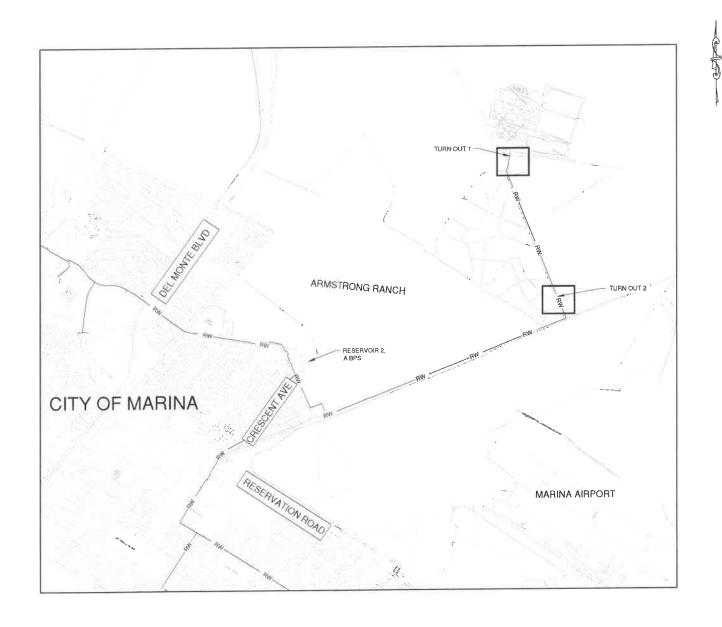
PLANS FOR THE IRRIGATION CONNECTIONS AT ARMSTRONG RANCH MARINA COAST WATER DISTRICT CIP NO. RW- 2401





VICINITY MAP



	SINA COAS A STATE OF A COAST HANDER DIGITALIST
	MARINA COAST WATER DISTRICT 11 RESERVATION ROAD MARINA, CA 93933
- 1000	(831) 384-6131





IRRIGATION CONNECTIONS AT ARMSTRONG RANCH **COVER SHEET**

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	DATE:	JAN 2024	SHEET	
	SCALE:	NTS		
	DESIGN:	AAS	G-1	
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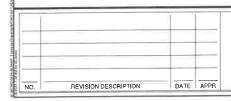
		SHEET INDEX
SH	EET NO.	DESCRIPTION
1	G-1	COVER SHEET
2	G-2	SHEET INDEX, CIVIL LEGENDS, SYMBOLS, AND ABBREVIATIONS
3	G-3	GENERAL NOTES AND SPECIFICATIONS
4	GC-1	PRV AND METER DETAIL
5	GC-2	CIVIL DETAILS I
6	GC-3	CIVIL DETAILS II
7	C-1	SITE LOCATION
В	C-2	SITE PLAN

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	FACH.	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	FDGE 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
(E) (F)	FUTURE	STL	STEEL
FIPT	FEMALE IRON PIPE THREAD	SD	STORM DRAIN
FNPT		SL	STREET LIGHT
FEN	FEMALE NATIONAL PIPE THREAD	STS	STREET LIGHT
FF	FENCE	TCE	TEMPORARY CONSTRUCTION EASEMEI
• •	FINISH FLOOR		TOP OF DITCH
FLG, FL	FLANGE	TOD	
FL, FLR	FLOWLINE	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		

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	EASEMENT	1006
	TEMPORARY CONSTRUCTION EASEMENT	TCE
	PROPERTY LINE - R/W	
	LIMIT OF WORK	
	CYCLONE FENCE	x x
-W	WATER LINE	w w
W(A) ·	A-ZONE WATER LINE	W(A)
W(B)	B-ZONE WATER LINE	
W(C) -	C-ZONE WATER LINE	W(C)
HHW	HEATING HOT WATER	
OHE	OVERHEAD ELECTRIC	
× 181,44	SPOT ELEVATION	X _{181.44}
101,44	DRAIN PIPE	
	REMOVE	8/////////
	EDGE OF (E) PAVEMENT	
	MAJOR CONTOUR LINE (TOPO)	
	MINOR CONTOUR LINE (TOPO)	
	BURIED ELECTRIC	
85	SANITARY SEWER PIPE	SS
GAS GAS	NATURAL GAS LINE	
	TELEPHONE	
	OVERHEAD COMMUNICATION	
·····	VEGETATION	
50)	STORM DRAIN PIPE	SD
	VAULT	
	MANHOLE	0
	ISOLATION VALVE	M
	REDUCER	◁
æ	CONTROL POINT	
•	FOUND MONUMENT AS NOTED	
	EXISTING TREE & TYPE	
◆ 4",6"K	TREE CLUSTER WITH SIZE	
CYP	CYPRESS OAK	
K	PINE	
P RDWD	REDWOOD	
т	TREE (MISC)	





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



IRRIGATION CONNECTIONS AT ARMSTRONG RANCH

SHEET INDEX, CIVIL LEGENDS, SYMBOLS, AND ABBREVIATIONS

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GENERAL NOTES:

- SHOULD IT APPEAR THAT THE WORK TO BE PERFORMED OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED
 ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER, (831) 883-4848 x 404 WITH ANY QUESTIONS OR DISCREPANCIES. ANY
 REVISIONS REQUIRE OWNER'S APPROVAL BEFORE PROCEEDING WITH REVISED PLANS.
- 2. CONSTRUCTION CONTRACTOR AGREES THAT THE IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR AGREES THAT THE IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSINITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE CIVILE REGIINEER AND THE OWNER HARMLESS FROM ANY AND ALL IDBILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLICIANCE OF THE CIVIL INSIDER. NEGLIGENCE OF THE CIVIL ENGINEER.
- 3. THE GENERAL CONTRACTOR SHALL POSSESS A VALID CLASS A GENERAL ENGINEERING CONTRACTOR LICENSE, ALL OTHERS SHALL POSSESS THE APPLICABLE C-SERIES LICENSE, AT THE TIME THE CONTRACT IS AWARDED AND SHALL MAINTAIN THROUGHOUT THE LENGTH
- 4. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS AT THE JOB SITE FOR PUBLIC WORKS, AMBULANCE, POLICE AND FIRE DEPARTMENTS. CONTRACTOR SHALL POST SIGN AT JOB SITE BEARING OWNER'S NAME AND SITE ADDRESS. PROPERTY CORNERS SHALL BE
- 5. CONTRACTOR SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS PERTAINING TO EXCAVATION AND TRENCHING. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION
- 6. EXCAVATION SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXCAVATION SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SUDE OF SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE, ANY DAMAGE SULTING FROM A LACK OF ADEQUATE SHORING, BRACING AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. WHERE THE EXCAVATION FOR A CONDUIT TRENCH, STRUCTURE AND/OR BORING AND JACKING PI IS REQUIRED, THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY OFDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA, THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.
- 7. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. APPROVAL OF THESE PLANS BY THE AGENCY DOES NOT GUARANTEE THE ACCURACY, COMPLETENESS, LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT, THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEANS NECESSARY TO PROTECT EXISTING UTILITY LINES.
- 8. CONTRACTOR SHALL HAVE UTILITIES LOCATED BY CALLING UNDERGROUND SERVICE ALERT (USA) NORTH AT (800) 227-2600 OR 811 AT LEAST 48-HOURS PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND THE OWNER OF ANY DIFFERENCES IN THE LOCATIONS OF EXISTING UTILITIES SHOWN, OR ANY CONFLICTS WITH THE DESIGN, BEFORE CONTINUING WITH WORK IN THAT AREA
- 9. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN AND OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY AND TO MAINTAIN TRAFFIC CONTROL AT ALL TIMES.
- 10. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR ANY PRIVATE PROPERTY ADJACENT TO THE WORK AREA THROUGHOUT THE PERIOD OF CONSTRUCTION
- 11. WATER FOR COMPACTION, DUST CONTROL AND OTHER CONSTRUCTION MAY BE OBTAINED FROM MARINA COAST WATER DISTRICT THROUGH AN APPROPRIATE HYDRANT METER AND BACKFLOW PREVENTION DEVICE, CONTACT MCWD AT (831) 384-6131
- 12. THE CONTRACTOR SHALL NOT DESTROY ANY PERMANENT SURVEY POINTS, ANY PERMANENT MONUMENTS OR POINTS DESTROYED SHALL BE REPLACED BY A LICENSED ENGINEER OR LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING AN AIRBORNE DUST NUISANCE FROM THE CONSTRUCTION SITE BY WATERING AND/OR TREATING THE SITE IN SUCH A MANNER TO LIMIT THE EXTENT OF AIRBORNE DUST PARTICLES.
- 14. SITE WORK HOURS ARE 8:00 A.M. TO 5:00 P.M. MONDAY THRU FRIDAY. NO GRADING WORK SHALL BE PERFORMED ON SATURDAYS, SUNDAYS
- 15. THESE PLANS SHOW EXISTING FEATURES INCLUDING BUT NOT LIMITED TO TREES, UTILITIES AND STRUCTURES THAT MAY BE AFFECTED BY
- THESE PLANS SHOW EXISTING FEATURES INCLUDING BUT NOT LIMITED TO THESE, OFFICIAL SHOWS AND STAND STAND THE CONTRACTOR SHALL THE CONSTRUCTION OR PLACEMENT OF THE PROPOSED ENGINEERED IMPROVEMENTS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO IMMEDIATELY NOTIFY THE ENGINEER IF THERE ARE ANY EXISTING FACILITIES, WHETHER SHOWN OR NOT SHOWN ON THESE PLANS, WHICH COULD IN ANY WAY BE IN POTENTIAL CONFLICT WITH THE DESIGN ON THESE PLANS. ALL WORK WITHIN THE VIGINITY OF POTENTIAL CONFLICT SHALL CEASE UNTIL AN ADEQUATE AND APPROPRIATE SOLUTION IS DETERMINED BY THE ENGINEER/OWNER'S REPRESENTATIVE AND APPROVED BY THE OWNER.
- 16. CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SITE STORM WATER POLLUTION PREVENTION AND IMPLEMENTING NECESSARY BEST MANAGEMENT PRACTICES. EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY. WET SEASON CONTROLS ARE REQUIRED (MINIMUM) BETWEEN OCTOBER 15 AND APRIL 15.
- 17. THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS AND PROCEDURES OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR MUNICIPAL, CONSTRUCTION AND INDUSTRIAL ACTIVITIES AS PROMULGATED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD OR ANY OF ITS' REGIONAL WATER QUALITY CONTROL BOARDS. REFER TO THE FOLLOWING GENERAL
- WQO 2022-0057-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE
- ACTIVITIES, WITH AMENDMENTS
 b. WQO 2014-0194-DWQ, GENERAL ORDER NO, CAG140001, STATEWIDE NPDES PERMIT FOR DRINKING WATER SYSTEM DISCHARGES TO WATERS OF THE UNITED STATES
- C. WQO 2013-0001-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
- 21. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, THE FOLLOWING LIST OF STANDARDS AND/OR SPECIFICATIONS ARE INCORPORATED INTO THESE PLANS BY REFERENCE. DESIGN AND CONSTRUCTION OF ALL IMPROVEMENTS SHALL COMPLY WITH ALL APPLICABLE STANDARDS INCLUDING:

REVISION DESCRIPTION

- MELT WITH ALL MEPCLABOLE STANDARDS INCLODING. CITY OF MARINA MUNICIPAL CODE MARINA COAST WATER DISTRICT STANDARD DETAILS AND SPECIFICATIONS STANDARD SPECIFICATIONS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, 2023 EDITION.
- STANDARD PLANS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), 2023 EDITION
- . IF ARCHAEOLOGICAL RESOURCES OR HUMAN REMAINS ARE DISCOVERED DURING CONSTRUCTION, THE COUNTY CORONER SHALL BE NOTIFIED AND WORK SHALL BE HALTED TO WITHIN 150-FEET OF THE FIND UNTIL IT CAN BE EVALUATED BY A QUALIFIED PROFESSIONAL ARCHAEOLOGIST. IF THE FIND IS SIGNIFICANT, APPROPRIATE MITIGATION MEASURES SHALL BE FORMULATED AND IMPLEMENTED.
- 23. THE CONTRACTOR SHALL SUBMIT TWO SETS OF 'RED-LINE" AS-BUILT PLANS TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE
- 24, THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP PUBLIC STREETS FREE FROM DIRT AND DEBRIS. SHOULD ANY DIRT OR DEBRIS BE DEPOSITED IN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL REMOVE IT IMMEDIATELY.
- 25. MAINTAIN ONE-WAY TRAFFIC ON PUBLIC AND PRIVATE ROADS, PAVED OR UNPAVED, ON WHICH WORK IS BEING PERFORMED DURING WORKING HOURS, OR COORDINATE WITH OWNER TO PROVIDE AN ACCEPTABLE DETOUR ROUTE AROUND THE WORKING AREA. MAINTAIN NORMAL TRAFFIC TRAVEL WIDTH DURING NON-WORKING HOURS. REFER TO ENCROACHMENT PERMITS, LICENSES, EASEMENT CONDITIONS AND TRAFFIC PLANS, WHERE APPLICABLE, AS INCLUDED IN THE SPECIFICATIONS.
- 26. CONDUCT STORAGE OF PIPE AND OTHER CONSTRUCTION MATERIALS AND EQUIPMENT OWALONG PRIVATE ROADS DURING NON-WORKING HOURS IN A MANNER THAT DOES NOT PREVENT THE NORMAL USE OF THAT RIGHT-OF-WAY, ROAD OR TRAIL. RELOCATE STORED PIPE, MATERIALS OR EQUIPMENT WHEN DIRECTED BY THE OWNER TO RESTORE THE REQUIRED USE OF THE RIGHT-OF-WAY OR ROAD.

- 1.2.

- WATER SYSTEM REQUIREMENTS
 WATER SYSTEM REQUIREMENTS
 WATER SYSTEM REQUIREMENTS
 WATER ACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND THE STANDARD PLANS AND SPECIFICATION OF THE MARINA
 COAST WATER DISTRICT. CONTRACTOR SHALL KEEP A COPY OF THE STANDARD SPECIFICATIONS AND DRAWINGS ON THE JOBSTE AT ALL TIMES.
 MARINA COAST WATER SHALL BE A WINTER 24-HOURS PRIOR TO COMMENCING THE WORK A PRE-CONSTRUCTION MEETING SHALL BE HELD
 AT LEAST ONE WEEK PRIOR TO SITE MOBILIZATION.
 THE TOP OF THE PIPE SHALL BE A MINIMUM OF 42 INCHES BELOW FINISHED GRADE IN PAVED AREAS, UNLESS INDICATED OTHERWISE ON THE PLANS OR
 DIRECTED BY THE OWNER DUE TO UNUSUAL SITE CONDITIONS, PIPE SHALL BE BEDDED AND BACKFILLED PER MCWD STANDARD DETAIL W-12. TRENCH
 SHALL BE REPAIRED FOR MCWD STANDARD DETAIL W-12.
 PIPE SEDDING AND PIPE ZONE BACKFILL SHALL BE CLEAN WATIVE SAND OR IMPORTED SAND.
 NO FACILITY IS TO BE BACKFILLED UNTIL INSPECTED BY THE OWNER.
 SHALL DO BE ADDITIONAL OF EXISTING RECYCLED WATER HANDS WATER MAINS UNTIL THE NEW WORK HAS PASSED THE REQUIRED PRESSURE AND
 BACTERIOLOGICAL TEST. TAPPING SILEVEYS SHALL BE PRESSURE TESTED IN AN APPROVED MANNER IN THE PRESENCE OF THE INSPECTOR PRIOR TO
 TAPPING THE MAIN. TAPPING SILEVEYS SHALL BE PRESSURE TESTED IN AN APPROVED MANNER IN THE PRESENCE OF THE INSPECTOR PRIOR TO
 TAPPING THE MAIN. TAPPING OF THE MAIN LIME SHALL NOT PROCEED UNLESS THE INSPECTOR IS PRESSUR.
 WATER USED FOR CONSTRUCTION SHALL BE MEDELED. OBTAIN A CONSTRUCTION METER FROM THE SYSTEM SERVING THE HYDRANT.
 CONTRACTOR SHALL COORDINATE START-UP SUPPORT FROM THE SUPPLIERS OF PRESSURE REDUCING VALVES AND METERS.
 INSTALL PIPELINES AT UNFORM LINE AND GRADE SERVINE CONTRACTOR SHALL BE DUCTLE IRON PIPE SUPPORT FROM THE SUPPLIERS OF PRESSURE REDUCING VALVES AND METERS.
 INSTALL PIPELINES AT UNFORM LINE AND GRADE SERVINE NEW ON DRAWINGS. DEFLECT VERTICALLY AS NEEDED TO JOIN EXISTING PIPES.
 ALL NEW PIPELINES AT UNFORM LINE AND GRADE SERVINE ON DRAWINGS. DEFLECT VERTICALLY AS NEEDED TO JOIN DEPENDED SETVINE FEST PIPE MY SUPPORT FROM THE

- 1.11. ALL NEW PIPE SHALL BE DUCTILE INON PIPE AND SHALL BE POLET HEST PAINED USING MEDITARIOR. NEST PAINED.

