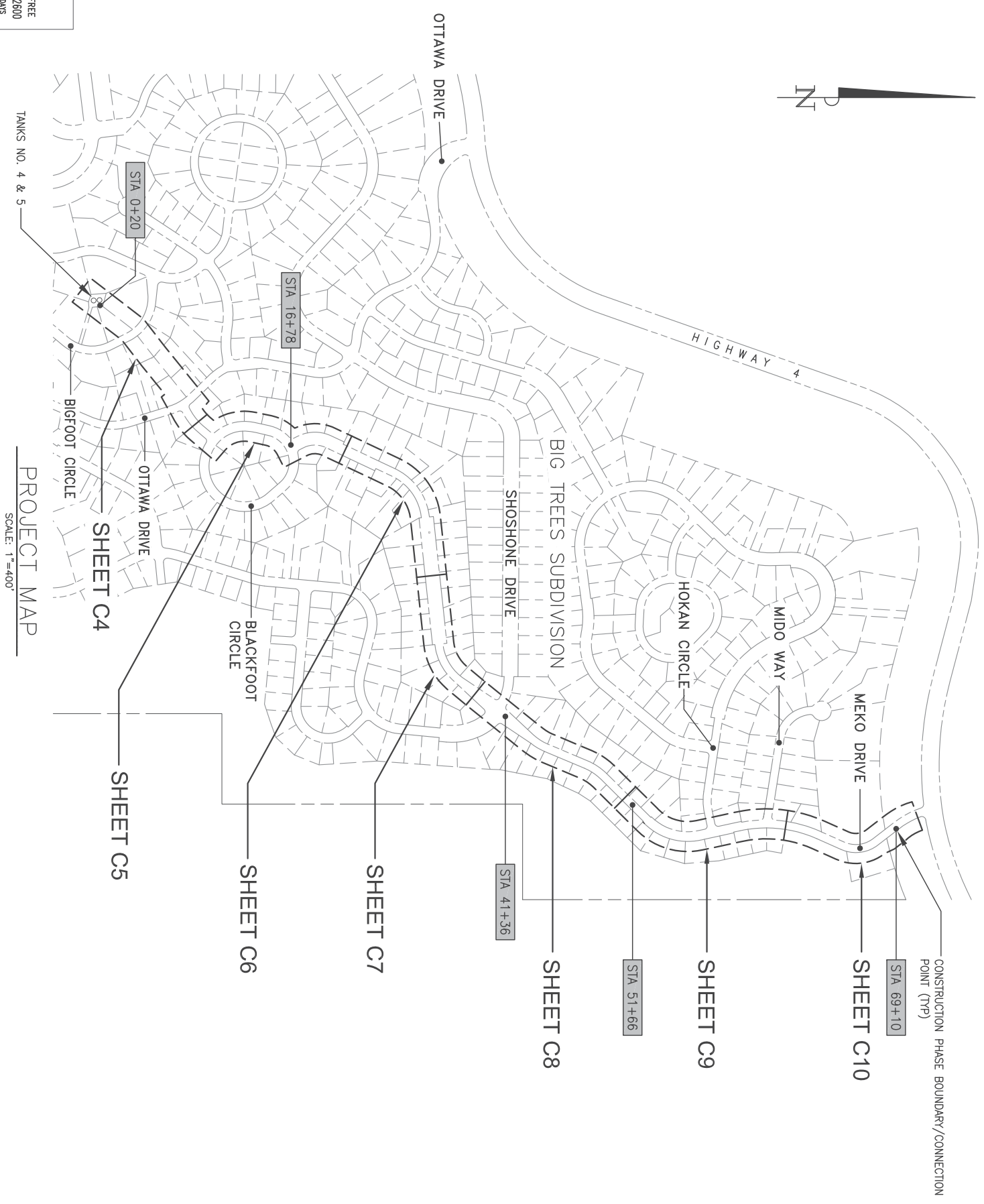
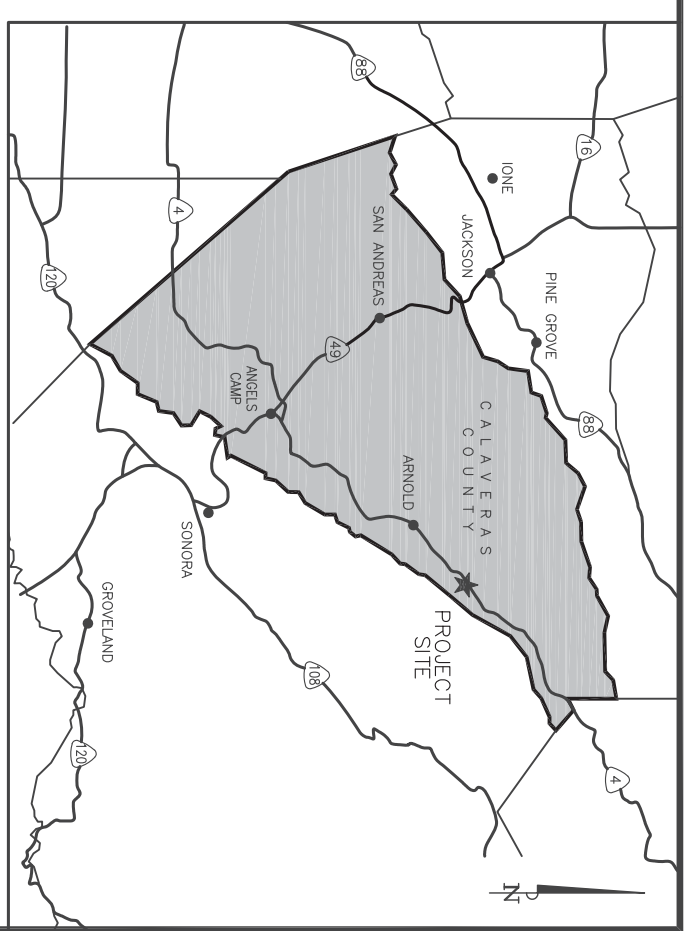


IMPROVEMENT PLANS FOR
TECHITE WATER PIPELINE REPLACEMENT
 EBBETTS PASS WATER SYSTEM / BIG TREES SUBDIVISION
 CALAVERAS COUNTY WATER DISTRICT
 ISSUED FOR BIDS



PROJECT MAP
 SCALE: 1"=400'



VICINITY MAP
 N.T.S.

INDEX OF SHEETS

- G1 COVER SHEET
- G2 GENERAL NOTES, LEGEND & ABBREVIATIONS
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- C4 PLAN & PROFILE STA. 0+20-10+75
- C5 PLAN & PROFILE STA. 10+75-20+90
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- C10 PLAN & PROFILE STA. 62+00-69+10
- C11 PRV STATION-DETAILS
- C12 PRV STATION-RELOCATION
- C13 SECTIONS & DETAILS-1
- C14 SECTIONS & DETAILS-2

APPROVED BY: 
 CHARLES PALMER, P.E., DISTRICT ENGINEER
 CALAVERAS COUNTY WATER DISTRICT

DATE: **1-21-20**

DIGABART
 DIAL TOLL FREE
 1-800-227-2600
 AT LEAST TWO DAYS
 BEFORE YOU DIG
 UNDERGROUND SERVICE ALERTS OF NORTHERN CALIFORNIA

CALAVERAS COUNTY
 WATER DISTRICT
 120, TOWLA COURT
 P.O. BOX 846
 SAN ANDREAS, CA 95249
 PHONE: (209) 754-3543
 FAX: (209) 754-1089

COLEMAN ENGINEERING
 1358 BLUE OAKS BLVD
 SUITE 200
 ROSEVILLE, CA 95678
 (916) 791-1188

BAR IS ONE INCH AT FULL SCALE
 IF NOT ONE INCH ON THIS SHEET SCALE ACCORDINGLY

NO.	REVISIONS	APP.	DATE

TECHITE WATER PIPELINE REPLACEMENT
 COVER SHEET
 CALAVERAS COUNTY

DESIGNED UNDER THE DIRECTION OF:

NO.	DATE
	11-14-19

REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 No. 62031
 State of California
 11-14-19

SCALE: AS NOTED
 DRAWING NUMBER: **G1**
 SHEET NUMBER: 1 OF 16 SHEETS

GENERAL NOTES:

1. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PLANS, NOTES, DETAILS, AND PROVISIONS AS SPECIFIED HEREON AND IN ACCORDANCE WITH THE PROJECT MANUAL AND TECHNICAL SPECIFICATIONS. ALL REQUIREMENTS, STANDARDS, AND SPECIFICATIONS OF ALL AGENCIES HAVING JURISDICTION OVER THE WORK SHALL BE DONE TO THE SATISFACTION OF ALL OF THE INVOLVED AGENCIES.
2. ALL WATER WORK WILL BE DONE UNDER THE INSPECTION OF CALAVERAS COUNTY WATER DISTRICT (CCWD).
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND FACILITIES AFFECTED BY THE WORK AND SHALL CONTACT UNDERGROUND SERVICES ALERT (USA) 48 HOURS PRIOR TO ANY EXCAVATION WORK FOR IDENTIFICATION AND LOCATION OF UNDERGROUND UTILITIES. (PHONE: 1-800-227-2600)
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAND DIGGING AND VERIFYING THE LOCATION AND DEPTH OF ALL EXISTING FACILITIES PRIOR TO ANY EXCAVATION.
5. WHERE DEPTH OF EXCAVATIONS INTO WHICH WORKERS DESCEND IS 5 FEET OR DEEPER, THE CONTRACTOR IS REQUIRED TO PROVIDE SHEETING, SHORING & BRACING AND OBTAIN AN EXCAVATION PERMIT FROM THE NEAREST CAL/JOSHA OFFICE & PROVIDE COPY TO CCWD PRIOR TO CONSTRUCTION.
6. AT AREAS ABOVE 2,500 FEET ELEVATION, ALL CASTING AND CONCRETE COLLARS IN THE ROADWAY SHALL BE DERESSED 1/4 INCH FOR SNOWPLOWING.
7. CONNECTIONS TO EXISTING WATER FACILITIES SHALL HAVE PRIOR APPROVAL BEFORE PROCEEDING AND BE DONE IN ACCORDANCE WITH CCWD TIE-IN PROCEDURES, PLANS, AND SPECIFICATIONS.
8. THE CONTRACTOR SHALL HAVE A COPY OF CCWD APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS ON SITE. SPECIFICATIONS, SPECIFIC NOTES, AND DETAIL DRAWINGS HEREON WHICH SHALL TAKE PRECEDENCE OVER GENERAL DRAWINGS AND PLANS UNLESS OTHERWISE DIRECTED BY THE DISTRICT ENGINEER. ANY DEVIATION FROM APPROVED PLANS DURING CONSTRUCTION WILL REQUIRE PRIOR WRITTEN NOTICE TO CCWD. OTHER APPROPRIATE PUBLIC AGENCIES, AND SHALL REQUIRE APPROVAL BY CCWD.
9. ONLY CCWD PERSONNEL SHALL OPERATE EXISTING FACILITIES.
10. THE HIGHEST REQUIRED FIRE FLOW IS 1,000 GPM AT 20 PSIG RESIDUAL.
11. BASED UPON STATIC CONDITIONS AND A HYDRAULIC GRADE LINE OF 5,325 FEET. THE MAXIMUM AND MINIMUM PRESSURES ARE CALCULATED TO BE 86 PSI @ STA 8+20 AND 40 PSI @ STA 28+53, RESPECTIVELY.
12. PIPELINES SHALL BE DISINFECTED, TESTED, AND INSTALLED IN ACCORDANCE WITH AWWA STANDARDS.
13. SERVICE INSTALLATIONS IN ROADWAYS WITH CUTS OR FILLS GREATER THAN 6 FEET IN HEIGHT AND SLOPES STEEPER THAN 3:1 ARE REFERENCED UNDER CCWD STANDARD DETAIL W07D.
14. LIDS FOR WATER FACILITIES SHALL BE MARKED "WATER".
15. CURBS SHALL BE MARKED WITH A "W" BRAND WHERE WATER SERVICES INTERCEPT.
16. CONTRACTOR SHALL BE RESPONSIBLE TO PREPARE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ACCORDANCE WITH CASQA GUIDELINES.
17. NO SERVICES SHALL BE INSTALLED IN DRIVEWAYS.
18. IF EXISTING ALIGNMENT IS DETERMINED IN THE FIELD TO DEVIATE FROM THE ALIGNMENT SHOWN ON THE PLANS, CONTRACTOR SHALL FOLLOW THE EXISTING ALIGNMENT. IF ALIGNMENT DEVIATES FROM THE PERMANENT EASEMENT, CONTRACTOR SHALL NOTIFY THE DISTRICT AND REQUEST DIRECTION PRIOR TO CONSTRUCTION.
19. THRUST BLOCKS REQUIRED ON ALL FITTINGS PER CCWD STANDARD DETAIL W01.

