



*Proud of our past,
Ready for our future*

RIVERSIDE COUNTY, CALIFORNIA

GUIDELINES FOR THE SUBMITTAL OF ONSITE RECYCLED WATER IRRIGATION PLANS

October 1, 2007



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I. Submittal and Plan Check Process

This manual is intended to provide general guidelines and information for the design and submittal of onsite recycled water irrigation plans for review and approval by the Eastern Municipal Water District (District). This manual includes an overview of the submittal and approval process, a review checklist used for plan check and the required approval / title blocks and notes to be shown on the plans. For further information, please refer to the District's website and the "Standards and Specifications for Developer Projects".

Initial Contact and Submittal Process

For all residential, commercial, or industrial projects, the initial point of contact is the New Business Development Department. All projects that have areas which exceed 3,000 square feet of irrigable area will be screened for recycled water use in accordance with Ordinance 68.2 or latest edition.

If a project is determined to be a recycled water candidate, a recycled water use exhibit (RWUE) will be required to be submitted and approved prior to approval of the plan of service (POS) or completion of water and sewer connections as applicable. For further information regarding RWUE requirements refer to the "Recycled Water Use Exhibit Design and Graphic Standards Guide".

Once the RWUE is approved, a copy must be included along with the irrigation plans for plan check submittal. Irrigation plans are submitted for plan check to the Recycled Water Program Coordinator for processing. The plans are then forwarded to the Engineering Branch for plan check and approval.

Plan Check Process

Blueline Review and Approval Process

1. Plan checker receives one set of irrigation plans and copy of the project's Recycled Water Use Exhibit (RWUE) approved by the District.
2. Plan checker will perform an in-house review of the plans and provide review comments back to the Landscape Architect.
3. The Landscape Architect will incorporate review comments and resubmit to plan checker updated plans along with the plan checker's original review comments.
4. Plan checker will request Mylars from the RLA for approval signature once all comments have been incorporated.
5. Mylars will be signed and maintained by the District.

Electronic Review and Approval Process

The electronic review and approval process follows the same steps as the blueline submittal process described above except that all comments will be provided electronically to the Landscape Architect via e-mail or via the EMWD FTP site. Electronic review is only an option after the second plan check submittal.

FTP Site

Digital Files can be uploaded or downloaded from the Districts FTP site. To access the site, please do the following:

To access the site, point your FTP program to <ftp.emwd.org>. Access to the site is controlled - users must log on with the correct user name and password. The user name and password (case sensitive):
User name: recplan ; **Password:** Re3p1@nn

When uploading files to the site, follow these general guidelines:

- ZIP the file before uploading.
- Password protect the ZIP file.
- Use the project name and work order number (supplied by the District) as the name of the zip file.
- Upload the file to the location directed by the plan checker.

II. Recycled Water Review Checklist

All Sheets

- Plan Size: 24" x 36"
- EMWD Sheets shall be consecutively numbered and include total number of sheets
- Stamp and signature of licensed California landscape architect (current & signed)
- EMWD title block (lower right corner of all sheets)
- EMWD approval block
- EMWD construction note
- Revision block (lower Horizontal)
- Omission Statement
- Potable and recycled water separation note
- Property boundary
- Scale
- North Arrow
- Lettered in a neat and legible style. No hand lettering smaller than 1/8" and no machine lettering smaller than 1/10".

Title Sheet

- Project legal description, APN, tract/parcel map number, project name, site address, etc
- Engineer/architect of work name, address, phone number, CA registration number, expiration date and stamp (current and signed)
- Declaration of responsible charge (Date & Signature)
- Index of sheets (EMWD sheet numbers)
- Vicinity map of general area showing project site, major streets, North arrow and project boundary.
- Work order number located top right corner, vertically, 1" minimum letter size
- System meter information table
- Landscape maintenance responsibility note
- Time limitation note
- EMWD Onsite landscape irrigation disclaimer
- Responsibility disclaimer
- EMWD on-site recycled water notes (if space permits - otherwise on index map sheet)

