CONSTRUCTION DRAWINGS

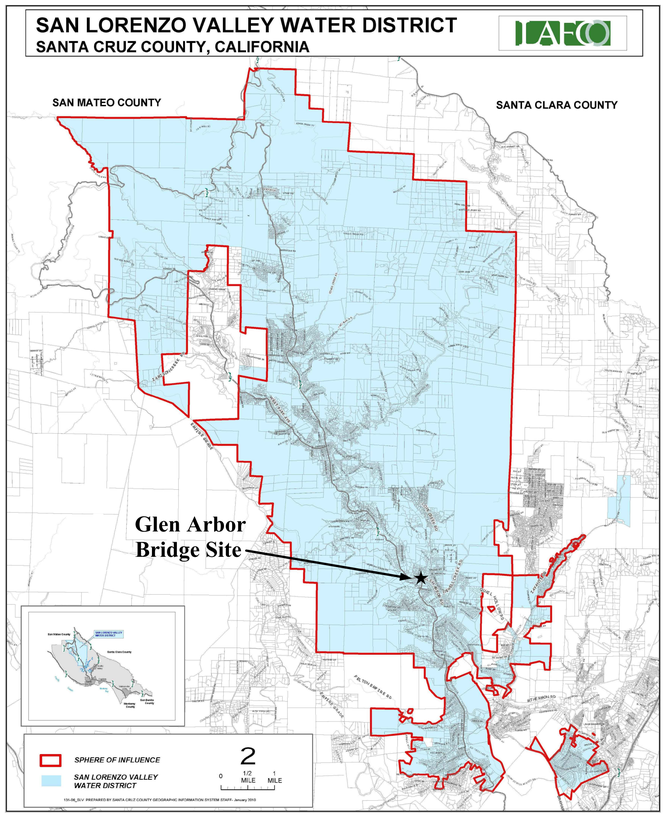
for

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

September 2021

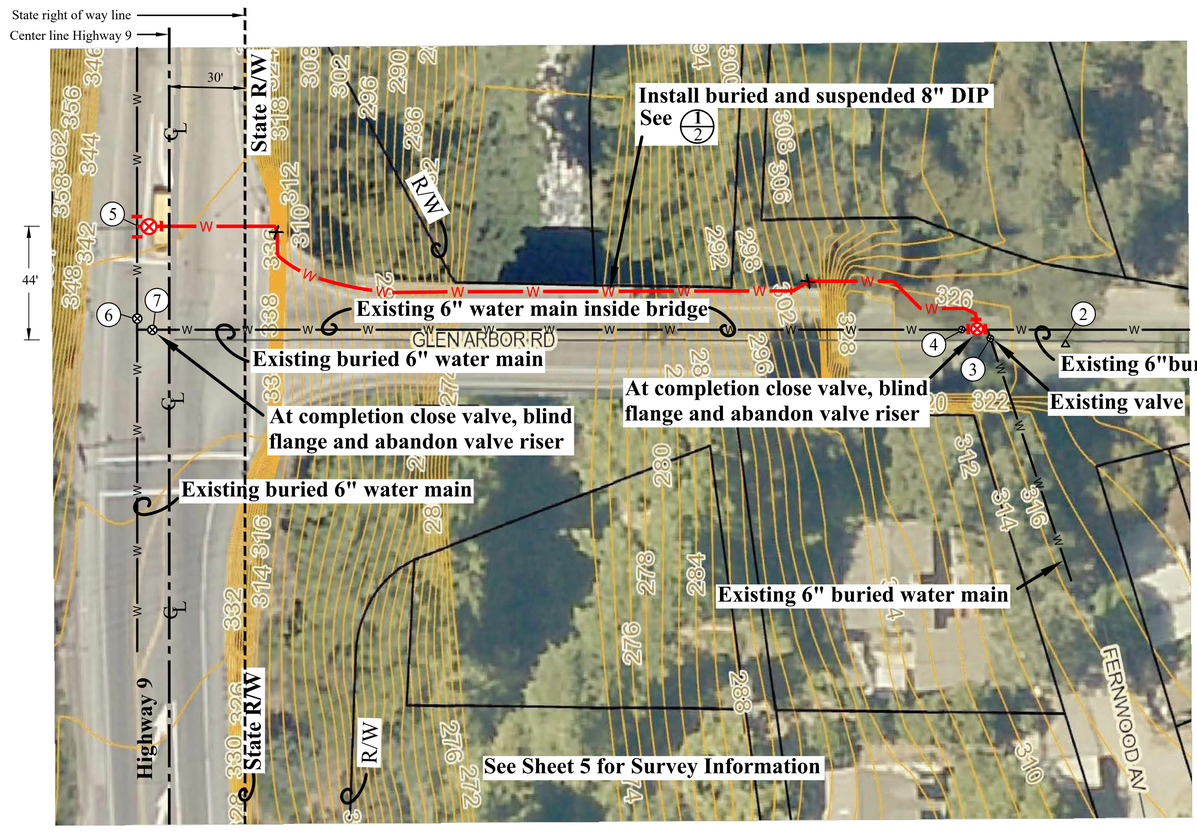
LOCATION MAP (1/1)

