

**THE RESURFACING OF PORTIONS OF VARIOUS ROADWAYS
IN THE CASTRO VALLEY AREA OF
ALAMEDA COUNTY, CALIFORNIA
SPECIFICATION NO. 2496**

This addendum is issued by the County of Alameda, Public Works Agency, Construction and Development Services Department, 399 Elmhurst Street, Hayward, CA 94544.

TO ALL PROSPECTIVE BIDDERS for the above project, notice is hereby given that the following changes, modifications, corrections, clarifications, and additions as hereinafter set forth shall apply to the plans and specifications described herein and shall be made part thereof and subject to all requirements as if originally specified or drawn.

Receipt of this Addendum No. 1 must be acknowledged on the form in the bid proposal in writing.

CHANGES TO THE BID BOOK

1. Replace pages BB-1a and BB-1b with BB-1a (Addendum 1) and BB-1b (Addendum 1)
2. Add page BB-1c (Addendum 1)
3. Delete pages BB-7 and BB-8
4. Replace Signature Page BB-9 with the attached Signature Page BB-6 (Addendum 1)

CHANGES TO THE PROJECT SPECIFICATIONS

1. Replace SPECIAL NOTICES with SPECIAL NOTICES (Addendum 1)
2. Replace Table of Contents page iii with iii (Addendum 1)
3. Replace Project Specification page 46 with attached Project Specification page 46 (Addendum 1)
4. Replace Project Specification page 82 with attached Project Specification page 82 (Addendum 1)
5. Replace Project Specification page 95 with attached Project Specification page 95 (Addendum 1)
6. Replace Project Specification pages 146 and 147 with attached Project Specification pages 146 (Addendum 1) and 147 (Addendum 1)
7. Replace Project Specification page 151 with attached Project Specification page 151 (Addendum 1)
8. Replace Project Specification page 646 with attached Project Specification page 646 (Addendum 1)
9. Replace Information Handout Resurfacing Street Summary page J-iii with Resurfacing Street Summary page J-iii (Addendum 1)
10. Replace Information Handout M Pedestrian Ramp Summary P-1 with Pedestrian Ramp Summary P-1 (Addendum 1)
11. Replace Information Handout M (Location Map) PED RAMP L-3 with (Location Map) PED RAMP L-3 (Addendum 1)
12. Add Information Handout N: Striping Plan (Sheets 1 thru 5) – Redwood Road (Addendum 1)
13. Add Information Handout O: (Annual Community Events)
14. Add Information Handout P: 84-2.03C(1) Preformed Thermoplastic Bike Lane Symbols Pavement Markings (Addendum 1) and 84-2.03C(2) Preformed Thermoplastic Bike Green Pavement Markings (Addendum 1)
15. Add Information Handout Q: EXHIBIT C – ALAMEDA COUNTY MINIMUM INSURANCE REQUIREMENTS
16. Add Information Handout R: Redwood Road Night Work Provisions
17. Add Information Handout S: PCMS Sign Placement Location Map

**END OF ADDENDUM NO. 1
OFFICE OF THE COUNTY ENGINEER**

BID ITEM LIST

No.	Sec/Code	Bid Item Description	Qty	Unit	Unit Cost	Total Cost
PREPATORY WORK						
1*	<u>§5-1.36D</u> 050000-A	Monument Preservation (Pre-Construction)	88 <ins>89</ins>	EA	\$	\$
TEMPORARY TRAFFIC CONTROL						
2	<u>§12</u> 120100	Traffic Control System	1	LS	\$	\$
WATER POLLUTION CONTROL WORK						
3	<u>§13-2</u> 130200-E	Prepare Water Pollution Control Plan – CGP Exempt	1	LS	\$	\$
4	<u>§13-4</u> 130100	Job Site Management	1	LS	\$	\$
5*	<u>§13-6.03C</u> 130620	Temporary Drainage Inlet Protection	70	EA	\$	\$
6	<u>§13-7.02</u> 130730	Street Sweeping	1	LS	\$	\$
7	<u>§13-9</u> 130900	Temporary Concrete Washout	1	LS	\$	\$
CLEARING / RELOCATING IMPEDIMENTS						
8	<u>§17-2</u> 170103	Clearing and Grubbing (LS)	1	LS	\$	\$
LANDSCAPE						
9*	<u>§20-10</u> 202028-A	Adjust/Modify/Reset Irrigation System Components	50	LF	\$	\$
SURFACINGS AND PAVEMENTS						
10	<u>§39-2.01</u>	Geosynthetic Pavement Interlayer (Paving Fabric) <u>Pavement Tack Coat</u>	109,000	SY	\$	\$
11*	<u>§39-2.01C</u> 394080-A	Speed Humps (3 inch)	100	LF	\$	\$
12*	<u>§39-2.01C</u> 394080-A	Speed Hump (2 inch)	40	LF	\$	\$
13*	<u>§39-2.09</u> 390132-LV	Hot Mix Asphalt – Low Volume (HMA-LV)	12,200	TON	\$	\$
14*	<u>§39-3.02</u> 390095-A	Replace Failed Sections of AC Surfacing & Base w/Full Depth HMA	3,500	TON	\$	\$
15	<u>§39-3.04</u> 398200	Cold Plane Asphalt Concrete Pavement	109,000	SY	\$	\$
LOCAL INFRASTRUCTURE						
16*	<u>§77</u> 780258	Adjust Manhole Frame and Cover (CVSD)	5 <ins>71</ins>	EA	\$	\$
17*	<u>§78-2</u> 810111	Locate Monument	40 <ins>45</ins>	EA	\$	\$

*Contingent item under section 2-1.09B

No.	Sec/Code	Bid Item Description	Qty	Unit	Unit Cost	Total Cost
18*	<u>\$78-2</u> 780250-A	Adjust Monument Cover to Grade	88 89	EA	\$	\$
CONCRETE CURBS & SIDEWALKS						
19	<u>\$73</u> 730070-A	Detectable Warning Surface (Yellow)	50	EA	\$	\$
20*	<u>\$73</u> 731504-A	Minor Concrete (Curb and Gutter – Standard or Rolled)	50 75	LF	\$	\$
21*	<u>\$73</u> 731521-A	Minor Concrete (Valley Gutter & Apron)	600	SF	\$	\$
22*	<u>\$73</u> 731623-A	Minor Concrete (Curb Ramp & Sidewalk)	8,750 8,900	SF	\$	\$
ROADSIDE SIGNS						
23	<u>\$82-3</u>	Remove Sign	1	EA	\$	\$
24	<u>\$82-3</u>	Install Sign On New Post	6	EA	\$	\$
25	<u>\$82-3</u>	Install Sign On Existing Post	3	EA	\$	\$
TRAFFIC STRIPES AND PAVEMENT MARKINGS						
26*	<u>\$84-2</u> 840502	Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility)	60,000 95,000	LF	\$	\$
27*	<u>\$84-2</u> 840516	Thermoplastic Pavement Marking (Enhanced Wet Night Visibility)	20,000 23,000	SF	\$	\$
28*	<u>\$84-2</u> 840516	Paint Red Curb	55 1,000	LF	\$	\$
ELECTRICAL SYSTEMS						
29*	<u>\$87-1.03V</u> 870111-D	Inductive Loop Detector – Type D	50	EA	\$	\$
30*	<u>\$87-1.03V</u> 870111-E	Inductive Loop Detector – Type E	200	EA	\$	\$
PROJECT WRAP-UP						
31*	<u>\$5-1.36D</u> 050000-B	Survey Monument Preservation (Post-Construction)	88 89	EA	\$	\$
32	<u>\$22</u> 220101	Finishing Roadway	1	LS	\$	\$
						
<u>33*</u>	<u>\$77</u> 710228-O	<u>Adjust Manhole Frame and Cover</u>	<u>74</u>	<u>EA</u>	<u>\$</u>	<u>\$</u>
<u>34*</u>	<u>\$77</u> 710220-E	<u>Adjustment of Existing Water Valve Frame and Cover (EBMUD)</u>	<u>105</u>	<u>EA</u>	<u>\$</u>	<u>\$</u>
<u>35*</u>	<u>\$77</u> 710220-P	<u>Adjustment of Existing Gas Valve Frame and Cover (PG&E)</u>	<u>1</u>	<u>EA</u>	<u>\$</u>	<u>\$</u>

*Contingent item under section 2-1.09B

No.	Sec/Code	Bid Item Description	Qty	Unit	Unit Cost	Total Cost
36*	<u>§84-2.03C</u>	<u>(Green) Thermoplastic Pavement Marking (Enhanced Wet Night Visibility)</u>	10,500	LF	\$	\$
37*	<u>§81-3.02C</u> 810230	<u>Blue Pavement Marker</u>	31	EA	\$	\$
38*	<u>§12-3.32</u> 126851	<u>Portable Changeable Message Sign (PCMS)</u>	4	EA	\$	\$

Total Bid: _____ **Dollars \$** _____
(in words)

The prices bid include furnishing the resources and activities required to complete the work. Payment is full compensation for furnishing the resources and activities as described under section [9-1.03](#).

Links to section numbers are provided for convenience only. Specifications found under the referenced sections are not the only specification that apply to the Bid Item as described under section [1-1.01](#).

Most bid Item codes (without the hyphenated suffix) and descriptions are similar to, but not necessarily the same as, Caltrans Standard Bid Item codes and descriptions. This information when queried at the following webpage may be useful for estimating costs: <http://sv08data.dot.ca.gov/contractcost>

*Contingent item under section 2-1.09B

SIGNATURE PAGE

The Bidder has verified the total number of addenda issued prior to bid submittal and has listed them all below. The Bidder acknowledges the changes made in these addenda and that this Bid is made with consideration of these changes. Failure to acknowledge all issued addenda may result in finding the Proposal to be non-responsive, subject to the Board of Supervisors' determination.

Addendum No. _____ Date _____

The undersigned:

Is currently licensed by the State Contractor's License Board of the State of California to perform the work hereinbefore described and holds

State Contractor's License No. _____ Classification _____ Expiration Date _____

Shall be properly licensed by the State Contractor's License Board of the State of California at the time the Project is to be awarded.

By my signature on this proposal, I certify, under penalty of perjury under the law 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
- I have complied with the requirements of Section 8102 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code).

I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that :

- The Noncollusion 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.

Signature

Date

Printed Name

Bidder's Business Name

Title

Business Street Address

Phone

Email

Business City and Zip

SPECIAL NOTICES

- See section [1-1.07](#) for definitions and glossary terms pertaining to this contract
- See section [2-1.09B](#) for **contingent item(s)**
- See section [2-1.04](#) for required attendance of the **pre-bid outreach meeting**
- See section [3-1.09A](#) for requirements pertaining to **trucking work and the Project Stabilization/Community Benefits Agreement**
- **See section 3-1.09B for requirements pertaining to the California Air Resources Board (CARB) In-use Off-use Road Diesel-Fueled Fleets Regulation Compliance**
- See section [3-1.10](#) for requirement to utilize **Elations Systems** online contract and labor compliance management system.
- See section [5-1.02](#) for governing **ranking of Contract parts** should there be a discrepancy
- See section [5-1.20A](#) for concurrent work by others
- See section [6-1.02](#) for Special Funding Signs to be installed at work locations
- **See section 5-1.20B(1) for possible postponement of work within Caltrans Right of Way where a Caltrans Encroachment Permit to perform work has not been obtained at the time of the issuance of the Notice to Proceed.**
- See section [5-1.36D](#) for protecting existing monuments in place
- See section [7-1.03](#) for requirement to notify and coordinate with local **residents, schools, businesses** so as not to inhibit access or operations **and to accommodate Community Events.**
- **See Section 8-1.04C Delayed Start for project start date of construction for Independent School Road**
- See section [8-1.09](#) for requirement to utilize **Virtual Project Manager**
- See section [10-1.02A](#) for **work sequencing** constraints
- See section [10-1.03](#) for **time** constraints
- See section [12-4.01A\(1\)](#) for **traffic control plan** requirement
- **See section 12-4.01A(5) for normal work days and times (including night time work for Redwood Road)**
- See section [13-1.01](#) for the **Construction General Permit Project Classification**
- **See section 7-1.06 and Information Handout for County of Alameda Minimum Insurance Requirements**

Submit pre-bid questions by email at least April 22, 2025. five business days before the bid opening date on April 29, 2025 to both: bond@acpwa.org and JielinP@acpwa.org

Questions received and the corresponding answers will be posted online at: <https://www.acpwa.org/bidder-information>.

