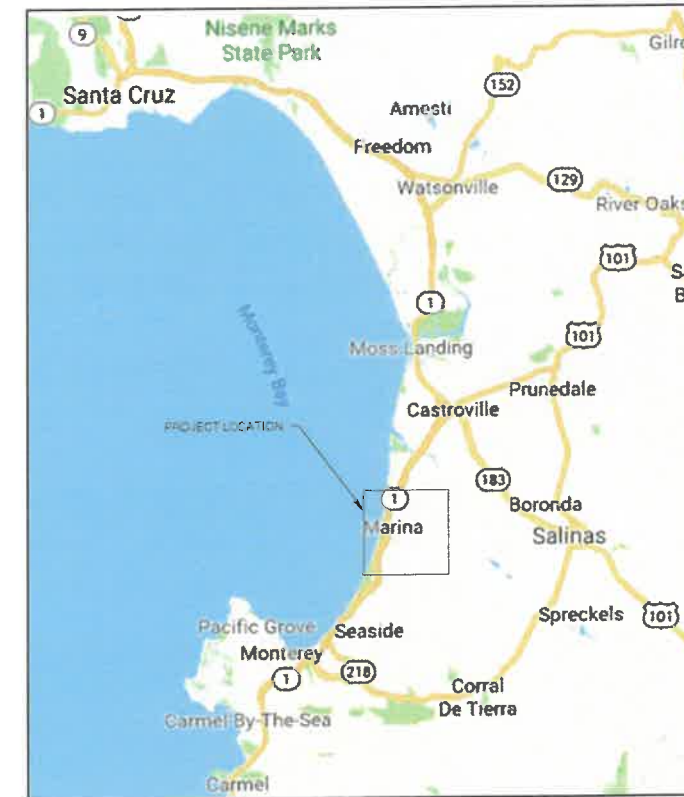
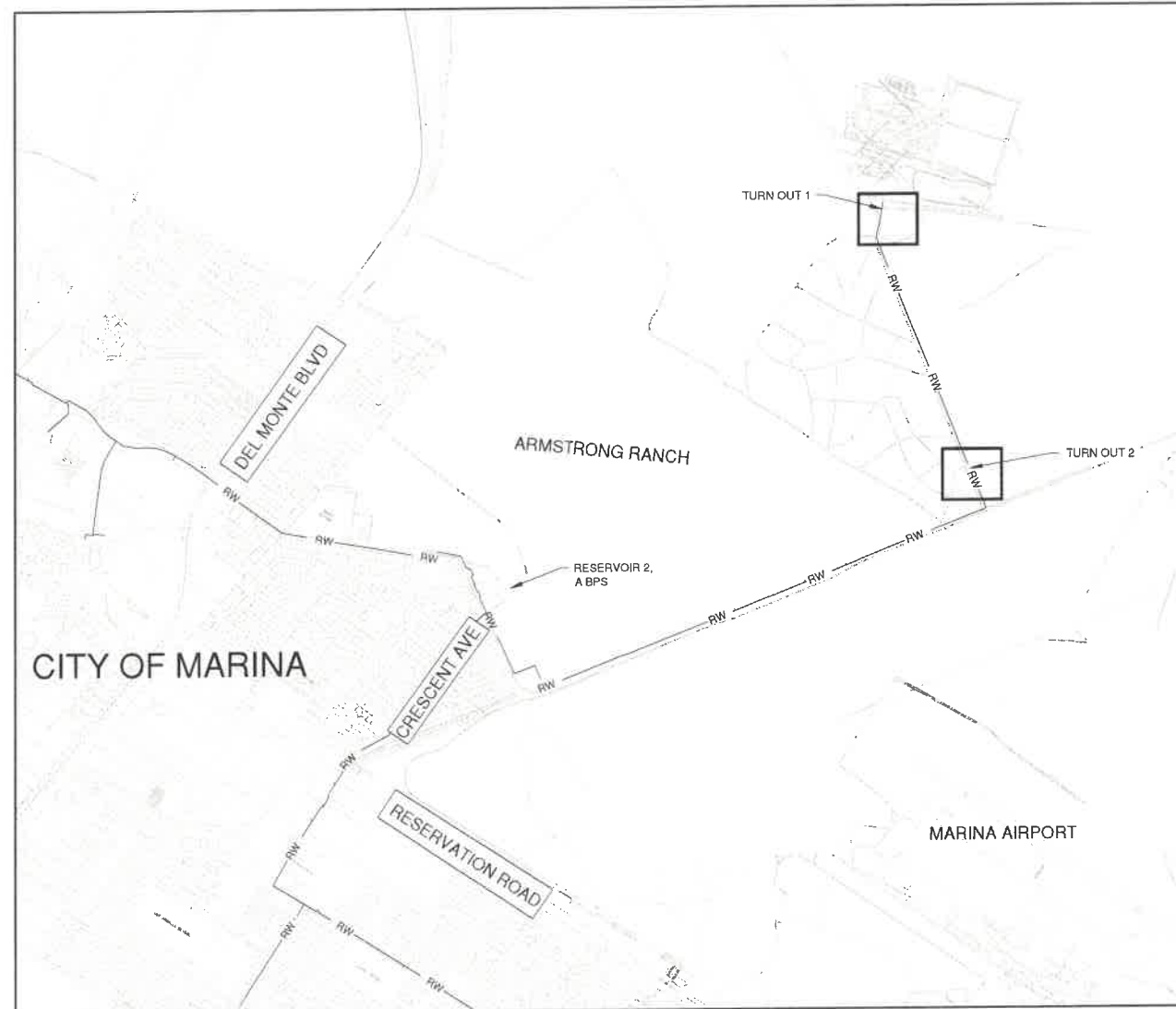

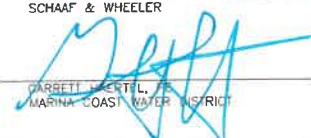


PLANS FOR THE IRRIGATION CONNECTIONS AT ARMSTRONG RANCH MARINA COAST WATER DISTRICT CIP NO. RW- 2401



VICINITY MAP

SUBMITTED: 	1/14/2025 DATE
ANDREW A. STERBENZ, PE SCHAAF & WHEELER	
REVIEWED: 	1/23/2025 DATE
DARRELL FERTEL, PE MARINA COAST WATER DISTRICT	

NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
11 RESERVATION ROAD
MARINA, CA 93933
(831) 384-6131

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 QUAIL RUN CIRCLE, STE. 101
SALINAS, CA 93907
(831) 883-4848



