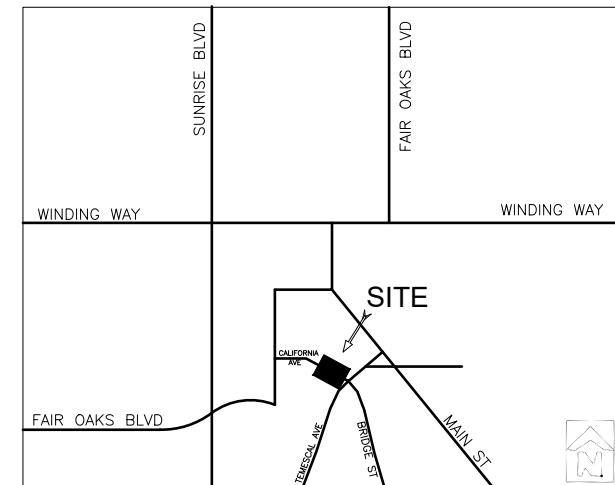


FAIR OAKS WATER DISTRICT FAIR OAKS, CALIFORNIA

RELOCATE MAIN AT CALIFORNIA AVE. AND TEMESCAL ST.

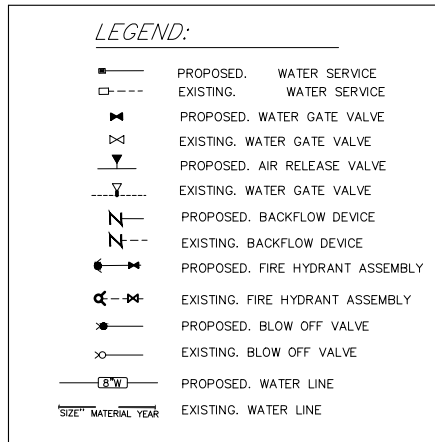


VICINITY MAP

NO SCALE

LIST OF ABBREVIATIONS:

AC	ASPHALTIC CONCRETE
AB	AGGREGATE SUBBASE
AVE	AVENUE
AVRV	AIR AND VACUUM RELEASE VALVE
BLVD	BOULEVARD
BNDY	BOUNDARY
BOC	BACK OF CURB
BO	BLOW OFF VALVE
BOW	BACK OF WALK
BV	BUTTERFLY VALVE
C	CABLE
CL	CLASS
CLR	CLEAR
COMB.	COMBINATION
C/L	CENTERLINE
CONC.	CONCRETE
CONST.	CONSTRUCT
CT	COURT
C&G	CURB AND GUTTER
DEL	DETAIL
DIA.	DIAMETER
DIP	DUCTILE IRON PIPE
DR	DRIVE
D/W	DRIVEWAY
ELEV.	ELEVATION
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
FC	FACE OF CURB
FE	FLANGED END
FOWD	FAIR OAKS WATER DISTRICT
FG	FINISH GRADE
FH	FIRE HYDRANT
F/L	FLOW LINE
GALV.	GALVANIZED
GR	GRATE
G	GATE VALVE
G/L	HYDRAULIC GRADE LINE
HP	HIGH POINT
INV.	INVERT
IRR	IRRIGATION
INTX	INTERSECTION
JP	JOINT POLE
L	LENGTH
LF	LINEAR FEET
LN	LANE
LP	LOW POINT
MAX.	MAXIMUM
MH	MANHOLE
MIN.	MINIMUM
MIO.	ON CENTER
O.D.	OUTSIDE DIAMETER
PI	POINT OF INTERSECTION
P/L	PROPERTY LINE
POC	POINT OF CONNECTION
P.S.I.	POUND PER SQUARE INCH
PT	POINT
PVC	POLYVINYL CHLORIDE PIPE
RL	RESTRAINED LENGTH
ROW	RIGHT OF WAY
RP	REDUCED PRESSURE PRINCIPLE BACKFLOW DEVICE
S	SLOPE
SD	STORM DRAIN
SS-(S)	SANITARY SEWER
ST	STREET
STA.	STATION
SUBD.	SUBDIVISION
TBC	TOP BACK OF CURB
TC	TOP CURB
TWM	TOP OF WATER MAIN
TW	TOP OF WALK
TP	TOP OF PAVEMENT
TYP.	TYPICAL
W	WATER, WATER MAIN
W/	WITH
W.S.	WATER SERVICE



FAIR OAKS WATER DISTRICT GENERAL NOTES

- ALL WORKS SHALL BE PERFORMED IN ACCORDANCE WITH THE DISTRICT APPROVED IMPROVEMENT PLANS FOR THE PROJECT AND THE DISTRICT STANDARD SPECIFICATIONS. THE DISTRICT STANDARD SPECIFICATIONS MANUAL IS AVAILABLE ON THE DISTRICT WEB SITE. THE CONTRACTOR SHALL HAVE A SET OF THESE SPECIFICATIONS IN HIS/HER POSSESSION BEFORE CONSTRUCTION BEGINS AND AT ALL TIMES DURING THE COURSE OF CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PHYSICALLY LOCATING ALL EXISTING UTILITIES BEFORE THE START OF WATER FACILITIES CONSTRUCTION.
- WHERE POSSIBLE, WATER MAINS SHALL BE INSTALLED WITHIN PUBLIC STREET RIGHTS-OF-WAY AND SHALL BE LOCATED 3 FEET FROM THE LIP OF GUTTER, OR AS SHOWN ON THE IMPROVEMENT PLAN (UNDER STREET PAVEMENT).
- THE CONTRACTOR SHALL CONTACT THE DISTRICT INSPECTOR; MIKE NORTHCUTT (916) 844-3531; OR FOWD OFFICE-- (916) 967 5723 A MINIMUM OF THREE WORKING DAYS PRIOR TO THE BEGINNING OF WORK.
- BEFORE TO START CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE THE DISTRICT WITH SUBMITTALS FOR ALL PARTS AND MATERIALS TO BE USED IN CONSTRUCTION. ALL SUBMITTALS MUST BE APPROVED BY THE DISTRICT PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE DISTRICT TO ARRANGE INSPECTION AND APPROVAL OF ALL MATERIALS PRIOR TO INSTALLATION.
- ALL SERVICES SHALL BE SET THREE FEET FROM ADJACENT SIDE PROPERTY LINES WITHIN PUBLIC UTILITY EASEMENT (PUE) ON THE CORRECT LOT SITE UNLESS OTHERWISE NOTED ON THE APPROVED PLAN.
- ALL WATER MAINS SHALL BE C900 CLASS 200 UNLESS OTHERWISE APPROVED OR SPECIFIED BY THE DISTRICT. ALL WATER MAINS (NO EXCEPTIONS) SHALL HAVE #10 AWG, SINGLE STRAND COPPER TRACER WIRE. COPPER TRACER WIRE FOR VALVES SHALL BE STUBBED UP ON THE OUTSIDE OF THE VALVE RISER PIPE AND INTO THE VALVE BOX, PER DISTRICT'S STANDARD SPECIFICATIONS. MECHANICAL JOINT CONNECTIONS OR FLEX COUPLING CONNECTIONS ARE REQUIRED WHEN FASTENING C-900 PIPE TO FITTINGS OR UNLIKE PIPE. ALL MASTER VALVES ON WATER MAINS SHALL BE RESILIENT WEDGE GATE VALVES UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE DISTRICT.
- NATIVE BACKFILL WILL NOT BE ALLOWED. INSTALLATION OF ALL PUBLIC WATER MAINS SHALL CONFORM TO DISTRICT SPECIFICATIONS 4.0 (INSTALLATION AND CONSTRUCTION), SECTIONS 4.1, 4.1.1, 4.1.2 AND 4.1.8; STANDARD DRAWING # 9 "TYPICAL FOR TRAFFIC AREAS"; AND ALL SACRAMENTO COUNTY REQUIREMENTS AS THEY APPLY.
- WATER MAINS, SERVICES, METERS AND METER BOXES SHALL NOT BE INSTALLED UNTIL THE FINISHED GRADE IS ESTABLISHED AND STREETS ARE BROUGHT TO WITHIN 6-INCH OF THE FINISHED GRADE. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY WATER FACILITIES RELOCATION DUE TO ERRORS IN ESTABLISHING FINISHED GRADE.
- ALL SERVICE MATERIAL SHALL BE OF BRASS OR RIGID TYPE K COPPER AND MUST MEET AWWA STANDARDS. THE CURB STOP SHALL BE LOCK-WING, BALL TYPE EASY TURNING ANGLE METER STOP. ONE TO TWO (1-2) INCH WATER SERVICE METER SHALL BE A NEPTUNE T-10 ENHANCED WITH NEPTUNE E-PROCODER@R9001 RADIO FREQUENCY METER INTERFACE UNIT (MIU) OR APPROVED EQUAL BY THE DISTRICT WITH ANALOG DISPLAY. A METER SETTER SHALL BE A COPPER SETTER OR YOKE AS SHOWN ON STD 7 AND STD 8 AND SHALL BE USED FOR ALL ONE (1), ONE AND ONE-HALF (1.5), AND TWO (2) INCH SERVICES. ONE (1) INCH METER SETTER SHALL BE "1"X12" HORIZONTAL INLET/OUTLET COPPER YOKE WITH ANGLE INLET BALL KEY VALVE WITH LOCKING WING AND BALL KEY VALVE OUTLET (DUAL PURPOSE UNION SWIVEL FIP COUPLINGS) BY MUELLER (390B2404-04N), FORD (VB74-12W-11-44-NL) OR APPROVED EQUAL. ONE AND ONE-HALF (1.5) INCH METER SETTERS SHALL BE MUELLER CO. (390B2404-6A30N) OR FORD VBB76-12W-11-66-NL OR APPROVED EQUAL, AND TWO (2) INCH METER SETTERS SHALL BE FORD (VBB77-12W-11-77-NL), OR APPROVED EQUAL.
- EACH MASTER VALVE ON WATER MAINS SHALL BE COVERED WITH RIGID EIGHT (8)-INCH PVC C900 RISER PIPE, A ROUND G-5 TRAFFIC BOX, AND AN APPROVED LOCKOUT DEVICE. FOR AIR VALVE AND BLOW-OFF INSTALLATIONS REFER TO APPROPRIATE STANDARD DRAWINGS OF THE DISTRICT'S STANDARD SPECIFICATIONS. ALL SERVICE VALVES SHALL BE COVERED WITH AN APPROVED CONCRETE METER BOX AND STEEL LID. SERVICE BOXES SHALL BE INSTALLED AT GRADE AND VISIBLE AFTER COMPLETION OF LANDSCAPE RESTORATION BY THE CONTRACTOR. MASTER VALVES NOT LOCATED IN PAVED AREAS SHALL HAVE A TWO FEET SQUARE CONCRETE PAD CONSTRUCTED AROUND EACH BOX.
- ALL FIRE HYDRANTS SHALL COMPLY WITH THE DISTRICT STANDARDS. FIRE HYDRANT VALVES SHALL BE ATTACHED WITH FLANGE TO THE BASE TEE ON THE SIDE FACING THE HYDRANT. THE CONTRACTOR SHALL PROVIDE THE FIRE DEPARTMENT WITH APPROVED FIRE HYDRANT STREET MARKERS.
- THE CONTRACTOR SHALL NOTIFY THE DISTRICT IMMEDIATELY IN WRITING OF ANY FIELD CHANGES IN THE APPROVED SET OF PLANS THAT AFFECT PLACEMENT OR INSTALLATION OF WATER FACILITIES, AND SHALL OBTAIN WRITTEN APPROVAL FROM THE DISTRICT FOR SUCH CHANGES PRIOR TO CONSTRUCTION.
- IF AFTER FINAL INSPECTION, THE DISTRICT DETERMINES THAT THE JOB IS NOT COMPLETE, THE CONTRACTOR WILL HAVE 15 DAYS TO COMPLETE THE WORK TO THE DISTRICT'S SATISFACTION. THE CONTRACTOR MAY BE CHARGED FOR REINSPECTION. NORMALLY, THE NEW SERVICE(S) WILL BE LOCKED OFF AND WILL NOT BE AVAILABLE FOR USE UNTIL ALL DEFICIENCIES HAVE BEEN CORRECTED AND THE SYSTEM ACCEPTED BY THE DISTRICT.
- UPON COMPLETION OF WORK AND BEFORE PRELIMINARY DISTRICT ACCEPTANCE OF THE NEW SYSTEM, THE CONTRACTOR SHALL FURNISH TO THE DISTRICT ALL REQUIRED DOCUMENTATION, INCLUDING TWO FULL SIZE SETS (24" X 36") OF WATER PLANS AS-BUILT ON BOND PAPER AND ONE ELECTRONIC SET IN AUTOCAD (.DWG) OR PDF FORMAT VIA EMAIL.
- PRIOR TO SIGN THE CONTRACT, THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR ONE YEAR AGAINST DAMAGE OR FAILURE FROM ANY CAUSE. IN ADDITION, CONTRACTOR SHALL POST A MAINTENANCE BOND AS PER THE DISTRICT'S STANDARD SPECIFICATIONS.
- CONTRACTOR OR HIS/HER DESIGNATED REPRESENTATIVE SHALL BE RESPONSIBLE FOR ALL COSTS RELATED TO THE PROPER REMOVAL AND DISPOSAL OF ANY PORTION OF EXISTING WATER FACILITIES INCLUDING ASBESTOS CONCRETE PIPE (ACP) REMOVED DURING THE COURSE OF CONSTRUCTION. DISTURBANCE OF ACP IS REGULATED UNDER CAL/OSHA, TITLE 8, SECTION 1529. CONTRACTOR MUST SUBMIT TO THE DISTRICT A CERTIFICATE OF DISPOSAL TO VERIFY THE WASTE WAS PROPERLY DISPOSED OF. ANY PORTION OF ACP TO BE ABANDONED IN PLACE MUST BE LEFT INTACT AND NON-FRAGMENTABLE.

