NON-POTABLE SYSTEM STANDARD NOTES

GENERAL NOTES

1. NON-POTABLE SYSTEM CONSTRUCTION SHALL CONFORM TO TUCSON WATER STANDARD SPECIFICATIONS AND DETAILS, LATEST EDITION, UNLESS OTHERWISE NOTED IN PLANS. SAID STANDARDS SHALL REMAIN ON SITE AT ALL TIMES DURING CONSTRUCTION.
2. THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND THE CMID NOTES SUPERSEDE THE DESIGN PLANS UNLESS WRITTEN APPROVAL IS OBTAINED FROM CMID. ANY OMISSIONS OR CONFLICTS IDENTIFIED BETWEEN THE PLANS, NOTES, DETAILS, AND BLUESTAKE SHALL BE BROUGHT TO THE CMID'S ATTENTION AND RESOLVED BEFORE WORK CONTINUES.
3. PLAN ACCEPTANCE BY CMID CONFIRMS THAT THE PLANS MEET CMID STANDARD REQUIREMENTS AND DOES NOT REFLECT THE PERFORMANCE OF THE SYSTEM.
4. ALL PROPOSED NON-POTABLE WATER MAIN CONSTRUCTION WILL REQUIRE A CMID CONSTRUCTION AND INSPECTION PERMIT. A CMID CONSTRUCTION AND INSPECTION PERMIT DOES NOT REPLACE OR ELIMINATE ANY PERMITS REQUIRED FROM OTHER ENTITIES OR GOVERNMENTAL AGENCIES. NOTE THAT THE TOWN OF MARANA REQUIRES A RIGHT-OF -WAY USE PERMIT FOR ANY ACTIVITY WITHIN THE TOWN'S RIGHT-OF-WAY, INCLUDING EQUIPMENT PARKED WITHIN THE PROPERTY.
5. CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION MEETING WITH CMID AND OBTAIN A “NOTICE TO PROCEED” PRIOR TO ANY CONSTRUCTION ACTIVITIES.
6. ALL CONSTRUCTION WORK IS SUBJECT TO CMID'S INSPECTION AND APPROVAL. CONSTRUCTION WORK COMPLETED WITHOUT INSPECTION BY CMID SHALL BE SUBJECT TO EXPOSURE AT CONTRACTOR'S EXPENSE.
7. CONTRACTOR SHALL NOTIFY CMID AT LEAST 72 HOURS IN ADVANCE OF ANY CONSTRUCTION OF OR IMPACTING CMID FACILITIES.
8. IF NEW CONSTRUCTION REQUIRES THE NON-POTABLE WATER TO BE SHUT OFF TO MAKE TIE-INS TO THE EXISTING DISTRIBUTION SYSTEM, THE CONTRACTOR SHALL PROVIDE CMID WITH A WRITTEN SCHEDULE OF THE CONNECTIONS A MINIMUM OF 48 HOURS PRIOR TO THE START OF SUCH TIE-INS.
9. ALL NEW NON-POTABLE WATER MAINS AND PROTECTION OF EXISTING FACILITIES SHALL BE DONE AT NO EXPENSE TO CMID.
10. ALL NEW NON-POTABLE WATER MAINS OUTSIDE OF THE ROAD / PUBLIC R/W MUST BE IN AN EASEMENT, MINIMUM 25-FT IN WIDTH.
11. THE DISTRICT REQUIRES COMPLETE ELECTRONIC COPIES IN AUTOCAD OF THE PROJECT DRAWINGS FOR FINAL APPROVAL.
12. ALL PROPOSED PLANS WILL BE SIGNED AND SEALED BY A CIVIL ENGINEER THAT IS LICENSED IN THE STATE OF ARIZONA.
13. AS-BUILT PLANS AND CERTIFICATIONS SHALL BE PROVIDED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION TO CMID BY CONTRACTOR PERFORMING THE INSTALLATION OF CMID FACILITIES. AS-BUILT PLANS SHALL FEATURE BOTH HORIZONTAL AND VERTICAL AS-BUILT INFORMATION, AS WELL AS THE MINIMUM CLEARANCE SEPARATION BETWEEN CROSSINGS.