<https://www.acpwa.org/business/add-bidder-info.page>

One or more addendums that clarify or revise contract documents may be issued.

REVISED STANDARD SPECIFICATIONS WITH SPECIAL PROVISIONS – TABLE OF CONTENTS

Information Handout H: ACPWA Standard Details	i
Information Handout I: Caltrans Standard Plans	i
Information Handout J: Resurfacing Street Summary	i
Information Handout K: Construction Details.....	i
Information Handout L: Monument Preservation List	i
Information Handout M: Pedestrian Ramp Summary and Location Maps.....	i
Information Handout N: Striping Plan – Redwood Road.....	i
Information Handout O: (Annual) Community Events.....	i
Information Handout P: 84-2.03C(1) Preformed Thermoplastic Bike Lane Symbols Pavement Markings and 84-2.03C(2) Preformed Thermoplastic Bike Green Pavement Markings.....	i
Information Handout Q: County of Alameda Minimum Insurance Requirements (Exhibit C)	i
Information Handout R: Redwood Road Night Work Provisions	i
Information Handout S: PCMS Sign Placement Location Map.....	i

SECTION 5

CONTROL OF WORK

Each contractor or other entity performing work at or near the job or material site is responsible to the other for damage to work, persons, or property and for costs due to unnecessary delays.

5-1.20B Permits, Licenses, Agreements, and Certifications

5-1.20B(1) General

Comply with PLACs. The Agency makes PLAC changes under section 4-1.05. Maintain a copy of each PLAC at the job site.

The Contractor must acquire and pay for a Caltrans Encroachment Permit (for work within Caltrans right of way along the Redwood Road's project location) and comply with all its permit requirements. If the Permit has not been obtained at the time the Notice to Proceed is issued, the Contractor must defer the construction within Caltrans right of way at this location until the Permit is obtained. If the County has not obtained the Permit by the time all other contracted work has been completed, the County may remove the work within Caltrans right of way and the associated bid items of work from the project contract. The postponement and/or elimination of this work within Caltrans right of way shall not constitute a basis for claim, for extra payment or damage.

5-1.20B(2) Before Award

To make a change to a PLAC made available to you before award, submit the proposed change. The Agency considers the proposed change and at its discretion sends the proposed change to the appropriate authority for consideration.

5-1.20B(3) After Award

Confirm with the Engineer which after-award PLACs are obtained by the Agency and which are obtained by the Contractor.

To make a change to an after-award PLAC obtained by the Agency, submit the proposed change. The Agency considers the proposed change and at its discretion sends the proposed change to the appropriate authority for consideration.

Obtain those PLACs to be issued to you and pay the fees and costs associated with obtaining and complying with them. Submit copies of Contractor-obtained after-award PLACs.

Thirty days prior to the expiration of any PLAC required for Contract work, evaluate the work remaining and provide notice if it will be necessary to extend a PLAC time period.

5-1.20B(4) Contractor–Property Owner Agreement

Before utilizing non-County/District property or procuring material from or disposing of material on non-County/District nonhighway property:

1. Submit a written agreement from the property owner:
 - 1.1. For the use of the property
 - 1.2. Absolving the Agency from responsibility in connection with the property
2. Obtain authorization to start

Before Contract acceptance, submit a document signed by the owner of the material source or disposal site stating that the Contractor has complied with the Contractor-owner agreement.

5-1.20B(5) Agency—Property Owner Agreement (Permit to Enter and Do Work)

When necessary, the Agency acquires permission to enter and do work from various property owners along the job site to complete the construction of driveway and sidewalk conforms.

Comply with all the Permit to Enter conditions and work area boundaries. Do not perform any work outside the permit limits unless the property owner and the Engineer give written approval.

The Engineer will provide copies of permits before the start of construction.

5-1.20C Railroad Relations

If the Contract includes an agreement with a railroad company, the Agency makes the provisions of the agreement available in the *Information Handout* in the document titled "Railroad Relations and Insurance Requirements." Comply with the requirements in the document.

5-1.20D Occupied Improvements within the Right-of-Way

Reserved

5-1.20E Water Meter Charges

Reserved

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SECTION 8

PROSECUTION AND PROGRESS

Construction activities must ~~not limit~~ inconvenience to the public ~~or and~~ abutting property owners. Schedule and conduct work to avoid unnecessary inconvenience to the public and abutting property owners. Avoid undue delay in construction activities to reduce the public's exposure to construction.

Work cooperatively with administrators of local schools to schedule work in a manner that avoids conflict with school operations, especially access and testing.

Notify residents of unavoidable inconveniences. Use templates provided in Information Handout D.

In addition, the Contractor must temporarily suspend all construction activities during Community events, including the annual events shown in the Information Handout.

Where possible, route traffic on new or existing paved surfaces.

Maintain convenient access to driveways, houses, and buildings. When an abutting property owner's access across the right-of-way line is to be eliminated or replaced under the Contract, the existing access must not be closed until the replacement access facility is usable. Construct temporary approaches to a crossing and an intersecting highway.

Provide a reasonably smooth and even surface for use by traffic at all time during the excavation of a roadway and construction of an embankment. Before other grading activities, place fill at culverts and bridges to allow traffic to cross. If ordered, excavate a roadway cut in layers and construct an embankment in partial widths at a time alternating construction from one side to the other and routing traffic over the side opposite the one under construction. Install or construct culverts on only 1/2 the width of the traveled way at a time; keep the traveled way portion being used by traffic open and unobstructed until the opposite side of the traveled way is ready for use by traffic.

Upon completion of rough grading or placing any subsequent layer, bring the surface of the roadbed to a smooth and even condition, free of humps and depressions, and satisfactory for the use of the public. After subgrade preparation for a specified layer of material has been completed, repair any damage to the roadbed or completed subgrade, including damage caused by public use.

While subgrade and paving activities are underway, allow the public to use the shoulders. If half-width paving methods are used, allow the public to use the side of the roadbed opposite the one under construction. If enough width is available, keep open a passageway wide enough to accommodate at least 2 lanes of traffic at locations where subgrade and paving activities are underway. Shape shoulders or reshape subgrade as necessary to accommodate traffic during subgrade preparation and paving activities.

Apply a dust palliative for the prevention or alleviation of dust nuisance.

If a height differential of more than 0.04 foot is created by construction activities at a joint transverse to the direction of traffic on the traveled way or a shoulder subject to public traffic, construct a temporary taper at the joint with a slope complying with the requirements shown in the following table:

Temporary Tapers

Height differential (foot)	Slope (horizontal:vertical)	
	Taper use of 14 days or less	Taper use of more than 14 days
Greater than 0.08	100:1 or flatter	200:1 or flatter
0.04–0.08	70:1 or flatter	70:1 or flatter

For a taper on existing asphalt concrete or concrete pavement, construct the taper with minor HMA under section 39-2.07.

Grind existing surfaces to accommodate a minimum taper thickness of 0.10 foot under either of the following conditions:

1. HMA material such as rubberized HMA, polymer-modified bonded wearing course, or open-graded friction course is unsuitable for raking to a maximum 0.02 foot thickness at the edge
2. Taper will be in place for more than 14 days

After the County Surveyor's approval of your preconstruction records, an unrestricted notice to proceed with construction work will be issued.

Begin work within 10 days after the issuance of a Notice to Proceed. A count of working days will begin (or resume) upon your start of job site activities.

Submit a notice 72 hours before starting job site activities. If the project has more than 1 work location, submit a separate notice for each location.

~~You may start job site activities before receiving notice of Contract approval if you:~~

- ~~1. Deliver the signed Contract, bonds, and evidence of insurance to the Agency~~
- ~~2. Submit a 72 hour notice~~
- ~~3. Obtain an encroachment permit from the Agency~~
- ~~4. Receive the Agency's authorization to start~~
- ~~5. Perform work at your own risk~~
- ~~6. Perform work under the Contract~~

~~If the Contract is approved, work already performed that complies with the Contract is authorized.~~

~~If the Contract is not approved, leave the job site in a neat condition. If a facility has been changed, restore it to its former condition or an equivalent condition. The Agency does not pay for the restoration.~~

~~The Agency does not adjust time for work performed before Contract approval.~~

8-1.04C Delayed Start

Construction of Independent School Road must not start until after June 29, 2025. All work on this roadway must be completed by July 31, 2025. Contractor must coordinate with school officials to minimize any disruption to school activities and to maintain accessibility to the adjacent school.

8-1.04D Early Return-Early Start

Reserved

8-1.04E Next-Day Start

Reserved

8-1.04F Flexible Start

Reserved

8-1.04G Potential Budget Impasse Start

Reserved

8-1.04H-8-1.04J Reserved

8-1.05 TIME

~~The contract time starts on the earlier of the following:~~

- ~~1. Day you start job site activities after Contract approval~~
- ~~2. Last day specified to start job site activities in section 8-1.04~~

Complete the work within the Contract time.

The number of allotted Working Days is specified in the Notice to Bidders.

Meet each specified interim work-completion date.

The Engineer issues a Weekly Statement of Working Days form by the end of the following week.

The Weekly Statement of Working Days form shows:

1. Working days and non-working days during the reporting week
2. Time adjustments
3. Calculations of work completion dates, including working days remaining

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12-3.32C Construction

Use a PCMS with characters:

1. At least 18 inches in height where the useable shoulder area is 15 feet wide or more
2. At least 12 inches in height where the useable shoulder area is less than 15 feet wide
3. At least 10 inches in height if the PCMS is:
 - 3.1. Mounted on a service patrol truck or incident response vehicle
 - 3.2. Used for traffic control where the posted speed limit is less than 40 mph

Place a PCMS as far from the traveled way as practicable where it is legible to approaching traffic without encroaching on the traveled way. Where the vertical roadway curvature restricts the sight distance of approaching traffic, place the sign on or before the crest of the curvature where it is most visible to the approaching traffic. Where the horizontal roadway curvature restricts the sight distance of approaching traffic, place the sign at or before the curve where it is most visible to approaching traffic. Where practicable, place the sign behind guardrail or Type K temporary railing.

If multiple signs are needed, place each sign on the same side of the road at least 1,000 feet apart on freeways and expressways and at least 500 feet apart on other types of highways.

Operate the PCMS under the manufacturer's instructions.

When in operation, place the bottom of a PCMS at least 7 feet above the roadway in areas where pedestrians are anticipated and 5 feet above the roadway elsewhere. Place the top of the PCMS no more than 14.5 feet above the roadway.

If more than one PCMS is simultaneously visible to traffic, only one sign may display a sequential message at any time. Do not use dynamic message displays, such as animation, rapid flashing, dissolving, exploding, scrolling, horizontal movement, or vertical movement of messages. The message must be centered within each line of the display.

You may use an additional PCMS if more than 2 phases are needed to display a message.

Display only messages shown or ordered.

Repeat the entire message continuously in not more than 2 phases of at least 3 seconds per phase. The sum of the display times for both of the phases must be a maximum of 8 seconds. If more than 2 phases are needed to display a message, use an additional PCMS.

You must be available by cell phone during activities that require a sign. Be prepared to immediately change the displayed message if ordered. You may operate the sign with a 24-hour timer control or remote control if authorized.

Keep the PCMS clean to provide maximum visibility.

If Portable changeable message signs (PCMS) are specified in the bid list, then the following provisions apply:

PCMS must be placed and operated in advanced (for 14 consecutive calendar days) prior to start of construction.

The portable changeable message signs shall read*:

"Project Road Name"

SUBJCT TO DELAYS

date to date

time to time

***message subject to change: confirm final messaging with the Engineer before sign placement**

After the initial placement, move a sign from location to location as ordered **and/or change messages as ordered. The Contractor shall provide and situate portable changeable message signs as designated by the Engineer. The Contractor shall confirm with the Engineer, the final PCMS sign messaging and sign locations prior to situating the PCMSs on the specified road and at other locations.**

12-3.32D Payment

Not Used

12-3.33 PORTABLE SIGNAL SYSTEMS**12-3.33A General**

Section 12-3.33 includes specifications for installing, maintaining, and removing portable signal systems, including installing lighting and flashing beacons for traffic control. A portable signal system must comply with section 87-20, except it must be trailer mounted.