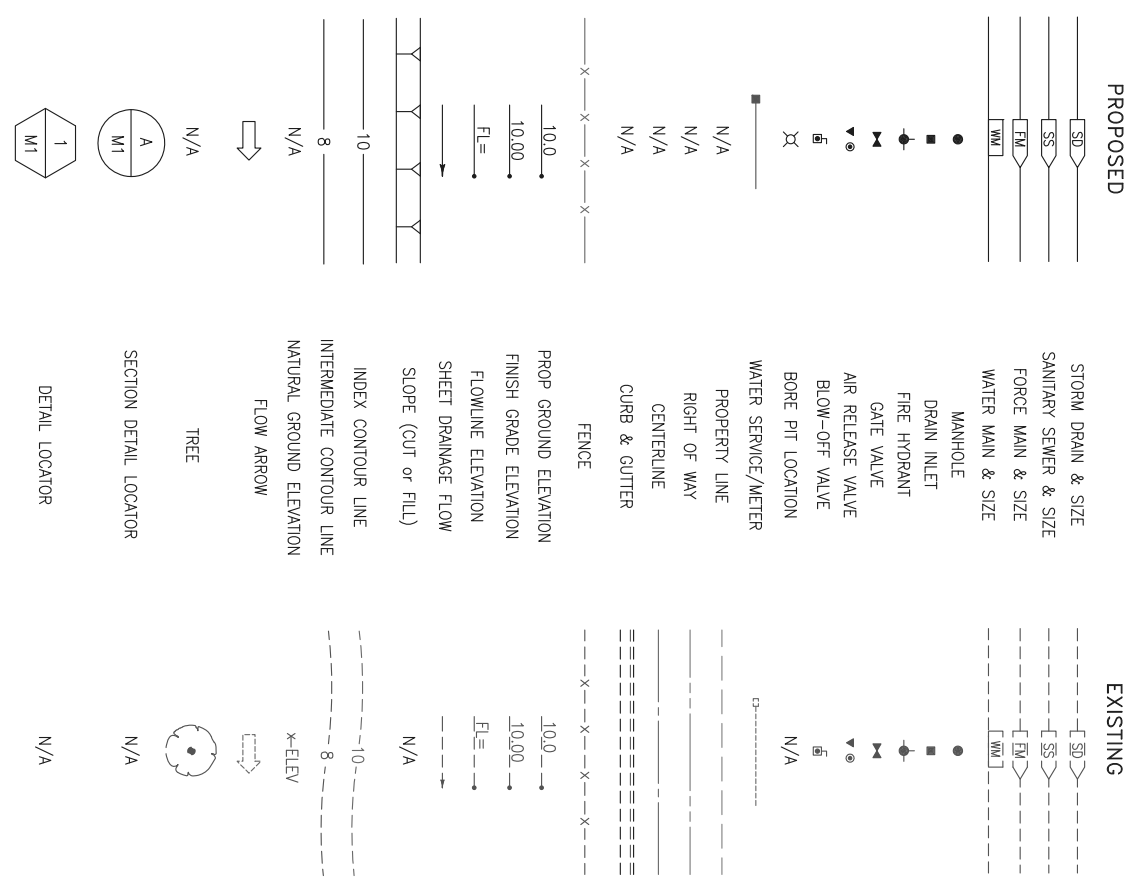
SURVEY CONTROL:

ELEVATIONS NOTED ARE RELATIVE TO ASSUMED ELEVATION OF 5,006 FT AT THE NORTHERN CORNER OF THE TANK 4 & 5 UTILITY BANK CONCRETE PAD. CONTRACTOR TO MAINTAIN VERTICAL CONTROL AND ACCURATELY RECORD ELEVATIONS OF ALL FITTINGS ON AS-BUILT DRAWINGS.

ABBREVIATIONS

NO.	REVISIONS	APP.	DATE
AB	AGGREGATE BASE		
ARV	AIR RELEASE VALVE		
ACP	ASBESTOS CONCRETE PIPE		
AC	ASPHALT CONCRETE		
BFD	BACK FLOW DEVICE		
BV	BALL VALVE		
BOV	BLOW OFF VALVE		
BRV	BUTTERFLY VALVE		
CO	CLEANOUT		
CLR	CLEARANCE		
CONC	CONCRETE		
CONT	CONTINUOUS		
DIA/ø	DIAMETER		
DBL	DOUBLE		
DDCV	DOUBLE DETECTOR CHECK VALVE		
DWY	DRIVEWAY		
DIP	DUCTILE IRON PIPE		
EW	EACH WAY		
EA	EACH		
ESMT	EASEMENT		
E	EASTING		
EOP	EDGE OF PAVEMENT		
EL/ELEV	ELEVATION		
(E)	EXISTING		
FT	FEET		
FF	FINISH FLOOR		
FG	FINISHED GRADE		
FH	FIRE HYDRANT		
FL	FLANGED/FLOWLINE		
FM	FORCE MAIN		
FPVC	FUSIBLE POLYVINYL CHLORIDE		
GAL	GALLONS		
GPM	GALLONS PER MINUTE		
GSP	GALVANIZED STEEL PIPE		
GV	GATE VALVE		
GA	GAUGE		
GR	GRATE		
HDPE	HIGH-DENSITY POLYETHYLENE		
HP	HORSEPOWER		
IE	INVERT ELEVATION		
INV	INVERT		
IPT	IRON PIPE THREAD		
IRRIG	IRRIGATION		
LF	LINEAR FEET		
MH	MANHOLE		
MAX	MAXIMUM		
MJ	MECHANICAL JOINT		
MIN	MINIMUM		
M	MOTOR		
(N)	NEW		
NPW	NON-POTABLE WATER		
NTS	NOT TO SCALE		
N	NORTHING		
OC	ON CENTER		
OD	OUTSIDE DIAMETER		
PVMT	PAVEMENT		
PE	PLAIN END		
PCC	PORTLAND CEMENT CONCRETE		
PSF	POUNDS PER SQUARE FOOT		
PSI	POUNDS PER SQUARE INCH		
PVC	POLYVINYL CHLORIDE		
PRV	PRESSURE REDUCING VALVE		
RCP	REINFORCED CONCRETE PIPE		
REINF	REINFORCEMENT		
REQD	REQUIRED		
ROW	RIGHT-OF-WAY		
SS	SANITARY SEWER		
SCH	SCHEDULE		
SO	SQUARE		
SF	SQUARE FEET		
SST	STAINLESS STEEL		
SD	STORM DRAIN		
SRV	SURGE RELIEF VALVE		
TEMP	TEMPORARY		
THK	THICK		
TYP	TYPICAL		
UNO	UNLESS NOTED OTHERWISE		
V	VOLTS		
WL	WATER LEVEL		
WM	WATER METER		
WSE	WATER SURFACE ELEVATION		
WSP	WELDED STEEL PIPE		
WWM	WELDED WIRE MESH		
W/	WITH		

LEGEND



PROJECT NOTES:

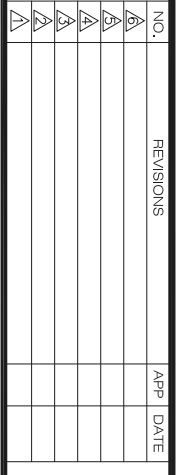
1. FOR SOIL BORING LOSS, ESTIMATED DEPTH TO ROCK, GROUNDWATER, AND TRENCHING RECOMMENDATION SEE THE "GEO-TECHNICAL INVESTIGATION REPORT" DATED MAY 12, 2014, PREPARED BY CONDOR EARTH TECHNOLOGIES, INC. 21663 BRIAN LANE, SONOMA, CA 95370 - PH. (209) 532-0361.
2. THERE IS NO TRACER WIRE BURIED WITH THE EXISTING 14" TECHITE PIPE. THE PIPE AS SHOWN ON THE PLANS IS BASED ON POTHOLES AND SPOT LOCATIONS IDENTIFIED AND LOCATED BY CALAVERAS COUNTY WATER DISTRICT, AND MAY NOT REFLECT THE EXACT LOCATION OF THE EXISTING PIPE, ANGLE POINTS AND MISCELLANEOUS APPURTENANCES.
3. THE TOPOGRAPHIC SURVEY OF THE EXISTING PIPE ALIGNMENT WAS PERFORMED ON JUNE 3, 2014 BY LAND AND STRUCTURE, 105 SOUTH STEWART STREET, SONOMA, CA 95379 - PH. (209) 532-5173.
4. INDIVIDUAL SERVICE INTERRUPTIONS SHALL BE SCHEDULED DURING TIMES CONVENIENT FOR THE CUSTOMER. THE CUSTOMER SHALL BE NOTIFIED 7 DAYS PRIOR TO THE SCHEDULED SHUT DOWN BY MAIL AND FLYER OR DOOR TAGS. AN INDIVIDUAL SERVICE SHUTDOWN SHALL NOT BE LONGER THAN 8 HOURS IN DURATION. A NETWORK PIPELINE CONNECTION SHUTDOWN SHALL NOT BE LONGER THAN 8 HOURS IN DURATION.



CALAVERAS COUNTY WATER DISTRICT
 120 TOMA COURT
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 1398 BLUE OAKS BLVD
 SUITE 200
 ROSEVILLE, CA 95678
 (916) 791-1188



TECHITE WATER PIPELINE REPLACEMENT
GENERAL NOTES, LEGEND & ABBREVIATIONS
CALAVERAS COUNTY CALIFORNIA

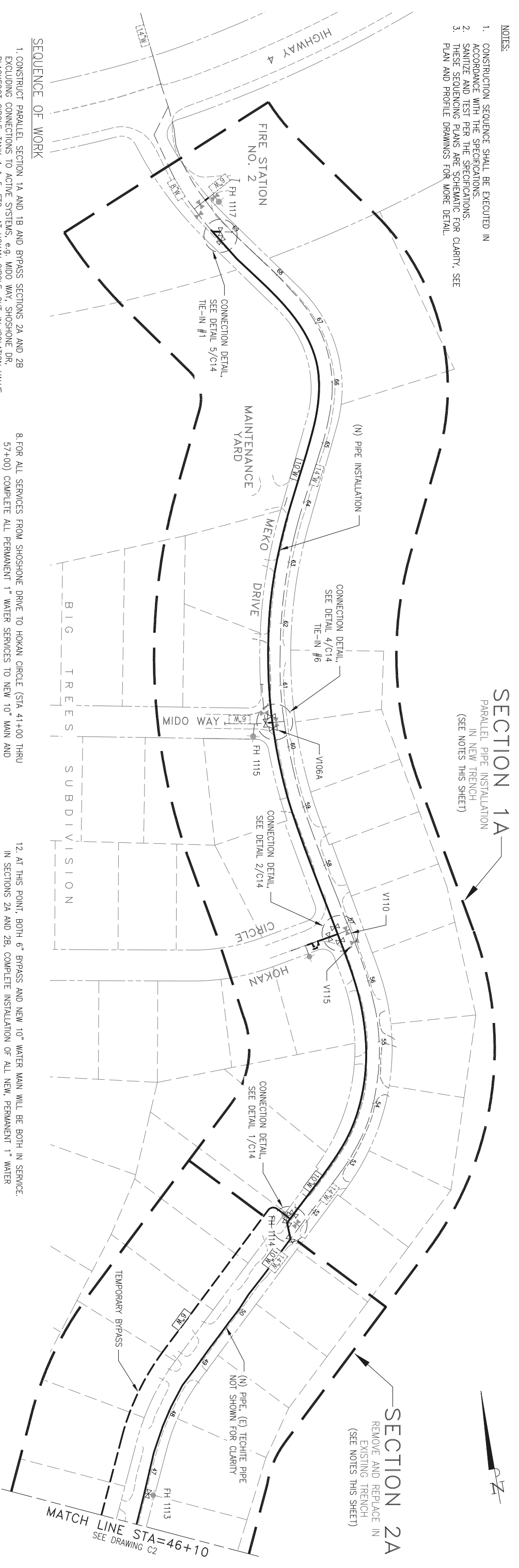
DESIGNED UNDER THE DIRECTION OF:

SIGN IN GRAY	DATE
FILE NO. 080311 - REGISTRATION EXPIRES 06-30-20	11-14-19
DESIGN: SNG	DATE: 11-14-19
DRAWN: WCJ	DATE: 11-14-19
CHECKED: SNG	DATE: 11-14-19



SCALE
 NO SCALE
 DRAWING NUMBER
G2
 SHEET NUMBER
 2 OF 16 SHEETS

- NOTES:**
1. CONSTRUCTION SEQUENCE SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS.
 2. SANITIZE AND TEST PER THE SPECIFICATIONS.
 3. THESE SEQUENCING PLANS ARE SCHEMATIC FOR CLARITY, SEE PLAN AND PROFILE DRAWINGS FOR MORE DETAIL.



