

Filed: March 4, 2013
Staff: Trever Parker
Staff Report: March 8, 2013
Hearing Date: March 20, 2013
Commission Action:

STAFF REPORT: CITY OF TRINIDAD

APPLICATION NO: 2013-02

APPLICANT (S): Trinidad Rancheria

AGENT: NA

PROJECT LOCATION: City and County rights-of-way along Scenic Drive from just south of Lanford Road to Main Street.

PROJECT DESCRIPTION: Grading Permit and Coastal Development Permit for construction of approximately 2,300 feet of 6 in. water main. Work also includes tie in to existing laterals, a new fire hydrant, flush hydrant, valves, paving and erosion control.

ASSESSOR'S PARCEL NUMBER: NA: City and County Rights-of-Way

ZONING: NA

GENERAL PLAN DESIGNATION: NA

ENVIRONMENTAL REVIEW: The project is categorically exempt from CEQA per §15301 of the CEQA Guidelines allowing maintenance and minor alteration of existing facilities, including streets and utilities and per §15304 exempting minor alterations to land, including grading, minor trenching and backfilling.

APPEAL STATUS:

Planning Commission action on a Coastal Development Permit, Design Review, Variance, Conditional Use Permit or Grading Permit application will become final 10 working days after the date that the Coastal Commission receives a "Notice of Action Taken" from the City unless an appeal to the City Council is filed in the office of the City Clerk at that time. Furthermore, this project ~~is~~ **X** **is not** appealable to the Coastal Commission per the City's certified LCP, but may be appealable per the requirements of §30603 of the Coastal Act or.

SITE CHARACTERISTICS:

The project is located along the center of the eastern (northbound) lane of Scenic Drive from approximately 500 ft. south of Lanford Road to Main Street within City and County rights-of-way. Work will occur within the existing paved portion of the right-of-way, except for three small areas where valves and a new fire hydrant will be located. This section of Scenic Drive is relatively stable, and the roadway itself is generally flat. The project surroundings are mostly forested with rural, single-family residential development. The project will not affect slopes or bluffs.

STAFF COMMENTS:

The purpose of the project is to improve water flows and circulation to the Trinidad Rancheria. The project will not increase capacity of the City's water system, and does not support development beyond existing conditions. The project will upgrade an existing substandard water main to current standards and provide adequate fire flows to the area. Currently, a three-inch water line provides the northern connection loop from Scenic to the Westhaven main line along Lanford Road and under Hwy 101. Current City standards require main lines to be at least 6 inches in diameter in order to accommodate required fire flows. In addition, the Lanford Road line is made of irrigation piping, which would not meet current City standards even if it was 6 in. in diameter. There is a reasonable possibility that, in the event of a fire, the increased flows in the 3 in. could cause the line to fail. Leakage or failure of the existing 3 in. water main could affect the entire distribution system through water loss, loss of water pressure, or in an extreme case, significantly draining available water storage within the water distribution system.

Originally the project was planned to replace the 3 inch Lanford Road line with a 6 inch line in the same location and configuration. However, the crossing under Hwy 101 was problematic for a number of reasons. Therefore it was determined that it would be better to construct a new 6 inch main line along Scenic and connect it to an existing line along Main Street. The Hwy 101 undercrossing will eventually be capped on either end and abandoned as a separate City project. The existing 3 inch line will remain along Lanford as a spur from the 6 in. main to serve existing connections. The project is a joint endeavor between Indian Health Services and Trinidad Rancheria; after construction the completed lines will be turned over to the City for operation and maintenance. Indian Health Services provides support for public service and utility projects to serve residential areas on Tribal lands, but not commercial development. Project developers have been working closely with Trinidad Public Works and Engineering staff to meet City standards.

Key project components

- Construct approximately 2,300 ft. of new 6 in. water main along Scenic Drive, in the northbound lane, from Main Street to approximately 500 ft. south of Lanford Road.

- Tie-in to existing main lines on Scenic (6 in) and Main Street (10 in), and tie-in to existing laterals with installation of several underground gate valves to control flow at connections and laterals.
- Installation of an underground flush hydrant, for cleaning and clearing the water line at a low spot (approximately 650 ft. south of Main Street).
- Installation of an air / vacuum release valve at a high spot (approximately 1850 ft south of Main) to allow venting and flushing; some portions may be visible aboveground depending on the final design.
- Installation of a new fire hydrant just south of Lanford to replace an existing hydrant at the corner of Scenic and Lanford that has inadequate flow from the existing 3 in line.
- Repaving disturbed areas and patching existing potholes.
- Work may occur through trenching or lateral drilling depending on the bid results.

GRADING & ZONING ORDINANCE / GENERAL PLAN CONSISTENCY

The project is located in an un-zoned area and within City and County rights-of-way. The project will not permanently alter land contours. The City's Grading and Zoning ordinances require a permit if more than 1,000 sq. ft. in surface area or more than 50 cu. yds. of soil will be disturbed. The information required to be submitted by the grading ordinance as part of an application has been received. The Grading Permits are issued by the Planning Commission, but it is up to the City Engineer to ensure that all the provisions have been met.

The findings that are required to be made by the Engineer (§15.16.070) are that the proposed grading will not adversely affect the drainage or lateral support of other properties in the area, and will not be detrimental to the public health, safety or the general welfare and is not in conflict with City ordinances. The City Engineer has reviewed the project plans, and submitted comments to the designer in October 2012. They have also received the current version of the plans that were submitted to the City. I had not received a recommendation by the time this staff report was finished, but do not expect there to be significant issues. A condition of approval has been included that requires the City Engineer's approval prior to work commencing. I did not include a lot of other conditions because issues like a cultural monitor, erosion control and traffic control have been included in the project plans and bid specifications in adequate detail.

Approximately 1,100 cubic yards of material will be excavated and filled. There will be no net change in volume. As noted above, installation of the water main may occur through traditional trenching, or horizontal drilling, depending on the bid results. The project is not going to result in any new aboveground structures, other than a fire hydrant and will not result in any changes to the land topography.

Access along Scenic Drive and other affected roadways will be maintained throughout the project. One-way controlled traffic will be necessary during construction, which will generally occur on weekdays between 6am and 3pm. Two-way traffic will be maintained outside of these times, including weekends and holidays. The contractor is also required

to prepare an erosion and sediment control plan that meets specifications in the project manual (bid documents) as well as reseeding plan for after project completion. A biological assessment report and migratory bird survey were developed for this project. UIHS and the Rancheria consulted with US Fish and Wildlife Service, National Marine Fisheries Service and CA Dept. of Fish and Wildlife. It was found that due to the location of the work in and adjacent to an existing paved road, there are not listed threatened or endangered species or associated critical habitat, or essential fish habitat affected. Work will occur outside the nesting season, between September 1 and March 1. No federal or State permits are required for the project. A portion of the work will occur within County right-of-way on Scenic Drive, and the County is also processing a CDP and will have to issue an encroachment permit for the work. Utilities are shown on the plans and will not be disturbed by the project.

Archeological review materials, including a records search and a cultural resources investigation, have been developed for this project. The bid documents required the contractor to employ and coordinate with a Tribally-approved cultural resource monitor to observe all ground disturbing activities. The State Historic Preservation Officer has also been consulted on this project.

The Trinidad General Plan and Zoning Ordinance protect importance public coastal views from roads, trails and vista points and private views from inside residences located uphill from a proposed project from significant obstruction. The project does not have the potential to block private views.

SLOPE STABILITY:

The project is not located in an area of known instability. The purpose of this project is to retrofit a public road based on the study's findings. Only minor grading is required and surface contours will not be altered.

ALQUIST PRIOLO ZONE:

The project falls within the Alquist-Priolo Fault Hazard Zone, but the project consists of a seismic retrofit to improve earthquake safety. The necessary geotechnical studies have already been completed, and proposed design is based on that information.

SEWAGE DISPOSAL:

There is no sewage disposal associated with this project.

LANDSCAPING AND FENCING:

No major vegetation removal will occur.

DESIGN REVIEW/VIEW PRESERVATION FINDINGS:

The project is not altering any structures or adding any new structures that have the potential to block views; nor will it alter ground contours. One new fire hydrant is proposed and some valve / venting equipment may also be above ground. Therefore, per zoning ordinance §17.60.030, design review is not required for this project.

STAFF RECOMENDATION

Based on the above analysis, the proposed project can be found to meet the requirements of the Trinidad Grading Ordinance. Provisions of the Zoning Ordinance and General Plan have been met. If the Planning Commission agrees with staff's analysis the project could be approved with the following motion:

Based on the information submitted in the application included in the staff report and public testimony, I move to adopt the information and findings in this staff report and approve the project as conditions below:

PLANNING COMMISSION ALTERNATIVES

If the Planning Commission does not agree with staff's analysis, or if information is presented during the hearing that conflicts with the information contained in the staff report, the Planning Commission has several alternatives.

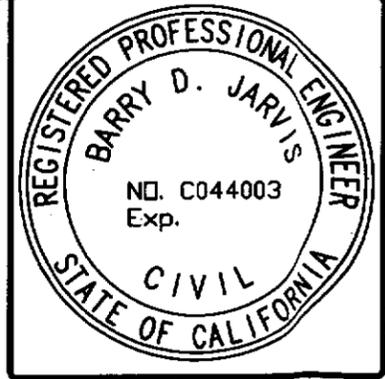
- A. Alter the proposed conditions of approval to address any specific concerns on the part of the Commission or the public.
- B. Delay action / continue the hearing to obtain further information.
 - In this case, the Planning Commission should specify any additional information required from staff or the applicant and / or suggestions on how to modify the project and / or conditions of approval.
- C. Denial of the project.
 - The Planning Commission should provide a motion that identifies the Finding(s) that can not be made and giving the reasons for the inability to make said Finding(s).

CONDITIONS OF APPROVAL

1. The applicant shall comply with any recommendations of the City Engineer, to the City Engineer's satisfaction, prior to application for an encroachment permit or work commencing. *Responsibility: City Engineer to verify prior to approving encroachment permit.*
2. The applicant shall submit an application for an encroachment permit prior to work commencing that addresses traffic control during construction and repaving after project completion. The City Engineer shall be given an opportunity to review and approve the encroachment permit. *Responsibility: City Engineer to verify prior to approving encroachment permit.*

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND THE CURRENT UNIFORM BUILDING CODE.
2. THESE NOTES SHALL APPLY TO ALL DRAWINGS UNLESS OTHERWISE NOTED OR SHOWN.
3. FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGHOUT SIMILAR CONDITIONS.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS DEPICTED HEREIN PRIOR TO ORDERING ANY MATERIALS AND PRIOR TO COMMENCING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER PRIOR TO PROCEEDING.
5. ALL CONDITIONS SHOWN OR NOTED AS EXISTING ARE BASED ON BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS, NO WARRANTY IS IMPLIED TO THEIR ACCURACY.
6. SAFETY MEASURES SHALL MEET THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL GUIDELINES.
7. ALL BUILDING MATERIAL SHALL BE NEW MATERIAL, UNLESS OTHERWISE APPROVED OR SPECIFIED BY ENGINEER.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION AND CONSTRUCTION IN ANY AREA. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AT LEAST TWO WORKING DAYS IN ADVANCE OF ANY EXCAVATION. CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCIES IN RECORD INFORMATION TO PROJECT ENGINEER AND OWNER PRIOR TO START OF CONSTRUCTION.
9. CONTRACTOR TO PROVIDE TEMPORARY BYPASS AS NEEDED TO MAINTAIN WATER SERVICE TO ALL WATER SERVICE CUSTOMERS AFFECTED BY CONSTRUCTION. TEMPORARY BYPASS LINES WILL BE INSTALLED TO NOT IMPACT ACCESS OR EGRESS TO ANY HIGHWAY, ROAD, DRIVEWAY OR OTHER ACCESS ROUTE.
10. REFER TO COUNTY AND CITY ENCROACHMENT PERMITS AND CALTRANS TRAFFIC CONTROL AS PER SPECIFICATIONS.



DATE	REVISIONS	INT.

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ABBREVIATIONS

●	AT	GA	GAUGE	R	RADIUS
AFF	ABOVE FINISHED FLOOR	GALV	GALVANIZED	RCP	REINFORCED CONCRETE PIPE
AFG	ABOVE FINISHED GRADE	GR	GRADE	REIN	REINFORCE
AGG	AGGREGATE	GV	GATE VALVE	REQD	REQUIRED
ARV	AIR/VAC. RELEASE VALVE	HB	HOSE BIB	ROW	RIGHT OF WAY
BLDG	BUILDING	HWY	HIGHWAY	RT	RIGHT
CB	CATCH BASIN	ID	INSIDE DIAMETER	S	SOUTH
CI	CAST IRON	INSUL	INSULATION	SCH	SCHEDULE
CL	CENTER LINE	INV	INVERT	SHT	SHEET
CMP	CORRUGATED METAL PIPE	IR	IRON ROD	SIM	SIMILAR
CO	CLEAN OUT	JT	JOINT	SM	SEWER MAIN
CONC	CONCRETE	LT	LEFT	SPEC	SPECIFICATION
CONT	CONTINUOUS	M	METER	SQ	SQUARE
CP	CONTROL POINT	MANUF	MANUFACTURED	SSL	SEWER SERVICE LINE
DET	DETAIL	MAX	MAXIMUM	STA	STATION POINT
DIA	DIAMETER	MFR	MANUFACTURER	STD	STANDARD
DIM	DIMENSION	MH	MANHOLE	STL	STEEL
DIP	DUCTILE IRON PIPE	MIN	MINIMUM	TEL	TELEPHONE
DNC	DEL NORTE COUNTY	MISC	MISCELLANEOUS	TNK	TANK
DW	DRIVEWAY	(N)	NEW	TOF	TOP OF FOUNDATION
ELEV	ELEVATION	N	NORTH	TOW	TOP OF WALL
ELEC	ELECTRICAL	NIC	NOT IN CONTRACT	TYP	TYPICAL
EOL	END OF LINE	NO	NORMALLY OPEN	UG	UNDERGROUND
EOP	EDGE OF PAVEMENT	NC	NORMALLY CLOSED	UTIL	UTILITY
EQ	EQUAL	NTS	NOT TO SCALE	UBC	UNIFORM BUILDING CODE
(E)	EXISTING	OC	ON CENTER	UPC	UNIFORM PLUMBING CODE
EXT	EXTERIOR	OH	OVERHAD	UMC	UNIFORM MECHANICAL CODE
FD	FLOOR DRAIN	PL	PROPERTY LINE	W	WEST
FH	FIRE HYDRANT	PP	POWER POLE	WM	WATER MAIN
FIN	FINISHED	PCC	CONCRETE	W/M	WATER METER
FLH	FLUSH HYDRANT			W/	WITH
FLR	FLOOR			W/O	WITHOUT
FND	FOUND			WSL	WATER SERVICE LINE
FT	FEET				