**ENCROACHMENT PERMIT #
ENUC2022-00059**

USA NORTH

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INSTALLATION CHART (NEW OR UPGRADE)	
QUANTITY	DESCRIPTION
350± LF	8" C900 WATER MAIN (RELOCATION)
1 EA	6" FIRE SERVICE (NEW)
2 EA	6" FIRE HYDRANT (UPGRADE)
1 EA	4" FIRE SERVICE (UPGRADE)
2 EA	2" WATER SERVICE (RELOCATION)
1 EA	1.5" WATER SERVICE (UPGRADE)

RETIREMENT	
QUANTITY	DESCRIPTION
350± LF	6" AC
1 EACH	4" FIRE SERVICE
2 EACH	6" FIRE HYDRANT
2 EACH	1" WATER SERVICE
2 EACH	2" WATER SERVICE
1 EACH	1.5" WATER SERVICE

LIST OF DRAWINGS	
TITLE SHEET, PIPE QUANTITY, TYPE, GENERAL NOTES AND LIST OF DRAWINGS	SHEET 1/5
CALIFORNIA AVE PLAN AND TIE-IN DETAIL	SHEET 2/5
POINT OF CONNECTION (POC) DETAILS	SHEET 3/5
FOWD STANDARD DRAWINGS AND TIE-IN DETAIL	SHEET 4/5
EROSION AND SEDIMENT CONTROL PLAN	SHEET 5/5

DIRECTOR DIVISIONS (x)

BOARD OF DIRECTORS	
RANDY MARX	PRESIDENT (4)
MICHAEL MCRAE	VICE PRESIDENT (2)
CHRISTIAN PETERSEN	DIRECTOR (1)
GARY PAGE	DIRECTOR (3)
MISHA SARKOVICH	DIRECTOR (5)

FOWD GENERAL MANAGER - TOM R. GRAY

APPROVED BY: 4/26/2022

DATE
FAIR OAKS WATER DISTRICT
EXPIRES 1 YEAR FROM DATE OF SIGNATURE

REVIEWED BY:	DATE:	DESIGNED BY:	A. SHAFQA				
REVIEWED BY:	DATE:	DRAWN BY:	A. SHAFQA				
REVIEWED BY:	DATE:	CHECKED BY:	P. SIEBENSOHN				
	DATE:	DATE:	04/25/2022	REV.	DATE	DESCRIPTION	APP.

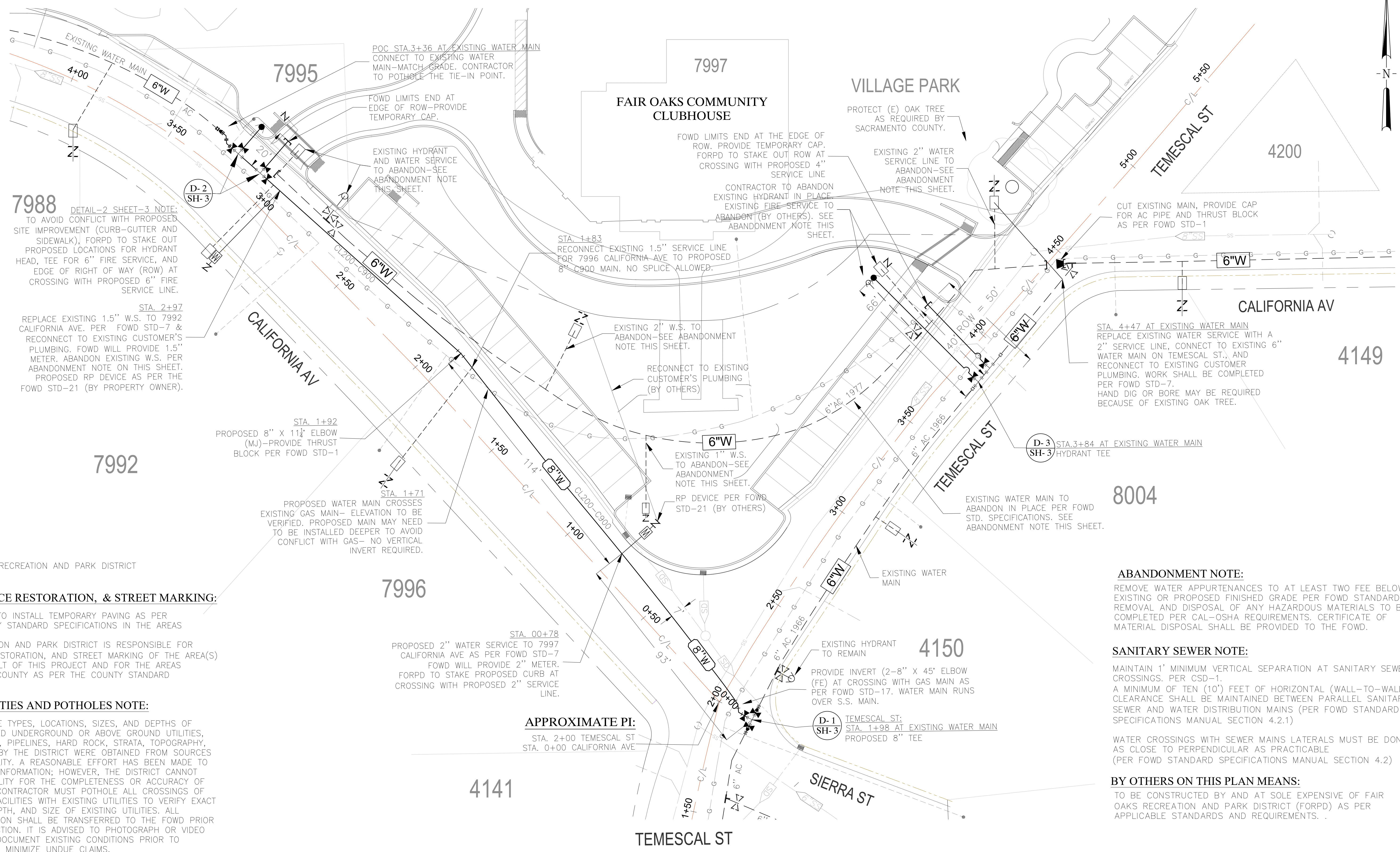
FAIR OAKS WATER DISTRICT
10326 FAIR OAKS BLVD, FAIR OAKS, CA 95628, (916) 967-5723
RELOCATE MAIN AT CALIFORNIA AVE. AND TEMESCAL ST.
COVER SHEET

SCALE:
HORIZ: N/A
VERT: N/A
VER.:

FAIR OAKS WATER DISTRICT

SHEET 1
OF 5 SHEETS
PROJECT NUMBER
C22TDCATS

N:\CAPITAL BUDGET PROJECTS\08-2022\C22TDCATS-California Ave Main Replacement at Fair Oaks Park\1010-Plan-Rev 5\CAD\g New Main (draft update).dwg, 04/29/22 07:36:38am, autoCAD



FORPD: FAIR OAKS RECREATION AND PARK DISTRICT

PAVING, SURFACE RESTORATION, & STREET MARKING:

FOWD CONTRACTOR TO INSTALL TEMPORARY PAVING AS PER SACRAMENTO COUNTY STANDARD SPECIFICATIONS IN THE AREAS DISTURBED. FAIR OAKS RECREATION AND PARK DISTRICT IS RESPONSIBLE FOR PAVING, SURFACE RESTORATION, AND STREET MARKING OF THE AREA(S) DISTURBED AS RESULT OF THIS PROJECT AND FOR THE AREAS REQUIRED BY SAC. COUNTY AS PER THE COUNTY STANDARD SPECIFICATIONS.

EXISTING UTILITIES AND POTHOLES NOTE:

INFORMATION ON THE TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING OR PLANNED UNDERGROUND OR ABOVE GROUND UTILITIES, STRUCTURES, ROADS, PIPELINES, HARD ROCK, STRATA, TOPOGRAPHY, ETC., AS PROVIDED BY THE DISTRICT WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. A REASONABLE EFFORT HAS BEEN MADE TO PROVIDE ACCURATE INFORMATION; HOWEVER, THE DISTRICT CANNOT ASSUME RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF SAID INFORMATION. CONTRACTOR MUST POT-HOLE ALL CROSSINGS OF PROPOSED WATER FACILITIES WITH EXISTING UTILITIES TO VERIFY EXACT TYPE, LOCATION, DEPTH, AND SIZE OF EXISTING UTILITIES. ALL POTHOLES INFORMATION SHALL BE TRANSFERRED TO THE FOWD PRIOR TO START CONSTRUCTION. IT IS ADVISED TO PHOTOGRAPH OR VIDEO THE SITE AREA TO DOCUMENT EXISTING CONDITIONS PRIOR TO BEGINNING WORK TO MINIMIZE UNDUCE CLAIMS.

ABANDONMENT NOTE:
REMOVE WATER APPURTENANCES TO AT LEAST TWO FEET BELOW EXISTING OR PROPOSED FINISHED GRADE PER FOWD STANDARDS. REMOVAL AND DISPOSAL OF ANY HAZARDOUS MATERIALS TO BE COMPLETED PER CAL-OSHA REQUIREMENTS. CERTIFICATE OF MATERIAL DISPOSAL SHALL BE PROVIDED TO THE FOWD.

SANITARY SEWER NOTE:
MAINTAIN 1' MINIMUM VERTICAL SEPARATION AT SANITARY SEWER CROSSINGS. PER CSD-1. A MINIMUM OF TEN (10') FEET OF HORIZONTAL (WALL-TO-WALL) CLEARANCE SHALL BE MAINTAINED BETWEEN PARALLEL SANITARY SEWER AND WATER DISTRIBUTION MAINS (PER FOWD STANDARD SPECIFICATIONS MANUAL SECTION 4.2.1)

WATER CROSSINGS WITH SEWER MAINS LATERALS MUST BE DONE AS CLOSE TO PERPENDICULAR AS PRACTICABLE (PER FOWD STANDARD SPECIFICATIONS MANUAL SECTION 4.2)

BY OTHERS ON THIS PLAN MEANS:
TO BE CONSTRUCTED BY AND AT SOLE EXPENSIVE OF FAIR OAKS RECREATION AND PARK DISTRICT (FORPD) AS PER APPLICABLE STANDARDS AND REQUIREMENTS.

