

DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT OFFICE

50 HIGUERA STREET

SAN LUIS OBISPO, CA 93401-5415

PHONE (805) 549-3152

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TTY 711

<http://www.dot.ca.gov/dist05>*Making Conservation
a California Way of Life*

October 27, 2021

05-SCr-9-8.113

0521 NUT 0661

San Lorenzo Valley Water District
Attn: Josh Wolff
13060 CA-9
Boulder Creek, CA 95006

Dear Josh:

Attached is your approved encroachment permit. **DO NOT BEGIN WORK UNTIL YOU HAVE FIRST READ THE PERMIT CAREFULLY AND COMPLETELY AND CONTACTED THE STATE INSPECTOR LISTED ON YOUR PERMIT.**

This permit is a legal and binding contract once work on it has begun. You are subject to the provisions contained in the permit and in the attached Encroachment Permit General Provisions. If there is any question regarding interpretation of any detail in the permit or the General Provisions, you may contact the inspector listed on your permit or our office at (805) 549-3152. Thank you in advance for your cooperation.

Pursuant to the Executive Department, State of California, Proclamation of a State of Emergency, signed on October 27, 2019, and under the direction of the Office of Emergency Services and the State Emergency Plan, work authorized by this permit will be suspended when a planned Public Safety Power Shutoff (PSPS) notification is in effect. Unless Permittee has obtained special approval from the Director of Caltrans or his assigns to work during a PSPS event, Permittee must stop work and make all traveled ways and roadsides safe for public travel and emergency services if notified by the Director of Caltrans or his assigns.

Sincerely,

A handwritten signature in blue ink that reads "Eileen Stephens".

Eileen Stephens, PE, QSD/P
District Permit Engineer

ENCROACHMENT PERMIT

TR-0120 (REV. 6/2012)

Permit No.

0521 NUT 0661

In compliance with (Check one):

☒ Your application of **July 21, 2021**☐ Utility Notice No. _____ of _____☐ Agreement No. _____ of _____☐ R/W Contract No. _____ of _____

Dist/Co/Rte/PM

05-SCr-9-8.113

Date

October 27, 2021

Fee Paid

Exempt

Deposit

Performance Bond Amount (1)

Payment Bond Amount (2)

Bond Company

Bond Number (1)

Bond Number (2)

TO: San Lorenzo Valley Water District

Attn: Josh Wolff

13060 CA-9

Boulder Creek, CA 95006

Phone: (831) 430-4635

Permittee's Reference No. _____

_____, **PERMITTEE****and subject to the following, PERMISSION IS HEREBY GRANTED to:**

Trench, install saddle tap and gate valve on existing water main under CA-9, install new 8" DIP perpendicular to road centerline, bore 16" diameter penetration through existing concrete retaining wall, install 16" sleeve and route new 8" DIP through sleeve, restore roadway, construct externally suspended 8" DIP pipeline along outer edge/underside of existing bridge to edge of State ROW as shown on the attached plans and as directed by the permit provisions in State Route 9 right of way at postmile 8.113 in the County of Santa Cruz.

Page 1 of 22

THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER.

The following attachments are also included as part of this permit (Check applicable):

- ☒ Yes ☐ No General Provisions (TR-0045)
☐ Yes ☒ No Utility Maintenance Provisions
☒ Yes ☐ No Special Provisions
☐ Yes ☒ No A Cal-OSHA permit, if required: Permit No. _____
☐ Yes ☒ No As-Built Plans Submittal Route Slip for Locally Advertised Projects
☒ Yes ☐ No Std. Storm Water Pollution Prevention Special Provisions
☒ Yes ☐ No The information in the environmental documentation has been reviewed and is considered prior to approval of this permit.

In addition to fee, the Permittee will be billed actual costs for:

- ☐ Yes ☒ No Review
☒ Yes ☐ No Inspection
☒ Yes _____ Field Work
 (If any Caltrans effort expended)

This permit is void unless the work is completed before

April 30, 2022

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.

No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

CC:
 Permit File
 David Ontiveros-SCR Maint. (Insp.)
 Eric DeGroodt-SCR Maint.

APPROVED:

TIMOTHY M. GUBBINS, District Director

BY:



Eileen Stephens, PE, QSD/P, District Permit Engineer

JC

STATE PERMIT INSPECTOR

Unless approved otherwise by the State Permit Inspector, **Permittee must contact the State Permit Inspector listed below, at the following times, before starting work in the State right of way:**

- **A minimum of two weeks** prior to commencing work for a pre-job meeting to discuss permit provisions, notification requirements, and scheduling.
- **A minimum of two working days** prior to commencing work.

State Permit Inspector: David Ontiveros	Phone: (831) 476-1337
Email: david.ontiveros@dot.ca.gov	Fax: (831) 476-1803

Notification requirements that will impact your work schedule:

1. **Changes to horizontal or vertical clearances;** minimum of 25-day advance notification.
2. **Lane closures;** completed "Weekly Traffic Update" form must be submitted by noon the Tuesday prior to date of proposed lane closure.
3. **Public Affairs;** completed "Public Affairs – Permitted Activity Notification" form must be submitted by noon the Wednesday prior to begin activity date.
4. When work has been interrupted for more than five working days, the Permittee must notify the Caltrans Permit Inspector a minimum of two working days prior to **restarting work**.

This issued encroachment permit is void unless the permitted activity or construction is completed by the void date shown on page 1 of this encroachment permit. The Permittee is solely responsible to keep track of the permit void date. All requests to extend this void date must be received by the District 5 Encroachment Permits Office while the encroachment permit is valid. Request for an extension received after the permit void date cannot be processed.

Pursuant to the Executive Department, State of California, Proclamation of a State of Emergency, signed on October 27, 2019, and under the direction of the Office of Emergency Services and the State Emergency Plan, work authorized by this permit will be suspended when a planned Public Safety Power Shutoff (PSPS) notification is in effect. Unless Permittee has obtained special approval from the Director of Caltrans or his assigns to work during a PSPS event, Permittee must stop work and make all traveled ways and roadsides safe for public travel and emergency services if notified by the Director of Caltrans or his assigns.

ADDITIONAL ATTACHMENTS

- PUBLIC AFFAIRS PROJECT NOTIFICATION
- HOLIDAYS AND ANTICIPATED NO WORK DAYS
- WEEKLY TRAFFIC UPDATE
- CALTRANS STANDARD PLANS T9-T14, T30-T34
- FORM DC-CEM-3101
- HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT
- STEEL PLATE BRIDGING UTILITY
- TRAFFIC STRIPING, MARKERS, AND SIGNS
- UTILITY UNDERGROUND PROVISIONS (UG)
- Other:
 - Encroachment Permit Trench Detail (TR-0153)
 - Limits of Grind and Overlay for Pavement Replacement
 - Typical Temporary Sign Support Details
 - Notice of Completion TR-0128

PLANS AND SPECIFICATIONS

If conflicts arise between Special Provisions, Plans, Caltrans Standard Plans, Standard Specifications, or other Caltrans standards, the Caltrans Inspector shall make the final determination regarding selection or interpretation of standards and/or specifications. State Standards and Specifications must apply to all work within the State right of way unless directed otherwise by the State Inspector. Reference to the Engineer in the State Standard Specifications must include the State Representative (Caltrans Permit Inspector or District Permit Engineer).

Attention is directed to Section 5 of the current State Standard Specifications and the Encroachment Permit General Provisions (TR-0045) regarding control of work and permit work plan revisions. Additionally, the State Permit Inspector may require reasonable additions, modifications, or revisions to the scope of work at no cost to the State if the change is in the best interest of the State facility where the encroachment permit is being granted and Caltrans policy, Standard Specifications, or Permit Provisions are unclear.

WORK HOURS

Work authorized by this permit that does not restrict or close any traffic lane may be performed on weekdays between the hours of 9:00 AM and 3:00 PM.

Traffic lane restrictions or closures:

Nighttime lane closures shall only be allowed on **Monday through Thursday between the hours of 8:00 PM and 7:00 AM, and Friday between the hours of 12:00 AM and 7:00 AM.**

The State Inspector must approve deviations from these hours in advance.

See attachment for lane closure restrictions for holidays and anticipated no work days.

All work that will impact the normal operations of Caltrans traffic signal facilities must be performed under traffic control and during the hours approved by the Caltrans Inspector and Caltrans District 5 Traffic Management Center.

DOUBLE PERMIT

Notwithstanding General Provision #4, your Contractor is required to apply for and obtain an encroachment permit prior to starting work. The Contractor will be billed \$1640.00 by Caltrans Accounting for permit processing and anticipated permit inspection fees to issue the double permit. The Contractor will be billed for any amount exceeding the permit fees or refunded any unused portion thereof after completion of the project. The Contractor's encroachment permit application must state that it is a "Double Permit for permit number 0521 NUT 0661."

Work within the State right of way must not begin until the double permit has been issued.

The Permittee's contractor is responsible to provide the following:

A. Caltrans Lane Closure System (LCS) Compliance

1. Work authorized by this permit will require compliance and proper notification in LCS.
2. Your contractor must provide the contact information for two personnel, who will be ensuring LCS compliance in item 17 (description of work) of the Standard Encroachment Permit Application TR-0100 when applying for the double permit. Contact information shall include personnel's full names, phone numbers and email addresses.
3. Double permit applications missing the LCS contacts will be rejected.

B. A certificate of liability insurance and an additional insured endorsement is required to cover the State's potential liability for the permitted work and the issuance of the Double Permit. The certificate and endorsement must name "the State of California, California Department of Transportation, the directors, officers, employees, and/or agents of the State of California and/or the California Department of Transportation" as additional insured for the following minimum liability insurance limits:

\$2,000,000.00	General Liability Aggregate
\$1,000,000.00	General Liability per Occurrence
\$100,000.00	Non-Owned Vehicle Property Damage

The Certificate must contain "Permit Number 0521 NUT 0661" in the description of the Certificate.

NOTIFICATIONS

Notice of Materials Used

Permittee's attention is directed to the State Standard Specification – Section 6 "Control of Materials."

The Permittee must bear all costs for source material inspection. Please note that these materials may require source inspection and approval at the manufacturer's plant.

Permittee shall be solely responsible to furnish a list of materials to be used on the permitted project by completing the attached Form CEM-3101 "Notice of Materials Used" for traffic signal standards, lighting (electrolier) standards, metal poles, mast arms, foundation bolts, overhead sign trusses, guard rail components, column casings, epoxy coated rebar, reinforced concrete pipe, steel girders, sign panels, and other items as specified by the State representative. Form must be submitted to the Caltrans Permit Inspector and METS Material Administrator.

The METS Material administrator must determine which materials will require source inspection and which will require onsite inspection in coordination with the Caltrans Permit Inspector. Additional form submissions may be required to address additional items that require source inspection.

Please allow a minimum of six weeks for source inspection, testing, and approval of materials to be used.

The METS Material Administrator can be reached via fax at 916-227-7084 or via email at materials_administrator-METS@dot.ca.gov.

TRAFFIC CONTROL AND PUBLIC SAFETY

All traffic control must be performed under the direction of qualified and competent traffic control personnel. If it becomes apparent to the Caltrans Permit Inspector that the Permittee's contractor does not have adequately trained and competent staff to perform traffic control, the Permittee or Permittee's contractor must hire a suitable contractor to provide traffic control.

Traffic control and construction zone signing must be performed per an approved traffic control plan.

In the absence of a project specific traffic control plan:

All traffic control must be performed in compliance with the applicable Caltrans Standard Plans for traffic control, California Manual on Uniform Traffic Control Devices, or as approved by and as directed by the Caltrans Permit Inspector,

or

If requested by the Caltrans Permit Inspector, Permittee or Permittee's contractor must provide a traffic control plan prepared by a duly licensed individual for review and approval. Plans must bear the licensed individual's signature and identifying licensing information.

All traffic control personnel performing flagging operations must be trained in accordance with Cal/OSHA Title 8, Division 1, Chapter 4, subchapter 4 Construction Safety Orders, Article 11, Section 1599 (f) and (g), and must provide certification of training if requested by the State Permit Inspector.

All traffic control devices must comply with the current California Manual of Uniform Traffic Control Devices.

The Permittee must provide all traffic control devices and personnel. All expenses incurred from traffic control operations must be borne by the Permittee.

Work must not interfere with traffic and no equipment must be parked on or operated from the traveled way unless approved by the Caltrans representative.

Notwithstanding lane closures noted in the traffic control plans or elsewhere in this permit, the full width of the traveled way must be open for use by public traffic on Saturdays, Sundays, designated legal holidays, the day preceding designated legal holidays, after 3:00 PM on Fridays, and when construction operations are not actively in progress.

On multilane roadways, a minimum of one-paved traffic lane, not less than 12 feet wide, must be open for use by public traffic in each direction of travel.

On 2-lane, two-way roadways a minimum of one-paved traffic lane not less than 12 feet wide must be open for use by public traffic. When construction operations are not actively in progress, not less than 2 of these lanes must be open to public traffic.

If approved by the State Inspector, one lane may be closed during construction and public traffic stopped for periods not to exceed 5 minutes. After each closure, all accumulated traffic must be allowed to pass through the work before another closure is made. Lane closures must not exceed 0.5 mile in length.

Minor deviations from the requirements of this section concerning hours of work may be permitted upon the written request of the Permittee if, in the opinion of the Inspector, public traffic will be better served, and the work expedited. The Permittee must not adopt these deviations until the Inspector has approved them in writing.

Except for installing, maintaining and removing traffic control devices, whenever work is performed, or equipment is operated in the following work areas the Permittee must close the adjacent traffic lane:

APPROACH SPEED OF PUBLIC TRAFFIC (Posted Speed Limit) (mph)	WORK AREA
Over 45	Within 6 feet of a traffic lane but not on a traffic lane.
35 to 45	Within 3 feet of a traffic lane but not on a traffic lane.

The lane closure provisions of this section shall not apply if permanent railing, temporary railing or a barrier protects the work area.

"NO PARKING" zones must be posted a minimum of 48 hours in advance of proposed parking lane closure.

Suspended Loads

Suspended loads or equipment must not be moved nor positioned over public traffic or pedestrians.

Portable Transverse Rumble Strips – State Standard Specifications 12-3.36

12-3.36A General

12-3.36A (1) Summary

Section 12-3.36 includes specifications for placing portable transverse rumble strips.

12-3.36A (2) Definitions

Not Used

12-3.36A (3) Submissions

Submit a copy of the manufacturer's instructions.

12-3.36A (4) Quality Assurance

Not Used

12-3.36B Materials

The strip must be either the RoadQuake 2 or the RoadQuake 2F Folding Temporary Portable Rumble

Strip manufactured by Plastic Safety Systems, Inc. For information on obtaining the rumble strips, contact:

CUSTOMER SERVICE
PLASTIC SAFETY SYSTEMS, INC.
2444 BALDWIN RD
CLEVELAND, OH 44104

Telephone no.: (800) 662-6338 or (216) 231-8590

12-3.36C Construction

Place portable transverse rumble strips before closing the lane to traffic.

The color of the portable transverse rumble strips must be black or orange. Use 2 arrays and, each array must consist of 3 rumble strips.

Portable transverse rumble strips must not be placed:

1. On sharp horizontal or vertical curves
2. Through pedestrian crossings

If the portable transverse rumble strips become out of alignment or skewed by more than 6 inches, measured from one end to the other, readjust to bring the placement back to the original location.

Portable transverse rumble strips are not required if any of the following

conditions is met:

1. Work duration occupies a location for 4 hours or less.
2. Posted speed limit is below 45 mph.
3. Work is of emergency nature.
4. Work zone is in snow or icy weather conditions.

For a RoadQuake 2 rumble strip, securely connect the 3 sections under the manufacturer's instructions before placing them in the traffic lane.

Remove all portable transverse rumble strips and warning signs before opening the lane to traffic.

If the Engineer determines that the portable transverse rumble strips no longer provide audible and vibratory alerts, replace them.

GENERAL REQUIREMENTS

Project/Work Site

All disturbed areas must be restored to original or better condition.

Any change in the existing drainage pattern, whether occasioned by increase or diversion, and the cost of damage, repair or restoration of the State highway right of way must be the responsibility of the Permittee.

No earth or construction materials are to be dragged or scraped across the highway pavement. No excavated earth shall be placed or allowed to remain at a location where it can be tracked on the highway traveled way, public or private approach by the Permittee's construction equipment or by traffic entering or leaving the highway traveled way. The Permittee must immediately remove excavated earth or mud so tracked onto the highway pavement or public or private approach.

No excavation, maintenance hole, pull box, or vault shall be left open overnight or unattended during work hours without written permission from the Caltrans representative and adequate protection for traffic and pedestrians is provided.

Any earthwork, excavation and embankments must conform to Caltrans Standard Specifications - Section 19.

Any clearing and grubbing must conform to Caltrans Standard Specification Section 17-2.

All newly placed concrete must be cured in accordance with the provisions of

Section 90-1.03B, "Curing Concrete," of Caltrans Standard Specifications.

Personnel Protective/Safety Equipment

All personnel working within the State right of way must wear the appropriate personnel safety/protective equipment as specified by the personnel's employer's "Injury and Illness Prevention Program" required by the California Code of Regulations 3203. If requested by the Caltrans Permit Inspector, personnel's employer must provide a copy of said "Injury and Illness Prevention Program" and identify the locations within the document that addresses, but not limited to, personal protective equipment, head protection, and warning garments.

In the absence of an "Injury and Illness Prevention Program," all other personnel within the project work zone must conform to the personnel protective/safety equipment requirements in the latest edition of the Caltrans Safety Manual.

Aerially Deposited Lead (ADL) for Minimal Disturbance

Permittee must reuse the soil within the work limits in the immediate area from which it was excavated. If any excess soil is generated, it becomes the property of the Permittee. Permittee must transport all excess soil outside of Caltrans' right-of-way, and dispose of it in accordance with all applicable environmental laws and regulations.

Construction Debris and Waste Materials

The Permittee solely owns all construction debris and waste materials, including hazardous waste, generated by this permitted project. Said materials must be removed from the State right of way, stored, and disposed of in accordance with applicable local, regional, State, and Federal specifications or regulations. Construction debris and waste materials must be disposed of:

at designated off-site commercial facilities approved to accept said materials;

at non-commercial permitted sites approved to accept said materials (Permittee must provide copies of all necessary local and State agency permits prior to disposal.);

or at sites outside of the State of California approved to accept said materials (Permittee to provide copies of permits issued by the local and State agency with jurisdiction over the site prior to disposal.).

If requested by the State Permit inspector, Permittee must provide a copy of documentation as proof of the proper disposal of said materials.

Survey Monumentation

Permittee's attention is directed to Section 5-1.36, "Property and Facility Preservation," Caltrans Standard Specifications and "Professional Land Surveyors' Act," Section 8771 of the State of California Business and Professions Code. Permittee must physically inspect the work site and locate survey monuments prior to work commencement. Monuments that might be disturbed must be referenced or reset in accordance with the standards mentioned above.

If feasible, monuments should not be set within the traveled way. All monuments that must be set or perpetuated in paved surfaces must be constructed in accordance with Caltrans Standard Specifications, Section 78-2, "Survey Monuments," and Caltrans Standard Plan A74, Type D, or equal with prior approval of the District Surveys Engineer.

Copies of Corner Record files or Record of Surveys recorded in compliance with the Business and Professions Code must be forwarded to the Caltrans District 5 Surveys Engineer at the following address:

Caltrans District 5
Survey Section
Attn: Jeremy Villegas
50 Higuera Street
San Luis Obispo, CA 93401

Phone: (805)549-3066
Email: jeremy.villegas@dot.ca.gov

Open Trench Pavement

The clearance and offset requirements for new utility installations within existing or ultimate State Highway rights of way must meet the following minimum clearances along the alignment of the facility:

1. 42 inches below the finished grade or 18 inches below the grading plane of a currently planned project, whichever distance is greater
2. 12 inches below existing or future drainage structures, but not less than the requirements identified in item 1 above
3. 30 inches below the flow line of unlined ditches
4. 24 inches horizontally from the face of piles
5. 24 inches horizontally from the side of the planned excavation
6. 36 inches below concrete sidewalks, where future widening of the street in the sidewalk area is not anticipated.

Whenever possible, installation by trenchless technologies is preferred to open trenching to minimize impacts to the traveling public and existing State facilities.

No more than one lane of the highway must be open-cut at any one time. Any exceptions must be in writing by the Department's representative. After the utility is placed in the open section, the trench is to be backfilled in accordance with specifications, temporary repairs made to the surfacing, and that portion opened to traffic before the pavement is cut for the next section.

Trench back fill and paving must comply with the attached "Encroachment Permit Trench Detail (TR-0153)" or as directed by the Caltrans Permit Inspector to meet field conditions.

All existing AC must be saw cut to a minimum width of 3 feet, over the trench, to allow for a roller compactor to properly compact the AC.

Pavement grinding must be performed to accommodate a uniform overlay for the final trench paving. See attached diagram "Limits of Grind and Overlay for Pavement Replacement."

A minimum grind depth of 2.0 inches is required when using Type A HMA, ½ inch aggregate, or a minimum grind of 2.5 inches is required when using Type A HMA, ¾ inch aggregate.

All trench paving must be constructed per Caltrans Standard Specifications.

During trenching operations, tree roots must be avoided whenever possible.

If excavation operations damage roots larger than 2 inches in diameter, roots must be cut cleanly with a saw.

If trenching operations damage more than 20% of a tree's roots, a certified Arborist must be consulted and must submit a mitigation recommendation.

If tree roots are damaged on the highway shoulder, regional Caltrans Tree Maintenance Supervisor must be notified immediately.

If trees are damaged and must be removed for safety reasons, a mitigation plan must be submitted to the State Inspector for approval.

Backfill in trenches outside of the traveled way and shoulder area in the root zones must consist of native soil and must be compacted, using water, to a minimum 90% relative compaction or as directed by the State Inspector.

Erosion control must be applied whenever trenching occurs in unpaved areas.

A Caltrans micro-surfacing Type III may be required over the entire roadway

within the project limits as directed by the Caltrans Permits Office or Caltrans Permit Inspector to provide a smooth and uniform color pavement surface prior to installing final pavement delineation and markings.

Saw Cutting Existing Pavement

Where proposed pavement matches existing roadway pavement, saw cutting of existing pavement must produce a clean, competent pavement edge to join proposed and existing pavement. Pavement edge at the saw cut line must be free of defects including cracks, separated aggregate, or failed structural roadway sections.

Saw cut locations may need to be extended further into the limits of the existing pavement as necessary to obtain a competent pavement edge. The resulting, conform joint must not occur within a wheel track and may require a pavement grind and overlay to conceal the joint.

The Caltrans Permit Inspector must be consulted to determine if a saw cut location is acceptable.

All conform locations in open cuts or where proposed paving meets existing paving must be saw cut to a neat line the full depth of the pavement with a power-driven saw or rock cutting excavator before removing any surfacing. The surfacing to remain in place must not be disturbed or displaced by cutting or removal methods employed.

Excavation Protective Systems

If required, Permittee or Permittee's contractor must provide an excavation protective system in compliance with California Code of Regulations, Title 8 – Industrial Relations, Division 1 – Department of Industrial Relations, Chapter 4 – Division of Industrial Safety, Subchapter 4 – Construction Safety Orders (Construction Safety Orders); for the protection of personnel in excavations and to preserve the stability of the roadbed and other structures.

Shoring Plan Submission:

The Permittee's contractor may submit a shoring plan using Construction Safety Orders details for sloping excavations or tabular data, in the form of a letter stating which portions of the Details are to apply to the plan. The letter should list:

- Location of the work
- Limits of the work
- The times the work is to start and be in progress and sequence
- The applicable Construction Safety Orders Detail Figures or Tables
- Any other information which will pertain to the progress or complexity of the work

- Who will be in charge of the work
- Who will be the designated competent person responsible for safety

If the Permittee's Contractor elects to use the shoring details in the Construction Safety Orders, it is not necessary to have the shoring plans prepared by a registered engineer, and the reviewing engineer does not have to do a structural analysis. However, the reviewing engineer must ascertain that the Permittee's Contractor does the work in accordance with the Construction Safety Orders and that the site conditions are such that the shoring plan is appropriate for the soil conditions encountered.

Shoring that does not meet the Construction Safety Orders must be designed by a California Registered Civil or Structural Engineer. The Engineer is required to stamp, sign and date the shoring plan. Shoring designs shall conform to the Caltrans Trenching and Shoring Manual (Manual) found at the website:

<http://www.dot.ca.gov/hq/esc/construction/manuals/>

The Caltrans Permit Inspector shall be provided a copy of the shoring systems used on the job site that have been shown to be compliant with these provisions.

Material Testing

Material testing and quality control must conform to the State Construction Manual and to the State Material Testing Manual. Testing must be performed by a certified material-testing consultant acceptable to the State and paid for by the Permittee. Material testing and quality control tests must be performed as required by the State's Inspector and the results thereof must be made immediately available.

All required construction compliance tests must be performed with the California Test Methods and must be in accordance with the latest edition of Caltrans Independent Assurance Program Manual. A Caltrans certified laboratory must also perform all tests and all laboratory reports must be furnished to the Department's representative at no cost to the State.

Backfill Requirements

All backfilling and compaction must conform to the applicable sections of the Department's Standard Specifications Section 19-5 "Compaction."

Backfilling using ponding or jetting methods are prohibited.

Caltrans Standard Specification 2-sack slurry cement should be used for backfilling under all paved surfaces to expedite roadway repairs.

All backfill material must comply with and must be constructed per Caltrans Standard Specifications.

Backfill material must be approved by the Caltrans Permit Inspector prior to beginning excavation.

Culverts with less than 2 feet of cover must be backfilled as directed by the State Inspector with minor concrete conforming to the provisions in **Section 90-2** of the Caltrans Standard Specifications.

Relative Compaction (90 Percent)

Embankment compaction beyond the roadbed or outside of structure backfill must not be less than 90 percent relative compaction unless stated otherwise in the Caltrans Standard Specifications or Caltrans Highway Design Manual.

Relative Compaction (95 Percent)

Relative compaction of not less than 95 percent must be obtained for a minimum depth of 0.5-foot below the grading plane for the width between the outer shoulders, whether in excavation or embankment.

In addition, relative compaction of not less than 95 percent must be obtained for a minimum depth of 2.5 feet below the finished grade for the width of the traveled way plus 3 feet on each side thereof, whether in excavation or embankment.

For limits of 95 percent compaction of embankment adjacent to abutments and for retaining walls without pile foundations reference Caltrans Standard Specifications Section 19-5.03B.

Paving - Type A Hot Mix Asphalt (Type A HMA)

The structural section of the new pavement should have been determined in accordance with pre-project R-value tests of the soil and the Traffic Index value for that portion of roadway as shown on the approved plans and must be no less than the adjacent pavement. If any question should arise concerning the R-values and Traffic Index values, the Caltrans Permit Inspector shall make the final determination regarding which values will be used.

If basement soils differ from the anticipated site conditions, the Caltrans Permit Inspector may request R-value verification tests at spot locations at no cost to the State.

Once excavation has been initiated to place a structural section for pavement replacement, complete excavation, placement of structural base courses, and paving must be performed in succession and continuously, without delay, until

completed.

Newly placed asphalt concrete roadway pavement or shoulder paving must have a minimum width of 3 feet or as directed by the State's inspector to allow a roller compactor to compact the roadway section without contact over existing surfaces. Pavement or shoulder sawcutting to acquire the 3 feet minimum width must be done radial to or perpendicular to the lip of curb, curb face, edge of pavement, centerline or as directed by the State Inspector.

Asphalt concrete must be Type A HMA, $\frac{1}{2}$, $\frac{3}{4}$, or 1-inch aggregate gradation, and must conform to the specifications in Section 39, "Asphalt Concrete", of the Caltrans Standard Specifications.

The placement and use of asphalt concrete products, which includes but not limited to, asphalt, aggregate, pavement reinforcing fabric, storage, drying, proportioning, mixing, subgrade preparation, prime coat, paint binder (tack coat), spreading and compacting must comply with Caltrans Standard Specifications – Section 39, "Asphalt Concrete".

All conform locations in open cuts or where new paving meets existing paving must be saw cut to a neat line the full depth of the pavement with a power-driven saw or rock cutting excavator before removing any surfacing. The surfacing to remain in place must not be disturbed or displaced by cutting or removal methods employed.

The area to which paint binder has been applied must be closed to public traffic. Care must be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction.

A drop-off of more than 0.15 feet will not be allowed at any time between adjacent lanes open to public traffic.

At the end of each working day if a difference exists between the elevation of the existing pavement and the elevation of any excavation within 15 feet of the traveled way, material must be bladed up and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose; however, once the placing of the structural section commences, structural material must be used. The material must be placed to the level of the top of existing pavement and tapered at a slope of 4:1 (horizontal: vertical) or flatter to the bottom of the excavation.

Pavement Delineation and Markings

Unless otherwise directed by the Caltrans District Permit Engineer and the Caltrans Permit Inspector, all installations of pavement delineation on or after July

21, 2017 must comply with the Department's policies for 6-inch-wide pavement delineation as shown in Caltrans 2018 Revised Standard Plans series A20 and A40.

Traffic stripes and pavement markings to be removed must be removed at the locations shown on the plans and at the locations designated by the Engineer.

Traffic stripes and pavement markings must be removed by any method that does not materially damage the existing pavement. Pavement marking images must be removed in such a manner that the old message cannot be identified. Where grinding is used, the pavement marking image must be removed by grinding a rectangular area. The minimum dimensions of the rectangle must be the height and width of the pavement marking. A minimum of a Caltrans Micro-surfacing may be required to correct any imperfections to the pavement as directed by the Caltrans Inspector.

Residue resulting from removal operations must be removed from pavement surfaces by sweeping or vacuuming before the residue is blown by the action of traffic or wind, migrates across lanes or shoulders, or enters drainage facilities.

The removal of yellow pavement delineation may contain lead. Permittee shall be responsible to have the waste material tested for the concentration of lead. The Permittee, for work performed under an encroachment permit project, shall be the generator of the hazardous material and is solely responsible to properly process and dispose of the lead laden waste material at no cost to the State.

All striping and pavement markings, unless otherwise noted on the approved plans or permit, must be applied in thermoplastic material in conformance with **Section 84-2, "THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS,"** of the Caltrans Standard Specifications.

Permittee or Permittee's contractor must coordinate with the Caltrans Permit Inspector to document all existing pavement delineation and markings that may be obscured or removed during the pavement rehabilitation process. All existing pavement delineation and markings must be replaced in kind and at the same location.

Existing Trees and Vegetation

Unless stated elsewhere in this permit or shown on the approved permit plans, this permit does not authorize the removal, severing of roots or trimming of vegetation. If work of this nature is required, a written request and approval, by the Caltrans Permit Inspector, is required in advance of performing the work. Replacement planting may be required as a mitigation measure. Excavations should be done outside of drip line to reduce tree damage and integrity of trees. If excavations must be made within the drip line of trees (or extending tree roots)

along the right of way, the trenches must be hand dug and the utility routed beneath or around root structure. Major tree roots must not be cut or damaged. Additionally, the exposed roots must be wrapped and kept moist until the excavation is back filled with the native material. Requests for exceptions must be accompanied by an Arborist's recommendation.

Archaeological/Cultural Requirements

If archaeological resources or human remains are accidentally discovered during construction, work must be halted within 150 feet of the find until a qualified professional archaeologist can evaluate it. Permittee must notify Caltrans District Archaeologist Krisstin Hadick, (805) 549-3193, about the discovery immediately. If the find is determined to be significant, appropriate mitigation measures must be formulated and implemented.

Signs

Installation of roadside signs must comply with all applicable portions of the current Caltrans Standard Specifications Section 56-3, Caltrans Standard Plans, California Manual on Uniform Traffic Control Devices, and Caltrans policies.

If exact locations of roadside and construction area signs are not shown on the project plans, post holes must be dug by hand, except where potential conflicts can be eliminated. Potential conflicts are considered eliminated when an appropriate regional notification center has performed field mark-out and no subsurface utilities are within 4 feet of the proposed post hole or the post hole can be moved 4 feet away from subsurface utilities as located by the utility owner.

Temporary and permanent signs placed within the State right of way must comply with minimum retro-reflectivity requirements of the most current of the following: Federal Highway Administration Manual on Uniform Traffic Control Devices - Section 2A.08, Caltrans Standard Specifications 82-2, or Caltrans policy.

Except for white background signs, retroreflective sheeting must conform to ASTM D4956-13 Type XI and Caltrans "Prequalified and Tested Signing and Delineation Materials."

White background sign retroreflective sheeting must conform to ASTM D4956 Type VIII or Type IX and Caltrans "Prequalified and Tested Signing and Delineation Materials."

Retroreflective sheeting must be applied to sign panels as recommended by the retroreflective-sheeting manufacturer without stretching, tearing or damage.

Roadside signs mounted on post(s) must be placed at locations shown on the

permit plans and must be installed in compliance with the latest edition of Caltrans Standard Plan RS1 through RS4.

Temporary signs mounted on barricades and barricade/sign combinations must be crashworthy.

The bottom of a temporary sign mounted on a barricade, or other portable support, must be at least 1 foot above the traveled way or the existing surface at the location of placement.

Proposed sign placement must not interfere with the visibility of any existing warning, regulatory, information or guide signs along the State Highway.

Signs to be owned and maintained by the Permittee shall be appropriately marked on the back of the sign.

A safe pedestrian passageway width of 4 feet must be maintained at any sign installation in areas normally traversed by pedestrians. The minimum passageway adjacent to a drop off, such as a curb face or gutter must be at least 5 feet.

EXISTING FACILITIES

Existing improvements must be protected or relocated as required by the work authorized by this permit. If existing improvements including pavement markings and delineation are damaged or their operation impaired by this work, they must be replaced or restored to the satisfaction of the Caltrans representative. Such work must be done immediately if requested by the Caltrans representative.