Not to Scale



SAN LORENZO VALLEY WATER DISTRICT MAP (2/1)

Scale as shown



(1) - Survey Point

GENERAL PLAN (3/1)

Scale: 1" = 30'

NOTE:
POTHOLE AND VERIFY DEPTH, LOCATION, & DIMENSION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION

NOTE:
CONTRACTOR TO VERIFY UTILITY TYPE & SIZE PRIOR TO ORDERING MATERIALS FOR CONSTRUCTION

NOTICE TO CONTRACTORS

CONTRACTOR SHALL NOTIFY USA (UNDERGROUND SERVICE ALERT) AT 800-227-2600 A MINIMUM OF 24 HOURS BEFORE BEGINNING UNDERGROUND WORK FOR VERIFICATION OF THE LOCATION OF UNDERGROUND UTILITIES

LIST OF DRAWINGS

Legend

(1/1) ← Indicates detail number
(1/1) ← Indicates sheet number

REGISTERED PROFESSIONAL ENGINEER
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Michael J. Freitas 9/16/21

REVISIONS	BY

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

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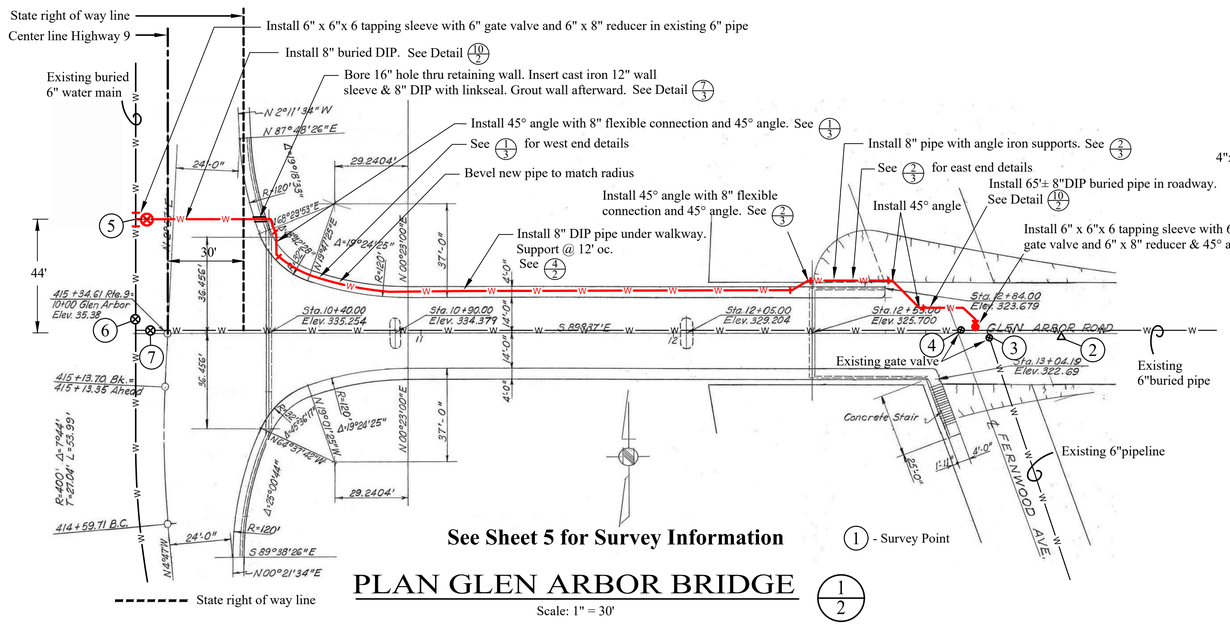
Date	9/2021
Scale	As Shown
Drawn	Digital Graphics
Job	19018
Sheet	1 of 5 Sheets