APPROXIMATE PI:

STA. 2+00 TEMESCAL ST
STA. 0+00 CALIFORNIA AVE

BID SET PLAN

REVIEWED BY:	DATE:	DESIGNED BY:					
REVIEWED BY:	DATE:	DRAWN BY:	A.SHAFAQ				
REVIEWED BY:	DATE:	CHECKED BY:	A.SHAFAQ				
			P.SIEBENSCHN				
		DATE:	04/25/2022	REV.	DATE	DESCRIPTION	APP.

FAIR OAKS WATER DISTRICT
10326 FAIR OAKS BLVD, FAIR OAKS, CA 95628, (916) 967-5723
RELOCATE MAIN AT CALIFORNIA AVE. AND TEMESCAL ST.
MAIN INSTALLATION DETAILS

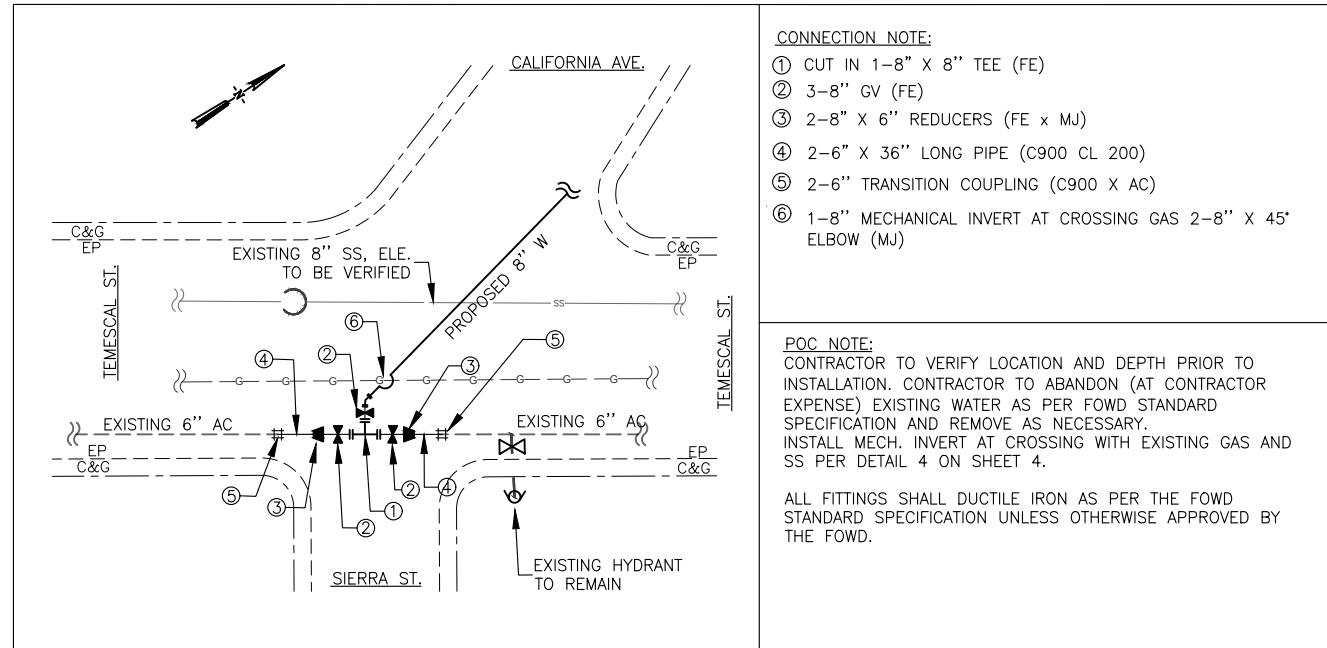
SCALE:
HORIZ: 1"=20'
VERT: N/A
VER: _____



SHEET 2
OF 5 SHEETS
PROJECT NUMBER C22TDCATS

N:\CAPITAL BUDGET PROJECTS\08-2022\C22TDCATS-California Ave Main Replacement at Fair Oaks Park\Village Park-Wr Main\Plan\Rev-5\CAD\08 New Main (draft updated).dwg, 04/26/22 07:36:34am, amla04

TEMESCAL ST. STA. 1+98 PROPOSED 8" WATER MAIN POC DETAIL TO (E) 6" AC



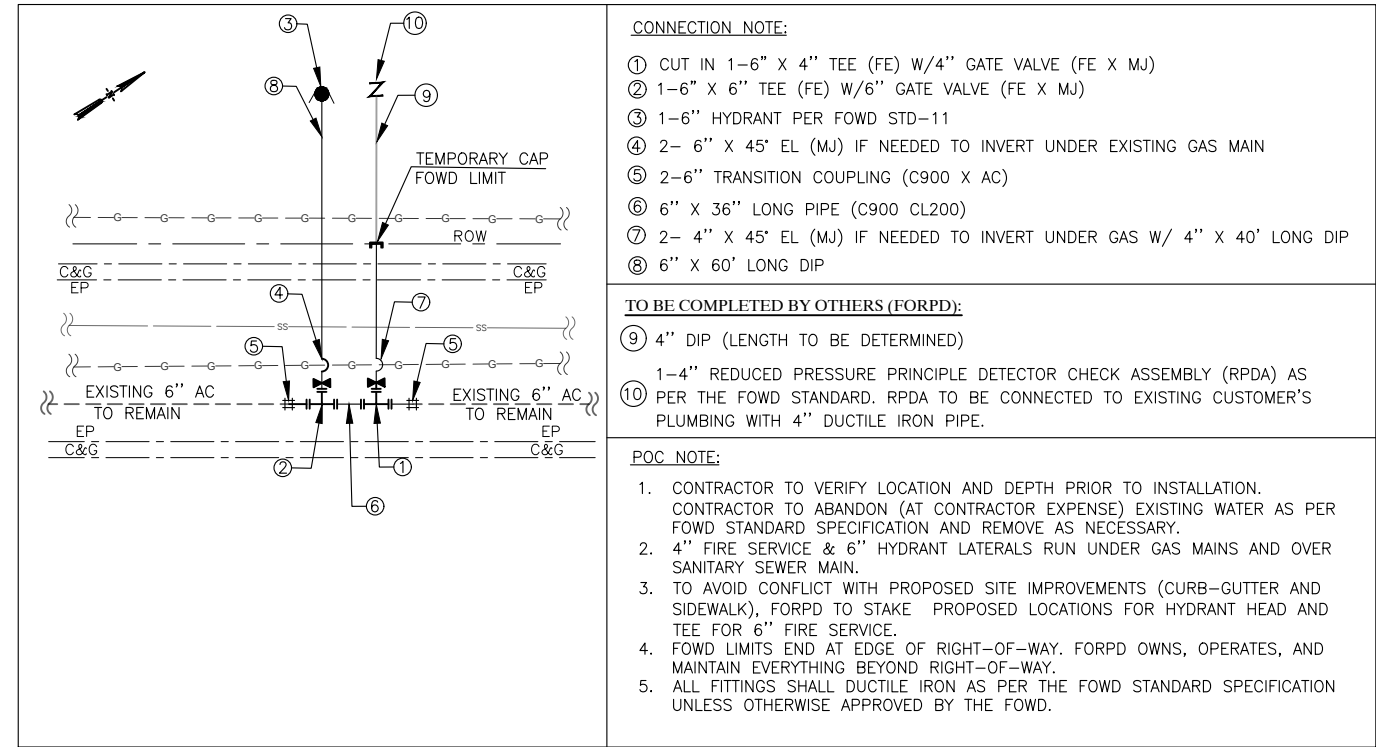
- CONNECTION NOTE:**
- ① CUT IN 1-8" X 8" TEE (FE)
 - ② 3-8" GV (FE)
 - ③ 2-8" X 6" REDUCERS (FE x MJ)
 - ④ 2-6" X 36" LONG PIPE (C900 CL 200)
 - ⑤ 2-6" TRANSITION COUPLING (C900 X AC)
 - ⑥ 1-8" MECHANICAL INVERT AT CROSSING GAS 2-8" X 45' ELBOW (MJ)

POC NOTE:
CONTRACTOR TO VERIFY LOCATION AND DEPTH PRIOR TO INSTALLATION. CONTRACTOR TO ABANDON (AT CONTRACTOR EXPENSE) EXISTING WATER AS PER FOWD STANDARD SPECIFICATION AND REMOVE AS NECESSARY. INSTALL MECH. INVERT AT CROSSING WITH EXISTING GAS AND SS PER DETAIL 4 ON SHEET 4.

ALL FITTINGS SHALL DUCTILE IRON AS PER THE FOWD STANDARD SPECIFICATION UNLESS OTHERWISE APPROVED BY THE FOWD.

D-1 POC DETAIL NTS

TEMESCAL ST. HYDRANT TEE: STA.3+84 AT EXISTING WATER MAIN



- CONNECTION NOTE:**
- ① CUT IN 1-6" X 4" TEE (FE) W/4" GATE VALVE (FE X MJ)
 - ② 1-6" X 6" TEE (FE) W/6" GATE VALVE (FE X MJ)
 - ③ 1-6" HYDRANT PER FOWD STD-11
 - ④ 2- 6" X 45' EL (MJ) IF NEEDED TO INVERT UNDER EXISTING GAS MAIN
 - ⑤ 2-6" TRANSITION COUPLING (C900 X AC)
 - ⑥ 6" X 36" LONG PIPE (C900 CL200)
 - ⑦ 2- 4" X 45' EL (MJ) IF NEEDED TO INVERT UNDER GAS W/ 4" X 40' LONG DIP
 - ⑧ 6" X 60' LONG DIP

TO BE COMPLETED BY OTHERS (FORPD):

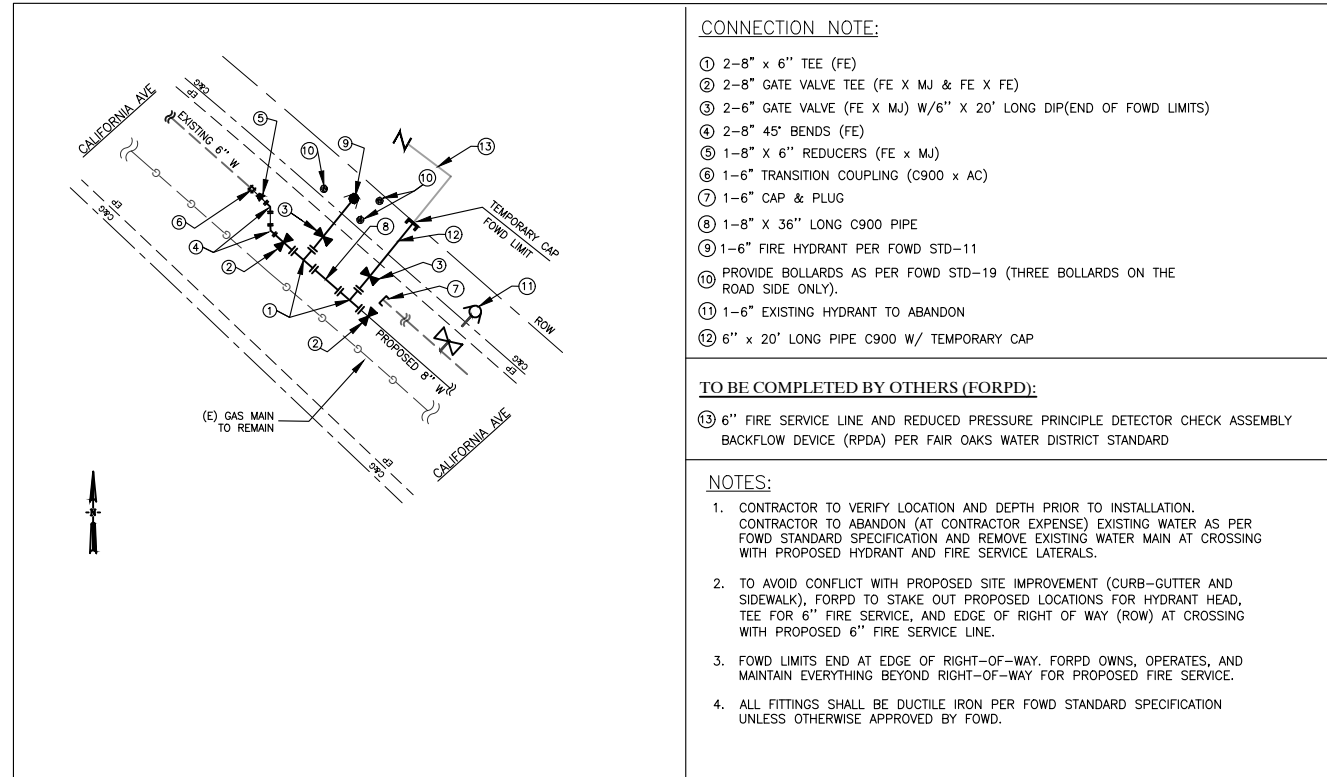
- ⑨ 4" DIP (LENGTH TO BE DETERMINED)
- ⑩ 1-4" REDUCED PRESSURE PRINCIPLE DETECTOR CHECK ASSEMBLY (RPDA) AS PER THE FOWD STANDARD. RPDA TO BE CONNECTED TO EXISTING CUSTOMER'S PLUMBING WITH 4" DUCTILE IRON PIPE.