14. ALL DISTRICT IMPROVEMENTS SHOWN ON THESE PLANS WILL HAVE A WARRANTY PERIOD OF TWO YEARS.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL SAFETY REQUIREMENTS ESTABLISHED BY ALL LEVELS OF REGULATORY AGENCIES DURING THE ENTIRE PERIOD OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE TRAFFIC CONTROL PLANS FROM THE GOVERNING AUTHORITY AND ENFORCE THE APPROVED TRAFFIC CONTROL PLANS DURING THE ENTIRE PERIOD OF CONSTRUCTION AS NEEDED.
3. ANY WORK PERFORMED WITHOUT THE APPROVAL OF CMID AND/OR ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
4. AN APPROVED SET OF PLANS SHALL BE MAINTAINED AT THE JOB SITE AT ALL TIMES THAT WORK IS IN PROGRESS. DEVIATION FROM THE PLANS SHALL NOT BE ALLOWED WITHOUT CMID'S APPROVAL.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING FACILITIES TO REMAIN IN PLACE. IN THE EVENT ANY FACILITIES ARE DAMAGED, ALTERED, OR OTHERWISE AFFECTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT THEREOF AT THEIR OWN COST TO THE SATISFACTION OF THE OWNER OF SAID FACILITY AND CMID.
6. ALL GRADING SHALL CONFORM TO PIMA ASSOCIATION OF GOVERNMENTS (PAG) GRADING STANDARDS LATEST EDITION OR THE TOWN OF MARANA LAND DEVELOPMENT CODE TITLE 19 (STANDARDS FOR GRADING AND RELATED SITE WORK), DEPENDING ON JURISDICTION.
7. EXISTING UTILITIES AS SHOWN ON THE DRAWINGS ARE IN ACCORDANCE WITH THE RECORDS AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS AND ELEVATIONS OF UTILITIES AND CONNECTION POINTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES OR DIFFERENCES. CONTACT ARIZONA 811 TWO FULL WORKING DAYS PRIOR TO CONSTRUCTION TO LOCATE AND FLAG UNDERGROUND FACILITIES.
8. NON-POTABLE WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 44-IN OF COVER FROM FINISHED GRADE WHERE UNDER PAVEMENT AND 60-IN MINIMUM WHERE OUTSIDE OF PAVEMENT, UNLESS NOTED OTHERWISE ON APPROVED PLANS.
9. IRRIGATION, VALVE, ARV, AND DVA BOX LIDS SHALL HAVE THE LETTERS “RW” OR “NON-POTABLE” CAST INTO THE LID. THE LETTERS SHALL BE 3-IN IN HEIGHT ALL APPURTENANCES WITHIN SAID BOXES SHALL BE PURPLE.
10. CONTRACTOR TO STAMP ALL CURBS WITH “RW” AT ALL SERVICE LOCATIONS.
11. ALL NON-POTABLE MAINS CROSSING SEWER OR POTABLE WATER MAINS SHALL MAINTAIN THE SEPARATION IN ACCORDANCE WITH THE REQUIREMENTS OF TUCSON WATER SD-106. WHEN CROSSING SEWER, NON-POTABLE WATERLINES SHALL BE TREATED AS POTABLE WATER FOR SEPARATION REQUIREMENTS.
12. ALL DRAINAGE STRUCTURE CROSSINGS SHALL COMPLY WITH TUCSON WATER SD-107 WITH 24-IN VERTICAL SEPARATION AND SHALL BE INSTALLED WITH DUCTILE IRON PIPE (DIP) WITH RESTRAINED JOINTS. JOINTS OR FITTINGS ARE NOT ALLOWED UNDER DRAINAGE STRUCTURES.
13. DRY UTILITIES SHALL BE INSTALLED WITH A MINIMUM OF 24-IN VERTICAL AND 6-FT HORIZONTAL SEPARATION FROM NON-POTABLE WATER MAINS. WATER METERS AND SERVICES SHALL BE 10-FT MINIMUM FROM ELECTRICAL PEDESTALS.
14. RESTRAIN ALL FITTINGS PER TUCSON WATER STANDARD DETAIL 600.