SEQUENCE OF WORK

1. CONSTRUCT PARALLEL SECTION 1A AND 1B AND BYPASS SECTIONS 2A AND 2B EXCLUDING CONNECTIONS TO ACTIVE SYSTEMS, e.g. MIDO WAY, SHOSHONE DR, BLACKFOOT CIRCLE, TANK 4 & 5, ETC. AT HOKAN CIRCLE, CUT-IN ISOLATION VALVE PER DETAIL 3/C14 AND SHEET C12, AND THEN WITH CONSTRUCTION OF SECTION 1A INSTALL 10"x6" TEE WITH GATE VALVES PER DETAIL 2/C14, ON NEW 10" PARALLEL SECTIONS, ROUGH-IN NEW TEES AND GATE VALVES FOR FIRE HYDRANTS AND AIR RELEASE VALVES.
2. ON 10" PARALLEL SECTIONS, ROUGH-IN PERMANENT 1" WATER SERVICES. ON 6" BYPASS SECTIONS, ROUGH-IN TEMPORARY 1" WATER SERVICES. AT THIS POINT, KEEP ALL SERVICES ON 14" TECHITE ACTIVE.
3. CONNECT TEMPORARY 6" BYPASS SECTIONS 2A TO 10" PARALLEL SECTIONS 1A AT APPROXIMATELY STA 51+66, AND CONNECT TEMPORARY 6" BYPASS SECTION 1B TO 10" PARALLEL SECTION 1B AT APPROXIMATELY STATION 16+78.
4. TEST, DISINFECT, AND FLUSH 10" PARALLEL SECTIONS AND TEMPORARY 6" BYPASS SECTIONS UNTIL PASSING BACTERIOLOGICAL SAMPLES.
5. COMPLETE 6" BYPASS TIE-IN CONNECTION AT TANK 4 & 5 SITE PER DETAIL 4/C13 AND COMPLETE 10" PARALLEL TIE-IN CONNECTION AT STATION 6+00 PER DETAIL 5/C14.
6. AT SHOSHONE DRIVE, ISOLATE 14" TECHITE AND ISOLATE EAST FROM WEST SIDE OF 6" WATER MAIN USING EXISTING GATE VALVES. INSTALL 10" CROSS ON SHOSHONE DRIVE PER DETAIL 2/C13 INCLUDING MAKING CONNECTIONS TO 10" PARALLEL SECTION 1B AND 6" BYPASS SECTION 2A. AT THIS POINT, 14" TECHITE IS ACTIVE TO SUPPLY 6" WATER MAIN TO EAST OF SHOSHONE AND 6" BYPASS IS SUPPLYING 6" WATER MAIN TO WEST OF SHOSHONE.
7. FOR ALL SERVICES NORTH OF HOKAN CIRCLE (STA 57+00 THRU 69+00) COMPLETE ALL 1" WATER SERVICES AND TRANSFER THOSE SERVICES FROM 14" TECHITE TO NEW 10" PARALLEL WATER MAIN. NEXT, PERFORM SHUTDOWN TO COMPLETE TIE-IN CONNECTION TO 6" WATER MAIN AT MIDO WAY PER DETAIL 4/C14. USE EXISTING GATE VALVE V115 NEAR HOKAN CIRCLE TO ISOLATE 14" TECHITE. AFTER COMPETING NEW CONNECTION, SUPPLY MIDO WAY VIA NEW 10" PARALLEL WATER MAIN AND 14" TECHITE NORTH OF HOKAN CIRCLE CAN BE TAKEN OUT OF SERVICE.
8. FOR ALL SERVICES FROM SHOSHONE DRIVE TO HOKAN CIRCLE (STA 41+00 THRU 57+00) COMPLETE ALL PERMANENT 1" WATER SERVICES TO NEW 10" MAIN AND TEMPORARY 1" WATER SERVICES TO 6" BYPASS AND TRANSFER THOSE SERVICES OFF 14" TECHITE. NEXT, PERFORM SHUTDOWN TO COMPLETE TIE-IN PER DETAIL 2/C13 CONNECTING THE 6" WATER MAIN EAST SIDE SHOSHONE DRIVE TO NEW 10" PARALLEL LINE AND 6" BYPASS. USE EXISTING VALVE V130 TO ISOLATE 14" TECHITE. UPON COMPLETION OF THE TIE-IN CONNECTION, TAKE 14" TECHITE OUT OF SERVICE NORTH OF SHOSHONE (STATION 42+00 THRU 69+00) BUT REMAIN ACTIVE TO SOUTH (STATION 0+00 THRU 41+00)
9. FOR SECTIONS 2A, EXCAVATE AND REMOVE 14" TECHITE FROM ITS EXISTING TRENCH AND REPLACE WITH NEW 10" WATER MAIN IN THE SAME TRENCH. FOR SECTION 2A, ROUGH-IN NEW PERMANENT 1" WATER SERVICES FROM NEW 10" WATER MAIN. FOR SECTION 1A AND 2A COMPLETE INSTALLATION OF ALL FIRE HYDRANTS AND AIR RELEASE VALVES. AFTER TESTING, DISINFECTING, AND FLUSHING NEW 10" WATER MAIN AND PASSING BACTERIOLOGICAL SAMPLES, PLACE SECTION 2A AND FIRE HYDRANTS INTO SERVICE.
10. FOR SECTIONS 1B AND 2B, COMPLETE AND TRANSFER ALL REMAINING WATER SERVICES TO NEW 10" PARALLEL WATER MAIN AND 6" BYPASS RESPECTIVELY. NEXT, PERFORM SHUTDOWN TO COMPLETE TIE-IN PER DETAIL 3/C13 CONNECTING THE EXISTING 6" WATER MAIN ON BLACKFOOT CIRCLE. USE EXISTING VALVE V145 TO ISOLATE OPPOSITE END OF EXISTING 6" WATER MAIN ON BLACKFOOT CIRCLE AND MAINTAIN WATER SERVICE TO CUSTOMERS.
11. TAKE OUT SERVICES REMAINING SECTION 1B AND 2B OF 14" TECHITE LINE. NEXT, EXCAVATE AND REMOVE THE 14" TECHITE LINE FROM ITS EXISTING TRENCH AND REPLACE WITH NEW 10" WATER MAIN IN SAME TRENCH ALIGNMENT. FOR SECTION 2B, ROUGH-IN NEW PERMANENT 1" WATER SERVICES TO NEW 10" WATER MAIN. ALSO, FOR SECTIONS 1B AND 2B COMPLETE INSTALLATION OF ALL FIRE HYDRANTS AND AIR RELEASE VALVES. AT INTERSECTIONS OF NEWUK LANE AND BLACKFOOT CIRCLE, INSTALL 10" TEE WITH GATE VALVES PER DETAIL 1/C13. AFTER TESTING, DISINFECTING AND FLUSHING NEW 10" WATER MAIN AND PASSING BACTERIOLOGICAL SAMPLES, PLACE SECTION 2B INTO SERVICE.

12. AT THIS POINT, BOTH 6" BYPASS AND NEW 10" WATER MAIN WILL BE BOTH IN SERVICE. IN SECTIONS 2A AND 2B, COMPLETE INSTALLATION OF ALL NEW, PERMANENT 1" WATER SERVICES ON 10" WATER MAIN AND TRANSFER ALL WATER SERVICES FROM THE 6" TEMPORARY BYPASS TO THE PERMANENT 10" WATER MAIN.
13. REMOVE TEMPORARY 6" BYPASS PIPING, CAP OR BLIND FLANGE ALL UNUSED AND ABANDON BRANCH LINES UNDERGROUND/BELOW GRADE. FOR PORTIONS CONNECTED TO ACTIVE SYSTEM, PROVIDE BOTH MECHANICAL THRUST RESTRAINT AND CONCRETE THRUST BLOCKING OF ALL CAPS AND BLIND FLANGE TERMINATIONS.
14. FOR THE ABANDONED 14" TECHITE, SECTIONS 1A AND 1B, PLUG ENDS AND ENTIRELY FILL INSIDE ANNULAR SPACE WITH CELLULAR CONCRETE FOAM, FLOWABLE FILL. UPON COMPLETION, ALL EXCAVATIONS OF EXPOSED ENDS ARE TO BE BACKFILLED WITH CLASS 2 A.B. AND COMPACTED TO FINISH GRADE.

PROCEDURE OVERVIEW

STEP 1: INSTALLING PARALLEL PIPING

- STA 69+00 TO STA 51+66
- STA 41+36 TO STA 16+78

STEP 2: INSTALLING BYPASS PIPING

- STA 51+66 TO STA 41+36
- STA 16+78 TO STA 00+00

STEP 3: REMOVING AND REPLACING (E) WATER MAIN IN (E) TRENCH

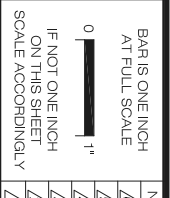
- STA 51+66 TO STA 41+36
- STA 16+78 TO STA 00+00



CALAVERAS COUNTY WATER DISTRICT
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COLEMAN ENGINEERING
 1398 BLUE OAKS BLVD
 SUITE 200
 ROSEVILLE, CA 95678
 (916) 791-1188



NO.	REVISIONS	APP.	DATE

TECHTE WATER PIPELINE REPLACEMENT

CONSTRUCTION SEQUENCING-1

CALAVERAS COUNTY CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:

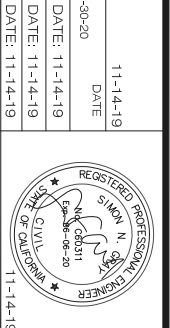
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DATE: 11-14-19



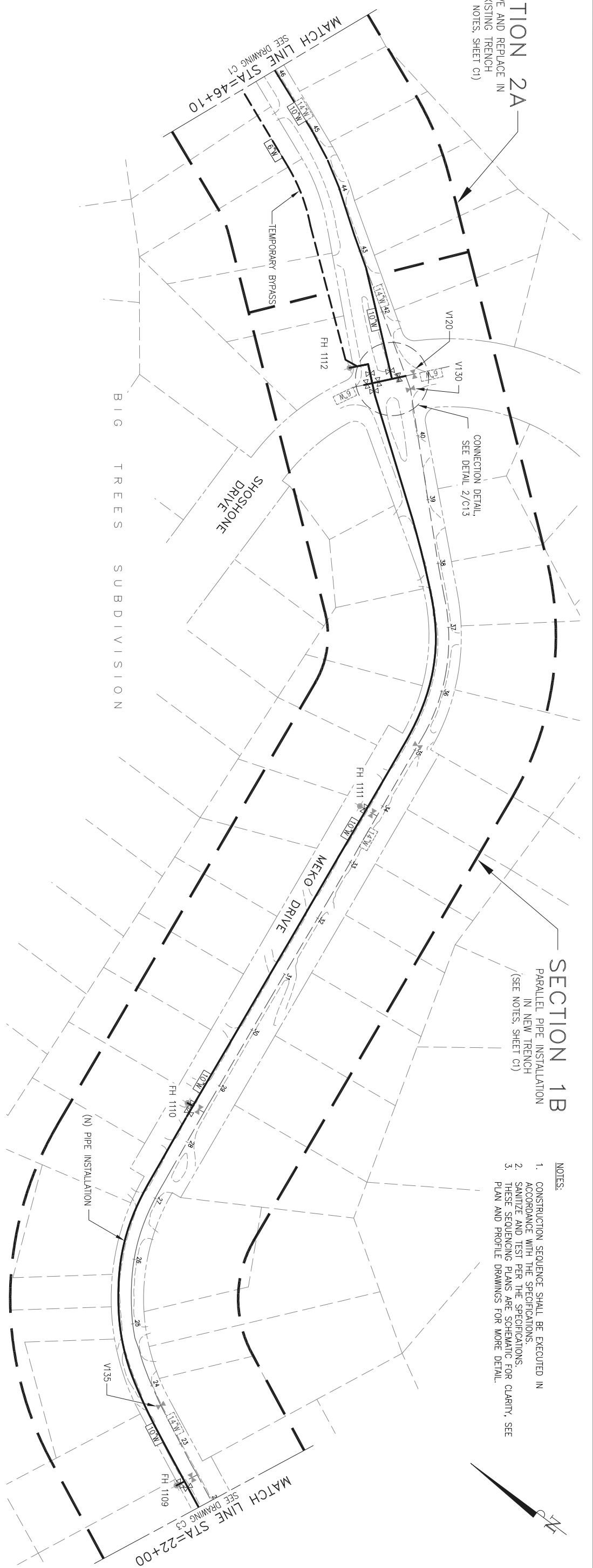
SCALE: 1" = 80'

DRAWING NUMBER: **C1**

SHEET NUMBER: 3 OF 16 SHEETS

SECTION 2A
 REMOVE AND REPLACE IN
 EXISTING TRENCH
 (SEE NOTES, SHEET C1)

SECTION 1B
 PARALLEL PIPE INSTALLATION
 IN NEW TRENCH
 (SEE NOTES, SHEET C1)



- NOTES:**
1. CONSTRUCTION SEQUENCE SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS.
 2. SANITIZE AND TEST PER THE SPECIFICATIONS.
 3. THESE SEQUENCING PLANS ARE SCHEMATIC FOR CLARITY, SEE PLAN AND PROFILE DRAWINGS FOR MORE DETAIL.