POC NOTE:

- 1. CONTRACTOR TO VERIFY LOCATION AND DEPTH PRIOR TO INSTALLATION. CONTRACTOR TO ABANDON (AT CONTRACTOR EXPENSE) EXISTING WATER AS PER FOWD STANDARD SPECIFICATION AND REMOVE AS NECESSARY.
- 2. 4" FIRE SERVICE & 6" HYDRANT LATERALS RUN UNDER GAS MAINS AND OVER SANITARY SEWER MAIN.
- 3. TO AVOID CONFLICT WITH PROPOSED SITE IMPROVEMENTS (CURB-GUTTER AND SIDEWALK), FORPD TO STAKE PROPOSED LOCATIONS FOR HYDRANT HEAD AND TEE FOR 6" FIRE SERVICE.
- 4. FOWD LIMITS END AT EDGE OF RIGHT-OF-WAY. FORPD OWNS, OPERATES, AND MAINTAIN EVERYTHING BEYOND RIGHT-OF-WAY.
- 5. ALL FITTINGS SHALL DUCTILE IRON AS PER THE FOWD STANDARD SPECIFICATION UNLESS OTHERWISE APPROVED BY THE FOWD.

D-3 POC DETAIL NTS

CALIFORNIA AVE: POC STA.3+36, PROPOSED HYDRANT AND FIRE SERVICE INSTALLATION DETAIL



- CONNECTION NOTE:**
- ① 2-8" X 6" TEE (FE)
 - ② 2-8" GATE VALVE TEE (FE X MJ & FE X FE)
 - ③ 2-6" GATE VALVE (FE X MJ) W/6" X 20' LONG DIP(END OF FOWD LIMITS)
 - ④ 2-8" 45' BENDS (FE)
 - ⑤ 1-8" X 6" REDUCERS (FE x MJ)
 - ⑥ 1-6" TRANSITION COUPLING (C900 X AC)
 - ⑦ 1-6" CAP & PLUG
 - ⑧ 1-8" X 36" LONG C900 PIPE
 - ⑨ 1-6" FIRE HYDRANT PER FOWD STD-11
 - ⑩ PROVIDE BOLLARDS AS PER FOWD STD-19 (THREE BOLLARDS ON THE ROAD SIDE ONLY).
 - ⑪ 1-6" EXISTING HYDRANT TO ABANDON
 - ⑫ 6" X 20' LONG PIPE C900 W/ TEMPORARY CAP

TO BE COMPLETED BY OTHERS (FORPD):

- ⑬ 6" FIRE SERVICE LINE AND REDUCED PRESSURE PRINCIPLE DETECTOR CHECK ASSEMBLY BACKFLOW DEVICE (RPDA) PER FAIR OAKS WATER DISTRICT STANDARD

NOTES:

- 1. CONTRACTOR TO VERIFY LOCATION AND DEPTH PRIOR TO INSTALLATION. CONTRACTOR TO ABANDON (AT CONTRACTOR EXPENSE) EXISTING WATER AS PER FOWD STANDARD SPECIFICATION AND REMOVE EXISTING WATER MAIN AT CROSSING WITH PROPOSED HYDRANT AND FIRE SERVICE LATERALS.
- 2. TO AVOID CONFLICT WITH PROPOSED SITE IMPROVEMENT (CURB-GUTTER AND SIDEWALK), FORPD TO STAKE OUT PROPOSED LOCATIONS FOR HYDRANT HEAD, TEE FOR 6" FIRE SERVICE, AND EDGE OF RIGHT OF WAY (ROW) AT CROSSING WITH PROPOSED 6" FIRE SERVICE LINE.
- 3. FOWD LIMITS END AT EDGE OF RIGHT-OF-WAY. FORPD OWNS, OPERATES, AND MAINTAIN EVERYTHING BEYOND RIGHT-OF-WAY FOR PROPOSED FIRE SERVICE.
- 4. ALL FITTINGS SHALL BE DUCTILE IRON PER FOWD STANDARD SPECIFICATION UNLESS OTHERWISE APPROVED BY FOWD.

D-2 POC DETAIL NTS

FAIR OAKS WATER DISTRICT STANDARD SPECIFICATIONS:

SECTION 4.8. ABANDONMENT OF WATER FACILITIES

EXISTING WATER MAINS AND SERVICES SHALL BE ABANDONED IN PLACE UNLESS DIRECTED TO REMOVE BY THE DISTRICT OR OTHER AUTHORITY HAVING JURISDICTION. THE DETERMINING FACTORS FOR REMOVAL SHALL DEPEND ON THE CIRCUMSTANCES SURROUNDING THE MATERIAL TYPE, DEPTH AND POTENTIAL SAFETY HAZARDS INVOLVED. THE OPEN ENDS OF ABANDONED PIPE LEFT IN PLACE SHALL BE FILLED WITH CONCRETE TO PREVENT DRAINAGE THROUGH THE PIPE. VALVE BOXES SHALL BE REMOVED FROM SYSTEMS THAT ARE ABANDONED. IN ADDITION, ALL ABANDONED FITTINGS AND VALVES SHALL BE REMOVED FROM POINTS OF CONNECTION WITH WATER MAINS REMAINING IN SERVICE. TO ABANDON A WATER MAIN, A BLIND FLANGE SHALL BE ATTACHED TO THE CONNECTING TEE, WITH A BITUMASTIC COATING APPLIED FOR PROTECTION AND THEN WRAPPED THE FITTING(S) WITH A SIX (6) MIL POLYETHYLENE SHEETING. IF THE DISTRICT, AT ITS DISCRETION, DETERMINES THAT THE CONNECTING TEE IS IN POOR CONDITION, THE CONTRACTOR SHALL REMOVE AND REPLACE THE TEE WITH FLEXIBLE COUPLINGS AND AN APPROVED SEGMENT OF PIPE.

WHERE SERVICES TO BE ABANDONED ARE ATTACHED TO A WATER MAIN THAT WILL REMAIN IN SERVICE, THE EXISTING SERVICE SADDLE AND ATTACHMENTS SHALL BE REMOVED AND REPLACED WITH ALL-STAINLESS STEEL FULL CIRCLE REPAIR CLAMP (FORD FS SERIES OR APPROVED EQUAL).

BID SET PLAN

REVIEWED BY:	DATE:	DESIGNED BY:					
		A. SHAFQAQ					
REVIEWED BY:	DATE:	DRAWN BY:					
		A. SHAFQAQ					
REVIEWED BY:	DATE:	CHECKED BY:					
		P. SIEBENSOHN					
	DATE:	DATE:	REV.	DATE	DESCRIPTION	APP.	
	04/25/2022						

FAIR OAKS WATER DISTRICT
10326 FAIR OAKS BLVD, FAIR OAKS, CA 95628, (916) 967-5723
RELOCATE MAIN AT CALIFORNIA AVE. AND TEMESCAL ST.
POINT OF CONNECTION DETAIL

SCALE:
HORIZ: 1"=40'
VERT: N/A
VER.: _____



SHEET 3
OF 5 SHEETS
PROJECT NUMBER C22TDCATS

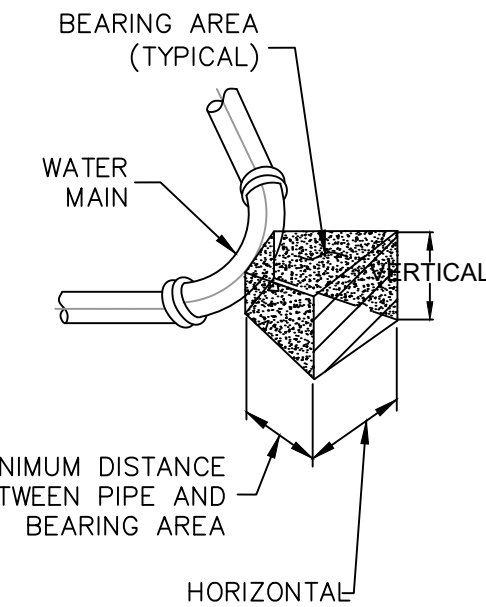
N:\CAPITAL BUDGET PROJECTS\08-2022\C22TDCATS-California Ave Main Replacement at Fair Oaks Park\Wings Point-Wr Main\Plan\California Ave Main Replacement.dwg, 04/26/22 07:37:08am, author

HORIZONTAL THRUST (LBS)
MINIMUM BEARING AREA (SQ. FEET)

FITTING SIZE	22 1/2° BEND		45° BEND		90° BEND		TEE OR DEAD END	
	THRUST	AREA	THRUST	AREA	THRUST	AREA	THRUST	AREA
4"	1,450	2	2,800	2	5,200	3	3,700	2
6"	2,300	2	3,800	3	10,700	6	7,800	4
8"	5,100	3	10,100	5	18,600	10	13,200	7
10"	8,300	5	16,500	8	30,400	16	21,500	12
12"	11,900	7	23,400	11	43,500	21	30,800	16
14"	16,100	8	31,800	16	58,700	30	41,500	21
16"	20,900	10	41,200	21	76,000	38	53,800	27
24"	-	-	-	-	-	-	-	-
30"	-	-	-	-	-	-	-	-

TYPICAL DIMENSIONS

BEARING AREA SQUARE FEET	HORIZ. FEET	VERT. FEET	MIN. DISTANCE FEET
2	2	1.5	1
4	2	2	1
5	2.5	2	1
6	3	2	1.25
7	3.5	2	1.5
8	4	2	1.7
10	5	2	2
16	5.3	3	2.25
21	6.4	3.3	2.75
27	7.2	3.75	3
30	7.5	4	3.5
38	9	4.5	3.5