12-3.33B Materials

Not Used

12-3.33C Construction

If the portable signal system is out of operation, provide flaggers to control the traffic until the traffic signals are in operation.

12-3.33D Payment

Not Used

12-3.34 TEMPORARY FLASHING BEACON SYSTEMS**12-3.34A General**

Section 12-3.34 includes specifications for installing, maintaining, and removing temporary flashing beacon systems. A temporary flashing beacon system must comply with section 87-20.

12-3.34B Materials

The sign panels installed on a temporary flashing beacon system must comply with section 12-3.11.

12-3.34C Construction

Not Used

12-3.34D Payment

Not Used

12-3.35 AUTOMATED WORK ZONE INFORMATION SYSTEMS**12-3.35A General****12-3.35A(1) Summary**

Section 12-3.35 includes specifications for installing automated work zone information systems.

12-3.35A(2) Definitions

Reserved

12-3.35A(3) Submittals

Reserved

12-3.35A(4) Quality Assurance

Assign an on-site system coordinator. The coordinator must be available locally to service, maintain, and relocate system components as necessary. The coordinator must be accessible 24-7 while the system is deployed. If the system fails to perform as specified, perform any necessary remedial work and replace any failed components within 24 hours of notification of a system or component failure.

12-3.35B Materials**12-3.35B(1) General**

The AWIS must be a proven system that has been successfully deployed and operated in actual work zones or congested areas. The system must acquire traffic data throughout the work zone and automatically display predetermined information to motorists without operator intervention after system initialization. Real-time information must be displayed to motorists using a PCMS. The sign must comply with section 12-3.32. The system must be controlled either locally or remotely by a dedicated controller or computer. Authorized users must be able to both locally and remotely override motorist information messages. Traffic sensors must not require adjustments after the initial deployment.

12-3.35B(2) General System Function Requirements

The general system functions of the AWIS must be capable of:

1. Preventing any unauthorized users or systems from gaining access to the PCMSs through an industry authentication and encryption standard level of security.

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SECTION 12

TEMPORARY TRAFFIC CONTROL

2. Do not use the 48-inch-by-48-inch C9A (CA) sign
3. Do not use the gate cones

12-3.38D Payment

If automated flagger assistance devices bid item is not shown on the Bid Item List, providing AFADS is change order work.

12-3.39-12-3.40 RESERVED

12-4 MAINTAINING TRAFFIC

12-4.01 GENERAL

12-4.01A General

Section 12-4.01 includes general specifications for maintaining traffic through construction work zones. If local authorities regulate traffic, notify them at least 5 business days before the start of job site activities. Cooperate with the local authorities to handle traffic through the work zone and to make arrangements to keep the work zone clear of parked vehicles.

12-4.01A(1) Traffic Control Plan

Submit a traffic control plan, wet stamped by either a registered civil engineer or traffic engineer for approval prior to issuance of the Notice to Proceed.

12-4.01A(2) Responsibility

You are fully responsible for accidents to the public and damages to public and private property on the site of the work, and at fences, barriers and other traffic control devices that you install.

12-4.01A(3) Use of Non-Public Right-of-Way

Make all arrangements with property owners for use of private land for detours and for any other purpose and indemnify the County/District from any liability incurred through the use or nonuse of such property. Comply with section 7-1.05, "Indemnification."

12-4.01A(4) Access to Properties

Ensure compliance with section 7-1.03, "Public Convenience."

Provide for through traffic and for ingress to and egress from all private property adjacent to the work; however, at times when the quality of workmanship can be improved and a better job obtained by the elimination of the through traffic, such traffic may, upon the approval of the Engineer, be temporarily diverted to other routes.

Give special attention to providing continuous and uninterrupted traffic to and from all schools and businesses adjacent to the work. Schedule and pursue operations in such a manner that undesirable construction conditions will be minimized.

Maintain private entrances and construct such detours as may be necessary to properly conduct the work and to provide entrances to private property at all times.

12-4.01A(5) Timeframe for Work that Interferes with Traffic

Work days and hours (Normal Hours) are as follows:

- (Redwood Road – from Castro Valley Boulevard to Charlene Way) Monday through Friday from 9:00 PM to 5:00 AM unless otherwise authorized (see Information Handout for night work provisions)
- (All other roadways) Monday through Friday from 8:30 AM to 4:30 PM unless otherwise authorized.

Work that interferes with traffic must not begin before the above specified times, except work required under sections 7-1.03, "Public Convenience" and 7-1.04, "Public Safety."

12-4.01A(6) Open Traffic Lane Requirements

A minimum of one paved traffic lane, not less than 12 feet wide, must be open for use by public traffic. Not less than two such lanes must be open to public traffic when construction operations are not actively in progress.

12-4.01A(7) Notification Letter

Prepare and distribute a notification letter to all residents, school officials, and business entities at least 72 hours prior to any work. This letter must be reviewed by the Engineer prior to distribution. Coordinate with school officials to minimize any disruption to school activities and

The Resurfacing of Portions of Various Roadways in the Castro Valley Area

Spec 2496 - Castro Valley OL 2025 04-24-2025 Addendum 1

SECTION 84**MARKINGS**

3. Apply the 2nd coat of centerline striping in the opposite direction of the 1st coat

Apply glass beads at an approximate rate of 5 lb of beads per gallon of paint.

Verify the application rate of paint by stabbing the paint tank with a calibrated rod. If the striping machine has paint gauges, the Engineer may measure the volume of paint using the gauges instead of stabbing the paint tank with a calibrated rod.

84-2.03B(7) Contrast Striping

Contrast striping consists of black striping placed on each side of a white stripe.

You may use permanent tape instead of paint or thermoplastic.

Apply contrast stripe paint in one coat.

Do not use glass beads or other reflective elements in contrast striping material.

84-2.03B(8)–84-2.03B(10) Reserved

84-2.03C(1) Preformed Thermoplastic Bike Lane Symbols Pavement Markings (Addendum 1) - see Information Handout

84-2.03C(2) Preformed Thermoplastic Bike Green Pavement Markings (Addendum 1) - see Information Handout

84-2.04 PAYMENT

The payment quantity for a traffic stripe is the length measured along the line of the traffic stripe without deductions for gaps in the broken traffic stripe.

The payment quantity for a pavement marking is the area covered.

A double traffic stripe consisting of two 6-inch-wide yellow stripes are measured as 2 traffic stripes except for painted traffic stripes and sprayable thermoplastic traffic stripes. A double sprayable thermoplastic traffic stripe consisting of two 6-inch-wide yellow stripes are measured as single traffic stripe.

A double painted traffic stripe consisting of two 6-inch-wide yellow stripes separated by a 3-inch-wide black stripe is measured as a single traffic stripe.

The payment quantity for contrast striping is the length measured along the line of the traffic stripe without deductions for gaps in the broken traffic stripe.

The payment quantity for a curb marking is the length measured along the curb portion that is painted.

84-3 CONTRAST TREATMENT**84-3.01–84-3.10 RESERVED****84-4–84-7 RESERVED****84-8 RUMBLE STRIPS****84-8.01 GENERAL****84-8.01A Summary**

Section 84-8 includes specifications for constructing rumble strips.

84-8.01B Definitions

rumble strip: Band of raised material or indentations formed or grooved in the traveled way on the centerline or shoulders that is used to alert or warn drivers.

84-8.01C Submittals

Reserved

84-8.01D Quality Assurance

Reserved

84-8.02 MATERIALS

Not Used

2024-2025 ROADWAY REHABILITATION PROGRAM (RRP)
CASTRO VALLEY OVERLAY RESURFACING STREET SUMMARY

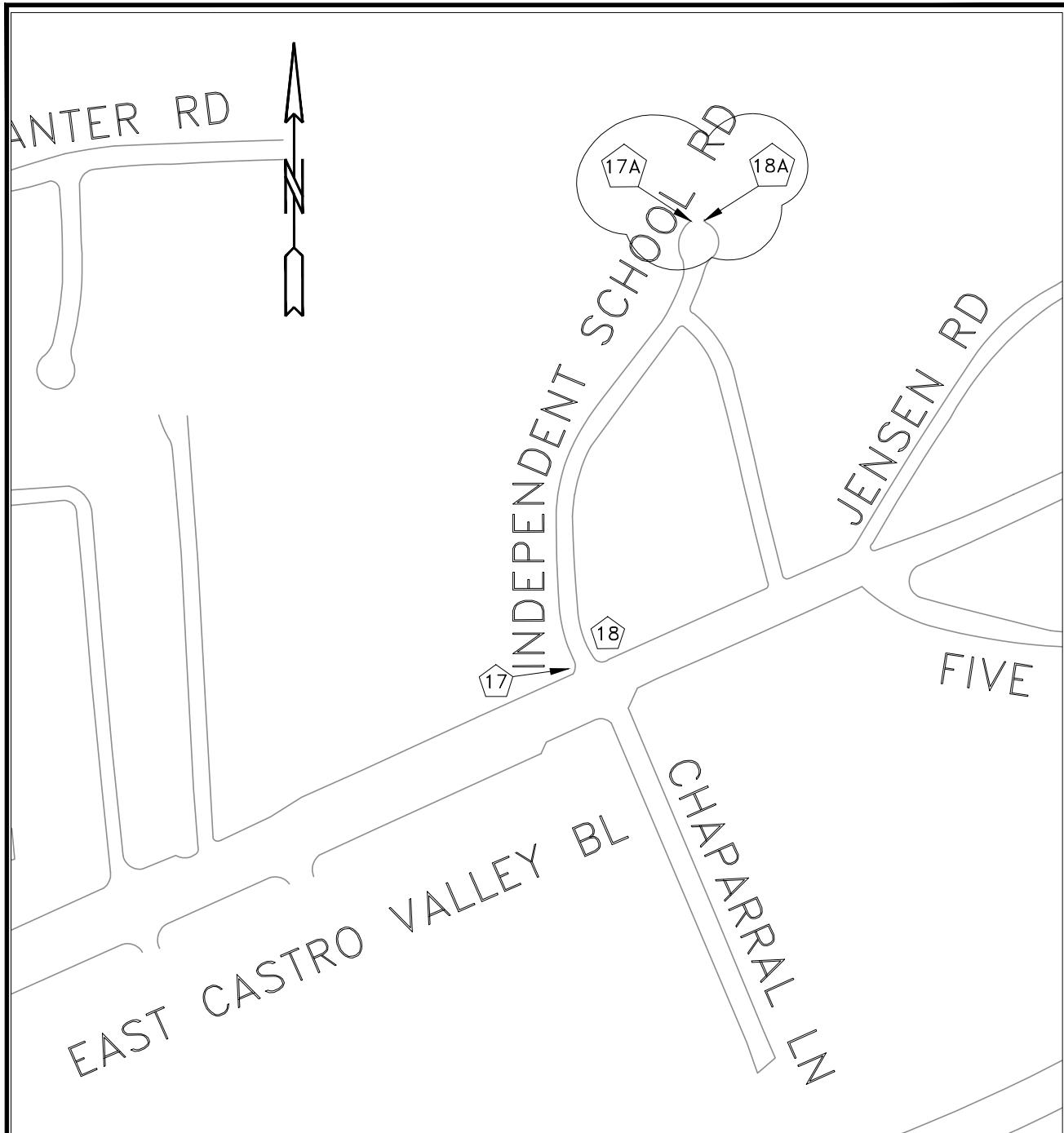
Project : R 23503

SPEC. 2496

Locations	No.	Street Name	From	To	Street ID - Section ID	Length (ft)	Width (ft)	Area (ft ²)	Tack Coat (Yd ²)	Base Repair			Mill (2") (Yd ²)	AC OL		Comments
										Area	ft	Ton		thickness (ft)	(ton)	
L-1	1	Redwood Road	Castro Valley Blvd	Charlene Way	RED287-005 & 010	4500	93	418500	46500	15%	0.33	1554	46500	0.166	5210	MILL 2" AC AND REPLACE 2" AC
	2	Brecon Court	Redwood Road	E End	BRE967-010	160	30	4800	533	10%	0.33	12	533	0.166	60	MILL 2" AC AND REPLACE 2" AC
	3	Lobert Street	Orange Avenue	E End	LO1096-010	770	30	23100	2567	10%	0.33	57	2567	0.166	288	MILL 2" AC AND REPLACE 2" AC
	4	Tanglewood Drive	Grove Way	N End	TA1196	1430	30	42900	4767	10%	0.33	106	4767	0.166	534	MILL 2" AC AND REPLACE 2" AC
L-3	5	Independent School Road	E Castro Valley Blvd	N End	IS4846	808	28	22624	2514	15%	0.33	84	2514	0.166	282	MILL 2" AC AND REPLACE 2" AC
L-4	6	Columbia Drive	Cull Canyon Road	Bellhurst Lane	CO4764 010 to 050	10007	38	380266	42252	15%	0.33	1412	42252	0.166	4734	MILL 2" AC AND REPLACE 2" AC