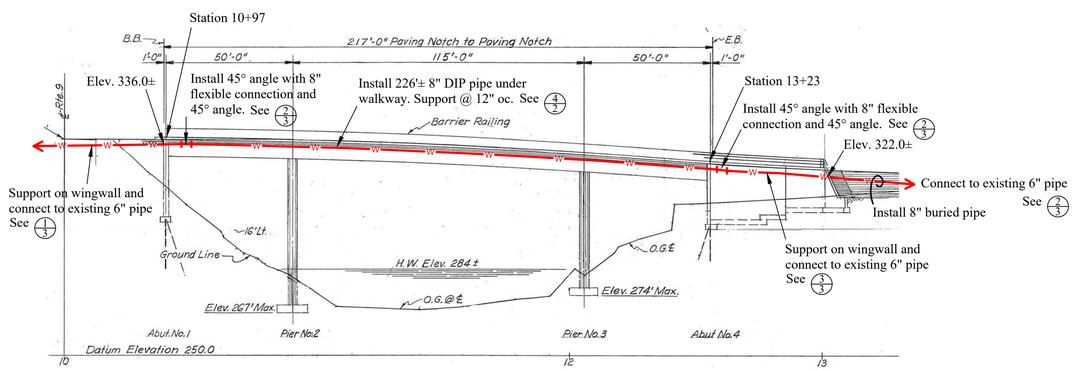
See Sheet 5 for Survey Information

(1) - Survey Point

PLAN GLEN ARBOR BRIDGE

1/2

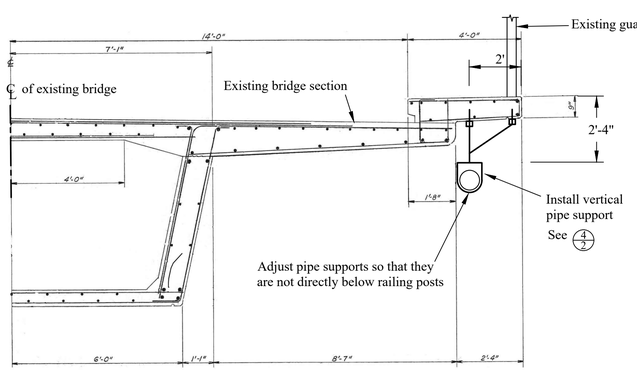
Scale: 1" = 30'



AS BUILT GLEN ARBOR BRIDGE ELEVATION

2/2

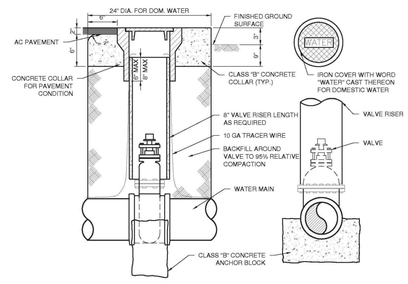
Scale: 1" = 30'



PIPE SUPPORT DETAIL

3/2

Scale: ⅜" = 1'



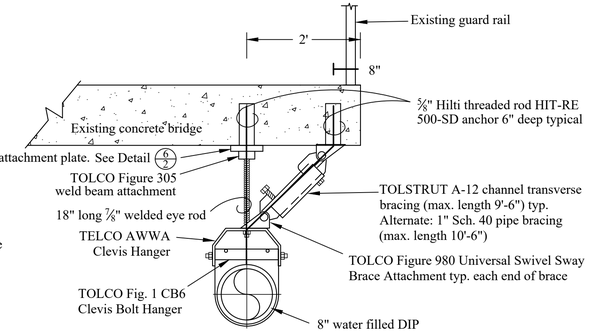
NOTES:

1- PROVIDE VALVE STEM EXTENSION IF DEPTH TO VALVE NUT EXCEEDS 4 FEET.
IN NEW TRACT DEVELOPMENTS EXTEND VALVE WELL PIPE 2' ABOVE GROUND ON "KEY VALVES" FOR EMERGENCY SHUTOFFS.
2- BUTTERFLY VALVE OPERATORS SHALL BE LOCATED ON THE LEFT-HAND SIDE OF THE VALVE (AT THE TEE OR CROSS), LOOKING THROUGH THE VALVE TOWARD THE PIPE END.
3- WHERE CONCRETE CROSS GUTTERS AT STREET INTERSECTIONS WILL INTERFERE WITH VALVE BOXES, THE PIPELINE SHALL BE MOVED TO A POSITION 7 FEET OFF THE CURB FACE TO CLEAR THE CROSS GUTTER.
4- VALVES TO BE LOCATED ADJACENT TO FITTINGS WHEREVER POSSIBLE.