IRRIGATION CONNECTIONS AT ARMSTRONG RANCH

COVER SHEET

DATE: JAN 2024
SCALE: NTS
DESIGN: AAS
DRAWN: ALJ
CHECK: AAS

SHEET
G-1
1 OF 8

SHEET INDEX

SHEET NO.	DESCRIPTION
1	G-1 COVER SHEET
2	G-2 SHEET INDEX, CIVIL LEGENDS, SYMBOLS, AND ABBREVIATIONS
3	G-3 GENERAL NOTES AND SPECIFICATIONS
4	GC-1 PRV AND METER DETAIL
5	GC-2 CIVIL DETAILS I
6	GC-3 CIVIL DETAILS II
7	C-1 SITE LOCATION
8	C-2 SITE PLAN

ABBREVIATIONS

AB	AGGREGATE BASE	LOC	LOCATION
AC	ASPHALT CONCRETE	MB	MAILBOX
APPROX	APPROXIMATE	MSB	MAIN SWITCHBOARD
ARV	AIR RELEASE VALVE	MH	MANHOLE
AWWA	AMERICAN WATERWORKS ASSOC	MAX	MAXIMUM
BLDG	BUILDINGS	MJ	MECHANICAL JOINT
BLRDS	BOLLARDS	MIN	MINIMUM
BTFLY	BUTTERFLY	MIP	MALE IRON PIPE
BTW	BETWEEN	MCC	MOTOR CONTROL CENTER
CL	CENTERLINE	N	NORTH
COM	COMMUNICATION	N.C.	NORMALLY CLOSED
CP	CONTROL POINT	N.I.C	NOT IN CONTRACT
CV	CHECK VALVE	NPT	NATIONAL PIPE THREAD
CVR	COVER	NSHT	NATIONAL STANDARD HOSE THREAD
CLR	CLEAR	NTS	NOT TO SCALE
CMP	CORRUGATED METAL PIPE	O.C.	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CPT	CONTROL POINT	OH	OVERHEAD
CFS	CUBIC FEET PER SECOND	PNL	PANEL
CYC	CYCLONE	PE	PLAIN END, POLYETHYLENE
DL	DAYLIGHT	PVC	POLY-VINYL CHLORIDE
DET	DETAIL	PSI	POUNDS PER SQUARE INCH
DIA	DIAMETER	PP	POWER POLE
DBL	DOUBLE	(P)	PROPOSED
DWGS	DRAWINGS	RED	REDUCER
DWY	DRIVEWAY	RCP	REINFORCED CONCRETE PIPE
DI	DUCTILE IRON	R/W	RIGHT-OF-WAY
DIP	DUCTILE IRON PIPE	RSR	RISER
EA	EACH	RD	ROAD
EP	EDGE OF PAVEMENT	SCH	SCHEDULE
ESMT	EASEMENT	SPECS	SPECIFICATIONS
E	EAST	SS	SANITARY SEWER
EB	EXISTING BOREHOLE	SSCO	SANITARY SEWER CLEANOUT
EP	EDGE OF PAVEMENT	SSFM	SANITARY SEWER FORCE MAIN
ELEC, ELECT	ELECTRICAL	SSMH	SANITARY SEWER MANHOLE
EL,ELEV	ELEVATION	SRVP	SERVICE POLE
ELL	ELBOW	SP	STATIC PRESSURE
EQUIP	EQUIPMENT	STA	STATION
(E)	EXISTING	STD	STANDARD
(F)	FUTURE	STL	STEEL
FIPT	FEMALE IRON PIPE THREAD	SD	STORM DRAIN
FNPT	FEMALE NATIONAL PIPE THREAD	SL	STREET LIGHT
FEN	FENCE	STS	STREET NAME SIGN
FF	FINISH FLOOR	TCE	TEMPORARY CONSTRUCTION EASEMENT
FLG, FL	FLANGE	TOD	TOP OF DITCH
FL, FLR	FLOW LINE	TOS	TOP OF SLOPE
GAL	GALLON(S)	TS	TRAFFIC SIGN
GPM	GALLONS PER MINUTE	TYP	TYPICAL
GALV	GALVANIZED	VLTS	VAULTS
GV	GATE VALVE	W	WATER
GB	GRADE BREAK	WM	WATER MAIN
HHW	HEATING HOT WATER	W/	WITH
HW	HEADWALL	WSP	WELDED STEEL PIPE
HP	HORSEPOWER	WD	WOOD
HDPE	HIGH-DENSITY POLYETHYLENE	WDFE	WOOD FENCE
ID	INSIDE DIAMETER		
INV	INVERT		
IW	INDUSTRIAL WASTE		
IPS	IRON PIPE SIZE		

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	EASEMENT	
	TEMPORARY CONSTRUCTION EASEMENT	
	PROPERTY LINE - RW	
	LIMIT OF WORK	
	CYCLONE FENCE	
	WATER LINE	
	A-ZONE WATER LINE	
	B-ZONE WATER LINE	
	C-ZONE WATER LINE	
	HEATING HOT WATER	
	OVERHEAD ELECTRIC	
	SPOT ELEVATION	
	DRAIN PIPE	
	REMOVE	
	EDGE OF (E) PAVEMENT	
	MAJOR CONTOUR LINE (TOPO)	
	MINOR CONTOUR LINE (TOPO)	
	BURIED ELECTRIC	
	SANITARY SEWER PIPE	
	NATURAL GAS LINE	
	TELEPHONE	
	OVERHEAD COMMUNICATION	
	VEGETATION	
	STORM DRAIN PIPE	
	VAULT	
	MANHOLE	
	ISOLATION VALVE	
	REDUCER	
	CONTROL POINT	
	FOUND MONUMENT AS NOTED	
	EXISTING TREE & TYPE	
	TREE CLUSTER WITH SIZE	
	CYPRESS	
	OAK	
	PINE	
	REDWOOD	
	TREE (MISC)	

MARINA COAST WATER DISTRICT, 11 RESERVATION ROAD, MARINA, CA 93933, (831) 384-6131

NO.	REVISION DESCRIPTION	DATE	APPR



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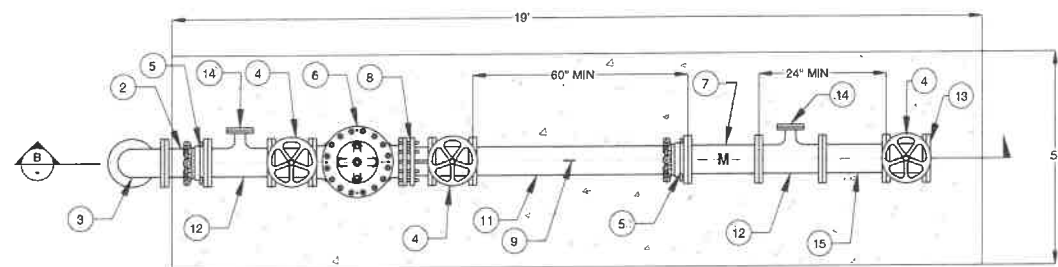
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 (831) 883-4848