IT SHALL BE THE PERMITTEE'S RESPONSIBILITY TO FULLY INVESTIGATE THE PROPOSED WORK AREA FOR POSSIBLE CONFLICTS WITH EXISTING UTILITIES AND FACILITIES, INCLUDING BUT NOT LIMITED TO SEWERS, ELECTRICAL CONDUCTORS, GAS LINES, WATER PIPES AND TRAFFIC SIGNAL FACILITIES. THE PERMITTEE AGREES TO ACCEPT ALL LIABILITY FOR DAMAGES DONE TO EXISTING FACILITIES CAUSED BY THE WORK AUTHORIZED UNDER THIS PERMIT.

Caltrans Traffic Signals, Lighting, and Electrical Facilities

Caltrans does not subscribe to underground utility locating services. It is the Permittee's sole responsibility to investigate, locate, and mark existing Caltrans traffic signal equipment, loops, conduits, and street lighting facilities prior to work in or between signalized intersections and street lighting facilities.

If it is apparent that impacting traffic signal conduits during construction will be unavoidable Permittee must install temporary overhead wiring for the signal at

Permittee's own expense. Permittee must always have on hand all necessary equipment and personnel needed to provide traffic control at an intersection should the traffic signal malfunction.

If a signal detector loop, including the portion leading to the adjacent pull box is damaged by Permittee's operations the entire detector loop must be replaced, in kind, within 24 hours of the occurrence. If an adjacent loop is damaged during the replacement, that loop must also be replaced. The Caltrans Inspector must be notified immediately when damage occurs. Arrangements for Caltrans Electrical operations staff must be made to have the traffic signal controller reprogrammed.

If the proposed work will damage or impair the normal operation of State traffic signal facilities that cannot be permanently restored within 24 hours, Permittee must provide and maintain temporary traffic signal facilities to ensure normal traffic signal operations until the permanent traffic signal facilities have been restored at no cost to the State.

If the proposed work will damage or impair the normal function of State traffic signal detector loops that cannot be permanently restored within 24 hours, Permittee must provide and maintain alternative optical or video traffic detection to ensure normal traffic signal operations until the permanent traffic detector loops have been restored at no cost to the State.

Work that may impact State traffic signal-controlled intersections may not begin until Permittee or Permittee's contractor has coordinated with the Caltrans Permit Inspector to formulate an action plan to ensure disruption to normal traffic signal operations will not exceed a 24-hour period.

Utility Relocations

If existing public or private utilities conflict with the construction PROJECT, PERMITTEE will make necessary arrangements with the owners of such utilities for their protection, relocation, or removal. PERMITTEE must inspect the protection, relocation, or removal of such facilities. Total costs of such protection, relocation, or removal which STATE or PERMITTEE must legally pay, will be borne by PERMITTEE. If any protection, relocation, or removal of utilities is required, including determination of liability for cost, such work must be performed in accordance with STATE policy and procedure. PERMITTEE must require any utility company performing relocation work in the STATE's right-of-way to obtain a State Encroachment Permit before the performance of said relocation work. Any relocated utilities must be correctly located and identified on the as-built plans.

WATER POLLUTION CONTROL

Discharge of Storm Water and Non-Storm Water

Work within State highway right-of-way must be conducted in compliance with all applicable requirements of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Department of Transportation (Department), to govern the discharge of storm water and non-storm water from its properties. Work must also be in compliance with all other applicable Federal, State and Local laws and regulations, and with the Department's Encroachment Permits Manual and encroachment permit. The Department's NPDES Permit requires the Permittee to comply and maintain, if applicable, the approved Storm Water Special Provisions for Minimal or No Impact (TR-0400), Water Pollution Control Program, or Storm Water Pollution Prevention Plan.

The Contractor (permittee) must be responsible for fines assessed or levied against the Contractor or the Department as a result of the Contractor's (permittee) failure to comply with these provisions. Fines shall include civil liability fines, criminal penalties and/or damages, assessed, or levied against the Department or the Contractor, Contractor liability for failure to comply with these provisions shall also include reimbursement for payments made or costs incurred by the Department in settlement for alleged violations of the Permits, the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent in lieu of fines or penalties, in mitigation or to remediate or correct violations.

If an unforeseen illicit discharge is generated during construction activities and the Caltrans Permit Inspector cannot be contacted, the Permittee or Permittee's contractor must contact the Encroachment Permit Storm Water Coordinator, Terran Hilden (805) 835-6571 immediately. The Permittee or Permittee's contractor is responsible to contain and remediate the illicit discharge as directed by the Caltrans Permit Inspector or Encroachment Permit Storm Water Coordinator at no cost to the State.

Unless stated otherwise in this permit, approved plan, or approved specifications, seeds sown for erosion control must achieve 70% germination over the disturbed soil area as determined by the Caltrans Permit Inspector.

The Caltrans Permit Inspector must approve the seed mix prior to its application.

PROJECT COMPLETION

As-Built Requirement

Civil Engineer in charge must also complete, stamp, and sign the attached Certification of Compliance with Americans with Disabilities Act (ADA) form TR-0405. Form must be submitted with As-Built plans or with the Notice of Completion.

Upon completion of the project, the Permittee must submit "As-Built" plans to the State Inspector showing the actual location of the newly constructed facility to the nearest 0.1-foot horizontally and vertically. Plans must be stamped "As-Built" signed and dated by the Permittee's representative who was responsible for overseeing the work. Work shall be considered incomplete until the receipt of the "As-Built" plans.

Immediately following completion of the work permitted herein, the Permittee must fill out and send by email the Notice of Completion attached to this permit.

THANK YOU!

DISTRICT 5 NOTIFICATION REQUIREMENTS

The following provisions shall apply to all permit work requiring temporary lane closures or traffic detours:

Temporary Lane Closures

Notification of temporary lane closures or traffic detours shall be given to the State Inspector for his approval using copies of the attached form entitled, **WEEKLY TRAFFIC UPDATE**. Notification shall be submitted to the State Inspector by 12:00 PM (noon) Tuesday, prior to the week of the proposed closure or detour. Notifications submitted after the deadline cannot be approved for the upcoming week. **All traffic control requiring the temporary closure of lanes or detour of traffic shall be approved in advance by the State Inspector.**

Ramp Closures

14 to 7 calendar days prior to an approved ramp closure, notice shall be posted at the ramp entrance using the appropriate SC6 sign. In addition, an SC8 or portable changeable message sign shall be posted for the preceding ramp the day of the closure unless otherwise approved by the Caltrans Permit Inspector.

Caltrans Lane Closure System (LCS) Compliance

Work authorized by this permit may require compliance and proper notification in LCS.

If not identified elsewhere in this permit, you or your contractor must provide the contact information for two personnel, who will be ensuring LCS compliance during the pre-job meeting with the Caltrans Permit Inspector. Contact information shall include personnel's full names, phone numbers and email addresses.

When LCS Compliance is identified as a parent permit requirement, the contractor's double permit application must provide the contact information for two personnel, who will be ensuring LCS compliance on item 17 (description of work) of the Standard Encroachment Permit Application TR-0100. Double permit applications missing the LCS contacts will be rejected.

You or your Contractor will be required to properly notify the District Traffic Management Center (TMC) as described below.

When a lane closure or lane shift has been identified by the Inspector with a Lane Closure ID # and Log #, you will be required to provide the TMC notification status when you are placing the lane closure, when you remove the lane closure, or when you cancel the lane closure.

When providing the status of the lane closure to the TMC you will need to follow these steps,

1. **Obtain the Lane Closure ID and Log # assigned for the approved scheduled lane closure event from the Caltrans Permit Inspector** a minimum of one weekday prior to the closure day or duration.

2. **Call the TMC/Lane Closure Phone Number (805) 549-3837 to provide the Lane Closure ID Status**

- “**1097**”- Lane closure work starting (1st Cone Placed);
- “**1098**”- Lane closure work complete (Last Cone Picked Up);
- “**1022**”- Lane closure work cancelled;

When calling the TMC to provide the status on your lane closure you will say something to the effect of (substituting your lane closure ID number and Log number for example ID “P101CA” and Log number “1” below),

- “**1097**”- *“This is (your name, phone number) calling to provide a 1097 status to lane closure ID P101CA and log number 1. That is a 1097 for Papa 101 Charlie Alpha log number 1.”*
- “**1098**”- *“This is (your name, phone number) calling to provide a 1098 status to lane closure ID P101CA, log number 1. That is a 1098 for Papa 101 Charlie Alpha log number 1.”*
- “**1022**”- *“This is (your name, phone number) calling to provide a 1022 status to lane closure ID P101CA, log number 1. That is a 1022 for Papa 101 Charlie Alpha log number 1.”*

Failure to properly status the lane closures will result in a written warning by the Caltrans Permit Inspector on the first violation. If there is a 2nd violation, your permit will either be revoked or suspended until a new double permit is obtained by a Contractor (C-31 or General Engineering A License preferred) who is experienced in traffic control and LCS notification; the contractor applying for this double permit must provide a performance and payment bond in the amount of \$10,000 unless there is already a bond posted or required on the project.

You can check your lane closure status at the following website:

<https://lcswebreports.dot.ca.gov/>

Special Notifications

If permitted activities such as road closures or traffic detours may result in significant traffic congestion, Permittee shall be responsible for coordinating advance notification to local newspapers, television and radio stations, and emergency response providers with both the State Inspector and the Caltrans Public Information Officer, telephone (805) 549-3237. Public notice may include press releases and/or traffic signing.

Permittee shall complete and submit the attached form entitled **PUBLIC AFFAIRS – PERMITTED ACTIVITY NOTIFICATION** to the Caltrans Public Affairs Office prior to 12:00 PM (noon) the Wednesday prior to the approved closure or event. Additional information or clarification may be required in the form of a written description of the activities in a format that is suitable for a press release. The form may be delivered by fax to (805) 549-3638 or emailed to the PIO contact on the form.

Horizontal and Vertical Requirements for Extra-Legal Load Vehicles

Permittee shall provide written notification to the Caltrans Permit Inspector or Caltrans Representative, of proposed horizontal or vertical lane restrictions which will affect extra-legal loads up to 16' wide and 18' high, or ramp closures/re-openings that may affect extra-legal loads traveling through the project area. Said notification shall be delivered to the Inspector no fewer than 25 days prior to proposed change. Permittee shall immediately notify the Caltrans Permit Inspector or Caltrans Representative as soon as the restriction is no longer present.

**2021 HOLIDAYS and ANTICIPATED
NO WORK DAYS**

JANUARY 2021

Su	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY 2021

Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

MARCH 2021

Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

APRIL 2021

Su	M	T	W	Th	F	Sa
				1*	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

MAY 2021

Su	M	T	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27*	28	29
30	31					

JUNE 2021

Su	M	T	W	Th	F	Sa
		1*	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

JULY 2021

Su	M	T	W	Th	F	Sa
				1*	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST 2021

Su	M	T	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SEPTEMBER 2021

Su	M	T	W	Th	F	Sa
			1	2*	3*	4
5	6	7*	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

OCTOBER 2021

Su	M	T	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

NOVEMBER 2021

Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

DECEMBER 2021

Su	M	T	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27*	28*	29*	30*	31	1

* Unless allowed by previously approved construction project specifications.

No work after 12:00
No Work
Holiday No Work
No work until 08:00
No Work until 20:00

November 12, 2021 is a preferred no workday if possible.



WEEKLY TRAFFIC UPDATE

PERMITS

For the Week of: _____

Please send this form to your designated **PERMIT INSPECTOR** each week if you will be performing work that will impact traffic (lane closures, ramp closures, traffic control, etc.)

Weekly Traffic Updates must be received by Tuesday 12:00 PM (noon) the week prior to the requested date(s) of the planned traffic control. Failure to meet the deadline may result in the denial of the requested traffic control. The State Permit Inspector may also require changes to the requested traffic control prior to its approval.

We appreciate your cooperation. These updates need to be done in a timely manner to provide information to the traveling public we serve. THANKS!!!!

DATE	TIME (begin / end)	Location – Cross Streets, County Route, and Post Mile (from / to)	Impact on Traffic (Description)	Reason

Send or fax to: **Your PERMIT INSPECTOR - David Ontiveros, Fax #: (831) 476-1803, Email: david.ontiveros@dot.ca.gov**

Your Name: _____

Phone: _____ FAX: _____

Company/Dept.: _____

Email: _____

PERMIT #: **0521 NUT 0661**

PUBLIC AFFAIRS - PERMITTED ACTIVITY NOTIFICATION

This Project Notification should be faxed or e-mailed to Public Affairs as early as possible and preferably by noon the Wednesday prior to beginning of permitted activity. Please fill out this form as thoroughly as possible and use additional paper if needed. Include all information that the traveling public may need to be made aware of.

TO: PUBLIC AFFAIRS

FAX: (805) 549-3326

ATTN: ☐ Kevin Drabinski (Monterey, San Benito, and Santa Cruz Counties)

PHONE: (805) 549-3138

E-Mail: kevin.drabinski@dot.ca.gov

☐ Jim Shivers (San Luis Obispo and Santa Barbara Counties)

PHONE: (805) 549-3237

E-Mail: jim.shivers@dot.ca.gov

PERMIT NUMBER: **0521 NUT 0661**

COUNTY, ROUTE & POSTMILE: **05-SCr-9-8.113**

LIMITS OF PERMITTED ACTIVITY (location in miles, distance from nearest landmarks or cities, etc.):

PROJECT DESCRIPTION AND PURPOSE FOR PROJECT:

Trench, install saddle tap and gate valve on existing water main under CA-9, install new 8" DIP perpendicular to road centerline, bore 16" diameter penetration through existing concrete retaining wall, install 16" sleeve and route new 8" DIP through sleeve, restore roadway, construct externally suspended 8" DIP pipeline along outer edge/underside of existing bridge to edge of State ROW as shown on the attached plans and as directed by the permit provisions in State Route 9 right of way at postmile 8.113 in the County of Santa Cruz.

ACTIVITY COORDINATOR:

PHONE:

FAX:

E-MAIL:

BEGIN ACTIVITY DATE:

END ACTIVITY DATE:

ANTICIPATED TRAFFIC CONTROL:

ANTICIPATED TRAFFIC DELAYS:

COMMENTS: (What else does the public need to know? Diagrams, maps also helpful.)

*Please inform Public Affairs of any changes to the above information by submitting an updated form.

NOTICE OF MATERIALS TO BE USEDCEM-3101 (REV 09/2015) CT#7541-3511-1

**NOTICE OF MATERIALS TO BE USED
INSTRUCTIONS TO PERMITTEE/CONTRACTOR**

Section 6 of the *State Standard Specifications* states that, "Before the preconstruction conference, submit material source information on a Notice of Materials to Be Used form".

To avoid delay in approval of materials, the Department of Transportation must receive, in a timely manner, Form CEM-3101, "Notice of Materials to Be Used." When filing this form, please comply with the following instructions:

1. The Contract Number/Permit Number and job limits should be the same as they appear on the special provisions/encroachment permit.
2. The column headed "Contract Bid Item Number" refers to the sequential item number of the contract, *if applicable*.
3. The column headed "Item Code" refers to the number for which the material is to be used, *if applicable*. It is a six-digit number.
4. The column headed "Contract Item Description" refers to an item description of the material as described in the special provisions or an item description to be used on the permitted project.
5. The columns headed "Item Component" refer to the specific description of material to be used, not necessarily the name of the contract item.

For Example:

Contract Bid Item Number	Item Code	Contract Item Description	Item Component	Item Sub-Component
1	520101	Bar Reinforcing steel	Coupler (service splice)	Service Splice, CJP welded

6. The column headed "Manufacturer/Provider" refers to the manufacturer/fabricator of the item. List the name, address, and email of the Manufacturer/Fabricator. Also, list the name and address of the location where inspection will occur, if different from the Manufacturer/Fabricator.
7. Form CEM-3101, "Notice of Materials to Be Used," must be submitted to the resident engineer (RE). The RE will email Form CEM-3101 to the materials administrator to:

MaterialsAdministratorMETS@dot.ca.gov or fax to (916) 227-7084, Attn: Materials Administrator or postal mail to: Materials Engineering and Testing Services, 5900 Folsom Blvd., Sacramento, CA 95819, MS-5.

If the sources of materials are not known at the beginning of a contract, submit a Form CEM-3101, "Notice of Materials to Be Used," for a given bid item as soon as a provider is known. Multiple submissions may be necessary. Submit a Form CEM-3101, "Notice of Materials to Be Used," for all changes or revisions.

When placing orders for materials that require inspection prior to shipment, be sure to indicate on your request form that state inspection is required before shipment.

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

Resident Engineer: **Caltrans Permit Inspector - David Ontiveros**

Date:

Materials required for use under Contract Number ⁽¹⁾ **Encroachment Permit Number - 0521-NUT-0661**

District: **05** County: **SCr**

Route: **9**

Post Mile: **8.113**

will be obtained from the following sources:

Contract Bid Item Number (2)	Item Code (3)	Contract Item Description (4)	Item Component (5)	Manufacturer/Provider Name and Address (5)	Manufacturer/Provider Email Address (6)

It is requested that you arrange for sampling, testing and inspection of materials prior to delivery in accordance with Section 6 of the *Standard Specifications*. It is understood that source inspection does not relieve the prime contractor of the full responsibility for incorporating into the work, materials that comply in all respects with the contract plans and specifications, nor does it preclude the subsequent rejection of materials found to be unsuitable.

(7) Copies: Materials Administrator, Mail Station #5
Materials Engineering & Testing Services
5900 Folsom Blvd, Sacramento, CA 95819
MaterialsAdministratorMETS@dot.ca.gov
Fax: (916) 227-7084

Contractor		
Address		
Business Phone	Business Fax	E-Mail Address

At the completion of the permitted work, please complete the form below and submit an electronic copy of this page sent by email to jesse.cline@dot.ca.gov.

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

NOTICE OF COMPLETION

TR-0128 (REV. 6/2001) CT #7541-5529-1

PERMIT # 0521 NUT 0661

Permit Inspector: David Ontiveros

Dear Sir or Madam:

All work authorized by the above numbered permit was completed on:

DATE: _____

SIGNATURE OF PERMITTEE: _____

San Lorenzo Valley Water District

FM 92 1546 M

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For alternate format information, contact the Forms Management Unit at (916) 445-1233, TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814


Memorandum

*Making Conservation
a California Way of Life*

To: David Ontiveros - SCR Maint.

Date: October 27, 2021

File: Permit #0521 NUT 0661
05-SCr-9-8.113



for

Eileen Stephens, PE, QSD/P

From: **DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT OFFICE**

Subject: Permit Inspection

You have been assigned as the inspector for the attached permit. Only time spent on actual inspection, excluding supervision, should be shown on your time sheet. Pre-job meetings should be charged against the permit. This charge should be limited to one person. The permittee is normally to do his work during your regular working hours, so only rarely should overtime be charged to permits.

Your time sheet should correspond to the following information:

	PROJECT CODE	PHASE	REPORTING CODE	SUB OBJECT
Inspection & Testing	0000001157	N	705210661I	037
Field Work*	0000001157*	N	705210661I	037
Travel Time	0000001157	N	TOTRAVEL	037

* Maintenance Personnel should contact Carol Salas, LOS/IMMS Specialist, at (805) 549-3834 for complete timesheet entry instructions.

Please report any inspection hours on the ENCROACHMENT PERMIT REPORT form provided and fill out and sign the attached COMPLETION NOTICE as soon as the work is satisfactorily completed, or upon expiration of the permit. It is advisable to contact the Permittee if there is a possibility that the work is incomplete, or the Permittee has allowed the permit to expire.

Reporting "ZERO" inspection hours may imply that the project was not inspected and could lead to legal complications in the future. In this case a notation should also be made on the ENCROACHMENT PERMIT REPORT regarding the state of the encroachment.

PROGRESS BILLING/PERMIT CLOSURE

TR-0129 (REV. 07/2013)

UNIT NUMBER 1245	PERMIT NUMBER 0521 NUT 0661
DIST/CO/RTE/PM 05-SCr-9-8.113	

WORK ORDER/REFERENCE NUMBER

RELATED PERMITS

PERMITEE NAME

San Lorenzo Valley Water District, c/o Josh Wolff

DESCRIPTION OF WORK

Trench, install saddle tap and gate valve on existing water main under CA-9, install new 8" DIP perpendicular to road centerline, bore 16" diameter penetration through existing concrete retaining wall, install 16" sleeve and route new 8" DIP through sleeve, restore roadway, construct externally suspended 8" DIP pipeline along outer edge/underside of existing bridge to edge of State ROW as shown on the attached plans and as directed by the permit provisions in State Route 9 right of way at postmile 8.113 in the County of Santa Cruz.

INSPECTOR'S COMMENTS

ACTUAL INSPECTION
HOURS BYPERMIT INSPECTOR David
Ontiveros

CONSTRUCTION R.E.

OTHER CALTRANS UNITS

☐ Completion Notice. To the best of my knowledge all work has been completed on (date) _____ in compliance with this permit.

☐ Y ☐ N ☐ N/A Required final project completion records for structures. ☐ Y ☐ N ☐ N/A Structure As-Built plans

☐ Y ☐ N ☐ N/A Required final project completion records for roadway. ☐ Y ☐ N ☐ N/A Roadway As-Built plans

☐ Progress Bill ☐ Quarter No.: _____

☐ Emailed **D5 Asset Manager** with Number of New or Reconstructed Curb Ramp(s)

☐ Permit Cancelled ☐ Work is not complete (explain) _____

INSPECTOR'S SIGNATURE

DATE

FOR PERMIT OFFICE USE☐ FINAL BILL☐ RELEASE CASH DEPOSIT☐ PERFORMANCE BOND ATTACHED☐ PROGRESS BILL☐ OTHER

Issue Date October 27, 2021 JC

ACTUAL HOURS
(NOT FOR BILLING)

Review Hours

Inspection Hours

Field Work Hours

COMMENTS:

BILLING / REFUND INFORMATIONFEE TYPE: ☐ SF ☐ AX

Review

Hours @ \$.00 = \$ 0.00

Inspection

Hours @ \$.00 = \$

Field work

Hours @ \$.00 = \$

Equipment / Materials = \$

TOTAL FEES = \$

FEE DEPOSIT PAID ON (Date)

\$

☐ Cash ☐ Credit Card ☐ Check (Check No.)

FEE DEPOSIT PAID ON (Date)

\$

☐ Cash ☐ Credit Card ☐ Check (Check No.)**TOTAL DEPOSITS = \$**☐ Final Bill☐ **BALANCE DUE**

\$

EXEMPT☐ Progress Bill☐ **REFUND**

REFUND OF CASH DEPOSIT IN LIEU OF BOND

\$

CASH DEPOSIT PAID ON (Date)

☐ Cash ☐ Credit Card ☐ Check (Check No.)

COPIES TO:

☐ Accounts Receivable☐ Local Agency (Agreement Work)☐ Maintenance

NAME AND ADDRESS TO BE USED FOR BILLING/REFUND

San Lorenzo Valley Water District, c/o Josh Wolff, Attn: Josh Wolff 13060 CA-9
Boulder Creek, CA 95006

PERMIT ENGINEER

for Eileen Stephens, PE, QSD/P

PHONE NUMBER

(805) 549-3206

DATE

ENCROACHMENT PERMIT GENERAL PROVISIONS

TR – 0045 (REV. 04/2021)

1. **AUTHORITY:** The California Department of Transportation (“Department”) has authority to issue encroachment permits under Division 1, Chapter 3, Article 1, Sections 660 through 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five (5) business days’ notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. Notwithstanding the foregoing, in an emergency situation as determined by the Department, an encroachment permit may be revoked immediately. These General Provisions and any applicable Special Provisions are subject to modification or abrogation by the Department at any time. Permittees’ joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State of California (“State”) highway right-of-way may be exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay encroachment permit fees when due may result in rejection of future applications and denial of encroachment permits.
4. **ASSIGNMENT:** This encroachment permit allows only the Permittee or Permittee’s authorized agent to work within or encroach upon the State highway right-of-way, and the Permittee may not assign or transfer this encroachment permit. Any attempt to assign or transfer this encroachment permit shall be null and void.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept and comply with these General Provisions, the Special Provisions, any and all terms and/or conditions contained in or incorporated into the encroachment permit, and all attachments to the encroachment permit (collectively “the Permit Conditions”), for any encroachment, work, and/or activity to be performed under this encroachment permit and/or under color of authority of this encroachment permit. Permittee understands and agrees the Permit Conditions are applicable to and enforceable against Permittee as long as the encroachment remains in, under, or over any part of the State highway right-of-way.
6. **BEGINNING OF WORK:** When traffic is not impacted (see General Provision Number 35), the Permittee must notify the Department’s representative two (2) business days before starting permitted work. Permittee must notify the Department’s representative if the work is to be interrupted for a period of five (5) business days or more, unless otherwise agreed upon. All work must be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this encroachment permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within State highway right-of-way must conform to all applicable Departmental construction standards including but not limited to: Standard Specifications, Standard Plans, Project Development Procedures Manual, Highway Design Manual and Special Provisions.

Other than as expressly provided by these General Provisions, the Special Provisions, the Standard Specifications, Standard Plans, and other applicable Departmental standards, nothing in these General Provisions is intended to give any third party any legal or equitable right, remedy, or claim with respect to the encroachment permit and/or to these General Provisions or any provision herein. These General Provisions are for the sole and exclusive benefit of the Permittee and the Department.

Where reference is made in such standards to “Contractor” and “Engineer,” these are amended to be read as “Permittee” and “Department’s representative,” respectively, for purposes of this encroachment permit.
8. **PLAN CHANGES:** Deviations from plans, specifications, and/or the Permit Conditions as defined in General Provision Number 5 are not allowed without prior approval from the Department’s representative and the Federal Highway Administration (“FHWA”) representative if applicable.
9. **RIGHT OF ENTRY, INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. The United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, and other state, and federal agencies, and the FHWA, through their agents or representatives, must have full access to highway facilities/encroachment area, at any and all times for the purpose of inspection, maintenance, activities needed for construction/reconstruction, and operation of the State highway right-of-way.

Upon completion of work, Permittee must request a final inspection for acceptance and approval by the Department. The local public agency Permittee must not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee must keep the permit package or a copy thereof at the work site at all times and must show it upon request to any Department representative or law enforcement officer. If the permit package, or a copy thereof, is not kept and made available at the work site at all times, the work must be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee must yield start of work to ongoing, prior authorized work adjacent to or within the limits of the Permittee’s project site. When existing encroachments conflict with Permittee’s work, the Permittee must bear all cost for rearrangements (e.g., relocation, alteration, removal, etc.).

ENCROACHMENT PERMIT GENERAL PROVISIONS

- 12. PERMITS AND APPROVALS FROM OTHER PUBLIC AGENCIES AND/OR ENTITIES:** This encroachment permit is invalidated if the Permittee has not obtained all permits and approvals necessary and required by law, including but not limited to permits from the California Public Utilities Commission ("CPUC"), California Occupational Safety and Health Administration ("Cal-OSHA"), and any other public agency and/or entity having jurisdiction. Permittee warrants all such permits and approvals have been obtained before beginning work under this encroachment permit. The Department may, at the Department's discretion, require the Permittee to demonstrate that Permittee has obtained all such permits/approvals, and Permittee shall demonstrate this at the time and in the manner specified by the Department.
- 13. PEDESTRIAN AND BICYCLIST SAFETY:** A safe continuous passageway must be maintained through the work area at existing pedestrian or bicycle facilities. At no time must pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades must be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.04 "Public Safety," and to Section 12-4.04 "Temporary Pedestrian Access Routes," and to Section 16-2.02 "Temporary Pedestrian Facility," of the Department's Standard Specifications, and to California Vehicle Code section 21760, subdivision (c).
- 14. PUBLIC TRAFFIC CONTROL:** The Permittee must provide traffic control protection, warning signs, lights, safety devices, etc., and take all other measures necessary for the traveling public's safety as required by law and/or the Department. While providing traffic control, the needs of all road users, including but not limited to motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act, must be an essential part of the work activity.
- Lane, Bike Lane, Sidewalk, Crosswalk, and/or shoulder closures must comply with the Department's Standard Specifications and Standard Plans for Temporary Traffic Control Systems & Temporary Pedestrian Access Routes, and with the applicable Special Provisions. Where issues are not addressed in the Standard Specifications, Standard Plans, and/or Special Provisions, the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control) must be followed.
- 15. MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee must plan and conduct work so as to create the least possible inconvenience to the traveling public (motorized vehicles, unmotorized vehicles such as bicycles, pedestrians, person(s) with disabilities, etc.), such that traffic is not unreasonably delayed.
- 16. STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this encroachment permit. If encroachment permit Special Provisions allow for the storage of equipment or materials within the State highway right-of-way, the equipment and material storage must also comply with Section 7-1.04, Public Safety, of the Department's Standard Specifications.
- 17. CARE OF DRAINAGE:** Permittee must provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Department's Standard Specifications, Standard Plans, and/or as directed by the Department's representative.
- 18. RESTORATION AND REPAIRS IN STATE HIGHWAY RIGHT-OF-WAY:** Permittee is responsible for restoration and repair of State highway right-of-way resulting from permitted work (Streets and Highways Code, section 670 et seq.).
- 19. STATE HIGHWAY RIGHT-OF-WAY CLEAN UP:** Upon completion of work, Permittee must remove and dispose of all scraps, refuse, brush, timber, materials, etc. off the State highway right-of-way. The aesthetics of the highway must be as it was before work started or better.
- 20. COST OF WORK:** Unless stated otherwise in the encroachment permit or a separate written agreement with the Department, the Permittee must bear all costs incurred for work within the State highway right-of-way and waives all claims for indemnification or contribution from the United States, the State, the Department, and from the Directors, officers, and employees of the State and/or the Department. Removal of Permittee's personal property and improvements shall be at no cost to the United States, the State, and the Department.
- 21. ACTUAL COST BILLING:** When specified in the permit, the Department will bill the Permittee actual costs at the currently set Standard Hourly Rate for encroachment permits.
- 22. AS-BUILT PLANS:** When required, Permittee must submit one (1) set of folded as-built plans within thirty (30) calendar days after completion and acceptance of work in compliance with requirements listed as follows:
- Upon completion of the work provided herein, the Permittee must submit a paper set of As-Built plans to the Department's representative.
 - All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
 - The plans are to be prominently stamped or otherwise noted "AS-BUILT" by the Permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a Department stamp, or by signature of the Department's representative, must be used for producing the As-Built plans.
 - If construction plans include signing or striping, the dates of signing or striping removal, relocation, or installation must be shown on the As-Built plans when required as a condition of the encroachment permit. When the construction plans show signing and striping for staged construction on separate sheets,

ENCROACHMENT PERMIT GENERAL PROVISIONS

the sheet for each stage must show the removal, relocation, and installation dates of the appropriate staged striping and signing.

- e) As-Built plans must contain the Encroachment Permit Number, County, Route, and Post Mile on each sheet.
 - f) The As-Built Plans must not include a disclaimer statement of any kind that differs from the obligations and protections provided by sections 6735 through 6735.6 of the California Business and Professions Code. Such statements constitute non-compliance with Encroachment Permit requirements and may result in the Department retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future encroachment permits or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the State highway right-of-way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt encroachment permit is issued to the Permittee for the purpose of providing a notice and record of work. The Permittee's prior rights must be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" must be stamped across the face of the encroachment permit.
24. **BONDING:** The Permittee must file bond(s), in advance, in the amount(s) set by the Department and using forms acceptable to the Department. The bonds must name the Department as obligee. Failure to maintain bond(s) in full force and effect will result in the Department stopping all work under this encroachment permit and possibly revoking other encroachment permit(s). Bonds are not required of public corporations or privately-owned utilities unless Permittee failed to comply with the provisions and/or conditions of a prior encroachment permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedure section 337.15. A local public agency Permittee also must comply with the following requirements:
- a) In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local public agency Permittee agrees to require the construction contractor to furnish both a payment and performance bond in the local public agency's name with both bonds complying with the requirements set forth in Section 3-1.05 Contract Bonds of the Department's Standard Specifications before performing any project construction work.
 - b) The local public agency Permittee must defend, indemnify, and hold harmless the United States, the State and the Department, and the Directors, officers, and employees of the State and/or Department, from all project construction related claims by contractors, subcontractors, and suppliers, and from all stop notice and/or mechanic's lien claimants. The local public agency also agrees to remedy, in a timely manner and to the Department's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the Permittee must comply with said notice at the Permittee's sole expense.
26. **ENVIRONMENTAL:**
- a) **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified archaeologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
 - b) **HAZARDOUS MATERIALS:** If any hazardous waste or materials (such as underground storage tanks, asbestos pipes, contaminated soil, etc.) are identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified hazardous waste/material specialist who must evaluate the site at the Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work. Attention is directed to potential aerially deposited lead (ADL) presence in unpaved areas along highways. It is the Permittee's responsibility to take all appropriate measures to protect workers in conformance with California Code of Regulations Title 8, Section 1532.1, "Lead," and with Cal-OSHA Construction Safety Orders, and to ensure roadway soil management is in compliance with Department of Toxic Substances Control (DTSC) requirements.
 - c) **Biological:** If any regional, state, or federally listed biological resource is identified or encountered in the work vicinity, the Permittee must immediately stop work, notify the Department's representative, retain a qualified biologist who must evaluate the site at Permittee's sole expense, and make recommendations to the Department's representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under an encroachment permit may require Permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the California Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements must be directed to the California Department of Industrial Relations.
28. **LIABILITY, DEFENSE, AND INDEMNITY:** The Permittee agrees to indemnify and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director

ENCROACHMENT PERMIT GENERAL PROVISIONS

of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind, and description, including but not limited to those brought for or on account of property damage, invasion of privacy, violation or deprivation of a right under a state or federal law, environmental damage or penalty, or injury to or death of any person including but not limited to members of the public, the Permittee, persons employed by the Permittee, and/or persons acting on behalf of the Permittee, arising out of or in connection with: (a) the issuance and/or use of this encroachment permit; and/or (b) the encroachment, work, and/or activity conducted pursuant to this encroachment permit, or under color of authority of this encroachment permit but not in full compliance with the Permit Conditions as defined in General Provision Number 5 ("Unauthorized Work or Activity"); and/or (c) the installation, placement, design, existence, operation, and/or maintenance of the encroachment, work, and/or activity; and/or (d) the failure by the Permittee or anyone acting on behalf of the Permittee to perform the Permittee's obligations under any part of the Permit Conditions as defined in General Provision Number 5, in respect to maintenance or any other obligation; and/or (e) any change to the Department's property or adjacent property, including but not limited to the features or conditions of either of them, made by the Permittee or anyone acting on behalf of the Permittee; and/or (f) a defect or obstruction related to or caused by the encroachment, work, and/or activity whether conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constituting Unauthorized Work or Activity, or from any cause whatsoever. The duty of the Permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code.