LEGEND

	EXISTING WATER MAIN & GATE VALVES
	PROPOSED WATER MAIN & GATE VALVES
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	EXISTING FLUSH HYDRANT W/VALVE
	PROPOSED FLUSH HYDRANT W/VALVE
	PROPOSED COMBINATION AIR/VACUUM VALVE
	SIGN
	FLAG POLE
	POWER POLE
	LIGHT POLE
	TELEPHONE PED
	GAS, ELECTRIC, TELEPHONE, TV CABLE
	TREE
	CULVERT
	FENCE

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TRINIDAD RANCHERIA WATER MAIN IMPROVEMENTS
GENERAL NOTES, LEGEND
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 LAYOUT NAME: G1.2
 PROJ ENG: BARRY JARVIS
 DRAWING NO.: LAF07196G1.2 SCALE: AS NOTED
 DRAWN BY: D. O'GORMAN DATE: 1-12-2013



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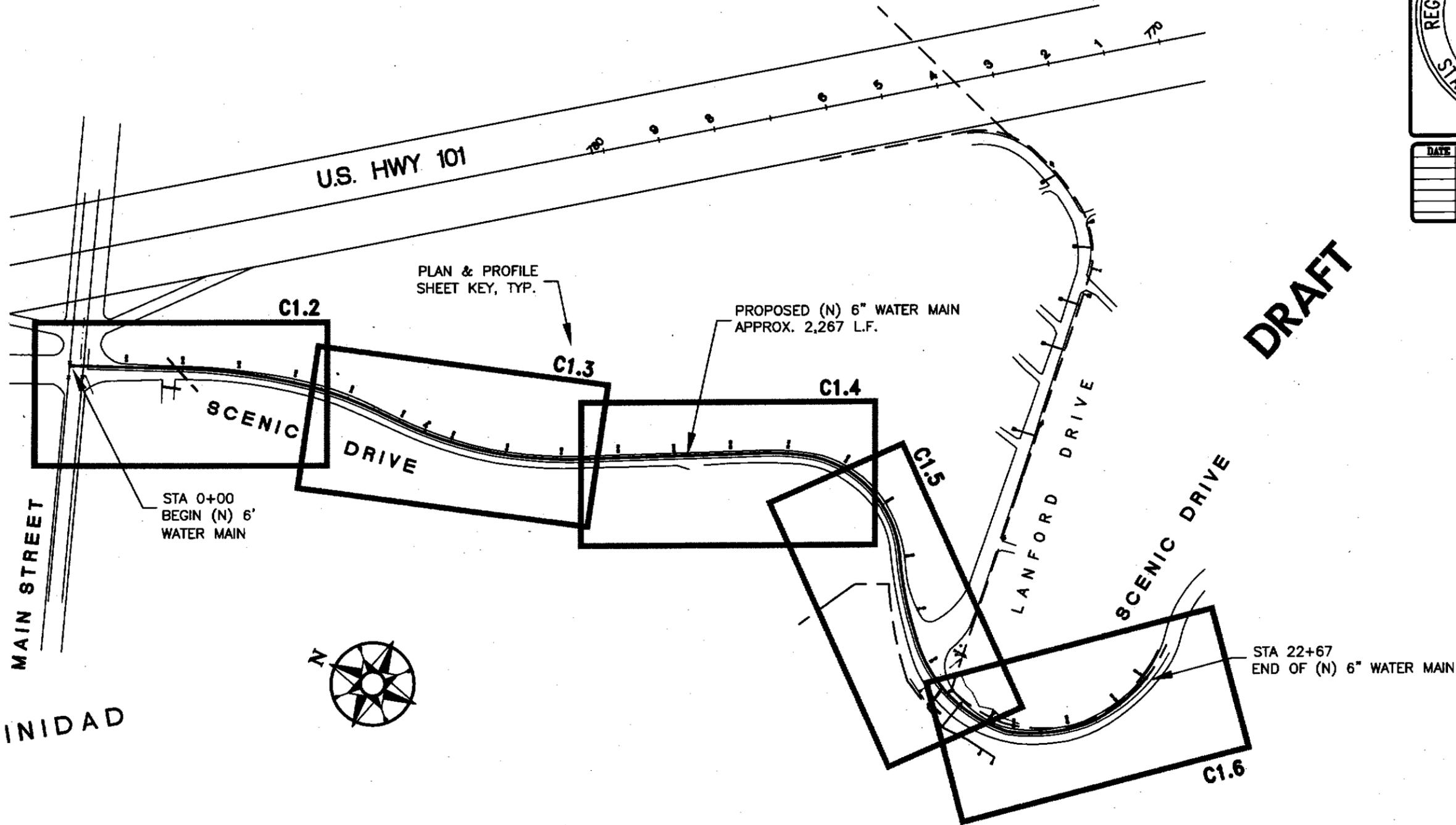
**TRINIDAD RANCHERIA
 WATER MAIN IMPROVEMENTS
 SITE PLAN, OVERALL**

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 LAYOUT NAME: C1
 DATE: 1-12-2013

FILE NAME: AFO-07-180-CAD
 PROJ ENG: BARRY JARVIS

DRAWN BY: D. O'GORMAN

C1.1
 SHEET
 3 OF 16

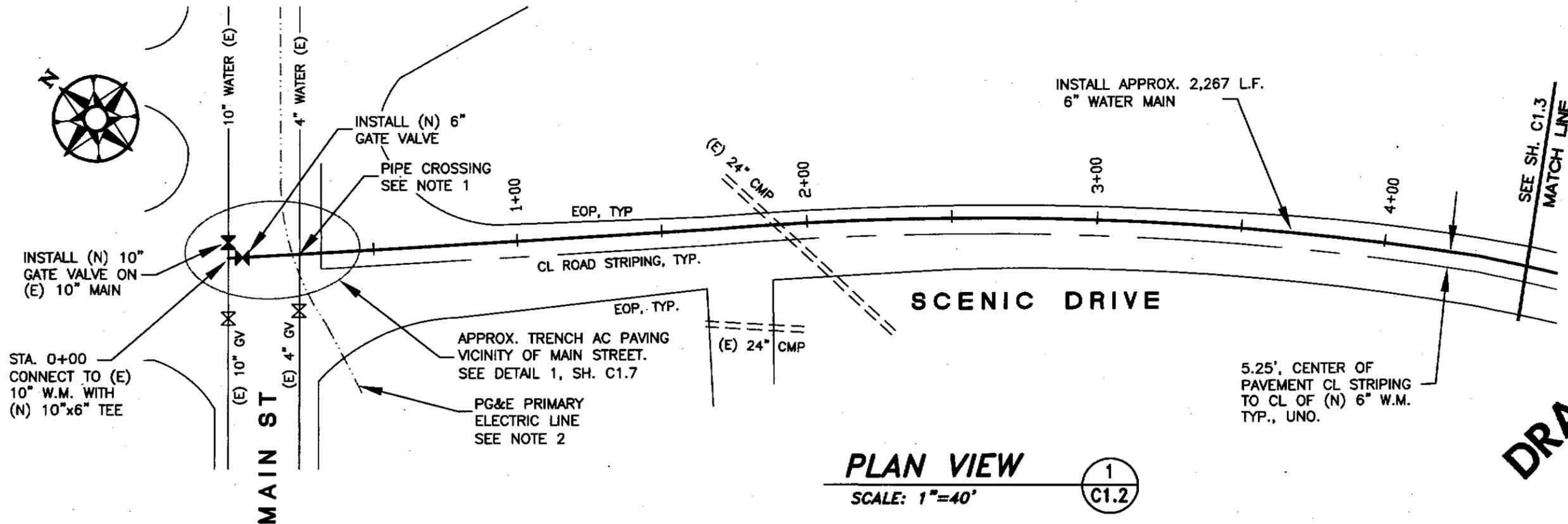
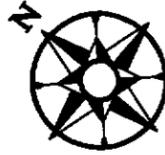


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SITE PLAN, OVERALL (1)
 SCALE: 1"=200' C1.1

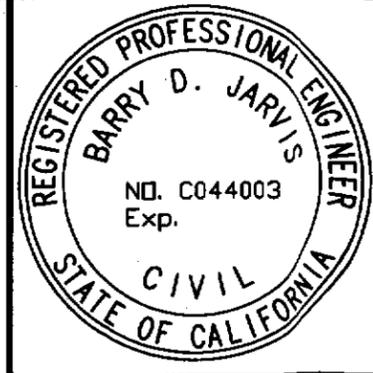




PLAN VIEW

SCALE: 1"=40'

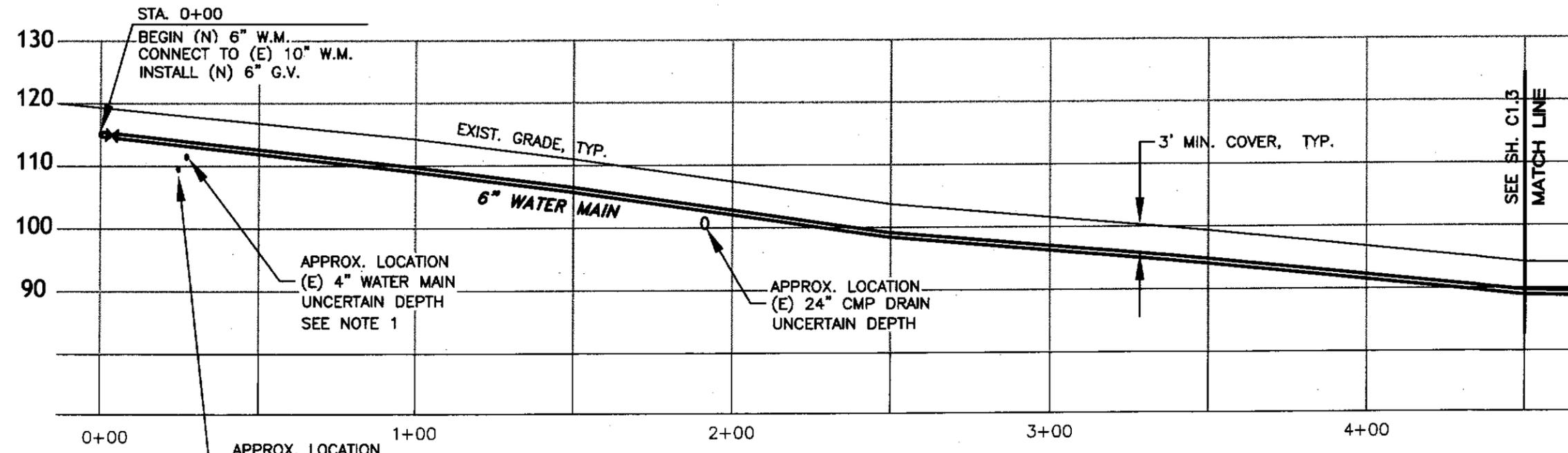
1
C1.2



DATE	REVISIONS	BY

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PROFILE

HORIZ. SCALE: 1"=40'
VERT. SCALE: 1"=20'

2
C1.2

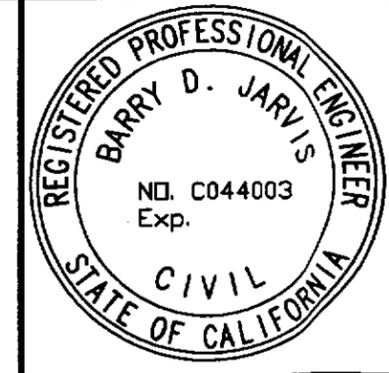
NOTES:

1. PIPE CROSSING SHALL CONFORM TO TRENCH DETAIL STANDARDS WITH 12" MIN SEPARATION BETWEEN 6" AND 4" MAINS.
2. CONFORM TO PG&E CLEARANCE REQUIREMENTS FOR UNDERGROUND ELECTRIC CROSSING.

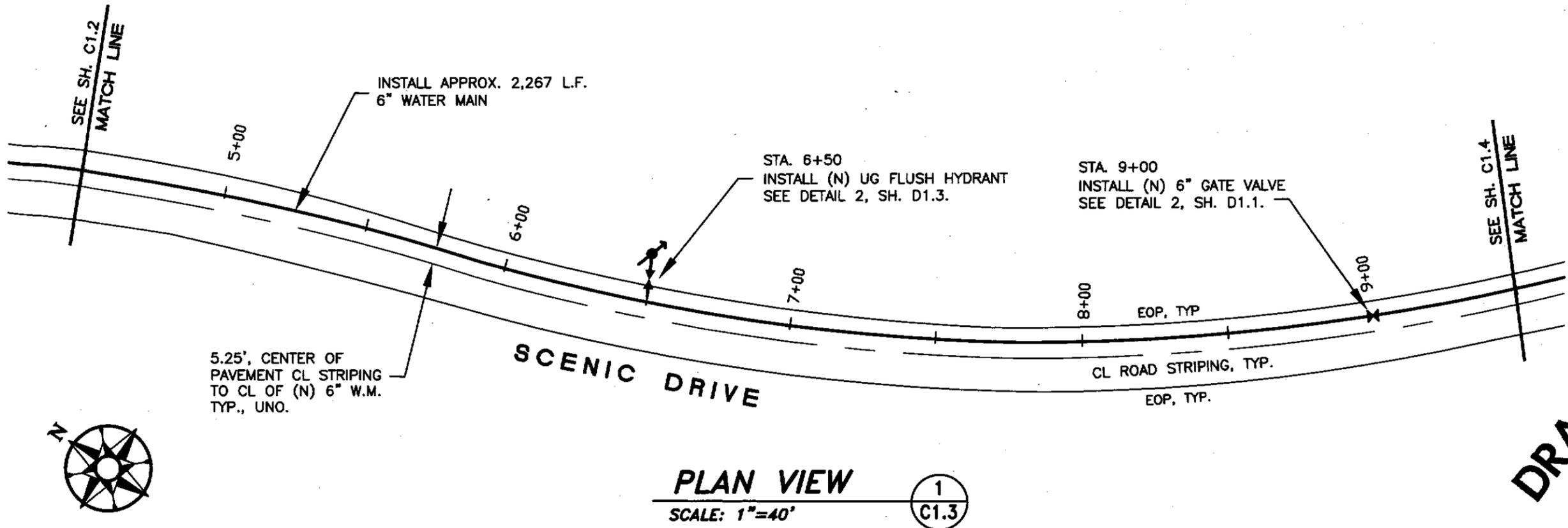


TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
PLAN & PROFILE, STA. 0+00 TO 4+60
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DRAWN BY: D. O'GORMAN DATE: 1-18-2018
PROJ ENG: BARRY JARVIS