CASTRO VALLEY AREA OVERLAY - CONSTRUCTION OF PCC PEDESTRIAN RAMPS, CURB, GUTTER AND SIDEWALK IN VARIOUS ROADWAYS 2025
R23503 / Spec 2496

STREET NAME	CROSS STREET	PED RAMP #	# OF DOME PATTERN RETROFIT	# OF CASE "CM"	# OF CASE "A"	# OF CASE "B"	# OF CASE "C"	# OF CASE "CH"	PED RAMP WIDTH +C&G	RAMP LENGTH	TOTAL RAMPS AREA	TOTAL Curb & Gutter LF	Valley Gutter SF	PCC APRON SF	Sidewalk SF	Utility Box Adjustment	REMARKS
REDWOOD ROAD	REDWOD COURT	1					1		8	16	128						
REDWOOD ROAD	REDWOD COURT	2					1		8	16	128						
REDWOOD ROAD	CASTRO VALLEY PLAZA (21000)	3					1		8	16	128						
REDWOOD ROAD	CASTRO VALLEY PLAZA (21000)	4				1			8	22	176						
REDWOOD ROAD	CASTRO VALLEY PLAZA (WEST SIDE)	5				1			8	22	176						
REDWOOD ROAD	NORBRIGE AVENUE	6				1			8	22	176						
REDWOOD ROAD	NORBRIGE AVENUE	7				1			8	22	176						
REDWOOD ROAD	PINE STREET	8				1			8	22	176						
REDWOOD ROAD	PINE STREET	9					1		8	16	128						
REDWOOD ROAD	VEGAS AVENUE	10				1			8	22	176						
REDWOOD ROAD	VEGAS AVENUE	11					1		8	16	128						
REDWOOD ROAD	VEGAS AVENUE	12					1		8	16	128						
REDWOOD ROAD	VEGAS AVENUE	13					1		8	16	128						
REDWOOD ROAD	BRECON COURT	14					1		8	16	128						
REDWOOD ROAD	BRECON COURT	15					1		8	16	128						
REDWOOD ROAD	CHARLENE WAY	16			1				12	22	264						
INDEPENDENT SCHOOL ROAD	E CASTRO VALLEY BLVD	17					1		8	16	128		45	225			
INDEPENDENT SCHOOL ROAD	E CASTRO VALLEY BLVD	17A						1	5	12	60						
INDEPENDENT SCHOOL ROAD	E CASTRO VALLEY BLVD	18					1		8	16	128		45	225			
INDEPENDENT SCHOOL ROAD	E CASTRO VALLEY BLVD	18A						1	5	12	60						
COLUMBIA DRIVE	LYNWOOD COURT	19				1			8	22	176						
COLUMBIA DRIVE	LYNWOOD COURT	20				1			8	22	176						
COLUMBIA DRIVE	MEDALLION COURT	21				1			8	22	176						
COLUMBIA DRIVE	MEDALLION COURT	22				1			8	22	176						
COLUMBIA DRIVE	ALDERBROOK COURT	23				1			8	22	176						
COLUMBIA DRIVE	ALDERBROOK COURT	24				1			8	22	176						
COLUMBIA DRIVE	CHARTER OAKS DRIVE	25				1			8	22	176						
COLUMBIA DRIVE	CHARTER OAKS DRIVE	26				1			8	22	176						
COLUMBIA DRIVE	THOUSAND OAKS DRIVE	27				1			8	22	176						
COLUMBIA DRIVE	THOUSAND OAKS DRIVE	28				1			8	22	176						
COLUMBIA DRIVE	THOUSAND OAKS DRIVE	29				1			8	22	176						
COLUMBIA DRIVE	THOUSAND OAKS DRIVE	30					1		8	16	128					NEW	
COLUMBIA DRIVE	CHARTER OAKS DRIVE	31				1			8	22	176						
COLUMBIA DRIVE	CHARTER OAKS DRIVE	32				1			8	22	176						
COLUMBIA DRIVE	CHARTER OAKS DRIVE	33				1			8	22	176						
COLUMBIA DRIVE	CHARTER OAKS DRIVE	34				1			8	22	176						
COLUMBIA DRIVE	CASTLEBROOK DRIVE	35				1			8	22	176						
COLUMBIA DRIVE	CASTLEBROOK DRIVE	36				1			8	22	176						
COLUMBIA DRIVE	SLOPEVIEW COURT	37				1			8	22	176						
COLUMBIA DRIVE	SLOPEVIEW COURT	38				1			8	22	176						
COLUMBIA DRIVE	CASTLEBROOK DRIVE	39				1			8	22	176						
COLUMBIA DRIVE	CASTLEBROOK DRIVE	40				1			8	22	176						
COLUMBIA DRIVE	SKYFARM DRIVE	41				1			8	22	176						
COLUMBIA DRIVE	SKYFARM DRIVE	42				1			8	22	176						
COLUMBIA DRIVE	BELLINGHAM DRIVE	43				1			8	22	176						
COLUMBIA DRIVE	BELLINGHAM DRIVE	44				1			8	22	176						
COLUMBIA DRIVE	BELLHURST COURT	45				1			8	22	176						
COLUMBIA DRIVE	BELLHURST COURT	46				1			8	22	176						
COLUMBIA DRIVE	BELLHURST LANE	47				1			8	22	176						
COLUMBIA DRIVE	BELLHURST LANE	48				1			8	22	176						



LEGEND



PROPOSED PEDESTRIAN RAMPS LOCATIONS

W.O. NO. R23503

SPEC. NO. 2496

COUNTY OF ALAMEDA ★ PUBLIC WORKS AGENCY

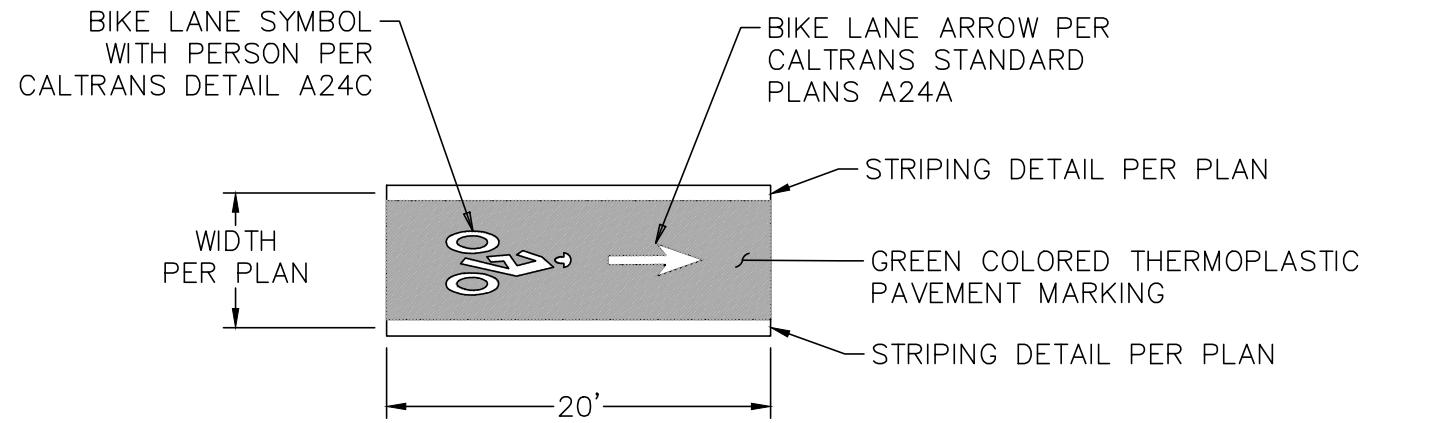
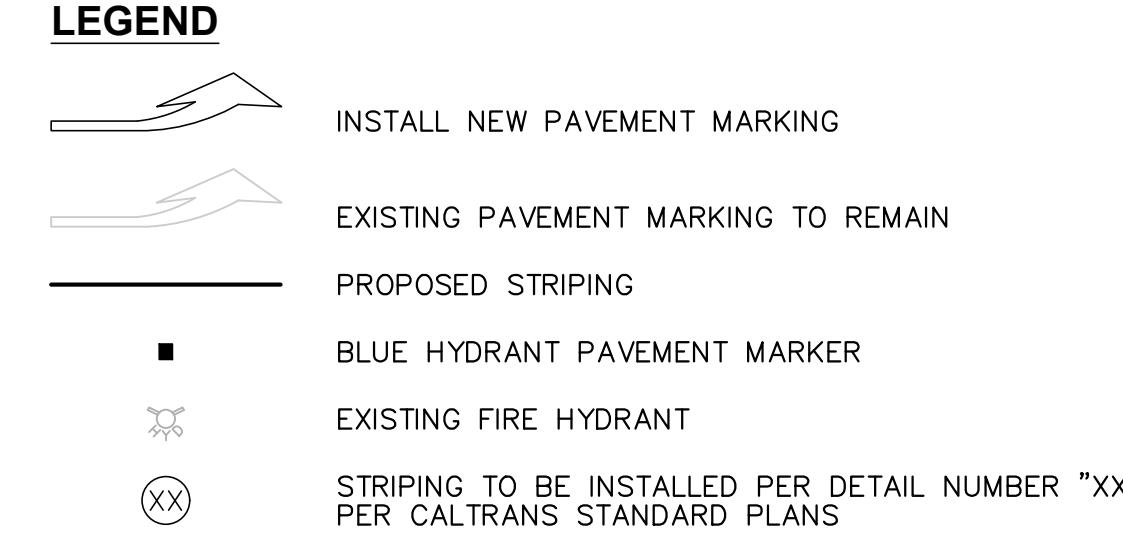
**2024 - 2025
THE RESURFACING OF PORTIONS OF VARIOUS
ROADWAYS IN THE CASTRO VALLEY AREA
OF ALAMEDA COUNTY
PEDESTRIAN RAMP LOCATION MAP**

DRAWN	SH	DATE	JANUARY 2025
CHECKED	SH	SCALE	NTS
APPROVAL REC.		FILE NO.	
			SHEET NO. 3 OF 5

INFORMATION HANDOUT N

Information Handout N: Striping Plan – Redwood Road

CONSTRUCTION	REVIEWED BY:	DATE:	REVIEWED BY:	DATE:
MAINTENANCE		SURVEY		
REAL ESTATE		TRAFFIC		ENVIRONMENTAL

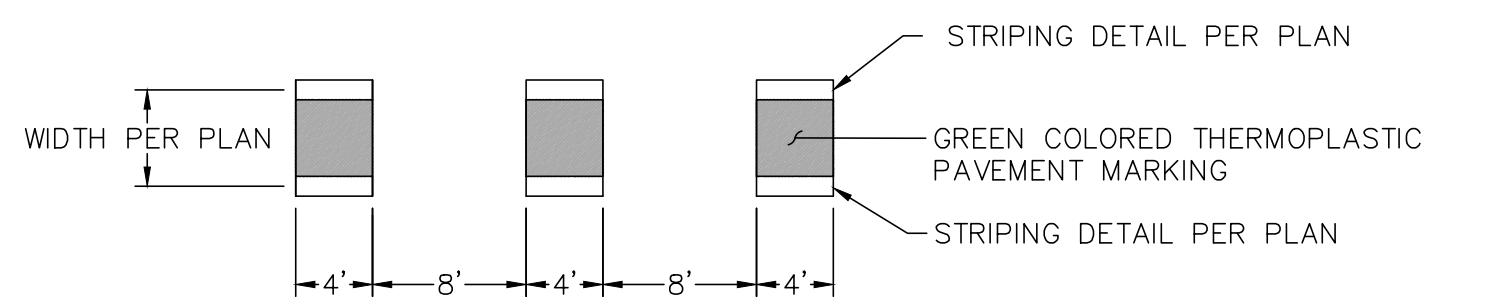


GREEN BIKE LANE PAVEMENT MARKING DETAIL 1

NTS

SIGNING AND STRIPING NOTES

- ALL EXISTING STRIPING, PAVEMENT MARKINGS AND MARKERS BEYOND PROJECT LIMITS ARE TO REMAIN UNLESS OTHERWISE SPECIFIED. IF DAMAGED, CONTRACTOR MUST RESTORE OR REPLACE AT THEIR OWN EXPENSE.
- ALL MARKINGS SHALL BE IN CONFORMANCE WITH LATEST CALTRANS STANDARD PLANS.
- ALL STRIPING SHALL BE THERMOPLASTIC.
- ALL ROAD SIGNS SHALL BE IN CONFORMANCE WITH LATEST CALIFORNIA MUTCD.
- BLUE RETROREFLECTIVE PAVEMENT MARKER(S) MUST BE PLACED 6 INCHES FROM THE LANE LINE NEAREST TO THE FIRE HYDRANT PER LATEST CALIFORNIA MUTCD.
- RETROREFLECTIVE PAVEMENT MARKERS FOR THE VARIOUS TRAFFIC (LINES) STRIPING ARE NOT SHOWN. REFER TO THE CALTRANS STANDARD PLANS FOR THE TYPES AND PLACEMENTS OF THE RETROREFLECTIVE PAVEMENT MARKERS FOR EACH TYPE OF TRAFFIC LINES.