It is the intent of the parties that except as prohibited by law, the Permittee will defend, indemnify, and hold harmless as set forth in this General Provision Number 28 regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of: the United States, the State; the Department; the Directors, officers, employees, agents and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors; the Permittee; persons employed by the Permittee; and/or persons acting on behalf of the Permittee.

The Permittee waives any and all rights to any type of expressed or implied indemnity from or against the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors.

The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the encroachment, work, and/or activity whether conducted pursuant to this encroachment permit or constituting Unauthorized Work

or Activity, and further agrees to defend, indemnify, and save harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, penalties, liability, suits, or actions of every name, kind, and description arising out of or by virtue of the Americans with Disabilities Act.

The Permittee understands and agrees the Directors, officers, employees, agents, and/or contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, are not personally responsible for any liability arising from or by virtue of this encroachment permit.

For the purpose of this General Provision Number 28 and all paragraphs herein, "contractors of the State and/or of the Department" includes contractors, and their subcontractors, under contract to the State and/or the Department.

This General Provision Number 28 and all paragraphs herein take effect immediately upon issuance of this encroachment permit, and apply before, during, and after the encroachment, work, and/or activity contemplated under this encroachment permit, whether such work is in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, except as otherwise provided by California law. The Permittee's obligations to defend, indemnify, and save harmless under this General Provision Number 28 take effect immediately upon issuance of this encroachment permit and have no expiration date, including but not limited to situations in which this encroachment permit expires or is revoked, the work or activity performed under this encroachment permit is accepted or not accepted by the Department, the encroachment, work, and/or activity is conducted in compliance with the Permit Conditions as defined in General Provision Number 5 or constitutes Unauthorized Work or Activity, and/or no work or activity is undertaken by the Permittee or by others on the Permittee's behalf.

If the United States or an agency, department, or board of the United States is the Permittee, the first two paragraphs of this General Provision Number 28 (beginning "The Permittee agrees to indemnify..." and "It is the intent of the parties...") are replaced by the following paragraph:

Claims for personal injury, death, or property damage allegedly caused by the negligent or wrongful act or omission of any employee of the United States acting within the scope of their official duties are subject to the Federal Tort Claims Act, as amended, 28 U.S.C. § 1346 and § 2671 et seq. (Chapter 171).

29. **NO PRECEDENT ESTABLISHED:** This encroachment permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**

ENCROACHMENT PERMIT GENERAL PROVISIONS

- a) As part of the consideration for being issued this encroachment permit, the Permittee, on behalf of Permittee and on behalf of Permittee's personal representatives, successors in interest, and assigns, does hereby covenant and agree that:
- No person on the grounds of race, color, or national origin may be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
 - That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination must be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
 - That such discrimination must not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the State highway right-of-way.
 - That the Permittee must use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
- b) That in the event of breach of any of the above nondiscrimination covenants, the State and the Department have the right to terminate this encroachment permit and to re-enter and repossess said land and the facilities thereon and hold the same as if said permit had never been made or issued.
31. **MAINTENANCE:** The Permittee is responsible at Permittee's sole expense for the encroachment, and the inspection, maintenance, repair, and condition thereof, so that it does not negatively impact State highway safety, maintenance, operations, construction, activities needed for construction/reconstruction, State facilities, or other encroachments. Additional permits or approval documents may be required authorizing additional work related to inspection, repair, and/or maintenance activities.
32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code section 682.5 and 682.7, the Department is not responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the United States, the State, the Department, and the Directors, officers, employees, agents, and contractors of the State and/or of the Department, including but not limited to the Director of Transportation and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of any activity for which this encroachment permit is issued.
- The Permittee is required, as a condition of this encroachment permit, for any event that awards prize compensation to competitors in gendered categories, for any participant level that receives prize compensation, to ensure the prize compensation for each gendered category is identical at each participant level. (Streets and Highways Code, section 682.7.)
- The Permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act in the conduct of the event, and further agrees to defend, indemnify, and save harmless the United State, the State and the Department, and the Directors, officers, and employees of the State and/or Department, including but not limited to the Director of the Department and the Deputy Directors, from any and all claims, demands, damages, costs, liability, suits, or actions of every name, kind and description arising out of or by virtue of the Americans with Disabilities Act.
33. **PRIVATE USE OF STATE HIGHWAY RIGHT-OF-WAY:** State highway right-of-way must not be used for private purposes without compensation to the State. The gifting of public property uses and therefore public funds is prohibited under the California Constitution, Article XVI, Section 6.
34. **FIELD WORK REIMBURSEMENT:** Permittee must reimburse the Department for field work performed on Permittee's behalf to correct or remedy hazards or damaged facilities, or to clear refuse, debris, etc. not attended to by the Permittee.
35. **LANE CLOSURE REQUEST SUBMITTALS AND NOTIFICATION OF CLOSURES TO THE DEPARTMENT:** Lane closure request submittals and notifications must be in accordance with Section 12-4.02, and Section 12.4-04, of the Department's Standard Specifications or as directed by the Department's representative. The Permittee must notify the Department's representative and the Traffic Management Center ("TMC") before initiating a lane closure or conducting an activity that may cause a traffic impact. In emergency situations when the corrective work or the emergency itself may affect traffic, the Department's representative and the TMC must be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The Permittee, upon notification by the Department's representative, must immediately suspend all traffic lane, bike lane, sidewalk, crosswalk, and/or shoulder closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension must be borne by the Permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code section 4216 et seq., including but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The Permittee must provide notification to the Department representative at least five (5) business days before, and the regional notification center at least forty-

ENCROACHMENT PERMIT GENERAL PROVISIONS

eight (48) hours before, performing any excavation work within the State highway right-of-way.

38. **COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA):** All work within the State highway right-of-way to construct and/or maintain any public facility must be designed, maintained, and constructed strictly in accordance with all applicable Federal Access laws and regulations (including but not limited to Section 504 of the Rehabilitation Act of 1973, codified at 29 U.S.C. § 794), California Access laws and regulations relating to ADA, along with its implementing regulations, Title 28 of the Code of Federal Regulations Parts 35 and 36 (28 C.F.R., Ch. I, Part 35, § 35.101 et seq., and Part 36, § 36.101 et seq.), Title 36 of the Code of Federal Regulations Part 1191 (36 C.F.R., Ch. XI, Part 1191, § 1119.1 et seq.), Title 49 of the Code of Federal Regulations Part 37 (49 C.F.R., Ch. A, Part 37, § 37.1 et seq.), the United States Department of Justice Title II and Title III for the ADA, and California Government Code section 4450 et seq., which require public facilities be made accessible to persons with disabilities.

Notwithstanding the requirements of the previous paragraph, all construction, design, and maintenance of public facilities must also comply with the Department's

Design Information Bulletin 82, "Pedestrian Accessibility Guidelines for Highway Projects" and Standard Plans & Specifications on "Temporary Pedestrian Access Routes."

39. **STORMWATER:** The Permittee is responsible for full compliance with the following:
- a) For all projects, the Department's Storm Water Program and the Department's National Pollutant Discharge Elimination System (NPDES) Permit requirements under Order No. 2012-0011-DWQ, NPDES No CAS000003; and
 - b) In addition, for projects disturbing one acre or more of soil, with the California Construction General Permit Order No. 2009-0009-DWQ, NPDES No CAS000002; and
 - c) In addition, for projects disturbing one acre or more of soil in the Lahontan Region with Order No. R6T-2016-0010, NPDES No CAG616002.
 - d) For all projects, it is the Permittee's responsibility to install, inspect, repair, and maintain all facilities and devices used for water pollution control practices (Best Management Practices/BMPs) before performing daily work activities.

HAZARDOUS MATERIALS AND HAZARDOUS WASTE MANAGEMENT

TR-0408 (New 09/2017)

By acceptance of this encroachment permit, Permittee hereby agrees that:

1. All construction debris/materials/water/excess soil must become the property of the Permittee, and must be transported and disposed of, outside of Caltrans' right-of-way, in accordance with all applicable environmental laws and regulations. The Permittee must be identified as the generator for all construction debris/materials/water/excess soil and must be responsible for proper identification (including sampling and analysis) and management of all construction and contaminated debris/materials/water/excess soil that are removed, and/or excavated, from the work site. If hazardous waste is generated, the Permittee must obtain an Environmental Protection Agency (EPA) Identification Number issued in their name. State Permit Inspector does not sign any manifests or shipping papers. The Permittee must be named as the generator on all Uniform Hazardous Waste Manifests and shipping papers. Caltrans must not be identified or written anywhere on the manifests or shipping papers. Prior to waste disposal, the Permittee should submit the waste generator form(s) to State Permit Inspector for verification. The Permittee must submit to the State Permit Inspector, a copy of all manifests and/or shipping papers generated for materials removed, transported and/or excavated from the state right-of-way.
2. If contaminated material is encountered, Permittee is to stop work and contact the State Permit Inspector immediately. The Permittee must submit a Sampling and Analysis Plan (SAP), and a Health and Safety Plan (HaSP) prepared by a Certified Industrial Hygienist (CIH) and in conformance with California Code of Regulations title 8, section 5192, "Hazardous Waste Operations and Emergency Response" for sampling activity through a separate permit application. Upon the permit review, additional environmental documents may be required prior to resumption of construction activity.
3. Permittee is responsible for any violation, penalty, enforcement action, corrective action, remedial action, and any other type of consequences resulting from cross contamination of groundwater (including perched groundwater), improper handling/managing of hazardous materials and/or placement of contaminated materials inside Caltrans right-of-way.
4. It is the Permittee's responsibility to comply with the Department of Toxic Substances Control (DTSC) ADL requirements for roadway soil management. Reuse of soils containing greater than 80 mg/kg total lead is not allowed without written approval of the DTSC and Caltrans. The Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils between Caltrans and the DTSC does not constitute written approval for the Permittee to reuse soils containing greater than 80 mg/kg total lead.
5. The Permittee must implement the emergency notification requirements established in the California Office of Emergency Management Hazardous Materials, Spill / Release Notification Guidance (<http://www.caloes.ca.gov/>).
6. Any imported material used for backfill must be free of contamination, and a certificate of the material as "clean" with the source area of the material must be provided to Permit Inspector upon request. Importing soils containing greater than 80 mg/kg total lead for use in state right-of-way is not allowed.

Stockpiles of material containing aerially deposited lead shall not be placed where affected by surface run-on or run-off. Stockpiles shall be covered with plastic sheeting 13 mils minimum thickness or with one foot of nonhazardous material. Stockpiles shall not be placed in environmentally sensitive areas. Stockpiled material shall not enter storm drains, inlets, or waters of the State.

STEEL PLATE BRIDGING UTILITY

TR -0157 (Rev. 04/2018)

To accommodate excavation work, steel plate bridging may be necessary. All conditions for use of steel plate bridging should be set forth in the special provisions.

Consideration of steel plate bridging should take into account the following factors:

1. Traffic speed.
2. Traffic Volume and Composition.
3. Duration and dimensions (width & daily estimated lengths) of the proposed excavation.
4. Weather conditions.

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with a non-skid surface and shoring (see Trenching & Shoring) may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate bridging on freeways is not allowed.
2. Steel plates used for bridging must extend a minimum of 12" beyond the edges of the trench.
3. Steel plate bridging shall be installed to operate with minimum noise.
4. The trench shall be adequately shored, (as mentioned in Section 603.6B-2 of the Encroachment Permits Manual) to support the bridging and traffic loads.
5. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
6. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

As required by the district, steel plate bridging and shoring shall be installed using either Method (1) or (2):

Method 1 For speeds of 45 MPH or greater:

The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other.

Method 2 For Speeds less than 45 mph:

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" into the pavement. Subsequent plates are to be butted and tack welded to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5 % with a minimum 12" taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of

asphalt concrete mix, concrete slurry, epoxy or an equivalent that is satisfactory to the Caltrans' representative.

The permittee is responsible for maintenance of the steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications. Unless specifically noted or granted in the special provisions, or approved by the State representative, steel plate bridging shall not exceed 4 consecutive working days in any given week. Backfilling of excavations shall be covered with a minimum 3" temporary layer of cold asphalt concrete.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual).

Trench Width	Minimum Plate Thickness
10"	1/2"
1'-11"	3/4"
2'-7"	7/8"
3'-5"	1"
5'-3"	1 3/4"

NOTE: For spans greater than 5'-3", a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right of way whether used in or out of the traveled way shall be without deformation. Inspectors can determine the trueness of steel plates by using a straight edge and should reject any plate that is permanently deformed.

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342 (See Appendix H, Encroachment Permits Manual). If a different test method is used, the permittee may utilize standard test plates with known coefficients of friction available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, the permittee shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

Caltrans Inspectors should not enforce plate removal unless it is permanently deformed or delivered without the required surfacing. However, an inspector should document in a diary all contacts with the contractor.

A "Rough Road" (W8-8) sign and a "Steel Plate Ahead" (W8-24) sign with black lettering on an orange background must be used in advance of steel plate bridging along with the required construction area signs. These signs must be used along with any other construction area signs.

Surfacing requirements are not necessary for steel plates used in parking strips, on shoulders not used for turning movements, or on connecting driveways, etc., not open to the public.

STORMWATER SPECIAL PROVISIONS FOR MINIMAL OR NO IMPACT (SWSP)

TR-0400 (Rev 05/2018)

1. **GENERAL:** The purpose of these Special Provisions is to provide the Permittee with specifications for water pollution control to minimize, prevent, or control the discharge of material into the air, surface waters, groundwater, and storm sewers owned by the State or local agencies. These provisions are not intended to take the place of the Caltrans Water Pollution Control Program (WPCP) for projects where soil disturbance from work activities less than one acre, or work activities of one acre or more subject to the preparation of the Caltrans Storm Water Pollution Prevention Plan (SWPPP). The Permittee must comply with the following Special Provisions and the direction of the State Representative. All Stormwater Best Management Practices (BMPs) must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.
2. **NPDES REQUIREMENTS:** The Permittee must be responsible for full compliance with the Caltrans Storm Water Program and the Caltrans National Pollutant Discharge Elimination System (NPDES) Permit requirements (*Order No. 2012-0011-DWQ, NPDES No CAS000003*) and for and projects disturbing one acre or more of soil, full compliance with the California Construction General Permit (*Order No. 2009-0009-DWQ, NPDES No CAS000002*) or for projects for projects that have one acre or more of soil disturbance in the Lahontan Region (*Order No. R67-2016-0010, NPDES No CAG616002*). It is the Permittee's responsibility to install, inspect, and repair or maintain facilities and devices used for water pollution control practices (BMPs) before performing daily work activities. Installation, inspection and maintenance responsibilities on the job site include: 1) soil stabilization materials in work areas that are inactive or prior to storm events, 2) water pollution control devices to control sediment and erosion, 3) implementation of spill and leak prevention procedures for chemical and hazardous substances stored on the job site, 4) material storage, 5) stockpile management, 6) waste management, 7) non-stormwater management, 8) water conservation, 9) tracking controls and 10) illicit connection, illegal discharge detection and reporting. The Permittee must report to the State representative when discharges enter into receiving waters, adjacent property, drainage systems or when discharges could be a cause or a threat for water pollution. The Permittee must also control illicit discharges or illegal dumping prior to start of daily work schedule. Copies of written notices or orders from the Regional Water Quality Control Board or other regulatory agency must be provided to the State representative within 48 hours of reported activity. For additional information on stormwater compliance, visit the State Water Resources Control Boards storm water Website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater
3. **RESPONSIBILITY FOR DEBRIS REMOVAL:** The Permittee must be responsible for preventing sediment, trash, debris, and other construction waste from entering the street, the storm drains, local creeks, or any other bodies of water.
4. **SPOILS AND RESIDUE:** The Permittee must vacuum any saw-cut concrete waste material, debris, residue, etc. No spoils, debris, residue, etc. must be washed into a drainage system.
5. **SWEEPING:** Sweep paved roads at construction entrance and exit locations and surrounding paved areas daily within the job site during: 1) clearing and grubbing, 2) earthwork, 3) trenching, 4) soil disturbance, 5) pavement grinding and/or cutting, and 6) after observing tracking of material onto or off the State property. Keep dust to a minimum during sweeping activities. Use vacuum whenever dust generation is excessive or sediment pickup is ineffective. Roadways or work areas must not be washed down with water. Street sweeping operations must conform to Section 13 Water Pollution Control of Caltrans' Standard Specifications.
6. **VEHICLES AND EQUIPMENT:** Permittee must prevent all vehicles, equipment, etc. from leakage or mud tracking onto roadways. If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.
7. **MAINTENANCE AND FUELING OF VEHICLES AND EQUIPMENT:** Maintenance and fueling of equipment must not result in any pollution at the job site. The Permittee must immediately clean up spills/leaks, and properly dispose of contaminated soil and materials.
8. **CLEANING VEHICLES AND EQUIPMENT:** Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. The Permittee must clean all equipment within a bermed area or over a drip pan large enough to prevent run-off. No soaps, solvents, degreasers, etc. must be used in State right-of-way. Any water from this operation must be collected and disposed of at an appropriate site. Containment berms or dikes must be used for fueling, washing, maintaining and washing vehicles or equipment in outside areas. Containment must be performed at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain. Keep adequate quantities of absorbent spill- cleanup material and spill kits in the fueling or maintenance area and on fueling trucks.
9. **DIESEL FUELS:** The use of diesel fuel from petroleum or other fossil fuel as a form-oil or solvent is not allowed.
10. **WEATHER CONDITIONS AT WORKSITE:** Any activity that would generate fine particles or dust that could be transported off site by stormwater must be performed during dry weather.
11. **WIND EROSION PROTECTION:** The use of Wind Erosion BMPs must be deployed year-round in instances where dust or fine particles could be transported off site.
12. **HOT MIX ASPHALT:** Runoff from washing hot mix asphalt must not enter into any drainage conveyances.
13. **PROTECTION OF DRAINAGE FACILITIES:** The Permittee must protect/cover gutters, ditches, drainage courses, and inlets with gravel bags, fiber rolls, State approved fabric filters, etc., to the satisfaction of the State representative during grading, paving, saw-cutting, etc. and materials must conform to Section 13-6.02 Materials for Water Pollution Control of Caltrans' Standard Specifications. No such protection measures must cause an obstruction to the traveling public. The Permittee must implement spill and leak prevention procedures for chemicals and hazardous substances stored on the job site (including secondary containment requirements) in accordance to section 13-4.03B Spill Prevention and Control, and 14-11 Hazardous Waste and Contamination, Water Pollution Control of Caltrans' Standard Specifications.
14. **PAINT:** Rinsing of painting equipment and materials is not permitted in State right-of-way. When thoroughly dry, dispose of

the following as solid waste: dry latex paint, paint cans, used brushes, rags, gloves, absorbent materials, and drop cloths. Oil based paint sludge and unusable thinner must be disposed of at an approved hazardous waste site.

15. **CONSTRUCTION MATERIALS:** Stockpile of all construction materials, including, but not limited to; pressure treated wood, asphalt concrete, cold mix asphalt concrete, concrete, grout, cement containing premixes, and mortar, must conform to section 13-4.03C (2) Material Storage & 13-4.03C (3) Stockpile Management of Caltrans' Standard Specifications.
16. **CONCRETE EQUIPMENT:** Concrete equipment must be washed in a designated washing area in a way that does not contaminate soil, receiving waters, or storm drain systems.
17. **EXISTING VEGETATION:** Established existing vegetation is the best form of erosion control. Minimize disturbance to existing vegetation. Damaged or removed vegetation must be replaced as directed by the State Representative.
18. **SOIL DISTURBANCE:** Soil disturbing activities must be avoided during the wet weather season. If construction activities during wet weather are allowed in your permit, all necessary erosion control and soil stabilization measures must be implemented in advance of soil disturbing activity.
19. **SLOPE STABILIZATION AND SEDIMENT CONTROL:** Consider a certified expert in Erosion and Sediment control in cases where slopes are disturbed during construction. The Permittee is directed to comply with Section 13.5 Temporary Soil Stabilization and Section 21 Erosion Control of Caltrans' Standard Specifications during application of temporary soil stabilization measures to the soil surface. Fiber rolls or silt fences may be required down slope until permanent soil stabilization is established. Remove the accumulated sediment whenever the sediment accumulates to 1/3 of the linear sediment barrier height. The Permittee must limit the use of plastic materials when more sustainable, environmentally friendly alternatives exist or when environmental regulations prohibit their use within the project.
20. **STOCKPILES:** Stockpiles containing aggregate and/or soil must be stored at least 100 feet from concentrated flows of storm water, drainage courses, and storm drain inlets if within a flood plain, otherwise at least 50 feet if outside the floodplain, and must be covered and protected with a temporary perimeter sediment barrier. Cold mix stockpiles must be stored on an impermeable surface and covered with 9 mil plastic to prevent contact with water. Minimize stockpiling of materials on the job site. Manage stockpiles by implementing the water pollution control practices in Section 13-4.03C (3) Stockpile Management of the State of California standard specifications for construction.
21. **DISCOVERY OF CONTAMINATION:** The State Representative must be notified in case any unusual discoloration, odor, or texture of ground water, is found in excavated material or if abandoned, underground tanks, pipes, or buried debris are encountered.
22. **SANITARY AND SEPTIC WASTE:** Do not bury or discharge wastewater from a sanitary or septic system within the highway. Properly connected sewer facilities are free from leaks. With State Representative approval place portable sanitary facility at least 50 feet away from storm drains, receiving waters, and flow lines. Permittee must comply with local health agency provisions when

using an on-site disposal system.

23. **LIQUID WASTE:** Prevent job site liquid waste from entering storm drain systems and receiving waters. Drilling slurries, grease or oil-free waste water or rinse water, dredging, wash water or rinse water running off a surface or other non-storm water liquids not covered under separate waste water permits must be held in structurally sound, leak-proof containers, such as portable bins or portable tanks. Store containers at least 50 feet away from moving vehicles and equipment. Liquid waste may require testing to determine hazardous material content prior to disposal. All measures must conform to section 13-4.03D (5) Liquid Waste, Water Pollution Control of Caltrans' Standard Specifications.
24. **WATER CONTROL AND CONSERVATION:** Manage water use in a way that will prevent erosion and the discharge of pollutants into storm drain systems and receiving waters. Direct runoff, including water from water line repair from the job site to areas where it can infiltrate into the ground. Direct water from off-site sources around the job site or from contact with jobsite runoff.
25. **PILE DRIVING:** Keep spill kits and cleanup materials at pile driving locations. Park pile driving equipment over drip pans, absorbent pads, or plastic sheeting with absorbent material, and away from stormwater run-on when not in use.
26. **DEWATERING:** Dewatering consists of discharging accumulated storm water, groundwater, or surface water from excavations or temporary containment facilities. All dewatering operations must comply with the latest Caltrans guidelines including the Field Guide for Construction Site Dewatering. Contact State representative for approval of dewatering discharge by infiltration or evaporation, otherwise, any effluent discharged into a permitted storm water system requires approval from the Regional Water Quality Control Board. Prior to the start of dewatering, the Permittee must provide the State Representative with a dewatering and discharge work plan that complies with section 13-4.03G Dewatering, Water Pollution Control of Caltrans' Standard Specifications. A copy of the Waste Discharge Permit and a copy of a valid WDID number issued by the Regional Board must be provided to the State representative.

TRAFFIC STRIPING, MARKINGS, AND SIGNS

In addition to the attached Encroachment Permit General Provisions (TR-0045), the following special provisions are also applicable:

1. Traffic striping, pavement markings and signs shall be furnished and placed by the permittee and the cost shall be borne by the permittee. Where new asphalt concrete has been placed, painted striping and pavement markings shall be installed within 24-hours. Where shown on the plans, after thirty (30) days curing time, thermoplastic materials shall be applied in compliance with Section 84 of the Standard Specifications.
2. Roadside signs shall be placed at locations shown on the permit plans and shall be installed in compliance with the latest edition of Caltrans Standard Plans.
3. Permittee shall furnish to State's representative a completed Form CEM-3101 "Notice of Materials to be Used," and approval of the material used shall be obtained prior to its installation.

UTILITY UNDERGROUND PROVISIONS (UG)

TR - 0163 (Rev. 04/2018)

In addition to the attached Encroachment Permit General Provisions (TR-0045), the following special provisions are also applicable:

High priority utilities, pressurized facilities, pipes or ducts 6 inches or larger in diameter, or placement of multiple pipes or ducts, regardless of diameters are required to be encased on both conventional and access-controlled highway rights-of-way.

A “High Priority Utility” is defined as: 1) a natural gas pipeline greater than 6 inches in diameter, or with normal operating pressures greater than 60 psig, 2) petroleum pipelines, 3) pressurized sanitary sewer pipelines, 4) high-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60 kV, or 5) hazardous materials pipelines that are potentially harmful to workers or the public if damaged.

An exception to this policy may be allowed on a case by case basis for the installation of Uncased High-Pressure Natural Gas Pipelines when in compliance with the TR-0158 Special Provisions.

The pavement or roadway must not be open-cut unless specifically allowed under a separate “UT” permit. Utility installations must not be installed inside of culverts or drainage structures.

For additional details regarding longitudinal utility encroachments on both conventional and access-controlled highway rights-of-way, see Chapter 600.

UG 1. CASINGS: Casings must be steel conduit with a minimum inside diameter sufficiently larger than the outside diameter of the pipe or ducts to accommodate placement and removal. The casing can be either new or used steel pipe, or an approved connector system. Used pipe must be pre-approved by the Department's engineer or representative before installation.

When the method of Horizontal Directional Drilling (HDD) is used to place casing, the use of High Density Polyethylene Pipe (HDPE) as casing is acceptable.

Reinforced Concrete Pipe (RCP) in compliance of State Standard Specifications is an acceptable carrier for storm drain gravity flow or non-pressure flow. RCP when installed by Bore & Jack must have rubber gaskets at the joints, and holes for grouting of voids left by jacking operations, see “E” below.

- A. Minimum wall thickness for steel pipe casing for different lengths and diameters of pipes are as follows:

Minimum Wall Thickness

Casing Pipe (Diameter)	Up to 150 ft (Length)	Over 150 ft (Length)
6" to 28"	1/4"	1/4"
30" to 38"	3/8"	1/2"
40" to 60"	1/2"	3/4"
62" to 72"	3/4"	3/4"

- B. Spiral welded casing is authorized provided the casing is new and the weld is smooth.

- C. The ends of the casing must be plugged with ungrouted bricks or other suitable material approved by the Department's representative.
- D. When required by the Department's representative, the permittee must at his expense, pressure grout the area between the pavement and the casing from within the casing in order to fill any voids caused by the work covered under this permit. The increments for grout holes inside the pipe must be 8 feet staggered and located 22-1/2 degrees from vertical axis of the casing. Pressure must not exceed 5 psig for a duration sufficient to fill all voids.
- E. There is a spacing requirement when placement of multiple encasements is requested. The distance between multiple encasements must be the greater of either 24 inches or twice that of the diameter of the larger pipe being installed.
- F. Casings placed within access controlled highway rights-of-way must extend to the right-of-way lines.
- G. Wing cutters, if used, must be a maximum of 1 inches larger than the casing. Voids caused by the use of wing cutters must be grouted in accordance with "E" above.
- H. A band welded to the leading edge of the casing must be placed square to the alignment. The band must not be placed on the bottom edge. Flaring the lead section on bores over 100 feet must not be permitted.

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- I. All casing lengths must equal to the auger length.
- J. The casings within conventional highways must extend 5 feet beyond the back of curb or edge of pavement, or to the right of way line if less. Where PCC cross-gutter exists, the casing must extend at least 5 feet beyond the back of the cross-gutter, or to the right of way line if less.

Bore and receiving pits must:

- A. be located at least 10 feet or more from the edge of pavement on conventional highways in rural areas.
- B. be located 5 feet behind the concrete curb or AC dike on conventional highways in urban areas.
- C. be located 5 feet outside the toe of slope of embankment areas.
- D. be located outside access controlled highway rights-of-way.
- E. be adequately fenced and/or have a Type-K barrier placed around them.
- F. be adequately shored in accordance with Cal-OSHA requirements. Shoring for jacking and receiving pits located within 15 feet of traffic lanes on a State highway must not extend more than 36 inches above the pavement grade unless otherwise authorized by Department's representative. Reflectors must be affixed to the shoring on the sides facing traffic. A 6 feet chain link fence must be installed around the perimeter of the pits during non-working hours.
- G. have crushed-rock and sump areas to clear groundwater and water used to clean the casing. Where ground water is found and pumping is required, the pits must be lined with filter fabric.

UG 2. HORIZONTAL DIRECTIONAL DRILLING: Bore and receiving pits

When HDD is the approved method for pipe installation, drilling plans must contain information listed as follows:

- 1. Location of: entry and exit point, access pit, equipment, and pipe staging area.
- 2. Proposed drill path alignment (horizontal and vertical).
- 3. Location and clearances of all other facilities.
- 4. Depth of cover.
- 5. Soil analysis.*
- 6. Carrier pipe length, diameter, thickness, and material (HDPE/steel) and ream pipe diameter.

- 7. Detailed carrier pipe calculations confirming ability to withstand installation loads and long-term operational loads including H20.
- 8. Proposed drilling fluid composition, viscosity, and density (based on soils analysis).
- 9. Drilling fluid pumping capacity, pressures, and flow rates
- 10. State right-of-way lines, property, and utility right of way or easement lines.
- 11. Elevations.
- 12. Type of tracking method/system and accuracy used.
- 13. A detailed plan for monitoring ground surface movement (settlement or heave) resulting from the drilling operation.
- * May be waived by the District Permit Engineer for HDD jobs less than 6 inches in diameter and a traverse crossing less than 150 feet.

UG 3. LIMIT OF EXCAVATION: No excavation is allowed within 10' from the edge of pavement except in curbed urban areas or as specified in the permit. Where no curb exists and excavations within 10 feet of the traveled way are to remain open, a temporary Type-K railing must be placed at a 10:1 taper or as otherwise directed by the Department.

UG 4. TUNNELING: Review, requirements of Section 603.6A-6 of the Encroachment Permits Manual, if applicable. In addition to the requirements of "UG1" the following requirements apply:

- A. For the purpose of this provision, a tunnel is defined as any pipe, 30 inches or larger in diameter placed.
- B. When tunneling is authorized, the permittee must provide full-time inspection of tunneling operations. The Department's representative must monitor projects.
- C. A survey grid must be set and appropriately checked over the centerline of the pipe jacking or tunneling operation. Copies of the survey notes must be submitted to the Department's representative.
- D. Sand shields may be required as ground conditions change.
- E. The method used to check the grade and alignment must be approved by the Department's representative.
- F. Pressure grouting for liner plates, rib and spiling, or rib and lagging tunnels must be at every 8 feet section or at the end of work shift before the next section is excavated. All grouting must be completed at the end of each workday.
- G. A method for securing the headway at the end of each workday is required. Breastplates must be

ENCROACHMENT PERMIT SPECIAL PROVISIONS

installed during working hours for running sand or super-saturated soil.

UG 5. CLEARANCE AND OFFSET

REQUIREMENTS: All installations must comply with Chapter 17, Article 4 of the Project Delivery Procedures Manual (PDPM) for utility clearance and offset requirements.

UG 6. FACILITIES EXEMPT FROM THE HIGH PRIORITY UTILITY REQUIREMENTS:

The following utilities (not including State owned utilities) are exempt from these policies and do not need to be plotted on the plans unless the depiction of the utility is needed for interconnectivity with the proposed work:

- Natural gas service lines less than 2 inches in pipe diameter that have normal operating pressures of 60 psig or less
- Subsurface electrical service connections with a potential to ground of 50 volts or less
- Service connections (laterals) for water, sewer, telephone, telecommunication, and cable service

All State owned utilities must be plotted on the plans.

UG 7. DETECTOR STRIP: A continuous metallic detector strip must be provided with non-metallic main installations. Service connections must be installed at right angles to the centerline of the State highway where possible.

UG 8. BACKFILLING: All backfilling must conform to the applicable sections of the Department's Standard Specifications. Ponding or jetting methods of backfilling are prohibited.

Any required compaction tests must be performed by a certified laboratory at no cost to the Department and the laboratory report furnished to the Department's representative.

UG 9. ROADWAY SURFACING AND BASE MATERIALS: When the permit authorizes installation by the open cut method, surfacing and base materials and thickness thereof must be as specified in the permit.

Temporary repairs to pavements must be made and maintained upon completion of backfill until permanent repairs are made. Permanent repairs to pavements must be made within thirty (30) days of completion of backfill unless otherwise specified by the Department. Temporary pavement patches must be placed and maintained in a smooth riding plane free of humps and/or depressions.

UG 10. DAMAGE TO TREE ROOTS: Tree roots 3 inches or larger in diameter will not be cut within the tree

drip line when trenching or other underground work is necessary adjacent to roadside trees. If such roots are encountered, they must be tunneled under, wrapped in burlap and kept moist until the trench is backfilled. Trenching machines may not be used under trees if the trunk or limbs will be damaged by their use.