IRRIGATION CONNECTIONS AT ARMSTRONG RANCH

SHEET INDEX, CIVIL LEGENDS,
 SYMBOLS, AND ABBREVIATIONS

DATE:	JAN 2024	SHEET G-2 2 of 8
SCALE:	NTS	
DESIGN:	AAS	
DRAWN:	ALJ	
CHECK:	AAS	



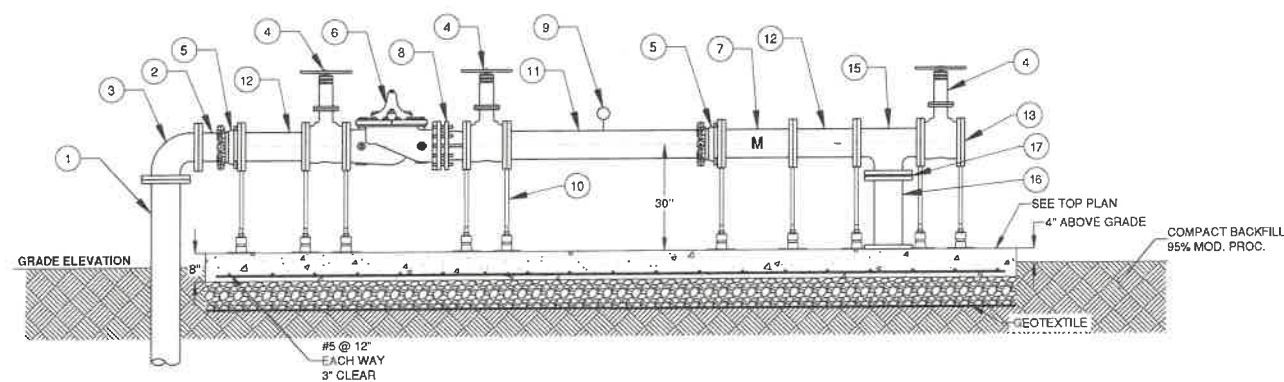
PRV AND METER STATION PLAN A
SCALE: 1" = 2'

BASIS OF DESIGN - TURN OUT 1	
RECYCLED WATER PRESSURE	177 PSI
PRV DISCHARGE PRESSURE	100 PSI
PRESSURE REDUCING VALVE MODEL	CLA-VAL MODEL 90-01
PRESSURE REDUCING VALVE SIZE	8-INCH
ULTRA SONIC METER MODEL	OCTAVE MASTER METER
ULTRA SONIC METER SIZE	8-INCH

BASIS OF DESIGN - TURN OUT 2	
RECYCLED WATER PRESSURE	194 PSI
PRV DISCHARGE PRESSURE	100 PSI
PRESSURE REDUCING VALVE MODEL	CLA-VAL MODEL 90-01
PRESSURE REDUCING VALVE SIZE	8-INCH
ULTRA SONIC METER MODEL	OCTAVE MASTER METER
ULTRA SONIC METER SIZE	8-INCH

TURN OUT 1	
GRADE ELEVATION	172.5 FT
CONCRETE PAD ELEVATION	172.8 FT
CENTER PIPE ELEVATION	175.3 FT

TURN OUT 2	
GRADE ELEVATION	124.8 FT
CONCRETE PAD ELEVATION	125.1 FT
CENTER PIPE ELEVATION	127.6 FT



PRV AND METER STATION SECTION B
SCALE: 1" = 2'

SCALE: 1 INCH = 2 FEET

SHEET NOTES:

1. 8" PIPE
2. 8" SPOOL FLANGED X PLAIN END
3. 8" 90° EL, FLANGED
4. 8" GATE VALVE WITH HAND WHEEL, FLANGED
5. EBAA MEGALUG 2100 DI FLANGE ADAPTER
6. 8" PRESSURE REDUCING VALVE, CLA-VAL MODEL 90-01
7. 8" ULTRASONIC METER
8. 8" DISMANTLING JOINT
9. PRESSURE GAUGE ASSEMBLY (1/2" X 3/8" REDUCER, 1/2" BALL VALVE, 1/2" NIPPLES)
10. STEEL PIPE SUPPORT
11. 8" STEEL SPOOL WITH 3/8" THREAD-O-LET FOR PRESSURE GAUGE
12. 8" X 8" X 3" TEE, FLANGED
13. 8" BLIND FLANGE FOR FUTURE IRRIGATION CONNECTION
14. 3" BLIND FLANGE FOR FUTURE BY PASS CONNECTION
15. 8" TEE, FLANGED
16. 8" SPOOL FLANGED X FLANGED, WITH HILTI EPOXY ANCHORS TO SLAB
17. STEEL PLATE BETWEEN FLANGES