MATERIALS

1. CONTRACTOR SHALL SUBMIT ALL CUT SHEETS, SHOP DRAWINGS, AND EQUIPMENT LISTS TO CMID FOR APPROVAL AND CONSTRUCTION SHALL NOT BEGIN UNTIL ALL PROJECT MATERIALS ARE APPROVED.
2. ALL MATERIALS SHALL BE AMERICAN MADE AS DEFINED BY THE CODE OF FEDERAL REGULATIONS TITLE 23 PART 635. MATERIALS THAT ARE IMPORTED WILL BE REPLACED AT NO COST TO CMID.
3. NON-POTABLE WATER MAINS SHALL BE PURPLE C900 PVC, MINIMUM CLASS 200 (DR 21), OR DUCTILE IRON PIPE CLASS 350. SERVICES SHALL BE COPPER OR PVC, MINIMUM 305 PSI.
4. PVC DELIVERED TO THE SITE SHALL BE PROTECTED FROM UV LIGHT AND HEAT WITH SCREENING PLACED TO ALLOW SUFFICIENT AIR CIRCULATION AND VENTALLATION AROUND PIPE.
5. ALL DUCTILE IRON PIPE AND FITTINGS BELOW GROUND SHALL BE WRAPPED WITH PURPLE POLYETHYLENE.
6. DVA BOXES SHALL NOT BE INSTALLED IN PAVED AREAS, SIDEWALKS, ETC., AND SHALL BE LOCATED IN DEDICATED EASEMENTS OR RIGHT(S)-OF-WAY.
7. ALL NON-POTABLE WATER MAINS SHALL BE CONSTRUCTED WITH GATE VALVES W/ BOX AND COVER.
8. ALL TEES AND CROSSES WITH VALVES SHALL HAVE FLANGED FITTINGS.
9. UNI-FLANGES ARE NOT ACCEPTED.
10. VALVE NUT EXTENSIONS, IF REQUIRED, SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR, IN ACCORDANCE WITH THE REQUIREMENTS OF TUCSON WATER STANDARD DETAIL NO. 305.
11. SOLID SLEEVE ADAPTERS SHALL BE REQUIRED FOR ALL PIPING TRANSITIONS. ADAPTERS SHALL HAVE TYLER M.J. FITTINGS, 12" MINIMUM LENGTH OR APPROVED EQUAL.
12. SIZE ON SIZE TAPPING SLEEVES SHALL CONSIST OF MINIMUM TYPE 304 STAINLESS STEEL BODY, FLANGE AND ALL ACCESSORIES.

DETECTOR TAPE AND TRACER WIRE

1. CONTRACTOR SHALL PURCHASE AND INSTALL CMID'S CUSTOM DETECTABLE UNDERGROUND WARNING TAPE 18-IN BELOW FINISHED GRADE FOR ALL LENGTHS OF NON-POTABLE WATER LINES AND SERVICES. DETECTABLE UNDERGROUND WARNING TAPE SHALL BE PRESCO, REEF INDUSTRIES TERRA TAPE, OR SETON CUSTOM UNDERGROUND WARNING TAPES, THE COLOR PURPLE, 6-IN WIDE AND READ AS FOLLOWS; “CAUTION CMID NON-POTABLE FACILITIES BURIED BELOW CONTACT CMID AT (520)682-3233”.
2. CONTRACTOR IS REQUIRED TO INSTALL TRACER WIRE PER SD-116. 3' LOOPS ARE TO BE BROUGHT UP AROUND VALVE RISERS, DVAS, ARVS, ETC.
3. THE TRACER WIRE SHALL BE CERTIFIED BY A LICENSED ELECTRICAL CONTRACTOR FOR CONTINUITY AFTER PAVING OPERATIONS ARE COMPLETED. IT IS RECOMMENDED THAT THE CONTRACTOR PERFORM PRELIMINARY TESTS PRIOR TO PAVING. FINAL ACCEPTANCE WILL NOT BE GRANTED UNTIL CERTIFICATION IS RECEIVED BY CMID. SPLICES SHALL BE MADE WITH SILICON SPLICE AND SHALL BE INSPECTED. SIGNAL INDUCED TEST RESULTS WILL NOT BE ACCEPTED.
4. TRACER WIRE REQUIRED FOR ALL WATER MAIN LINES. WIRE SHALL BE TAPED TO THE WATER MAIN WITH 10 MIL. TAPE EVERY 10 FEET. INCLUDING SERVICE LINES.

AIR RELEASE VALVES (ARV)

1. THE POINTS OF CONNECTION OF THE ARV ASSEMBLY TO THE MAINLINE AS SHOWN ON THE PLANS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL FIELD VERIFY THE ACTUAL CONNECTION POINT AT HIGH POINTS IN THE NON-POTABLE WATER MAIN, AND PLACEMENT SHALL BE APPROVED BY THE INSPECTOR.
2. BELOW GROUND ARVS ARE NOT PERMITTED.
3. ABOVE GROUND ARVS ARE TO BE CONSTRUCTED PER DETAIL 1 THIS SHEET. THE LOCATION OF ABOVE GROUND ARVS SHALL BE WITHIN PUBLIC RIGHT(S)-OF-WAY BETWEEN SIDEWALK AND RIGHT(S)-OF-WAY LINE, OR WITHIN A CMID EASEMENT, OR WITHIN A PUBLIC UTILITY EASEMENT.
4. ALL ARVS SHALL HAVE STAINLESS STEEL OR BRASS SCREEN INSTALLED ON THE ELBOW. SERVICE LINES FOR ARVS SHALL BE SIZED PER DETAIL 1 THIS SHEET. NON-POTABLE WATER AND POTABLE WATER AIR VALVE BOXES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF SIX 6-FT AS MEASURED FROM THE OUTSIDE OF THE METER BOXES.