Index Map Sheet

- ❑ Maximum scale is 1"=100' (Index Map should be an overview of the entire project)
 - ❑ North arrow, street names, and existing/proposed utilities
 - ❑ Show existing (and proposed if applicable) utilities in streets: type, size, and class of pipe using leader lines for reference.-must match exhibit
 - ❑ Show location of recycled water warning sign - The design location for warning signs shall be called out at all driveway entrances, walkway entrances, recycled water meters and posted every 500' along fence lines.
 - ❑ Point of connection information callout examples
 - a. Existing service : Point of connection "A"
 Station XX+XX per D-XXXX, connect to existing X" service and install X" landscape meter per PB-XX
 - b. No connection exists Steel ("HOT TAP"): Point of connection "A"
 Station XX+XX per D-XXXX, hot tap existing X" R/W/L with X" x X" saddled outlet connection with X" FxF RSGV at developers expense. Install X" landscape service per PB-XX
 - c. No connection exists DI, PVC, or ACP ("HOT TAP"): Point of connection "A"
 Station XX+XX per D-XXXX,hot tap existing X" R/W/L with X" x X" tapping sleeve with X" FxF RSGV at developers expense. Install X" landscape service per PB-XX
- Landscape service standard drawing table
- | | | |
|-------------|--------------------|-------------------------------------|
| PB-10 / 10A | 2" Service (Meter) | 2" Lateral min. (for proposed plan) |
| PB-13 | 3" Service (Meter) | 4" Lateral |
| PB-14 | 4" Service (Meter) | 4" Lateral |
| PB-15 | 6" Service (Meter) | 6" Lateral |
- ❑ Location of meters (Recycled and Potable) with irrigation plan sheet number reference
 - ❑ Show all constant pressure lines, mainline valves and POC equipment.
 - ❑ Location of all public facilities including designated tot lots, food preparation and picnic areas are clearly defined and labeled on plans (see list of items on omission statement).
 - ❑ Drinking and decorative fountains, potable water lines to building & restrooms are clearly defined and labeled on plans
 - ❑ Sheet layout matches plans
 - ❑ Size of mainlines is shown and matches irrigation sheets
 - ❑ Sheet number references to irrigation plans
 - ❑ Legend identifying all equipment shown on index map

Irrigation Plan Sheets

- ❑ POC meter data table: at each meter location, on irrigation sheet
- ❑ Indicate meter size, size of connection lateral, and size /type of mainline tying in to (inches)
- ❑ Size and type of irrigation mains shall match index map
- ❑ All irrigation plan sheets to have same scale
- ❑ Street names
- ❑ Matchlines
- ❑ Key map

Legend Sheet

- ❑ Color coding note
- ❑ Quick Coupler valve: Nelson 7645 acme threads, with locking purple cap. (or Toro 474-44)
- ❑ Recycled water meter
- ❑ Recycled water strainer shall be Yardney T Series Maxi-Clean or approved equal, installed above ground, and same size as service meter.
- ❑ Backflow prevention device is not required for recycled water system (entire system is already protected with a backflow at the street interconnect) unless the system proposes a direct potable connection or the use of chemical injection system.
- ❑ If BP required, add the following note under BP detail. "Backflow prevention device shall meet the requirement of EMWD standard drawing B-597 and shall be installed per the current EMWD Standards and Specifications for Developers Project "
- ❑ Recycled water Constant pressure mainline minimum pipe class:
 - a. 4" - 6" PVC shall be CL 200, C-900
 - b. 2" - 3" PVC shall be CL 315
 - c. 2" and smaller PVC shall be Schedule 40
- ❑ Recycled water mainline minimum depth:
 - Constant pressure lines 6" = 36" deep
 - Constant pressure lines 3" & 4" = 24" deep
 - Constant pressure lines 2-1/2" and smaller = 18" deep
 - Intermittent pressure lines = 12" deep
- ❑ Size and maximum flow rate of recycled water meter:
 - 2" = 160 GPM, 3" = 350 GPM, 4" = 1,000 GPM, 6" = 2,000 GPM
- ❑ Add the following note to the details and specifications sheets:

"The materials and the installation of the irrigation system shown on this plan shall meet the latest EMWD Standards and Specifications for Developer Projects. Installation of hose bibs is not allowed on systems using recycled water".