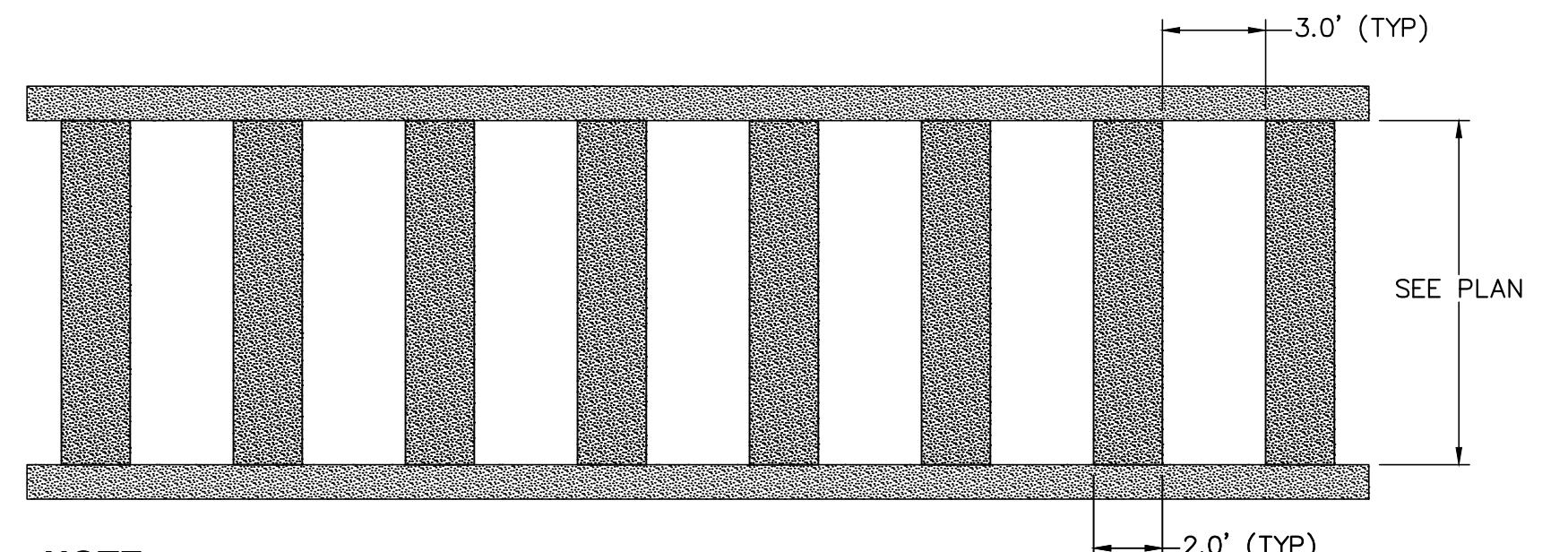


GREEN COLORED PAVEMENT FOR BIKE LANES 2

NTS

KEY NOTES

- 1 INSTALL BLUE RETROREFLECTIVE PAVEMENT MARKER
- 2 INSTALL BIKE LANE SYMBOL, BIKE ARROW, AND GREEN COLORED THERMOPLASTIC. SEE DETAIL 1 ON THIS SHEET.
- 3 INSTALL GREEN COLORED BIKE LANE TREATMENT. SEE DETAIL 2 ON THIS SHEET.
- 4 INSTALL 4" WIDE WHITE DIAGONAL MARKING BUFFER AT 20' SPACING.
- 5 INSTALL 12" WHITE LINE (THERMOPLASTIC)
- 6 INSTALL TYPE III(L/R) ARROW PER CALTRANS DETAIL A24B
- 7 INSTALL TYPE II(L/R) ARROW PER CALTRANS DETAIL A24B
- 8 INSTALL WHITE PAVEMENT WORD MARKING PER CALTRANS DETAIL A24D and A24E
- 9 INSTALL 12" WHITE CROSSWALK LINES
- 10 INSTALL LADDER CROSSWALK, SEE DETAIL 3 ON THIS SHEET
- 11 PAINT RED CURB
- 12 INSTALL TYPE I 24'-0" ARROW PER CALTRANS DETAIL A24A



NOTE:

- ALL CROSSWALK MARKINGS SHALL BE WHITE THERMOPLASTIC, UNLESS SPECIFIED OTHERWISE.

LADDER CROSSWALK DETAIL 3

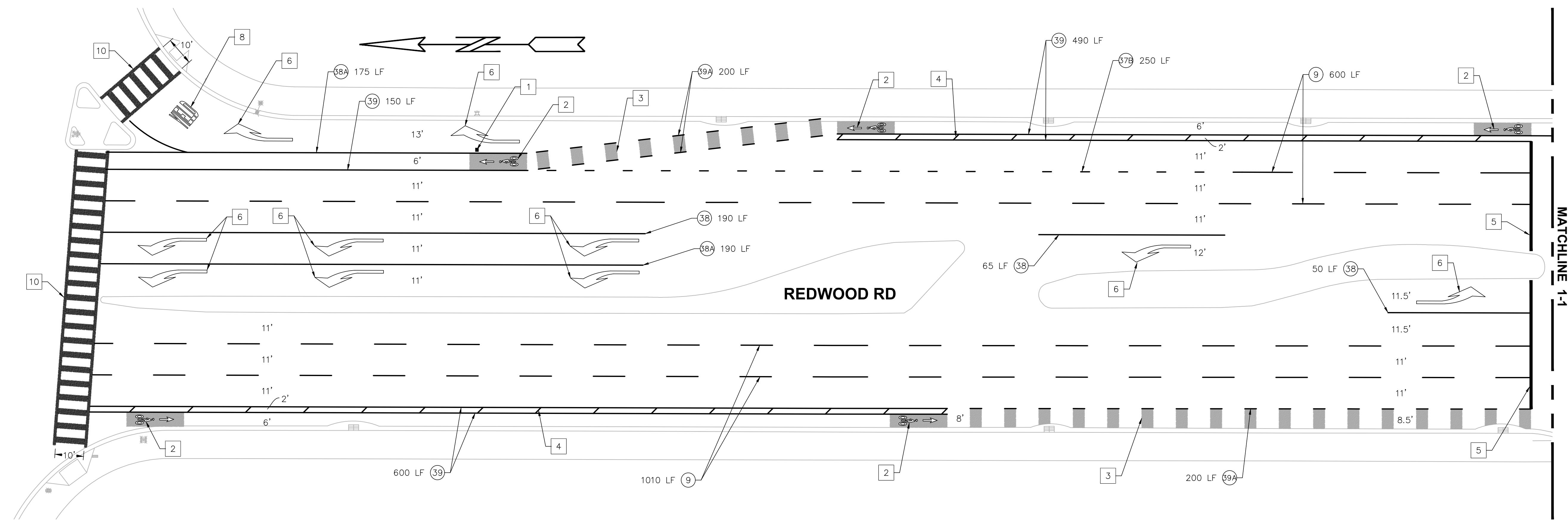
NTS

COUNTY OF ALAMEDA ☆ PUBLIC WORKS AGENCY		REVISIONS	
IMPROVEMENTS OF REDWOOD ROAD FROM CASTRO VALLEY BLVD TO CHARLENE WAY		APPROVED	
DRAWN	GINA SACHAO	APPROVAL RECOMMENDED	--
DESIGNED	GINA SACHAO	APPROVAL RECOMMENDED	--
CHECKED	GINA SACHAO	APPROVAL RECOMMENDED	--
DATE APR 2025	SCALE 1"=20'	APPROVAL DATE	APPROVAL DATE
AMER LO / SELIN PAN	SEE PLAN		

WORK ORDER NO. R23503
SPECIFICATION NO. 2496
SHEET NO. 01 OF 05
FILE NO. U-287-26

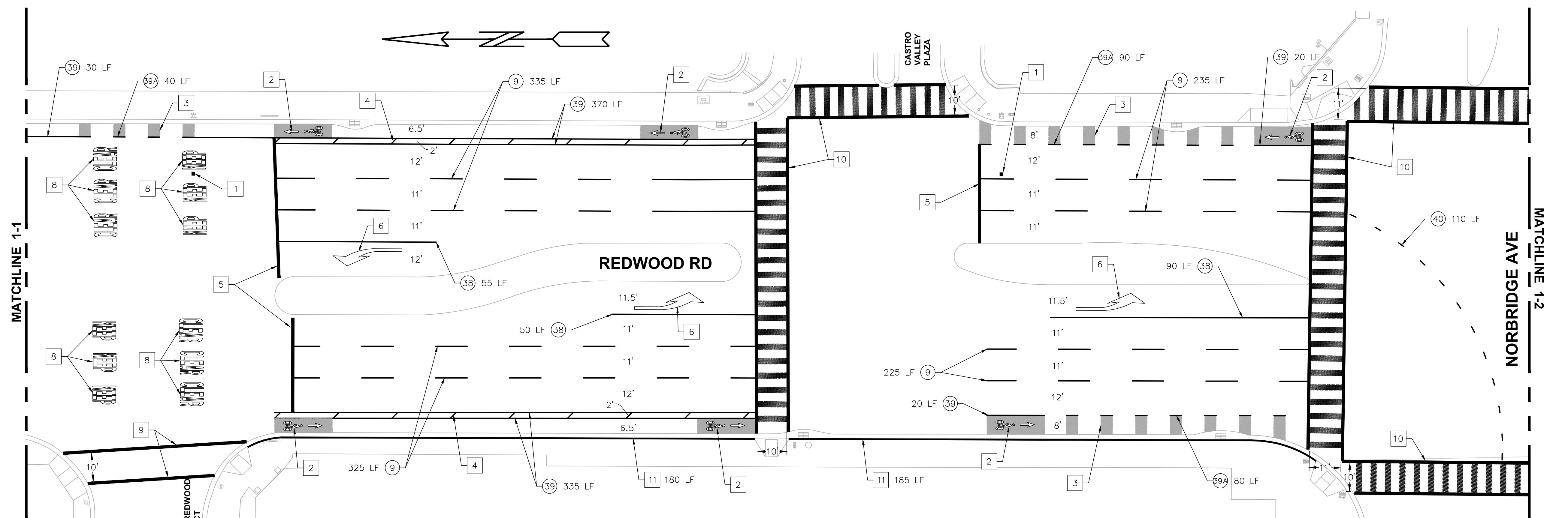
CONSTRUCTION	REVIEWED BY:	DATE:	REVIEWED BY:	DATE:
MAINTENANCE			SURVEY	
REAL ESTATE			TRAFFIC	
			ENVIRONMENTAL	

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PLAN

SCALE: 1"=20



PLAN

SCALE: 1"=200'