SERVICES

1. METER BOX SHALL BE INSTALLED TO 0.1' ABOVE FINISHED GRADE. METER BOXES SHALL HAVE A MINIMUM OF 4 FEET CLEARANCE FROM ANY OBSTRUCTIONS.
2. METER BOXES SHALL BE ARMORCAST ROTOCAST METER BOX OR DFW. RPM COVER WITH RADIO READ RETENTION, OR APPROVED EQUAL. NO METER BOXES WITH STEEL OR CAST IRON LIDS SHALL BE USED. LID SHALL BE PURPLE WITH THE REQUIRED TEXT "NON-POTABLE".
3. METERS AND BOXES SHALL NOT BE PLACED IN DRIVEWAYS, SIDEWALKS, STREETS, ETC.
4. CONTRACTOR SHALL INSTALL A CUSTOMER CUTOFF BALL OR GATE VALVE WITH HANDLE WITHIN METER BOX OR IN A SEPARATE BOX OF ITS OWN.
5. SERVICE WILL BE PROVIDED AS SHOWN ON APPROVED PLAN. ANY CHANGES TO PARCEL CONFIGURATION MAY REQUIRE APPROVED SERVICE REVISIONS OR MODIFICATION.
6. SERVICES WILL NOT BE ALLOWED IN DRAINAGE WAYS OR APRONS TO DRAINAGE WAYS.
7. WATER SERVICE LINES SHALL BE INSTALLED WITH ADDITIONAL SLACK TO PROVIDE FINISH GRADE ADJUSTMENT.
8. ALL FITTINGS USED WITH COPPER SHALL BE CTS COMPRESSION FITTINGS.
9. ON 2-INCH SERVICES, HARD COPPER CAN BE USED WITH CTS COMPRESSION OR SWEAT FITTINGS.

FINAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL SUBMIT A "PRELIMINARY FLUSHING SEQUENCE" TO CMID FOR APPROVAL PRIOR TO ANY FLUSHING OPERATIONS. EXISTING DEAD-END MAINS SHALL BE THOROUGHLY FLUSHED BEFORE TIE-INS ARE MADE TO NEW LINES BEING INSTALLED.
2. THE CONTRACTOR SHALL NOTIFY CMID AT LEAST 2 WORKING DAYS IN ADVANCE FOR SCHEDULING NON-POTABLE MAIN PRESSURE TESTING AND INSPECTION. PRESSURE TEST SHALL INCLUDE HOLDING 200 PSI FOR 2 HOURS WITH NO LOSS PER TUCSON WATER STANDARD SPECIFICATIONS.
3. THE CONTRACTOR SHALL HAVE ALL WATER VALVES IDENTIFIED AND LOCATED PRIOR TO PAVING AND SHALL HAVE ALL VALVES "FRAMES AND COVERS" SET TO FINISH GRADE AFTER PAVING, OR FINISH GRADING IF NOT IN PAVED AREAS.
4. AFTER THE PAVING, CURBS AND GUTTERS, AND SIDEWALKS HAVE BEEN INSTALLED, CMID WILL CHECK ALL VALVE RISERS AND SERVICE METER BOXES FOR OPERATION AND ADJUSTMENTS PRIOR TO FINAL APPROVAL.
5. FINAL ACCEPTANCE WILL NOT BE GRANTED UNTIL THE PIPE CERTIFICATION, BACKFILL COMPACTION TESTING RESULTS, VALVE CERTIFICATION HAVE BEEN PROVIDED TO CMID.
6. TREES SHALL NOT BE PLANTED WITHIN 10 FEET OF ANY NON-POTABLE MAINS 4" AND LARGER AND ALL IRRIGATION LINES SHALL MAINTAIN SEPARATIONS FROM POTABLE AND NON-POTABLE MAINS.