GATE VALVE DETAIL

8/2

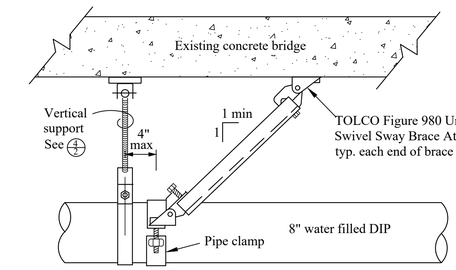
Not to Scale



VERTICAL PIPE SUPPORT DETAIL

4/2

Scale ¾" = 1'-0"

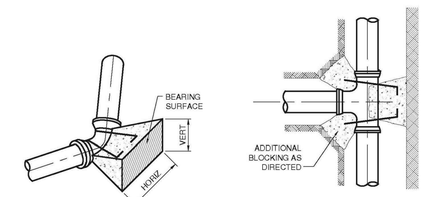


Longitudinal supports @ each end of supported pipe and every 10 vertical supports

LONGITUDINAL SUPPORT DETAIL

5/2

Scale ¾" = 1'-0"



TYPICAL BEARING SURFACE

TEE OR VALVE

MINIMUM SIZE OF THRUST BLOCK BEARING SURFACE

PIPE	11 1/4° BEND		22 1/2° BEND		45° BEND		90° BEND		TEE		END CAP	
SIZE	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
8"	2'-6"	1'-0"	2'-6"	1'-0"	3'-6"	1'-6"	4'-6"	2'-3"	4'-0"	2'-0"	2'-6"	1'-9"

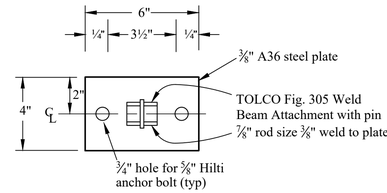
NOTES:

1- THRUST BLOCK BEARING AREA BASED ON ALLOWABLE SOIL BEARING VALUE OF 1500 psf PRESSURE AND 225 psi 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
2- ALL THRUST BLOCKS SHALL BE 2,000 PSI CONCRETE AND PLACED AGAINST UNDISTURBED SOIL. DESIGN ENGINEER SHALL DETERMINE SIZES NOT SHOWN.
3- 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
4- CONCRETE SHALL NOT EXTEND ONTO FLANGE OR ADJOINING PIPE.
5- JOINTS AND FACE OF PLUGS TO BE KEPT CLEAR OF CONCRETE
6- WRAP EXPOSED PORTION OF BARS AND 2" INTO CONCRETE WITH HALF LAPPED, 10 MIL PVC TAPE
7- WHEN CLEARANCES TO OTHER FACILITIES OR UTILITIES DO NOT ALLOW THE USE OF THRUST BLOCK, RESTRAINED PIPE SHALL BE USED.
8- 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.
9- DISTRICT ALLOWS RESTRAINED JOINTS AS AN ALTERNATIVE TO THRUST BLOCKS.

THRUST BLOCK DETAIL

9/2

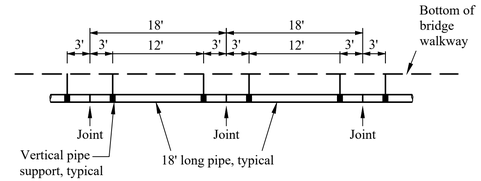
Not to Scale



ATTACHMENT PLATE

6/2

Scale 3" = 1'-0"

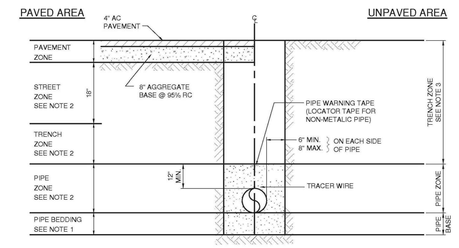


Adjust pipe supports so that they are not directly below railing posts

PIPE SUPPORT ELEVATION

7/2

Not to Scale



TRENCH SECTION

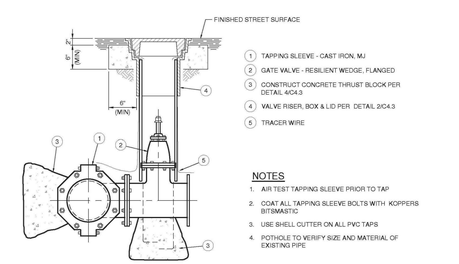
NOTES:

1- 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.
2- 95% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY ENGINEER
3- 90% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY ENGINEER
4- MATCH EXISTING PAVEMENT SECTION, MINIMUM 3" AC OVER 6" AB

TRENCH DETAIL

10/2

Not to Scale



NOTES

1. AIR TEST TAPPING SLEEVE PRIOR TO TAP
2. COAT ALL TAPPING SLEEVE BOLTS WITH KOPPERS BITSMASTIC
3. USE SHELL CUTTER ON ALL PVC TAPS
4. POTHOLE TO VERIFY SIZE AND MATERIAL OF EXISTING PIPE