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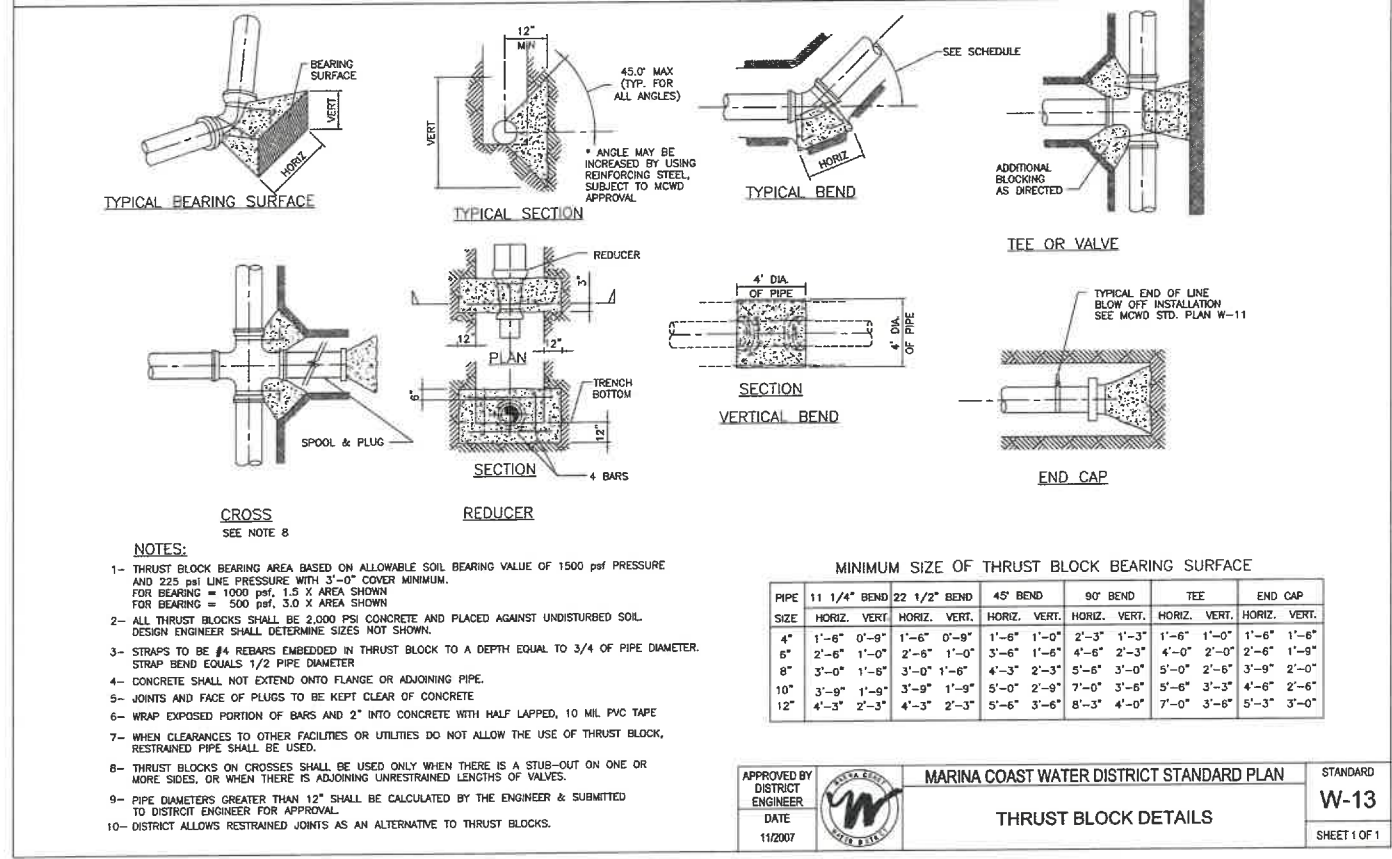
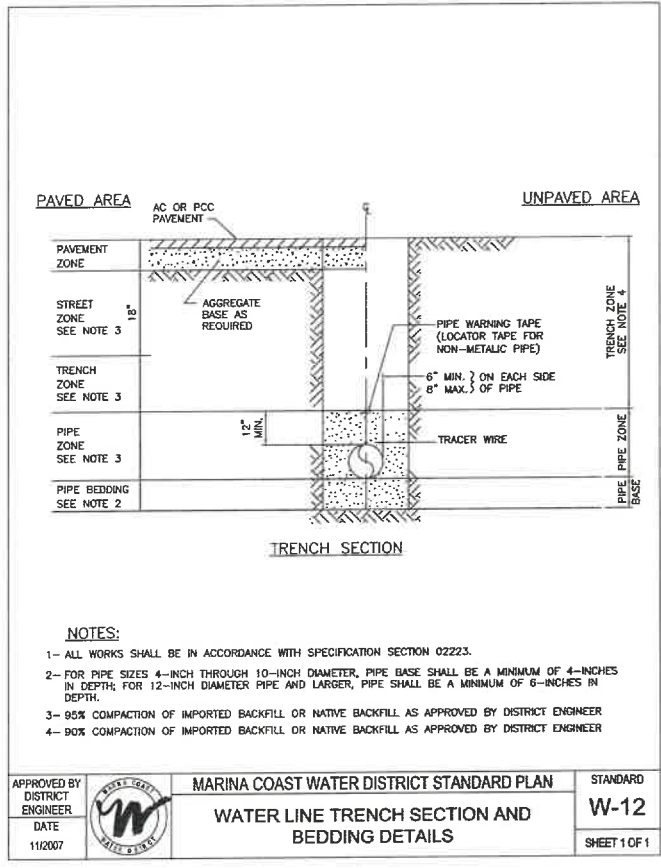
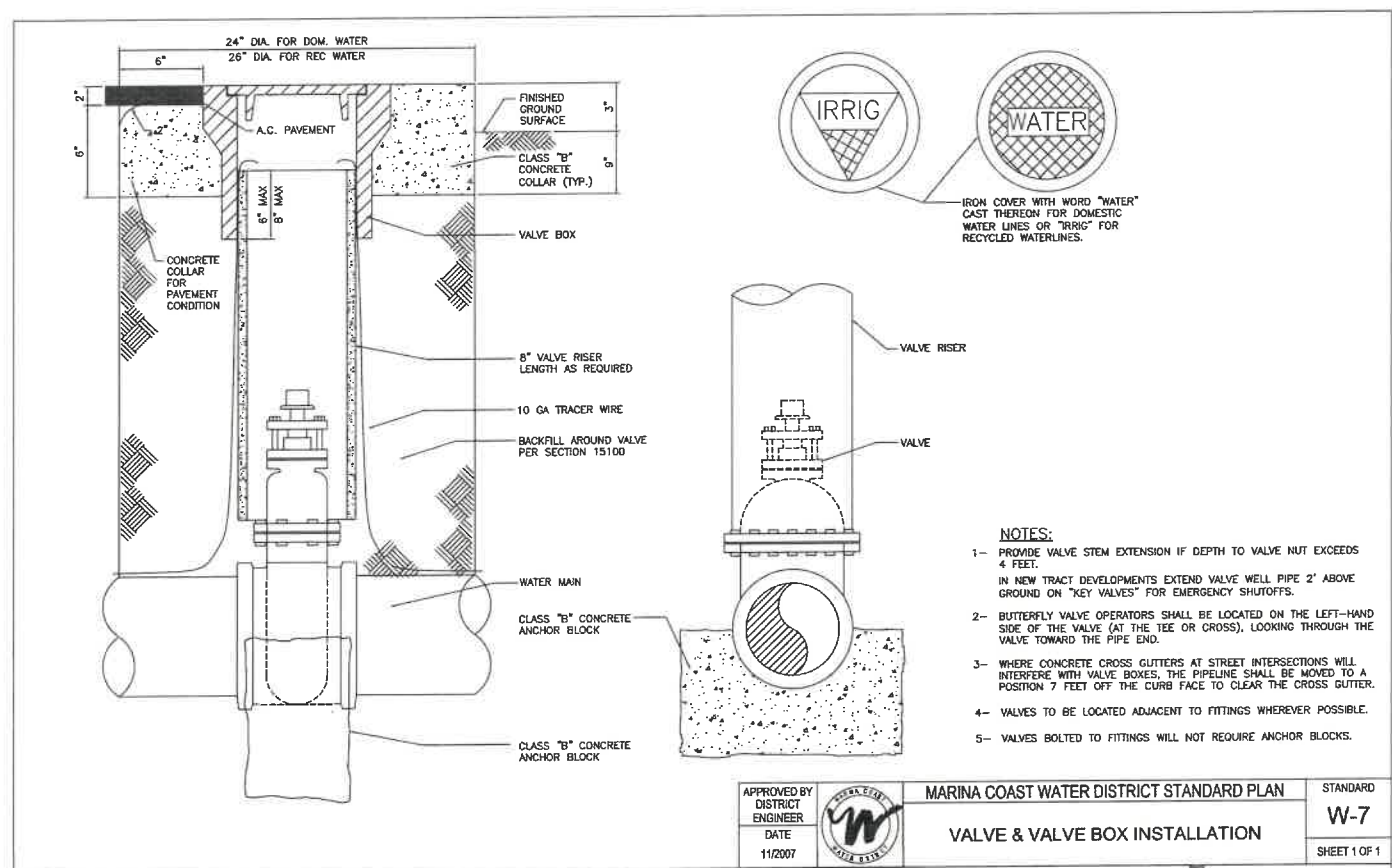