 1.12. DISTURBED (E) THRUST BLOCKS TO BE REPLACED IN-KIND.

 1.13. PRESSURE TEST PIPE TO 200 PSI, PER MCWD STANDARD SPECIFICATION 15042.

 1.14. CONTRACTOR SHALL NOT OPERATE EXISTING VALVES. ALL SYSTEM OPERATIONS TO BE PERFORMED BY MCWD. COORDINATE WITH THE DISTRICT FOR

MATERIALS:

GENERAL MATERIAL REQUIREMENTS

- GENERAL MATERIAL, REQUIREMENTS
 ALL PRODUCTS AND MATERIALS FURNISHED AS PART OF THE WORK INCLUDED IN THIS PLAN SET SHALL BE SUBMITTED TO OWNER REPRESENTATIVE
 FOR APPROVAL SUBMITTALS SHALL INCLUDE BUT BE LIMITED TO: SHOP DRAWINGS, MATERIAL PROPERTIES, PRODUCT CUT SHEETS, INSTALLATION
 REQUIREMENTS AND OPERATION AND MAINTENANCE MANUALS. CONTRACTOR SHALL NOT PURCHASE NOR INSTALL ANY PRODUCTS OR MATERIALS
 WITHOUT PRIOR SATISFACTORY REVIEW DETERMINATION BY OWNER REPRESENTATIVE.
 ALL MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER REPRESENTATIVE, AND SHALL NOT BE USED BEFORE BEING
 INSPECTED AND APPROVED BY THE INSPECTION. OWNER HAS THE RIGHT TO PERFORM ANY TESTING NECESSARY TO TO ENSURE COMPLIANCE OF THE
 WORK MATERIALS NOT IN ACCORDANCE WITH THE MATERIALS SPECIFICATIONS SHALL NOT BE CONSTRUED TO IMPLY ACCEPTANCE SHOULD THEIR
 INFERIORITY BECOME EVIDENT AT ANY TIME. MATERIALS REJECTED BY THE OWNER REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED FROM THE
 INFERIORITY BECOME EVIDENT AT ANY TIME. MATERIALS REJECTED BY THE OWNER REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED FROM THE
- 2. REFERENCE STANDARDS
- ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
- ASME AMERICAN VALIDADE STANDANGE ENGINEERS
 ASME AMERICAN SOCIETY OF MECHANICAL ENGINEERS
 ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
 AWWA AMERICAN WATER WORKS ASSOCIATION

- HI HYDRAULIC INSTITUTE
 IEEE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
- 2.12. ISO INTERNATIONAL STANDARDS ORGANIZATION
 2.13. NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
- 2 14 NEC NATIONAL ELECTRICAL CODE
- 2.15. NFPA NATIONAL FIRE PROTECTION ASSOCIATION
 2.16. NSF NSF INTERNATIONAL (NATIONAL SANITATION FOUNDATION)
- 2.17. UL UNDERWRITERS LABORATORIES, INC.
- CAST-IN-PLACE CONCRETE
 1.1. CONCRETE SHALL BE MINOR CONCRETE PER CALTRANS STANDARD 90-2, PORTLAND CEMENT CONCRETE, 3000 PSI AT 28 DAYS, MAX 3-INCH SLUMP,
- MAXIMUM AGGREGATE SIZE SHALL BE 1-INCH.
- REBAR SHALL BE DEFORMED STEEL PER CALTRANS SECTION 52.
 PLACE CONCRETE PER THE REQUIREMENTS OF CALTRANS SECTIONS 51 AND 73.
- SUBMIT MIX DESIGN FOR APPROVAL PRIOR TO CONSTRUCTION.
- BASE AND SUBBASE 1.1. CLASS 2 AGGREGATE BASE, %-INCH MAXIMUM, PER CALTRANS SECTION 26. PEA GRAVEL FOR STRUCTURAL BEDDING
- 3/4-INCH CRUSHED AND WASHED STONE, 100% PASSING THE 1-INCH SIEVE AND LESS THAN 6% PASSING THE #4 SIEVE.