TAP OF ACP, PVC OR D.I.P. MAINS

HOT TAP DETAIL

11/2

Not to Scale

REVISIONS	BY

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

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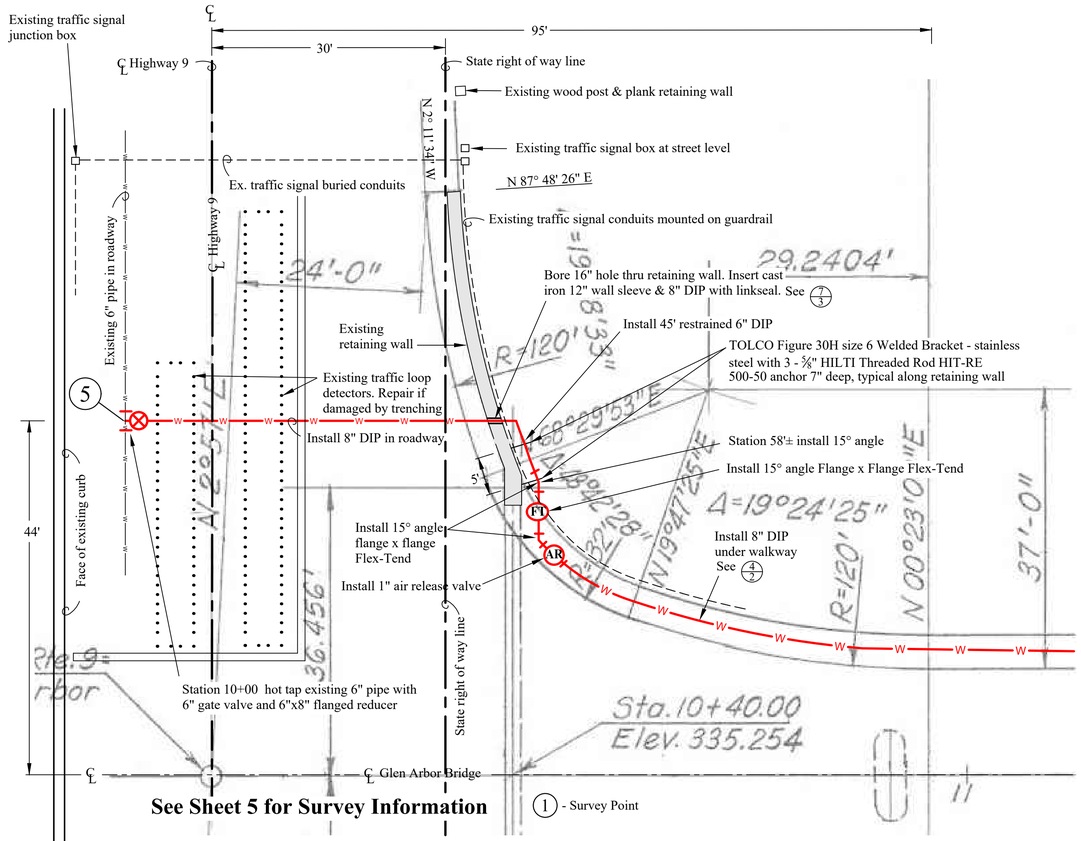
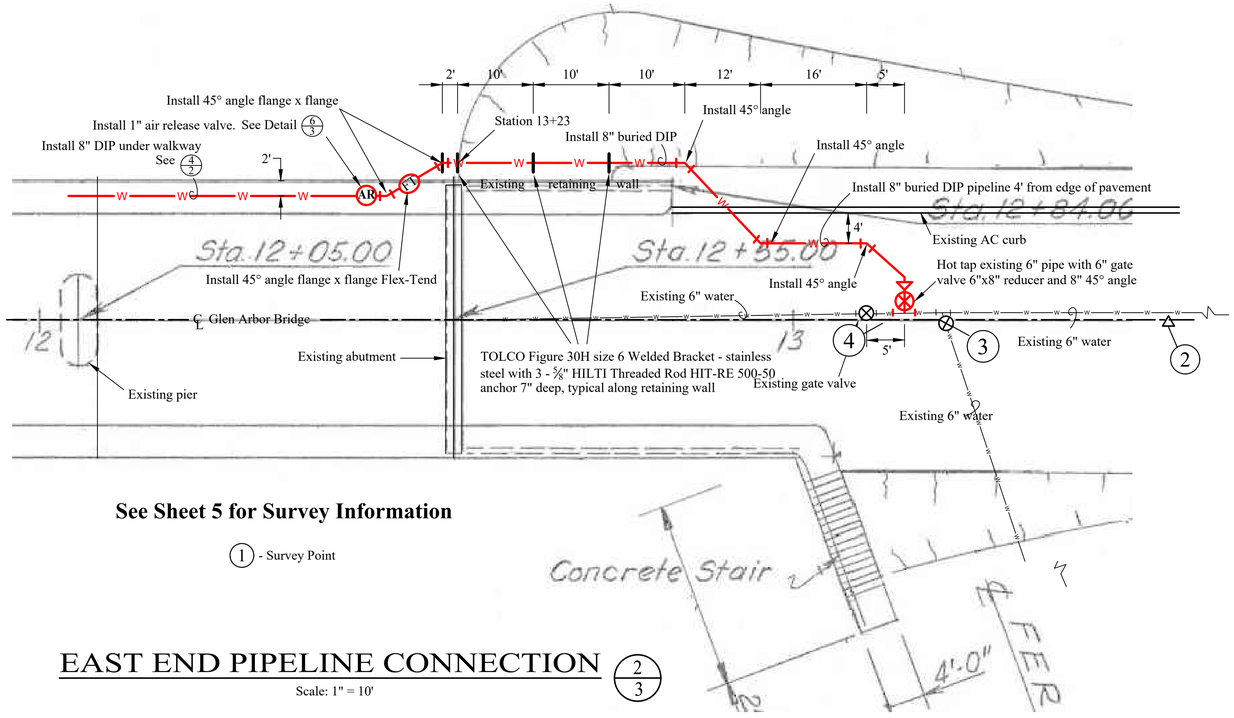
Sheet	2 of 5 Sheets