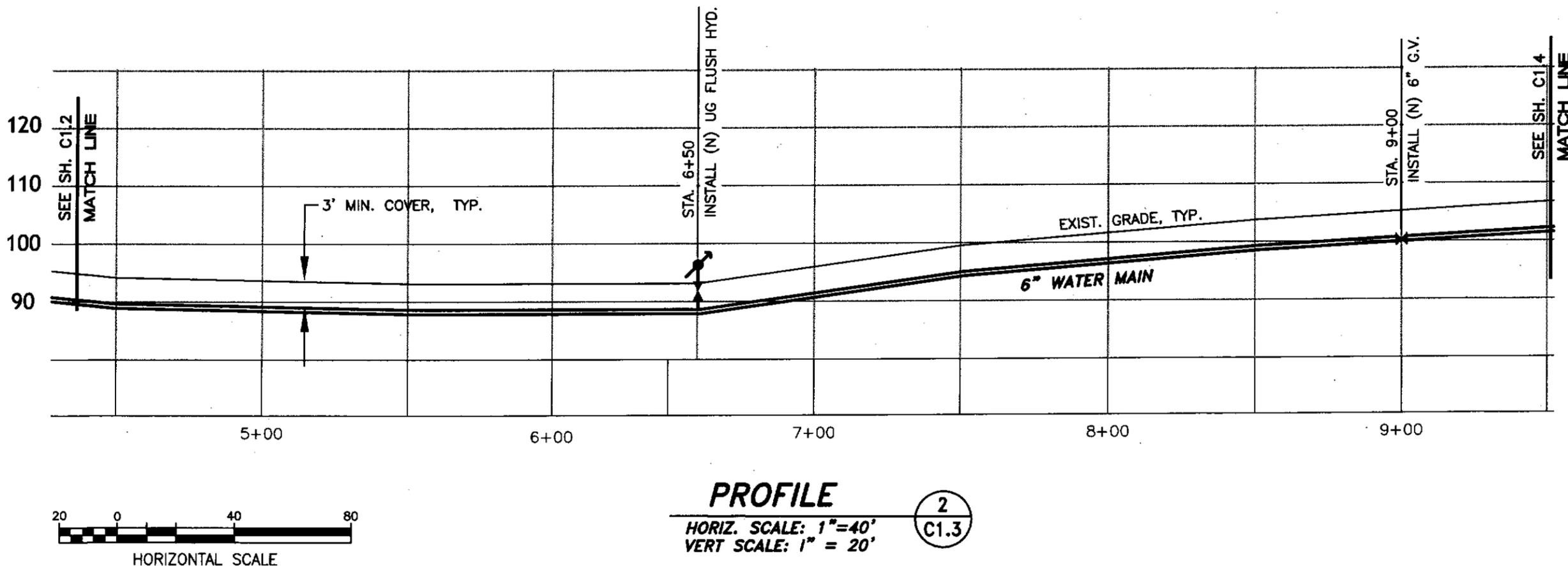
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SELECT
4 OF 16



DATE	REVISIONS	BY



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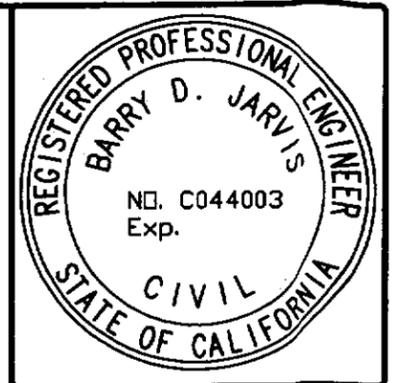
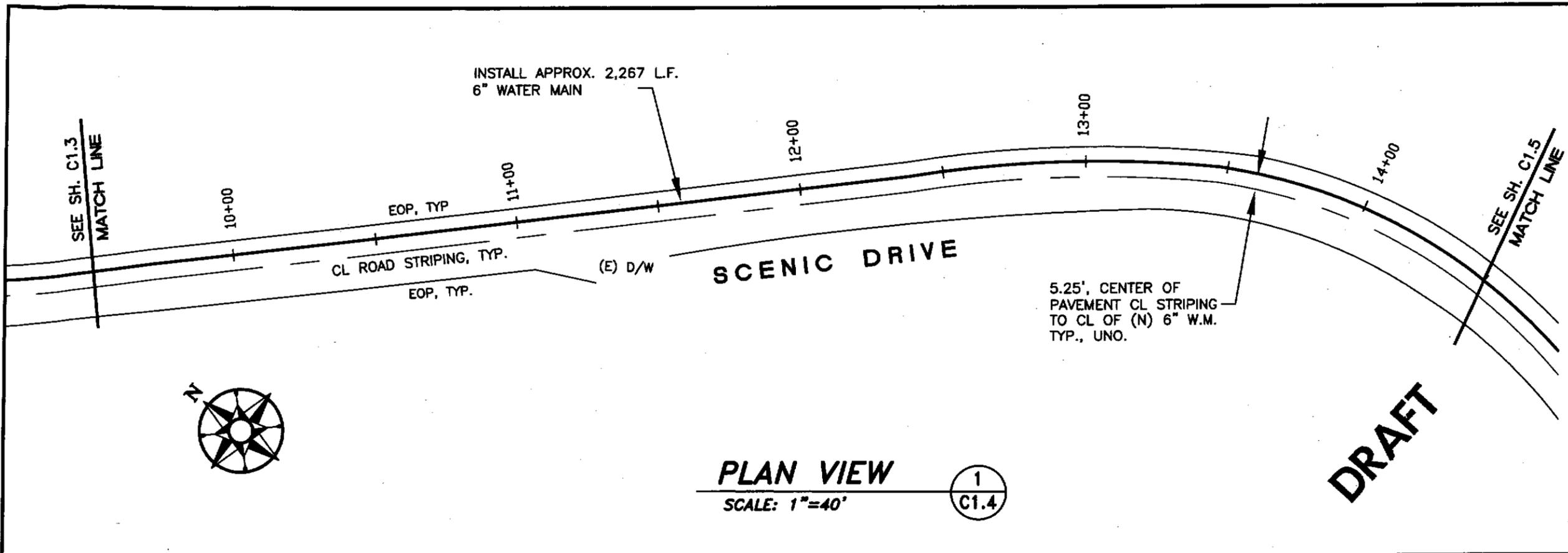


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**TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
PLAN & PROFILE, STA. 4+50 TO 9+50**

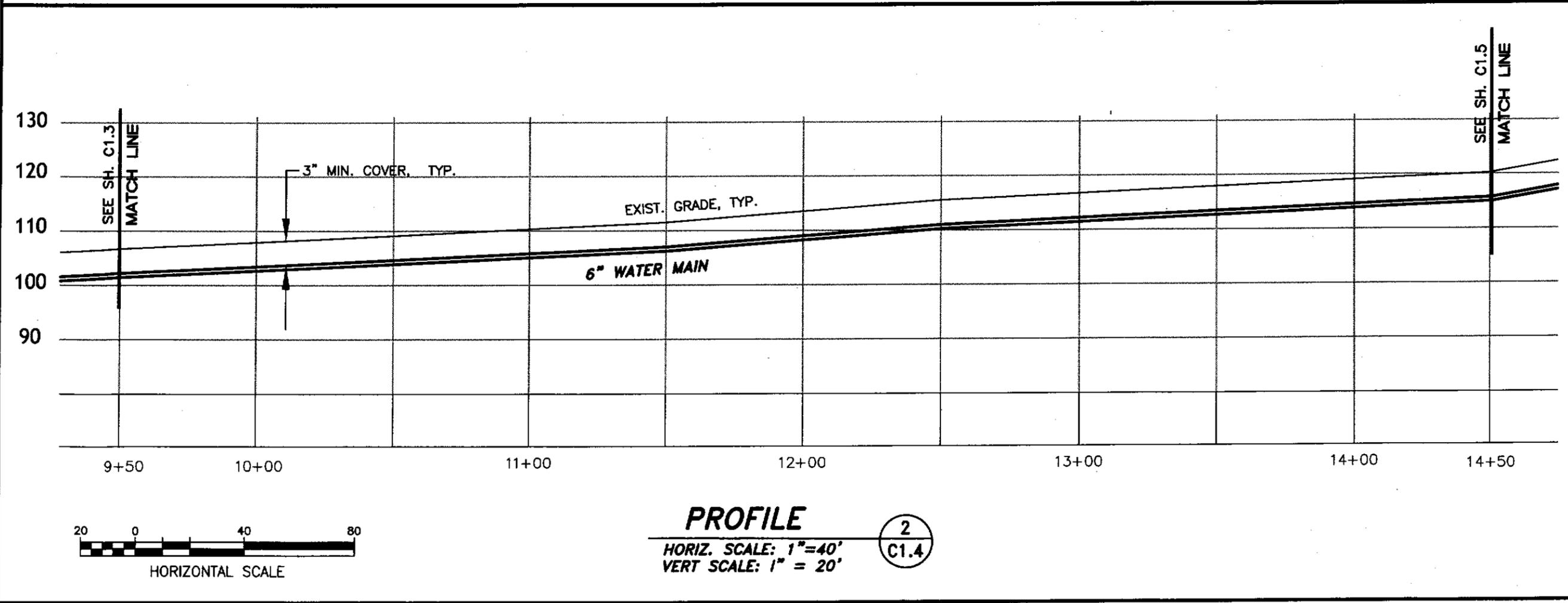
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DATE: 1-18-2018
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DRAWN BY: D. O'GORMAN



DATE	REVISIONS	BY

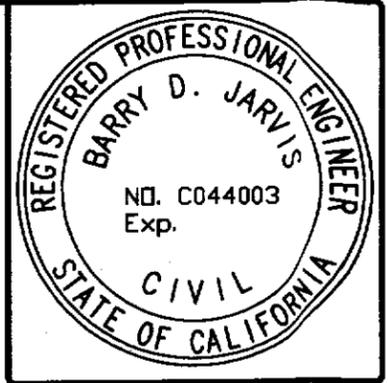
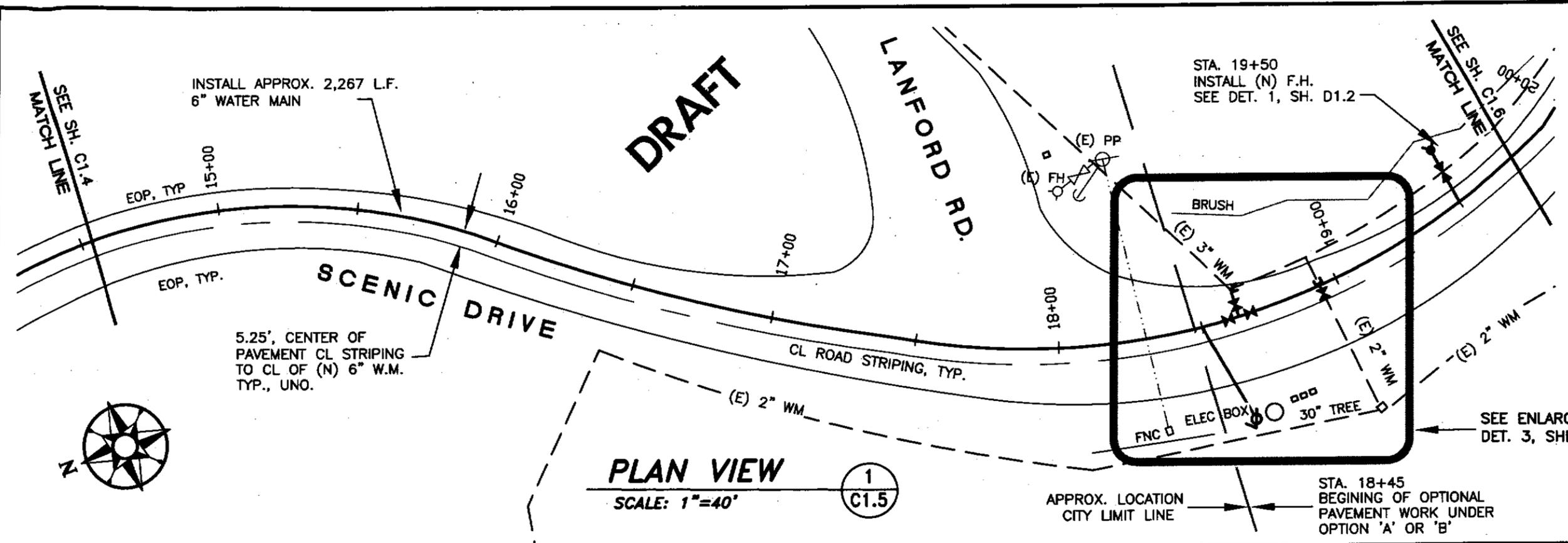
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TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
PLAN & PROFILE, STA. 9+50 TO 14+50

DRAWING NO.: 1AFO7L04C1.4 SCALE: AS NOTED DATE: 1-12-8013
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PROJ ENG: BARRY JARVIS
DRAWN BY: D. O'GORMAN



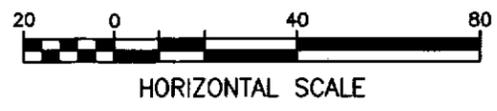
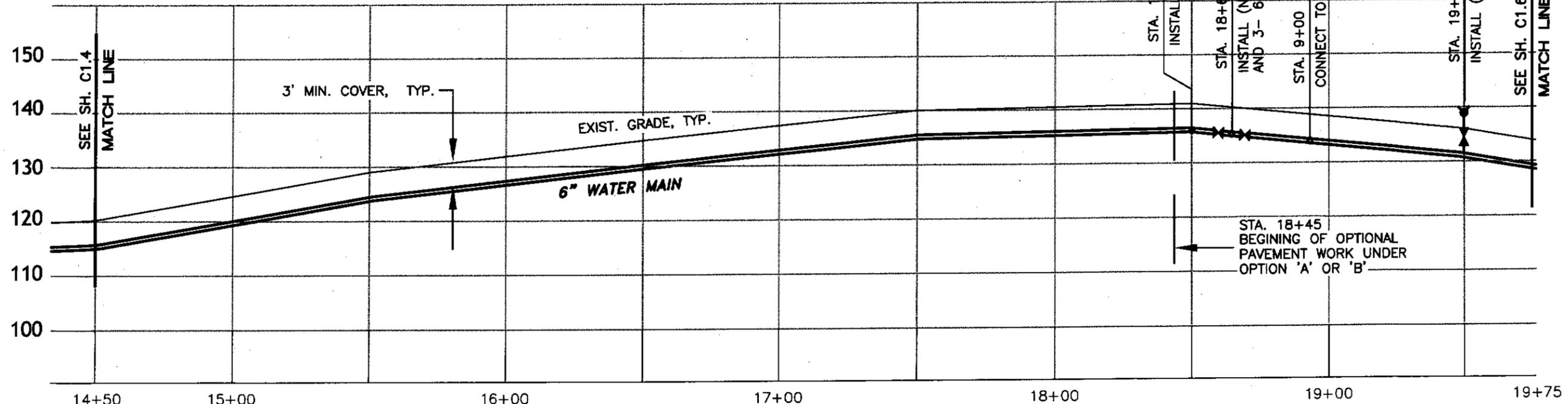
DATE	REVISIONS	BY