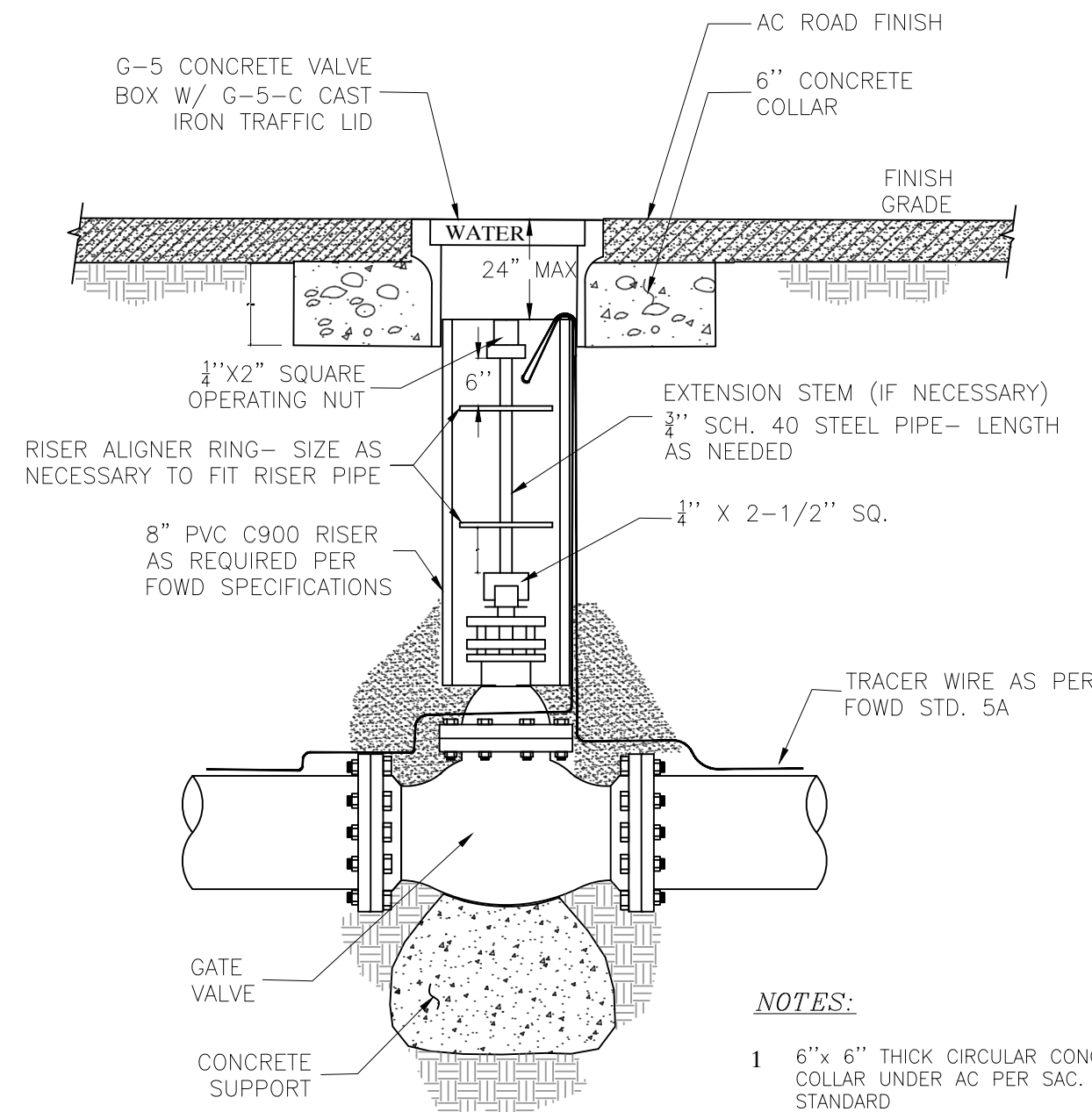


- NOTES:**
- THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
 - MINIMUM VOLUME OF THRUST BLOCK IS 3 CUBIC FEET.
 - THE ABOVE TABLES ARE BASED ON A SOIL HAVING A BEARING VALUE OF 2000 PSF. FOR OTHER SOILS MULTIPLY THE BEARING AREA BY THE FOLLOWING FACTORS.

MUCK	0 PSF	NOT ACCEPTABLE
SOFT CLAY	1000 PSF	MULTIPLY BEARING AREA BY 2.0
SAND	2000 PSF	NO ADJUSTMENT
SAND AND GRAVEL	3000 PSF	MULTIPLY BEARING AREA BY 0.66
SAND AND GRAVEL CEMENTED WITH CLAY	4000 PSF	MULTIPLY BEARING AREA BY 0.5

- THE ABOVE TABLES ARE BASED ON A TEST PRESSURE OF 200 PSI FOR OTHER PRESSURES ADJUST PROPORTIONATELY.

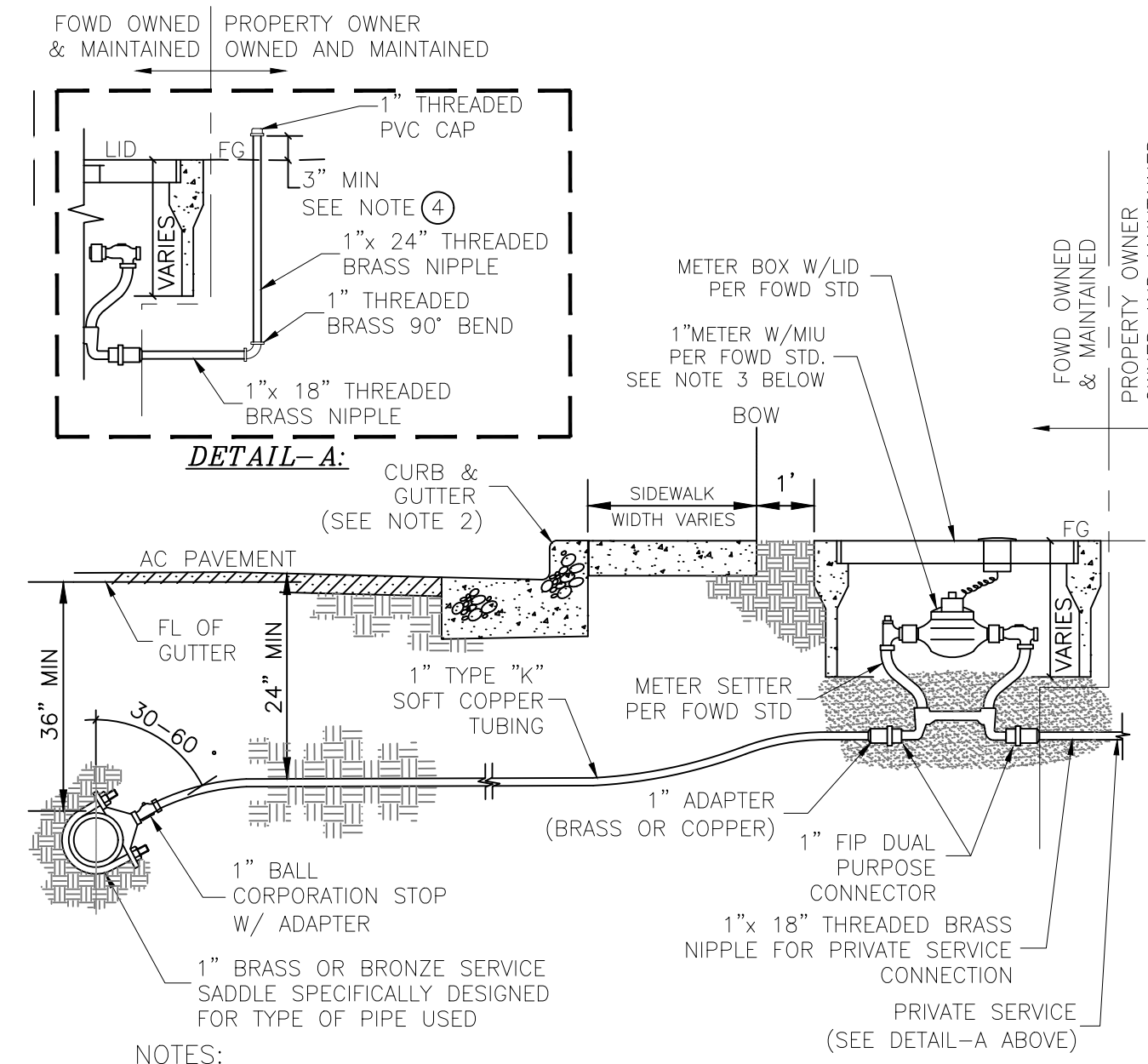
THRUST BLOCK DETAILS
Standard Drawing 1
NOT TO SCALE



ELEVATION VIEW

- NOTES:**
- 6" x 6" THICK CIRCULAR CONCRETE COLLAR UNDER AC PER SAC. COUNTY STANDARD.
 - VALVE BOX AND RISER SHALL BE SET PLUMB AND CENTERED OVER WATER VALVE NUT.
 - ALL BURIED METAL SHALL BE ENCASED WITH 8 MIL POLYETHYLENE SO THAT NO SOIL IS IN CONTACT WITH METAL.

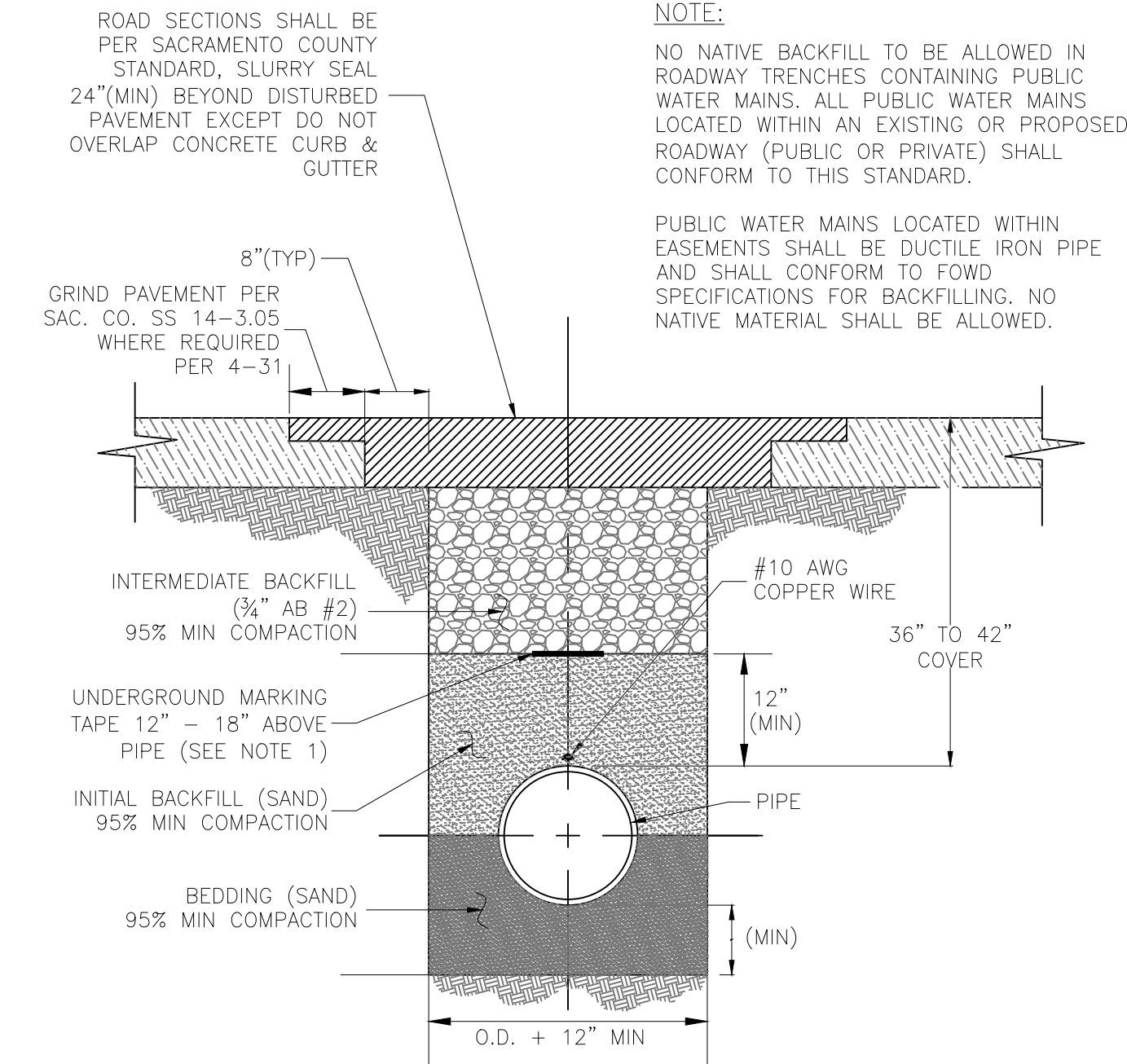
BURIED GATE VALVE
Standard Drawing 4
NOT TO SCALE