If the trees involved are close together and of such size that it is impractical to protect all roots over 3 inches in diameter, or when roots are less than 4 inches in diameter, outside tree drip line, special arrangements may be made whereby pruning of the tree tops to balance the root loss can be done by the permittee under the close supervision of the District Landscape Specialist or District Tree Maintenance Supervisor. Manholes must not be installed within 20 feet of any trunk.

UG 11. PIPES ALONG ROADWAY: Pipes and conduits paralleling the pavement must be located as shown on the plans or located outside of pavement as close as possible to the right-of-way line.

UG 12. BORROW AND WASTE: Borrow and waste will be allowed within the work limits only as specified in the permit.

UG 13. MARKERS: The permittee must not place any markers that create a safety hazard for the traveling public or departmental employees.

UG 14. CATHODIC PROTECTION: The permittee must perform stray current interference tests on underground utilities under cathodic protection. The permittee must notify the Department prior to the tests. The permittee must perform any necessary corrective measures and advise the Department.

UG 15. DELETED. Provision left blank intentionally

UG 16. INSTALLATION BY OPEN CUT

METHOD: When the permit authorizes installation by the open cut method no more than one lane of the highway pavement must be open-cut at any one time. Any exceptions must be in writing by the Department's representative. After the pipe is placed in the open section, the trench is to be backfilled in accordance with specifications, temporary repairs made to the surfacing and that portion opened to traffic before the pavement is cut for the next section.

If, at the end of the working day, backfilling operations have not been properly completed, steel plate bridging must be required to make the entire highway facility available to the traveling public in accordance with the "Steel Plate Bridging Special Provisions" (TR-0157)

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UG 17. PAVEMENT REMOVAL: PCC pavement to be removed must be saw cut at a minimum depth of 4 inches to provide a neat and straight pavement break along both sides of the trench. AC pavement must be saw cut to the full depth.

Where the edge of the trench is within 2 feet of existing curb and gutter or pavement edge, the asphalt concrete pavement between the trench and the curb or pavement edge must be removed.

UG 18. DELETED. Provision left blank intentionally.*

UG 19. SIDES OF OPEN-CUT TRENCHES: Sides of open cut trenches in paved areas must be kept as nearly vertical as possible. Trenches must not be more the 2 feet wider than the outside diameter of the pipe to be laid therein, plus the necessary width to accommodate shoring.

UG 20. EXCAVATION UNDER FACILITIES: Where it is necessary to excavate under existing curb and gutter, or underground facilities, the void must be backfilled with two (2) sack cement-sand slurry.

UG 21. PERMANENT REPAIRS TO PCC PAVEMENT: Repairs to PCC pavement must be made of Portland Cement Concrete containing a minimum of 658 lbs. or 7 sack of cement per cubic yard. Replaced PCC

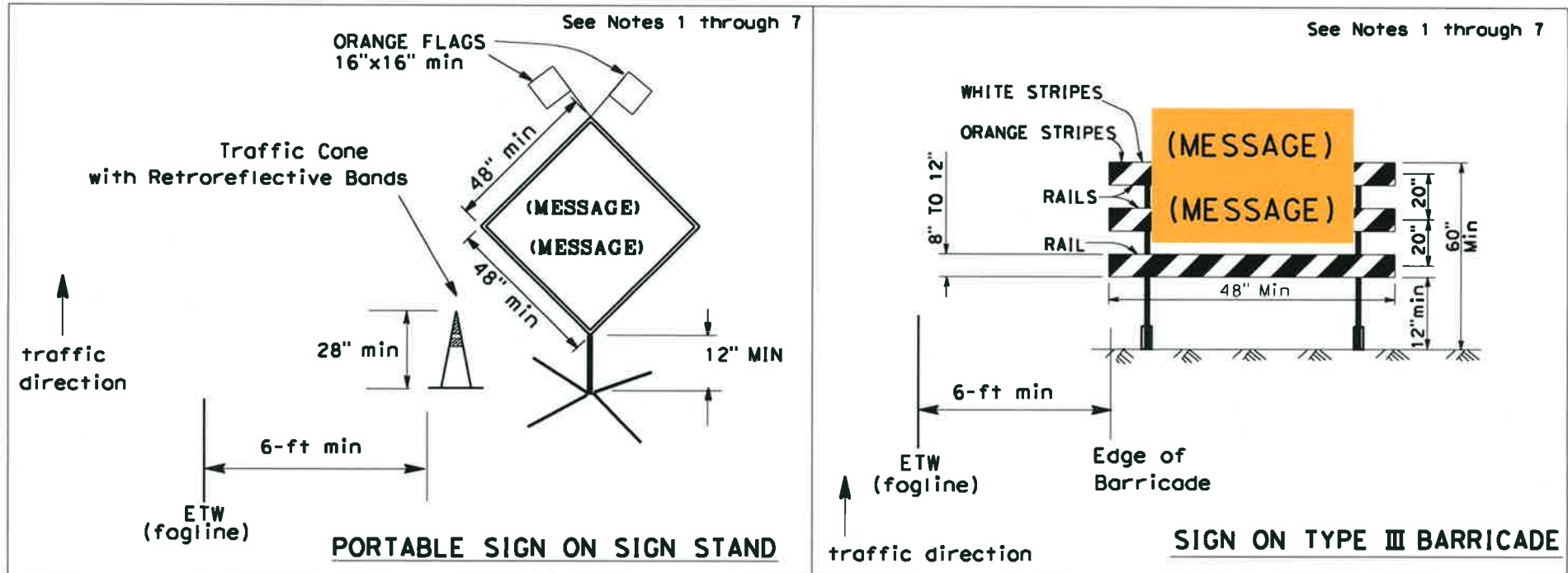
pavement must equal existing pavement thickness. The concrete must be satisfactorily cured and protected from disturbance for not less than forty-eight (48) hours. Where necessary to open the area to traffic, no more than two (2%) percent by weight of calcium chloride may be added to the mix and the road opened to traffic after six (6) hours.

UG 22. REMOVAL OF PCC SIDEWALKS OR CURBS: Concrete sidewalks or curbs must be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing sidewalk or curb.

UG 23. SPOILS: No earth or construction materials are to be dragged or scraped across the highway pavement, and no excavated earth placed or allowed to remain at a location where it may be tracked onto the highway traveled way, or any public or private approach by the permittee's construction equipment, or by traffic entering or leaving the highway traveled way. Any excavated earth or mud so tracked onto the highway pavement or public or private approach must be immediately removed by the permittee.

*NOTE: Special Provision was deleted since it is already part of the Encroachment Permit General Provisions (TR-0045)

TYPICAL TEMPORARY SIGN SUPPORTS DETAILS



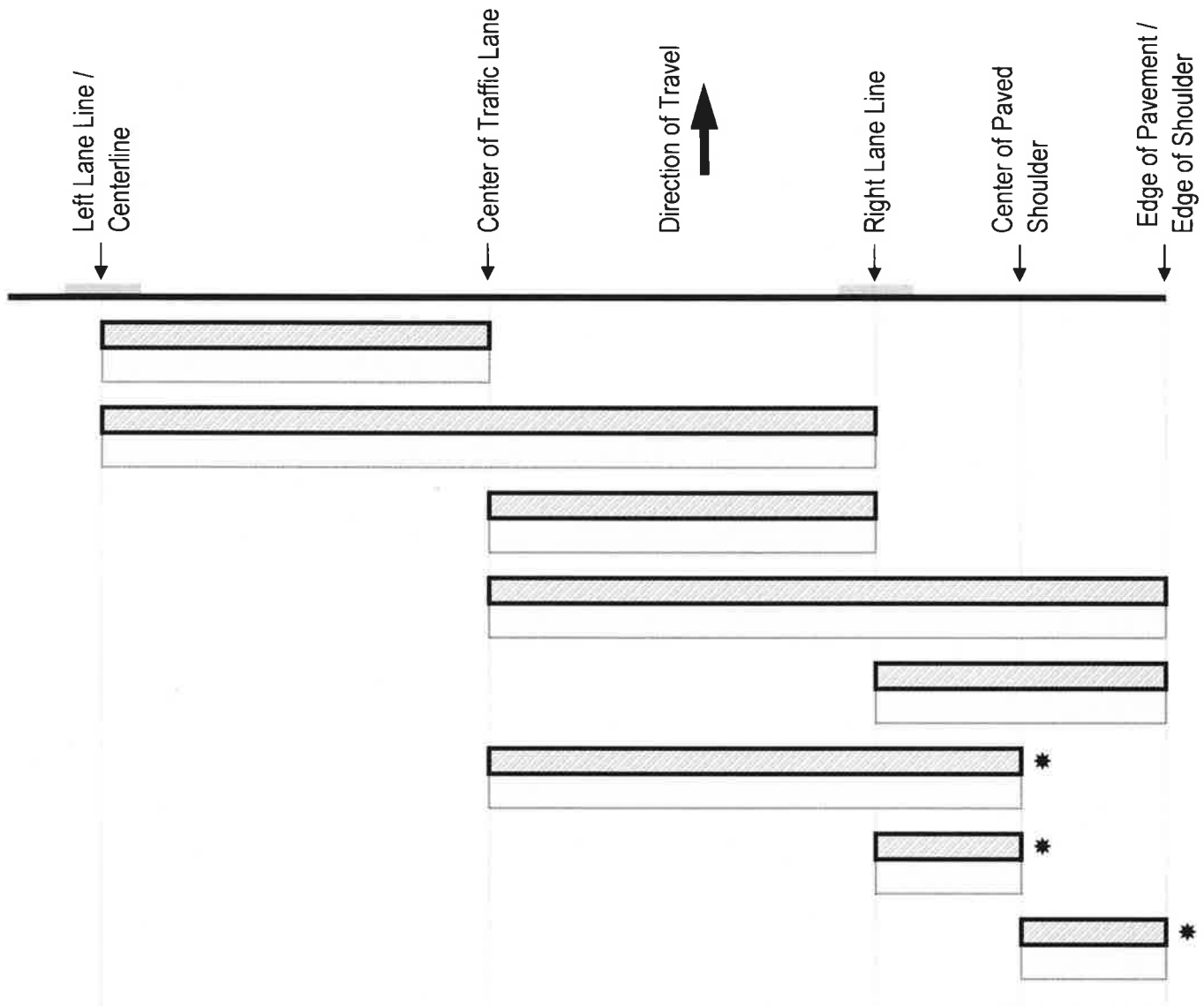
NOTES

(REV. 3/18/2016)

1. Maintain a 4-foot minimum clearance on sidewalks at all times and a minimum 5-foot clearance adjacent to a drop off, such as a curb face or gutter.
2. Signs shall not interfere with the visibility of other existing signs.
3. Sign supports must be NCHRP Report 350 eligible or MASH (Manual for Assessing Safety Hardware) crashworthy.
Information on NCHRP Report 350 eligible devices can be found at:
http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/wzd/workzone_pdmnu.cfm
Information on MASH can be found at:
http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/ctrmeasures/mash/
4. Sign message, color, shape, and size must conform to the current Caltrans Standards Specifications and current CA MUTCD (California Manual on Uniform Traffic Control Devices). (i.e. Rectangular or diamond shape)
Information on Caltrans Sign Specifications can be found at:
<http://www.dot.ca.gov/hq/traffops/engineering/control-devices/specs.htm>
5. Signs mounted on Type III barricades shall not cover the bottom rail.
6. Sign stands should be weighted down per the stand manufacturer's recommendations. (i.e. sand/gravel bags)
7. Signs to be placed for more than 3 consecutive days, shall be post mounted per Caltrans Standard Plans RS1 through RS4.

Limits of Grind and Overlay for Pavement Replacement

To determine the required grind and overlay width to cap your trench, find the location that best fits your trench and includes the limits of your trench repair. Please consult with the Caltrans Permit Inspector for additional guidance.



Example 1: A trench with limits shown hatched above, would require a grind and overlay of the entire traffic lane width.

Example 2: A trench with limits shown hatched above, would require a grind and overlay from the center of traffic lane to the right edge of traveled way.



Required Width for Grind and Overlay

Limits of Trench Repair

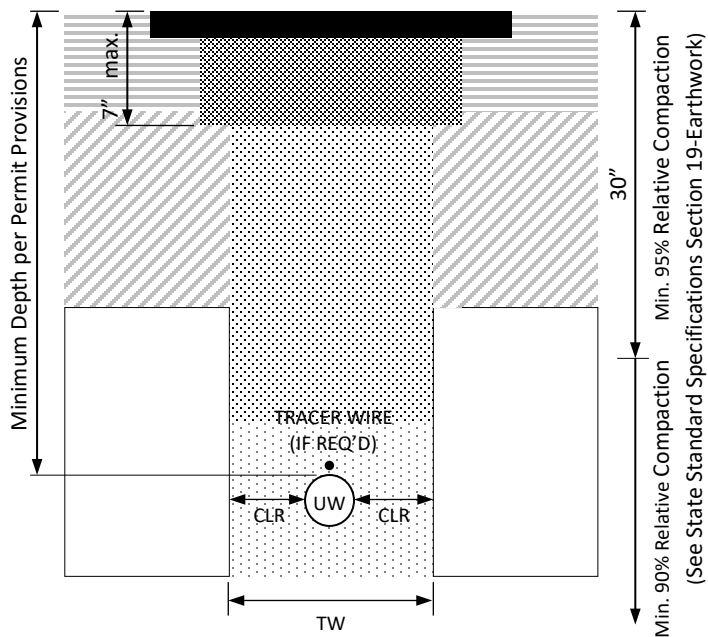









For Paved Shoulder Widths 8' or greater only

Pavement repair in open graded pavement surfaces will require in kind replacement of surface layer.

ENCROACHMENT PERMIT TRENCH DETAIL

TR-0153 (REV. 09/2006) (REV. 10/2018 - District 5)

TYPICAL TRENCH DETAIL

-  New Final Trench Cap 2.0- 2.5 inches HMA, Grind and Overlay Limits per Encroachment Permit Provisions
-  New Trench Pavement. Existing pavement depth plus 1.0 inch. (Trench Cap plus Trench Pavement = 7" max. depth) Minimum 3 feet trench pavement width.
-  New Structural Backfill, 2-sack Slurry Cement, Class 2 aggregate base, or CLSM
-  Existing Pavement Material
-  Existing Base Material
-  Envelope/Bedding per facility owner's standards and specifications
-  Existing Subgrade
- UW Width of Utility or Culvert
- CLR Clearance between product and trench wall
- CLSM Controlled Low Strength Material
- HMA Hot Mix Asphalt
- TW Trench Width

STRUCTURE BACKFILL SHALL CONFORM TO SECTION 19-3.02C OF THE STATE STANDARD SPECIFICATIONS

SLURRY CEMENT BACKFILL SHALL CONFORM TO SECTION 19-3.02E OF THE STATE STANDARD SPECIFICATIONS

HMA SHALL CONFORM TO SECTION 39-2 OF THE STATE STANDARD SPECIFICATIONS

A TACK COAT OF ASPHALTIC EMULSION SHALL BE FURNISHED AND APPLIED.

ALL METHODS OF COMPACTION SHALL BE BY MECHANICAL MEANS. PONDING, JETTING OR FLOODING SHALL NOT BE ALLOWED. ALL COMPACTION SHALL CONFORM TO SECTION 19-5 OF THE STATE STANDARD SPECIFICATIONS

AGGREGATE BASE SHALL CONFORM TO SECTION 26 OF THE STATE STANDARD SPECIFICATIONS

WHEN CLSM BASE IS UTILIZED, THE MIX DESIGN AND TEST RESULTS SHALL BE SUBMITTED TO THE STATE'S REPRESENTATIVE

ALL WORK SHALL BE AS AUTHORIZED BY THE APPROVED ENCROACHMENT PERMIT PLANS, AND/OR AS DIRECTED BY THE STATE'S REPRESENTATIVE

WHEN THE UW IS $\geq 6"$ THEN THE MINIMUM CLR SHALL BE 6"

COLD PLANING TO ACCOMMODATE THE PLACEMENT OF STEEL PLATES IS REQUIRED FOR POSTED SPEED LIMITS 45 MPH OR GREATER. STATE REPRESENTATIVE MAY REQUEST COLD PLANING FOR STEEL PLATES TO MEET FIELD CONDITIONS EVEN IF POSTED SPEED LIMIT IS LESS THAN 45 MPH.

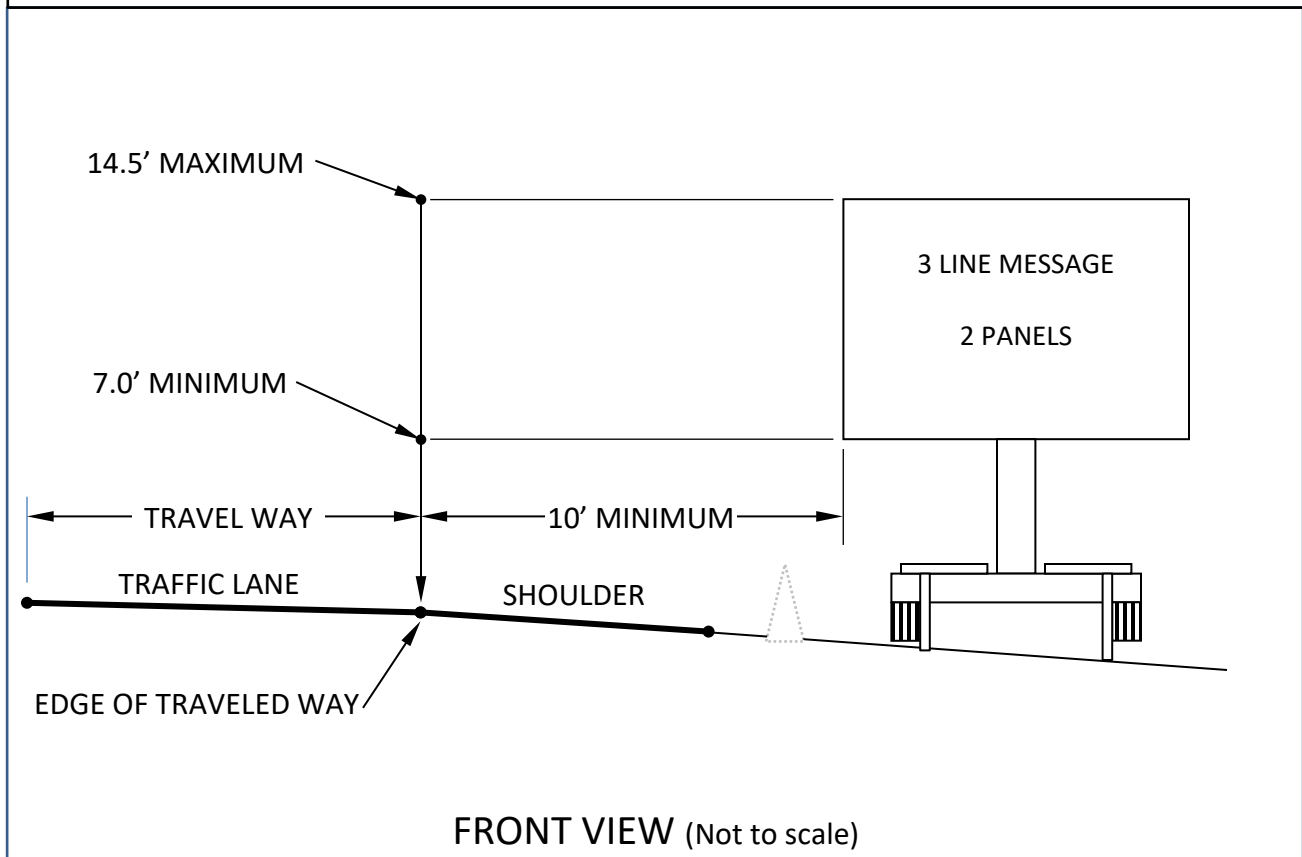
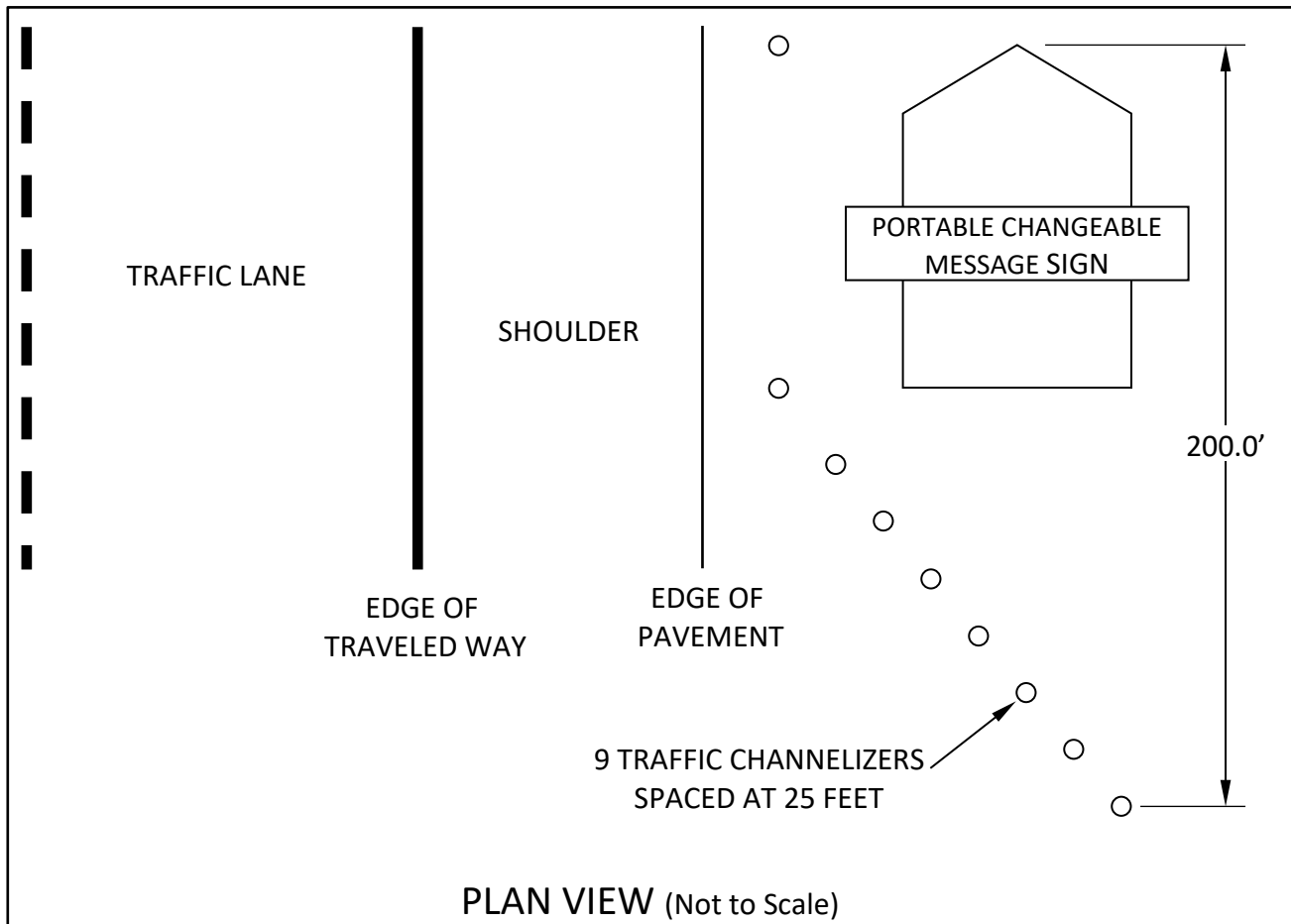
WHEN TRENCH PLACEMENT IS WITHIN 4' OF CURB AND GUTTER, ADDITIONAL COLD PLANING MAY BE REQUIRED AT THE DISCRETION OF THE STATE'S REPRESENTATIVE.

ANY PAVEMENT MARKINGS AND/OR STRIPING REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AS DIRECTED BY THE STATE'S REPRESENTATIVE.

A TRACER WIRE SHALL BE PLACED ON TOP OF THE FACILITY, WHEN REQUIRED BY THE STATE'S REPRESENTATIVE.

NEW STRUCTURAL BACKFILL SHALL CONSIST OF EITHER 2-SACK SLURRY CEMENT, CLASS 2 AGGREGATE BASE, OR CLSM. WHEN TW IS < 24 INCHES, CLASS 2 AGGREGATE BASE IS NOT RECOMMENDED FOR BACKFILL.

TYPICAL PORTABLE CHANGEABLE MESSAGE SIGN PLACEMENT

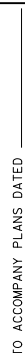


See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
------	--------	-------	-----------------------------	--------------	-----------------



- NOTES:**
1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 2. Sign must be equipped with at least two flags for daytime closures. Flags must be orange in color and at least 16 inches by 16 inches in size. Place flashing beacons as shown for closures during hours of darkness.
 3. A C20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure until the work area is obvious or ends within the larger project's limits.
 4. An optional C29(CA) sign may be placed below the C9A(CA) sign.
 5. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area. They are optional if the work area is visible from the flagger station.
 6. Length may be reduced by the Engineer to address site conditions.
 7. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
 8. If C45(CA) is not used, measure distance C from W20-4.

LEGEND

● TRAFFIC CONE

<u>PORTABLE TRANSVERSE</u>		TEMPORARY TRAFFIC CONTROL SIGN
<u>RUMBLE STRIP ARRAY DETAIL</u>		PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

**AUTOMATED FLAGGER ASSISTANCE
DEVICE (AFAD)**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM WITH REVERSIBLE CONTROL ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED APRIL 16, 2021 SUPERSEDES RSP T13 DATED OCTOBER 18, 2019 AND STANDARD PLAN T13 DATED MAY31, 2018 - PAGE 291 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP T13

SIGN PANEL SIZE (Min):

A 48" x 48"

LEGEND:

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ✱ PORTABLE FLASHING BEACON
- TRAILER
- FLAGGER
- PORTABLE CHANGEABLE MESSAGE SIGN

**FLAGGER
AHEAD**

**PREPARE
TO STOP**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

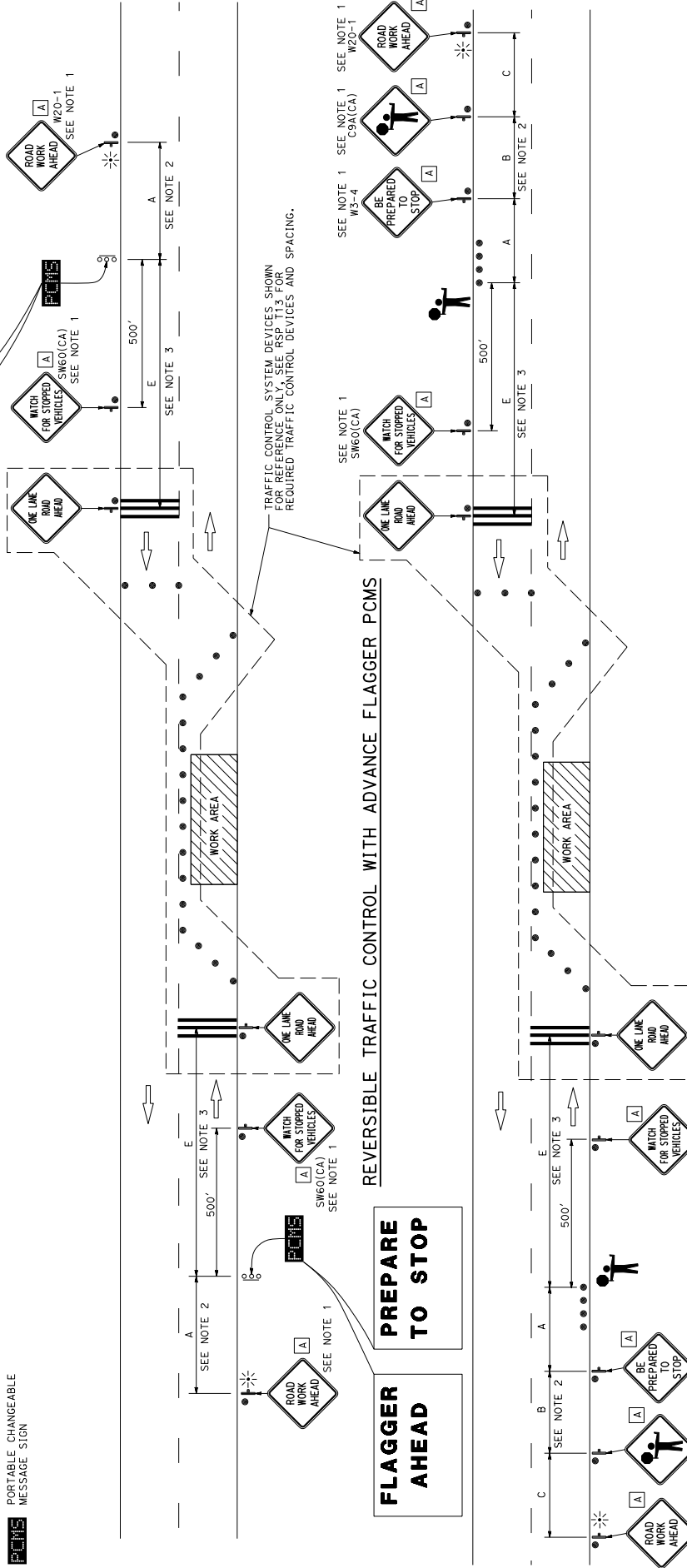
Alta Ferrouz
REGISTERED CIVIL ENGINEER

April 16, 2021
DATE OF TOTAL DATE

NO. 08402
No. 3-31-23

THIS DRAWING IS THE PROPERTY OF THE STATE OF CALIFORNIA. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE STATE OF CALIFORNIA.

TO ACCOMPANY PLANS DATED



REVERSIBLE TRAFFIC CONTROL WITH ADVANCE FLAGGERS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
TWO LANE CONVENTIONAL
HIGHWAYS**

NO SCALE

NOTES:

1. Sign must be equipped with at least two flags for daytime closures. Flags must be orange in color and at least 16 inches by 16 inches in size. Place flashing beacons as shown for closures during hours of darkness.
2. See Standard Plan T9, Table 3 for advanced warning sign spacing.
3. See Standard Specification 12-4.02C.

RSP T13A DATED APRIL 16, 2021 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP T13A

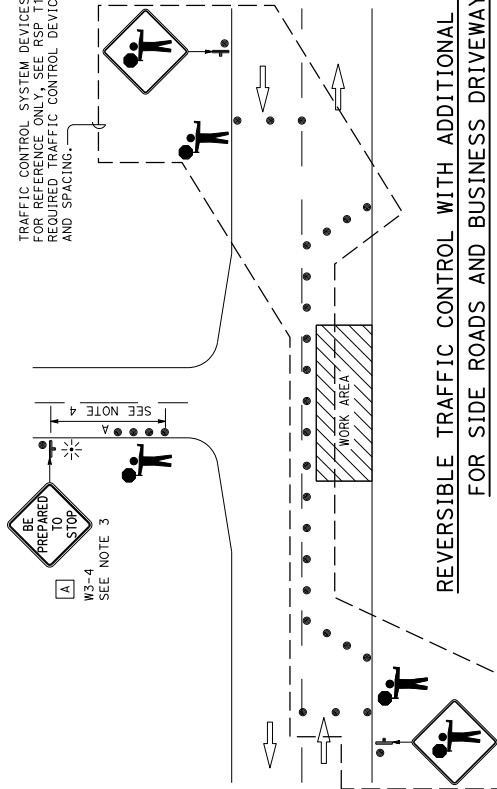
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER
Alta Ferrouz
 No. CB0402
 Exp. 3-31-23
 STATE OF CALIFORNIA
 PROFESSIONAL ENGINEER

PROJECT NO. 16-0000000
 DATE: April 16, 2021
 THIS STATE OF CALIFORNIA PROJECT NO. 16-0000000
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
 COPIES OF THIS PLAN SHEET.

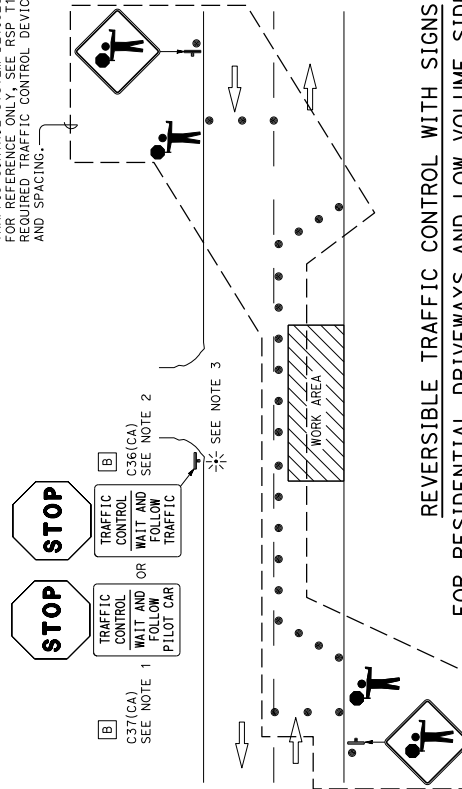
TO ACCOMPANY PLANS DATED _____

TRAFFIC CONTROL SYSTEM DEVICES SHOWN
FOR REFERENCE ONLY, SEE RSP T13 FOR
REQUIRED TRAFFIC CONTROL DEVICES
AND SPACING.



REVERSIBLE TRAFFIC CONTROL WITH ADDITIONAL FLAGGERS FOR SIDE ROADS AND BUSINESS DRIVEWAYS

TRAFFIC CONTROL SYSTEM DEVICES SHOWN
FOR REFERENCE ONLY, SEE RSP T13 FOR
REQUIRED TRAFFIC CONTROL DEVICES
AND SPACING.



REVERSIBLE TRAFFIC CONTROL WITH SIGNS FOR RESIDENTIAL DRIVEWAYS AND LOW VOLUME SIDE ROADS

NOTES:

1. Place C37(CA) sign when pilot car is used.
2. Place C36(CA) sign when pilot car is not used.
3. Sign must be equipped with at least two flags for daytime closures. Flags must be orange in color and at least 16 inches by 16 inches in size. Place flashing beacons as shown for closures during hours of darkness.
4. See Standard Plan T9, Table 3 for advance warning sign spacing.