WEST END PIPELINE CONNECTION 1/3

Scale: 1" = 10'

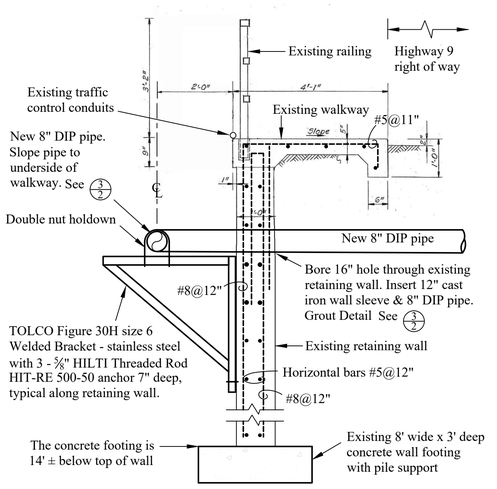


See Sheet 5 for Survey Information

1 - Survey Point

EAST END PIPELINE CONNECTION 2/3

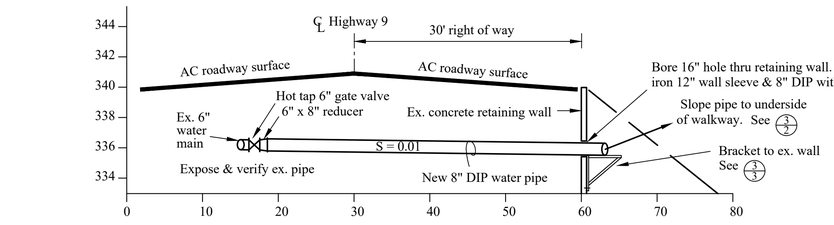
Scale: 1" = 10'



NOTE:
Existing rebar taken from As-Built drawing

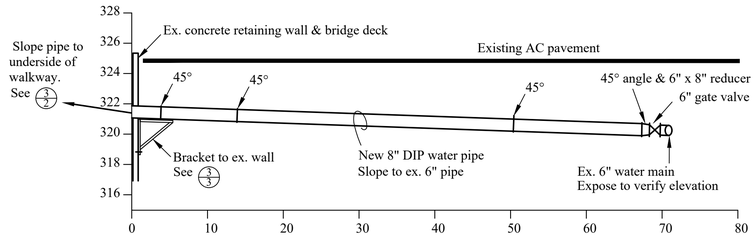
RETAINING WALL SECTION 3/3

Scale: ½" = 1'



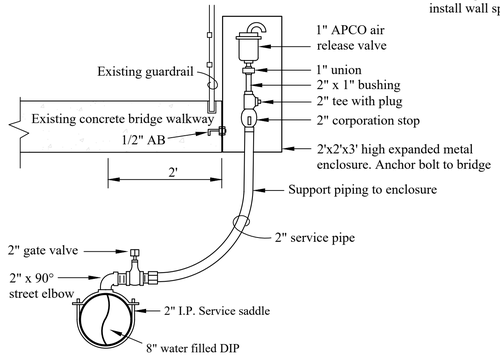
WESTSIDE PROFILE 4/3

Scale: Horiz 1" = 10'
Vert 1" = 5'