IRRIGATION CONNECTIONS AT ARMSTRONG RANCH

PRV AND METER DETAIL

DATE: JAN 2024
SCALE: NTS
DESIGN: AAS
DRAWN: ALJ
CHECK: AAS

SHEET
GC-1
4 of 8



NO.	REVISION DESCRIPTION	DATE	APPR.

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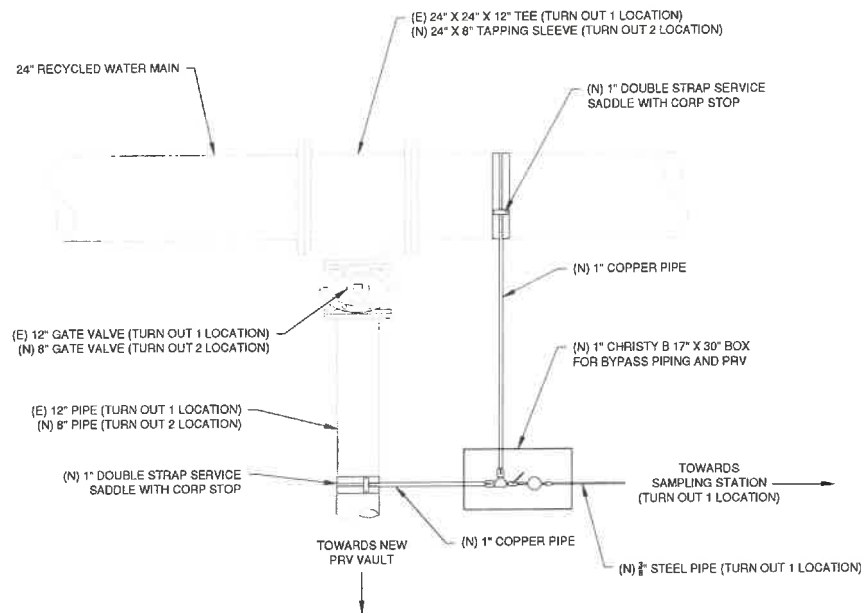
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IRRIGATION CONNECTIONS AT ARMSTRONG RANCH
 CIVIL DETAILS I

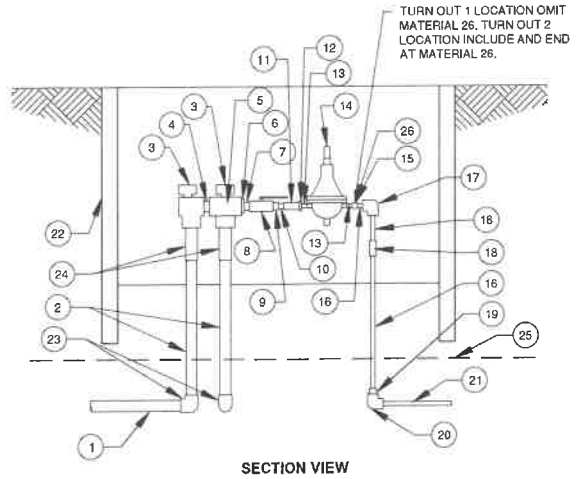
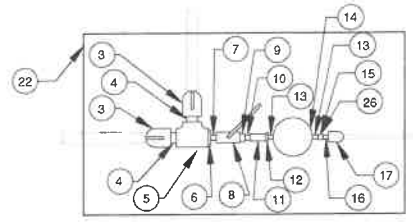
DATE: JAN 2024
 SCALE: NTS
 DESIGN: AAS
 DRAWN: ALJ
 CHECK: AAS

SHEET GC-2
 5 OF 8



TYPICAL BYPASS AND PRV CONNECTION **A**
SCALE: N.T.S. **GC-2**

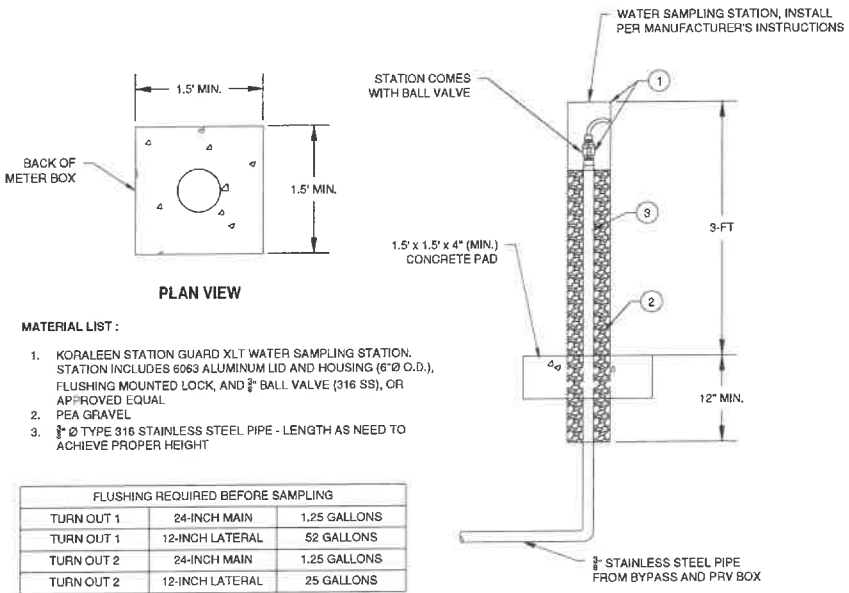
NOTE:
BYPASS LINE IS TO EQUALIZE PRESSURE ACROSS GATE VALVE. 1-INCH VALVE IS NORMALLY CLOSED.