- 6.2. CEMENT GROUTS SHALL CONSIST OF PORTLAND CEMENT AND SAND, MIXED WITH WATER ON-SITE PER THE MANUFACTURER'S INSTRUCTIONS.
 6.3. EPOXY GROUTS SHALL CONSIST OF TWO-COMPONENT THERMOSETTING EPOXY RESIN AND INERT AGGREGATE, MIXED ON-SITE PER THE MANUFACTURER'S INSTRUCTIONS.
- 7 EPOYIES VIJIES WATER-INSENSITIVE TWO-PART TYPE EPOXY ADHESIVE MATERIAL CONTAINING 100 PERCENT SOLIDS, MEETING THE REQUIREMENTS OF CALTRANS STANDARD 95.
- 8. DUCTILE IRON PIPE
- DUCTILE IRON PIPE SHALL BE PER AWWA STANDARD C151, PRESSURE CLASS 350.
- ABOVE-GRADE PIPE SHALL BE CEMENT-MORTAR LINED AND EPOXY-COATED. BURIED PIPE SHALL BE CEMENT-MORTAR LINED AND BITUMINOUS COATED.
- DUCTILE IRON PIPE WATER MAINS SHALL BE RESTRAINED USING FIELD LOK 350 GASKETS BY U.S. PIPE OR MEGALUG MECHANICAL RESTRAINTS BY EBAA IRON, INC.
- INSTALL PER AWWA STANDARD C600, PRESSURE TEST INSTALLED PIPE TO 250 PSI.
 DISINFECT INSTALLED PIPE USING SODIUM HYPOCHLORITE SOLUTION PER AWWA STANDARD C651
- PROVIDE 10-MILL PURPLE POLYETHYLENE SLEEVE FOR RECYCLED PIPE
- DUCTILE IRON FITTINGS SHALL BE PER AWWA STANDARD C110.
- BURIED DUCTILE IRON FITTINGS SHALL BE CEMENT MORTAR LINED AND EPOXY COATED, BURIED FITTINGS SHALL BE WRAPPED IN 10-MIL
- ABOVE GRADE DUCTILE IRON FITTINGS SHALL BE CEMENT MORTAR LINED AND EPOXY-COATED.
- ABOVE GRADE DUGITLE FROM FITTINGS SHALL BE CEMENT MONTAR LINED AND EPOXY-CO GASKETS SHALL BE VULCANIZED BUTADIENE RUBBER (SBR). BOLTS AND NUTS SHALL BE TYPE 316 STAINLESS STEEL CONFORMING TO ASTM F593. RESTRAIN ALL FITTINGS USING MEGALUG MECHANICAL RESTRAINTS BY EBAA IRON, INC.
- 10. STEEL PIPE
- 10.1. GALVANIZED STEEL PIPE MEETING ASTM A53, SIZE AS SHOWN ON THE DRAWINGS.

 10.2. FLANGED ENDS SHALL BE ANSI CLASS 150.

 10.3. BURIED PIPE SHALL BE WARPPED AND COATED WITH DOUBLE LAPPED PROTECTO TAPE OR APPROVED EQUAL. WRAP SHALL EXTEND AT LEAST 4-INCHES ABOVE FINISHED GRADE
- 10.4. PROVIDE DIELECTRIC UNIONS WHERE CONNECTING TO DISSIMILAR METALS. 11. TAPPING SLEEVES
- 11.1. TAPPING SLEEVES SHALL BE FULL-CIRCLE STAINLESS STEEL SLEEVES PER AWWA STANDARD A223, ROMAC MODEL STS420 OR EQUAL 11.2. TAPPING SLEEVE SHALL BE RATED FOR 250 WORKING PRESSURE.
- 12. SERVICE SADDLES

- 12. SERVICE SADDLES

 12.1. CONNECT PIPELINES 2.5 INCH AND SMALLER TO WATER MAINS USING SERVICE SADDLE WITH CORPORATION STOPS

 12.2. SERVICE SADDLE SHALL BE DOUBLE-STRAP TYPE, WITH FLAT STRAPS, SADDLES MAY BE MANUFACTURED OF BRONZE OR DUCTILE IRON. STRAPS SHALL BE BRONZE OR STAINLESS STEEL.

 12.3. CORPORATION STOP SHALL BE BALL TYPE, MANUFACTURED OF BRONZE. INLET FITTING TO MATCH TAPPING SADDLE, OUTLET FITTING TO MATCH SERVICE PIPE (THREADED OR COMPRESSION-TYPE, AS NEEDED). 13. GATE VALVES
- RESILIENT WEDGE GATE VALVES PER AWWA 0509, U.L.LISTED, CLOW MODEL 2639, MULLER MODEL A-2360 OR EQUAL. 13.2. BURIED VALVES SHALL HAVE 2-INCH SQUARE OPERATING NUT. ABOVE GRADE VALVES SHALL HAVE OPEN STEM AND YOKE (OS&Y) UNLESS NOTED
- 13.3. INTERIOR AND EXTERIOR METAL SURFACES SHALL BE FACTORY-COATED WITH EPOXY MEETING NSF 61.

- 13.3. INTERIOR AID EXTERIOR METAL SOUTHED FAMINGS.

 13.4. END CONNECTIONS AS INDICATED ON THE DRAWINGS.

 13.5. BOLTS AND NUTS SHALL BE TYPE 316 STAINLESS STEEL.

 13.6. VALVE BOXES SHALL BE TRAFFIC-RATED PRE-CAST CONCRETE WITH IRON LID, CHRISTY MODEL G05T OR EQUAL.
- 13.7. VALVE BOX RISER SHALL BE PVC PIPE, ASTM D3404, SDR 35.
- MARINA COAST WATER DISTRICT Schaaf & Wheeler

No. 69703 (831) 883-4848



14. FLANGED COUPLING ADAPTER

18 PRESSURE BEDLICING VALVE.

RASONIC WATER METER

ALL WETTED PARTS SHALL MEET NSF 61. METER SHALL BE 12" OR AS SHOWN ON PLANS. REGISTER SHALL BE IN CUBIC FEET.

20.2.1. MINIMUM GRAB TENSILE STRENGTH 315 LBS 20.2.2. MINIMUM GRAB TENSILE ELONGATION 15% MINIMUM TRAPEZOIDAL TEAR STRENGTH 113 LBS APPARANT OPENING SIZE 40 SIEVE

20.3. TENCATE MIRAFI 600X, LAYFIELD LP 315 OR EQUAL.

19.5 REGISTER SHALL BE AMB/AMI COMPATIBLE 19.6. CONNECTION SHALL BE ANSI CLASS 150 FLANGE.
20. GEOTEXTILE FOR SOIL RETENTION

PERMITTIVITY 0.05/SEC

MCWO, REFERENCE STATES:

GAUGE ACCURACY SHALL BE ± 2.5 %.

15. BALL VALVES

20.2.4.