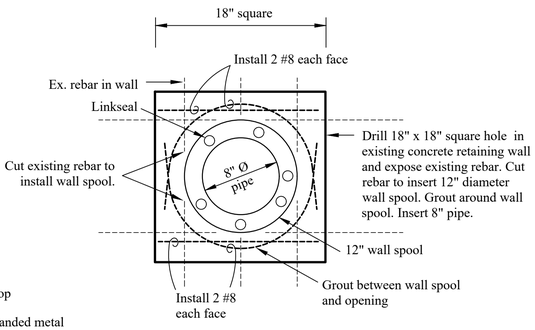
EASTSIDE PROFILE 5/3

Scale: Horiz 1" = 10'
Vert 1" = 5'



AIR RELEASE VALVE DETAIL 6/3

NTS



Design based on CALTRANS Standard Detail B3-8

WALL SLEEVE DETAIL 7/3

Scale: 1 ½" = 1'-0"

REVISIONS	BY

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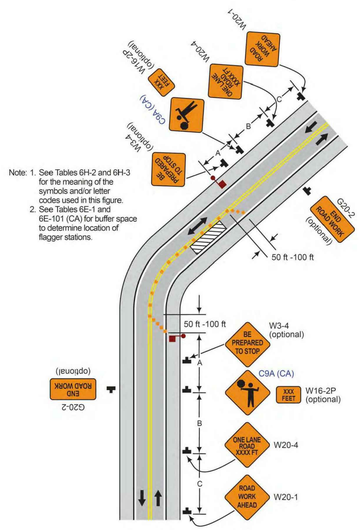
Michael J. Freitas 9/16/21

Date	9/2021
Scale	As Shown
Drawn	Digital Graphics
Job	19018
Sheet	3 of 5 Sheets

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



Typical Application 10

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:
1. 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).
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short-duration operations.
3. 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:
4. 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:
5. At night, flagger stations shall be illuminated, except in emergencies.

Guidance:
6. When used, the BE PREPARED TO STOP sign should be located ~~between~~ after the Flagger sign and the ONE LANE ROAD sign.
7. 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.
8. 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.
9. 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.
10. Early coordination with the railroad company or light rail transit agency should occur before work starts.

Option:
11. 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:
12. For State highways, see Caltrans' Standard Plan T13. See Section 1A.11 for information regarding this publication.
13. 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.

Contractor shall provide LCS compliance and notification.

TRAFFIC DETOUR DETAILS

No scale

1/4

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
    i. WQO 2009-0009-DWQ, General Permit For Storm Water Discharges associated with construction and land disturbance activities, with amendments
    ii. WQO 2013-0001-DWQ, General Permit For Storm Water Discharges from small municipal separate storm sewer systems (ms4s)
    iii. 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:
    i. California Water Works Standards (California Code Of Regulations, Titles 17 And 22)
    ii. American Water Works Association (AWWA) standards
    iii. Standard Specifications, State Of California Department Of Transportation, 2018 edition
    iv. Standard Plans, State Of California Department Of Transportation (CALTRANS), 2018 Edition
    v. 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.
   a) Restrain ductile iron pipe using locking gaskets (field-lok or equal) on run of pipe, and EBAA megalug restraints on mechanical joint fittings.
   b) 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:
   a) Notify staff a minimum of 2-weeks prior to the work. Staff will determine if replacement meters will be provided.
   b) Notify customers using door hangers a minimum of 48-hours prior to the outage.
   c) Do not disconnect customer's service until all required materials and meter are on-site.
4) Abandonment of PVC water mains
   a) Abandon existing PVC water main after the replacement main is in-service and all customer connections have been transferred to the new main.
   b) Pothole to expose existing pipe.
   c) Cut the existing pipe and connect replacement pipe to the system.
   d) 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.
   e) 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
   a) Abandon existing GS water mains after the replacement main is in-service and all customer connections have been transferred to the new main.
   b) Pothole to expose existing pipe.
   c) 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.
   d) If disconnecting at one end of a pipe remaining in service, cut the pipe, thread the remaining end and provide a threaded GS cap.
   e) 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.