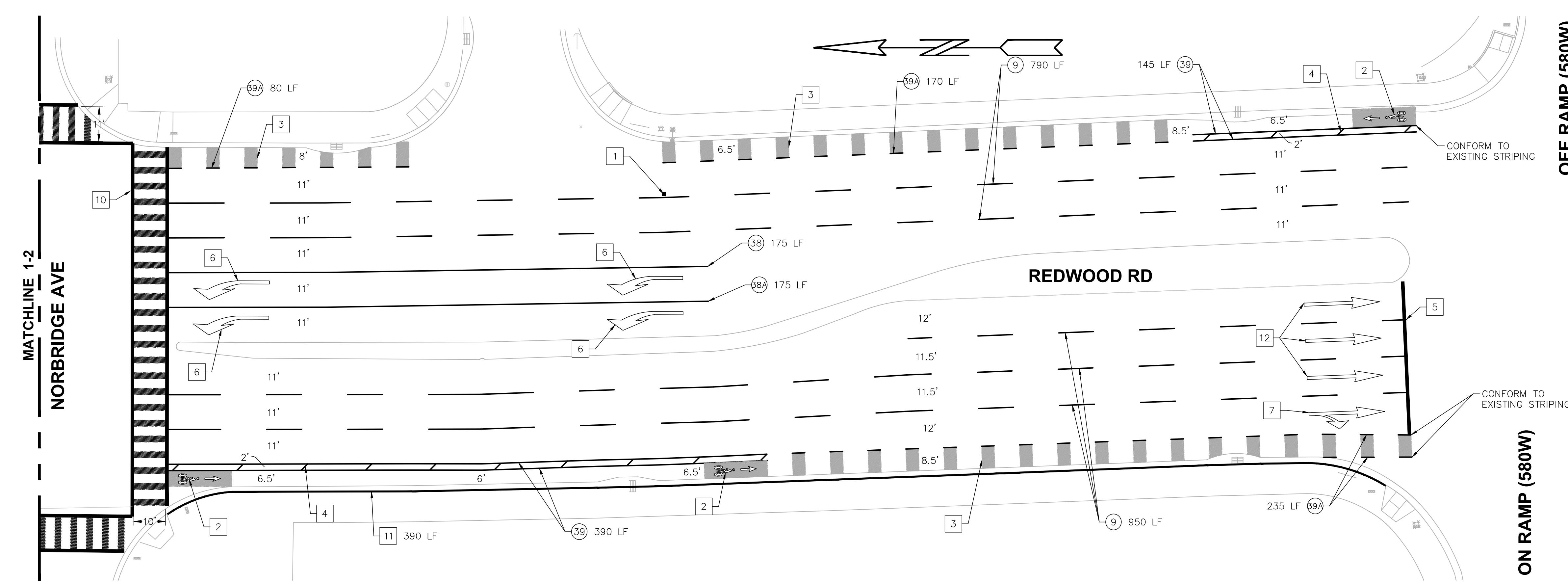
NOTES

1. SEE SHEET 1 FOR SIGNING AND STRIPING DETAILS, LEGEND, AND NOTE

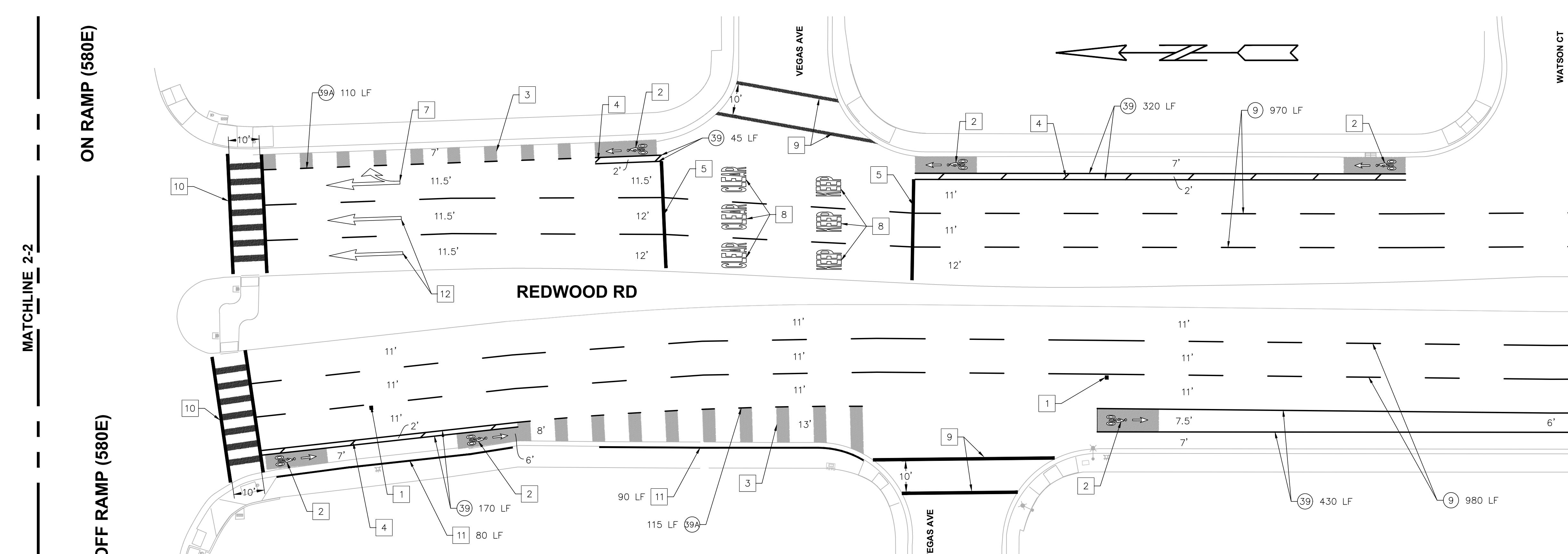
COUNTY OF ALAMEDA ☆ PUBLIC WORKS AGENCY		REVISIONS	
		5	4
IMPROVEMENTS OF REDWOOD ROAD FROM CASTRO VALLEY BLVD TO CHARLENE WAY SIGNING AND STRIPING PLAN		APPROVAL RECOMMENDED	APPROVAL DATE
DRAWN GINA SAECHAO	—	APPROVAL RECOMMENDED	APPROVAL DATE
DESIGNED GINA SAECHAO	—	APPROVAL RECOMMENDED	APPROVAL DATE
CHECKED AMBER LO / JIELIN PAN	SCALE APR 2025	SCALE 1" = 20'	APPROVAL DATE
WORK ORDER NO. R23503		NO. APPV'D	
SPECIFICATION NO. 2496		DESCRIPTION	
SHEET NO. 02 OF 05		APPROVAL DATE	
FILE NO. U-287-26		APPROVAL DATE	

CONSTRUCTION	REVIEWED BY:	DATE:	REVIEWED BY:	DATE:
MAINTENANCE			SURVEY	
REAL ESTATE			TRAFFIC	
			ENVIRONMENTAL	

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PLAN



PLAN

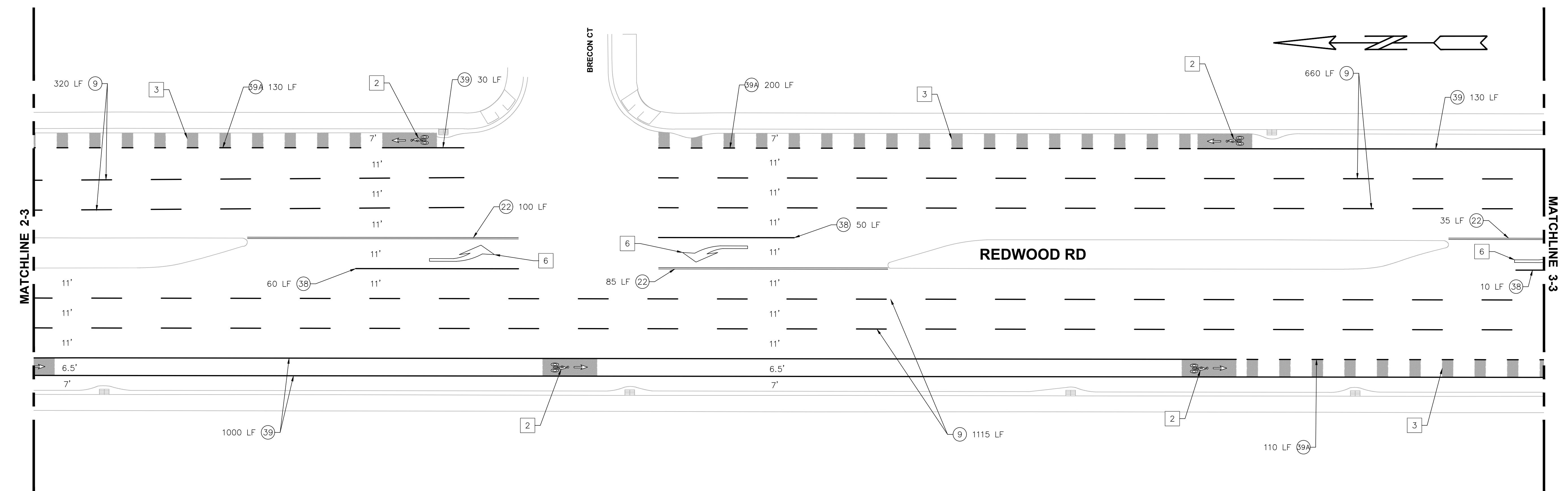
NOTES

1. SEE SHEET 1 FOR SIGNING AND STRIPING DETAILS, LEGEND, AND NOTES.

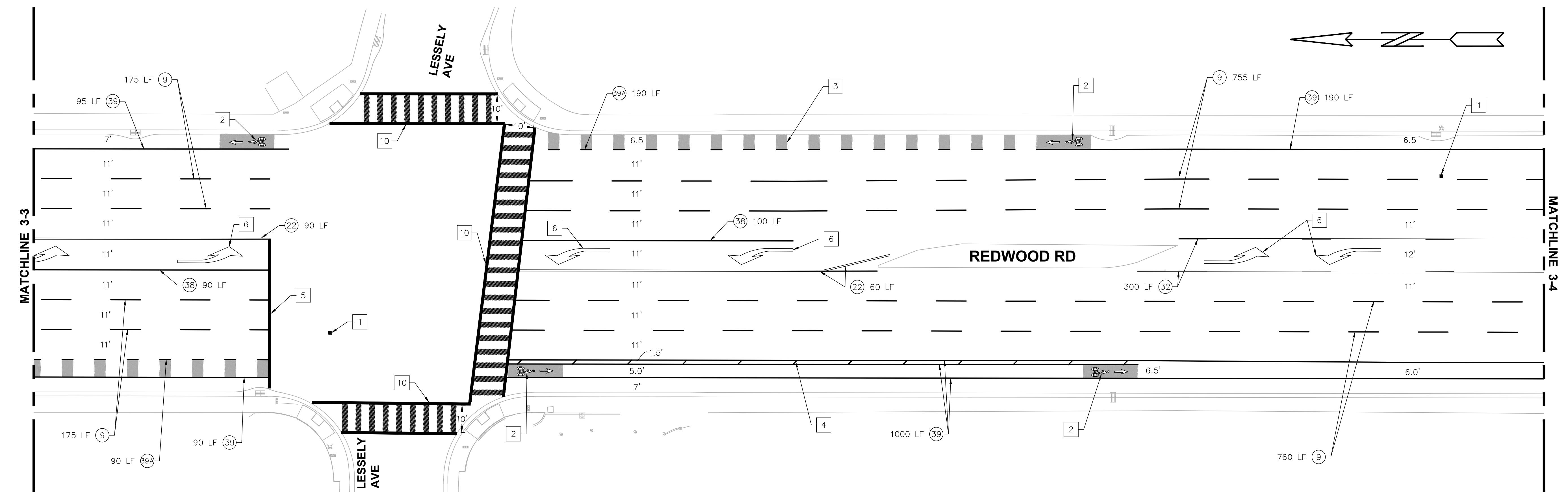
COUNTY OF ALAMEDA ☆ PUBLIC WORKS AGENCY	
IMPROVEMENTS OF REDWOOD ROAD FROM CASTRO VALLEY BLVD TO CHARLENE WAY	
SIGNING AND STRIPING PLAN	
WORK ORDER NO.	R23503
SPECIFICATION NO.	2496
SHEET NO.	03 OF 05
FILE NO.	U-287-26
APPROVAL RECOMMENDED	
DRAWN GINA SAECHAO	---
DESIGNED GINA SAECHAO	APPROVAL RECOMMENDED ---
CHECKED AMBER LO / JELIN PAN	DATE APR 2025 SCALE 1" = 20'
APPROVAL DATE: _____	

REVIEWED BY:	DATE:	REVIEWED BY:	DATE:
CONSTRUCTION		SURVEY	
Maintenance		TRAFFIC	
REAL ESTATE		ENVIRONMENTAL	

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PLAN



PLAN

NOTE

1. SEE SHEET 1 FOR SIGNING AND STRIPING DETAILS, LEGEND, AND NOTES.

COUNTY OF ALAMEDA ☆ PUBLIC WORKS AGENCY

**IMPROVEMENTS OF
REDWOOD ROAD FROM
CASTRO VALLEY BLVD TO CHARLENE WAY**

SIGNING AND STRIPPING PLAN

WORK ORDER NO.
R23503
SPECIFICATION NO.
2406

2496
SHEET NO.
04 OF 0

FILE NO.