DETAIL-A

- NOTES:**
- LARGER 1-1/2" AND 2" SERVICES ARE CONSTRUCTED IN A MANNER SIMILAR TO 1" SERVICE. REFER TO FOWD STANDARD SPECIFICATIONS.
 - CONTRACTOR SHALL IMPRINT OR STENCIL CURB FACE WITH A "W" TO INDICATE LOCATION OF SERVICE LINE.
 - 1" METER SHALL BE NEPTUNE T-10 EQUIPPED WITH NEPTUNE METER INTERFACE UNIT (MIU) ENHANCED E-CODER/R9001 OR DISTRICT APPROVED EQUAL.
 - 24" BRASS RISER (3" MIN ABOVE FINISH GRADE) PROVIDED FOR CUSTOMER TO MAKE CONNECTION WITH APPROVED BACKFLOW DEVICE (SEE STD-21)

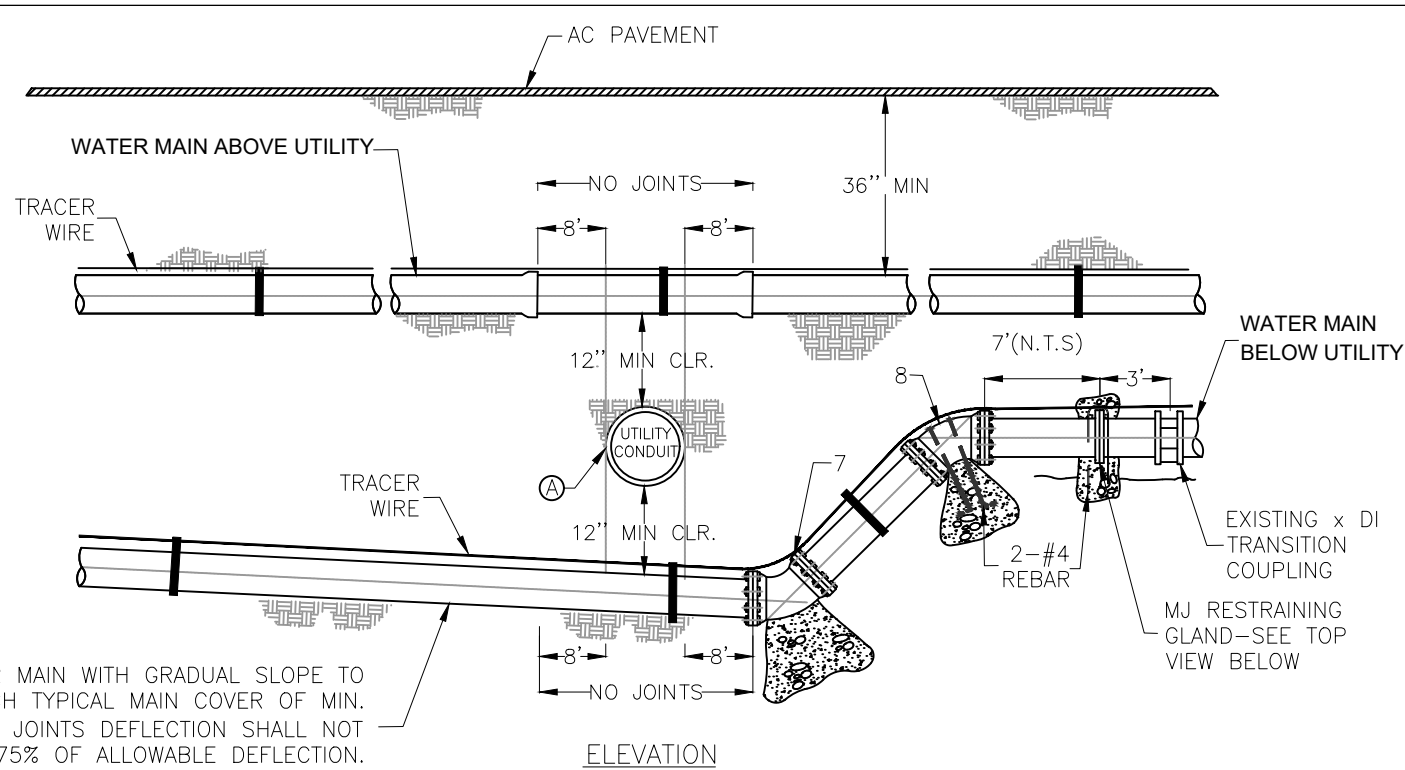
1" WATER METER INSTALLATION
Standard Drawing 7
NOT TO SCALE



TRENCH CROSS SECTION FOR PIPE BEDDING AND BACKFILL
Standard Drawing 9
NOT TO SCALE

- NOTE:**
- NO NATIVE BACKFILL TO BE ALLOWED IN ROADWAY TRENCHES CONTAINING PUBLIC WATER MAINS. ALL PUBLIC WATER MAINS LOCATED WITHIN AN EXISTING OR PROPOSED ROADWAY (PUBLIC OR PRIVATE) SHALL CONFORM TO THIS STANDARD.
- PUBLIC WATER MAINS LOCATED WITHIN EASEMENTS SHALL BE DUCTILE IRON PIPE AND SHALL CONFORM TO FOWD SPECIFICATIONS FOR BACKFILLING. NO NATIVE MATERIAL SHALL BE ALLOWED.

- NOTE 1:**
- WARNING TAPE SHALL BE INSTALLED ABOVE ALL WATER MAINS. TAPE SHALL BE 12" WIDE AND BE APPROVED FOR EXTENDED UNDERGROUND USE. TAPE SHALL BE BLUE AND BE MARKED "WATER MAIN BURIED BELOW" IN BLACK LETTERING.

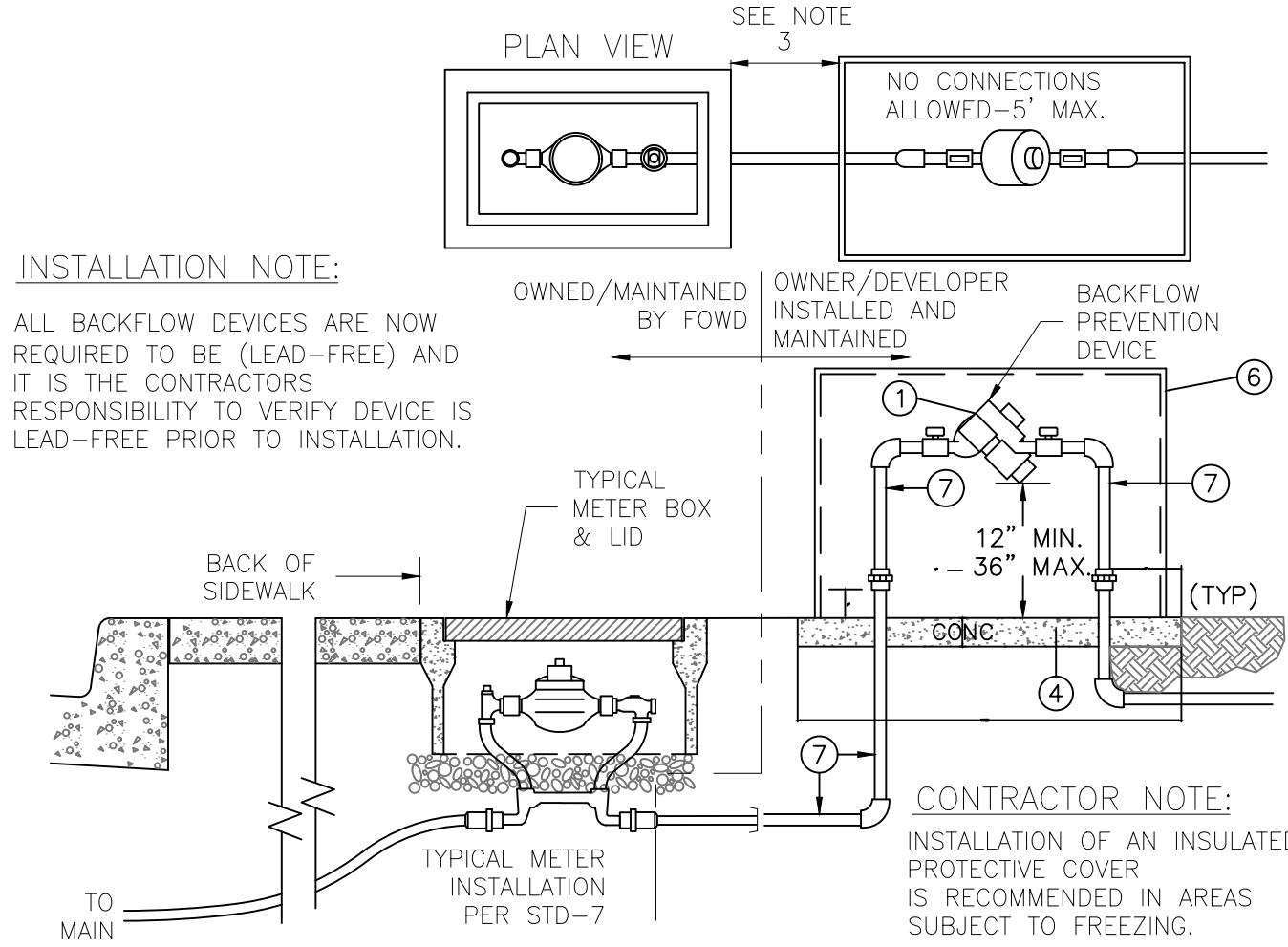


ELEVATION

- NOTES:**
- APPLICABILITY: (a) DETAILS TO 12" & SMALLER WATER MAINS; (b) PER 2008 CALIFORNIA WATER REGULATIONS, NEW POTABLE WATER MAINS SHALL NOT BE INSTALLED BELOW STORM DRAINAGE, SEWER, RECYCLED WATER, OR HAZARDOUS FLUID. WRITTEN APPROVAL FROM CALIFORNIA DIVISION OF DRINKING WATER SHALL BE RECEIVED BY WATER UTILITY PRIOR TO INSTALLATION OF NON-COMPLIANT WATER MAINS. ADDITIONAL DESIGN REQUIREMENTS WILL APPLY.
 - THE RESTRAINT BLOCKS SHALL BE A MINIMUM OF 24" IN HEIGHT AND 12" THICK. THE TOP OF THE BLOCK SHALL BE NO MORE THAN 6" ABOVE THE TOP OF PIPE.
 - ALL PIPE JOINTS AT 45° BENDS SHALL BE MECHANICAL JOINT WITH MEGALUG OR RETAINING GLAND. FLANGED JOINTS MAY BE USED WHERE CONDITIONS WARRANT.
 - INSTALLATION SHALL BE ENCASED IN A POLYETHYLENE WRAPPER PER AWWA STANDARD C105.
 - AIR-RELEASE-SADDLE SHALL BE INSTALLED ON THE HIGH POINTS OF THE OFFSET FOR THE INSTALLATION OF AIR-RELEASE VALVES AS SPECIFIED ON THE PLAN OR BY THE INSPECTOR. AIR RELEASE-SADDLE SHALL BE 1" ON 12" AND SMALLER MAINS AND 2" ON LARGER MAINS.
 - IF BOTTOM CHORD EXCEEDS 18', CONNECT PIPE SECTIONS WITH FIELD LOCK GASKETS.
 - 45° BEND, MECHANICAL JOINT WITH MEGALUG OR RETAINING GLAND WITH STANDARD THRUST BLOCKS.
 - 45° BEND MECHANICAL JOINT WITH MEGALUG OR RETAINING GLAND (C153 MJ X MJ DUCTILE IRON FITTING FOR DIP AND PVC PIPE; OR C153 POJ X POJ DUCTILE IRON FITTING FOR DIP).