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TECHITE WATER PIPELINE REPLACEMENT
CONSTRUCTION SEQUENCE-2
 CALAVERAS COUNTY CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:

 SING N. GRAY
 P.C.E. No. 080311 - REGISTRATION EXPIRES 06-30-20
 DATE: 11-14-19

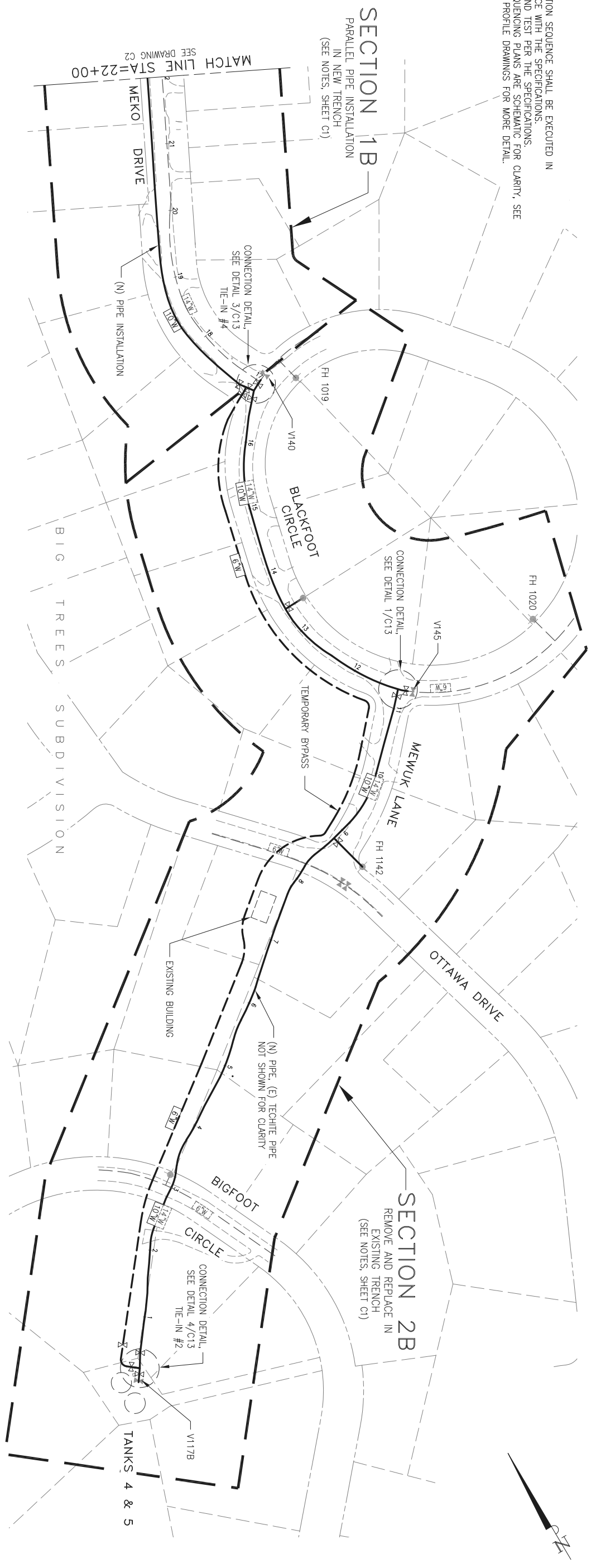
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 DATE: 11-14-19

CHECKED: SNG
 DATE: 11-14-19

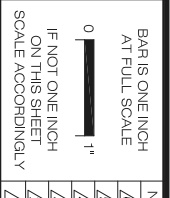
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 DRAWING NUMBER: C2
 SHEET NUMBER: 4 OF 16 SHEETS

- NOTES:
1. CONSTRUCTION SEQUENCE SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS.
 2. SANITIZE AND TEST PER THE SPECIFICATIONS.
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CALAVERAS COUNTY WATER DISTRICT
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NO.	REVISIONS	APP.	DATE

TECHITE WATER PIPELINE REPLACEMENT
CONSTRUCTION SEQUENCING-3
 CALAVERAS COUNTY CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:

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FILE NO: 080311 - REGISTRATION EXPIRES 06-30-20	11-14-19
DESIGN: SNG	DATE: 11-14-19
DRAWN: WCJ	DATE: 11-14-19
CHECKED: SNG	DATE: 11-14-19

SCALE: 1" = 80'
 DRAWING NUMBER: C3
 SHEET NUMBER: 5 OF 16 SHEETS

CALAVERAS COUNTY WATER DISTRICT
 120 TOWN COURT
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SCALE ACCORDINGLY
 IF NOT ONE INCH ON THIS SHEET

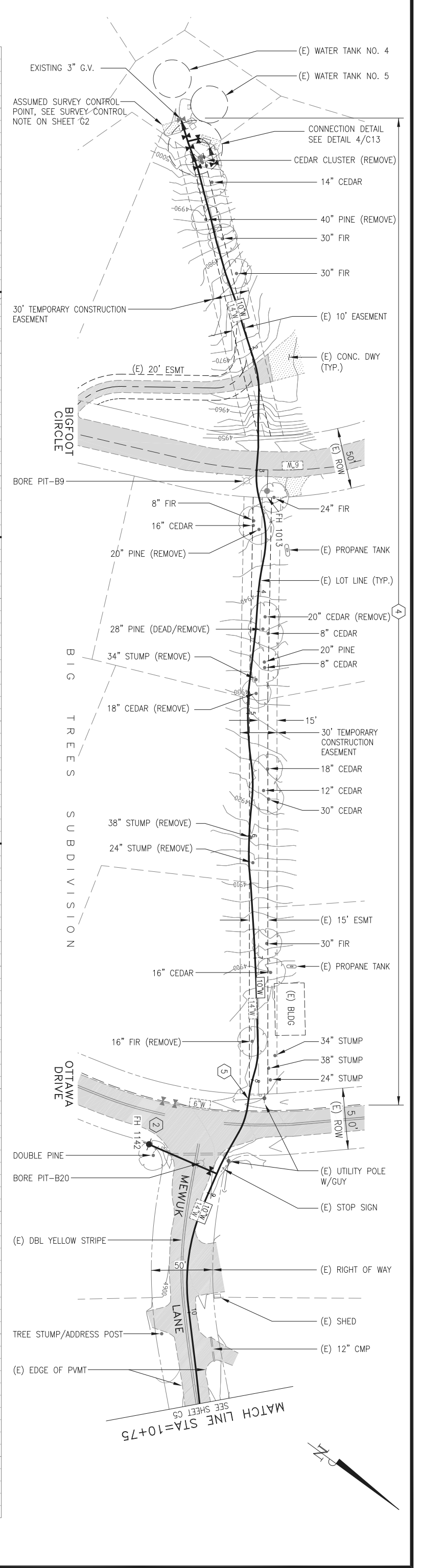
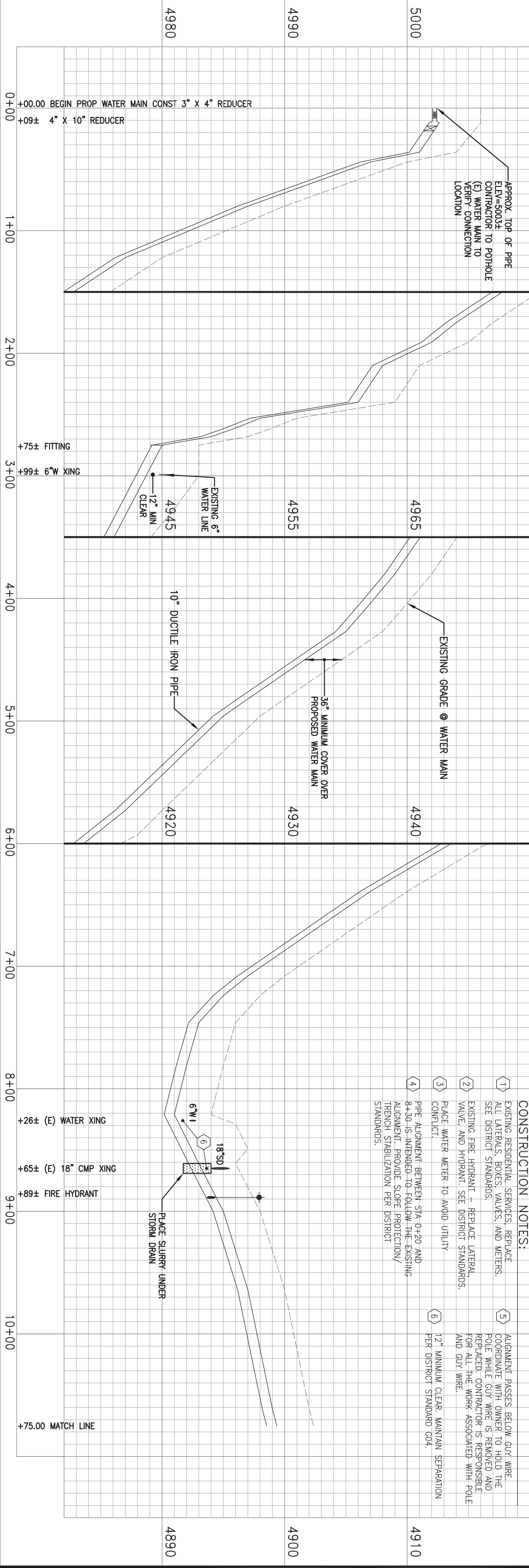
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CALAVERAS COUNTY

TECHITE WATER PIPELINE REPLACEMENT
 PLAN & PROFILE
 STA. 0+20 - 10+75

CALIFORNIA

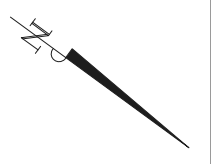
DESIGNED UNDER THE DIRECTION OF:
 DATE: 11-14-19
 DATE: 11-14-19
 DATE: 11-14-19
 DATE: 11-14-19



CONSTRUCTION NOTES:

- EXISTING RESIDENTIAL SERVICES, REPLACE ALL LATERALS, BOXES, VALVES, AND METERS. SEE DISTRICT STANDARDS.
- EXISTING FIRE HYDRANT - REPLACE LATERAL, VALVE, AND HYDRANT. SEE DISTRICT STANDARDS.
- PLACE WATER METER TO AVOID UTILITY CONFLICT.
- PIPE ALIGNMENT BETWEEN STA 0+20 AND 8+50 IS INTENDED TO FOLLOW THE EXISTING ALIGNMENT. PROVIDE SLOPE PROTECTION/TRENCH STABILIZATION PER DISTRICT STANDARDS.
- ALIGNMENT PASSES BELOW GUY WIRE. COORDINATE WITH OWNER TO HOLD THE POLE WHILE GUY WIRE IS REMOVED AND REPLACED. CONTRACTOR IS RESPONSIBLE FOR ALL THE WORK ASSOCIATED WITH POLE AND GUY WIRE.
- 12" MINIMUM CLEAR, MAINTAIN SEPARATION PER DISTRICT STANDARD 004.

MATCH LINE STA=10+75
 SEE SHEET C3





CALAVERAS COUNTY WATER DISTRICT
 120 TOWN COURT
 P.O. BOX 846
 SAN ANDREAS, CA 95249
 PHONE: (209) 754-3543
 FAX: (209) 754-1089



COLEMAN ENGINEERING
 1358 BLUE OAKS BLVD
 SUITE 200
 ROSEVILLE, CA 95678
 (916) 791-1188

SCALE ACCORDINGLY
 IF NOT ONE INCH ON THIS SHEET

NO.	REVISIONS	APP.	DATE

CALAVERAS COUNTY

TECHITE WATER PIPELINE REPLACEMENT
PLAN & PROFILE
 STA. 10+75 - 20+50

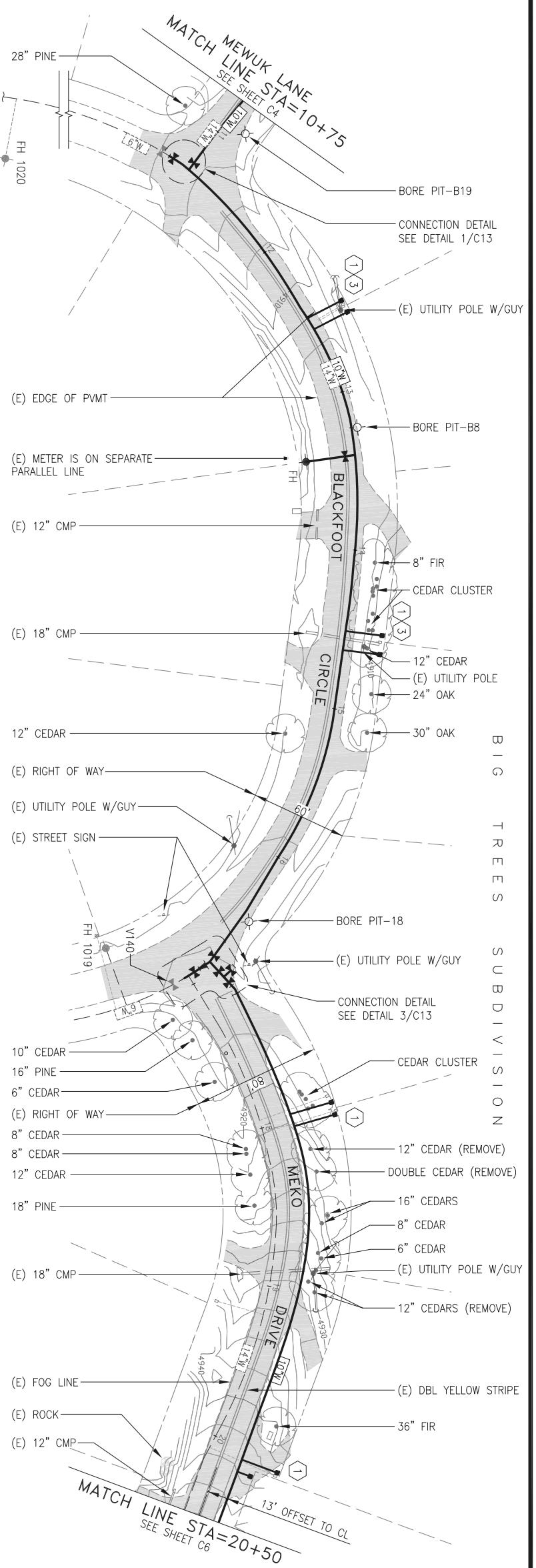
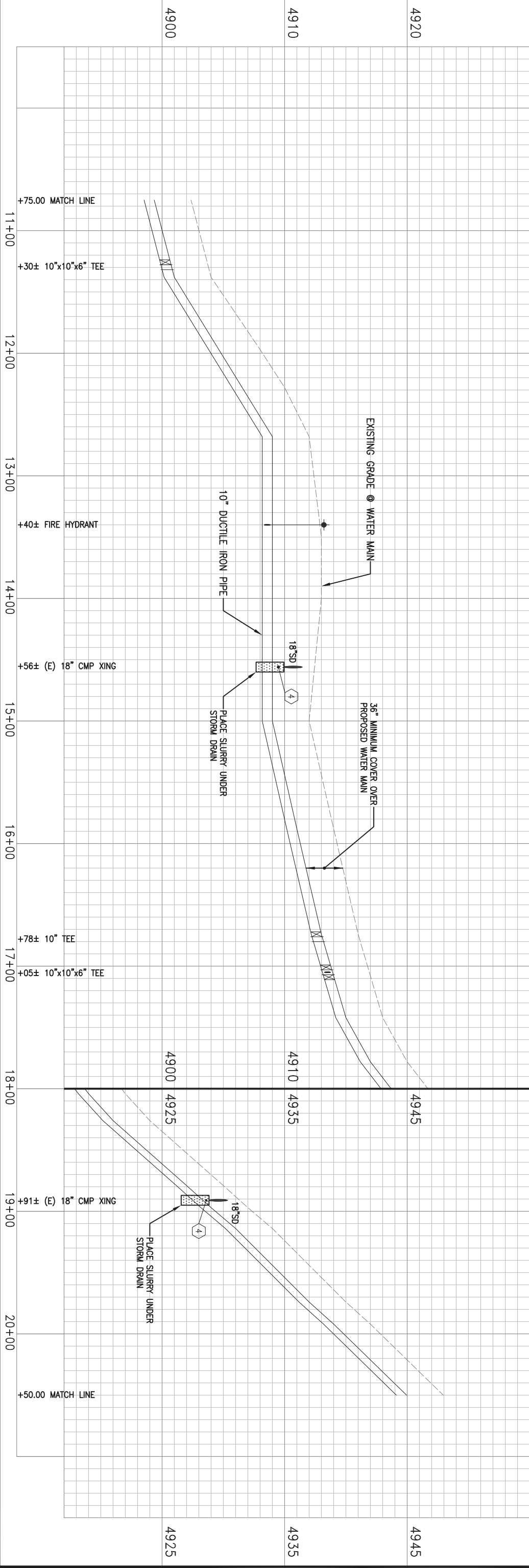
CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:

SIGNATURE	DATE
	11-14-19
FILE NO. 080311 - REGISTRATION EXPIRES 06-30-20	DATE: 11-14-19
DESIGN: SNG	DATE: 11-14-19
DRAWN: WCJ	DATE: 11-14-19
CHECKED: SNG	DATE: 11-14-19



SCALE
 HORZ. 1"=40'
 VERT. 1"=4'
 DRAWING NUMBER
C5
 SHEET NUMBER
 7 OF 16 SHEETS



- CONSTRUCTION NOTES:**
- EXISTING RESIDENTIAL SERVICES, REPLACE ALL LATERALS, BOXES, VALVES, AND METERS. SEE DISTRICT STANDARDS.
 - EXISTING FIRE HYDRANT - REPLACE LATERAL, VALVE, AND HYDRANT. SEE DISTRICT STANDARDS. PLACE WATER METER TO AVOID UTILITY CONFLICT.
 - 12" MINIMUM CLEAR. MAINTAIN SEPARATION PER DISTRICT STANDARD GO4.
 - 12" MINIMUM COVER OVER PROPOSED WATER MAIN.





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 ROSEVILLE, CA 95678
 (916) 791-1188

SCALE ACCORDINGLY
 IF NOT ONE INCH ON THIS SHEET

NO.	REVISIONS	APP. DATE

CALAVERAS COUNTY

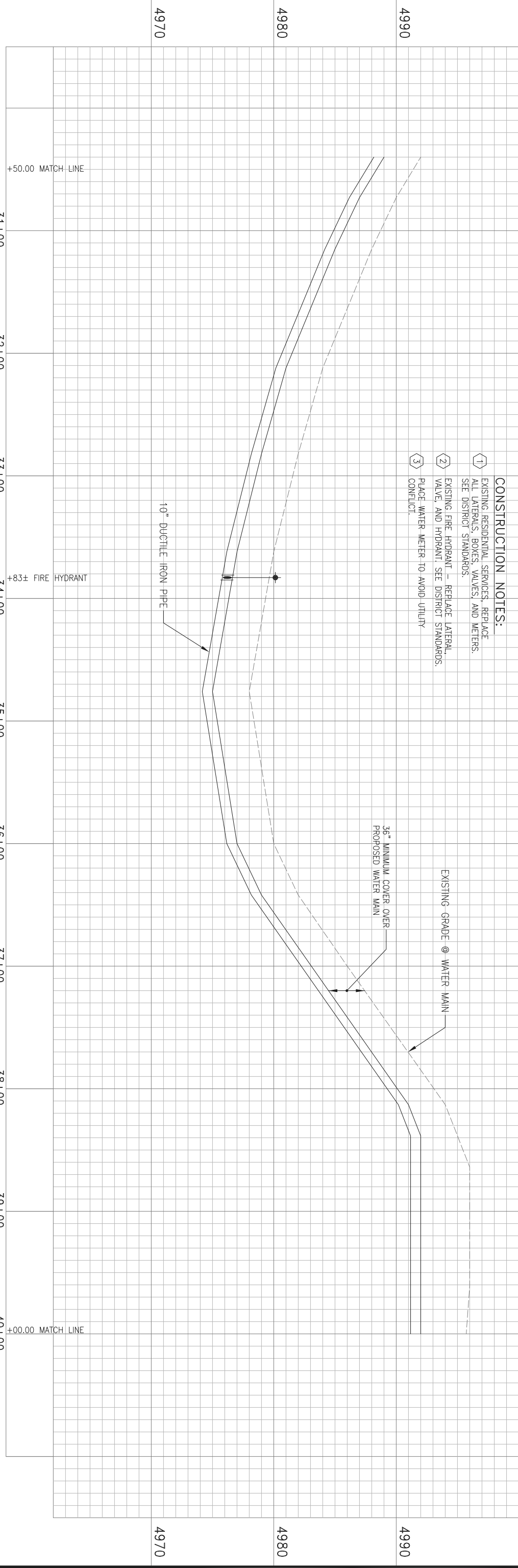
TECHITE WATER PIPELINE REPLACEMENT
PLAN & PROFILE
 STA. 30+50 - 40+00

CALIFORNIA

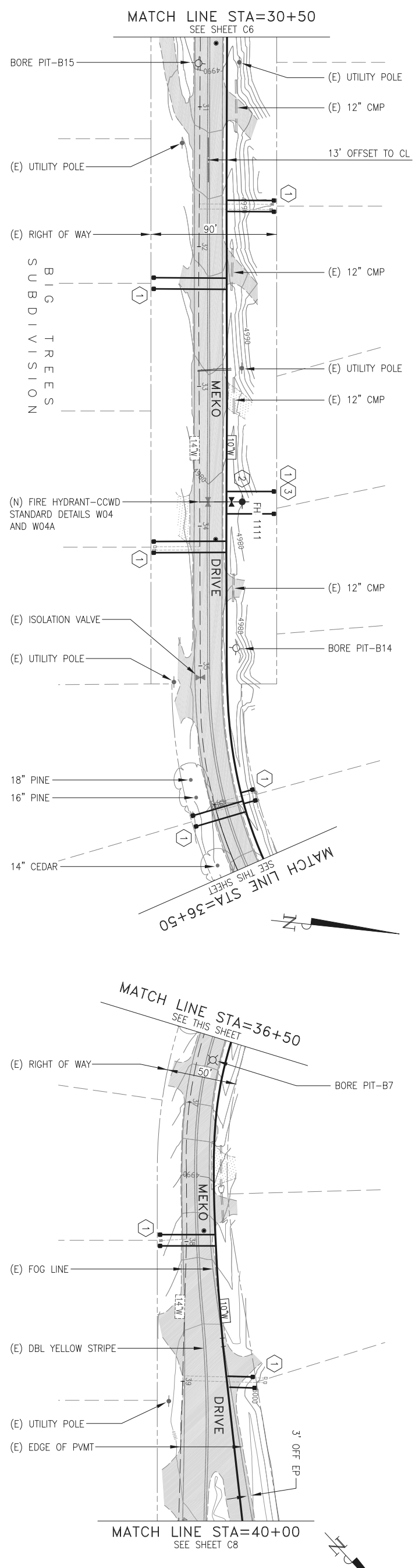
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 SING N. GRAY
 REG. NO. 082311 - REGISTRATION EXPIRES 06-30-20
 DESIGN: SNG
 DRAWN: WCJ
 CHECKED: SNG
 DATE: 11-14-19
 DATE: 11-14-19
 DATE: 11-14-19



SCALE
 HORZ. 1"=40'
 VERT. 1"=4'
 DRAWING NUMBER
C7
 SHEET NUMBER
 9 OF 16 SHEETS



- CONSTRUCTION NOTES:**
- EXISTING, RESIDENTIAL SERVICES, REPLACE ALL LATERALS, BOXES, VALVES, AND METERS. SEE DISTRICT STANDARDS.
 - EXISTING FIRE HYDRANT - REPLACE LATERAL, VALVE, AND HYDRANT. SEE DISTRICT STANDARDS.
 - PLACE WATER METER TO AVOID UTILITY CONFLICT.





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COLEMAN ENGINEERING
 1358 BLUE OAKS BLVD
 SUITE 200
 ROSEVILLE, CA 95678
 (916) 791-1188

SCALE ACCORDINGLY
 IF NOT ONE INCH ON THIS SHEET
 BARS ONE INCH AT FULL SCALE

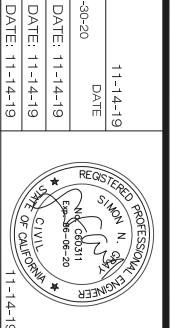
NO.	REVISIONS	APP.	DATE

CALAVERAS COUNTY

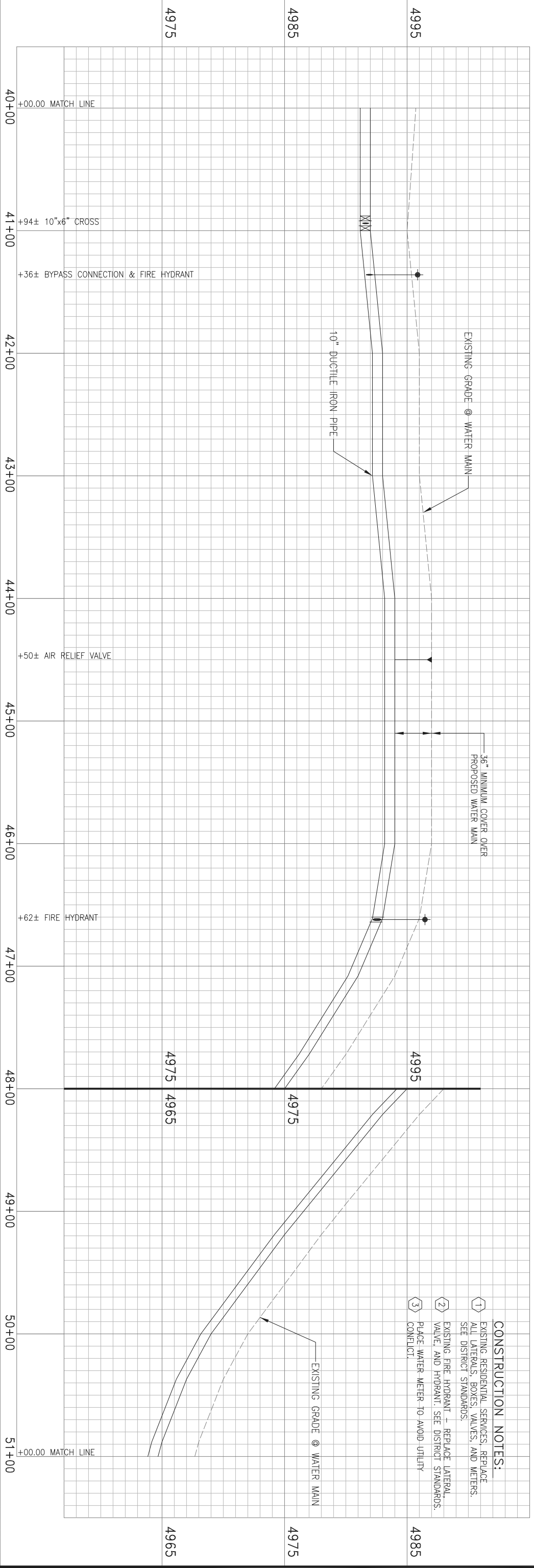
TECHITE WATER PIPELINE REPLACEMENT
PLAN & PROFILE
 STA. 40+00 - 51+00

CALIFORNIA

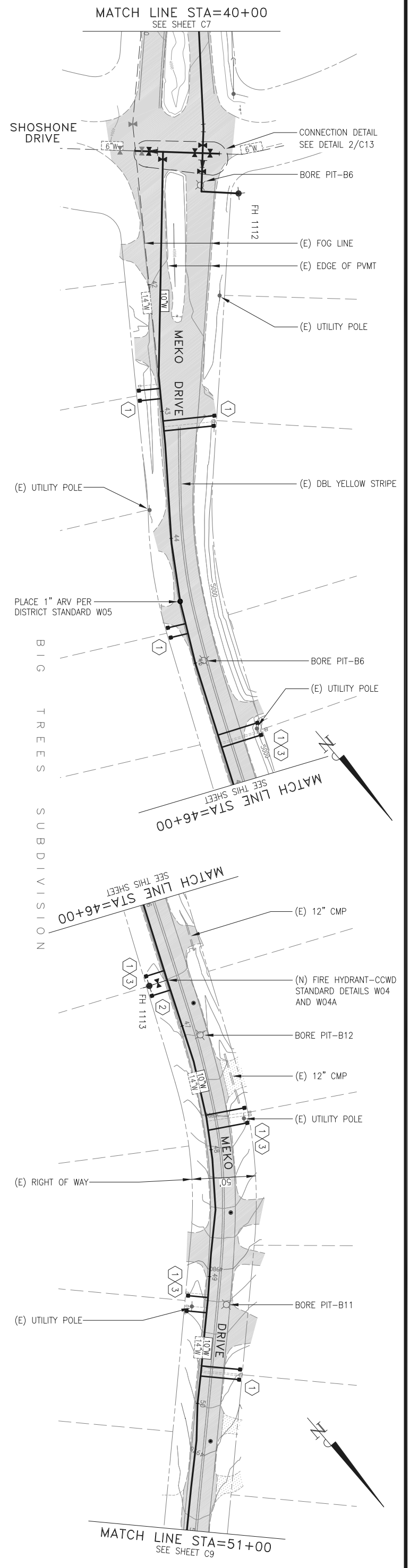
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 SIGNED AND SEALED:
 FILE NO: 080311 - REGISTRATION EXPIRES 06-30-20
 DESIGN: SNG DATE: 11-14-19
 DRAWN: WCJ DATE: 11-14-19
 CHECKED: SNG DATE: 11-14-19



SCALE
 HORIZ. 1"=40'
 VERT. 1"=4'
C8
 DRAWING NUMBER
 SHEET NUMBER
 10 OF 16 SHEETS



- CONSTRUCTION NOTES:**
- ① EXISTING RESIDENTIAL SERVICES, REPLACE ALL LATERALS, BOXES, VALVES, AND METERS. SEE DISTRICT STANDARDS.
 - ② EXISTING FIRE HYDRANT - REPLACE LATERAL, VALVE, AND HYDRANT. SEE DISTRICT STANDARDS.
 - ③ PLACE WATER METER TO AVOID UTILITY CONFLICT.