U-287-26

Information Handout O: (Annual) Community Events

The Contractor must temporarily suspend all construction activities during Community events within a 5 mile proximity of a project location, including the following annual events:

	<u>EVENT</u>	<u>DURATION</u>	<u>MONTH*</u>
<u>1.</u>	<u>Castro Valley History Festival Featuring the Pro Rodeo Parade</u>	<u>1 day</u>	<u>May</u>
<u>2.</u>	<u>Castro Valley Blvd. Car Show</u>	<u>1 day</u>	<u>June</u>
<u>3.</u>	<u>Castro Valley High School Homecoming Parade</u>	<u>1 day</u>	<u>September</u>
<u>4.</u>	<u>Castro Valley Fall Festival</u>	<u>2 days</u>	<u>September</u>
<u>5.</u>	<u>Castro Valley Light Parade</u>	<u>1 day</u>	<u>November</u>

***Actual Date(s) to be determined at a later date**

In preparation of these events, the contractor must comply with the following:

- All traffic lanes must be made safe and open to all traffic (including vehicular, bicycle, and transit)**
- All onsite street parking (on the non-construction properties) must be restored**
- All sidewalks, walkways, and pathways must be made accessible on both sides**
- All entrances to private property must be restored and made accessible (and ADA compliant)**
- All entrances to private property must be secured and/or locked**
- All temporary removed fences and gates must be re-installed**
- All work areas must be cleaned and all debris removed**
- All equipment and materials must be secured and made safe from the public**

INFORMATION HANDOUT P

**Information Handout P: 84-2.03C(1) Preformed Thermoplastic Bike Lane
Symbols Pavement Markings and 84-2.03C(2) Preformed Thermoplastic Bike
Green Pavement Markings**

84-2.03C(1) Preformed Thermoplastic Bike Lane Symbols Pavement Markings (Addendum 1)

1. USE: A durable, high skid resistant, retroreflective pavement marking material suitable for use as bike lane, roadway, intersection, airport, commercial or private pavement delineation and markings. For use on asphalt or Portland cement concrete pavement surfaces.

1.1. The material shall be a resilient white (traffic symbols) and light green color (background) thermoplastic product, the surface of which must contain glass beads and abrasives in an alternating pattern optimizing both skid resistance and retro reflectivity.

1.2. The material shall be resistant to the detrimental effects of motor fuels, antifreeze, lubricants, hydraulic fluids etc.

1.3. The material shall be capable of being affixed to bituminous and/or Portland cement concrete pavements by the use of the normal heat of a propane torch.

1.4. The material shall be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic.

1.5. The material shall not have minimum ambient and road temperature requirements for normal application, storage, or handling. When manufacturer's standard application procedures require the use of a 2-component sealer, the material shall be capable of being applied with a compatible 2-component sealer recommended by the manufacturer, at minimum ambient and surface temperatures of 45°F without any special storage, preheating or treatment of the material before application.

2. MANUFACTURING CONTROL AND ISO CERTIFICATION: The manufacturer must be ISO 9001:2008 certified and provide proof of current certification. The scope of the certification shall include manufacture of reflective highway markings.

3. MATERIAL: Must be composed of an ester modified rosin resistant to degradation by motor fuels, antifreeze, lubricants, etc. in conjunction with aggregates, pigments, binders, abrasives, and glass beads which have been factory produced as a finished product, and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249-79 (98), with the exception of the relevant differences due to the material being supplied in a preformed state.

3.1. Graded Glass Beads:

3.1.1. The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall be clear and transparent. Not more than twenty percent (20%) consists of irregular fused spheroids, or silica. The index of refraction shall not be less than 1.50.

3.1.2. The material must have factory applied coated surface beads and abrasives in addition to the intermixed beads at a rate of 1/2 lb. (+ 20%) per 11 sq. ft. The surface beads and abrasives must be applied in an alternating arrangement across the surface of the material so that the surface is covered in what is best described as a “checkerboard” pattern of glass beads and abrasive materials. The abrasive material must have a minimum hardness of 8 (Mohs scale).

These factory applied coated surface beads shall have the following specifications:

INFORMATION HANDOUT P

<u>Size Gradation</u>			
<u>US Mesh</u>	<u>Um</u>	<u>% Retained</u>	<u>% Passing</u>
<u>12</u>	<u>1700</u>	<u>0 – 2%</u>	<u>98 – 100%</u>
<u>14</u>	<u>1400</u>	<u>0 – 6%</u>	<u>94 – 100%</u>
<u>16</u>	<u>1180</u>	<u>1 – 21%</u>	<u>79 – 99%</u>
<u>18</u>	<u>1000</u>	<u>28 – 62%</u>	<u>38 – 72%</u>
<u>20</u>	<u>850</u>	<u>62 – 71%</u>	<u>29 – 38%</u>
<u>30</u>	<u>600</u>	<u>67 – 77%</u>	<u>23 – 33%</u>
<u>50</u>	<u>300</u>	<u>86 – 95%</u>	<u>5 – 14%</u>
<u>80</u>	<u>200</u>	<u>97 – 100%</u>	<u>0 – 3%</u>

3.2. Pigments:

3.2.1. White: The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected

3.2.2. Light Green: The material shall be manufactured with appropriate pigment to ensure that the resulting colors complies with the Light Green color as specified in the FHWA Memorandum dated April 15th, 2011: Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14).

Daytime chromaticity coordinates for the color used for green colored pavement shall be as follows:

<u>1</u>		<u>2</u>		<u>3</u>		<u>4</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>
<u>0.230</u>	<u>0.754</u>	<u>0.266</u>	<u>0.500</u>	<u>0.367</u>	<u>0.500</u>	<u>0.444</u>	<u>0.555</u>

Nighttime chromaticity coordinates for the color used for green colored pavement shall be as follows:

<u>1</u>		<u>2</u>		<u>3</u>		<u>4</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>
<u>0.230</u>	<u>0.754</u>	<u>0.336</u>	<u>0.540</u>	<u>0.450</u>	<u>0.500</u>	<u>0.479</u>	<u>0.520</u>

3.2.3. The pigments shall contain no lead chromate.

3.3. Heating indicators: The top surface of the material shall have regularly spaced indents. The closing of these indents during application, shall act as a visual cue that the material has reached a molten state allowing for satisfactory adhesion and proper bead embedment, and as a post-application visual cue that the application procedures have been followed.

3.4. Skid Resistance: The surface of the preformed retroreflective marking materials, wherein every other shaped portion contains glass beads, or abrasives with a minimum hardness of 8

INFORMATION HANDOUT P

(Mohs scale), shall upon application provide a minimum skid resistance value of 60 BPN when tested according to ASTM: E 303.

3.5. Thickness: The material must be supplied at a minimum thickness of 90 mils (2.29 mm) or 125 mils (3.15mm).

3.6. Retroreflectivity: The preformed retroreflective marking materials, upon application, shall exhibit the following uniform nighttime retro reflectivity using a Delta LTL 2000 or LTL-X Retroreflectometer using the ASTM E1710 method:

- White preformed reflective marking materials—minimum of 275 mcd·m-2·lx-1
- Green preformed reflective marking materials of 50 mcd·m-2·lx-1

Note: Initial retroreflection and skid resistance are affected by the amount of heat applied during installation. When ambient temperatures are such that greater amounts of heat are required for proper installation, initial retroreflection and skid resistance levels may be affected.

3.7. Environmental Resistance: The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

3.8. Abrasives: The abrasives and surface beads must be applied in an alternating arrangement across the surface of the material so that the surface is covered in what is best described as a "checkerboard" pattern of glass beads and abrasive materials. The abrasive material must have a minimum hardness of 8 (Mohs scale).

4. APPLICATION:

4.1. Asphalt: The material shall be capable of being applied using the propane torch method recommended by the manufacturer, without minimum requirements for ambient and road temperatures down to 45°F, and without any preheating of the pavement to a specified temperature. The material shall be capable of being applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions with each box/package.

4.2. Portland Concrete: The same application procedure shall be used as described under Section 4.1, however, a compatible primer sealer, recommended by the manufacturer, shall be applied to the surface prior to the application of material to ensure proper adhesion.

5. PACKAGING: The preformed thermoplastic markings shall be placed in protective plastic film with cardboard stiffeners where necessary to prevent damage in transit. Linear material must be cut to a maximum of 3' long pieces. Legends and symbols must also be supplied in flat pieces. The cartons in which packed shall be non-returnable and shall not exceed 40" in length and 25" in width, and be labeled for ease of identification. The weight of the individual carton must not exceed seventy (70) pounds. A protective film around the box must be applied in order to protect the material from rain or premature aging.

6. TECHNICAL SERVICES: The successful bidder shall provide technical services as required.

7. PERFORMANCE: The preformed thermoplastic markings shall meet state specifications and be approved for use by the appropriate state agency.

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84-2.03C(2) Preformed Thermoplastic Bike Green Pavement Markings (Addendum 1)

1. USE: A durable, high skid and slip resistant pavement marking material suitable for use as, bike lane, roadway, intersection, airport, commercial or private pavement delineation and markings. For use on asphalt or Portland cement concrete pavement surfaces.

1.1. The material shall be a resilient light green color thermoplastic product containing a minimum thirty percent (30%) intermix of anti-skid/anti-slip elements and where the top surface contains anti-skid/anti-slip elements. These anti-skid/anti-slip elements must have a minimum hardness of 8 (Mohs scale).

1.2. The material shall be resistant to the detrimental effects of motor fuels, antifreeze, lubricants, hydraulic fluids etc.

1.3. The material shall be capable of being affixed to bituminous and/or Portland cement concrete pavements by the use of the normal heat of a propane torch, infrared heater, or a blue radiant heater.

1.4. The material shall be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures (i.e. without preheating the application surface to a specific temperature). The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic.

1.5. The material shall not have minimum ambient and road temperature requirements for normal application, storage, or handling. When manufacturer's standard application procedures require the use of a 2-component sealer, the material shall be capable of being applied with a compatible 2-component sealer recommended by the manufacturer, at minimum ambient and surface temperatures of 45°F without any special storage, preheating or treatment of the material before application.

1.6. The material shall contain heating indicators evenly distributed on the surface that shall act as visual cues during both the application process and post-application.

2. MANUFACTURING CONTROL AND ISO CERTIFICATION: The manufacturer must be ISO 9001:2008 certified for design, development and manufacturing and provide proof of current certification. The scope of the certification shall include the design, development, and manufacture of preformed thermoplastic reflective highway markings.

3. MATERIAL: Must be composed of an ester modified rosin resistant to degradation by motor fuels, antifreeze, lubricants, etc. in conjunction with aggregates, pigments, binders, abrasives, and anti-skid/anti-slip elements (uniformly distributed throughout the material) which have been factory produced as a finished product, and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249-79 (98), with the exception of the relevant differences due to the material being supplied in a preformed state.

3.2. Pigment: 3.2.2. Light Green: The material shall be manufactured with appropriate pigment to ensure that the resulting colors complies with the Light Green color as specified in the FHWA Memorandum dated April 15th, 2011: Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14).