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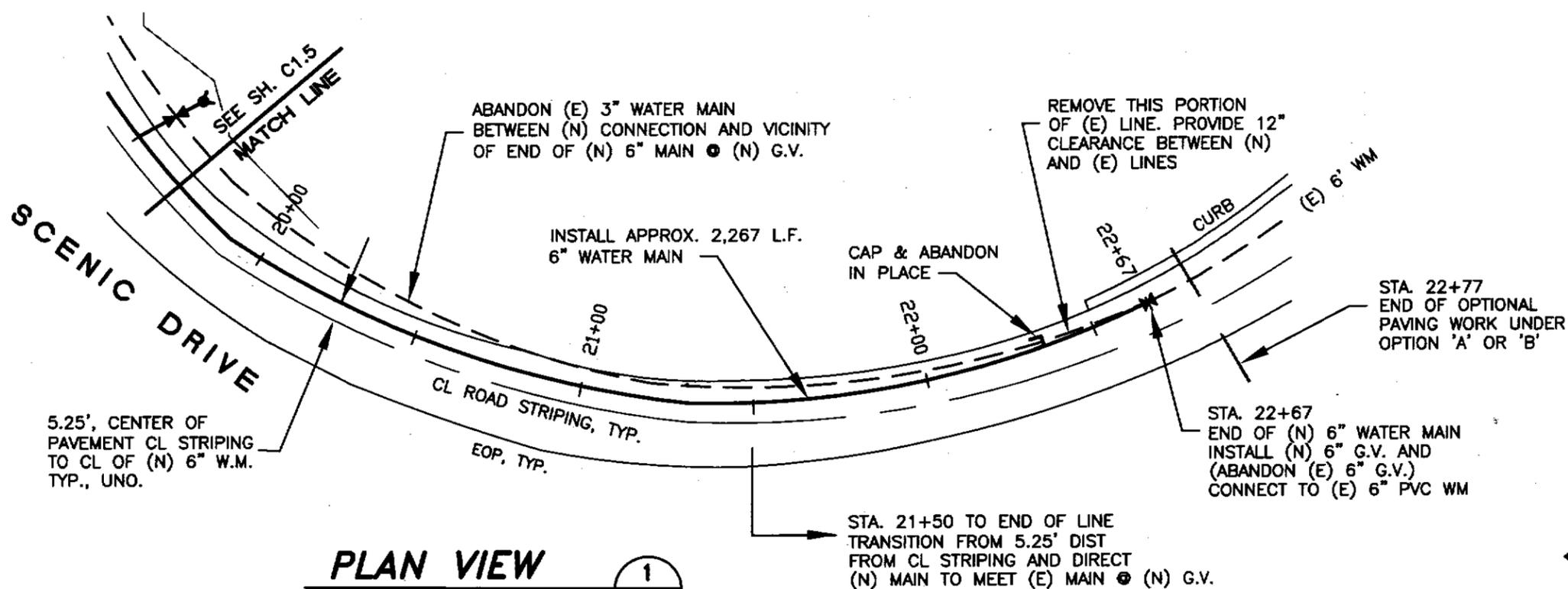
**TRINIDAD RANCHERIA
 WATER MAIN IMPROVEMENTS
 PLAN & PROFILE, STA. 14+50 TO 19+75**

DRAWING NO.: 14P07L9C15 SCALE: AS NOTED
 FILE NAME: AFO-07-199-CAD
 LAYOUT NAME: C5
 DRAWN BY: D. O'GORMAN DATE: 1-12-80/3
 PROJ ENG: BARRY JARVIS



PROFILE
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 VERT. SCALE: 1"=20'

2
 C1.5



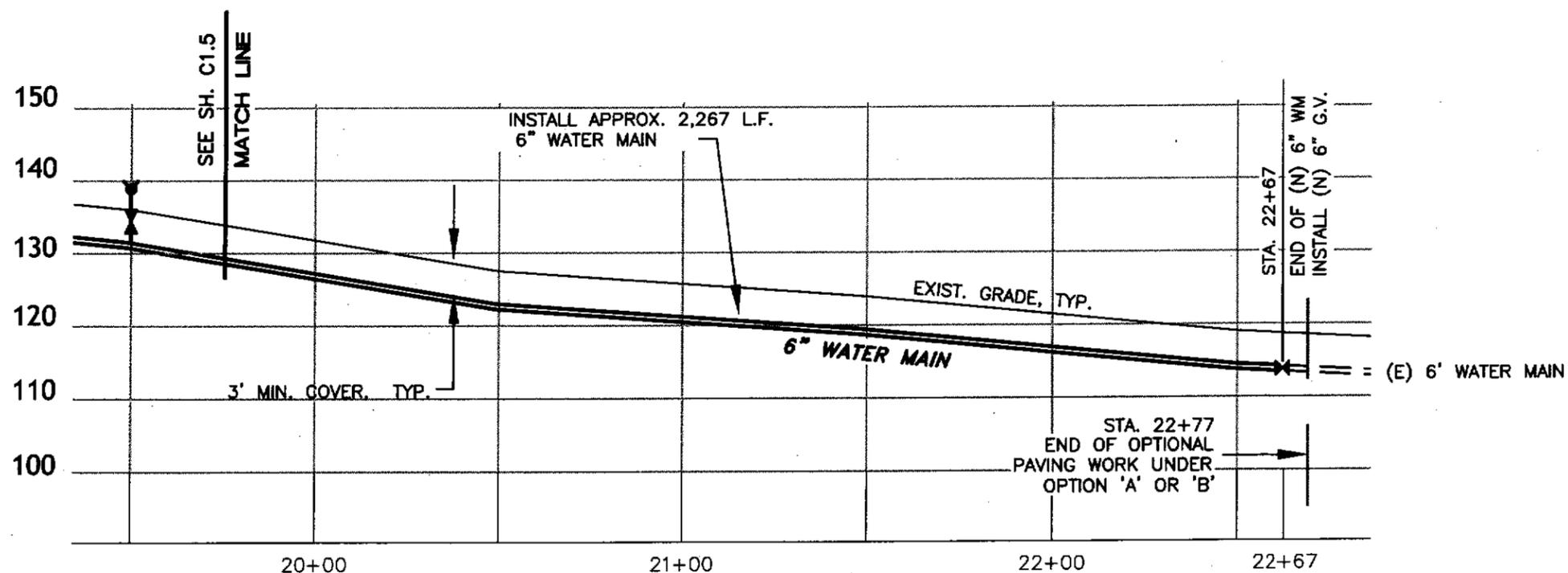
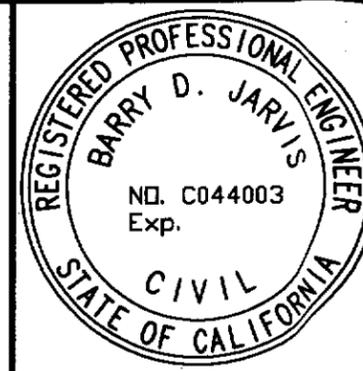
PLAN VIEW

SCALE: 1"=40'

1
C1.6

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DATE	REVISIONS	BY



PROFILE

HORIZ. SCALE: 1"=40'
VERT SCALE: 1" = 20'

2
C1.6



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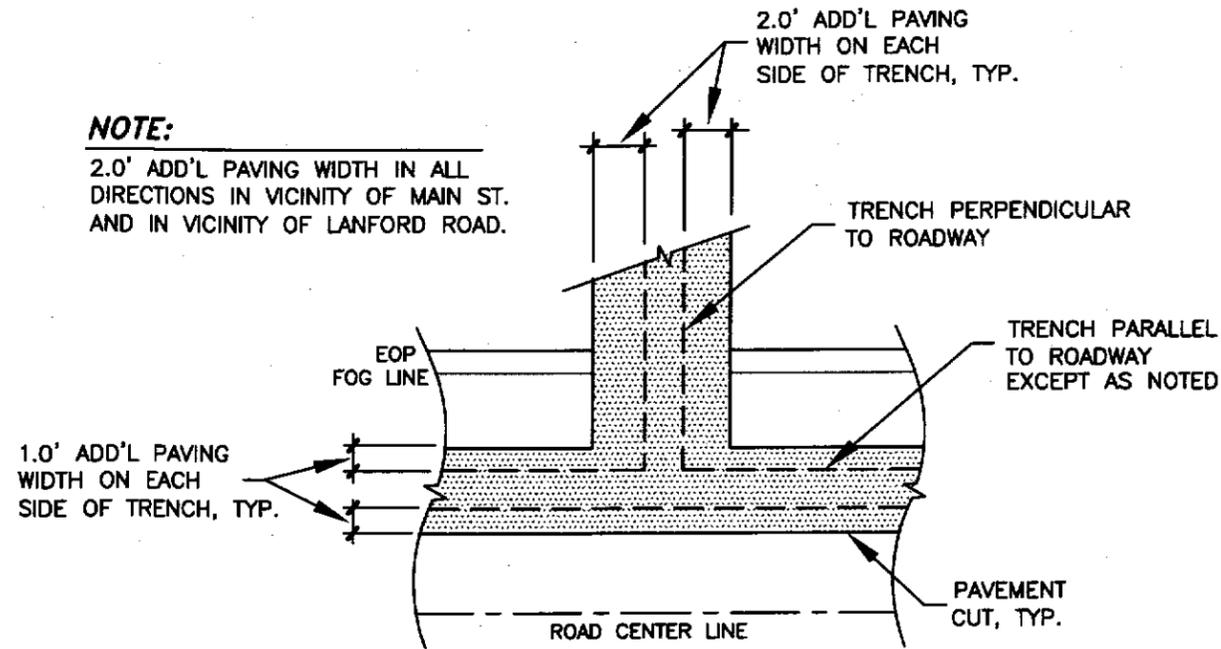
TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
PLAN & PROFILE, STA. 19+75 TO 22+67

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FILE NAME: AFO-07-LPP-CAD
LAYOUT NAME: C6
DRAWN BY: D. O'GORMAN DATE: 1-12-2013
PROJ ENG: BARRY JARVIS

C1.6
SHEET
8 OF 16

NOTE:

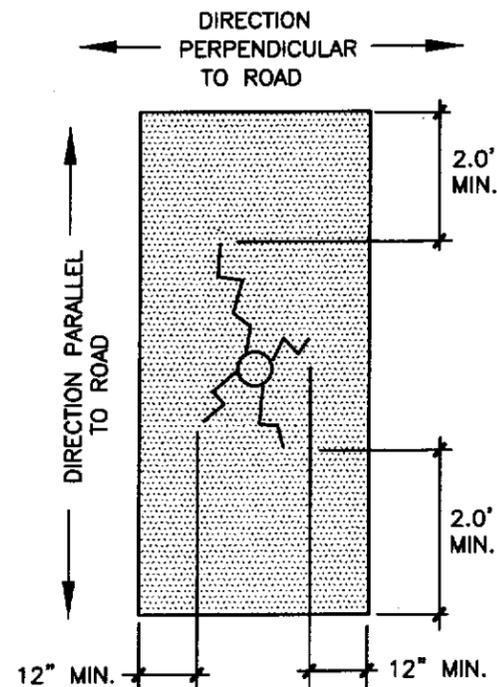
2.0' ADD'L PAVING WIDTH IN ALL DIRECTIONS IN VICINITY OF MAIN ST. AND IN VICINITY OF LANFORD ROAD.



PAVING DETAIL TRENCH (1) C1.7
NOT TO SCALE

NOTES:

- REPAIR PREVIOUS POT HOLES AND CRACKS BY GRINDING OR SAWCUTTING NEAT EDGE ALONG (E) ASPHALT. TACK COAT WITH SS1-EMULSIFIED ASPHALT AT TIME OF PATCH. 0.25' MIN THICK AC
- MIN. DISTANCES AS SHOWN FROM FARTHEST CRACK.
- POTHOLE REPAIRS MAY BE INCLUDED WITH OTHER PAVING WORK.
- APPROX. LOCATIONS FOR POT HOLE REPAIRS SHOWN IN EXHIBITS AND TO BE MARKED IN THE FIELD.

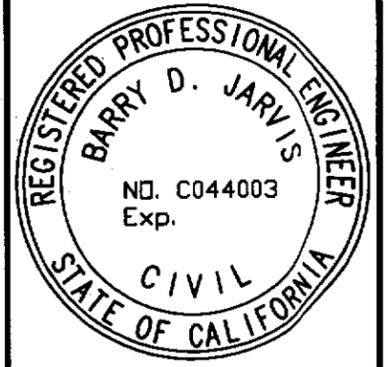


ASPHALT POT HOLE REPAIR (2) C1.7
NOT TO SCALE

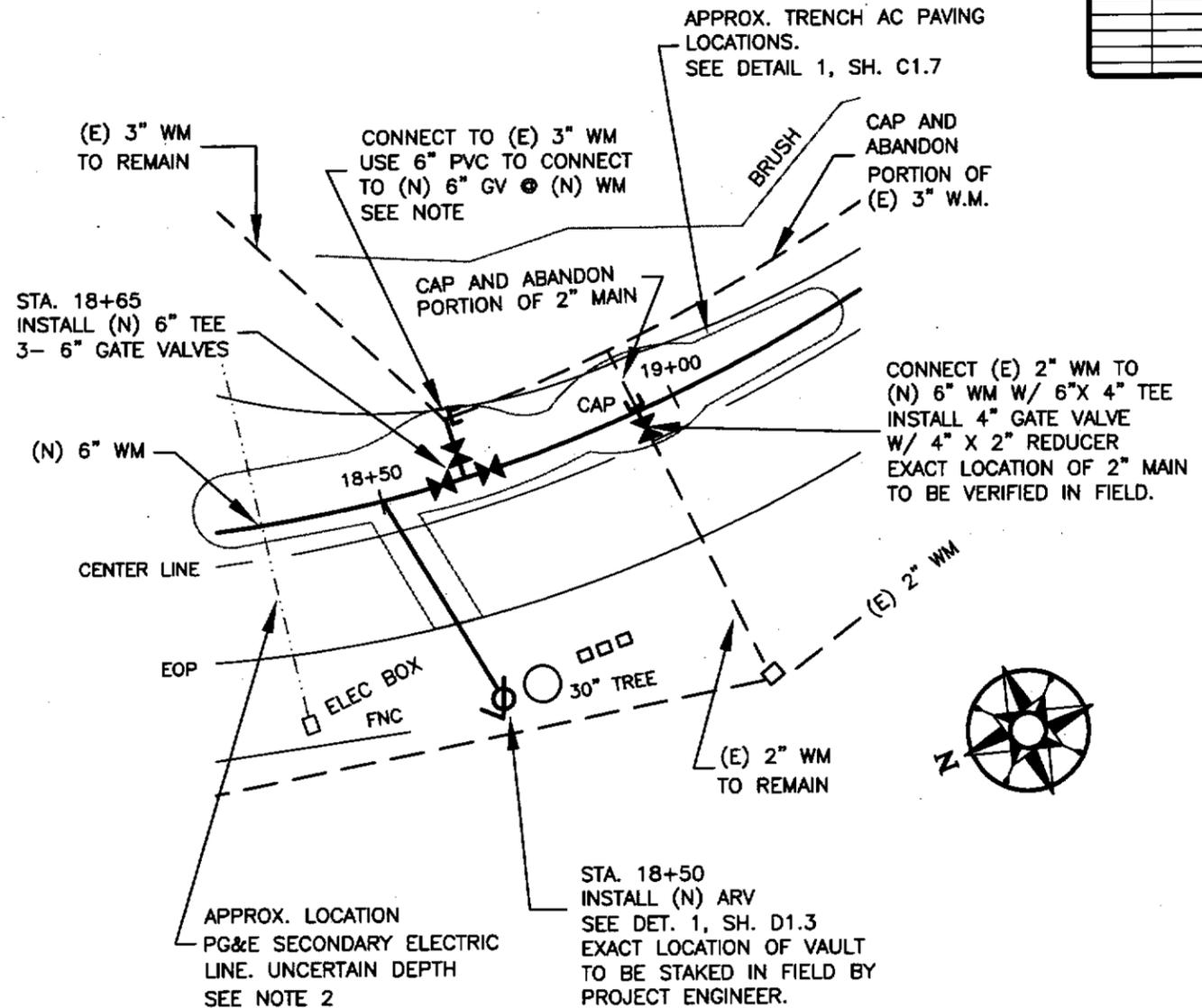
NOTE:

- BASED ON AVAILABLE INFORMATION, (E) 3" WM IS 3" IRRIGATION PIPE. 2" WM PIPE TYPE IS UNKNOWN.
- CONFORM TO PG&E CLEARANCE REQUIREMENTS FOR UNDERGROUND ELECTRIC CROSSING.
- PREVIOUS USA MARKINGS INDICATE UNDERGROUND ELECTRIC, POWER AND TELECOMMUNICATIONS MARKINGS IN WEST SHOULDER VICINITY OF ELECTRIC PULL BOX.

DRAFT



DATE	REVISIONS	BY



ENLARGED VIEW (3) C1.7
NOT TO SCALE

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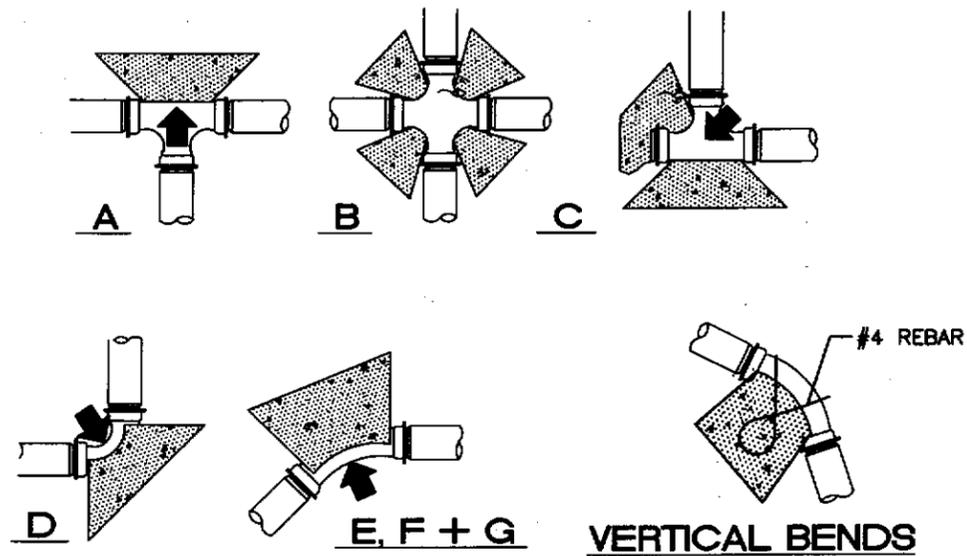


TRINIDAD RANCHERIA WATER MAIN IMPROVEMENTS ENLARGED VIEWS, DETAILS

FILE NAME: AFD-07-106-CAD
LAYOUT NAME: C7
SCALE: AS NOTED
DATE: 1-12-2013
DRAWN BY: D. O'GORMAN
PROJ ENG: BARRY JARVIS

NOTES:

1. ALL VALUES SHOWN ARE MINIMUM FOR A HYDROSTATIC PRESSURE OF 150 PSI AND A SOIL RESISTANCE OF 300 LB/SF/FT. MINIMUM COVER FOR ALL THRUST BLOCKS SHALL BE 3 FT.
2. CONCRETE SHALL PASS 2500 PSI CYLINDER TEST PRIOR TO WATER LINE PRESSURE TEST.
3. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.
4. JOINTS AND FACE OF PIPE PLUGS SHALL BE KEPT CLEAR OF CONCRETE.
5. REQUIRED THRUST BLOCK SURFACE AREA SHALL BE MET BY CONSTRUCTING BLOCKS WITH REQUIRED HEIGHT AND WIDTH WHILE MAINTAINING REQUIRED THICKNESS.



SIZE OF THRUST FACE (DIMS IN INCHES)							
PIPE NOM. SIZE	A TEE/PLUG 60°	B CROSS (EACH)	C PLUG. TEE (EACH)	D 90° BEND	E 45° BEND	F 22-1/2° BEND	G 11-1/4° BEND
2"	7 x 7	6 x 6	7 x 7	9 x 9	6 x 6	5 x 5	4 x 4
4"	14 x 14	12 x 12	14 x 14	16 x 16	12 x 12	9 x 9	6 x 6
6"	20 x 20	17 x 17	20 x 20	24 x 24	18 x 18	13 x 13	9 x 9

THRUST BLOCKS

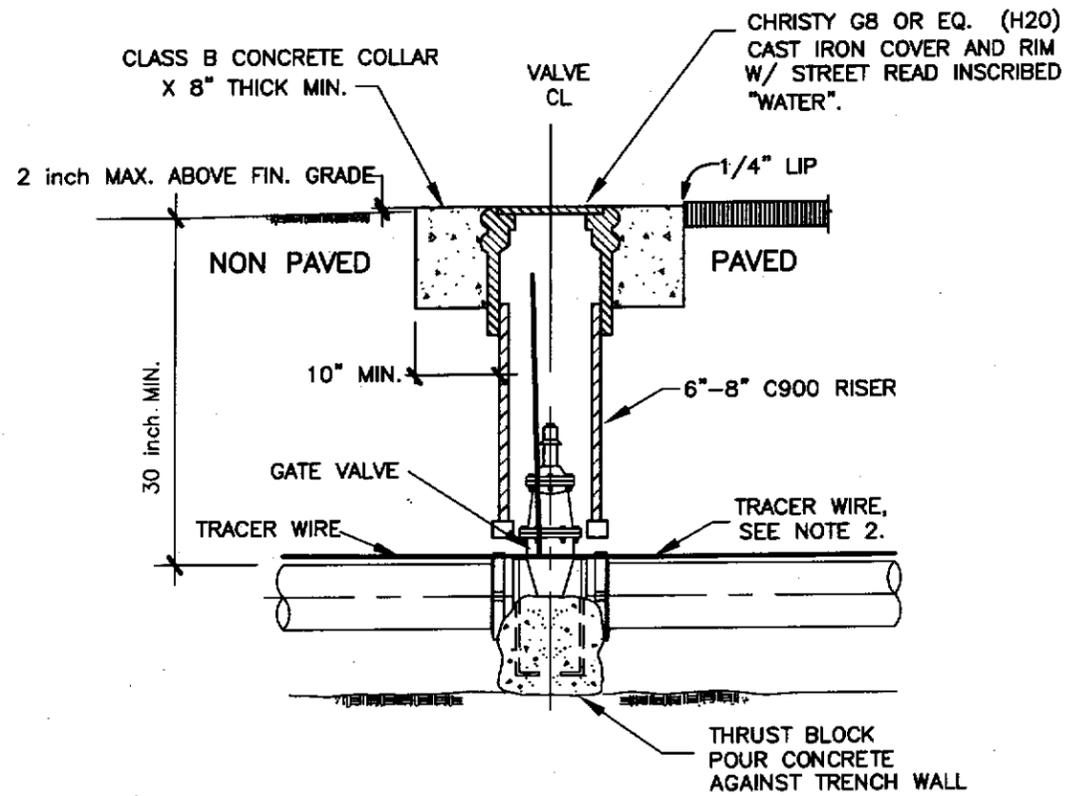
NOT TO SCALE

1
D1.1

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DATE	REVISIONS	INT.



NOTES:

1. TRACER WIRE TO BE ACCESSIBLE FROM LID

GATE VALVE INSTALLATION

NOT TO SCALE

2
D1.1

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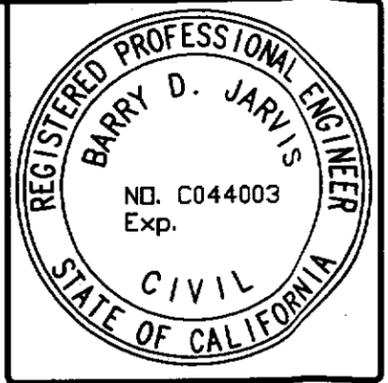
TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
WATER SYSTEM DETAILS

FILE NAME: AFO-07-106-CAD
LAYOUT NAME: D1
PROJ ENG: BARRY JARVIS

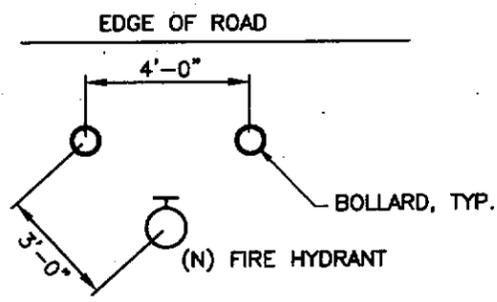
DRAWING NO.: 1AFO70706D11 SCALE: AS NOTED
DATE: 1-12-2013

D1.1
SHEET
10 OF 16

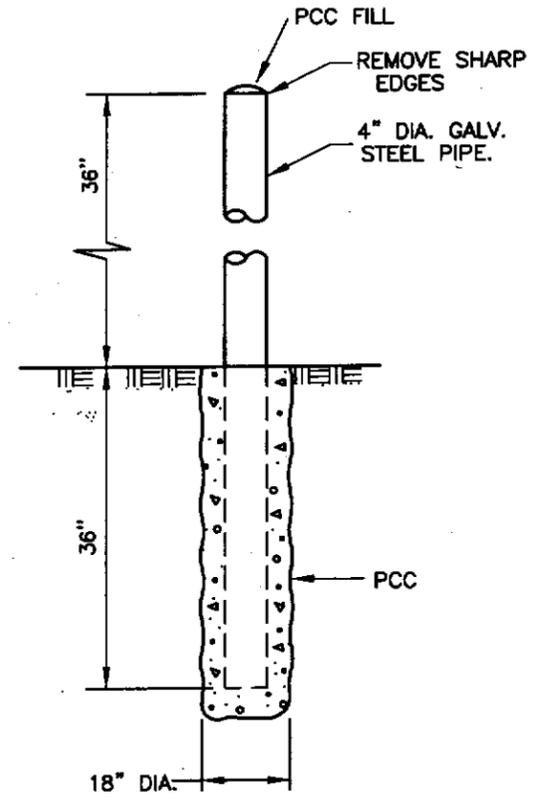
DRAFT



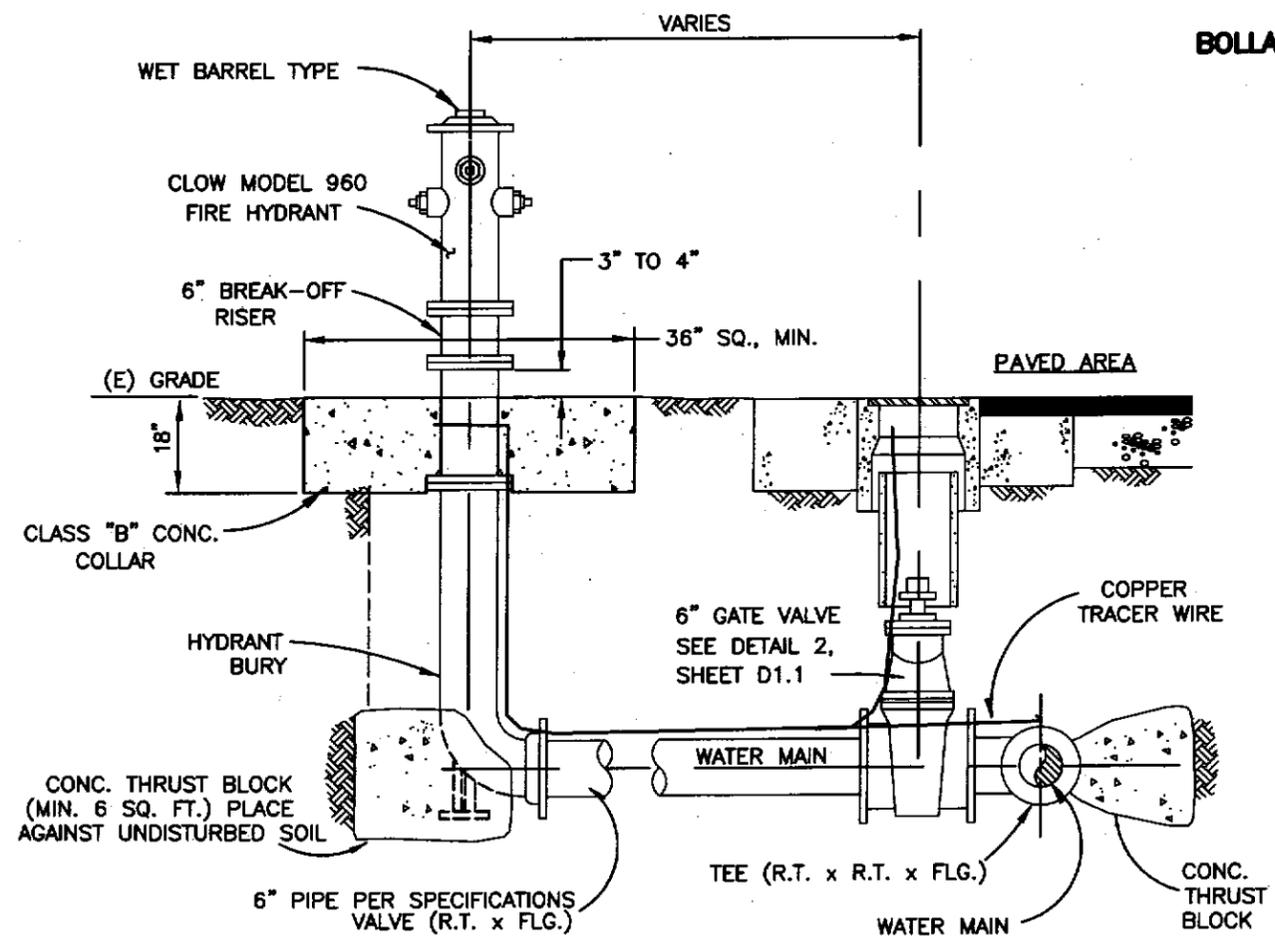
DATE	REVISIONS	INT.