General Considerations

- ❑ Hose bib connections and fire hydrants are not permitted on the recycled system
- ❑ Quick Coupler valve shall be of a type approved for recycled water use.
- ❑ Dual source systems (site with recycled and potable water) require cross connection shutdown testing
- ❑ Irrigation system designs should address the District's intent to ensure safe implementation of recycled water systems as outlined in the "Recycled Water Notes" (page 10 this document)

III. Information Required on Plans

System Meter Information Table

(Title sheet only)

POC "X"	POC STATION	CIVIL DRAWING NUMBER	IRRIGATED AREA (SF)	DEMAND (GPM)	ANNUAL USAGE (ACRE-FT)	LATERAL SIZE (IN)	METER SIZE (IN)
		D#					
TOTAL							

EMWD On-Site Landscape Irrigation Disclaimer

(Title sheet only)

EMWD'S REVIEW AND APPROVAL OF THE LANDSCAPE DRAWINGS ARE FOR THE PURPOSES OF POINT OF CONNECTION (POC) AND SYSTEM DEMAND DATA ACQUISITION AND DEPARTMENT OF HEALTH SERVICES USE REQUIREMENTS ONLY AND DOES NOT REPRESENT AN ENDORSEMENT OR APPROVAL OF THE HYDRAULIC ADEQUACY AND RELIABILITY OF THE PLANNED IRRIGATION SYSTEM DESIGN. THE ULTIMATE DESIGN OF THE IRRIGATION SYSTEM SHOULD ACCOUNT FOR PRESSURE FLUCTUATIONS THAT ARE COMMON WITHIN THE RECYCLED WATER DISTRIBUTION SYSTEM AND INCLUDE INSTALLATION OF A PUMP (WITH LOW FLOW / LOW PRESSURE CUT OFF SWITCH), TO ENSURE ADEQUATE SYSTEM WATER PRESSURE FOR IRRIGATION.

Landscape Maintenance Responsibility Note

(Title sheet only)

IT SHALL BE THE RESPONSIBILITY OF _____ TO MAINTAIN ALL ON SITE RECYCLED WATER IRRIGATION IN ACCORDANCE WITH EMWD ORDINANCE 68.2 OR LATEST EDITION.

EMWD Time Limitation Note

(Title sheet only)

THE TIME LIMIT ON DRAWING APPROVAL SHALL BE SIX (6) MONTHS FROM THE DATE OF PLAN APPROVAL. IF CONSTRUCTION HAS NOT COMMENCED WITHIN THE STATED TIME, EMWD REQUIRES DRAWING(S) TO BE REVIEWED BY THE DEVELOPER/DESIGN ENGINEER AND/OR ARCHITECT AND RESUBMITTED TO EMWD FOR POSSIBLE CHANGES IN MASTER PLANNED FACILITIES, SPECIFICATIONS AND STANDARDS.

Responsibility Disclaimer

(Title sheet only)

ALL SCREENED FACILITIES, EXISTING OR PROPOSED, WERE OBTAINED FROM CIVIL PLAN _____(CIVIL PLAN NUMBER). ACTUAL SIZE AND LOCATION OF FACILITIES SHALL BE VERIFIED. CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES TO VERIFY TIE-IN LOCATIONS, PIPE SIZE AND TYPE PRIOR TO ANY WORK BEING PERFORMED. TO THE BEST OF OUR KNOWLEDGE THE FACILITIES EXIST OR WILL EXIST AS SHOWN. THE EASTERN MUNICIPAL WATER DISTRICT AND (LANDSCAPE DESIGN COMPANY)_____ SHALL NOT BE HELD RESPONSIBLE FOR ACTUAL SIZE AND LOCATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE DISTRICT ENGINEER

Declaration of Responsible Charge

(Title sheet only)

I HEREBY DECLARE THAT I AM THE LANDSCAPE ARCHITECT OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF _____, THE COUNTY OF _____, THE RECREATION DISTRICT OF _____, AND THE EASTERN MUNICIPAL WATER DISTRICT IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS THE LANDSCAPE ARCHITECT OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

FIRM NAME & ADDRESS:

SIGNATURE

DATE

REGISTRATION NO. _____

EMWD Construction Note

(All sheets)

EASTERN MUNICIPAL WATER DISTRICT REQUIRES THAT A PRE-CONSTRUCTION CONFERENCE BE SCHEDULED PRIOR TO ANY CONSTRUCTION BY CALLING THE EASTERN MUNICIPAL WATER DISTRICT FIELD ENGINEERING DEPARTMENT AT (951) 928-3777, EXTENSION 4830.

Omission Statement

(All sheets)

THERE ARE NO DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, COMFORT STATIONS, OUTDOOR EATING AREAS, SWIMMING POOLS, PLAYGROUND EQUIPMENT, OR WELLS ON THE SITE.