Daytime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555

INFORMATION HANDOUT P

Nighttime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.230	0.754	0.336	0.540	0.450	0.500	0.479	0.520

3.3. The pigments shall contain no lead chromate nor heavy metals or any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

3.4. Heating indicators: The top surface of the material shall have regularly spaced indents. The closing of these indents during application, shall act as a visual cue that the material has reached a molten state allowing for satisfactory adhesion and proper bead embedment, and as a post-application visual cue that the application procedures have been followed.

3.5 Skid Resistance: The surface of the preformed thermoplastic marking materials shall contain factory applied elements with a minimum hardness of 8 (Mohs scale). Upon application, the material shall provide a minimum skid resistance value of 60 BPN when tested according to ASTM: F 303.

3.6. Slip Resistance: The surface of the preformed thermoplastic marking materials shall contain factory applied anti-skid elements with a minimum hardness of 8 (Mohs scale). Upon application, the material shall provide a minimum static coefficient of friction of 0.6 when tested according to ASTM: C 1028 (wet and dry), and a minimum static coefficient of friction of 0.6 when tested according to ASTM: D 2047.

3.7. Thickness: The material must be supplied at a minimum thickness of 90 mils (2.29 mm).

3.8. Environmental Resistance: The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

4. APPLICATION:

4.1. Asphalt: The material shall be capable of being applied using the propane torch method recommended by the manufacturer, without minimum requirements for ambient and road temperatures down to 45°F, and without any preheating of the pavement to a specified temperature. The material shall be capable of being applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions with each box/package.

4.2. Portland Concrete: The same application procedure shall be used as described under Section 4.1, however, a compatible primer sealer, recommended by the manufacturer, shall be applied to the surface prior to the application of material to ensure proper adhesion.

5. PACKAGING: The preformed thermoplastic markings shall be placed in protective plastic film with cardboard stiffeners where necessary to prevent damage in transit. Linear material must be cut to a maximum of 3' long pieces. Legends and symbols must also be supplied in flat pieces. The cartons in which packed shall be non-returnable and shall not exceed 40" in length and 25" in width, and be labeled for ease of identification. The weight of the individual carton must not exceed fifty (50) pounds. A protective film around the box must be applied in order to protect the material from rain or premature aging.

6. TECHNICAL SERVICES: The successful bidder shall provide technical services as required.

7. PERFORMANCE: The preformed thermoplastic markings shall meet state specifications and be approved for use by the appropriate state agency.

INFORMATION HANDOUT Q

**Information Handout Q: County of Alameda Minimum Insurance Requirements
(Exhibit C)**

EXHIBIT C

COUNTY OF ALAMEDA MINIMUM INSURANCE REQUIREMENTS

Without limiting any other obligation or liability under this Agreement, the Contractor, at its sole cost and expense, shall secure and keep in force during the entire term of the Agreement or longer, as may be specified below, the following minimum insurance coverage, limits and endorsements. The County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances. If the contractor maintains broader coverage and/or higher limits than the minimums shown below, the County requires and shall be entitled to the broader coverage and/or the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the County.

TYPE OF INSURANCE COVERAGES		MINIMUM LIMITS
A	Marine General Liability (MGL) or Commercial General Liability with no waterborne exclusions Premises Liability; Products and Completed Operations; Contractual Liability; Personal Injury and Advertising Liability	\$3,000,000 per occurrence (CSL) Bodily Injury and Property Damage
B	Commercial or Business Automobile Liability All owned vehicles, hired or leased vehicles, non-owned, borrowed and permissive uses.	\$2,000,000 per occurrence (CSL) Any Auto Bodily Injury and Property Damage
C	Workers' Compensation (WC) and Employers Liability (EL) Required for all contractors with employees	WC: Statutory Limits EL: \$1,000,000 per accident for bodily injury or disease
D	Builder's Risk (Course of Construction) insurance utilizing an "All Risk" (Special Perils) coverage form or Installation Floater as applicable	Limits equal to the completed value of the project and no coinsurance penalty provisions.
E	Professional Liability If project involves design/build	\$1,000,000 per occurrence or claim \$2,000,000 policy aggregate
F	Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions If project involves environmental hazards	\$1,000,000 per occurrence or claim \$2,000,000 policy aggregate

INFORMATION HANDOUT Q

F	<p><u>Endorsements and Conditions:</u></p> <ol style="list-style-type: none">1. ADDITIONAL INSURED: County of Alameda, its Board of Supervisors, the individual members thereof, and all County officers, agents, employees, volunteers, and representatives are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 if a later edition is used). Auto policy shall contain or be endorsed to contain additional insured coverage for the County.2. DURATION OF COVERAGE: All required insurance shall be maintained during the entire term of the Agreement. In addition, Insurance policies and coverage(s) written on a claims-made basis shall be maintained and evidence of insurance must be provided during the entire term of the Agreement and for at least five (5) years following the later of termination of the Agreement and acceptance of all work provided under the Agreement, with the retroactive date of said insurance (as may be applicable) concurrent with the commencement of activities pursuant to this Agreement. If coverage is cancelled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Contractor must purchase "extended reporting" coverage for a minimum of five (5) years after completion of work.3. REDUCTION OR LIMIT OF OBLIGATION: All insurance policies, including excess and umbrella insurance policies, shall be primary and non-contributory coverage at least as broad as ISO CG 20 10 04 13 as respects the County, its officers, officials, employees, or volunteers. Any insurance or self-insurance maintained by the County, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it. Pursuant to the provisions of this Agreement insurance effected or procured by the Contractor shall not reduce or limit Contractor's contractual obligation to indemnify and defend the Indemnified Parties.4. INSURER FINANCIAL RATING: Insurance shall be maintained through an insurer with an A.M. Best Rating of no less than A: VII or equivalent, shall be admitted to the State of California unless otherwise acceptable by Risk Management, and with deductible amounts acceptable to the County. Acceptance of Contractor's insurance by County shall not relieve or decrease the liability of Contractor hereunder. Self-insured retentions must be declared and approved. Any deductible or self-insured retention amount or other similar obligation under the policies shall be the sole responsibility of the Contractor. The policy language shall provide or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or County.5. SUBCONTRACTORS: Contractor shall include all subcontractors as an insured (covered party) under its policies or shall verify that the subcontractor, under its own policies and endorsements, has complied with the insurance requirements in this Agreement, including this Exhibit.6. JOINT VENTURES: If Contractor is an association, partnership or other joint business venture, required insurance shall be provided by one of the following methods:<ul style="list-style-type: none">– Separate insurance policies issued for each individual entity, with each entity included as a "Named Insured" (covered party), or at minimum named as an "Additional Insured" on the other's policies. Coverage shall be at least as broad as in the ISO Forms named above.– Joint insurance program with the association, partnership or other joint business venture included as a "Named Insured".7. CANCELLATION OF INSURANCE: Each insurance policy required above shall provide that coverage shall not be cancelled, except with notice of cancellation provided to the County in accordance with policy terms and conditions.8. CERTIFICATE OF INSURANCE: Before commencing operations under this Agreement, Contractor shall provide Certificate(s) of insurance and applicable insurance endorsements as set forth in the provisions of this Agreement and this Exhibit C, in forms satisfactory to County, evidencing that all required insurance coverage is in effect. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The County reserves the right to require the Contractor to provide complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.
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Information Handout R: Redwood Road Night Work Provisions

SOUND CONTROL REQUIREMENTS

Sound control shall conform to the provisions in **Section 14-8, "NOISE AND VIBRATION,"** of these Revised Standard Specifications and these special provisions.

The noise level requirement shall apply to the 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.

Noise Mitigation

The Contractor shall implement the following noise mitigation measures to reduce noise impacts at all times and shall adhere to the Local Noise Ordinance(s) at all times:

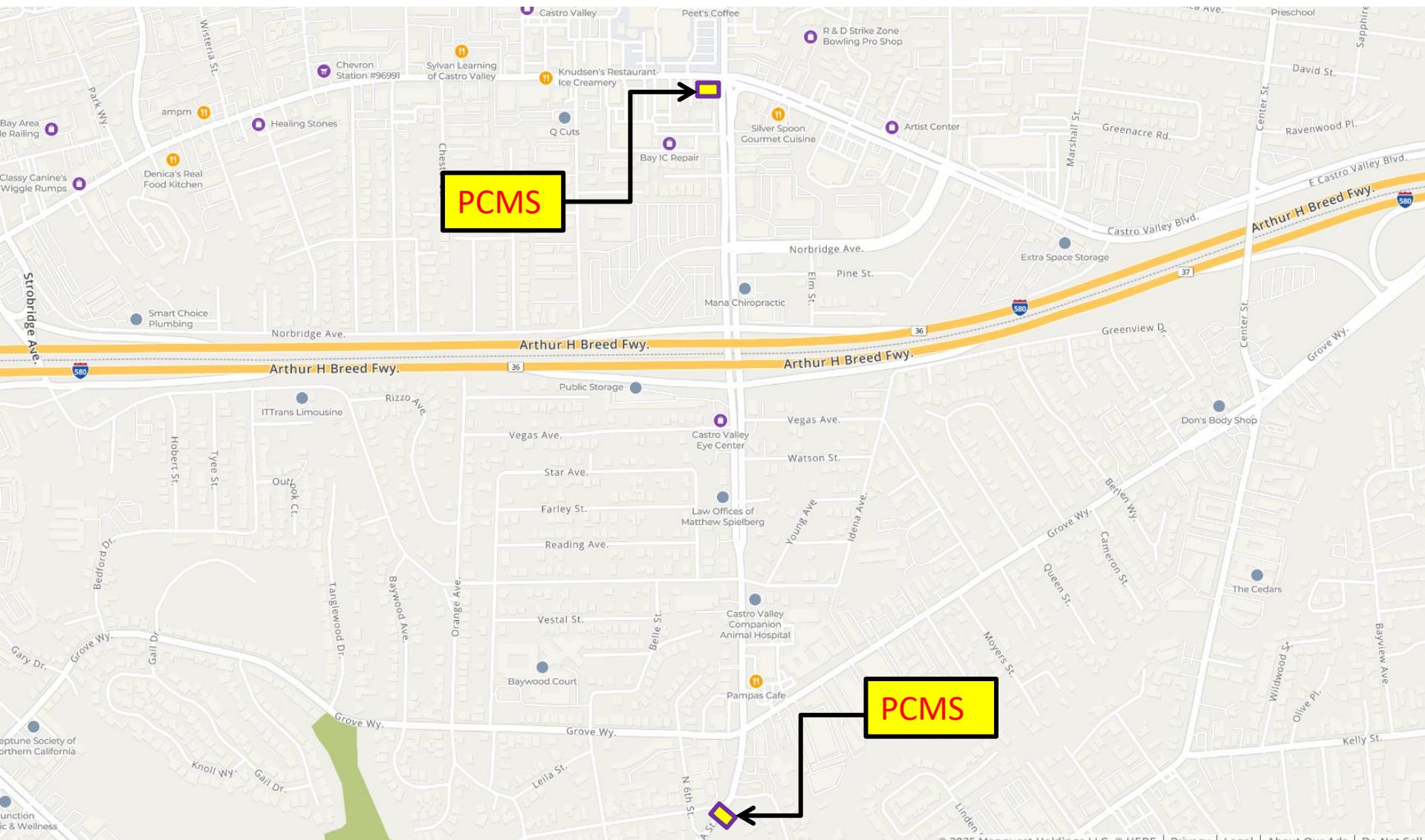
- a. Contractor shall use equipment and vehicles fitted with the best available noise control devices and techniques, e.g. exhaust mufflers, intake silencers, ducts, engine enclosures, acoustic shields or shrouds;
- b. Contractor shall use quieter equipment and methods of construction to the extent feasible, e.g. drilling in lieu of jack-hammering, hydraulic or electric equipment in lieu of pneumatic;
- c. Contractor shall install temporary noise barriers around the construction site where feasible between the construction area and the residences and other sensitive receptors;
- d. Contractor shall restrict idling of vehicles.

Full compensation for complying with the requirements in this section, including furnishing all labor, material, tools, equipment and incidentals in implementing all noise mitigation measures as described herein and as directed by the Engineer, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

INFORMATION HANDOUT S

Information Handout S: PCMS Sign Placement Location Map

REDWOOD ROAD



PCMS-1