TYPICAL BYPASS AND PRV VAULT DETAIL **B**
SCALE: NTS **GC-2**

NOTE:
CONTRACTOR TO ADD PIPE IDENTIFICATION TAGS

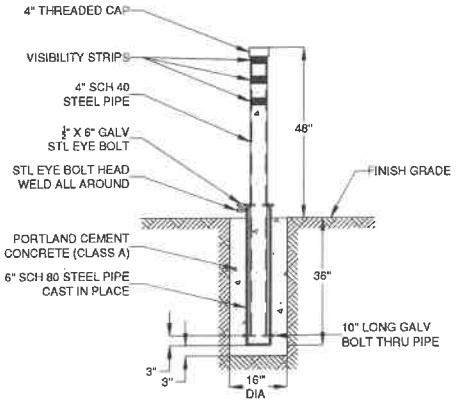
- MATERIAL LIST:**
- 1" COPPER PIPE, L-TYPE
 - 1" COPPER PIPE, K-TYPE
 - 1" ANGLE VALVE, FNPT, FORD BA11-444W-NL OR EQUAL
 - 1" NIPPLE, NPT, LENGTH AS NEEDED
 - 1" TEE, FNPT
 - 1" X 1/2" REDUCING BUSHING
 - NIPPLE, NPT, LENGTH AS NEEDED
 - LOCKABLE BALL VALVE, FNPT
 - MALE ADAPTER, NPT X TUBE
 - TUBE
 - 1/2" X 1/2" PACK JOINT COUPLING, FNPT, FORD C15-11-NL OR EQUAL
 - 1/2" X 1/2" REDUCING BUSHING
 - NIPPLE, NPT, LENGTH AS NEEDED
 - PRV, CLA-VAL MODEL CRD OR EQUAL
 - FEMALE ADAPTER, TUBE X FNPT
 - TUBE
 - 90° ELBOW
 - COMPRESSION FITTING
 - MALE ADAPTER, TUBE X NPT
 - 90° ELBOW, FNPT
 - STEEL PIPE, NPT
 - CHRISTY B 17" X 30" BOX W/H20 LID
 - 90° ELBOW
 - 1" PACK JOINT COUPLING, NPT X COPPER TUBING, FORD C84-44-NL OR EQUAL
 - GEOTEXTILE - 8 OZ. NON-WOVEN, PLACED UNDER ROCK BASE
 - CAP, FNPT



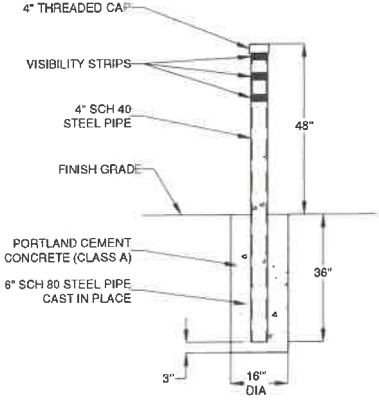
- MATERIAL LIST:**
- KORALEEN STATION GUARD XLT WATER SAMPLING STATION. STATION INCLUDES 6063 ALUMINUM LID AND HOUSING (6" Ø O.D.), FLUSHING MOUNTED LOCK, AND 1/2" BALL VALVE (316 SS), OR APPROVED EQUAL.
 - PEA GRAVEL
 - 1/2" Ø TYPE 316 STAINLESS STEEL PIPE - LENGTH AS NEED TO ACHIEVE PROPER HEIGHT

FLUSHING REQUIRED BEFORE SAMPLING		
TURN OUT 1	24-INCH MAIN	1.25 GALLONS
TURN OUT 1	12-INCH LATERAL	52 GALLONS
TURN OUT 2	24-INCH MAIN	1.25 GALLONS
TURN OUT 2	12-INCH LATERAL	25 GALLONS

SAMPLING STATION **C**
SCALE: NTS **GC-2**



REMOVABLE BOLLARDS



NON-REMOVABLE BOLLARDS

BOLLARD DETAIL **D**
SCALE: 1" = 2' **GC-2**

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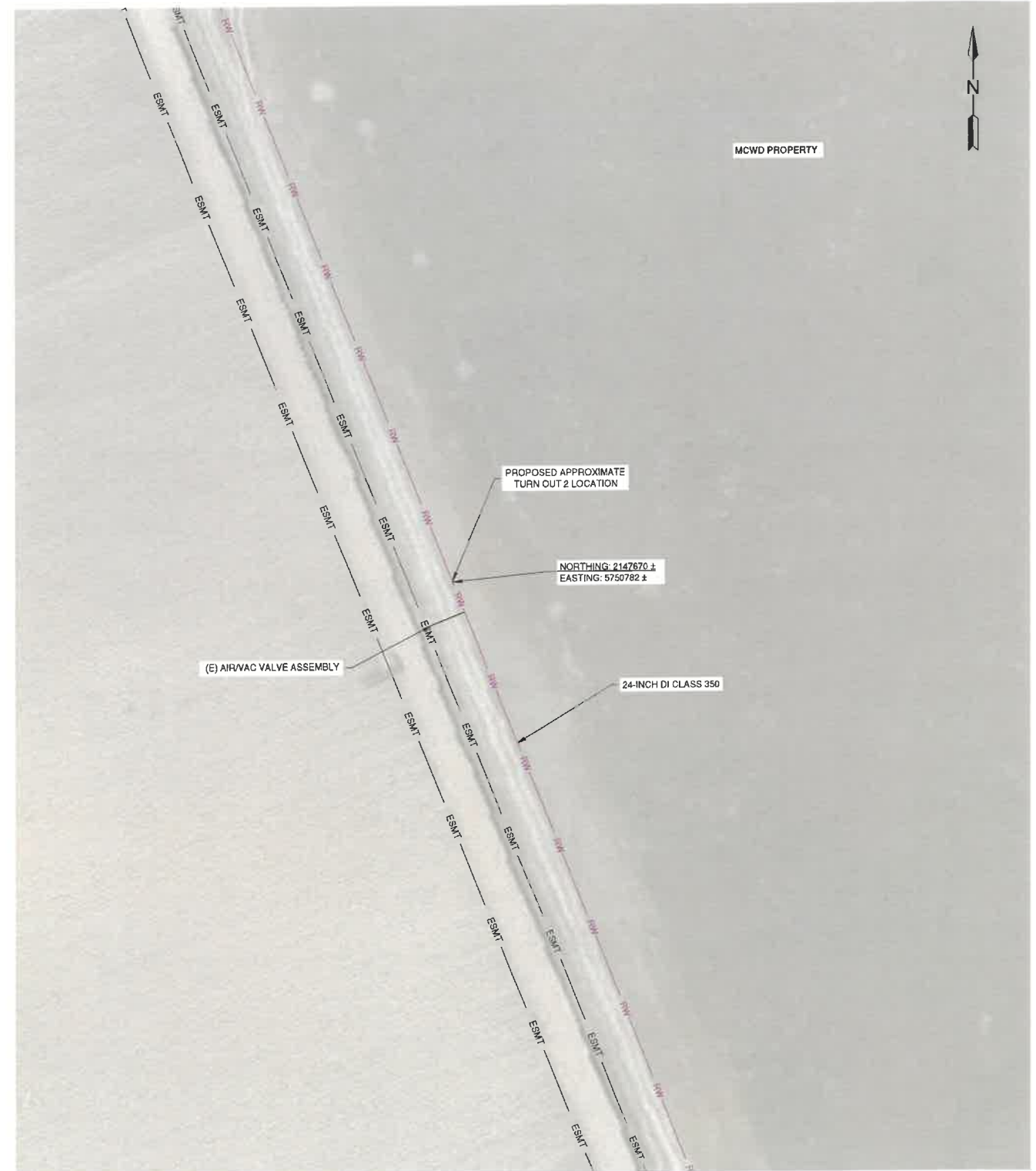
IRRIGATION CONNECTIONS AT ARMSTRONG RANCH
CIVIL DETAILS II