(IF ONE OR MORE OF THE LISTED ITEMS ABOVE ARE EXISTING ON SITE, EACH MUST BE CLEARLY LABELED ON PLAN AND NOTE SHALL READ AS THE FOLLOWING EXAMPLE.)

(DRINKING WATER FOUNTAINS, DESIGNATED OUTDOOR EATING AREAS POOLS...) SHALL BE PROTECTED AGAINST CONTACT WITH RECYCLED WATER SPRAY, MIST, OR RUN-OFF. THE POTABLE WATERLINE SUPPLYING THE DRINKING FOUNTAIN MUST HAVE A WARNING BLUE COLORED TAPE IDENTIFYING IT AS A POTABLE WATERLINE AND STATING "CAUTION: BURIED WATERLINE BELOW" INSTALLED OVER IT.

Potable and Recycled Water Separation Note

(All sheets)

RECYCLED MAINLINE (CONSTANT PRESSURE) SHOWN DIAGRAMMATICALLY FOR CLARITY ONLY. ACTUAL LOCATION MUST PROVIDE A MINIMUM FOUR (4) FEET HORIZONTAL CLEARANCE BETWEEN ALL POTABLE AND CONSTANT PRESSURE RECYCLED WATERLINES. RECYCLED WATER MAINLINE SHOULD BE INSTALLED UNDER POTABLE WATERLINES AND MAINTAIN ONE (1) FOOT OF VERTICAL CLEARANCE. WHERE THE RECYCLED WATER CONSTANT PRESSURE LINE MUST BE INSTALLED ABOVE THE POTABLE WATERLINE, A FOUR (4) INCH MINIMUM VERTICAL CLEARANCE MUST BE MAINTAINED AND THE RECYCLED WATER PRESSURE LINE MUST BE INSTALLED IN A CONTINUOUS PVC CLASS 200 PIPE OR GREATER SLEEVE WHICH EXTENDS A MINIMUM OF TEN (10) FEET EACH SIDE OF THE POTABLE WATERLINE.

Color Coding

(Legend Table, Irrigation Legend and Details sheets)

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. VALVE BOXES SHALL BE PURPLE PER INDUSTRY STANDARDS. THE LIDS SHALL HAVE THE WARNING “RECYCLED: DO NOT DRINK” IN ENGLISH AND SPANISH AND THE INTERNATIONAL “DO NOT DRINK” ON ONE SIDE AND “PELIGRO: AGUA IMPURA-NO BEBER” ON THE OPPOSITE SIDE. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS.

Point of Connection Information (POC) Meter Data Table

(Next to the irrigation plan POC)

POINT OF CONNECTION “X”	
P.O.C. DESIGNATION	X
ROAD STATION	
SERVICE LINE SIZE (in)	
RECYCLED WATER METER SIZE (in)	
LANDSCAPE SERVICE STANDARD DRAWING	PB_____
ULTIMATE DESIGN MAX FLOW (gpm)	
CHEMICAL INJECTION SYSTEM (Y/N)	
BOOSTER PUMP HGL (ft)	
METER ELEVATION (ft)	
PRESSURE RANGE (STATIC) (psi)	FROM_____ TO_____
DESIGN PRESSURE (psi)	
TOTAL AREA SERVED (sf)	
ANNUAL WATER USAGE (acre-ft)	
EMWD REFERENCE CIVIL DRAWING NUMBER	D#_____
INITIAL SOURCE OF WATER SUPPLY	
IRRIGATION TYPE (drip, spray, bubbler, etc)	

Installation Notes

(Irrigation Legend, Detail, and Specification sheets)

NOTES:

1. THE MATERIALS AND THE INSTALLATION OF THE IRRIGATION SYSTEM SHOWN ON THIS PLAN SHALL MEET THE LATEST EMWD STANDARDS AND SPECIFICATIONS FOR DEVELOPER PROJECTS.
2. NO HOSE BIBS WILL BE ALLOWED FOR INSTALLATION ON SYSTEMS USING RECYCLED WATER.