CALAVERAS COUNTY WATER DISTRICT
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 SUITE 200
 ROSEVILLE, CA 95678
 (916) 791-1188

SCALE ACCORDINGLY
 IF NOT ONE INCH ON THIS SHEET

NO.	REVISIONS	APP.	DATE

CALAVERAS COUNTY

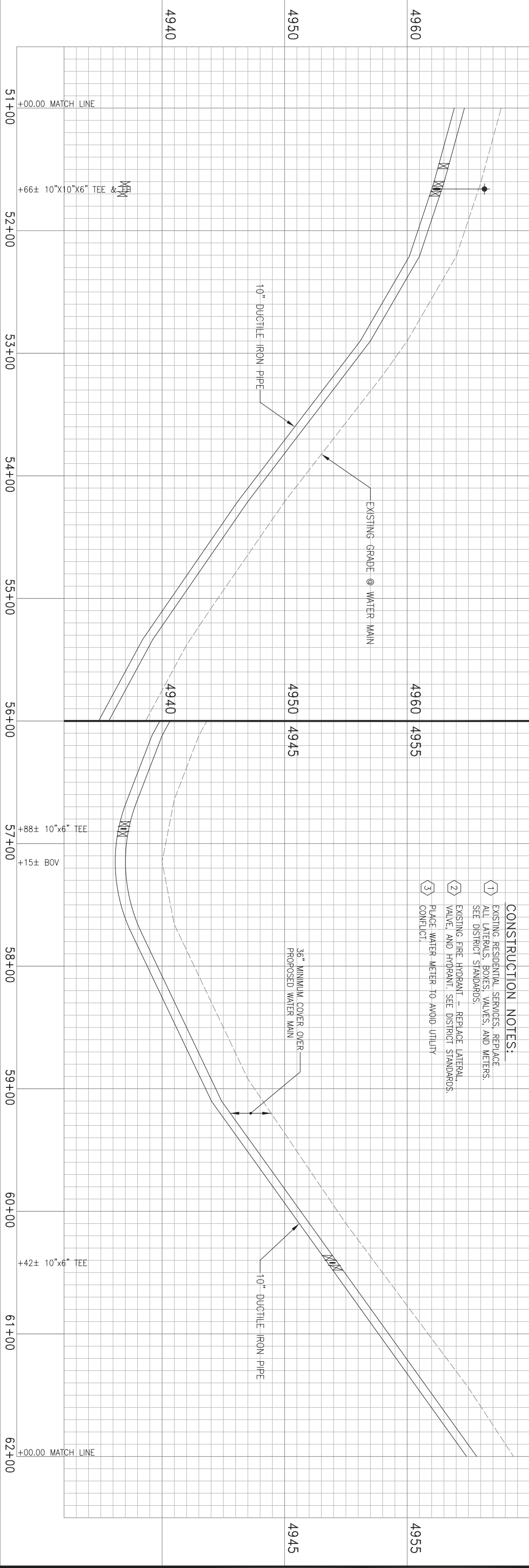
TECHITE WATER PIPELINE REPLACEMENT
PLAN & PROFILE
 STA. 51+00 - 62+00

DESIGNED UNDER THE DIRECTION OF:

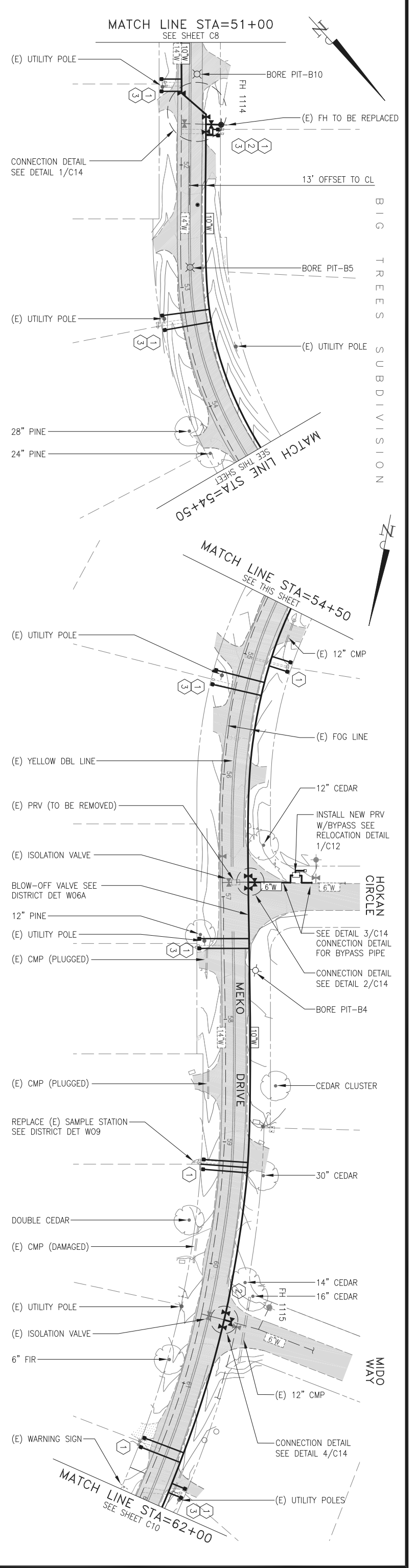
DESIGNER: SNG	DATE: 11-14-19
DRAWN: WCJ	DATE: 11-14-19
CHECKED: SNG	DATE: 11-14-19

REGISTERED PROFESSIONAL ENGINEER
 SIMEON M. N. M.
 CIVIL
 11-14-19

SCALE:
 HORZ. 1"=40'
 VERT. 1"=4'
C9
 DRAWING NUMBER
 SHEET NUMBER
 11 OF 16 SHEETS



- CONSTRUCTION NOTES:**
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 - EXISTING FIRE HYDRANT - REPLACE LATERAL, VALVE, AND HYDRANT. SEE DISTRICT STANDARDS.
 - PLACE WATER METER TO AVOID UTILITY CONFLICT.



BIG TREES SUBDIVISION

HOKAN CIRCLE

MIDO WAY



**CALAVERAS COUNTY
WATER DISTRICT**
120 TOWN COURT
P.O. BOX 846
SAN ANDREAS, CA 95649
PHONE: (209) 754-3543
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**COLEMAN
ENGINEERING**
COLEMAN ENGINEERING
1398 BLUE OAKS BLVD
SUITE 200
ROSEVILLE, CA 95678
(916) 791-1188

BAR IS ONE INCH
AT FULL SCALE
IF NOT ONE INCH
ON THIS SHEET
SCALE ACCORDINGLY

NO.	REVISIONS	APP.	DATE

CALAVERAS COUNTY

**TECHITE WATER PIPELINE REPLACEMENT
PRV STATION - DETAILS**

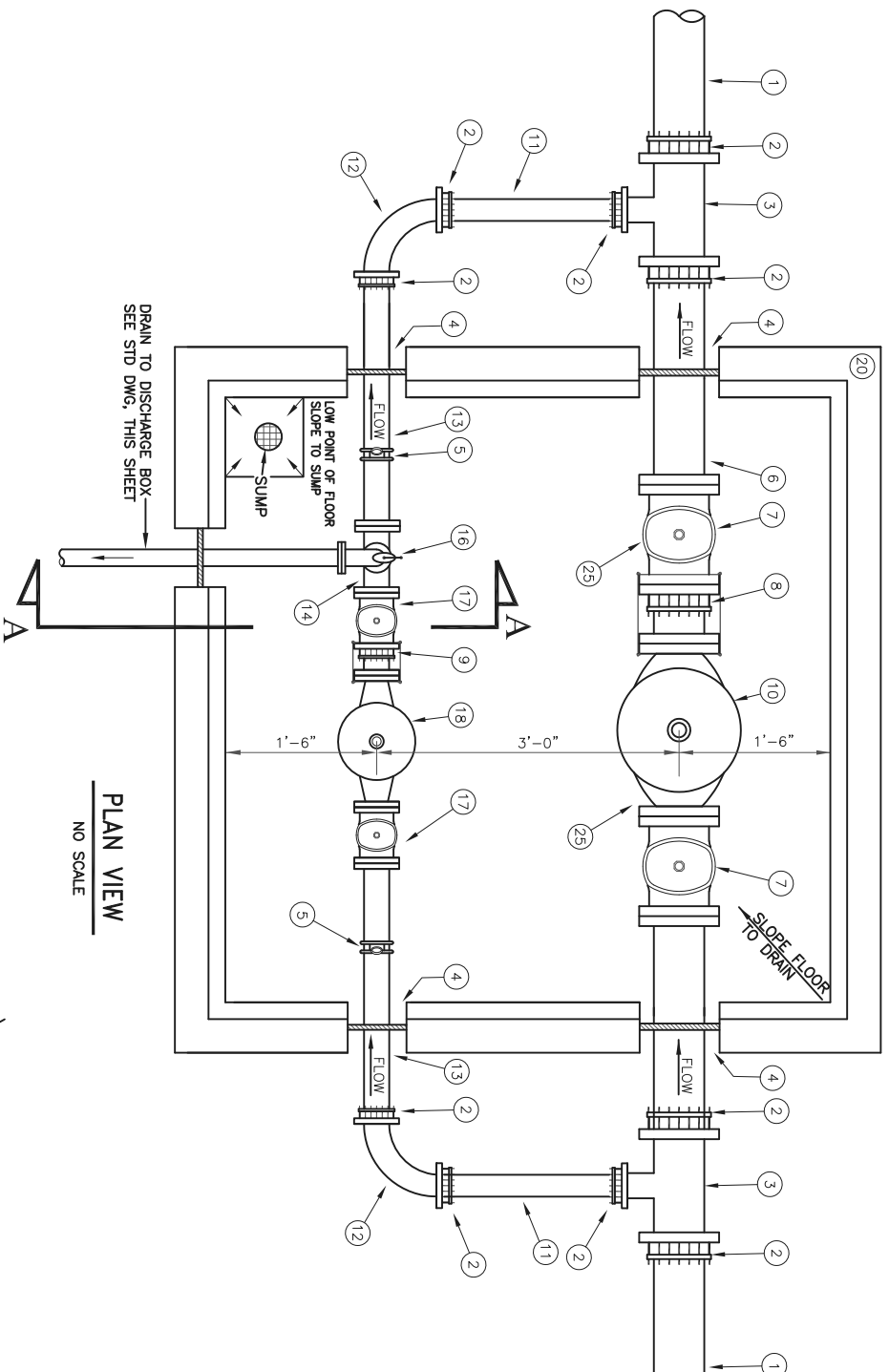
CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:
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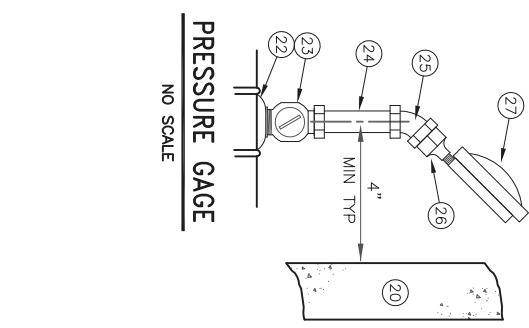
11-14-19
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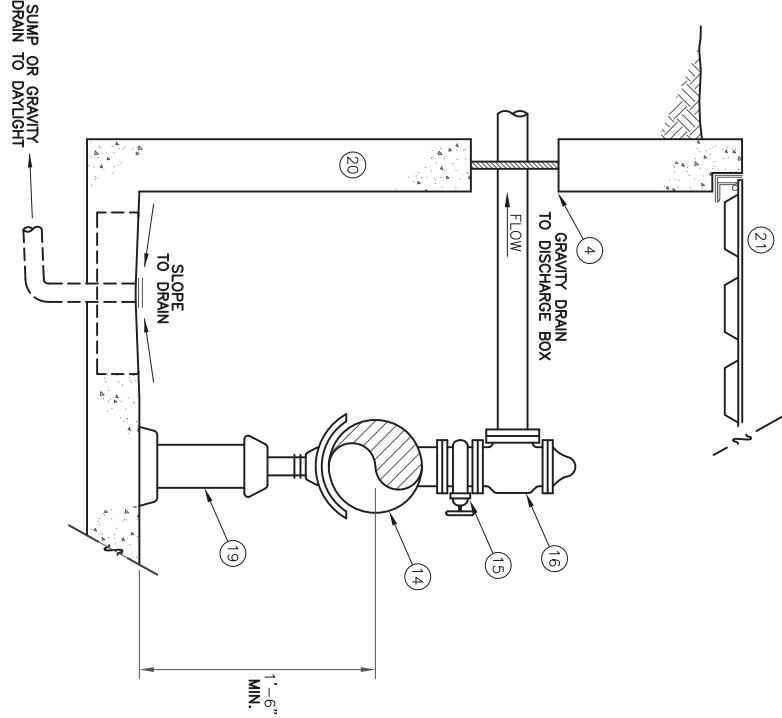
SCALE
NO SCALE
DRAWING NUMBER
C11
SHEET NUMBER
13 OF 16 SHEETS