LEGEND:

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ✱ PORTABLE FLASHING BEACON
- ⋈ FLAGGER

SIGN PANEL SIZE (Min)

- | | |
|---|-----------|
| A | 48" x 48" |
| B | 36" x 42" |

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

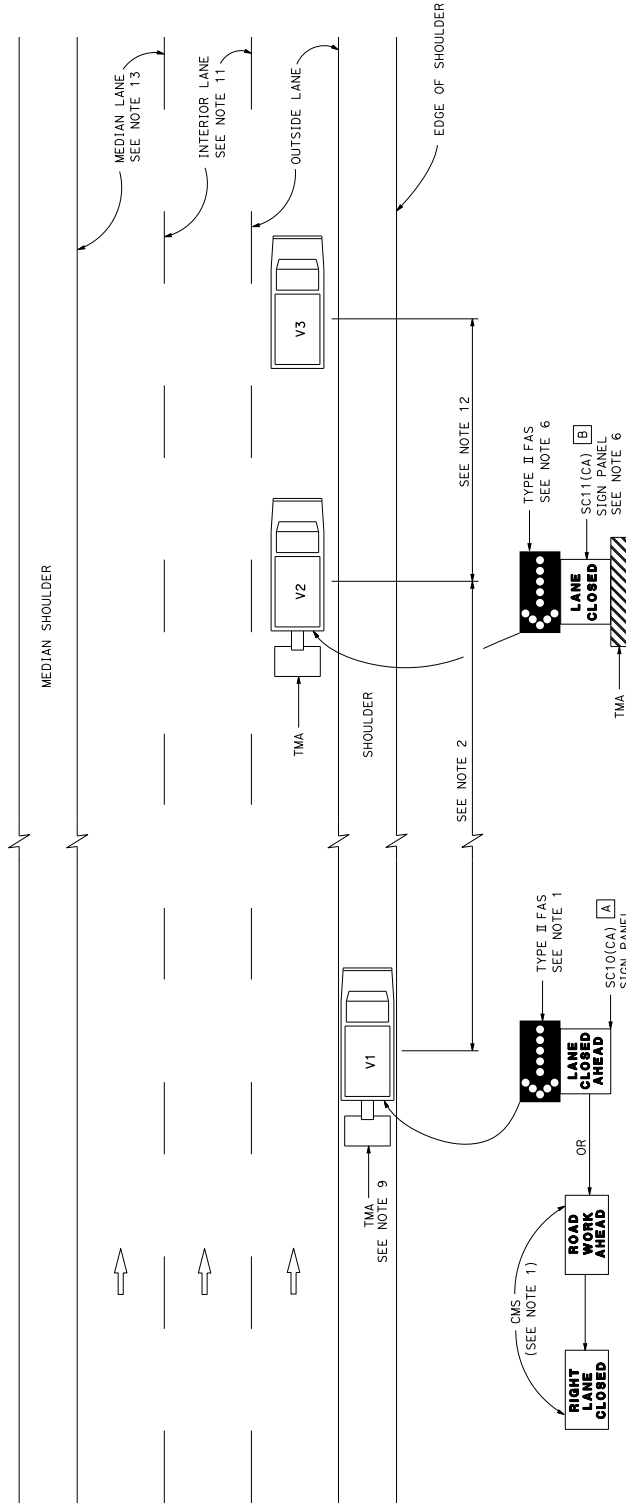
RSP T13B DATED APRIL 16, 2021 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP T13B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER
Alta Ferrouk
April 19, 2019
PLANS FOR THE PROJECT
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.

TO ACCOMPANY PLANS DATED _____



SIGN PANEL SIZE (Min)

A	66" x 36"
B	54" x 42"

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- CMS FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

MOVING LANE CLOSURE ON MEDIAN LANE OR
OUTSIDE LANE OF MULTILANE HIGHWAYS

NOTES:

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For lane closure on the right lane, the "RIGHT LANE CLOSED" message shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM
FOR MOVING LANE CLOSURE
ON MULTILANE HIGHWAYS

NO SCALE

RSP T15 DATED APRIL 19, 2019 SUPERSEDES STANDARD PLAN T15
DATED MAY 31, 2018 - PAGE 293 OF THE STANDARD PLANS BOOK DATED 2018.

REVISED STANDARD PLAN RSP T15

TABLE 1

TABLE 2

TABLE F 3

SPEED (S)	TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING									
	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)					MAXIMUM CHANNELIZING DEVICE SPACING				
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	TAPER	X	Y	Z **	CONFLICT	
mph	ft	ft	ft	ft	ft					
20	160	80	40	27	20	40	10	ft	ft	
25	250	125	63	42	25	50	12	50	12	
30	360	180	90	60	30	60	15	60	15	
35	490	245	123	82	35	70	17	70	17	
40	640	320	160	107	40	80	20	80	20	
45	1080	540	270	180	45	90	22	90	22	
50	1200	600	300	200	50	100	25	100	25	
55	1320	660	330	220	50	100	25	100	25	
60	1440	720	360	240	50	100	25	100	25	
65	1560	780	390	260	50	100	25	100	25	
70	1680	840	420	280	50	100	25	100	25	
75	1800	900	450	300	50	100	25	100	25	

* - For other offsets, use the following merging taper length formula for L:
For speed of 40 mph or less, $L = WS^2/60$
For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet

W = Width of offset in feet

S = Posted speed limit, off-peak 85th-percentile

speed prior to work starting, or the anticipated

operating speed in mph

xx - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	230	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891
75	820	866	927	1003

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

**** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

ADVANCE WARNING SIGN SPACING				
ROAD TYPE	DISTANCE BETWEEN SIGNS *			
	A	B	C	
URBAN - 25 mph OR LESS	ft	ft	ft	ft
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250	250
URBAN - MORE THAN 40 mph	350	350	350	350
RURAL				
EXPRESSWAY / FREEWAY	1000	1500	500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

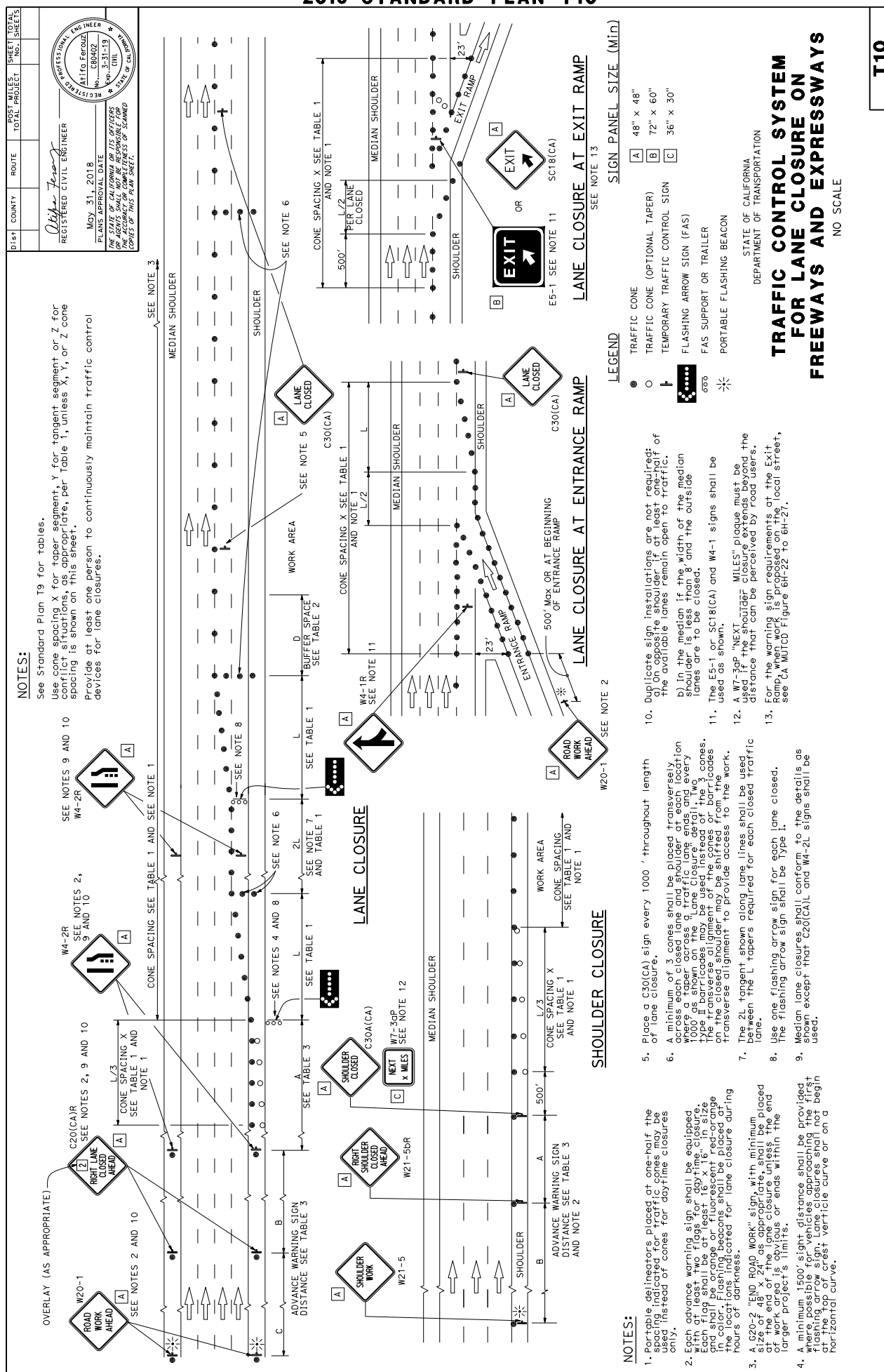
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM TABLES
FOR LANE AND RAMP CLOSURES**

NO SCALE

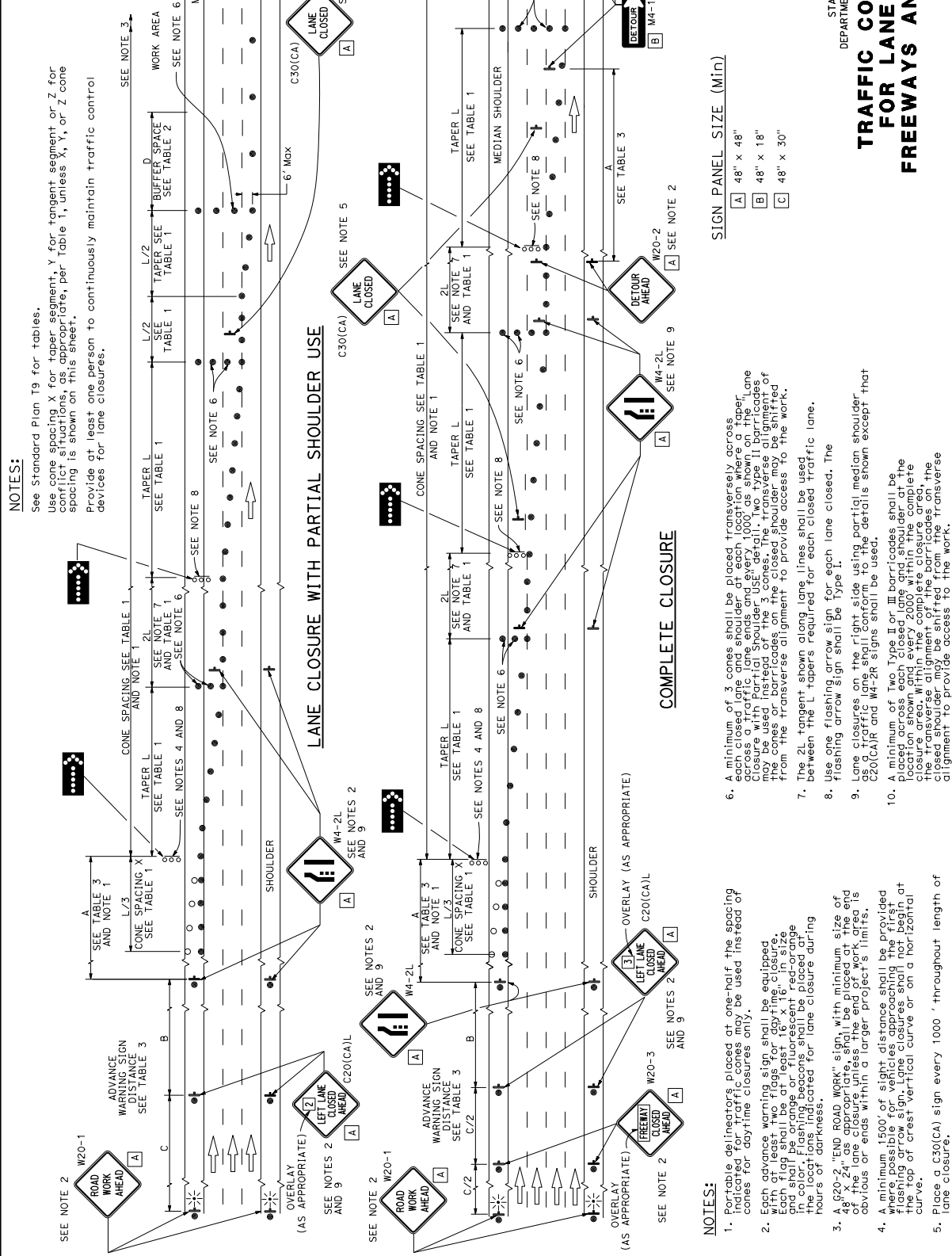
NO SCALE

91



Dist	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET TOTAL
					NO. SHEETS

REGISTERED CIVIL ENGINEER
 May 31, 2018
 PROJECT NO. C80402
 DATE 3-31-19
 THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
 THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THIS PLAN SHEET.



T10A

Dist# COUNTY ROUTE

POST MILES TOTAL PROJECT

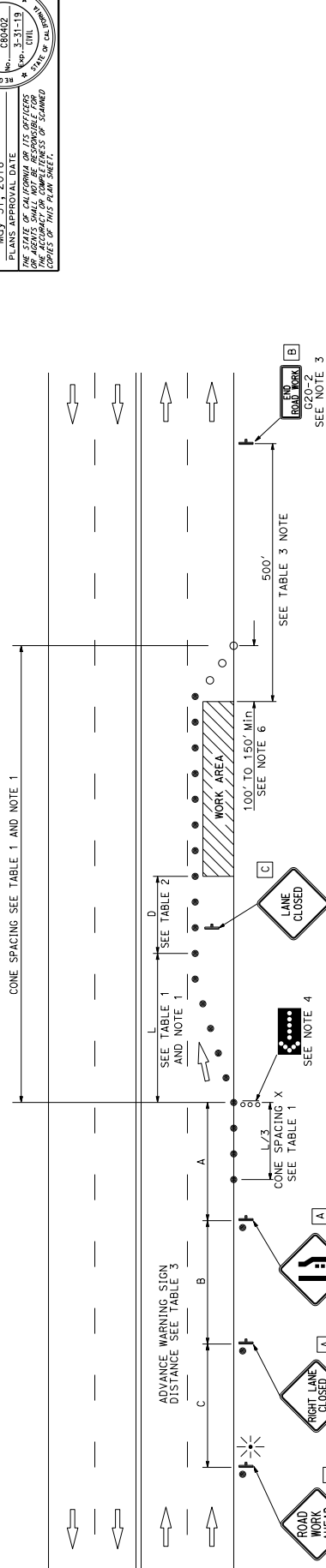
SHEET TOTAL NO. SHEETS

Alta Ferrouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PROJECT DATE

Alta Ferrouz
No. CB0402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA
PROFESSIONAL ENGINEER

THE STATE OF CALIFORNIA
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF ANY
CONTRACT OR THIS PLAN SHEET.



NOTES:

See Standard Plan T9 for tables.
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
Provide at least one person to continuously maintain traffic control devices for lane closures.

TYPICAL LANE CLOSURE

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 36" x 18"
- C 30" x 30"

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area.
- Length may be reduced by the Engineer to address site conditions.
- Median lane closures shall conform to the details shown except that C20(CA) and W4-2L signs shall be used.
- For approach speeds over 50 MPH, use the "Traffic Control System for Lane Closure on Freeways and Expressways" plan for lane closure details and requirements.

NOTES:

- Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
- Each advance warning sign shall be equipped with at least two flashing arrow signs. Each flashing arrow sign shall be at least 16" x 16" in size and shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.

TRAFFIC CONTROL SYSTEM
FOR LANE CLOSURE ON
MULTILANE CONVENTIONAL
HIGHWAYS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

T11

Dist

County

Route

Post Miles
Total Project

SHEET TOTAL
No. SHEETS

REGISTERED CIVIL ENGINEER

Alfonso Ferruz

Professional Engineer
No. 004002
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

DATE OF FINAL DATE

MAY 31, 2018

THIS STATE OF CALIFORNIA ENGINEER'S SEAL AND SIGNATURE ARE REQUIRED FOR ALL PLANS AND SPECIFICATIONS. THE SEAL OF CALIFORNIA ENGINEERS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION OR THE COMPLETION OF THE PROJECT. THE SEAL OF CALIFORNIA ENGINEERS SHALL NOT BE RESPONSIBLE FOR THE COMPLETION OF THE PROJECT.

NOTES:

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

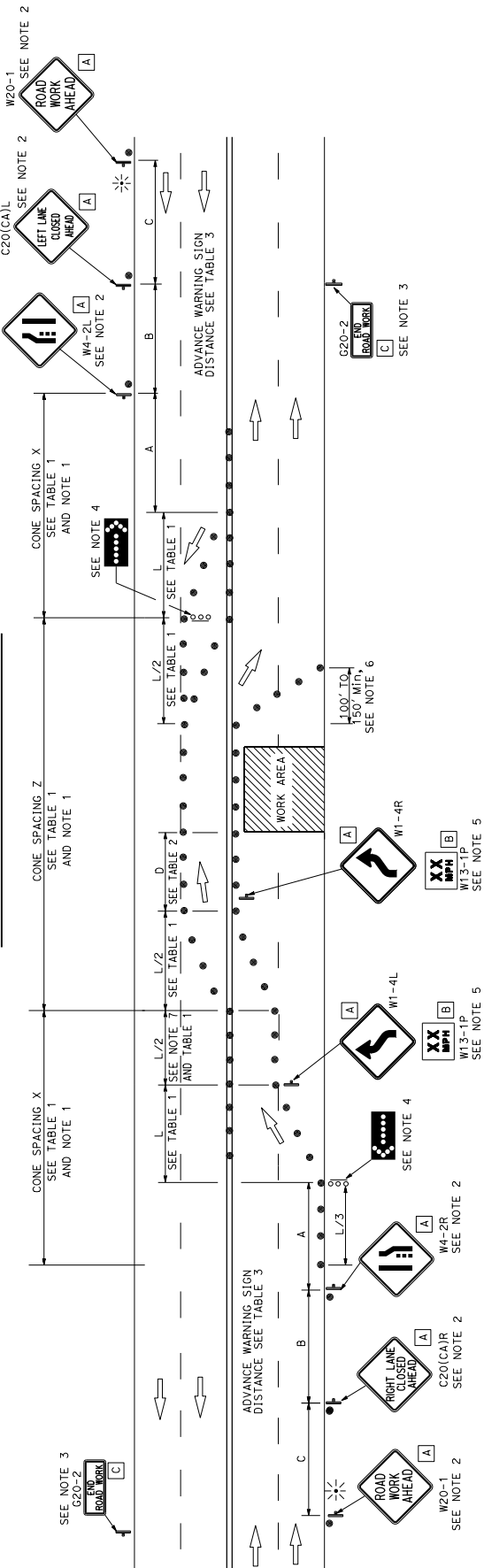
SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 24" x 24"
- C 36" x 18"

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

TYPICAL HALF ROAD CLOSURE



- NOTES:**
- Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
 - Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A G20-2 "END ROAD WORK" sign, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
 - A minimum 1500' sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
 - Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
 - Length may be reduced by the Engineer to address site conditions.
 - The tangent (L/2) shall be used.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR HALF ROAD CLOSURE ON
MULTILANE CONVENTIONAL
HIGHWAYS AND EXPRESSWAYS**

NO SCALE

T12

Return to Table of Contents

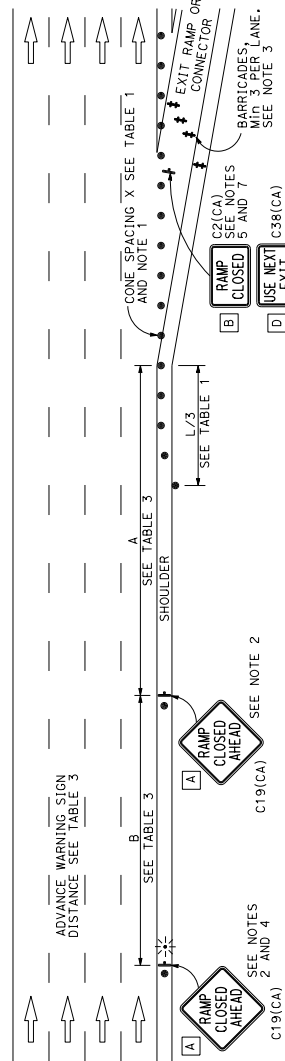
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTALS NO. SHEETS

REGISTERED CIVIL ENGINEER <i>Alta Ferouz</i> No. 3-3119 MAY 31, 2018 BUILDING DATE 175 OFFICERS THE STATE OF CALIFORNIA ON ADVICE SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE PLAN SHEET COPIES OF THIS PLAN SHEET		PROFESSIONAL ENGINEER No. 3-3119 MAY 31, 2018 BUILDING DATE 175 OFFICERS THE STATE OF CALIFORNIA ON ADVICE SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OF THE PLAN SHEET COPIES OF THIS PLAN SHEET
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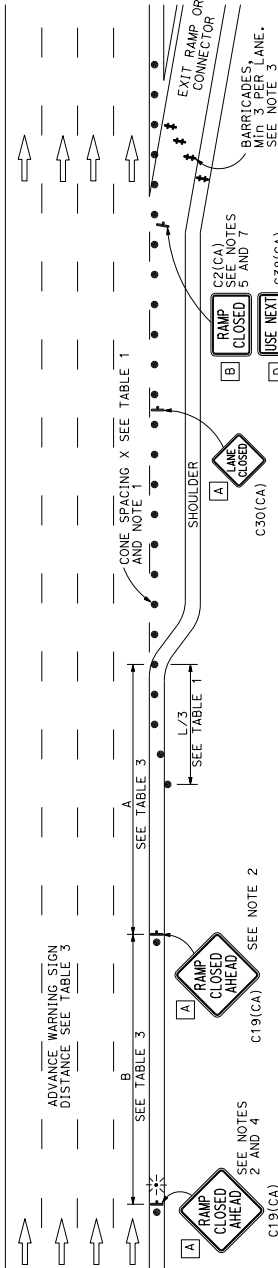
TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

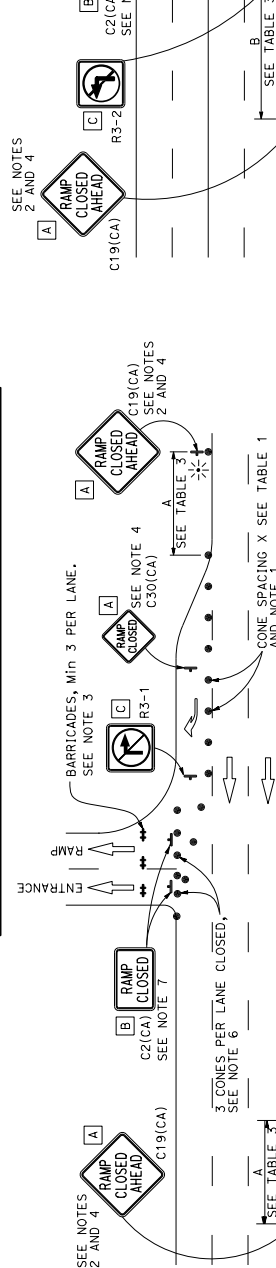
- LEGEND**
- TRAFFIC CONE
 - TEMPORARY TRAFFIC CONTROL SIGN
 - BARRICADES
 - PORTABLE FLASHING BEACON



EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

- See Standard Plan T9 for tables.
- Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per table 1, unless X, Y, or Z cone spacing is shown on this sheet.
- Provide at least one person to continuously maintain traffic control devices for lane closures.

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

T14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

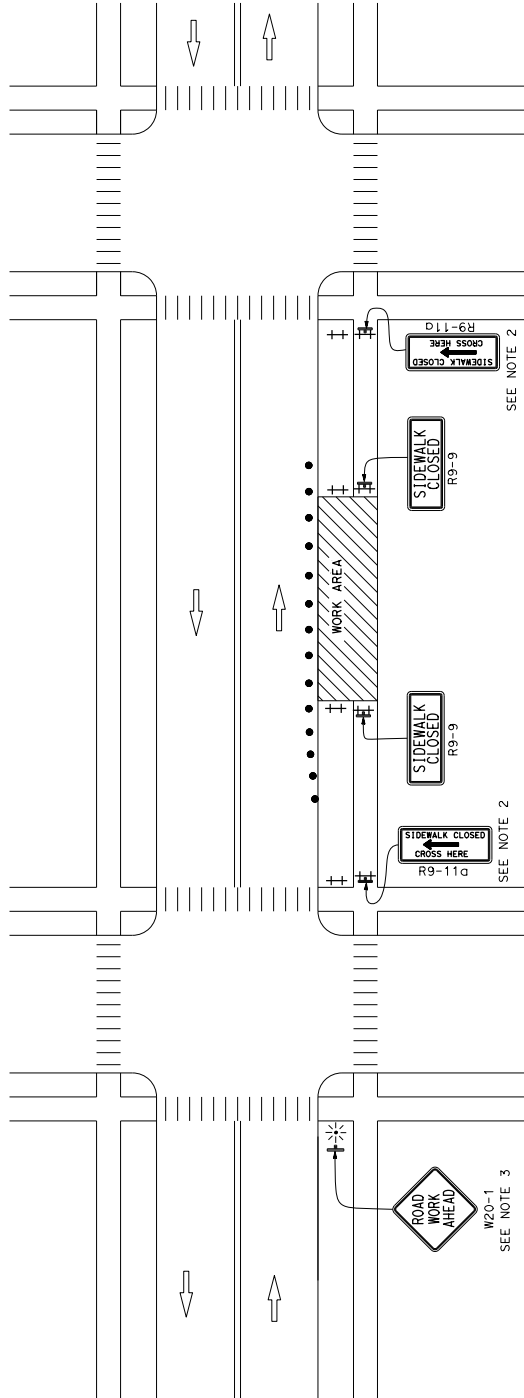
Alta Ferouz
REGISTERED CIVIL ENGINEER
May 31, 2018
No. CB0402
Exp. 3-31-19
STATE OF CALIFORNIA
THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
NO AGENTS SHALL BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. Only signs related to pedestrians are shown. For all other signs see appropriate T-sheets.
2. Barricades closing sidewalk shall cover the full width of the sidewalk. Use R9-11 sign when there are destination points between the detour and the work area. Locate the R9-11 sign to allow pedestrian access.
3. Advance warning sign is not required if the work area is within the limits of a larger work zone. Sign shall be equipped with at least two flags for daytime closure. Each flag shall be orange or fluorescent red-orange in color.

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment, or Z for conflict situations, as appropriate, on this sheet.




STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY PEDESTRIAN ACCESS ROUTES
TYPICAL SIDEWALK CLOSURE
AND PEDESTRIAN DETOUR**

NO SCALE

T30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS



REGISTERED CIVIL ENGINEER
Alta Ferouz
No. CB0402
Exp. 3-31-19
STATE OF CALIFORNIA
CIVIL

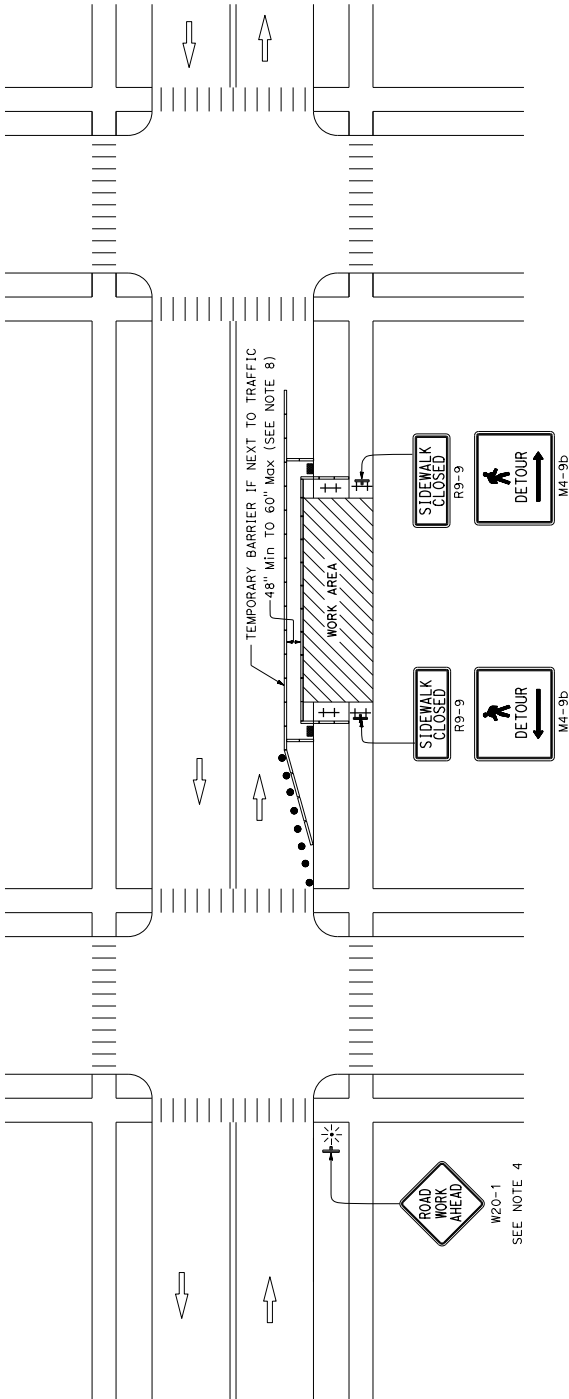
THIS STATE OF CALIFORNIA SEAL OF A PROFESSIONAL ENGINEER IS LOANED TO THE ENGINEER BY THE BOARD OF PROFESSIONAL ENGINEERS. IT IS THE RESPONSIBILITY OF THE ENGINEER TO RETURN THE SEAL TO THE BOARD OF PROFESSIONAL ENGINEERS UPON COMPLETION OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE ENGINEER TO MAINTAIN THE SEAL IN GOOD CONDITION AND TO PROTECT IT FROM DAMAGE. IT IS THE RESPONSIBILITY OF THE ENGINEER TO SIGN AND SEAL ALL WORK. IT IS THE RESPONSIBILITY OF THE ENGINEER TO MAINTAIN THE SEAL IN GOOD CONDITION AND TO PROTECT IT FROM DAMAGE. IT IS THE RESPONSIBILITY OF THE ENGINEER TO SIGN AND SEAL ALL WORK.

NOTES:

1. Only signs related to pedestrians are shown. For all other signs see appropriate T-sheets.
2. Separate pedestrian walkway from traffic and work zone activities, when temporary walkway is adjacent to traffic.
3. The temporary pedestrian access route must not lead into conflict with vehicles or work.
4. Advance warning sign is not required if the work area is within the limits of a larger work zone. Sign shall be equipped with at least two flags for daytime closure. Each flag shall be orange or fluorescent red-orange in color.
5. All devices used to channelize pedestrian flow must connect such that gaps do not allow pedestrians to stray from the channelized path.
6. Barricades closing sidewalk shall cover the full width of the sidewalk.
7. Separate the temporary pedestrian access route from traffic using a temporary barrier and a crash cushion if necessary.
8. When it is not possible to maintain a minimum of 60 inches throughout the length of the pedestrian route, maintain a minimum width of 48 inches and provide a 60 X 80-inch passing space at least every 200 feet.
9. See Standard Plan A88A for detectable warning surface for curb ramps to apply to temporary curb ramps.
10. See Standard Plan T34 for temporary curb ramp options.