EMWD Recycled Water Notes

Provide the following standard notes on the recycled water irrigation drawings under the heading “Recycled Water Notes – Eastern Municipal Water District”

1. THE RECYCLED WATER SYSTEM SHOWN ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE EASTERN MUNICIPAL WATER DISTRICT STANDARDS AND SPECIFICATIONS FOR DEVELOPER’S PROJECTS.
2. USE OF RECYCLED WATER SHALL ADHERE TO TITLE 22, DIVISION 4, CHAPTER 3 OF THE CALIFORNIA CODE OF REGULATIONS AND THE CURRENT RULES, ORDINANCES, REGULATIONS AND SPECIFICATIONS OF THE DISTRICT.
3. EASTERN MUNICIPAL WATER DISTRICT REQUIRES THAT A PRE-CONSTRUCTION CONFERENCE BE SCHEDULED PRIOR TO ANY CONSTRUCTION BY CALLING THE EASTERN MUNICIPAL WATER DISTRICT'S FIELD ENGINEERING DEPARTMENT AT (951) 928-3777, EXTENSION 4830.
4. THE EASTERN MUNICIPAL WATER DISTRICT OPERATION DEPARTMENT SHALL BE NOTIFIED TWO WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (951) 679-3222. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
5. CROSS CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED. FINES MAY BE LEVIED.
6. NON-DESIGNATED USE AREAS SHALL BE PROTECTED FROM CONTACT WITH RECYCLED WATER, CAUSED BY WINDBLOWN SPRAY, IRRIGATION DESIGN OR UNAUTHORIZED USE. LACK OF PREVENTION, WHETHER BY DESIGN, CONSTRUCTION PRACTICE, OR SYSTEM OPERATION, IS STRICTLY PROHIBITED.
7. RECYCLED WATER IRRIGATION CANNOT BE USED IN THE VICINITY OF WATER RECREATION AREAS, WHERE RECYCLED WATER MIST CAN CONTACT WATER RECREATION AREAS.
8. HOSE BIBS ARE STRICTLY PROHIBITED ON RECYCLED WATER SYSTEMS.
9. FOOD PREPARATION, OUTDOOR EATING AREAS, AND DESIGNATED CHILDREN PLAY EQUIPMENT MUST NOT BE SUBJECTED TO RECYCLED WATER OVERSPRAY, RUNOFF OR PONDING. TYPICAL WAYS OF ACCOMPLISHING THIS IS BY SELECTION OF LANDSCAPE MATERIALS OR BY DESIGN SUCH AS UTILIZING LOW TRAJECTORY ROTORS OR DRIP IRRIGATION.

10. NO PONDING, RUNOFF OR OVERSPRAY IS PERMITTED. ADJUST ALL SPRINKLER HEADS TO MINIMIZE OVERSPRAY ONTO SIDEWALKS, STREETS DRINKING AND DECORATIVE FOUNTAINS, COMFORT STATIONS, PLAYGROUND EQUIPMENT, PICNIC TABLES, BBQ, PRIVATE LOTS, ETC.
11. ALL ON-SITE RECYCLED WATER PIPING INSTALLED ON THIS PROJECT SHALL BE PURPLE IN COLOR, PANTONE 522C AND IDENTIFIED IN ACCORDANCE WITH THE CURRENT CDHS GUIDELINES AND EASTERN MUNICIPAL WATER DISTRICTS STANDARDS AND SPECIFICATIONS.
12. SIGNS OR DECALS WITH “RECYCLED WATER, DO NOT DRINK” AND THE DO NOT DRINK SYMBOL MUST BE POSTED ON PUMP CABINETS AND CONTROLLER STATIONS. RECYCLED WATER SPRINKLERS / SPRAY HEADS MUST HAVE PURPLE CAPS, PURPLE COLLARS, AND THE RISERS HAVE A RECYCLED WATER DECAL. LARGE THROW HEADS MUST HAVE PURPLE INSERTS. PURPLE CAPS AND COLLARS MUST BE FIRMLY AFFIXED TO SPRINKLER HEADS. ALL OTHER ABOVE GROUND EQUIPMENTS MUST BE COLORED PURPLE OR HAVE A “RECYCLED WATER, DO NOT DRINK” DECAL OR SIGN.
13. ALL VALVE CAPS FOR ON-SITE BURIED GATE VALVES SHALL BE TRIANGULAR IN SHAPE WITH THE WORDS “RECYCLED WATER” THEREON PER STANDARD DRAWING NO. PA-2.
14. WARNING TAPE FOR THE RECYCLED WATER PIPING SHALL BE PURPLE IN COLOR, PANTONE 522C, WITH THE WORDS “CAUTION: RECYCLED WATER” IMPRINTED IN MINIMUM 1 INCH HIGH LETTERS BLACK IN COLOR. IMPRINTING SHALL BE CONTINUOUS AND PERMANENT.
15. ALL AUTOMATIC CONTROLLERS MUST BE SET TO OPERATE BETWEEN THE HOURS OF 9:00 P.M. AND 6:00 A.M. UNLESS OTHERWISE PERMITTED BY THE DISTRICT.
16. WARNING SIGNS AND LABELS SHALL READ “CAUTION: RECYCLED WATER DO NOT DRINK”, AND SHALL BE IN BOTH ENGLISH AND IN SPANISH. THE SIGNS SHALL INCLUDE THE INTERNATIONAL SYMBOL FOR DO NOT DRINK. THE DESIGN LOCATION FOR WARNING SIGNS SHALL BE CALLED OUT ON THE PLANS AT ALL DRIVEWAY ENTRANCES, WALKWAY ENTRANCES, RECYCLED WATER METERS AND POSTED EVERY 500' ALONG FENCE LINES. FINAL FIELD LOCATIONS SHALL BE AS DIRECTED BY THE DISTRICT REPRESENTATIVE AND ASBUILT.
17. WHEN POTABLE WATER IS ONSITE, THE REQUIRED DEPARTMENT OF HEALTH TITLE 22 CROSS CONNECTION SHUTDOWN TEST SHALL PRECEDE THE FINAL RELEASE OF THE IRRIGATION SYSTEM. THIS TEST WILL BE CONDUCTED BY EMWD’S WATER OPERATIONS DEPARTMENT.