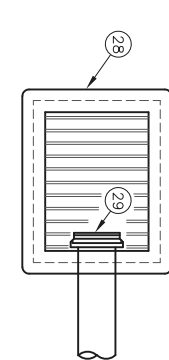
PLAN VIEW
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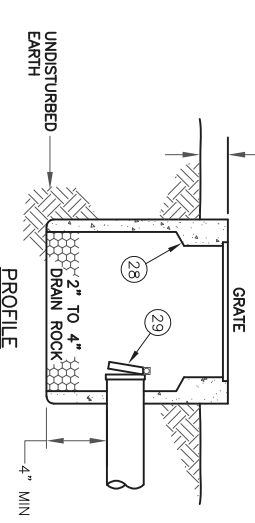
PRESSURE GAGE
NO SCALE



SECTION A-A
NO SCALE



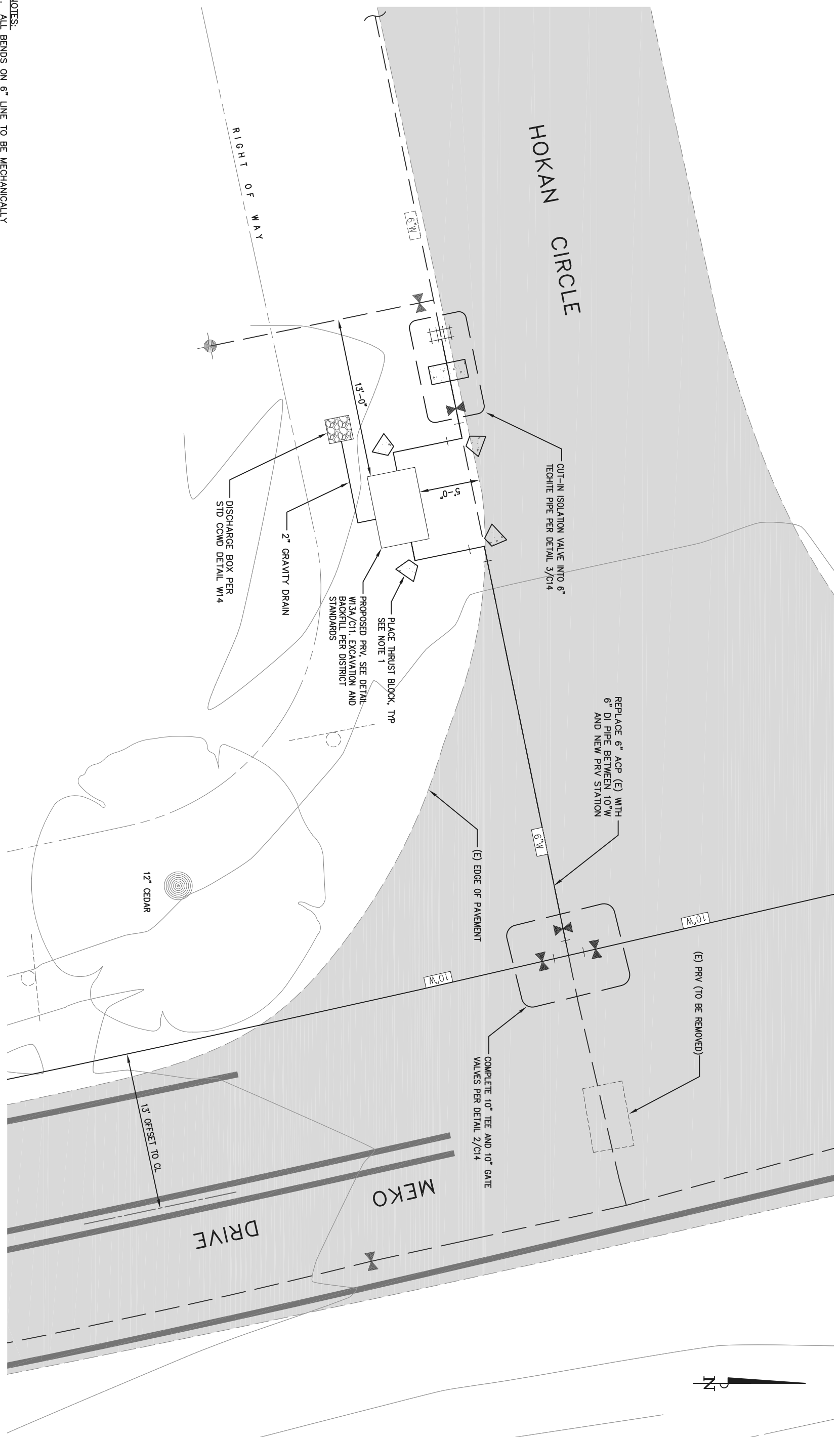
PLAN



DISCHARGE BOX
NO SCALE

ITEM	DESCRIPTION
1	6" DIP WATER MAIN
2	MECHANICAL RESTRAINT GLAND
3	6" X 6" X 3" DUCTILE IRON TEE, MJ X MJ X MJ
4	CONCRETE DRILL OR FORGED HOLES: FILL ANNULAR VOID WITH NON-SHRINK CONSTRUCTION GROUT, SAKRETE, SIKAGROUT, FINE STAR, OR EQUIT
5	SADDLE, CORP STOP, PRESSURE GAGE ASSEMBLY (SEE DETAIL THIS SHEET)
6	6" D.I.P., SPOOL, FLANGE X PLAIN END
7	6" AWMA C515 GATE VALVE, FL X FL, AWMA NUT OPERATORS
8	6" ROMAC D4400 DISMANTLING JOINT, EPOXY COATED, STAINLESS STEEL BOLTS
9	3" ROMAC D4400 DISMANTLING JOINT, EPOXY COATED, STAINLESS STEEL BOLTS
10	6" PRESSURE REDUCING VALVE, FL X FL, SEE SPECIFICATIONS
11	3" D.I.P., SPOOL, PLAIN ENDS
12	3" 90-DEGREE BEND, MJ X MJ
13	3" D.I.P., SPOOL, FLANGE X PLAIN ENDS
14	3" X 3" X 2" DUCTILE IRON TEE
15	2" AWMA C515, GATE VALVE
16	2" PRESSURE RELIEF VALVE, SEE SPECIFICATIONS
17	3" AWMA C515 GATE VALVE, FL X FL, AWMA NUT OPERATOR
18	3" REDUCED PORT PRESSURE REDUCING VALVE, FL X FL, SEE SPECIFICATIONS
19	PIPE SUPPORT, HOT DIP GALVANIZED, PLACER WATERWORKS (PW/PS) WITH STANDARD (PW/SDL-S) SADDLES
20	PRECAST CONCRETE VAULT, MINIMUM 6'-0" I.D. X 6'-0" I.D., SEE SPECIFICATIONS
21	MIN 72" X 72" DOUBLE LEAF HATCH, 1/2" STEEL Z-BAR FRAME, 1/2" STEEL DIAMOND PLATE, STAINLESS STEEL HARDWARE AND SAFETY ARMS, TORSION ASSIST, FOUR 1/2" SECURITY BOLTS, H20 TRAFFIC RATED
22	SERVICE SADDLE (MUELLER DR2A, NYLON DUCTILE IRON, DOUBLE STRAP)
23	3/4" CORP. STOP BALL VALVE (AWMA C800, NSF 61 & 372, 300 PS)
24	3/4" THREADED PIPE NIPPLE (RED BRASS ASTM B43, SCHEDULE 40)
25	3/4" 45-DEGREE BRASS COUPLING, LEAD FREE
26	BRASS REDUCER BUSHING, 3/4" MALE TO 1/4" FEMALE NPT REDUCING BUSHINGS (SWAGELOK 12-RB-4 OR EQUAL)
27	BOURDON TUBE PRES. GAGES (MKA TYPE 213.53DW, LIQUID FILLED)
28	2' X 2' DRAINAGE INLET BOX W/ FRAME AND GRATE
29	FLAP VALVE

- NOTES:**
- COMPONENTS, FITTINGS AND OTHER DETAILS SHOWN HEREON, HAVE BEEN DRAWN TO APPROXIMATE DIMENSIONS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL. PRIOR TO CONSTRUCTION, SHOP DRAWINGS SHALL SHOW COMPLETE DETAILS OF THE INSTALLATION INCLUDING SIZE, LOCATION, MANUFACTURERS NAME, MODEL AND DIMENSIONAL AND ENGINEERING DATA OF ALL COMPONENTS.
 - SEE SITE PLAN FOR LOCATION OF ALIGNMENTS AND OUTLETS.



NOTES:
 1. ALL BENDS ON 6" LINE TO BE MECHANICALLY RESTRAINED IN ADDITION TO THRUST BLOCKS.

1 PRV RELOCATION DETAIL
 SCALE: 1"=4'

CALAVERAS COUNTY WATER DISTRICT
 120 TOLA COURT
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COLEMAN ENGINEERING
 1358 BLUE OAKS BLVD
 SUITE 200
 ROSEVILLE, CA 95678
 (916) 791-1188

BAR IS ONE INCH AT FULL SCALE
 IF NOT ONE INCH ON THIS SHEET SCALE ACCORDINGLY

NO.	REVISIONS	APP.	DATE

TECHITE WATER PIPELINE REPLACEMENT
PRV STATION - RELOCATION
 CALAVERAS COUNTY CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:

DATE	DATE
11-14-19	11-14-19
11-14-19	11-14-19
11-14-19	11-14-19

REGISTRATION EXPIRES 06-30-20

SCALE: AS SHOWN
 DRAWING NUMBER: C12
 SHEET NUMBER: 14 OF 16 SHEETS



CALAVERAS COUNTY WATER DISTRICT
 120 TOLA COURT
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CALAVERAS COUNTY

TECHITE WATER PIPELINE REPLACEMENT SECTIONS & DETAILS-1

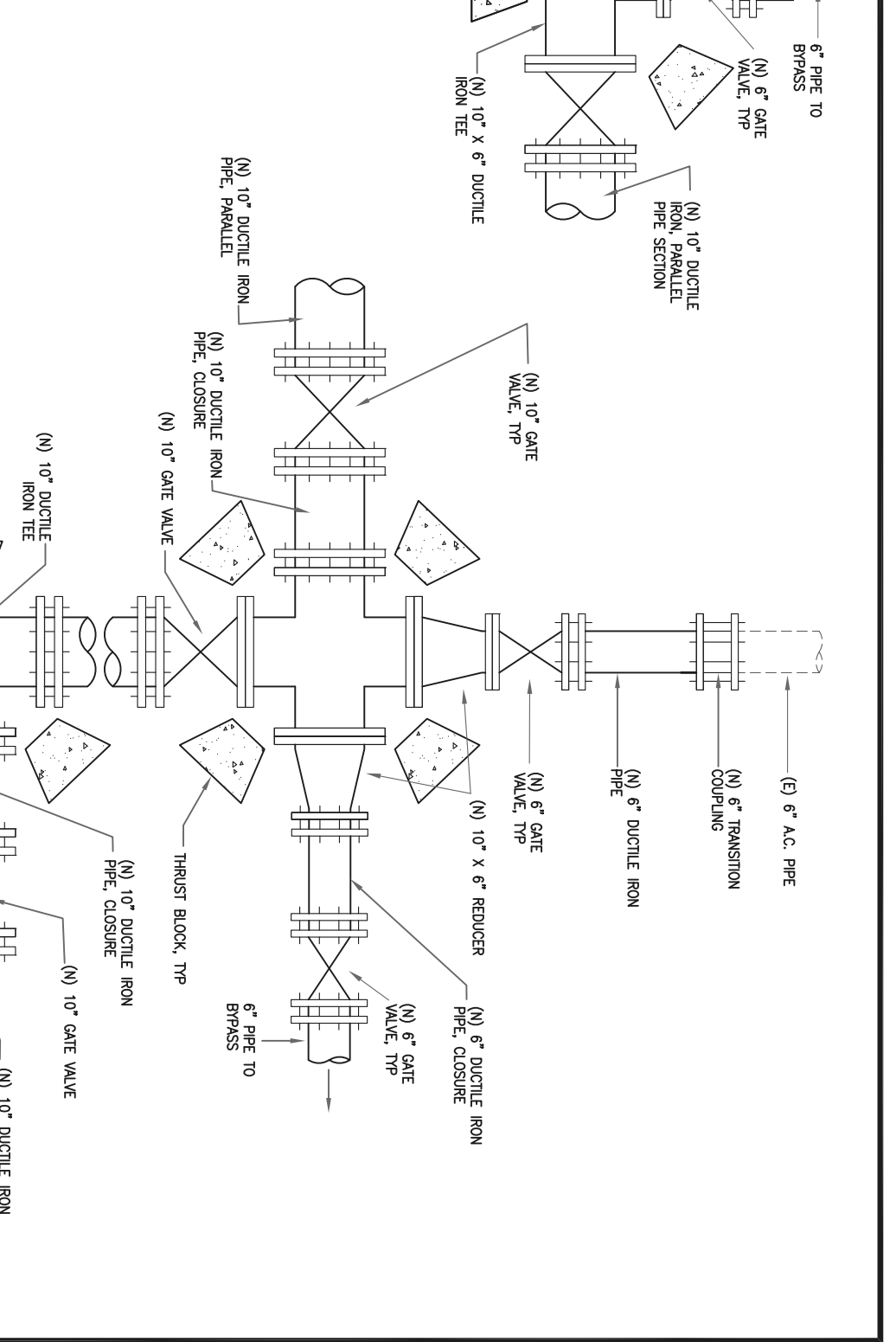
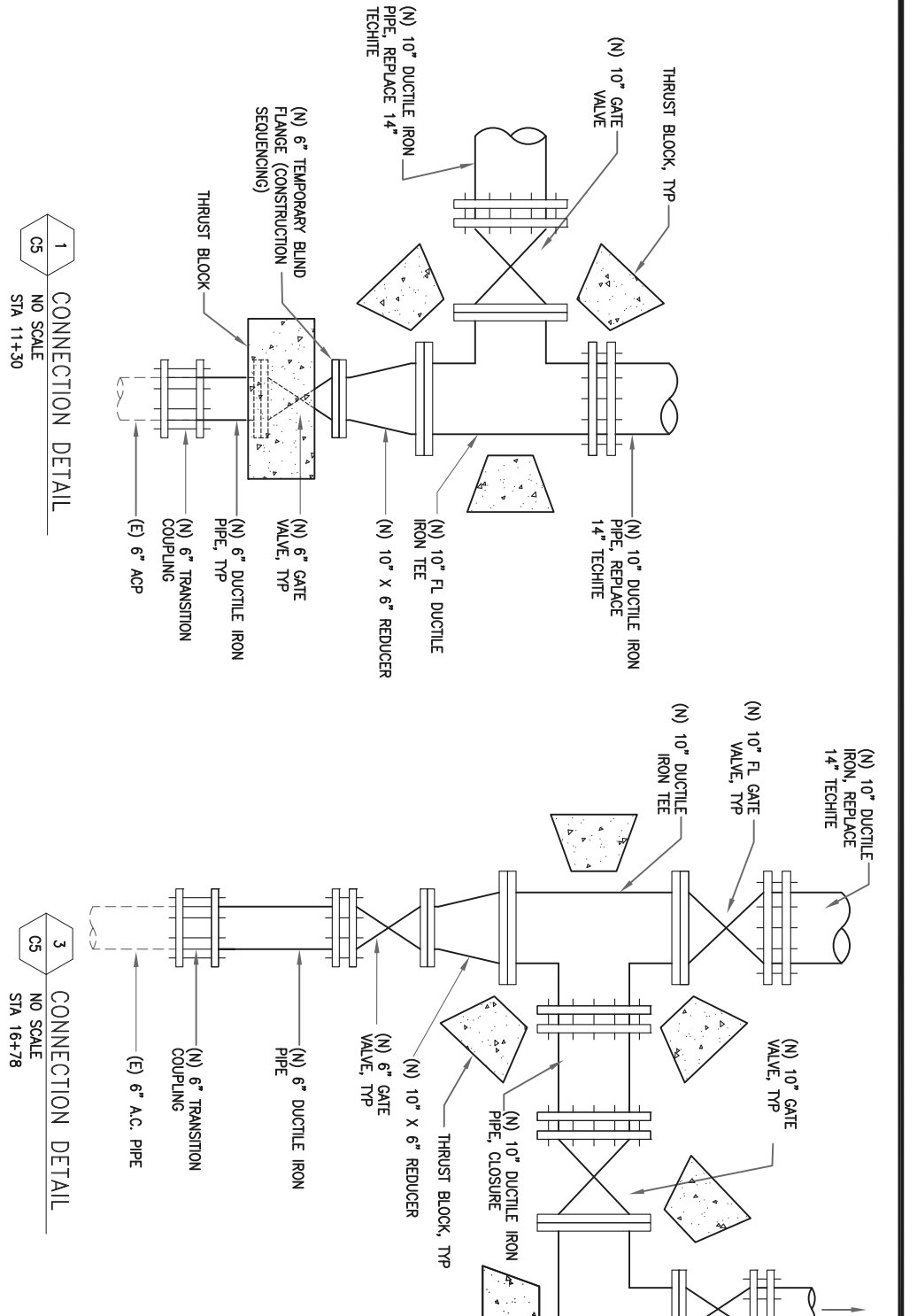
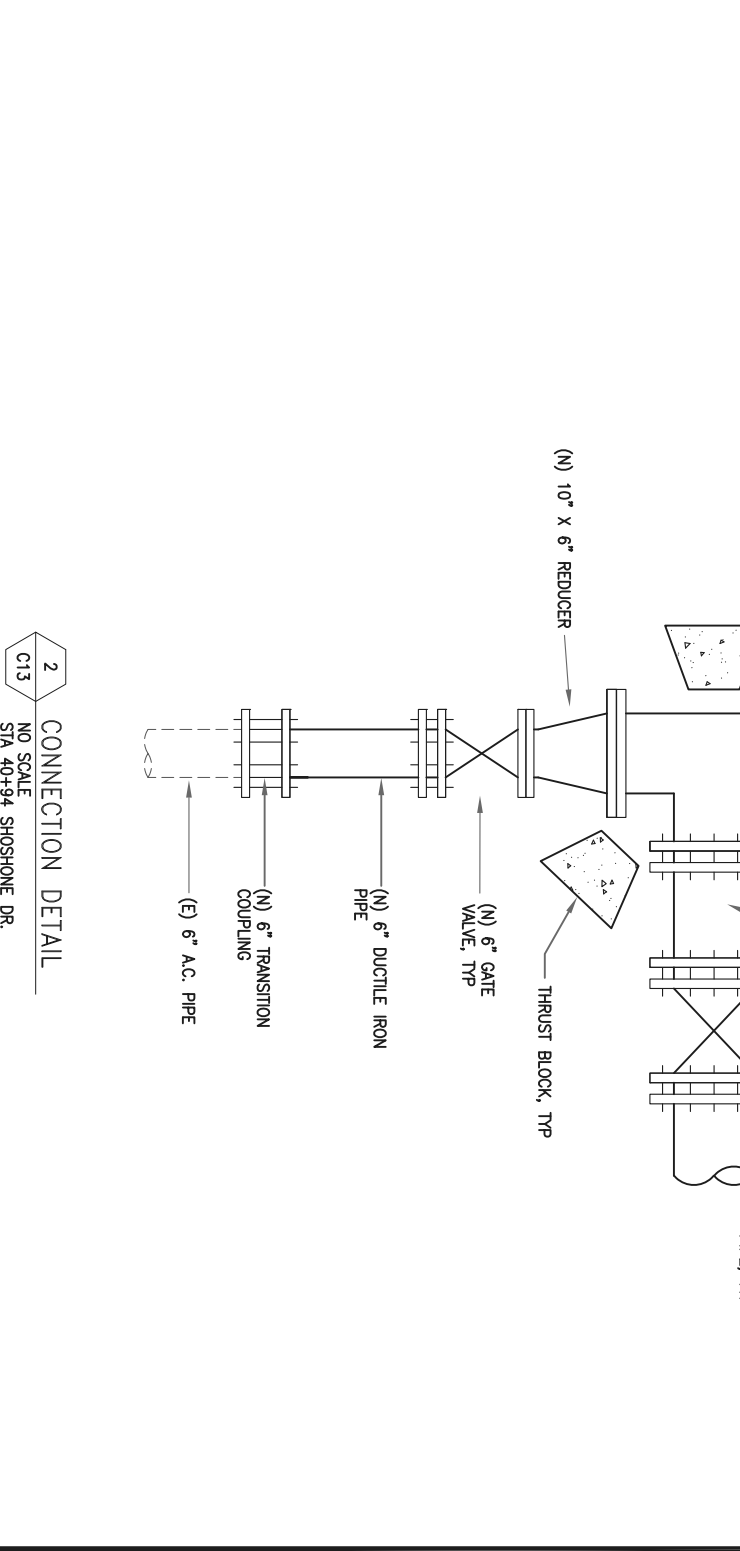
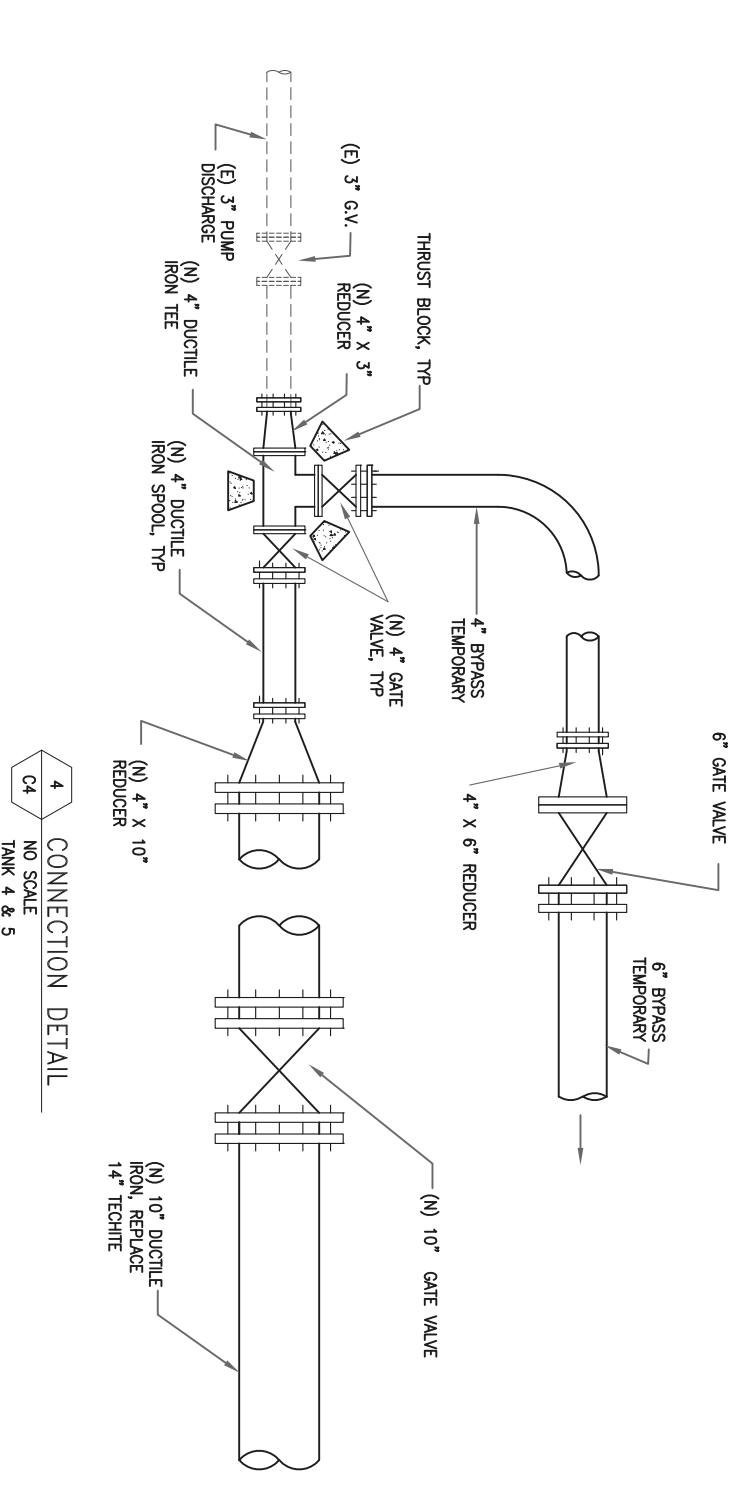
CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:
 SIGNED IN GRAY
 F.I.C.E. NO. 080311 - REGISTRATION EXPIRES 06-30-20
 DESIGN: SNG
 DRAWN: WCJ
 CHECKED: SNG

DATE	DATE	DATE	DATE
11-14-19	11-14-19	11-14-19	11-14-19



SCALE AS SHOWN
 DRAWING NUMBER **C13**
 SHEET NUMBER 15 OF 16 SHEETS





CALAVERAS COUNTY WATER DISTRICT
 120 TOWN COURT
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CALAVERAS COUNTY

TECHITE WATER PIPELINE REPLACEMENT SECTIONS & DETAILS-2

CALIFORNIA

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11-14-19



SCALE AS SHOWN
 DRAWING NUMBER **C14**
 SHEET NUMBER 16 OF 16 SHEETS