16 PRESSURE GAUGES

TELESCOPING FLANGE BY MECHANICAL JOINT FITTING, DESIGNED FOR WORKING PRESSURES UP TO 350 PSIG, ROMAC SERIES RECA OR EQUAL.

THREADED END BALL VALVES, 1 INCH AND SMALLER, FULL PORT BALL TYPE WITH LEVER OPERATOR, RATED FOR 150 PSI SERVICE

BOURDON TUBE PRESSURE GAUGE, 2.5 INCH DIAMETER FACE, RANGE AND INSTALLATION LOCATION AS SHOWN ON DRAWINGS. GAUGE SHALL BE LIQUID-FILLED, WITH COPPER-ALLOY INTERNAL PARTS IN A STAINLESS STEEL CASE.

20.1. WOVEN, NONBIODEGRADABLE FABRIC CONSISTING ONLY OFCONTINUOUS CHAIN FOLYMER FILAMENTS OR YARD, AT LEAST 85% BY WEIGHT POLYOLEFINS, POLYESTERS OR POLYAMIDE, FORMED INTO A DIMENSIONALLY STABLE NETWORK.

18.3. GAUGE AGLUTAGO 1 SPALL BE 24.0 %.
18.4. GAUGE SHALL BE CAPABLE OF EXPERIENCING A PRESSURE 30% ABOVE ITS MAXIMUM SPAN WITHOUT REQUIRING RECALIBRATION.
17. PIPE SUPPORTS

PIPE SUPPORTS SHALL BE OF MANUFACTURER'S STANDARD DESIGN, MATERIAL SHALL BE GALVANIZED STEEL ANCHOR THE SUPPORT INTO THE FOUNDATION SLAB PER THE MANUFACTURER'S RECOMMENDATION.

BASIS OF BEARINGS : BEARINGS SHOWN ON THESE PLANS ARE REFERENCED FROM THE REGIONAL URBAN WATER AUGMENTATION PROJECT FOR

BENCHMARK IS REFERENCED FROM THE <u>REGIONAL URBAN WATER AUGMENTATION PROJECT</u>. REFERENCES STATES: ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). A PUBLISHED NAVD 88 ELEVATION OF 145,94 FEET FOR THE NGS BENCHMARK "L 813 RESET" (PID GU2130) WAS HELD AS THE PRIMARY VERTICAL BENCHMARK FOR THE PROJECT.

ID. HEFERENCE STATES:
BEARINGS SHOWN HEREON ARE GRID BEARINGS PER THE CALIFORNIA COORDINATE SYSTEM, NAD 8, ZONE 4 (EPOCH
2002, DD), AS DETERMINED BY GPS OBSERVATIONS AND THE NATIONAL GEODETIC SURVEY'S (NGS) ONLINE POSITIONIN
USER SERVICE (OPUS), ALL DISTANCES ARE GRID DISTANCES.

VALVES SHALL HAVE STAINLESS STEEL BALL AND BODY, SEALS AND STEM SHALL BE NSF 61 COMPLIANT

17.1, PROVIDE PREFORMED CHANNEL PIPE SUPPORTS (PIPE STANDS) AS SHOWN ON THE DRAWINGS

GLOBE-STYLE PRESSURE REDUCING VALUE, CLA-VAL MODEL 90-01, SIZE AS NOTED ON PLANS. ENDS SHALL BE ANSI CLASS 150 FLANGES, UNLESS OTHERWISE NOTED ON PLANS.

VALVE OR ITS COMPONENT WETTED PARTS SHALL BE NSF 61 COMPLIANT.

19.1. ULTRASONIC METER MEETING ANSI/AWWA C701 FOR POTABLE WATER SERVICE, MASTER METER OCTAVE.

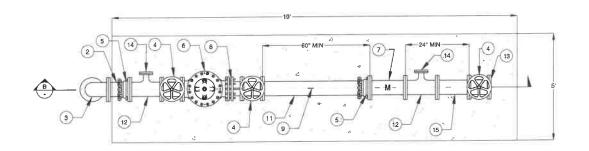
SCALE: NTS DESIGN: AAS DRAWN

G-3 3 of 8 CHECK

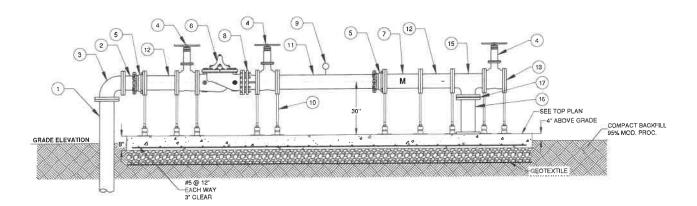
SHEET

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GENERAL NOTES AND SPECIFICATIONS

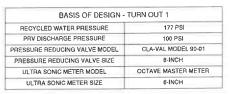












BASIS OF DESIGN -	TURN OUT 2
RECYCLED WATER PRESSURE	194 PSI
PRV DISCHARGE PRESSURE	100 PSI
PRESSURE REDUCING VALVE MODEL	CLA-VAL MODEL 90-01
PRESSURE REDUCING VALVE SIZE	8-INCH
ULTRA SONIC METER MODEL	OCTAVE MASTER METER
ULTRA SONIC METER SIZE	8-INCH

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

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. B" ULTRASONIC METER
- 8. 8" DISMANTLING JOINT
- 9. PRESSURE GAUGE ASSEMBLY (3" X 3" REDUCER, 3" BALL VALVE, 3" NIPPLES)
- 10. STEEL PIPE SUPPORT
- 11. B" STEEL SPOOL WITH 1 THREAD-O-LET FOR PRESSURE GAUGE
- 12, B" 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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- A	MARINA COAST WATER DISTRIC	Τ
(MARINA, CA 93933 (831) 384-6131	