BOLLARD SPACING



BOLLARDS



FIRE HYDRANT DETAIL

NOT TO SCALE

1
D1.2

NOTES:

1. INSTALL 2 BOLLARDS FOR EACH HYDRANT.
2. INSTALL BLUE RAISED REFLECTIVE FIRE HYDRANT LOCATION MARKER. SEE SECTION 02510.

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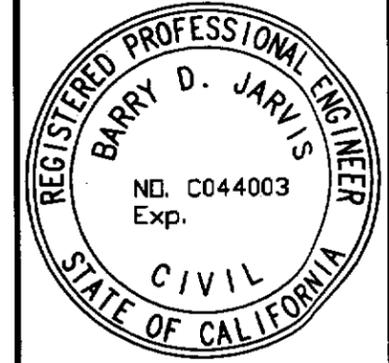
**TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
WATER SYSTEM DETAILS**

FILE NAME: AFO-07-199-CAD
LAYOUT NAME: D2
PROJ ENG: BARRY JARVIS

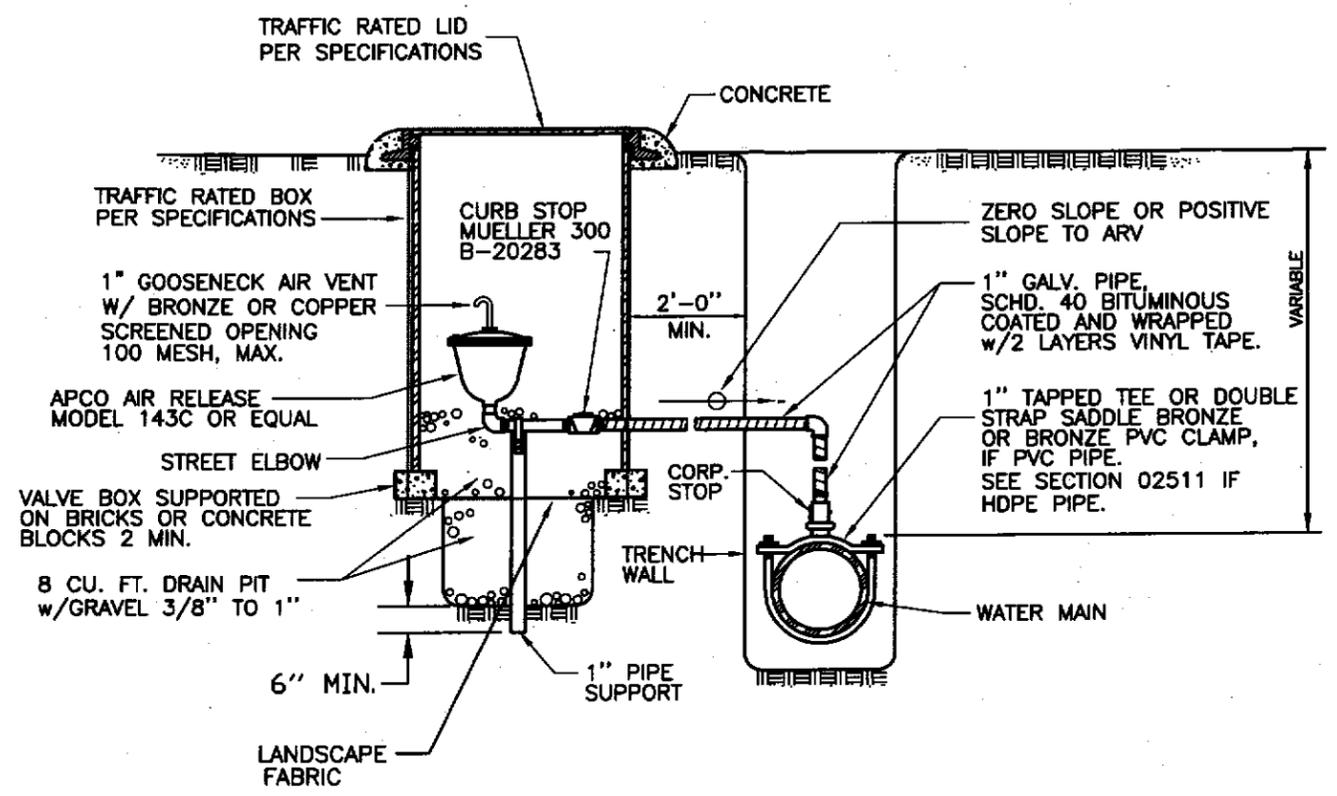
DRAWING NO.: 1AFO77L99D1.2 SCALE: AS NOTED
DRAWN BY: D. O'GORMAN DATE: 1-12-2018

D1.2
SHEET
11 OF 16

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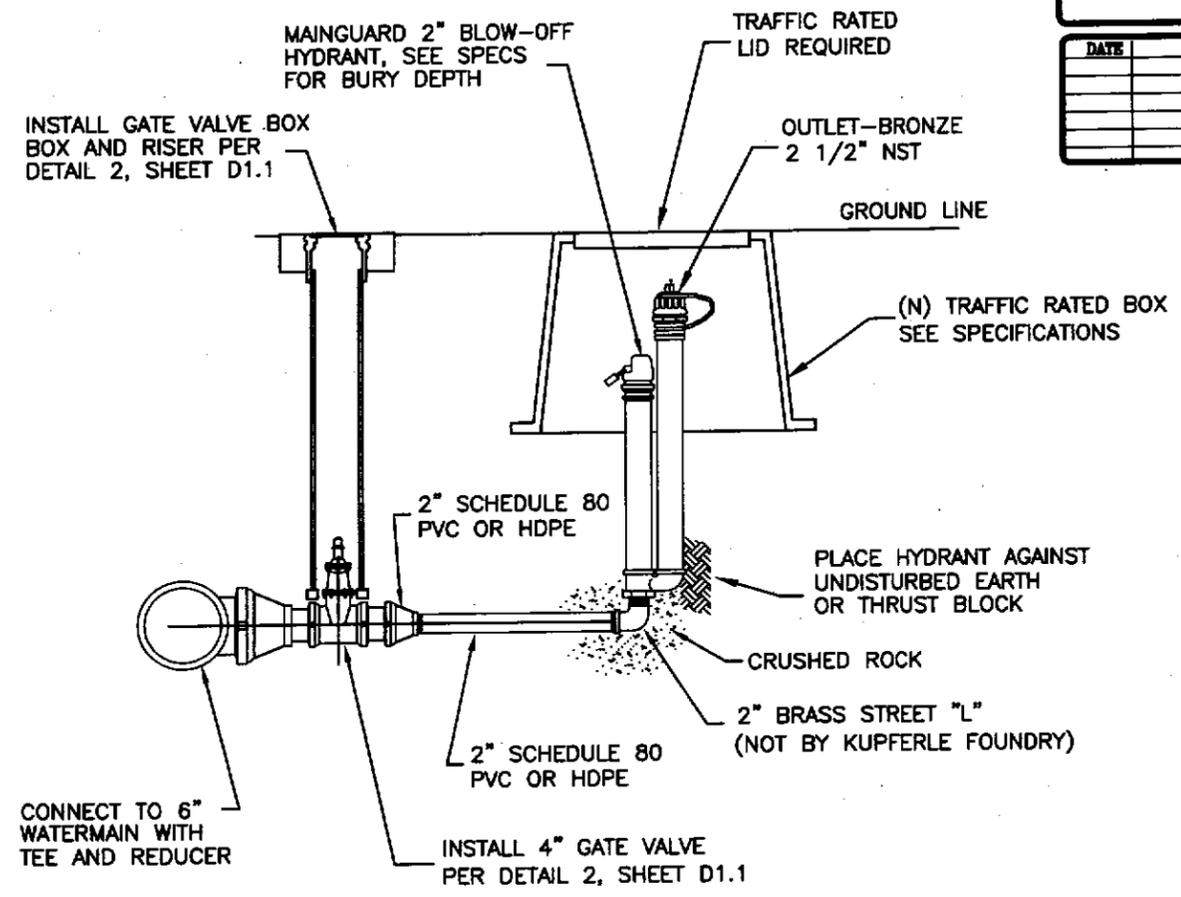
DATE	REVISIONS	BY



TYPICAL AIR/VACUUM RELEASE VALVE INSTALLATION

NOT TO SCALE

1
D1.3



MAINGUARD NO. 78 BLOW-OFF HYDRANT

NOTES:

1. MINIMUM OPENING IN METER BOX SHALL BE 18".
2. BOLLARDS ARE NOT REQUIRED.

UNDERGROUND FLUSH HYDRANT DETAIL

NOT TO SCALE

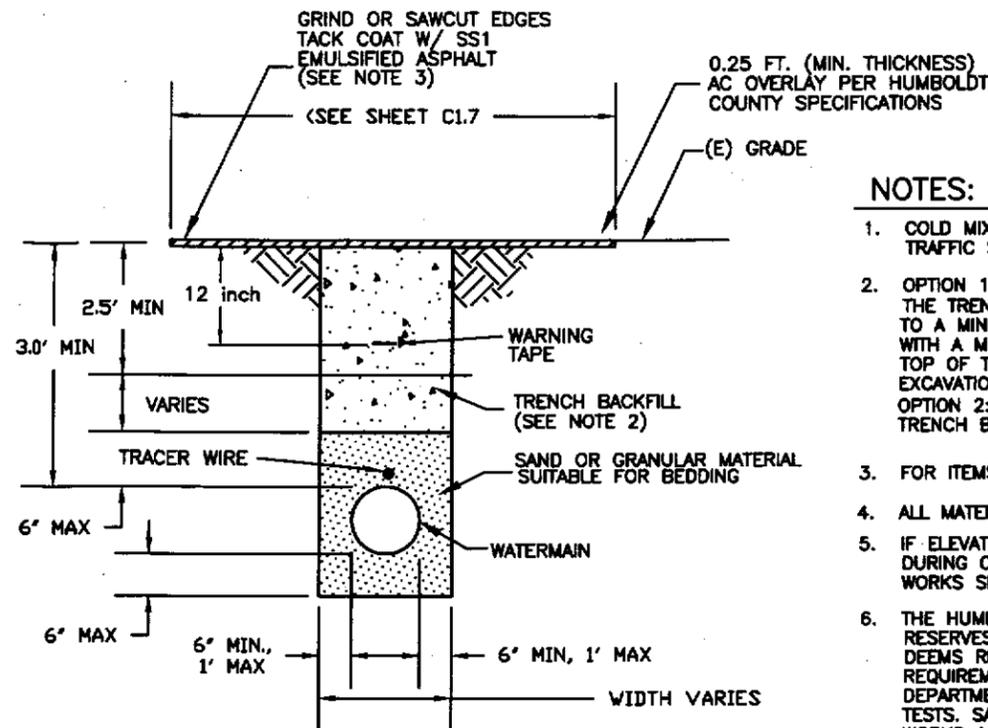
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D1.3

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TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
WATER SYSTEM DETAILS
FILE NAME: APO-07-198-CAD
LAYOUT NAME: DS
PROJ ENG: BARRY JARVIS
DRAWING NO.: 1AFC07L00D1.3
SCALE: AS NOTED
DRAWN BY: D. O'GORMAN
DATE: 1-12-2013

D1.3
SECRET
12 OF 16



**TYPE 1
STANDARD TRENCH DETAIL**

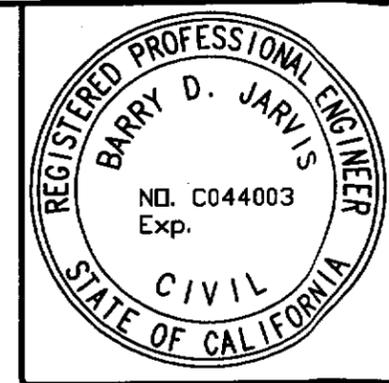
NOT TO SCALE

1
D1.4

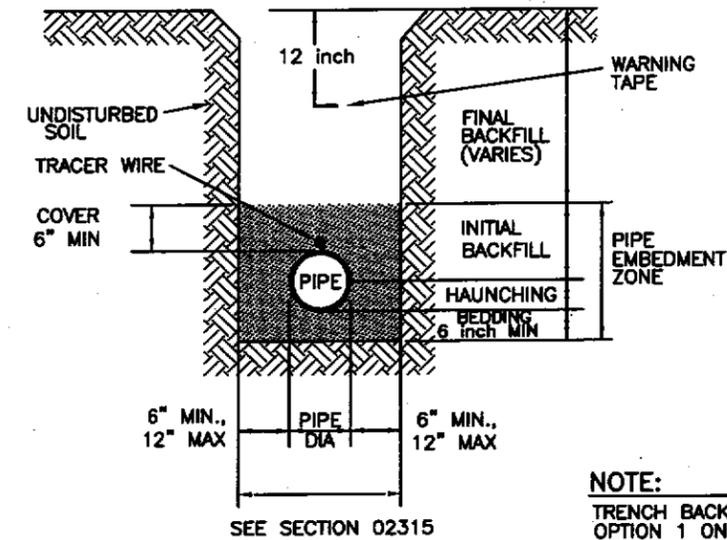
NOTES:

1. COLD MIX ASPHALT BEFORE TEMPORARILY OPENING COUNTY ROAD TO VEHICLE TRAFFIC SHALL BE PLACED AS NOTED ON THE DRAWING.
2. OPTION 1:
THE TRENCH BACKFILL SHALL BE CLASS II AG BASE AND COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION IN THE TOP 2.5 FEET OF TRENCH WITH A MINIMUM OF 90% RELATIVE COMPACTION BELOW THAT POINT TO THE TOP OF THE BEDDING. ANY TEMPORARY PAVING SHALL BE REMOVED FROM THE EXCAVATION PRIOR TO PLACING FINAL PAVING.
OPTION 2:
TRENCH BACKFILL: SLURRY PER SPEC TO BOTTOM OF AC PAVING.
WARNING TAPE NOT REQ'D.
3. FOR ITEMS NOT SHOWN, SEE ISSUED HUMBOLDT COUNTY ENCROACHMENT PERMIT.
4. ALL MATERIALS SHALL COMPLY W/ CALTRANS STANDARD SPECIFICATIONS, 2010.
5. IF ELEVATED GROUNDWATER, WITHIN 2 FEET OF SUBGRADE, IS ENCOUNTERED DURING CONSTRUCTION, ENGINEER AND THE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE CONSULTED FOR SITE SPECIFIC CORRECTIVE MEASURES.
6. THE HUMBOLDT CO. DEPARTMENT OF PUBLIC WORKS OR CITY OF TRINIDAD RESERVES THE RIGHT TO MAKE AS MANY MATERIALS ASSURANCE TESTS AS IT DEEMS REASONABLY NECESSARY TO ENSURE THAT THE CONSTRUCTION MATERIAL REQUIREMENTS ARE MET. PERMITEE AGREES TO PAY THE HUMBOLDT CO. DEPARTMENT OF PUBLIC WORKS OR THE CITY THE REASONABLE COST OF SUCH TESTS. SAID COSTS SHALL NOT BE LESS THAN THE DEPARTMENT OF PUBLIC WORKS ACTUAL COSTS.
7. FOR INSTALLATIONS OUTSIDE OF PAVEMENT WITHIN COUNTY RIGHT OF WAY, THE NEAREST EDGES OF TRENCH SHALL BE 3'-0" OR GREATER FROM THE EDGE OF THE ROAD.
8. SAME REQUIREMENTS FOR TRENCH IN PAVEMENT OUTSIDE OF COUNTY ROW.