- LEGEND:
- † BARRICADE
 - ▬ TEMPORARY CURB RAMP
 - ▬ CHANNELIZING DEVICE
 - TRAFFIC CONE
 - ✱ PORTABLE FLASHING BEACON
 - ↑ TEMPORARY TRAFFIC CONTROL SIGN
 - ⚡ TEMPORARY TRAFFIC CONTROL SIGN ON BARRICADE

SIGN DESIGNATION	SIGN OR PLAQUE	SIGN SIZE
M4-9b	PEDESTRIAN DETOUR	30" x 24"
R9-9	SIDEWALK CLOSED	24" x 12"
W20-1	ROAD WORK AHEAD	36" x 36"



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY PEDESTRIAN ACCESS ROUTES
TYPICAL SIDEWALK DIVERSION WITHIN ROADBED

NO SCALE

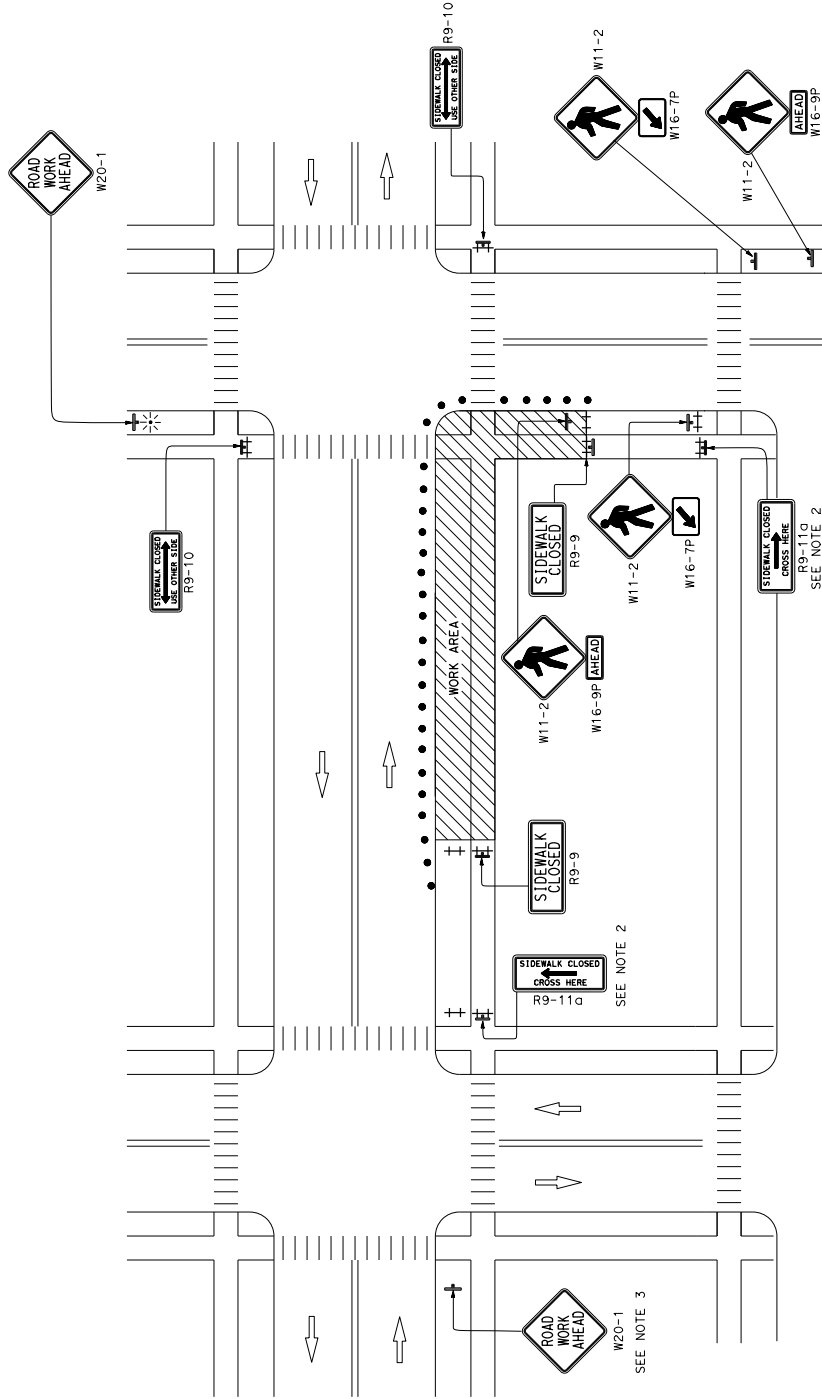
T31

Return to Table of Contents

See Standard Plan T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per table 1 unless X, Y, or Z cone spacing is shown on this sheet.

- NOTES:**
1. Only signs related to pedestrians are shown. For all other signs see appropriate T-sheets.
 2. Barricades closing sidewalk shall cover the full width of the sidewalk. Use R9-11 sign when there are destination points between the detour and the work area. Locate the R9-11 sign to allow pedestrian access.
 3. Advance warning sign is not required if the work area is within the limits of a larger work zone. If two flaggers to daytime closure, Each flag shall be orange or fluorescent red-orange in color.



SIGN DESIGNATION	SIGN OR PLAQUE	SIGN SIZE
R9-9	SIDEWALK CLOSED	24" x 12"
R9-10	SIDEWALK CLOSED USE OTHER SIDE	24" x 12"
R9-11	SIDEWALK CLOSED AHEAD CROSS HERE	24" x 18"
R9-11a	SIDEWALK CLOSED CROSS HERE	24" x 12"
W11-2	PEDESTRIAN	36" x 36"
W16-7P	DIAGONAL DOWNWARD POINTING ARROW (PLAQUE)	24" x 12"
W16-9P	AHEAD (PLAQUE)	24" x 12"
W20-1	ROAD WORK AHEAD	36" x 36"


STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY PEDESTRIAN ACCESS ROUTES TYPICAL SIDEWALK/CROSSWALK CLOSURE AND PEDESTRIAN DETOUR

NO SCALE

T32

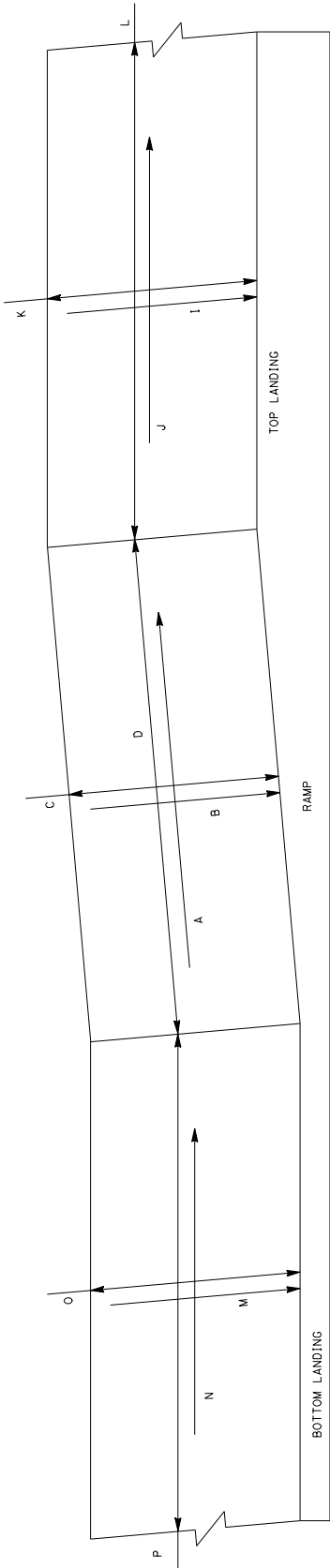
Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL NO. SHEETS



REGISTERED CIVIL ENGINEER
Aliya Feroz
No. CB0402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

DESIGNED BY: Aliya Feroz
CHECKED BY: Aliya Feroz
DATE: MAY 31, 2018
THIS STATE OF CALIFORNIA SEAL OR ITS IMPRESSION OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THIS PLAN SHEET.

RAMP				HAND RAIL		EDGE PROTECTION	
SLOPE	CROSS SLOPE	WIDTH	LENGTH	HEIGHT RIGHT SIDE	HEIGHT LEFT SIDE	RAIL RIGHT SIDE	RAIL LEFT SIDE
A	B	C	D	E	F	G	H
8.3% OR LESS	2.0% OR LESS	48 INCHES OR GREATER	30 FEET OR LESS	34 TO 38 INCHES	34 TO 38 INCHES	WITHIN 2 INCHES FROM GROUND	WITHIN 2 INCHES FROM GROUND
TOP LANDING				BOTTOM LANDING			
CROSS SLOPE	SLOPE	WIDTH	DEPTH	CROSS SLOPE	SLOPE	WIDTH	DEPTH
I	J	K	L	M	N	O	P
2.0% OR LESS	2.0% OR LESS	48 INCHES OR GREATER	60 INCHES OR GREATER	2.0% OR LESS	2.0% OR LESS	48 INCHES OR GREATER	60 INCHES OR GREATER



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY PEDESTRIAN
ACCESS ROUTES
RAMP**
NO SCALE

T33

Dist COUNTY ROUTE POST MILES TOTAL PROJECT SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER

Alta Feroz

REGISTERED CIVIL ENGINEER

May 31, 2018

PROJECT NO. 080402

DATE 3-31-19

CITY OF OAKLAND

STATE OF CALIFORNIA

PROFESSIONAL ENGINEER

Alta Feroz

REGISTERED CIVIL ENGINEER

May 31, 2018

PROJECT NO. 080402

DATE 3-31-19

CITY OF OAKLAND

STATE OF CALIFORNIA

THIS STATE OF CALIFORNIA

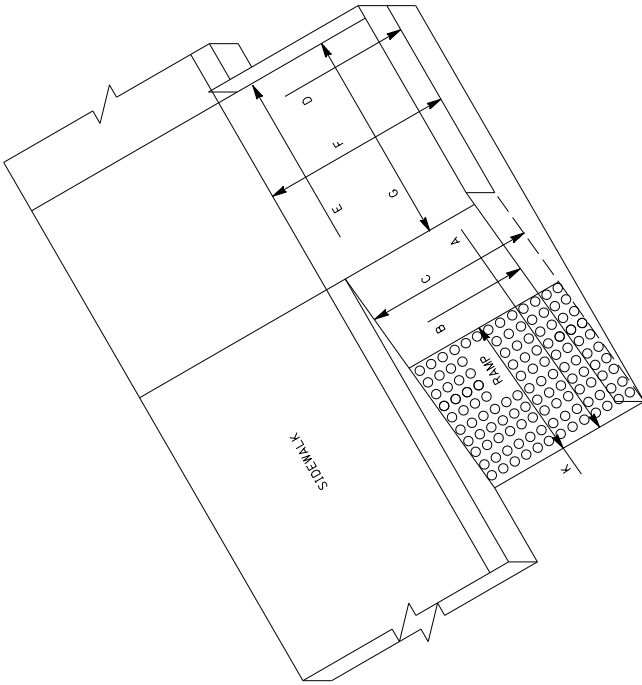
OR AGENTS SHALL NOT BE RESPONSIBLE FOR

THE ACCURACY OR COMPLETENESS OF ANY

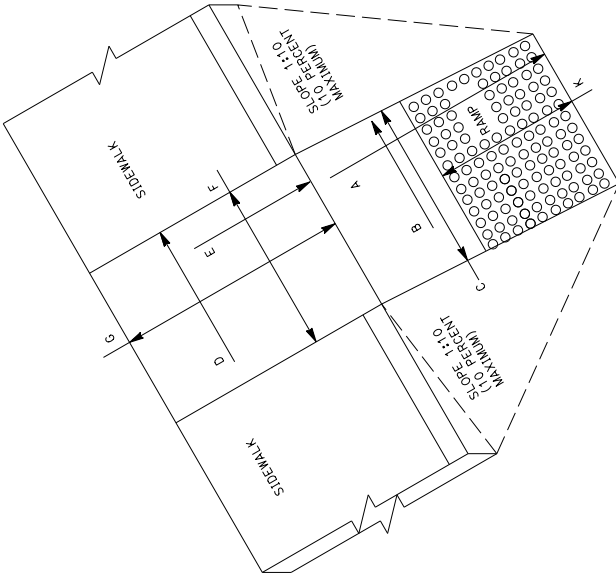
COPIES OF THIS PLAN SHEET.

CURB RAMP			TOP LANDING			DETECTABLE WARNING SURFACE	
SLOPE	CROSS SLOPE	WIDTH	CROSS SLOPE	SLOPE	WIDTH	DEPTH	DEPTH
A	B	C	D	E	F	G	K
8.3% OR LESS	2.0% OR LESS	48 INCHES OR GREATER	2.0% OR LESS	2.0% OR LESS	48 INCHES OR GREATER	60 INCHES OR GREATER	MINIMUM 36 INCHES

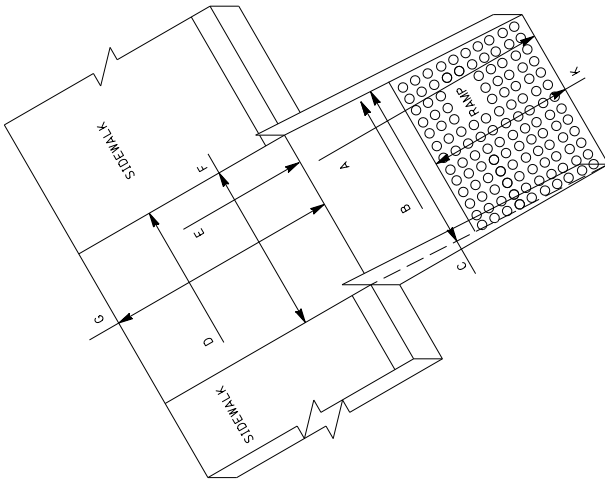
NOTES: If the above requirements cannot be met on existing sites with space limitations, the following slopes are allowed:
For a maximum rise of 6 inches a slope between 1:12 to 1:10 is allowed.
For a maximum rise of 3 inches a slope between 1:10 to 1:8 is allowed.



OPTION C
PARALLEL RAMP
SHOWN WITH SIDE EDGE



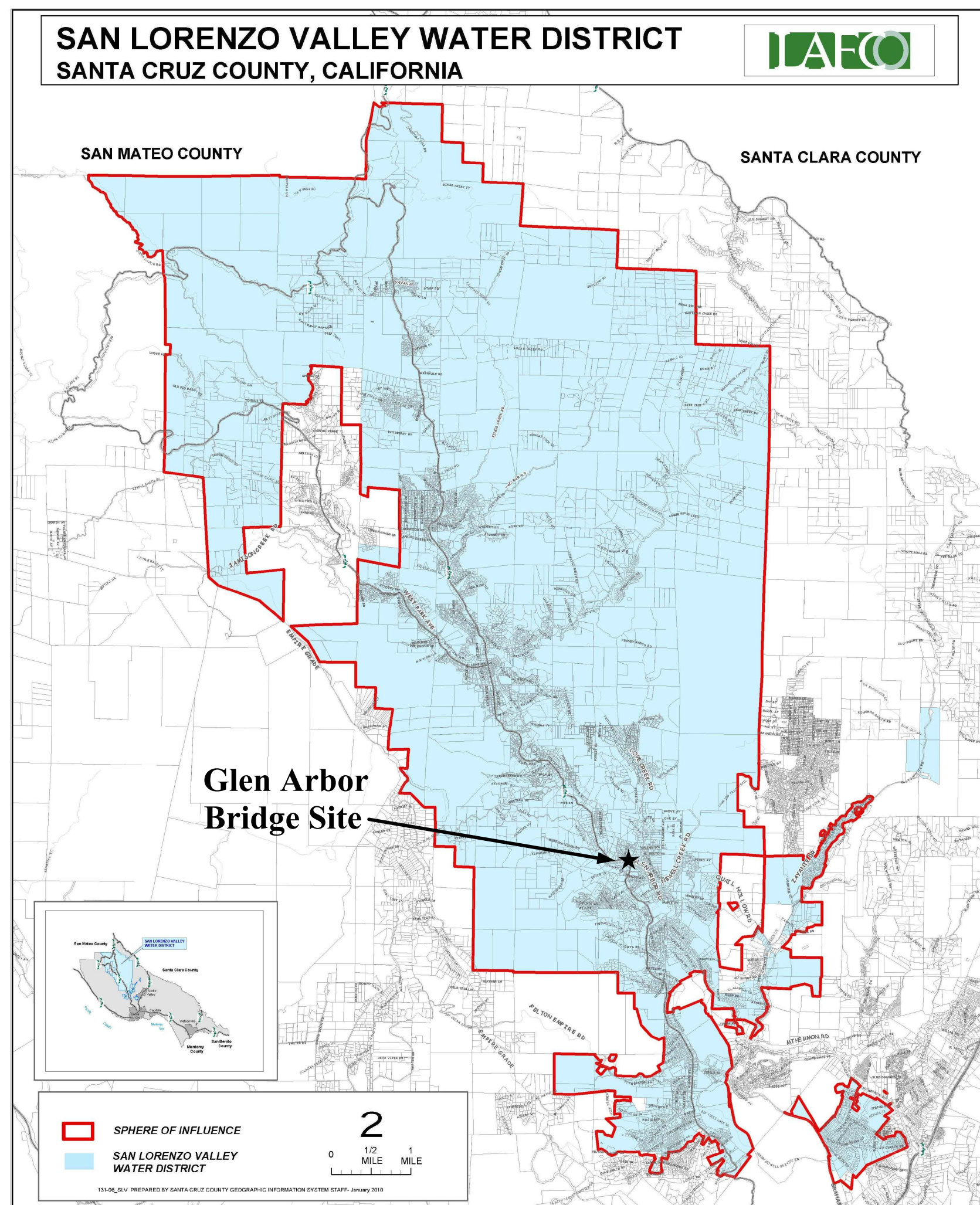
OPTION B
SHOWN WITH SIDE APRON



OPTION A
SHOWN WITH SIDE EDGE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY PEDESTRIAN
ACCESS ROUTES
CURB RAMP OPTIONS**
NO SCALE

T34



**SAN LORENZO VALLEY
WATER DISTRICT MAP**
Scale as shown

2
1

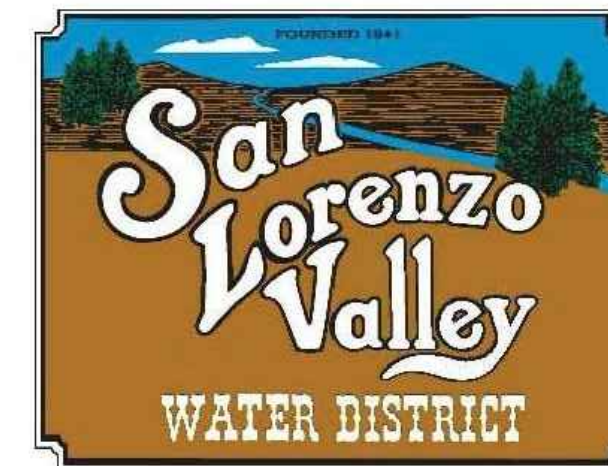
CONSTRUCTION DRAWINGS

for

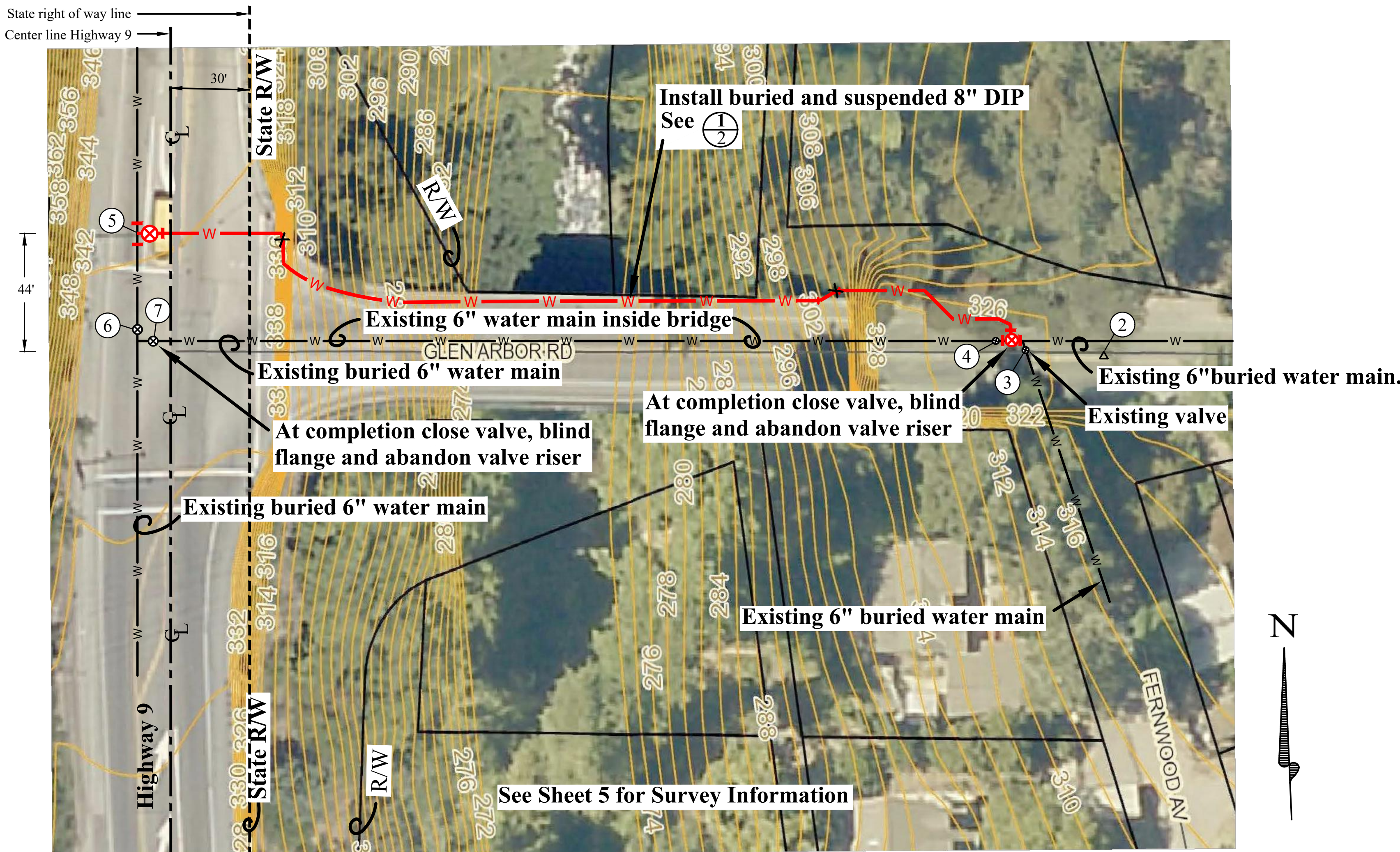
PIPELINE REPLACEMENT IN GLEN ARBOR BRIDGE PROJECT

SAN LORENZO VALLEY WATER DISTRICT BOULDER CREEK, CALIFORNIA

September 2021



Caltrans Encroachment Permit
50 Higuera Street
San Luis Obispo, CA 93401
Permit No. 0521 NUT 0661
Plan Sheet 1 of 7
Approved 10/27/2021



① - Survey Point

GENERAL PLAN
Scale: 1" = 30'

3
1

LIST OF DRAWINGS

- Sheet 1. Cover Sheet & General Plan
- Sheet 2. Bridge Pipeline Plan & Details
- Sheet 3. Abutment Details
- Sheet 4. Traffic Detour Notes and General Notes
- Sheet 5. Survey

Legend

- ① - Indicates detail number
- ① - Indicates sheet number



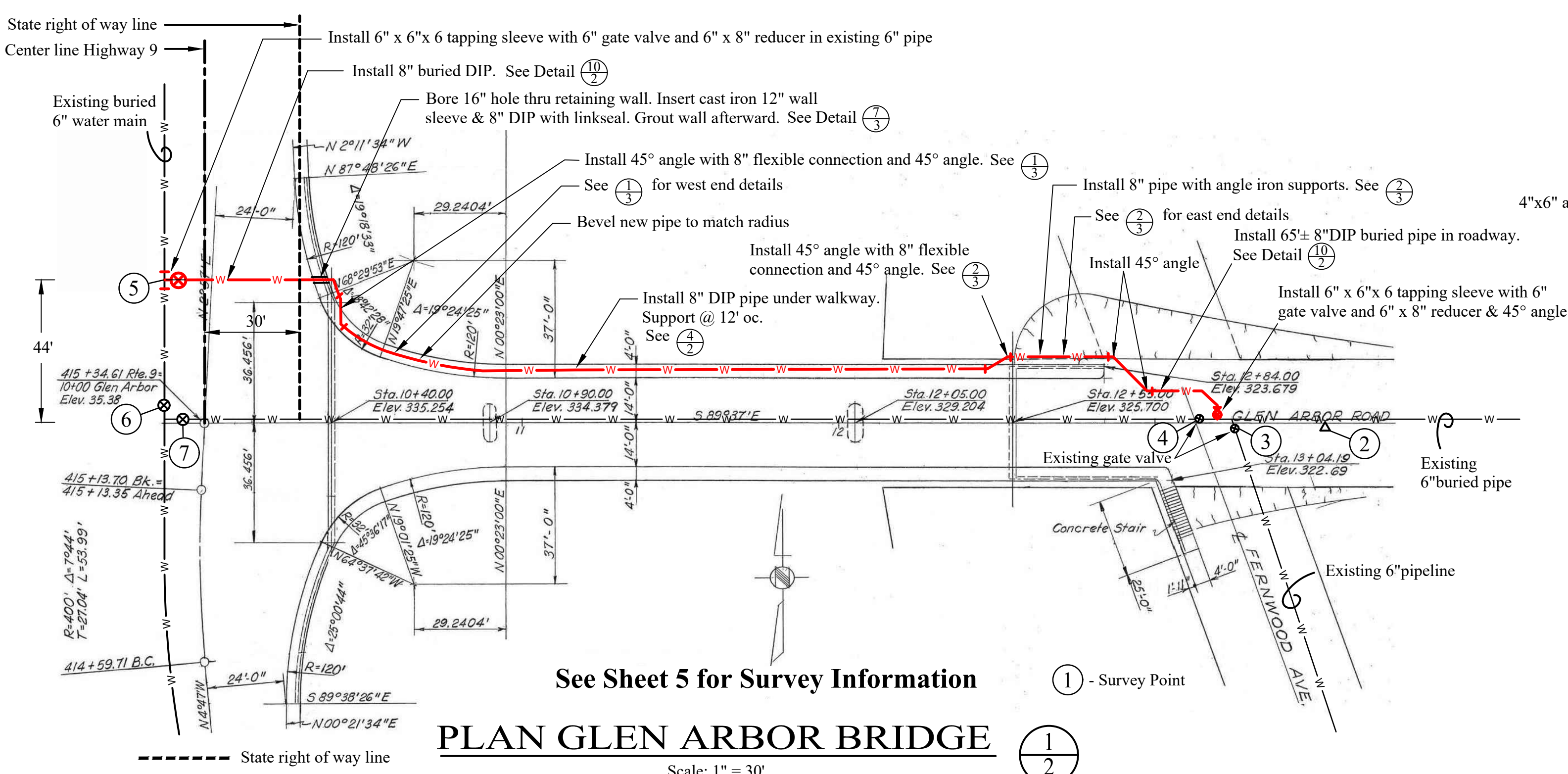
Michael J. Freitas 916.21

REVISIONS	BY

COVER SHEET & GENERAL PLAN
PIPELINE REPLACEMENT IN GLEN ARBOR BRIDGE PROJECT
SAN LORENZO VALLEY WATER DISTRICT
BOULDER CREEK, CALIFORNIA

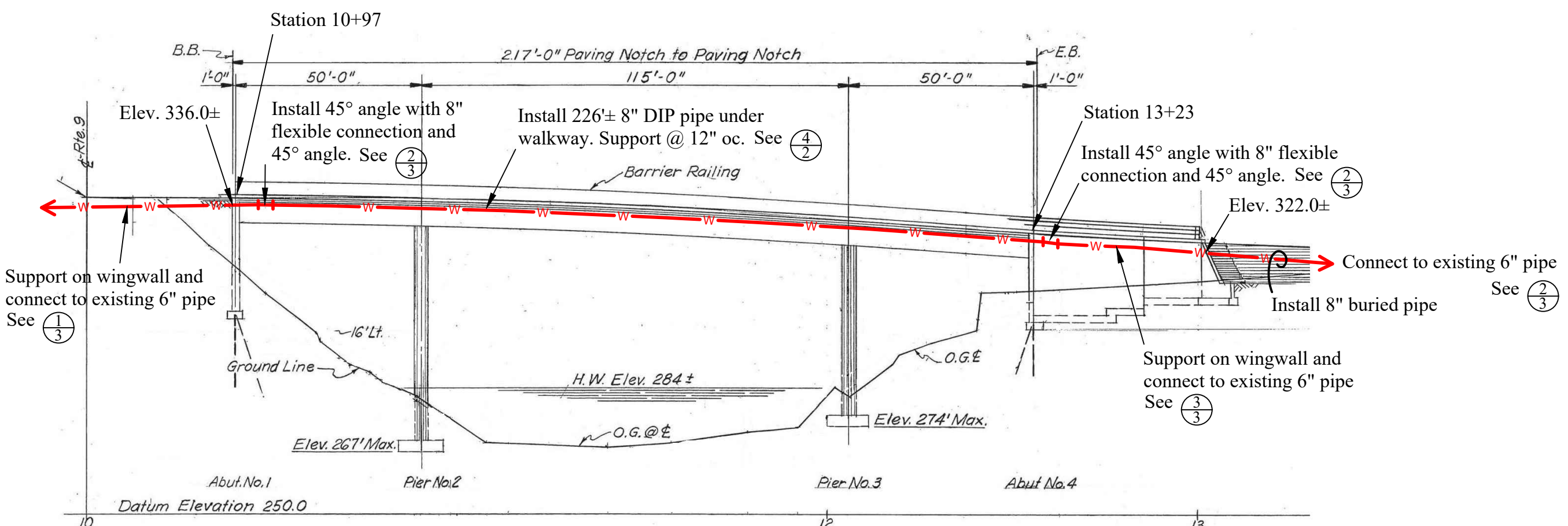
FREITAS + FREITAS
Engineering and Planning Consultants, Inc.
Aptos, CA 95003
3233 Valencia Ave., Suite A1
Phone (831) 688-1168
Fax (831) 688-1218

Date	9/2021
Scale	As Shown
Drawn	Digital Graphics
Job	19018
Sheet	1 of 5 Sheets



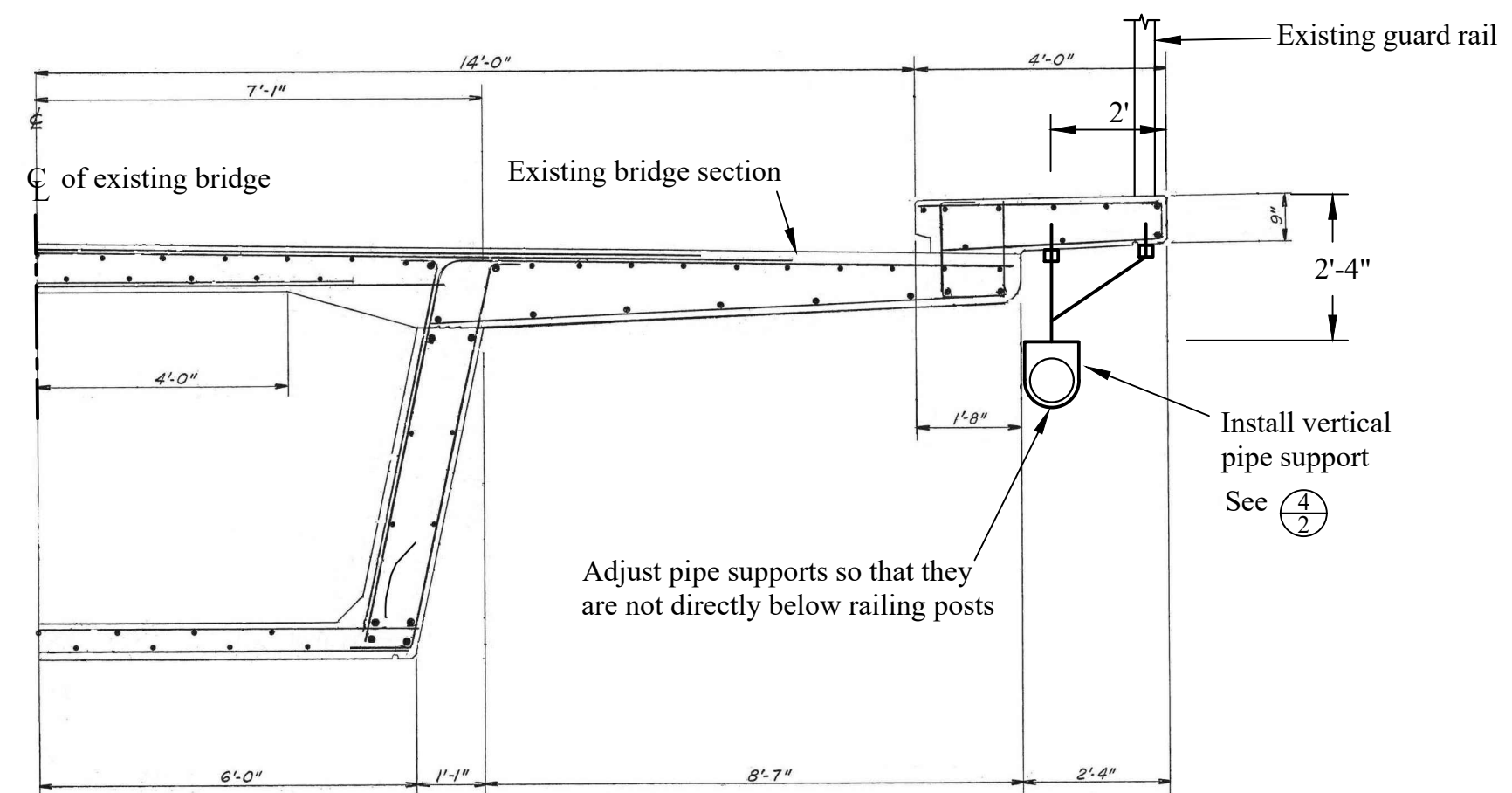
PLAN GLEN ARBOR BRIDGE

Scale: 1" = 30"