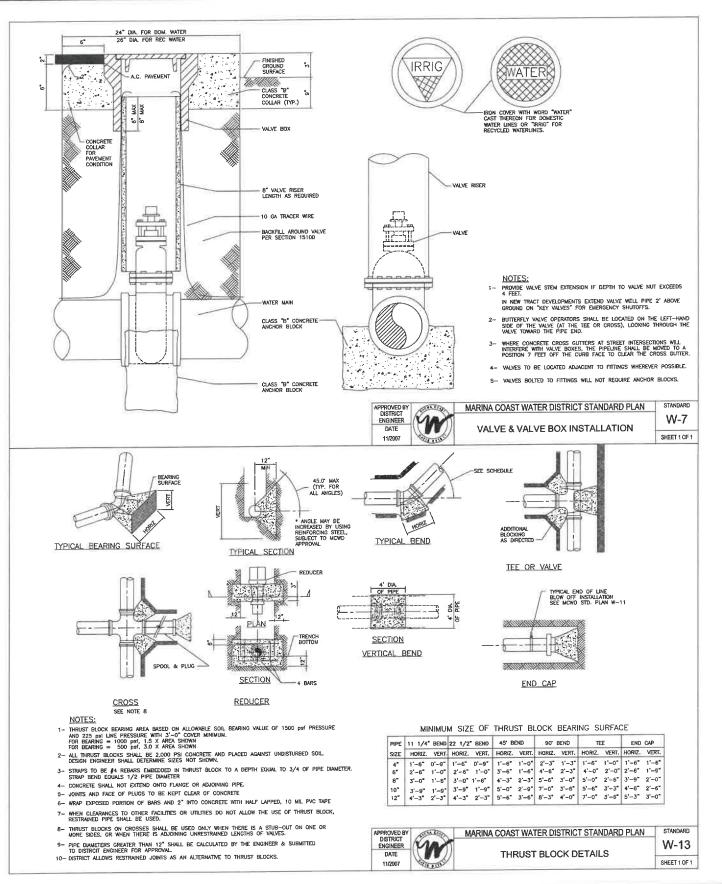
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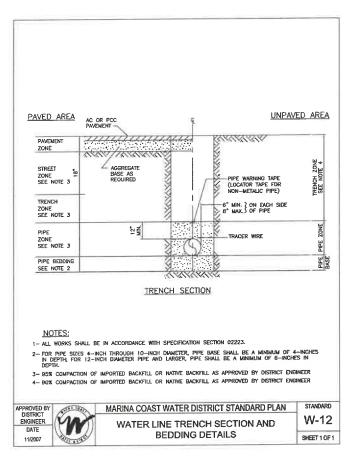




IRRIGATION CONNECTIONS AT ARMSTRONG RANCH PRV AND METER DETAIL

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-	DATE:	JAN 2024	SI	HEE	ΞT
	SCALE:	NTS			
	DESIGN:	AAS	(GC-	1
	DRAWN:	ALJ	4		_
	CHECK:	AAS	4	OF	8





NOTE:

CLEAN NATIVE MATERIAL (SP SAND) MAY BE USED FOR TRENCH BEDDING AND BACKFILL.



DATE APPR

REVISION DESCRIPTION

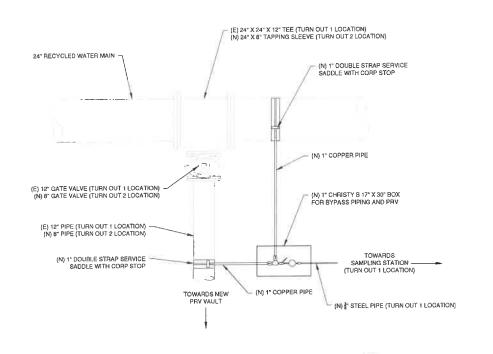
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SALINAS, CA 93907

(831) 883-4848

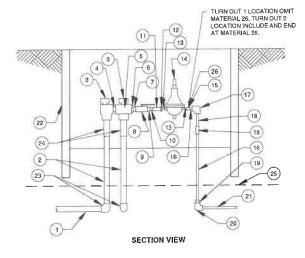


IRRIGATION CONNECTIONS AT ARMSTRONG RANCH CIVIL DETAILS I

						_
1	DATE:	JAN 2024	SHEET			
	SCALE:	NTS				
	DESIGN:	AAS	(GC-	2	
	DRAWN:	ALJ	_			
	CHECK:	AAS	5	OF	8	



PLAN VIEW



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 \{ \frac{1}{2}" REDUCING BUSHING \\ \{ \frac{1}{2}" NIPPLE, NPT, LENGTH AS NEEDED 1" LOCKABLE BALL VALVE, FNPT

MALE ADAPTER, NPT X TUBE

10. §* 1 UDE:

11. §* x§* PACK JOINT COUPLING, FNPT, FORD C15-11-NL OR EQUAL

12. §* x§* REDUCING BUSHING

13. §* NIPPLE, NPT, LENGTH AS NEEDED

₹" PRV. CLA-VAL MODEL CRD OR EQUAL 15. FEMALE ADAPTER, TUBE X FNPT

16. 3" TUBE

17. § 90° ELBOW
18. § COMPRESSION FITTING

19. MALE ADAPTER, TUBE X NPT
20. 90° ELBOW, FNPT

21. F STEEL PIPE, NPT
22. CHRISTY B 17" X 30" BOX W/ H20 LID

22. CHRISTY ST ASS BOX WARD LID
3. 1990 ELBOW
24. 19ACK JOINT COUPLING, NPT X COPPER TUBING, FORD C84-44-NL OR EQUAL
25. GEOTEXTILE - 8 OZ. NON-WOYEN, PLACED UNDER ROCK BASE