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DATE	REVISIONS	BY



TRENCH DETAIL

N.T.S.

2
D1.4

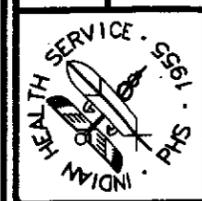
NOTE:
TRENCH BACKFILL:
OPTION 1 ONLY.

OUTSIDE PAVED AREAS

ADDITIONAL NOTES:

1. IF WIDTH IS LESS THAN 18 inches SLURRY CEMENT BACKFILL SHALL BE USED.
2. IF DISTANCE BETWEEN EDGE OF TRENCH TO EDGE OF PAVEMENT (EP) IS 3 inch OR LESS THEN REMOVE ALL (AC) UP TO (EP) AND REPLACE
3. SELECT BACKFILL MATERIAL AS APPROVED BY THE DEPT. OF PUBLIC WORKS.
4. CUTS SHALL BE MADE WITH A CUTTING WHEEL OR A PNEUMATIC PAVEMENT CUTTER.
5. (AC) THICKNESS TO MATCH EXISTING OR 3 inch MINIMUM WHICHEVER IS GREATER.
6. IRREGULAR BREAKAGE SHALL BE REPLACED.
7. SEE PLAN FOR LIMITS OF PAVEMENT REMOVAL
8. CONTRACTOR SHALL PROVIDE BOTH CONC. ANCHORS & CLAY DIKES AS REQ'D BY THE ENGINEER AS FOLLOWS:
0% < SLOPE < 15% - ONE EVERY 200 LINEAR FEET - CLAY DIKES ONLY
15% - SLOPE - ONE EVERY 100 LINEAR FEET - CONC. ANCHORS & CLAY DIKES
A. CLAY DIKES SHALL EXTEND FOR THE FULL TRENCH WIDTH (USE FOR PIPE BEDDING & COVER) AND HAVE A LENGTH OF 5 FEET. LOCATE IN THE MIDDLE OF A PIPE LENGTH, AT LEAST 2' FROM A PIPE JOINT. MATERIAL SHALL BE CLAY AS DESIGNATED "CL" & DEFINED UNDER THE UNIFIED SOIL CLASSIFICATION SYSTEM.
B. CONC. ANCHORS SHALL BE LOCATED ON THE DOWNSTREAM SIDE OF JOINTS, SHALL BE UNREINFORCED AND SHALL BE MINIMUM OF TRENCH WIDTH, 3 FEET HIGH (REPLACING PIPE BEDDING & COVER) & 2 FEET THICK.
C. DRAINS MAY BE PROVIDED WITH THE APPROVAL OF THE ENGINEER.
9. FOR CONFLICT BETWEEN DRAWINGS AND COUNTY, OR CITY ENCROACHMENT PERMIT, COUNTY, OR CITY REQUIREMENTS SHALL BE FOLLOWED, EXCEPT FOR ADD'L PAVING REQUIREMENTS BEYOND TRENCH WIDTH SHOWN ON SHEET C1.7.

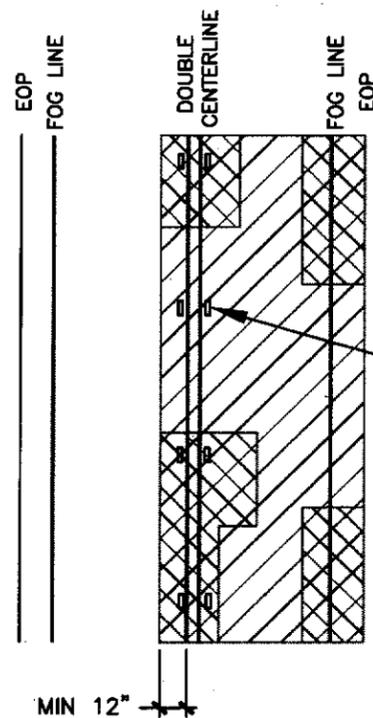
DEPARTMENT OF HEALTH AND HUMAN SERVICES
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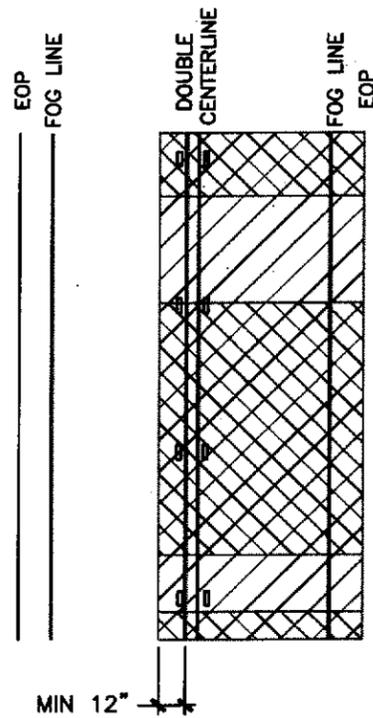
**TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
WATER SYSTEM DETAILS**

FILE NAME: AFO-07-199-CAD
LAYOUT NAME: D4
PROJ ENG: BARRY JARVIS

DRAWING NO.: 1AFO70199D4 SCALE: AS NOTED DATE: 1-18-2013
DRAWN BY: D. O'GORMAN



OPEN TRENCH
PAVING LIMITS SCHEMATIC
SCHEDULE A / OPTION A 1
 NOT TO SCALE D1.5



DIRECTIONAL DRILL
PAVING LIMITS SCHEMATIC
SCHEDULE B / OPTION B 2
 NOT TO SCALE D1.5

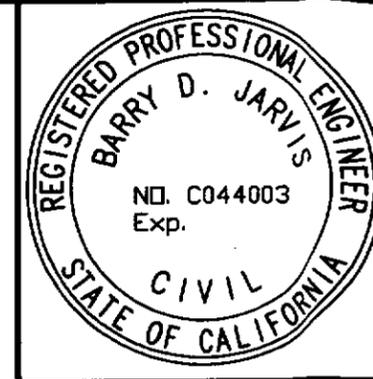
LEGEND:

- SCHEDULE A
OR
SCHEDULE B
- OPTION A
OR
OPTION B

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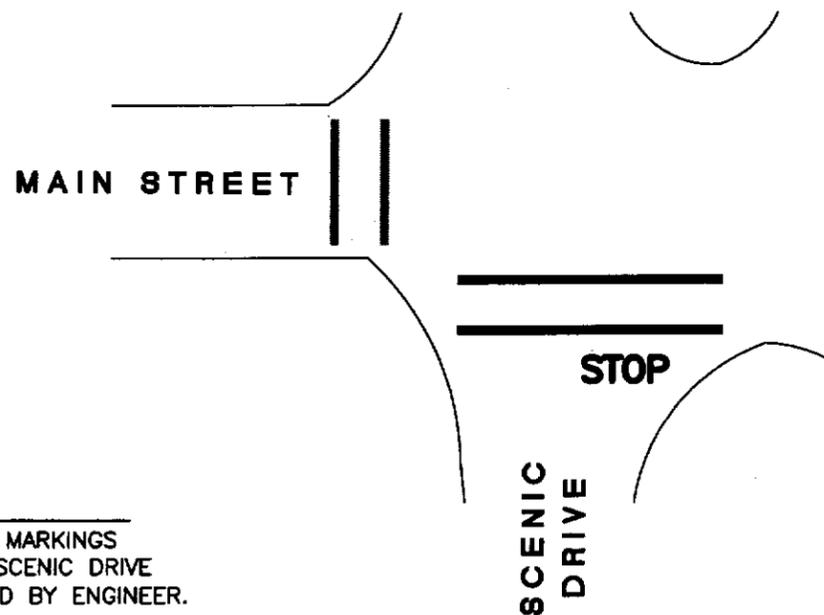
NOTES:

1. PAVING LIMITS SCHEMATICS FOR SCHEDULE A OR B APPLY THROUGHOUT THE PROJECT REACH TO ENSURE A GOOD BOND BETWEEN NEW AND EXISTING PAVEMENT. HOWEVER, PAVEMENT FROM VICINITY OF MAIN STREET TO VICINITY OF LANFORD DRIVE ARE CONSIDERED TO BE IN GOOD CONDITION, SO THE ADDITIONAL POTENTIAL VARIATION IN PAVING WIDTHS SHOWN APPLY PRIMARILY TO THE PROJECT REACH WITH EXISTING DAMAGED PAVEMENT FROM VICINITY OF LANFORD DRIVE TO VICINITY OF GATE VALVE AT STA. 22+67.
2. OPTION A OR B ONLY APPLIES IN PROPOSED PAVING AREA FROM VICINITY OF LANFORD DRIVE TO VICINITY OF GATE VALVE AT STA. 22+67 AS SHOWN ON THE DRAWINGS.
3. THE (E) AC CURB VICINITY OF GATE VALVE AT STA 22+67 WILL BE REPLACED AS NEEDED UNDER SCHEDULE A OR B OR OPTION A OR B, UNLESS OTHERWISE APPROVED BY ENGINEER.



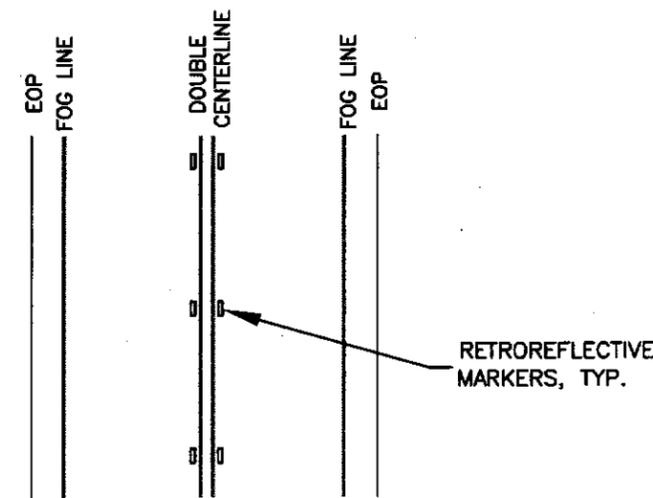
DATE	REVISIONS	INT.

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NOTE:
 LIMITS OF CROSSWALK MARKINGS
 TO BE REPLACED ON SCENIC DRIVE
 TO BE STAKED IN FIELD BY ENGINEER.

CROSSWALK MARKING SCHEMATIC
VICINITY OF SCENIC DR. & MAIN ST. 3
 NOT TO SCALE D1.5



GENERAL STRIPING PLAN 4
 NOT TO SCALE D1.5

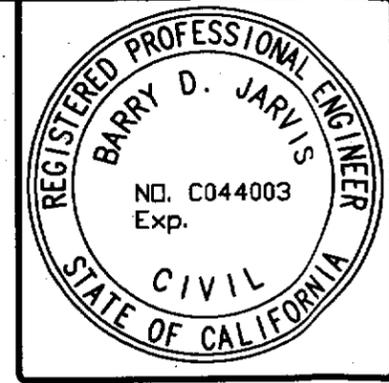
TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
PAVING DETAILS
 DRAWING NO.: 14P07LANDS SCALE: AS NOTED DATE: 1-12-2013
 FILE NAME: AFD-07-198-CAD LAYOUT NAME: D4 PROJ ENG: BARRY JARVIS
 DRAWN BY: D. O'GORMAN

NOTES:

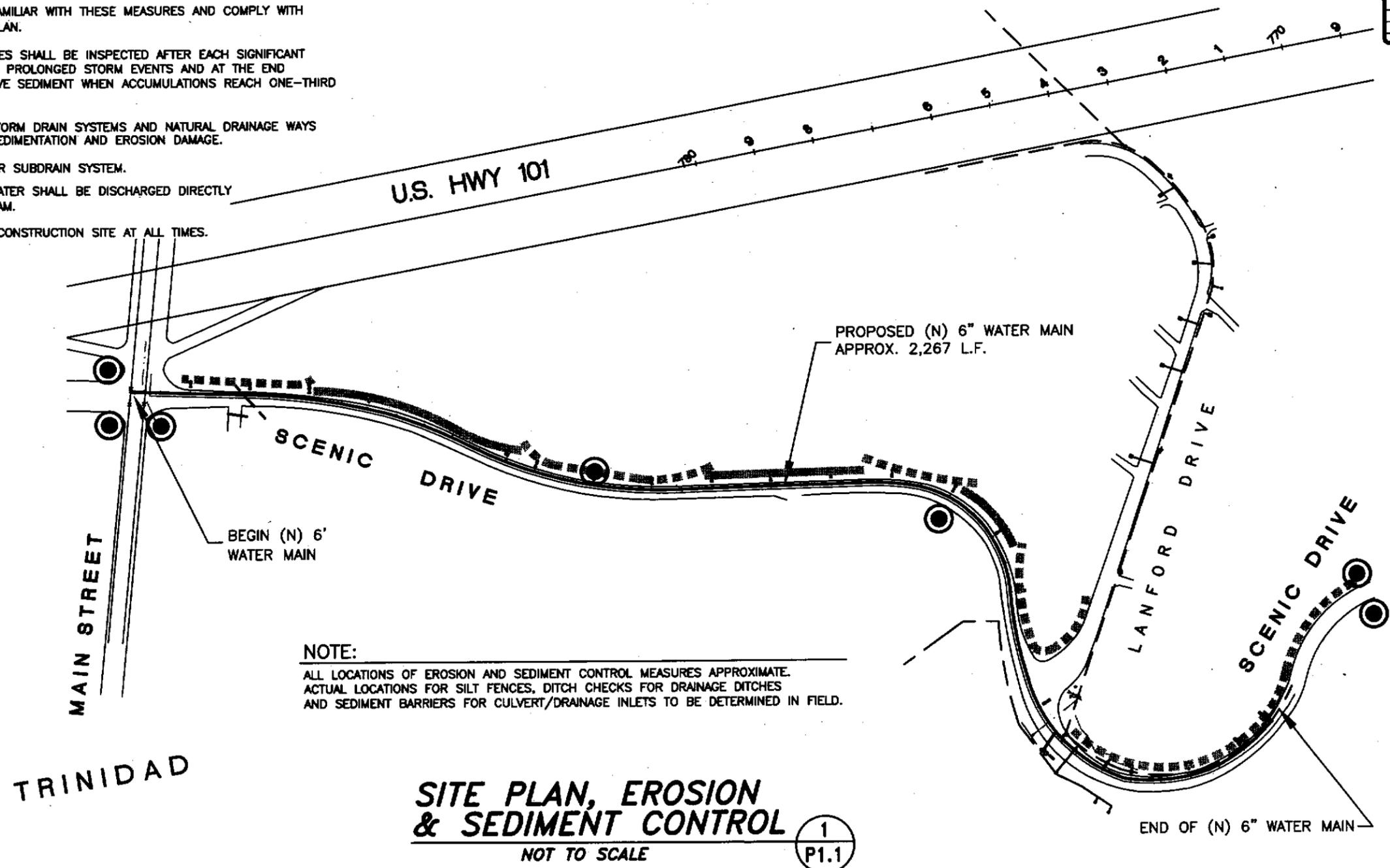
1. THIS PLAN IS INTENDED TO SERVE AS A CONCEPTUAL GUIDE FOR THE INSTALLATION OF EFFECTIVE SITE EROSION AND SEDIMENTATION CONTROL MEASURES. THE EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN SHALL BE MOVED, REVISED AND UPDATED AS THE SITE WORK PROGRESSES IN ORDER TO PROVIDE THE MOST EFFECTIVE SITE PROTECTION. THIS PLAN WILL BE UPDATED REGULARLY TO REMAIN CURRENT WITH CHANGING SITE CONDITIONS. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE REGIONAL WATER QUALITY CONTROL BOARD BEST MANAGEMENT PRACTICES SITE www.swrcb.ca.gov.stormwtr
2. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION, TO THE SATISFACTION OF THE ENGINEER, RANCHERIA, CITY OF TRINIDAD, AND HUMBOLDT COUNTY. REPAIRS TO THE EROSION AND SEDIMENTATION CONTROL FACILITIES SHOULD BE MADE AS REQUIRED. THE MATERIALS REQUIRED TO MAINTAIN OR REPLACE THE FACILITIES SHALL BE STOCKPILED ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL BE FAMILIAR WITH THESE MEASURES AND COMPLY WITH ALL PROVISIONS WITHIN THE PLAN.
4. ALL SILT CONTAMINANT FEATURES SHALL BE INSPECTED AFTER EACH SIGNIFICANT RAINFALL EVENT, DAILY DURING PROLONGED STORM EVENTS AND AT THE END OF EACH WORKING DAY. REMOVE SEDIMENT WHEN ACCUMULATIONS REACH ONE-THIRD THE HEIGHT OF THE BARRIER.
5. ALL ON SITE AND OFF-SITE STORM DRAIN SYSTEMS AND NATURAL DRAINAGE WAYS SHALL BE PROTECTED FROM SEDIMENTATION AND EROSION DAMAGE.
6. NO SURFACE WATER MAY ENTER SUBDRAIN SYSTEM.
7. NO TREATED OR UNTREATED WATER SHALL BE DISCHARGED DIRECTLY OR INDIRECTLY INTO ANY STREAM.
8. PLAN SHALL BE PRESENT ON CONSTRUCTION SITE AT ALL TIMES.

LEGEND	
-----	DRAINAGE DITCH
—————	PROPOSED SILT FENCE
○	CULVERT/DRAINAGE INLET

DRAFT



DATE	REVISIONS	BY



NOTE:
ALL LOCATIONS OF EROSION AND SEDIMENT CONTROL MEASURES APPROXIMATE. ACTUAL LOCATIONS FOR SILT FENCES, DITCH CHECKS FOR DRAINAGE DITCHES AND SEDIMENT BARRIERS FOR CULVERT/DRAINAGE INLETS TO BE DETERMINED IN FIELD.

SITE PLAN, EROSION & SEDIMENT CONTROL
NOT TO SCALE

1
P1.1

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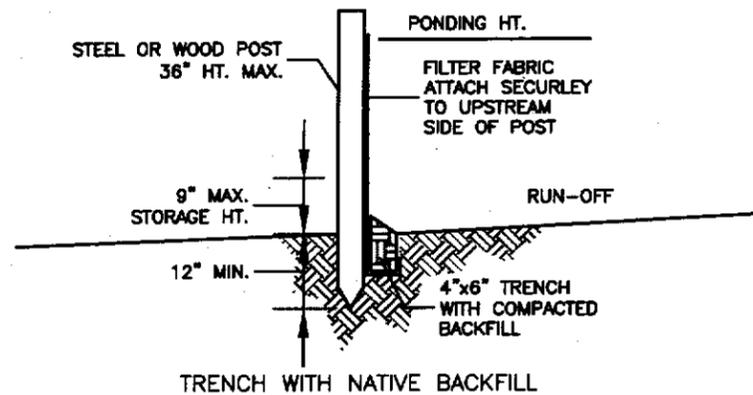
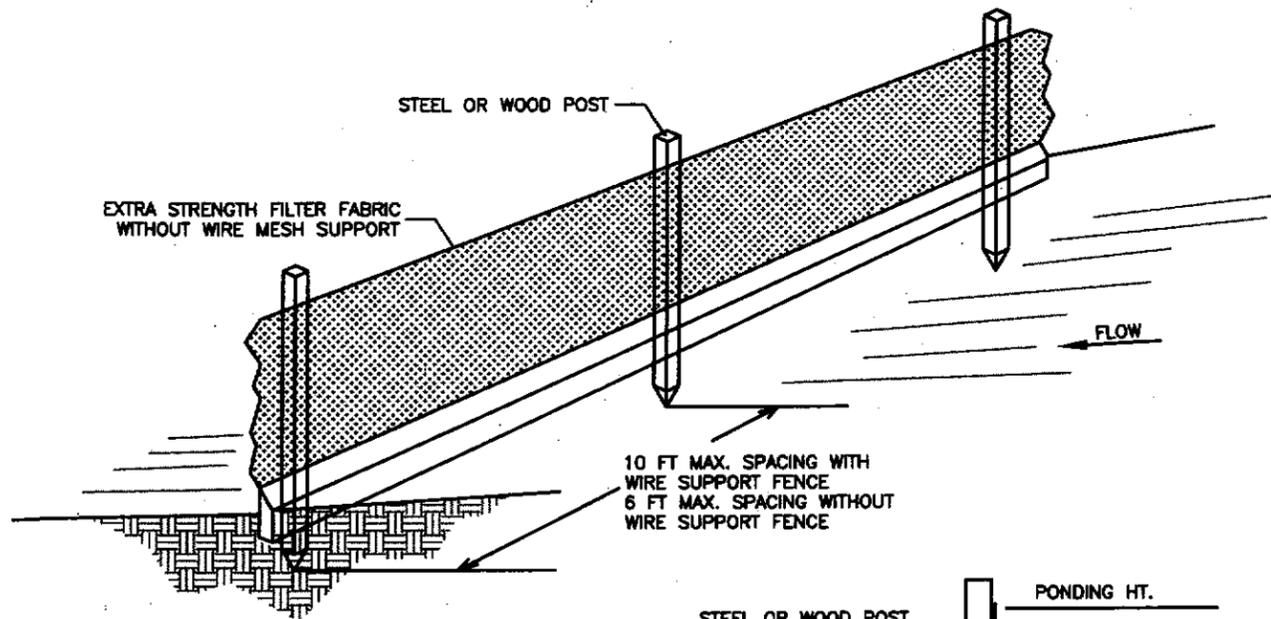


**TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
EROSION & SEDIMENT CONTROL PLAN**

FILE NAME: AFD-07-LPB-CAD
LAYOUT NAME: C1
PROJ ENG: BARRY JARVIS

DRAWING NO.: LAF07L06P11 SCALE: AS NOTED DATE: 1-12-2013
DRAWN BY: D. O'GORMAN

P1.1
SHEET
15 OF 16

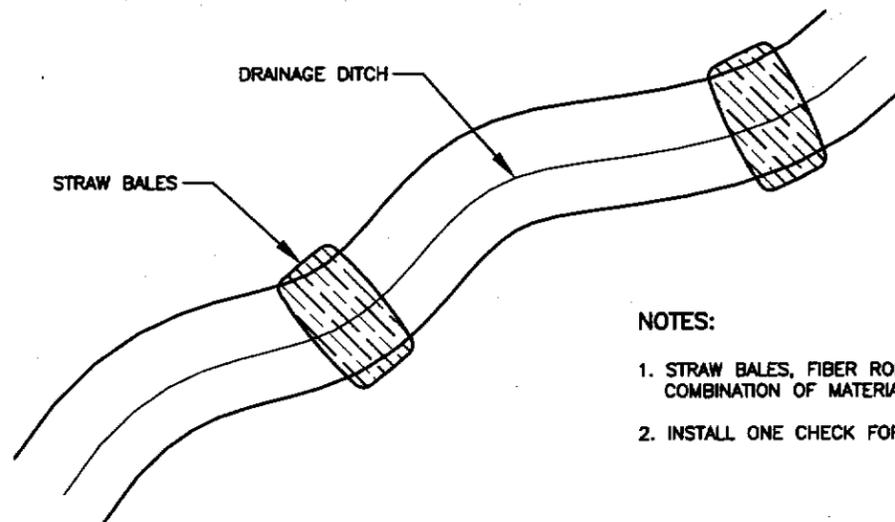


- NOTES:
1. THE CONTRACTOR SHALL INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
 2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
 3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMUM PONDING EFFICIENCY.

SILT FENCE DETAIL

NOT TO SCALE

1
P1.2

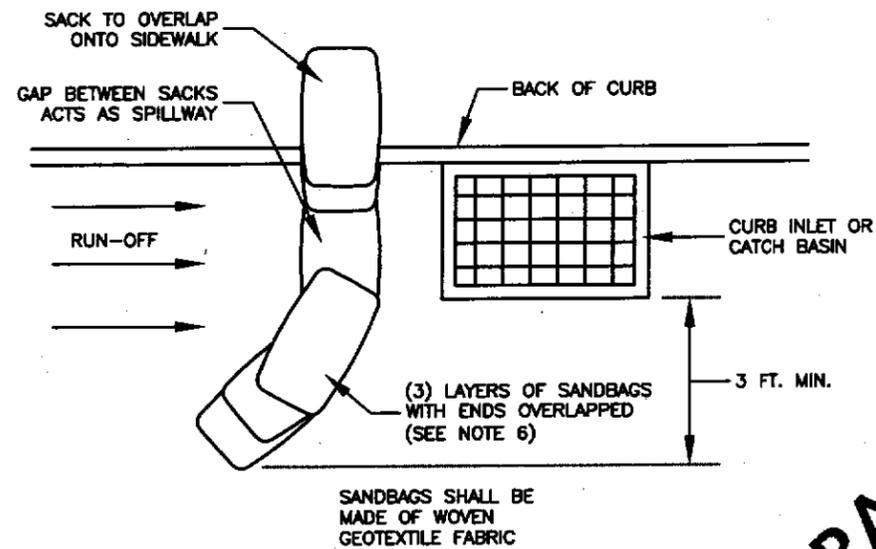


- NOTES:
1. STRAW BALES, FIBER ROLLS, SILT FENCES, ROCK OR COMBINATION OF MATERIALS MAY BE USED.
 2. INSTALL ONE CHECK FOR EVERY TWO FEET OF ELEVATION DROP.

DITCH CHECK

NOT TO SCALE

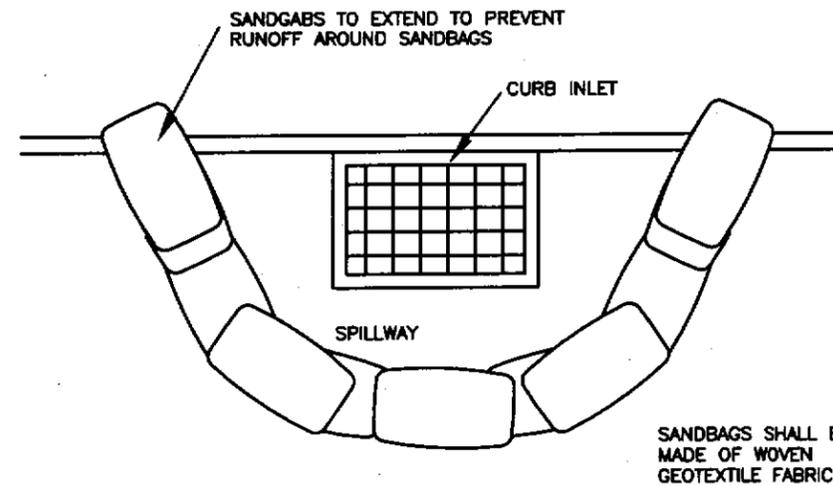
2
P1.2



**CULVERT OR DRAINAGE INLET
SEDIMENT BARRIER-SANDBAG TYPE #1**

NOT TO SCALE

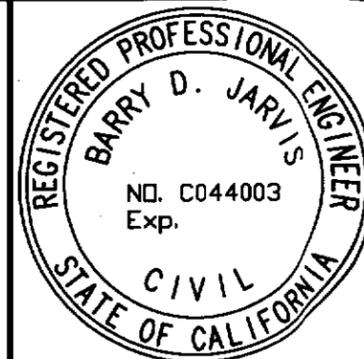
3
P1.2



**CULVERT OR DRAINAGE INLET
SEDIMENT BARRIER-SANDBAG TYPE #2**

NOT TO SCALE

4
P1.2



DATE	REVISIONS	INT.

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**TRINIDAD RANCHERIA
WATER MAIN IMPROVEMENTS
EROSION & SEDIMENT CONTROL DETAILS**

FILE NAME: AFO-07-169-CAD
LAYOUT NAME: CI
PROJ ENG: BARRY JARVIS

DRAWING NO.: 1AFO7169P12 SCALE: AS NOTED
DRAWN BY: D. O'GORMAN DATE: 1-12-2013

P1.2
SECRET
16 OF 16