WATER MAIN LAYOUT AT CROSSING WITH UTILITIES AND 45° MECHANICAL JOINT UTILITY INVERT
DETAIL 4
NOT TO SCALE

- NOTES:**
- THE BACKFLOW DEVICES ALLOWED WITHIN FOWD MUST INDICATE LEAD-FREE AND SHALL BE APPROVED BY FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH OF THE UNIVERSITY OF SOUTHERN CALIFORNIA AND SHALL BE IN THE MOST RECENT LIST OF THE APPROVED ASSEMBLIES.
 - THE SIZE AND TYPE OF THE REDUCED PRESSURE PRINCIPLE ASSEMBLY BACKFLOW DEVICE (RPPA) SHALL BE APPROVED BY FAIR OAKS WATER DISTRICT AND SHALL BE NOTED ON THE CONSTRUCTION PLANS.
 - THE BACKFLOW ASSEMBLY SHALL BE INSTALLED AS CLOSE AS PRACTICAL TO THE METER BOX. NO TEES OR OTHER TYPE FITTINGS ARE ALLOWED BETWEEN METER BOX AND BACKFLOW DEVICE.
 - 3" CONCRETE SLAB - 18" WIDE WITH VARYING LENGTH. EXTEND CONCRETE 6" BEYOND PIPE RISERS (SEE BELOW).
 - FAIR OAKS WATER DISTRICT RECOMMENDS INSTALLATION OF STRAINER UPSTREAM FROM THE BACKFLOW DEVICE. THE SIZE AND TYPE OF THE STRAINER SHALL BE PER MANUFACTURER SPECIFICATIONS.
 - INSTALLATION OF SECURITY ENCLOSURE IS RECOMMENDED IN LOCATIONS SUBJECT TO INCIDENTAL DAMAGE BUT NOT REQUIRED.
 - FAIR OAKS WATER DISTRICT RECOMMENDS INSTALLATION OF RIGID (TYPE L) COPPER PIPE OR BRASS PIPE AND FITTINGS FROM POC AT METER SETTER THROUGH DOWNSTREAM RISER ON BACKFLOW DEVICE.



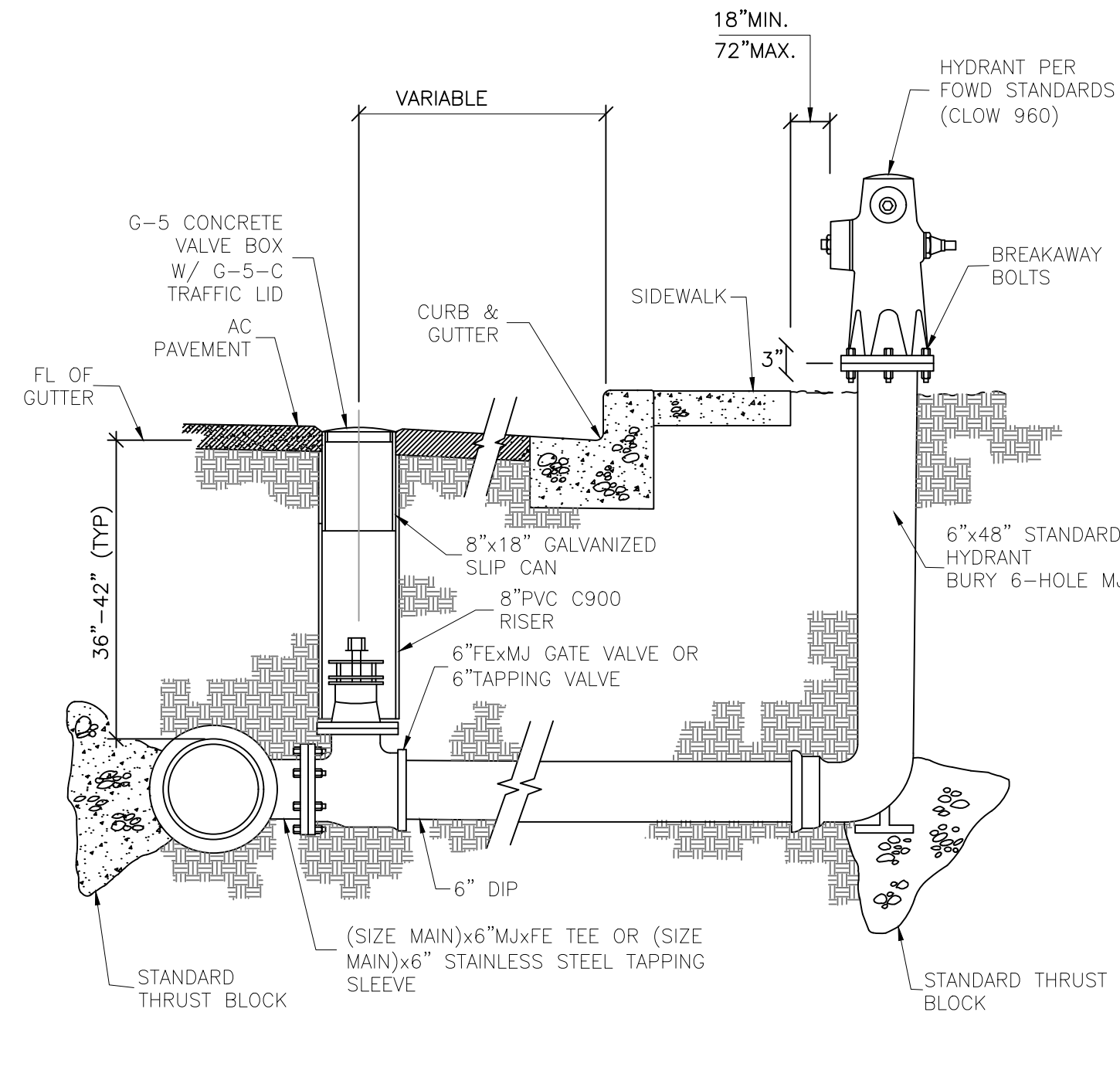
REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY FOR 1.2" METERS
Standard Drawing 21
NOT TO SCALE

INSTALLATION NOTE:

ALL BACKFLOW DEVICES ARE NOW REQUIRED TO BE (LEAD-FREE) AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY DEVICE IS LEAD-FREE PRIOR TO INSTALLATION.

CONTRACTOR NOTE:

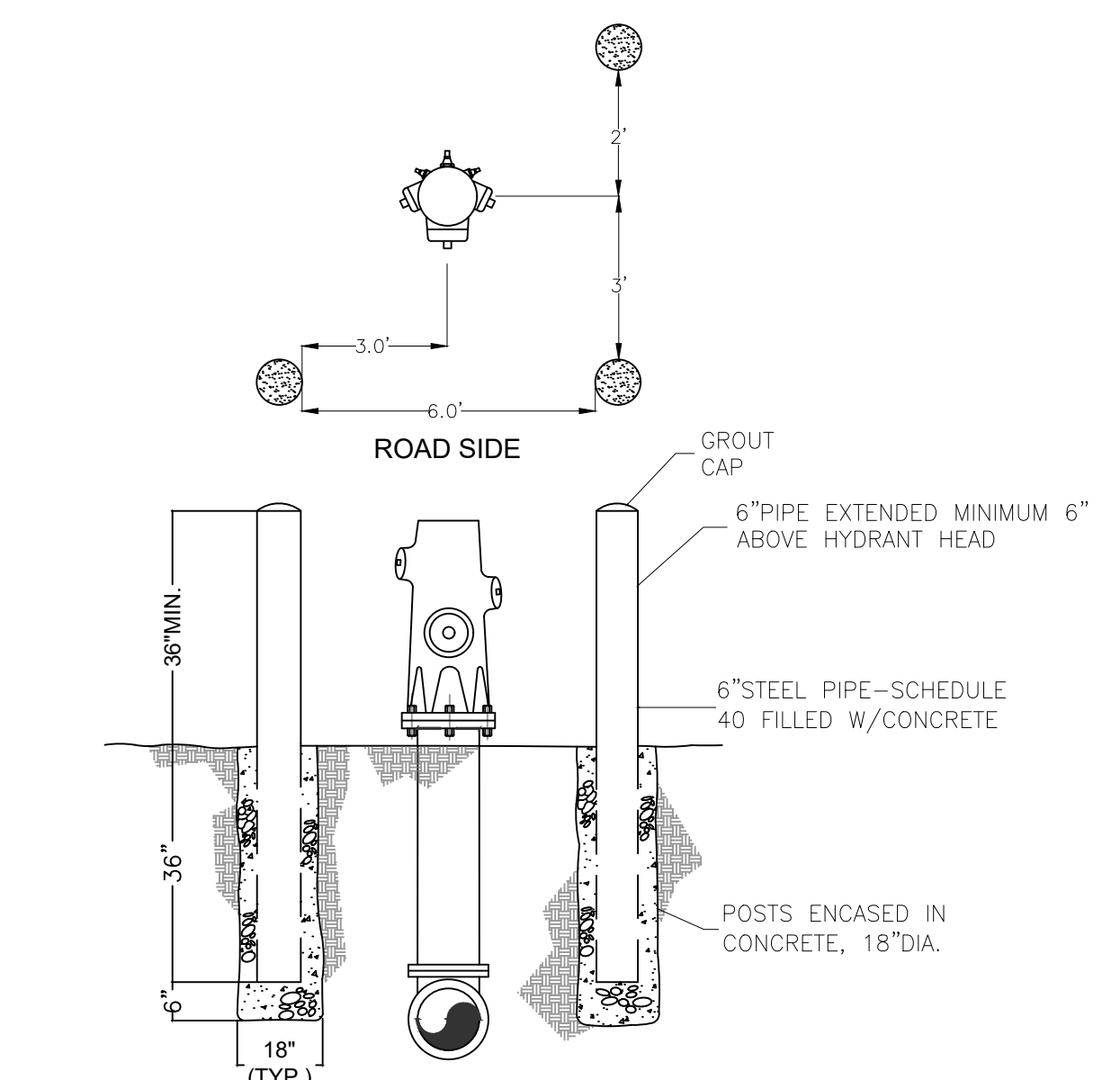
INSTALLATION OF AN INSULATED PROTECTIVE COVER IS RECOMMENDED IN AREAS SUBJECT TO FREEZING.



NOTES:

- ON ROADS WITHOUT CURBS, FIRE HYDRANTS SHALL BE LOCATED WITHIN THE ROAD RIGHT OF WAY, ONE FOOT CLEAR FROM THE PROPERTY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.
- HYDRANT & RISER ARE TO BE PAINTED PER LOCAL FIRE DEPARTMENT REQUIREMENTS, CONTRACTOR TO SUPPLY PAINT AND PRIMER.
- IF GATE CAN INSTALLED IN CONCRETE, USE FOWD APPROVED G-5 VALVE BOX OR EQUIVALENT.

6" WET BARREL FIRE HYDRANT
Standard Drawing 11



FIRE HYDRANT BARRICADE
Standard Drawing 19
MODIFIED FOR 3 BOLLARDS

- NOTES:**
- ORIENTATION OF BARRICADE MAY BE CHANGED ACCORDING TO FIELD CONDITIONS.
 - BARRICADE AND HYDRANT ARE TO BE PAINTED PER FOWD REQUIREMENTS. COATING SHALL BE PER THE REQUIREMENTS FOR ABOVE GRADE STEEL PIPING.
 - A MINIMUM OF 3- FEET CLEARANCE AROUND THE HYDRANT IS REQUIRED, THERE SHALL BE NOTHING AROUND THE HYDRANT THAT WOULD IMPAIR ABILITY TO SEE OR OPERATE THE HYDRANT.