DATE: JAN 2024
SCALE: NTS
DESIGN: AAS
DRAWN: ALJ
CHECK: AAS

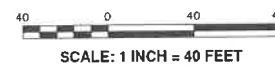
SHEET
GC-3
6 of 8



TURN OUT 1-LOCATION
SCALE: 1" = 40'



TURN OUT 2-LOCATION
SCALE: 1" = 40'



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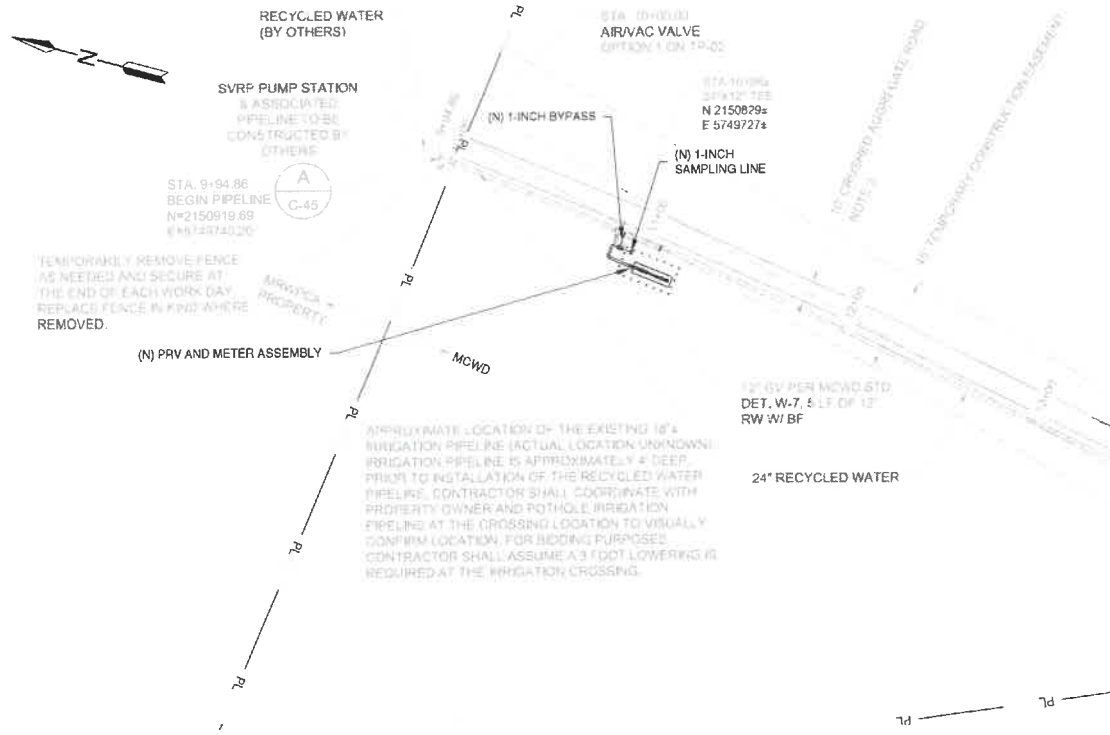


IRRIGATION CONNECTIONS AT ARMSTRONG RANCH

SITE LOCATION

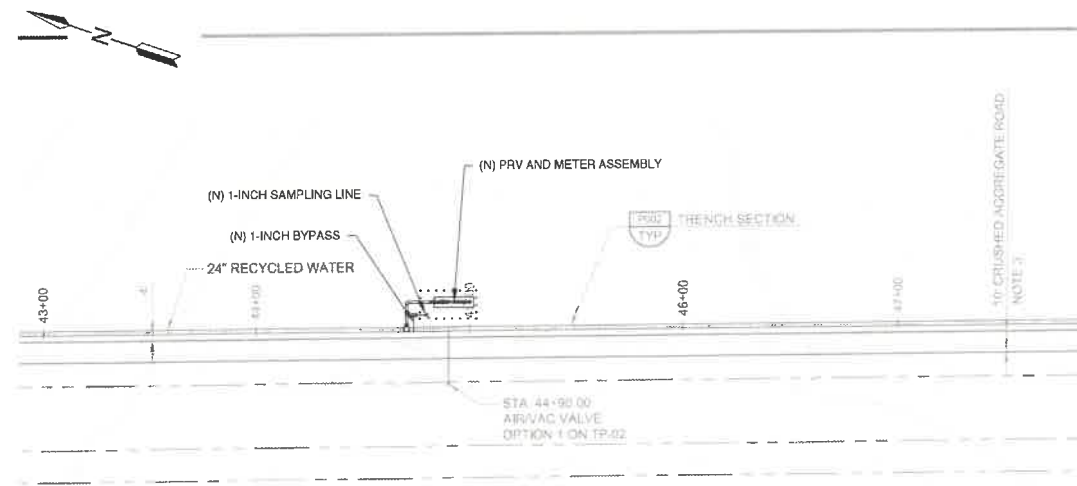
DATE: JAN 2024
SCALE: 1" = 40'
DESIGN: AAS
DRAWN: ALJ
CHECK: AAS