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PREPARED BY:	GCE
APPROVED BY:	CMID
REVISION DATE:	SEPT 2024

NOTICE TO DESIGN ENGINEER:
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CMID CWUA

CORTARO-MARANA IRRIGATION DISTRICT
12253 W. GRIER ROAD
MARANA, AZ 85653
(520) 682-3233

NON-POTABLE SYSTEM

STANDARD NOTES

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OF

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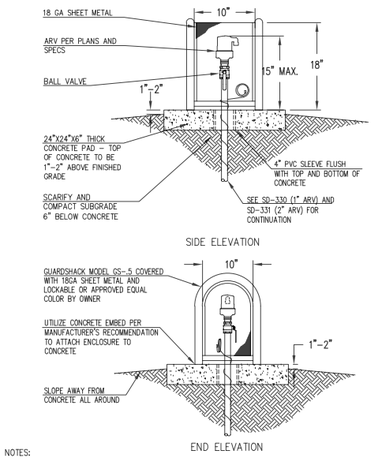
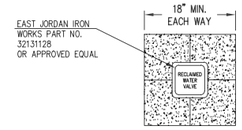


NOTES:

1. THIS DETAIL SUPERCEDES SD-330 AND SD-331 REGARDING ABOVE GROUND AIR RELEASE VALVE INSTALLATION REQUIREMENTS ONLY. BELOW GROUND REQUIREMENTS REMAIN UNCHANGED.
2. TRACER WIRE PER SD-116. LEAVE 3' MINIMUM COILED ABOVE THE CONCRETE SLAB.

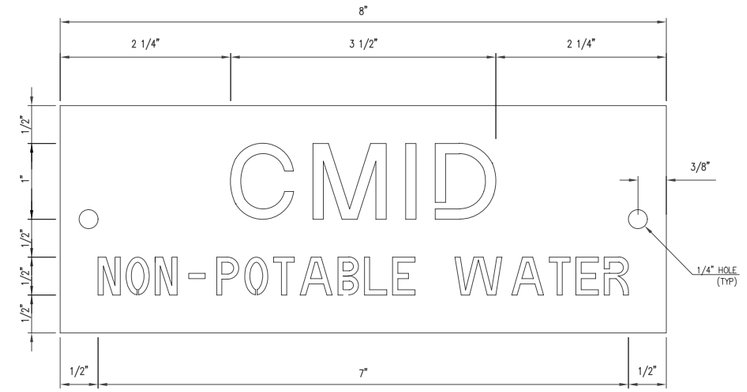
MARANA WATER
AIR RELEASE VALVE DETAIL (ABOVE GRADE) 1
N.T.S. –



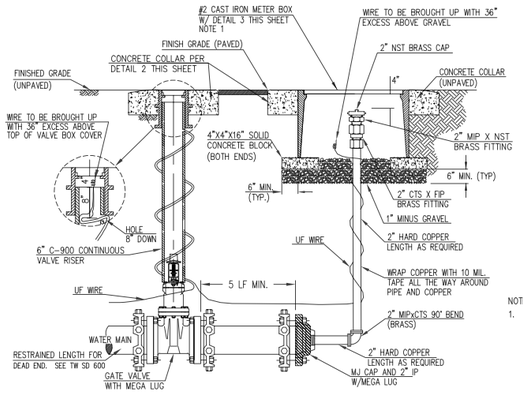
NOTES:

1. THIS DETAIL SUPERCEDES SD-300 REGARDING WATER VALVE BOX COVER REQUIREMENTS ONLY. THE CONCRETE, SIZE, SHAPE, PREP, ETC. REMAIN UNCHANGED.
2. CONFIGURATION OF CONCRETE COLLARS SHALL BE SQUARE OR RECTANGULAR.

MARANA WATER
WATER VALVE BOX INSTALLATION IN PAVEMENT 2
N.T.S. –



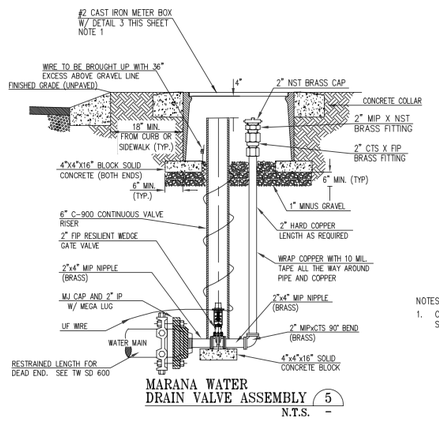
MARANA WATER
CMID OWNSHIP PLATE 3
N.T.S. –



NOTES:

1. CAST IRON METER BOX MAY BE SUBSTITUTED WITH THE SERVICE METER BOX, SEE SERVICES NOTES ON PREVIOUS SHEET.

MARANA WATER
MODIFIED DRAIN VALVE ASSEMBLY 4
N.T.S. –



NOTES:

1. CAST IRON METER BOX MAY BE SUBSTITUTED WITH THE SERVICE METER BOX, SEE SERVICES NOTES ON PREVIOUS SHEET.

MARANA WATER
DRAIN VALVE ASSEMBLY 5
N.T.S. –

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NON-POTABLE SYSTEM

MARANA WATER STANDARD DETAILS

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