEET

NEW PUBLIC WORKS CONTRACTOR REGISTRATION LAW (SB 854) FACT SHEET

FACT SHEET

SB 854, a budget trailer bill that was signed into law on June 20, 2014, and became effective immediately, made several significant changes to laws pertaining to the administration and enforcement of prevailing wage requirements by the 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. The fees collected through this new program will be used to fund all of DIR's public works activities, including compliance monitoring and enforcement, the determination of prevailing wage rates, public works coverage determinations, and hearing enforcement appeals.

Essentials of public works contractor registration program:

- Contractors will be subject to a registration and annual renewal fee that has been set initially at $300. The fee is non-refundable and applies to all contractors and subcontractors who intend to bid or perform work on public works projects (as defined under the Labor Code).
- Contractors will apply and pay the fee online and must meet minimum qualifications to be registered as eligible to bid and work on public works projects:
    - Must have workers' compensation coverage for any employees and only use subcontractors who are registered public works contractors.
    - Must have Contractors State License Board license if applicable to trade.
    - Must have no delinquent unpaid wage or penalty assessments owed to any employee or enforcement agency.
    - Must not be under federal or state debarment.
    - Must not be in prior violation of this registration requirement once it becomes effective. However, for the first violation in a 12 month period, a contractor may still qualify for registration by paying an additional penalty.

- The registration fee is not related to any project. It is more like a license that enables the registrant to bid on and perform public works.
- DIR will post a list of registered contractors and subcontractors on its website so that awarding bodies and contractors will be able to comply with requirements to only use registered contractors and subcontractors.
- Various protections are built in so that
    - A contractor won't be in violation for working on a private job that is later determined to be public work;
    - The inadvertent listing of an unregistered subcontractor on a bid won't necessarily invalidate that bid;
    - A contract with an unregistered contractor or subcontractor is subject to cancellation but is not void as to past work;
    - An unregistered contractor or subcontractor can be replaced with one who is registered;
    - A contractor whose registration lapses will have a 90 day grace period within which to pay a late fee and renew.
- Registrations will begin after July 1, 2014, once the registration system is ready to go online. The preferred method of payment will be by credit card.
- The requirement to list only registered contractors and subcontractors on bids becomes effective on March 1, 2015. The requirement to only use registered contractors and subcontractors on public works projects applies to all projects awarded on or after April 1, 2015.

<u>Essentials of Public Works Enforcement Fund</u>:

All contractor registration fees will go into the State Public Works Enforcement Fund and be used to fund the following items --

- administration of contractor registration requirement
- all DIR costs for administering and enforcing public works laws
- Labor Commissioner's enforcement of other Labor Code violations on monitored public works projects.

DIR will no longer charge awarding bodies for prevailing wage compliance monitoring and enforcement by the CMU. (*Note: DIR will continue to bill and collect fees from awarding agencies for CMU services provided through June 20, 2014.*)

Related changes in DIR's administration and enforcement of public works requirements:

- Requirements to use CMU or specified alternative (labor compliance program or project labor agreement) for state bond-funded and other specified projects have been eliminated and replaced by requirements that apply to all public works projects (as defined under the Labor Code).
- Awarding bodies are *now* required to submit PWC-100 (contract award notice) for all public works projects. (*This requirement previously applied to about 90% of all projects.*)
- Contractors and subcontractors on *all* public works projects will be required to submit certified payroll records (CPRs) to the Labor Commissioner unless excused from this requirement.
    - This requirement will be phased in as follows:
        - Applies immediately to public works projects that have already been under CMU monitoring, *i.e.* contractors on ongoing projects that have been submitting CPRs to the CMU will continue doing so
        - Will apply to any new projects awarded on or after April 1, 2015
        - May apply to other projects as determined by Labor Commissioner
        - Will apply to all public works projects, new or ongoing, on and after January 1, 2016
    - The Labor Commissioner may make exception to this requirement for
        - Projects covered by qualifying project labor agreement
        - Projects undertaken by one of four remaining awarding bodies with legacy LCPs (Caltrans, City of Los Angeles, County of Sacramento, and Los Angeles Unified School District), so long as those LCPs remain approved by DIR
    - CPRs will be furnished online (as is done currently for CMU). DIR intends to continue making improvements to this process, including creating a means for general contractors to have online access to the CPRs submitted by their subcontractors.
- Requirements for awarding bodies to adopt and enforce a DIR-approved LCP are now limited to: (1) public works projects awarded prior to January 1, 2012 that were under a preexisting LCP requirement; and (2) projects funded in whole or in part by Proposition 84.