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
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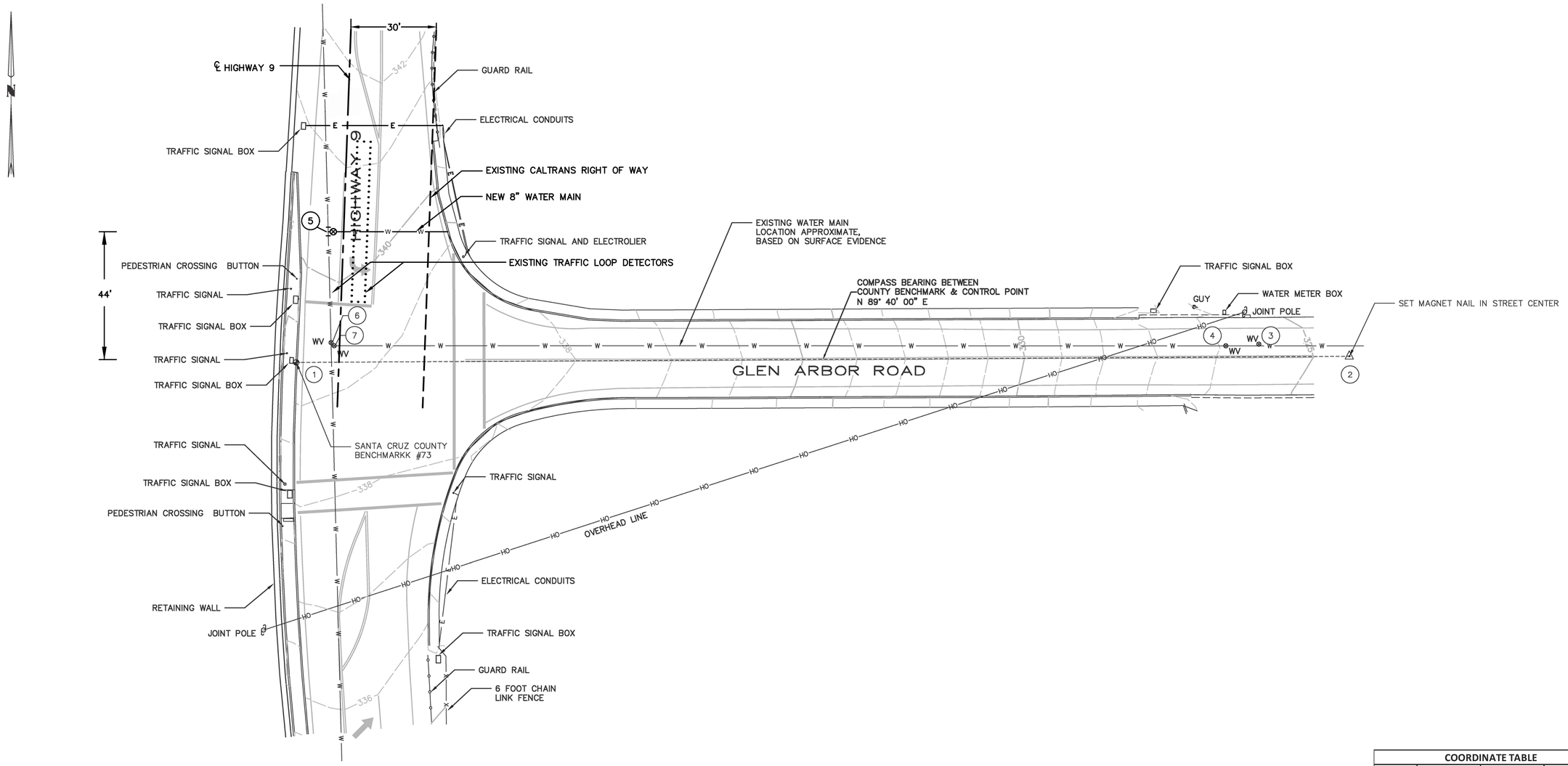
REGISTERED PROFESSIONAL ENGINEER
MICHAEL J. FREITAS
NO. C-23345
CIVIL
STATE OF CALIFORNIA

Michael J. Freitas 9/16/21

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)	SET RANDOM NAIL
CONTOUR (MINOR)	(1) LOCATION MARK, SEE COORDINATE TABLE
E — CONDUIT	
X — X — FENCE LINE	
GUARD RAIL	
GUY ANCHOR	
OH — OVERHEAD LINE	
JOINT POLE	
WATER VALVE (WV)	
W — WATER LINE	

CONTOUR INTERVAL = 1 FOOT

DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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 descrition of Basis of Bearings and Elevation for construction purposes.

LICENSED LAND SURVEYOR
BRYAN F. HARTER
8229
STATE OF CALIFORNIA

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
8229

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

SCALE 1" = 20'	DRAWN CMM	JOB NO. 27945	SHEET
DATE MAY 11, 2020	CHECKED BFH	INDEX SEC 9, T10S, R2W	1
DESIGN CMM	DWG NAME 27945 TOPO	FILE NO. 27945	OF 1

REVISIONS	BY

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

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