TYPICAL BYPASS AND PRV CONNECTION

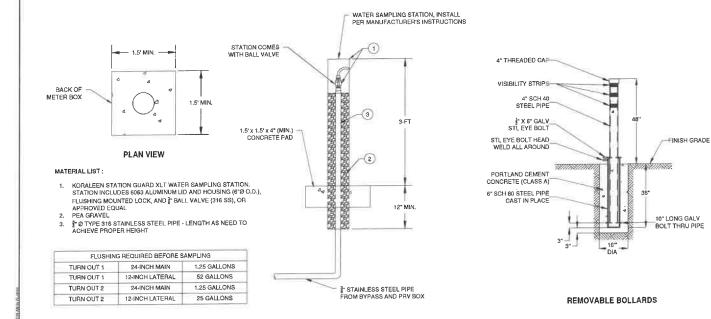
SAMPLING STATION C

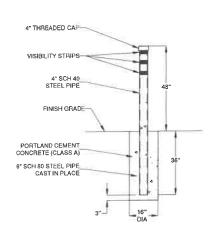
SCALE: NTS

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



NOTE: CONTRACTOR TO ADD PIPE IDENTIFICATION TAGS





NON-REMOVABLE BOLLARDS

BOLLARD DETAIL D SCALE: 1" = 2"

DATE APPR

REVISION DESCRIPTION

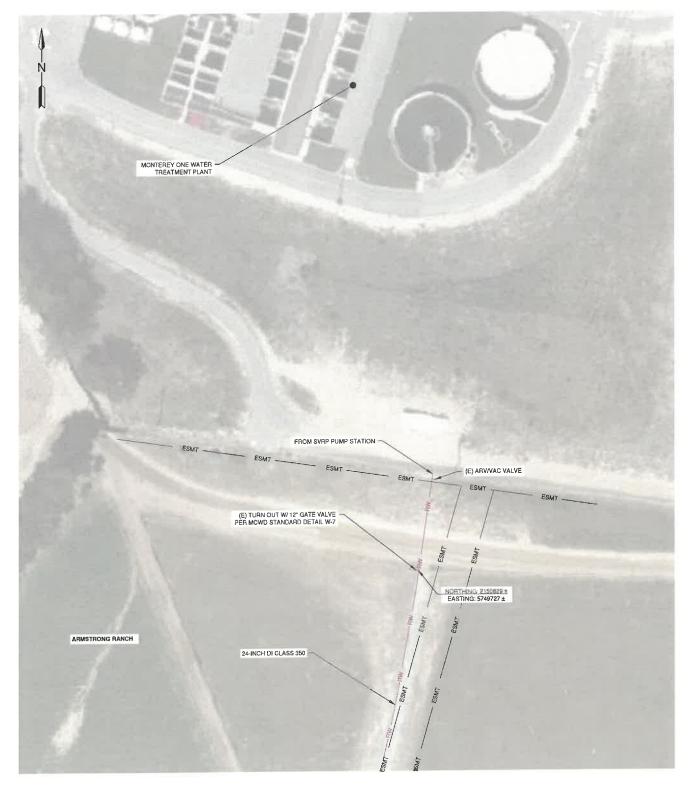


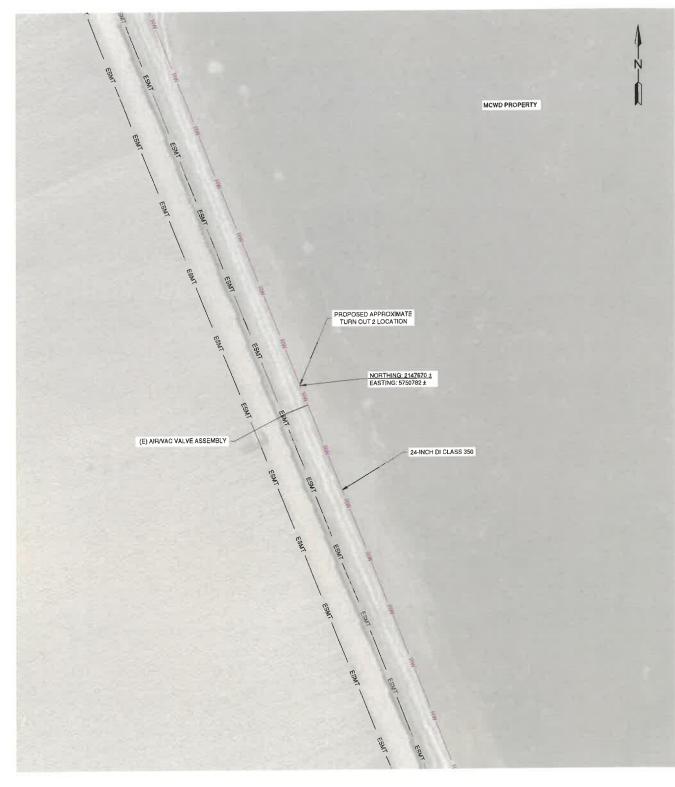
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IRRIGATION CONNECTIONS AT ARMSTRONG RANCH CIVIL DETAILS II

DATE: JAN 2024 SHEET SCALE: GC-3 DESIGN: AAS DRAWN: 6 of 8 AAS





TURN OUT 1-LOCATION

SCALE: 1" = 40"

TURN OUT 2-LOCATION

SCALE: 1" = 40"



NO.	REVISION DESCRIPTION	DATE	APPR



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IRRIGATION CONNECTIONS AT ARMSTRONG RANCH SITE LOCATION

Н	DATE:	JAN 2024	SHEET		
	SCALE:	1"= 40"			
	DESIGN:	AAS	C-1		
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