BID SET PLAN

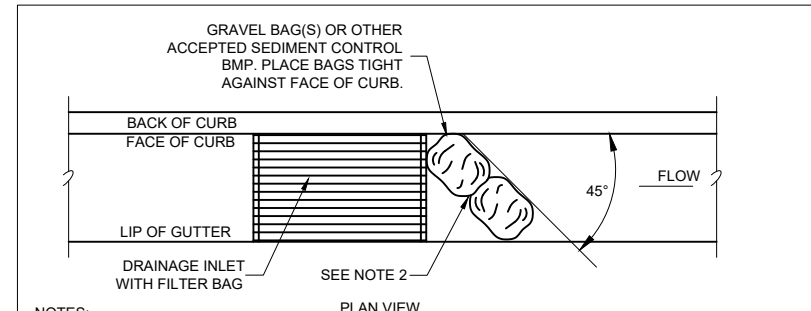
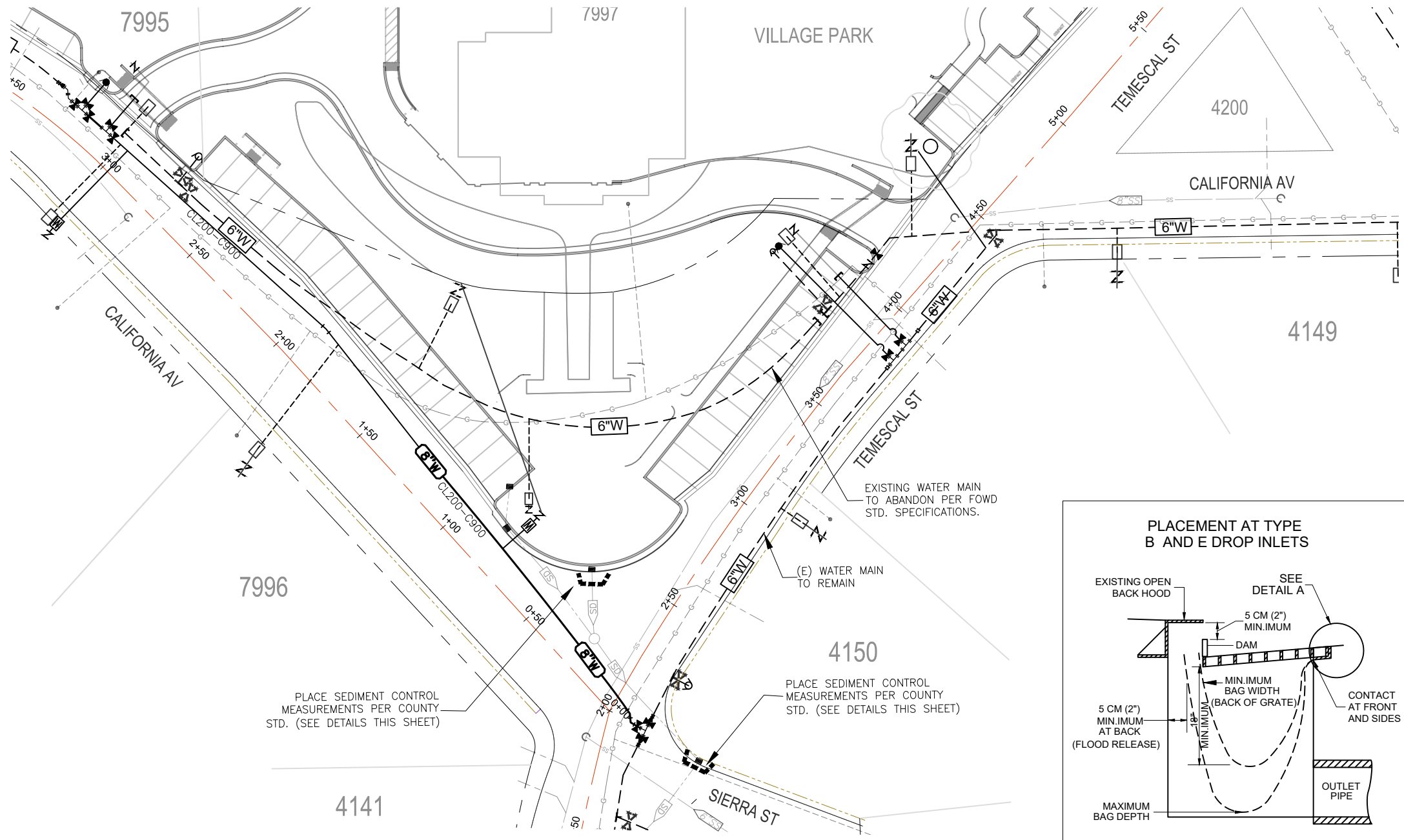
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REVIEWED BY:	DATE:	A. SHAFQA				
REVIEWED BY:	DATE:	P. SIEBENSOHN				
	04/25/2022					

FAIR OAKS WATER DISTRICT
10326 FAIR OAKS BLVD, FAIR OAKS, CA 95628, (916) 967-5723
RELOCATE MAIN AT CALIFORNIA AVE. AND TEMSCAL ST.
STANDARD DRAWINGS AND POINT OF CONNECTION DETAIL

SCALE: N/A
HORIZ: N/A
VERT: N/A
VER: _____



SHEET 4
OF 5 SHEETS
PROJECT NUMBER C22TDCATS



NOTES:
 1.) SEDIMENT TRAPPED UPSTREAM OF SEDIMENT CONTROL BMP SHALL BE REMOVED WEEKLY AND PRIOR TO A RAINFALL EVENT.
 2.) PLACE BMP'S TIGHTLY TOGETHER AT JOINTS TO PREVENT OR MINIMIZE SEEPAGE AT JOINTS.

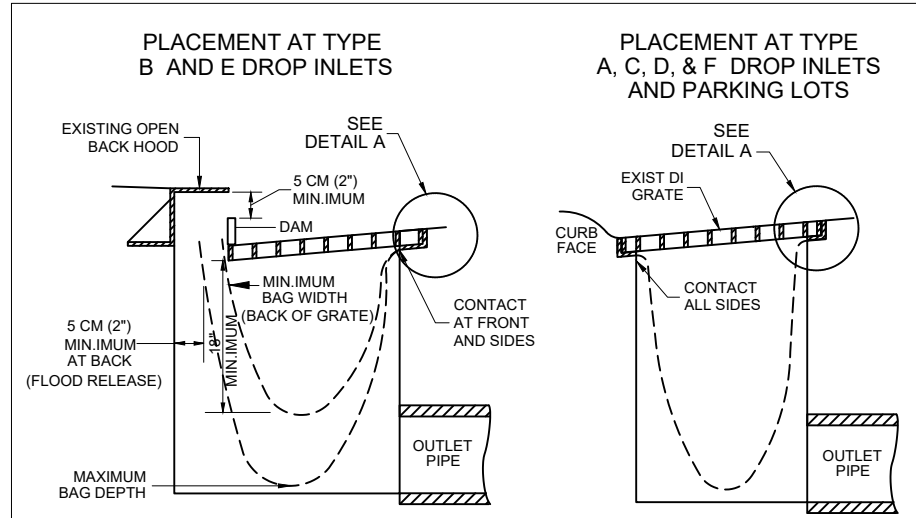
THIS DRAWING SUPERCEDES ALL PREVIOUS VERSIONS

SACRAMENTO COUNTY
PUBLIC WORKS AGENCY

INLET SEDIMENT CONTROL

SCALE: NONE
DATE DRAWN/REV. SEPT 2006

11-7



NOTES

1. THE MAXIMUM DRAINAGE AREA PER FILTER BAG SHALL BE NO MORE THAN 0.8 HECTARES (2 ACRES).
2. THE FILTER BAG SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE, NYLON, POLYESTER, OR ETHYLENE FABRIC WITH A MINIMUM TENSILE STRENGTH OF 50 LBS PER LINEAL FOOT, AN EQUIVALENT OPENING SIZE NOT GREATER THAN 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLONS/MINUTE/SQ FT.
3. THE FILTER BAG MAY BE SUSPENDED FROM OR HELD IN PLACE BY THE EXISTING INLET GRATE (OR OTHER APPROVED METHOD), PROVIDING NO MODIFICATION OR DAMAGE SHALL BE DONE TO THE INLET GRATE OR FRAME. THE INLET GRATE SHALL NOT BE CAUSED TO REST MORE THAN 13MM (.5") ABOVE THE INLET FRAME (SEE DETAIL A).
4. THE FILTER BAG MAY EXTEND TO THE BOTTOM OF THE INLET BOX PROVIDED THE OUTLET PIPE IS UNOBSTRUCTED.
5. FLOWS SHALL NOT BE ALLOWED TO BYPASS THE BAG. THE BAG OR ITS FRAME SHALL CATCH FLOWS AT ALL SIDES OF THE INLET, EXCEPT AS SHOWN FOR FLOOD RELEASE.
6. INLET FILTER BAGS SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL DURING THE WET SEASON AND MONTHLY DURING THE DRY SEASON. SEDIMENT AND DEBRIS SHALL BE REMOVED BEFORE ACCUMULATIONS HAVE REACHED ONE THIRD THE DEPTH OF THE BAG. BAGS SHALL BE REPAIRED OR REPLACED AS SOON AS DAMAGE OCCURS.

SACRAMENTO COUNTY
PUBLIC WORKS AGENCY

STORM DRAIN INLET FILTER BAG

SCALE: NONE
DATE DRAWN/REV. SEPT 2006

11-8

EROSION CONTROL

----- SEDIMENT BMP

COUNTY NOTE:
 SEE COUNTY DRAINAGE FACILITY MAP 354-206, 354-209, 356-206, AND 356-209 FOR LOCATIONS

EROSION/SEDIMENT CONTROL
 PER SACRAMENTO COUNTY WATER RESOURCES: EROSION/SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN DRAIN INLETS WITHIN THE PROJECT AREA PRIOR TO BEGINNING OF CONSTRUCTION ACTIVITIES.

EROSION/SEDIMENT CONTROL MEASURES ARE TO BE MAINTAINED THROUGHOUT CONSTRUCTION ACTIVITY AND DURING PERIODS OF RAIN.

SEE ABOVE FOR PLACEMENT AND LOCATIONS. COUNTY DRAINAGE FACILITY MAP 354-206, 354-209, 356-206, AND 356-209

EROSION/SEDIMENT CONTROL NOTE:
 PER SAC COUNTY WATER RESOURCES, SEE THIS SHEET FOR EROSION/SEDIMENT CONTROL MEASURES WITHIN PROJECT LIMITS.

STORM DRAIN NOTE:
 DRAINAGE INFORMATION AS SHOWN ON THIS PLAN ARE FROM SACRAMENTO COUNTY DEPARTMENT OF WATER RESOURCES, DRAINAGE FACILITY MAP # 354-206, 354-209, 356-206, AND 356-209

PER SACRAMENTO COUNTY WATER RESOURCES: MAINTAIN 18" (INCHES) OF VERTICAL SEPARATION BETWEEN (E) STORM DRAIN AND (P) WATER MAIN AT ALL CROSSINGS (TYP).

MECHANICAL INVERTS FOR WATER MAINS SHALL BE INSTALLED PER FOWD STD-17

THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING (E) UTILITIES WERE OBTAINED FROM OUTSIDE AGENCY AS-BUILTS AND MAY VARY IN RELIABILITY. THE CONTRACTOR SHALL POTHOLE AT ALL UTILITY CROSSINGS TO DETERMINE THE ACTUAL LOCATIONS AND DEPTHS OF (E) UTILITIES PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL NOTIFY FAIR OAKS WATER DISTRICT INSPECTOR TO DETERMINE ANY POSSIBLE CONFLICTS WITH INSTALLATION OF WATER MAIN AND APPURTENANCES. (TYP)

N:\CAPITAL BUDGET PROJECTS\09-2022\C22TDCATS-California Ave Main Replacement at Fair Oaks Park\Plan\Plan-Rev 5\CAD\New Main (cort updated).dwg, 04/25/22 07:36:12am, aehufog

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REVIEWED BY:	DATE:	DRAWN BY: A. SHAFQA			
REVIEWED BY:	DATE:	CHECKED BY: P. SIEBENSOHN			
		DATE: 04/25/2022	REV.	DATE	DESCRIPTION
					APP.

FAIR OAKS WATER DISTRICT
 10326 FAIR OAKS BLVD, FAIR OAKS, CA 95628, (916) 967-5723
 RELOCATE MAIN AT CALIFORNIA AVE. AND TEMSCAL ST.
EROSION AND SEDIMENT CONTROL PLAN

SCALE:
 HORIZ: 1"=60'
 VERT: N/A
 VER: _____



BID SET PLAN

SHEET 5
 OF 5 SHEETS
 PROJECT NUMBER
 C22TDCATS