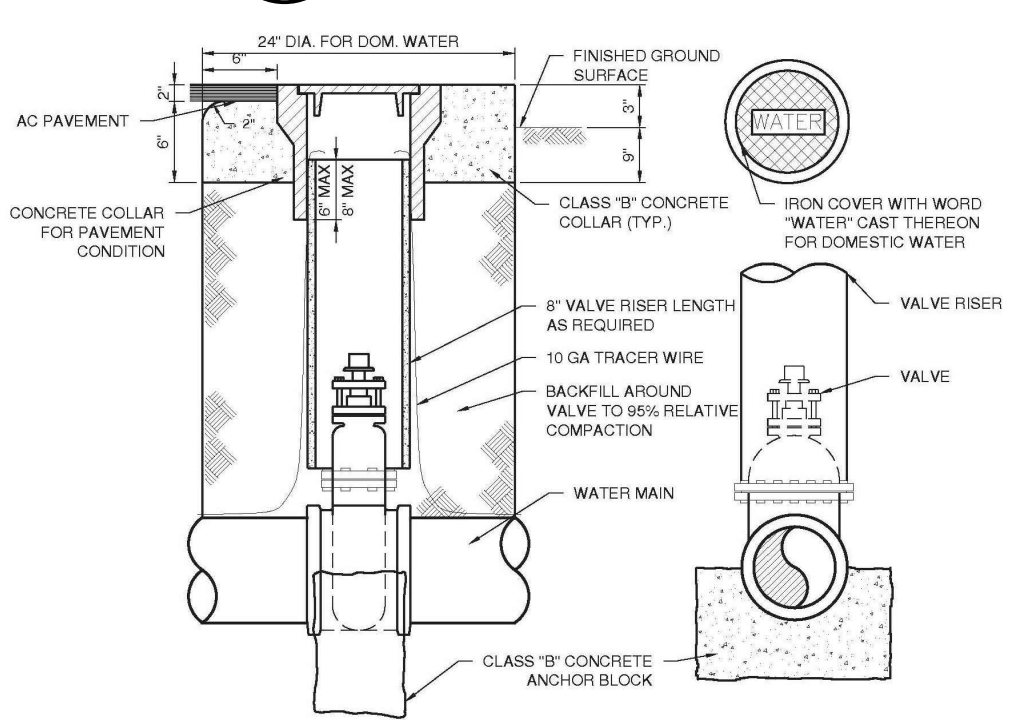
AS BUILT GLEN ARBOR BRIDGE ELEVATION

Scale: 1" = 30"



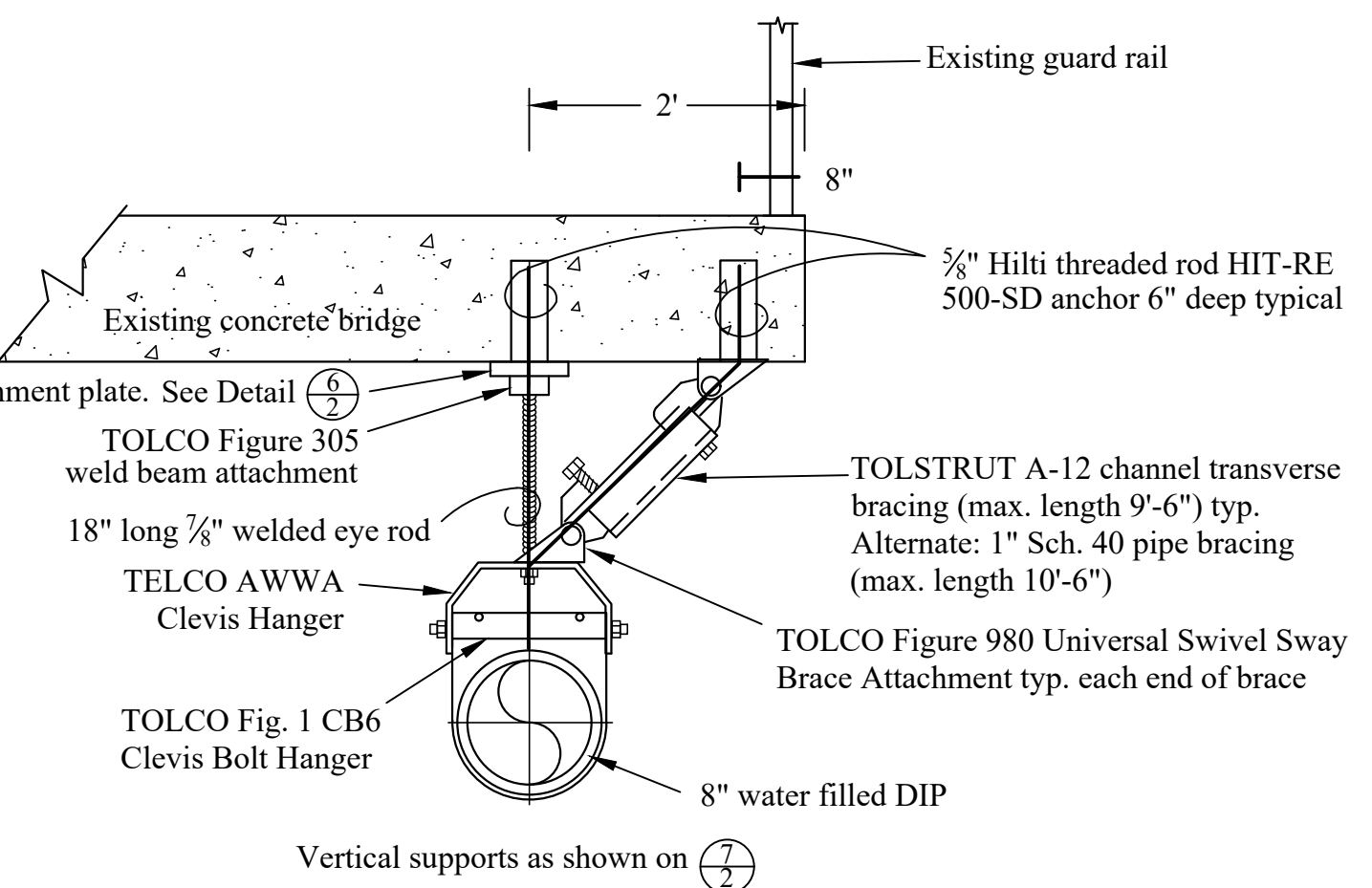
PIPE SUPPORT DETAIL

Scale: 3/8" = 1"



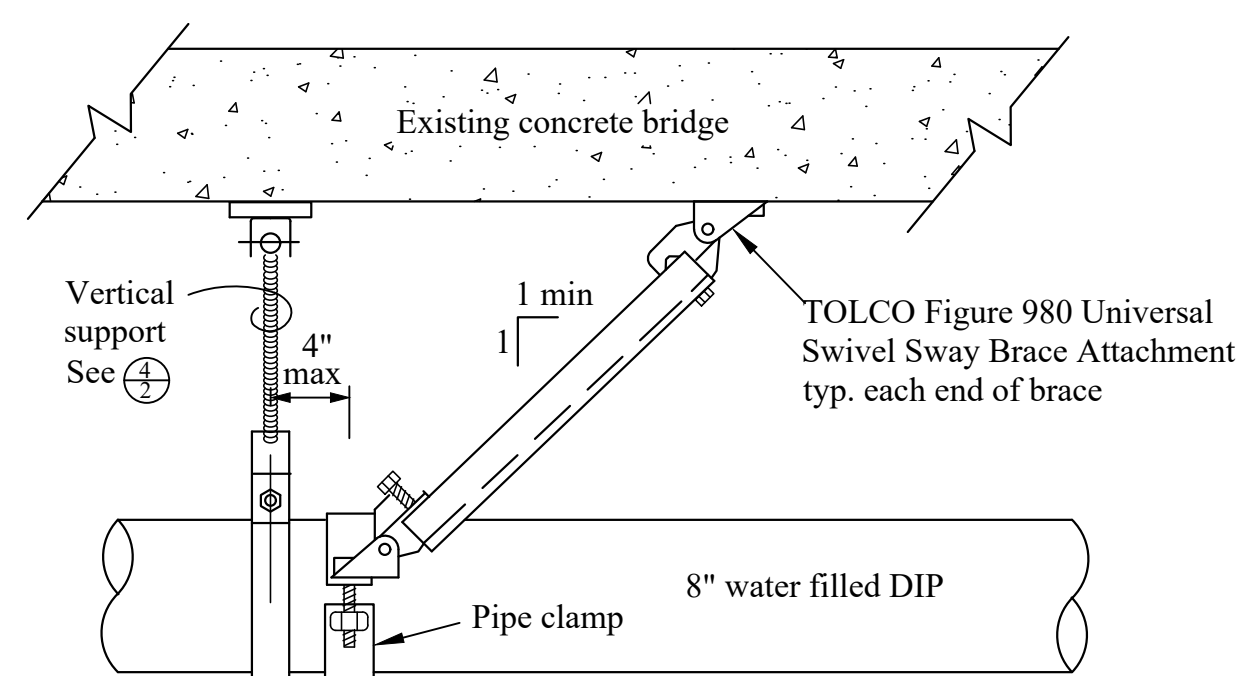
GATE VALVE DETAIL

Not to Scale



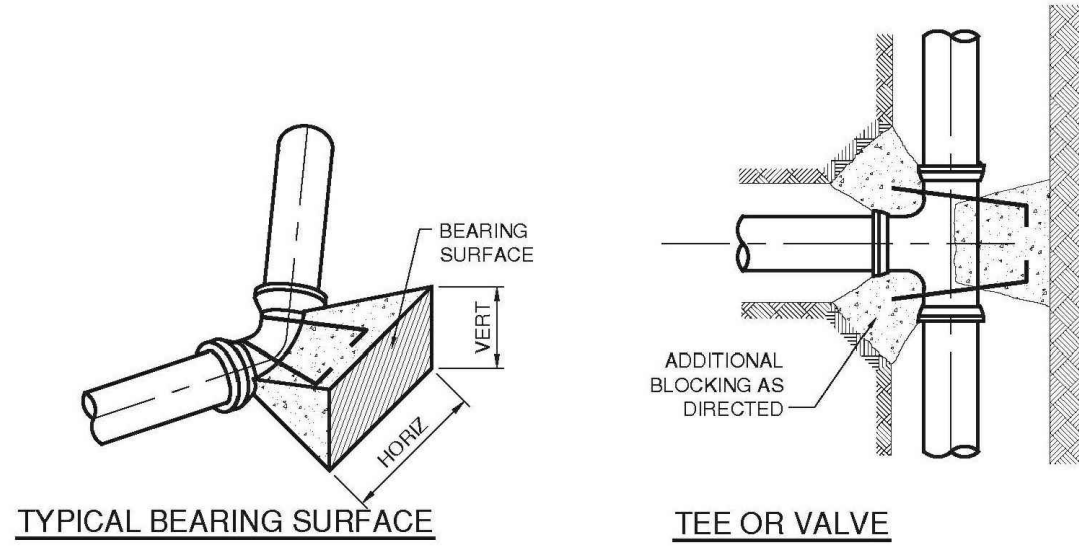
VERTICAL PIPE SUPPORT DETAIL

Scale: 3/4" = 1'-0"



LONGITUDINAL SUPPORT DETAIL

Scale: 3/4" = 1'-0"



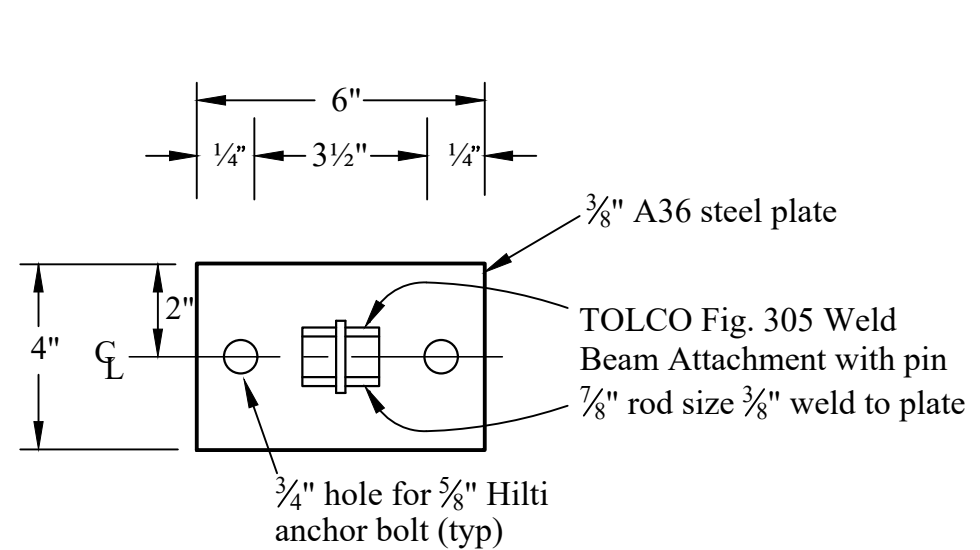
MINIMUM SIZE OF THRUST BLOCK BEARING SURFACE

PIPE SIZE	11 1/4" BEND	22 1/2" BEND	45° BEND	90° BEND	TEE	END CAP
8"	2'-6" 1'-0"	2'-6" 1'-0"	3'-6" 1'-6"	4'-6" 2'-3"	4'-0" 2'-0"	2'-6" 1'-8"

- NOTES:**
- THRUST BLOCK BEARING AREA BASED ON ALLOWABLE SOIL BEARING VALUE OF 1500 psf PRESSURE AND 225 psf LINE PRESSURE WITH 3'-0" COVER MINIMUM. FOR BEARING = 1000 PSF, 1.5 X AREA SHOWN. FOR BEARING = 500 PSF, 3.0 X AREA SHOWN.
 - ALL THRUST BLOCKS SHALL BE 2,000 PSI CONCRETE AND PLACED AGAINST UNDISTURBED SOIL. DESIGN ENGINEER SHALL DETERMINE SIZES NOT SHOWN.
 - STRAPS TO BE #4 REBARS EMBEDDED IN THRUST BLOCK TO A DEPTH EQUAL TO 3/4 OF PIPE DIAMETER. STRAP BEND EQUALS 1/2 PIPE DIAMETER.
 - CONCRETE SHALL NOT EXTEND ONTO FLANGE OR ADJOINING PIPE.
 - JOINTS AND FACE OF PLUGS TO BE KEPT CLEAR OF CONCRETE.
 - WRAP EXPOSED PORTION OF BARS AND 2" INTO CONCRETE WITH HALF LAPPED, 10 MIL PVC TAPE.
 - WHEN CLEARANCES TO OTHER FACILITIES OR UTILITIES DO NOT ALLOW THE USE OF THRUST BLOCK, RESTRAINED PIPE SHALL BE USED.
 - THRUST BLOCKS ON CROSSES SHALL BE USED ONLY WHEN THERE IS A STUB-OUT ON ONE OR MORE SIDES, OR WHEN THERE IS ADJOINING UNRESTRAINED LENGTHS OF VALVES.
 - DISTRICT ALLOWS RESTRAINED JOINTS AS AN ALTERNATIVE TO THRUST BLOCKS.

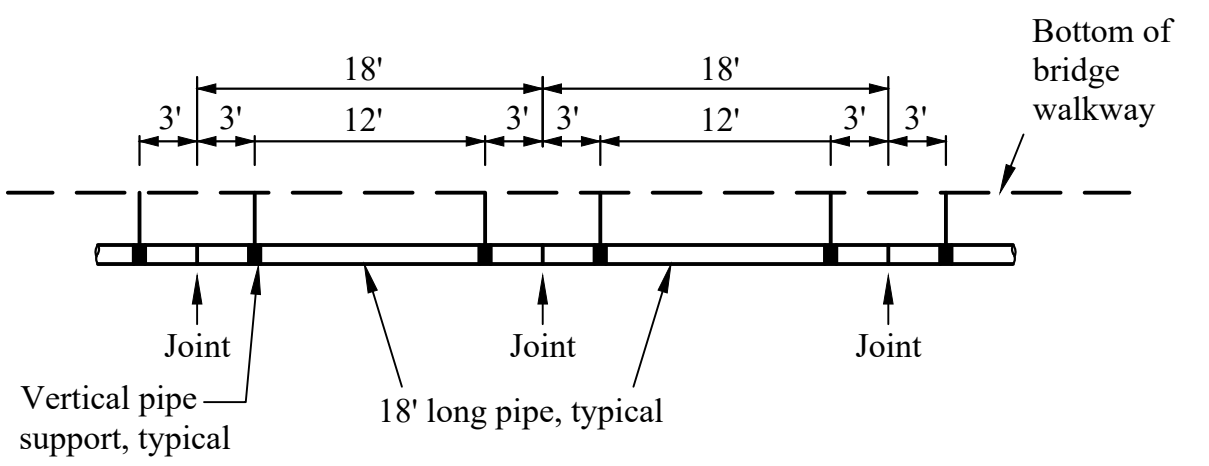
THRUST BLOCK DETAIL

Not to Scale



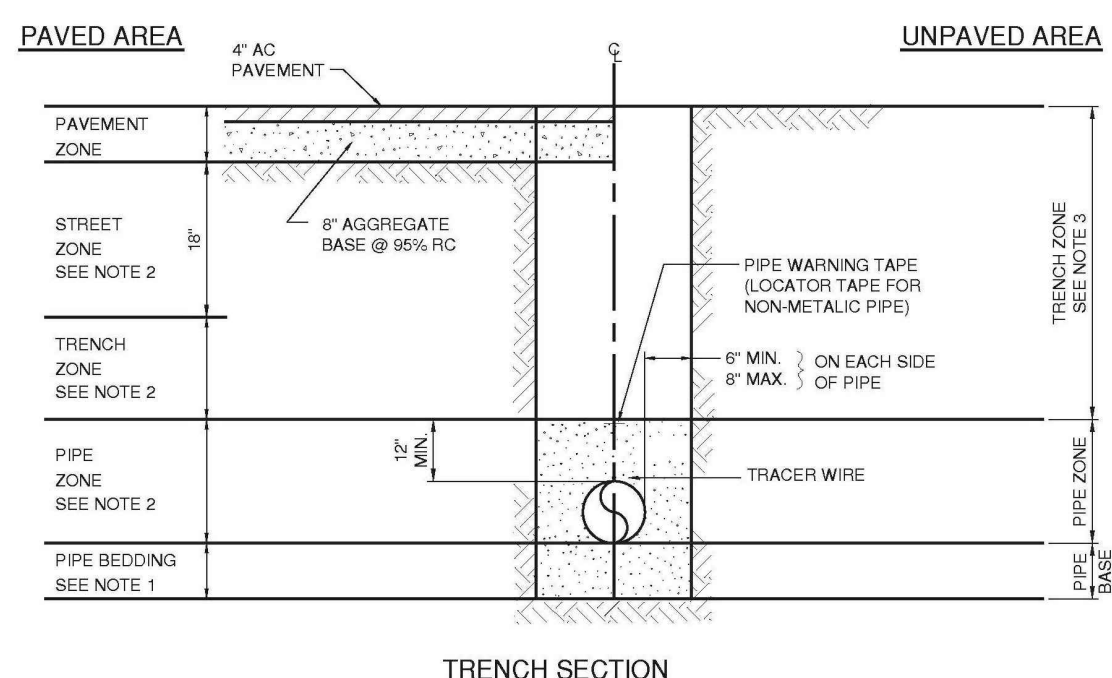
ATTACHMENT PLATE

Scale: 3" = 1'-0"



PIPE SUPPORT ELEVATION

Not to Scale

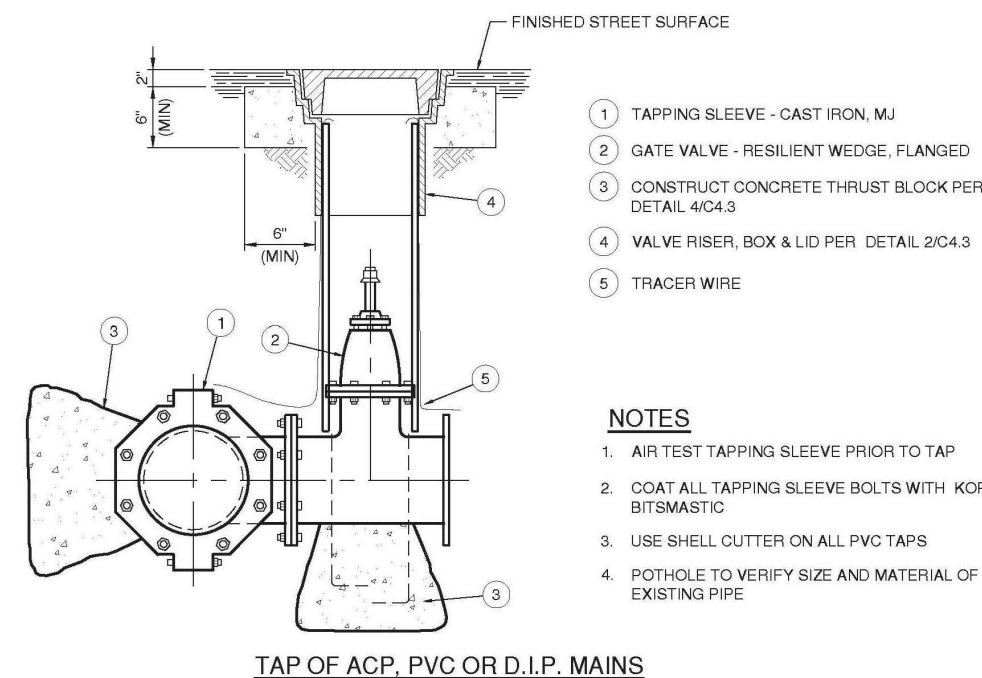


TRENCH SECTION

- NOTES:**
- FOR PIPE SIZES 4-INCH THROUGH 10-INCH DIAMETER, PIPE BASE SHALL BE A MINIMUM OF 4-INCHES IN DEPTH; FOR 12-INCH DIAMETER PIPE AND LARGER, PIPE SHALL BE A MINIMUM OF 6-INCHES IN DEPTH.
 - 95% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY ENGINEER.
 - 90% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY ENGINEER.
 - MATCH EXISTING PAVEMENT SECTION, MINIMUM 3' AC OVER 6" AS.

TRENCH DETAIL

Not to Scale



HOT TAP DETAIL

Not to Scale

Caltrans Encroachment Permit
50 Higuera Street
San Luis Obispo, CA 93401
Permit No. 0521 NUT 0661
Plan Sheet 2 of 7
Approved 10/27/2021



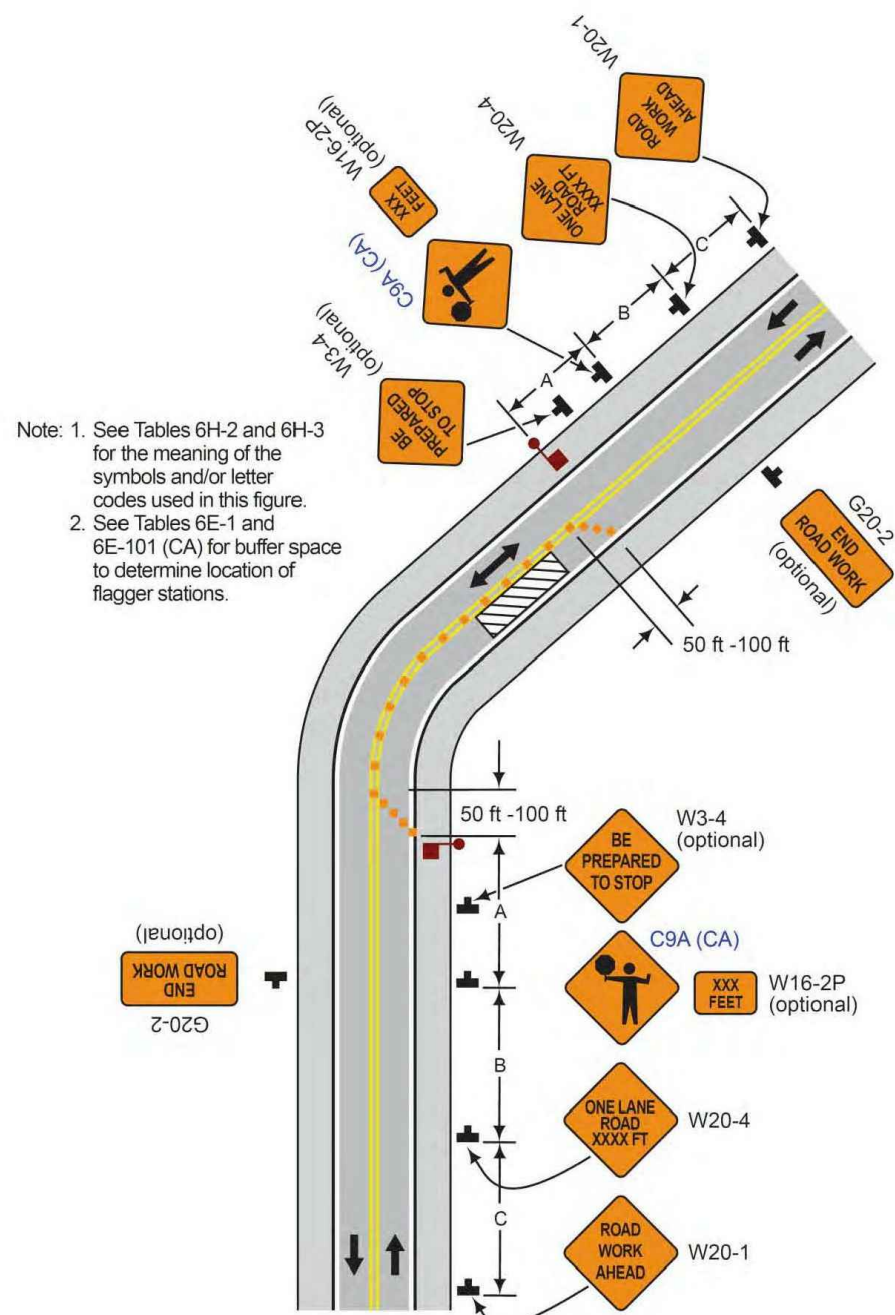
REVISIONS	BY

BRIDGE PIPELINE PLAN & DETAILS
PIPELINE REPLACEMENT IN GLEN ARBOR BRIDGE PROJECT
SAN LORENZO VALLEY WATER DISTRICT
BOULDER CREEK, CALIFORNIA

FREITAS + FREITAS
Engineering and Planning Consultants, Inc.
3233 Valencia Ave., Suite A1
Aptos, CA 95003
Phone (831) 688-1168
Fax (831) 688-1218

Date	9/2021
Scale	As Shown
Drawn	Digital Graphics
Job	19018
Sheet	2 of 5

Figure 6H-10 (CA). Lane Closure on Two-Lane Road Using Flaggers (TA-10)



Chapter 6H – Typical Applications
Part 6 – Temporary Traffic Control

November 7, 2014

Notes for Figure 6H-10 6H-10(CA) and 6H-10A(CA) —Typical Application 10
Lane Closure on a Two-Lane Road Using Flaggers

Option:

- For low-volume (Refer to Part 5, Section 5A.01) situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).
- The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
- Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
- A BE PREPARED TO STOP sign may be added to the sign series.

Guidance:

- The buffer space should be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.

Standard:

- At night, flagger stations shall be illuminated, except in emergencies.

Guidance:

- When used, the BE PREPARED TO STOP sign should be located **between** after the Flagger sign and the ONE LANE ROAD sign.
- When a grade crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the grade crossing, the TTC zone should be extended so that the transition area precedes the grade crossing.
- When a grade crossing equipped with active warning devices exists within the activity area, provisions should be made for keeping flaggers informed as to the activation status of these warning devices.
- When a grade crossing exists within the activity area, drivers operating on the left-hand side of the normal center line should be provided with comparable warning devices as for drivers operating on the right-hand side of the normal center line.
- Early coordination with the railroad company or light rail transit agency should occur before work starts.

Option:

- A flagger or a uniformed law enforcement officer may be used at the grade crossing to minimize the probability that vehicles are stopped within 15 feet of the grade crossing, measured from both sides of the outside rails.

Support:

- For State highways, see Caltrans' Standard Plan T13. See Section 1A.11 for information regarding this publication.
- If portable transverse rumble strips are used for flagging operations, refer to Section 6F.87.

Traffic Notes

a) Lane closure hours on Route 9 shall be: 8 PM - 7AM Monday - Thursday and 12 AM - 7 AM Friday.

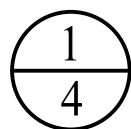
b) Use Caltrans traffic control Standard Plans and Specifications.

November 7, 2014

Contractor shall provide LCS compliance and notification.

TRAFFIC DETOUR DETAILS

No scale



General Notes

1. Should it appear that the work to be performed or any matter relative thereto, is not sufficiently detailed or explained on these plans, the contractor shall contact the District Engineer at 831-338-2153 with any questions or discrepancies. Any revisions require owner's approval before proceeding with revised plans.

2. Unauthorized changes and uses: The engineer preparing these plans will not be responsible or liable for unauthorized changes to or uses of these plans. All changes to these plans must be made in writing and approved by the preparer of these plans.

3. Construction contractor agrees that the in accordance with generally accepted construction practices, the construction contractor shall be required to assume sole and complete responsibility of the job site conditions during the course of construction of the project, including safety of all persons and property; that this requirement shall be made to apply continuously and not be limited to normal working hours, and construction contractor further agrees to defend, indemnify and hold the civil engineer and the owner harmless from any and all liability, real or alleged, in connection with the performance of the work on this project, excepting liability arising from the sole negligence of the civil engineer.

4. All work shall be performed in accordance with accepted workmanship practice and these plans. Orders given by the owner representative relating to the quality of materials and workmanship shall be complied with promptly by the contractor.

5. Contractor shall possess a valid Class A - General Engineering Contractor license at the time the contract is awarded and shall maintain throughout the length of contract. Sub-contractors shall possess valid license(s) for the portion(s) of the work they are performing.

6. The contractor shall post emergency telephone numbers at the job site for the San Lorenzo Valley Water District, county public works, ambulance, police and fire departments. Contractor shall post sign at job site bearing owner's name and site address. Property corners shall be clearly marked.

7. The contractor shall obtain all permits and licenses required for the construction and completion of the project.

8. Contractor shall conform to the rules and regulations of the state construction safety orders pertaining to excavation and trenching. Contractor shall bear full responsibility for trench shoring design and installation.

9. The contractor's attention is directed to the requirements of the division of industrial safety pertaining to "confined spaces". Any manhole, culvert, drop inlet or trench (which could contain air) that is not readily ventilated may be considered a "confined space".

10. Excavation shall be adequately shored, braced and sheeted so that the earth will not slide or settle and so that all existing improvements of any kind will be fully protected from damage. Any damage resulting from a lack of adequate shoring, bracing and sheeting shall be the responsibility of the contractor and he shall effect necessary repairs or reconstruction at his own expense. Where the excavation for a conduit trench, structure and/or boring and jacking pit is required, the contractor shall conform to the applicable construction safety orders of the division of industrial safety of the State of California. The contractor shall always comply with OSHA requirements.

11. The existence and location of any underground utilities or structures shown on these plans were obtained by a search of available records. Approval of these plans by the agency does not guarantee the accuracy, completeness, location or the existence or non-existence of any utility pipe or structure within the limits of this project. The contractor is required to take all due precautionary means necessary to protect existing utility lines.

12. Contractor shall have utilities located by calling underground service alert (USA) north at (800) 227-2600 or 811 at least 48-hours prior to start of construction. It shall be the contractor's responsibility to notify the engineer and the owner of any differences in the locations of existing utilities shown, or any conflicts with the design, before continuing with work in that area.

13. Should it appear that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained on these plans, the contractor shall contact the engineer at (831) 688-1168 for such further explanations as may be necessary.

14. The contractor shall provide all lights, signs, barricades, flagmen and other devices necessary to provide for public safety and to maintain traffic control at all times.

15. The contractor shall not destroy any permanent survey points. Any permanent monuments or points destroyed shall be replaced by a licensed engineer or licensed surveyor at the contractor's expense.

16. During grading operations, the contractor shall implement dust control measures on site and on haul routes.

17. The contractor shall be responsible for preventing an airborne dust nuisance from the construction site by watering and/or treating the site in such a manner to limit the extent of airborne dust particles.

18. Site work hours are 8:00 a.m. to 5:00 p.m. Monday thru Friday. No site work shall be performed on Saturdays, Sundays or observed National Holidays without prior written consent of the owner.

19. The work site shall be continually maintained and kept free of trash and clutter. Solid waste shall be stored in closed containers and transported to an approved dumpsite on a regular basis.

20. These plans show existing features including but not limited to trees, utilities and structures that may be affected by the construction or placement of the proposed engineered improvements shown on these plans. The contractor shall be responsible to immediately notify the engineer if there are any existing facilities, whether shown or not shown on these plans, which could in any way be in potential conflict with the design on these plans. All work within the vicinity of potential conflict shall cease until an adequate and appropriate solution is determined by the engineer/owner's representative and approved by the owner.

21. Contractor is responsible for construction site storm water pollution prevention and implementing necessary best management practices. Erosion control measures shall be in place at the end of each working day. Wet season controls are required (minimum) between October 15 and April 15.

22. The contractor shall comply with all rules, regulations and procedures of the National Pollutant Discharge Elimination System (NPDES) for municipal, construction and industrial activities as promulgated by the California State Water Resources Control Board or any of its' Regional Water Quality Control Boards. Refer to the following general permits

- WQO 2009-0009-DWQ, General Permit For Storm Water Discharges associated with construction and land disturbance activities, with amendments
- WQO 2013-0001-DWQ, General Permit For Storm Water Discharges from small municipal separate storm sewer systems (ms4s)
- WQO 2014-0194-DWQ, NPDES PERMIT for drinking water discharges to waters of the United States.

23. If archaeological resources or human remains are discovered during construction, the county coroner shall be notified and work shall be halted to within 150-feet of the find until it can be evaluated by a qualified professional archaeologist. If the find is significant, appropriate mitigation measures shall be formulated and implemented.

24. Upon completion of the work, the contractor shall certify that all work was performed in accordance with the requirements of the contract documents. The contractor shall submit two sets of "red-line" as-built plans showing all changes to the owner prior to final acceptance of the improvements.

General Notes Continued

25. The contractor shall take all necessary measures to keep public streets free from dirt and debris. Should any dirt or debris be deposited in public right-of-way, the contractor shall remove it immediately.

26. Contractor shall replace, at his expense, all trees, shrubs, lawns, fences, irrigation systems and improvements which are to remain intact but are removed or damaged during construction. Contractor shall not remove or damage improvements located within the property without written permission from the owner.

27. Coordinate with the owner for temporary construction storage areas.

28. Maintain one-way traffic on public and private roads, paved or unpaved, on which work is being performed during working hours, or coordinate with owner to provide an acceptable detour route around the working area. Maintain normal traffic travel width during non-working hours. Refer to encroachment permits, licenses, easement conditions and traffic plans, where applicable, as included in the specifications.