SHEET
C-1
7 of 8



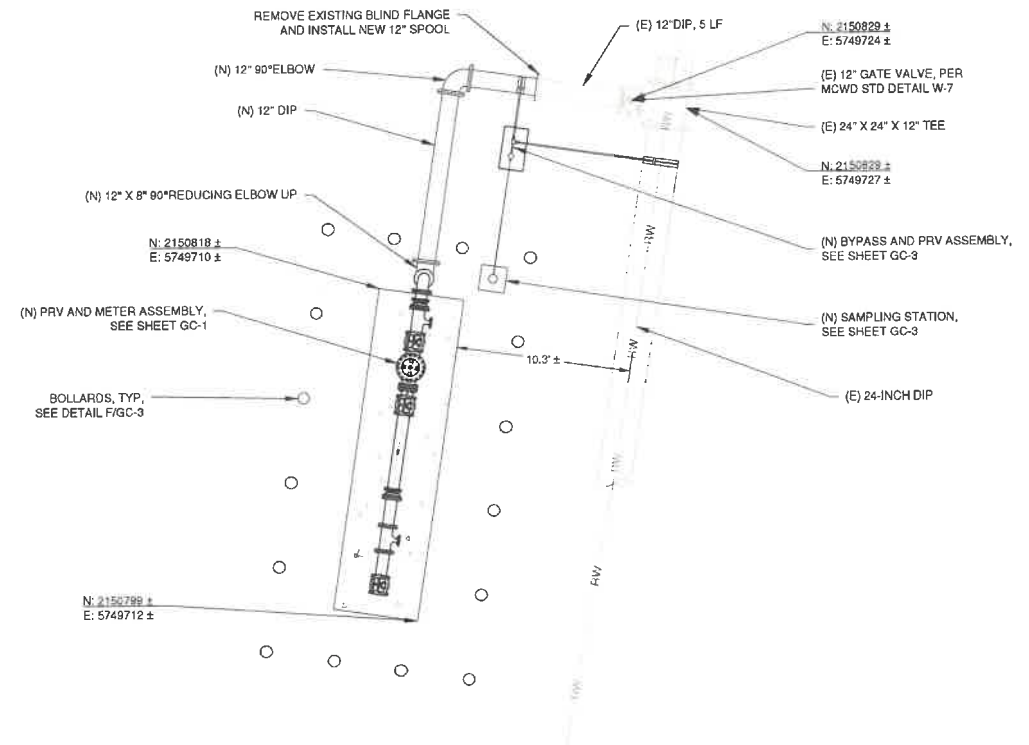
TURN OUT 1-LOCATION
SCALE: NTS

NOTES:
1. SITE PLAN FROM SHEET C-01 OF PLAN SET REGIONAL URBAN WATER AUGMENTATION PROJECT RECYCLED WATER PIPE LINE BY CAROLLO, DECEMBER 2019

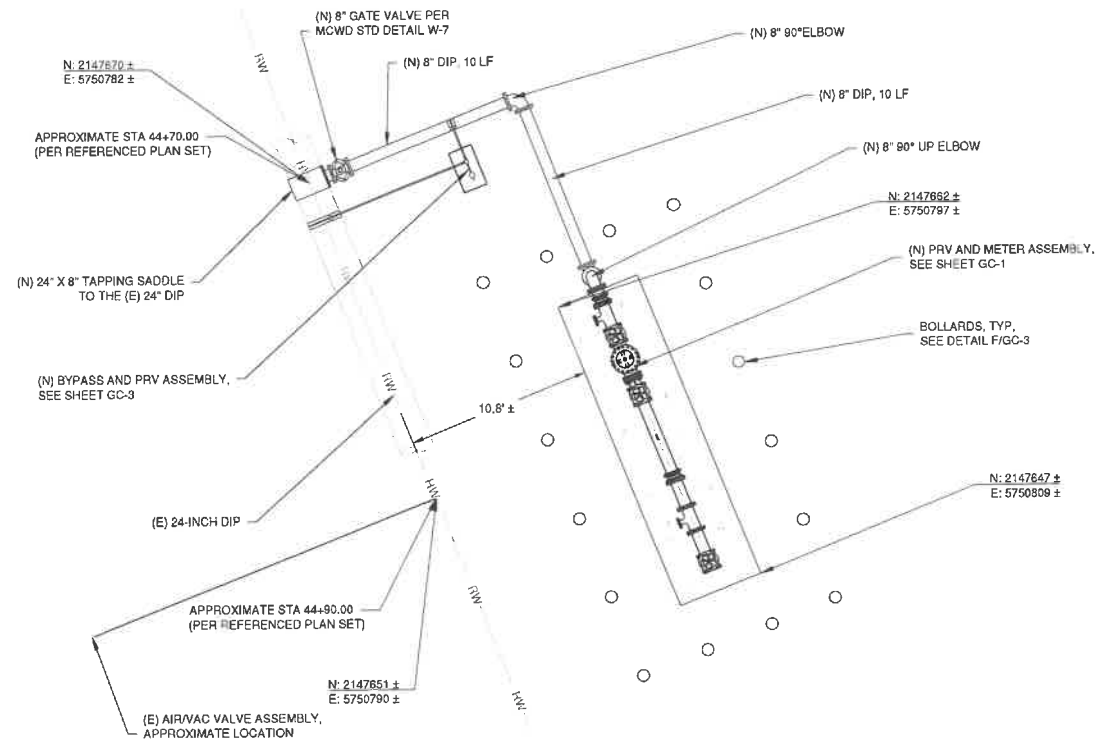


TURN OUT 2-LOCATION
SCALE: NTS

NOTES:
1. SITE PLAN FROM SHEET C-04 OF PLAN SET REGIONAL URBAN WATER AUGMENTATION PROJECT RECYCLED WATER PIPE LINE BY CAROLLO, DECEMBER 2019



TURN OUT 1- SITE PLAN
SCALE: 1" = 5'



TURN OUT 2- SITE PLAN
SCALE: 1" = 5'



SCALE: 1 INCH = 40 FEET



SCALE: 1 INCH = 5 FEET

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IRRIGATION CONNECTIONS AT ARMSTRONG RANCH
SITE PLAN

DATE: JAN 2024
SCALE: AS SHOWN
DESIGN: AAS
DRAWN: ALJ
CHECK: AAS

SHEET
C-2
8 OF 8