29. All work shall be completed in accordance with these plans and specifications. The following list of standards are/or specifications are incorporated into these plans by reference. Design and construction of all improvements shall comply with all applicable standards including:

- California Water Works Standards (California Code Of Regulations, Titles 17 And 22)
- American Water Works Association (AWWA) standards
- Standard Specifications, State Of California Department Of Transportation, 2018 edition
- Standard Plans, State Of California Department Of Transportation (CALTRANS), 2018 Edition
- California Occupational Safety And Health Act Standards (CAL OSHA)

30. All underground facilities shall be installed prior to the final preparation of subgrade and placement of base material. Valve box elevations (if shown) are approximate only. Contractor shall be responsible for adjusting covers to the final pavement grade.

31. When replacing existing pavement, the existing pavement shall be cut to a neat line and removed back to an existing adequate structural section. An exploratory trench or potholing may be required to determine the limits of pavement removal.

32. Contractor is responsible for matching existing pavements and other improvements with a smooth transition in paving, curbs, gutters, grading, etc. And to avoid the creation of low spots, hazardous conditions or abrupt or apparent changes in appearance, grades or cross-slopes.

33. Improvements are subject to inspection and approval by owner's engineer and the SWRCB DIVISION OF DRINKING WATER. Notify the applicable jurisdiction(s) at least 48-hours prior to the start of work to arrange for inspection.

34. Tree removal shall be performed by a licensed timber operator (LTO). The LTO shall submit the permit exemption form to Cal Fire at least two weeks prior to starting the tree removal work.

Pipeline Notes

1) Fully restrain all new pipelines and fittings.

- Restrain ductile iron pipe using locking gaskets (field-lok or equal) on run of pipe, and EBAA megalug restraints on mechanical joint fittings.
- HDPE pipe shall be fused/welded pipe with flanged end connections.

2) Protect in-place existing residential services until the replacement water main is completed, tested and placed into service. Repair or replace damaged services on the same day the damage occurs. Provide temporary high-line connections if customer outages will exceed 4-hours.

3) Coordinate customer water service replacements with district staff:

- Notify staff a minimum of 2-weeks prior to the work. Staff will determine if replacement meters will be provided.
- Notify customers using door hangers a minimum of 48-hours prior to the outage.
- Do not disconnect customer's service until all required materials and meter are on-site.

4) Abandonment of PVC water mains

- Abandon existing PVC water main after the replacement main is in-service and all customer connections have been transferred to the new main.
- Pothole to expose existing pipe.
- Cut the existing pipe and connect replacement pipe to the system.
- Drain the pipe being abandoned. Place a grout plug around the end of the pipe. Grout must extend 12-inch minimum into the pipe and 4-inch minimum outside the pipe.
- Remove existing air-vac valve stations and other surface appurtenances after the pipeline is removed from service.

5) Abandonment of galvanized steel (GS) water mains

- Abandon existing GS water mains after the replacement main is in-service and all customer connections have been transferred to the new main.
- Pothole to expose existing pipe.
- If disconnecting at a fitting, cut the pipe to be abandoned, remove the pipe from the fitting and replace with a threaded GS plug or cap.
- If disconnecting at one end of a pipe remaining in service, cut the pipe, thread the remaining end and provide a threaded GS cap.
- Drain the pipe being abandoned. Place a grout plug around the end of the pipe. Grout must extend 12-inch minimum into the pipe and 4-inch minimum outside the pipe.

Caltrans Encroachment Permit
50 Higuera Street
San Luis Obispo, CA 93401
Permit No. 0521 NUT 0661
Plan Sheet 4 of 7
Approved 10/27/2021



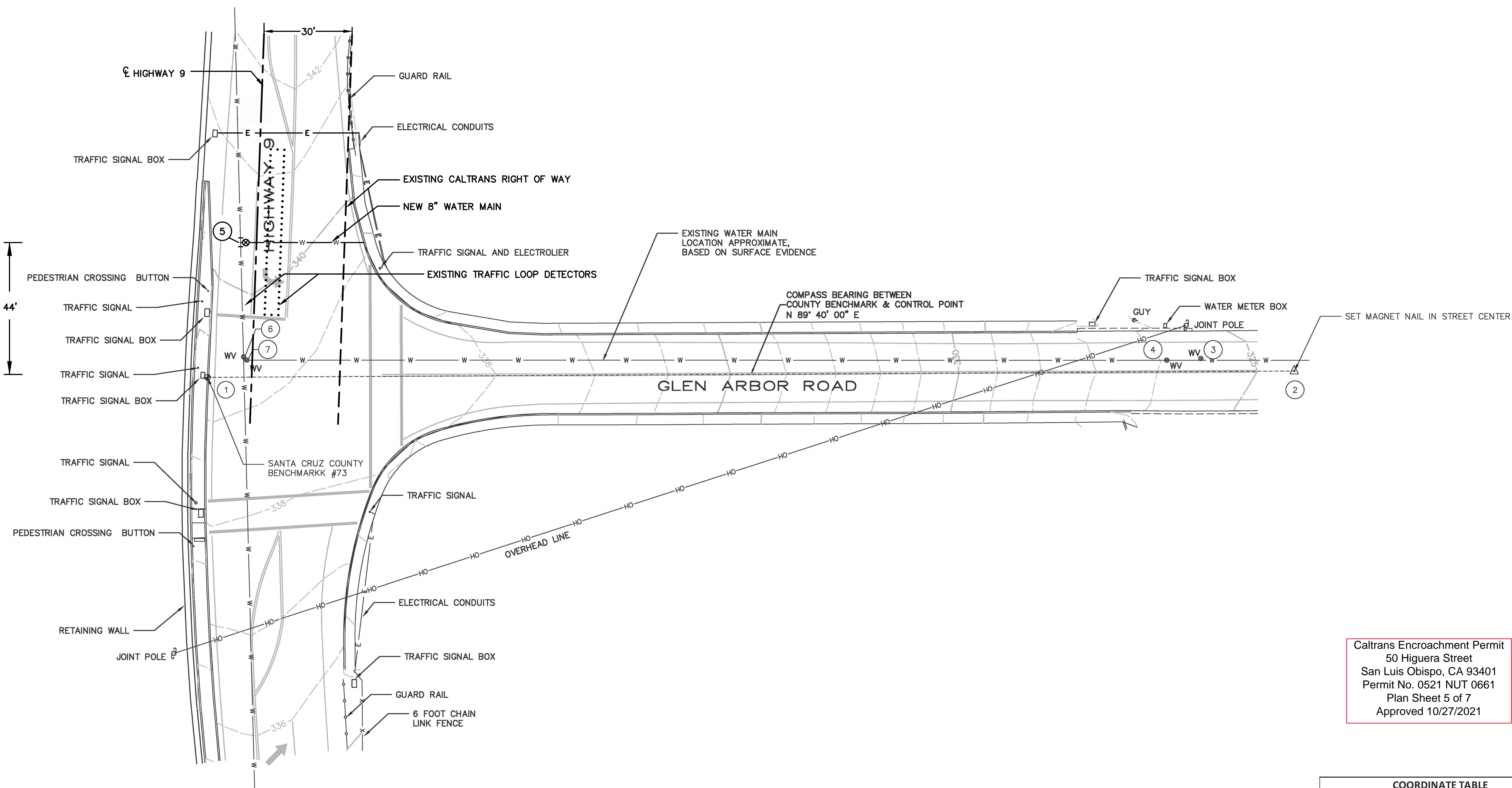
Michael J. Freitas 9/16/21

REVISIONS	BY

TRAFFIC DETOUR NOTES AND GENERAL NOTES
PIPELINE REPLACEMENT IN GLEN ARBOR BRIDGE PROJECT
SAN LORENZO VALLEY WATER DISTRICT
BOULDER CREEK, CALIFORNIA

FREITAS + FREITAS
Engineering and Planning Consultants, Inc.
3233 Valencia Ave., Suite A1
Aptos, CA 95003
Phone (831) 688-1168
Fax (831) 688-1218

Date	9/2021
Scale	As Shown
Drawn	Digital Graphics
Job	19018
Sheet	4 of 5 Sheets



BASIS OF BEARINGS

THE BEARING BASIS FOR THIS MAP IS THE COMPASS BEARING BETWEEN SANTA CRUZ COUNTY BENCHMARK NUMBER 73 AND SET MAGNETIC NAIL SET IN THE CENTER OF GLEN ARBOR ROAD.
= N 89°40'00" E

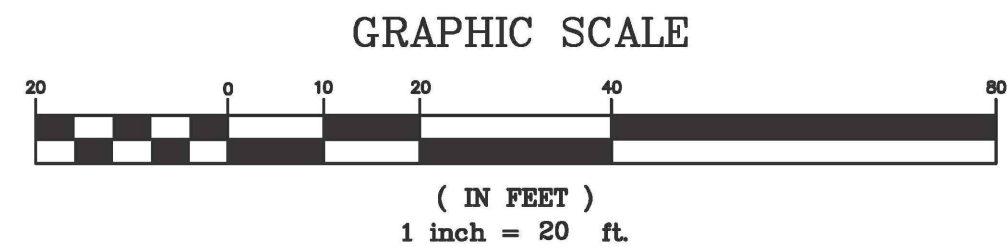
BASIS OF ELEVATIONS

THE BASIS OF ELEVATIONS FOR THIS MAP IS SANTA CRUZ COUNTY BENCHMARK NO. 73 DESCRIPTION: LOCATED AT WEASTERLY SIDE OF INTERSECTION OF HWY 9 & GLEN ARBOR ROAD. SANTA CRUZ COUNTY BRASS CAP SET A TOP CONCRETE CURB APPROXIMATELY ALIGNED WITH CENTERLINE OF GLEN ARBOR ROAD.
ELEVATION 339.83 NAVD 88

LEGEND

- CONTOUR (MAJOR)
- CONTOUR (MINOR)
- E CONDUIT
- X X FENCE LINE
- GUARD RAIL
- GUY ANCHOR
- OH OVERHEAD LINE
- JOINT POLE
- WATER VALVE (WV)
- W WATER LINE
- SET RANDOM NAIL
- LOCATION MARK, SEE COORDINATE TABLE

CONTOUR INTERVAL = 1 FOOT
DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF



COORDINATE TABLE			
POINT	DESCRIPTION	NORTHING	EASTING
1	SCBM 75	1,853,426.8660	6,099,387.9030
2	MAGNAIL	1,853,429.0920	6,099,770.6140
3	WV	1,853,433.5000	6,099,737.6510
4	WV	1,853,432.9090	6,099,725.6720
5	POC	1,853,478.041	6,099,399.419
6	WV	1,853,434.0550	6,099,400.5480
7	WV	1,853,432.9250	6,099,401.6970

Note: The coordinates shown on the table above are assumed.
Refer to plan description of Basis of Bearings and Elevation for construction purposes.



05/11/2020

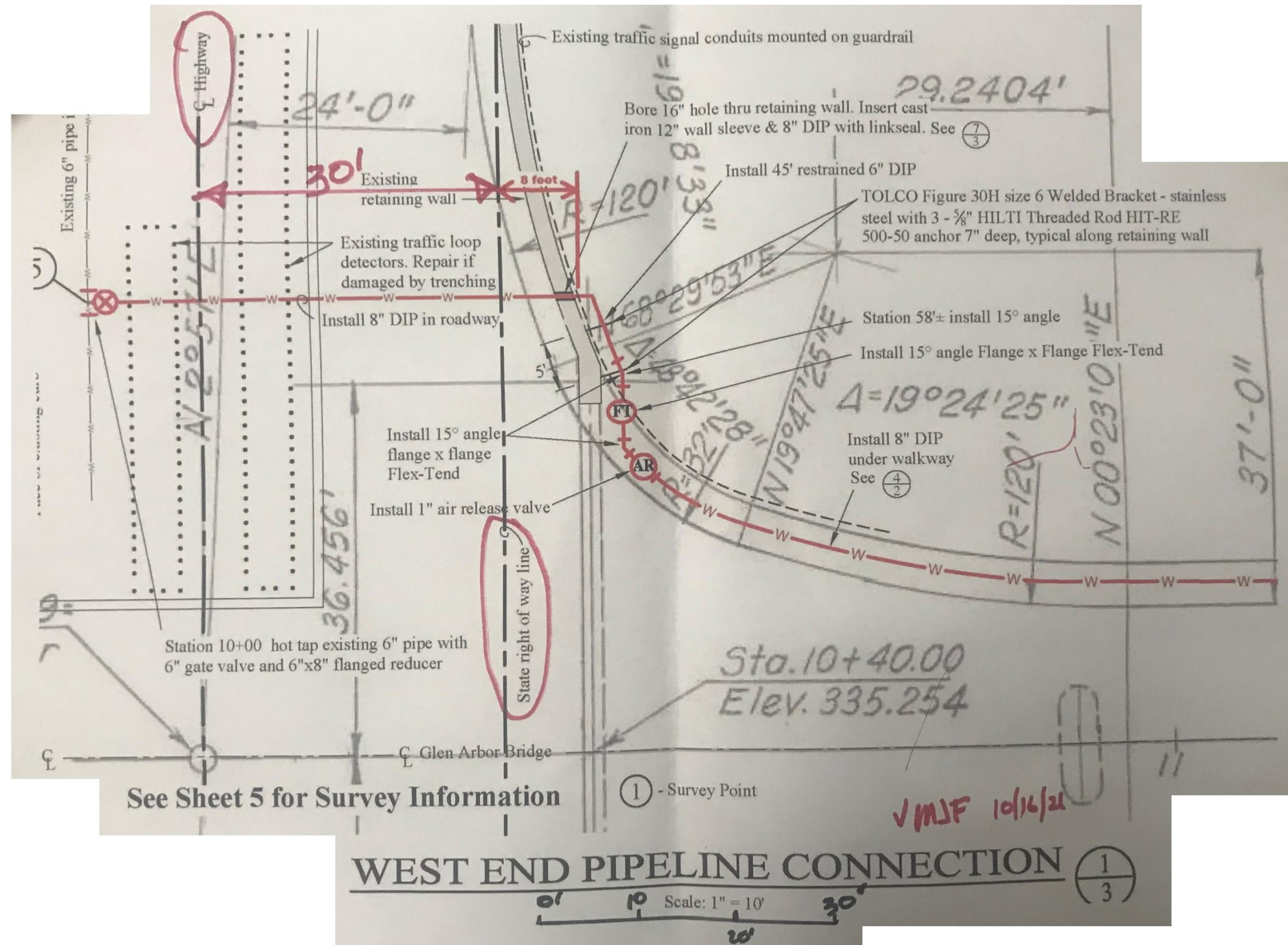
APN			
REVISED			
BOWMAN & WILLIAMS CONSULTING CIVIL ENGINEERS AND LAND SURVEYORS 3949 RESEARCH PARK COURT, SUITE 100 SOQUEL, CA 95073-2094 (831) 426-3560		TOPOGRAPHIC SURVEY OF GLEN ARBOR ROAD BRIDGE PREPARED AT THE REQUEST OF FREITAS + FREITAS GLEN ARBOR BRIDGE PIPELINE REPLACEMENT SAN LORENZO VALLEY WATER DISTRICT SITUATE IN SANTA CRUZ, CALIFORNIA 8229	
SCALE 1" = 20"	DRAWN CMM	JOB NO. 27945	SHEET 1
DATE MAY 11, 2020	CHECKED BFH	INDEX SEC 9, T10S, R2W	OF 1
DESIGN CMM	DWG NAME 27945 TOPO	FILE NO. 27945	

REVISIONS	BY

SURVEY
PIPELINE REPLACEMENT IN GLEN ARBOR BRIDGE PROJECT
SAN LORENZO VALLEY WATER DISTRICT
BOULDER CREEK, CALIFORNIA

FREITAS + FREITAS
Engineering and Planning Consultants, Inc.
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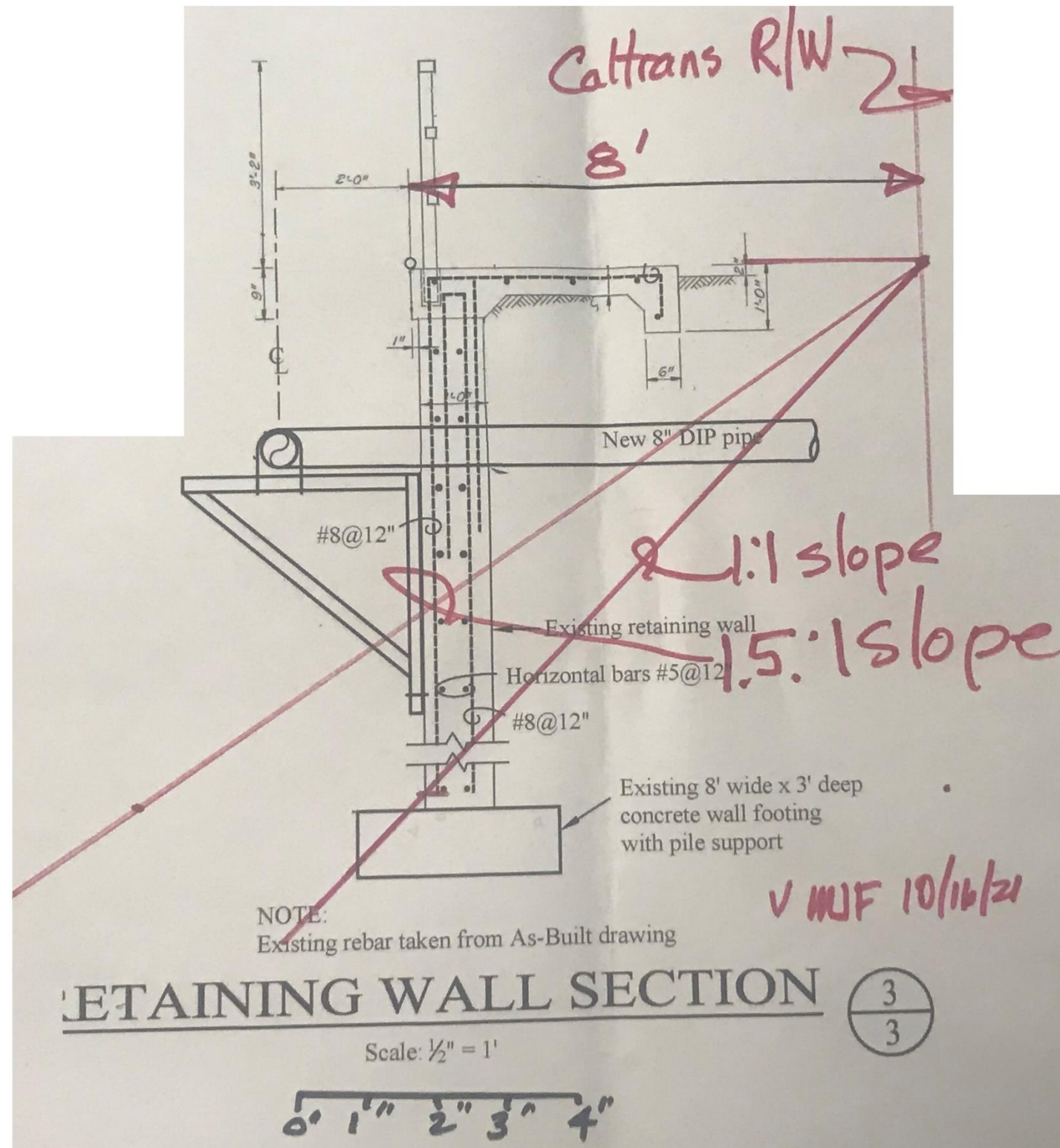
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Sheet	5 of 5 Sheets



Caltrans Encroachment Permit
50 Higuera Street
San Luis Obispo, CA 93401
Permit No. 0521 NUT 0661
Plan Sheet 6 of 7
Approved 10/27/2021



Michael J. Freitas



Caltrans Encroachment Permit
50 Higuera Street
San Luis Obispo, CA 93401
Permit No. 0521 NUT 0661
Plan Sheet 7 of 7
Approved 10/27/2021



Michael J. Freitas

STANDARD ENCROACHMENT PERMIT APPLICATION

TR-0100 (REV 12/2018)

Complete ALL fields, write "N/A" if not applicable. Type or print clearly.

This application is not complete until all requirements have been approved.

Permission is requested to encroach on the State Highway right-of-way as follows:

1. COUNTY Santa Cruz		2. ROUTE 9	3. POST MILE SCR 8.113	FOR CALTRANS USE TRACKING NO. 0521 6UT 0661 DIST/CO/RTE/PM 05/SCr/9/8.113 SIMPLEX STAMP DATE OF SIMPLEX STAMP 7/21/2021	
4. ADDRESS OR STREET NAME Glen Arbor Rd at CA-9		5. CITY Ben Lomond			
6. CROSS STREET (Distance and direction from project site) Glen Arbor Rd - project is at intersection with CA-9					
7. WORK TO BE PERFORMED BY <input type="checkbox"/> APPLICANT <input checked="" type="checkbox"/> CONTRACTOR		8. IS THIS APPLICATION FOR THE CONTRACTOR'S (DOUBLE) PERMIT? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES. If "YES", provide the Parent Permit Number			
9. ESTIMATE START DATE 10/19/2021 pending this permit		10. ESTIMATED COMPLETION DATE 10/23/2021			
11. ESTIMATED NUMBER OF WORKING DAYS WITHIN STATE HIGHWAY RIGHT-OF-WAY 4					
12. ESTIMATED CONSTRUCTION COSTS WITHIN STATE HIGHWAY RIGHT-OF-WAY \$86,000					
13. HAS THE PROJECT BEEN REVIEWED BY ANOTHER CALTRANS BRANCH? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES. If "YES", which branch?					
14. FUNDING SOURCE(S) <input type="checkbox"/> FEDERAL <input type="checkbox"/> STATE <input checked="" type="checkbox"/> LOCAL <input type="checkbox"/> PRIVATE <input type="checkbox"/> SB 1 (ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017)					
15. CALTRANS PROJECT CODE (ID)			16. APPLICANT'S REFERENCE / UTILITY WORK ORDER NUMBER NA		
17. DESCRIBE WORK TO BE DONE WITHIN STATE HIGHWAY RIGHT-OF-WAY (in 20 lines or less) Attach 6 complete sets of plans (folded to 8.5" x 11") and any applicable specifications, calculations, maps, traffic control plans, etc. Trench, install saddle tap and gate valve on existing water main under CA-9, install new 8" DIP perpendicular to road centerline, bore 16" diameter penetration through existing concrete retaining wall, install 16" sleeve and route new 8" DIP through sleeve, restore roadway, construct externally suspended 8" DIP pipeline along outer edge/underside of existing bridge to edge of State ROW. Pipeline to continue into Santa Cruz County ROW.					

18 (a). PORTION OF STATE HIGHWAY RIGHT-OF-WAY WHERE WORK IS BEING PROPOSED (check all that apply)

- ☒ Traffic lane ☒ Shoulder ☐ Sidewalk ☐ Median ☒ At or near an intersection ☐ Mobile work
☐ Outside of the shoulder, _____ feet from edge of pavement ☒ Other Suspended on exterior face/underside of existing bridge

18 (b). PROPOSED TRAFFIC CONTROL PLANS AND METHOD

- ☐ No traffic control needed ☒ State Standard Plans (T-Sheets) # 6H-10 (TA-10)
☐ Project specific Traffic Control Plans included ☐ To be submitted by contractor

ADA Notice

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STANDARD ENCRoACHMENT PERMIT APPLICATION

TR-0100 (REV 12/2018)

TRACKING NO.

0521 6UT 0661

19. EXCAVATION	MAX. DEPTH (in) 72	MIN. DEPTH (in) 48	AVG. WIDTH (in) 18	LENGTH (ft) 90+/-	SURFACE TYPE (e.g. Asphalt, concrete, soil, etc.) AC, PCC wall, PCC sidewalk,
20. PIPES	PRODUCT BEING TRANSPORTED Potable water		CARRIER PIPE DIAMETER 8 (in.) MATERIAL DIP		CASING PIPE DIAMETER 16 (in.) MATERIAL DIP
PROPOSED INSTALLATION METHOD (e.g. HDD, Bore & Jack, Open Cut, etc.) Open cut (roadway) and boring (retaining wall)					VOLTAGE / PSIG 108 psig
DOES THE PROPOSED PROJECT INVOLVE THE REPLACEMENT AND/OR ABANDONMENT OF AN EXISTING FACILITY?					
<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES. If "YES", provide a description The existing (leaking) water main will be abandoned in place					
21. IS A CITY, COUNTY OR OTHER PUBLIC AGENCY INVOLVED IN THE APPROVAL OF THIS PROJECT?					
<input type="checkbox"/> YES (if "YES", check the type of project AND attach the environmental documentation and conditions of approval)					
<input type="checkbox"/> COMMERCIAL DEVELOPMENT <input type="checkbox"/> BUILDING <input type="checkbox"/> GRADING <input type="checkbox"/> OTHER					
<input type="checkbox"/> CATEGORICALLY EXEMPT <input type="checkbox"/> NEGATIVE DECLARATION <input type="checkbox"/> ENVIRONMENTAL IMPACT REPORT <input type="checkbox"/> OTHER					
<input checked="" type="checkbox"/> NO (if "NO", check the category below which best describes the project AND answer questions A-K)					
<input type="checkbox"/> DRIVEWAY OR ROAD APPROACH, RECONSTRUCTION, MAINTENANCE OR RESURFACING			<input type="checkbox"/> FENCE <input type="checkbox"/> EROSION CONTROL		
<input checked="" type="checkbox"/> PUBLIC UTILITY MODIFICATION, EXTENSIONS, HOOKUPS			<input type="checkbox"/> MAILBOX <input type="checkbox"/> LANDSCAPING		
<input type="checkbox"/> FLAGS, SIGNS, BANNERS, DECORATIONS, PARADES AND CELEBRATIONS			<input type="checkbox"/> OTHER		

The following questions must be answered when a City, County or other public agency IS NOT involved in the approval of this project.

Your answers to these questions will assist Caltrans staff in identifying any physical, biological, social or economic resources that may be affected by your proposed project within State Highway right-of-way and to determine which type of environmental studies may be required to approve your application for an encroachment permit. It is the applicant's responsibility for the production of all required environmental documentation and supporting studies and in some cases this may be costly and time consuming. If possible, attach photographs of the location of the proposed project. Answer these questions to the best of your ability. Provide a description of any "YES" answers (type, name, number, etc.).

A. Will any existing vegetation and/or landscaping within State Highway right-of-way be disturbed?
No

B. Are there waterways (e.g. river, creek, pond, natural pool or dry streambed) adjacent to or within the limits of the proposed project?
San Lorenzo River is adjacent to the project (pipeline to be installed on existing bridge crossing the San Lorenzo River)

C. Is the proposed project located within five miles of the coast line?
No

D. Will the proposed project generate construction noise levels greater than 86 decibels (dBA) (e.g. Jack-hammering, pile driving)?
Yes

E. Will the proposed project incorporate land from a public park, recreation area or wildlife refuge open to the public?
No

F. Are there any recreational trails or paths within the limits of the proposed project?
No

G. Will the proposed project impact any structures, buildings, rail lines or bridges within State Highway right-of-way?
Pipeline to be installed on existing bridge crossing the San Lorenzo River using eternally mounted hangers

H. Will the proposed project impact access to any businesses or residences?
No

I. Will the proposed project impact any existing public utilities or public services?
Yes - existing water main is being replaced to mitigate leaking pipes within the bridge structure

J. Will the proposed project impact any existing pedestrian facilities, such as sidewalks, crosswalks or overcrossings?
Yes - sidewalk at north end of bridge will be impacted

K. Will new lighting be constructed within or adjacent to State Highway right-of-way?
No

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STANDARD ENCROACHMENT PERMIT APPLICATION

TR-0100 (REV 12/2018)

TRACKING NO.
0521 6UT 0661

22. Will the proposed project cause a substantial change in the significance of a historical resource (45 years or older), or cultural resource? ☐ YES ☒ NO (if "YES", provide a description)

23. Will the proposed project be on an existing State Highway or street where the activity involves removal of a scenic resource? (e.g. A significant tree or stand of trees, a rock outcropping or a historic building) ☐ YES ☒ NO (if "YES", provide a description)

24. Is work being done on the applicant's property in addition to State Highway right-of-way? ☐ YES ☒ NO
(If "YES", attach 6 complete sets of site and grading plans)

25. Will the proposed project require the disturbance of soil? ☐ YES ☒ NO
If "YES", estimate the area of disturbed soil within State Highway right-of-way in acres: _____
and estimate the area of disturbed soil outside State Highway right-of-way in acres: _____

26. Will the proposed project require dewatering? ☐ YES ☒ NO
If "YES", estimate Total gallons AND gallons/month. _____ (Total gallons) AND _____ (gallons/month)
SOURCE*: ☐ STORMWATER ☐ NON-STORMWATER
(*See Caltrans SWMP for definition of non-storm water discharge: <http://www.dot.ca.gov/env/stormwater/>)

27. How will any storm water or ground water be disposed?
☐ Storm Drain System ☐ Combined Sewer / Stormwater System ☐ Stormwater Retention Basin ☐ N/A
☒ Other (explain) Existing roadside drainage facilities

STANDARD ENCROACHMENT PERMIT APPLICATION

TR-0100 (REV 12/2018)

TRACKING NO.
0521 6UT 0661**READ THE FOLLOWING CLAUSES PRIOR TO SIGNING THIS ENCROACHMENT PERMIT APPLICATION.**

The applicant's submission of this application to the California Department of Transportation constitutes the applicant's agreement and representation that the work or other activity contemplated by the encroachment permit application shall comply with all applicable standards, specifications, policies, requirements, conditions, and regulations of the California Department of Transportation, and the applicant understands the application may be denied if there is non-compliance with any of the above. An exception process exists and may result in approval of a non-compliant encroachment, in the discretion of the California Department of Transportation, but the exception process may require additional time to complete. The applicant understands and agrees all work or other activity contemplated by the encroachment permit application is subject to inspection and oversight by the California Department of Transportation. The applicant understands and agrees encroachment permit fees must still be paid if an application is withdrawn or denied. The applicant understands a denial may be appealed, in accordance with California Streets and Highways Code, Section 671.5, and the related regulations found in California Code of Regulations, Title 21, Division 2, Chapter 8, Article 2.

The applicant understands and agrees that immediately upon issuance of the encroachment permit the applicant is bound by, subject to, and must comply with the "Encroachment Permit General Provisions" (TR-0045), "Stormwater Special Provisions" (TR-0400) and any other applicable Special Provisions and Conditions of the encroachment permit. The "Encroachment Permit General Provisions" (TR-0045), and the Stormwater Special Provisions (TR-0400) are available at: [http://www.dot.ca.gov/trafficops/ep/docs/Appendix_K_\(WEB\).pdf](http://www.dot.ca.gov/trafficops/ep/docs/Appendix_K_(WEB).pdf). If a paper copy is needed of the "Encroachment Permit General Provisions" (TR-0045) and/or "Stormwater Special Provisions" (TR-0400), please contact the District Office of Encroachment Permits. Their contact information is available at: [http://www.dot.ca.gov/trafficops/ep/docs/Appendix_G_\(WEB\).pdf](http://www.dot.ca.gov/trafficops/ep/docs/Appendix_G_(WEB).pdf). The "Encroachment Permit General Provisions" (TR-0045) and any other applicable Special Provisions and Conditions will be provided as part of the encroachment permit. Information about Stormwater requirements is available at the Internet address: <http://www.dot.ca.gov/hq/construc/stormwater/>.

The applicant understands an encroachment permit may be denied, revoked, and/or a bond may be required, for non-payment of prior or present encroachment permit fees. An encroachment permit is not a property right and does not transfer with the property to a new owner. Each of the persons purporting to execute this application on behalf of the applicant and/or on behalf of the applicant's authorized agent or engineer represents and warrants such person has full and complete legal authority to do so and to thereby bind applicant to the terms and conditions herein and to the terms and/or conditions of the encroachment permit. Applicant understands and agrees this application may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Executed copies of this application and/or its counterparts may be reproduced and/or exchanged by copy machine, mailing, facsimile, or electronic means (such as e-mail), and such copies shall be deemed to be effective as originals.

28. NAME OF APPLICANT (Project or Property Owner or Organization)

San Lorenzo Valley Water District

ADDRESS OF APPLICANT (Include City, State and Zip Code)

13060 CA-9 Boulder Creek, CA 95006

E-MAIL ADDRESS

JWolff@SLVWD.com

PHONE NUMBER

(831) 430-4635

FAX NUMBER

NA

29. NAME OF AUTHORIZED AGENT / ENGINEER

(A "Letter of Authorization" is required if different from #28)

NA

IS A LETTER OF AUTHORIZATION ATTACHED?☐ YES ☒ NO**ADDRESS OF AUTHORIZED AGENT / ENGINEER (Include City, State and Zip Code)**

NA

E-MAIL ADDRESS

NA

PHONE NUMBER

NA

FAX NUMBER

NA

30. NAME OF BILLING CONTACT (Same as #28 ☐ Same as #29 ☐)

San Lorenzo Valley Water District, attn: Josh Wolff

BILLING ADDRESS WHERE INVOICE(S) IS / ARE TO BE MAILED (Include City, State and Zip Code)

13060 CA-9 Boulder Creek, CA 95006

E-MAIL ADDRESS

JWolff@SLVWD.com

PHONE NUMBER

(831) 430-4635

FAX NUMBER

NA

* I hereby certify under penalty of perjury under the laws of the State of California that the information in this application and any document submitted with or in support of this application are true and correct to the best of my knowledge and belief, and that copies of any documents submitted with or in support of this application are true and correct copies of unaltered original documents. I further understand that if I have provided information that is false, intentionally incomplete, or misleading I may be charged with a crime and subjected to fine or imprisonment, or both fine and imprisonment. (Penal Code Section 72)

31. SIGNATURE OF APPLICANT OR AUTHORIZED AGENT***32. PRINT OR TYPE NAME**

Josh Wolff

33. TITLE

District Engineer

34. DATE

7/21/2021

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