REGULATIONS, AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. SAID PERSON IS REQUIRED TO PROVIDE A 24 HOUR CONTACT PHONE NUMBER AND ATTEND APPROVED SITE SUPERVISOR CLASS. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO EASTERN MUNICIPAL WATER DISTRICT.

25. QUICK COUPLER VALVES FOR RECYCLED WATER SHALL BE NELSON 7645, OR APPROVED EQUAL, WITH BRASS CONSTRUCTION AND WITH A SPECIAL QUICK COUPLER KEY WITH AN ACME THREAD FOR OPENING AND CLOSING THE VALVE. QUICK COUPLING VALVES SHALL BE OF A TYPE APPROVED FOR RECYCLED WATER USE. QUICK COUPLER VALVES CANNOT BE LOCATED WITHIN 50 FEET OF FOOD PREPARATION, OUTDOOR EATING AREAS, OR DESIGNATED CHILDREN PLAY EQUIPMENT OR WITHIN THE FENCED PERIMETER SURROUNDING SWIMMING POOLS. PRIOR TO THE FINAL COVERAGE TEST, ONE (1) COMPLETE SET OF LAMINATED CONTROLLER CHARTS AND IRRIGATION AS-BUILT DRAWINGS SHALL BE PROVIDED TO THE DISTRICT. AT THE DISTRICT'S DISCRETION, A SECOND COPY OF CONTROLLER CHARTS SHALL BE PLACED IN THE CONTROLLER CABINET.
26. POTABLE QUICK COUPLERS ARE NOT ALLOWED WITHIN THE RECYCLED WATER IRRIGATED AREA. POTABLE QUICK COUPLERS SHALL BE THE LUG TYPE.
27. EACH AUTOMATIC CONTROLLER AND ITS ASSOCIATED EQUIPMENT SHALL BE IDENTIFIED WITH A SIGN BEARING THE WORDS "CAUTION: RECYCLED WATER DO NOT DRINK" IN ENGLISH AND SPANISH, WITH BLACK LETTERS AT LEAST 1 INCH HIGH ON A PURPLE BACKGROUND AND WITH A "DO NOT DRINK" SYMBOL SIGN. THE SIGNS SHALL BE PLACED AS TO BE READILY SEEN BY ANY OPERATIONS PERSONNEL UTILIZING THE EQUIPMENT.
28. INTERCONNECTION OF IRRIGATION PRESSURE SUPPLY LINES ORIGINATING FROM MORE THAN ONE METER IS STRICTLY PROHIBITED.
29. FAILURE TO COMPLY WITH THESE NOTES AND THE DISTRICT'S RULES AND REGULATIONS IS A VIOLATION AND COULD RESULT IN SUSPENSION OF SERVICE UNTIL THE APPROPRIATE CORRECTIVE STEPS HAVE BEEN TAKEN.

EMWD Approval Block

On-Site Recycled Water Approved By: EASTERN MUNICIPAL WATER DISTRICT			
CIVIL ENGINEER OF SUBDIVISIONS		DATE	
APPROVALS		INITIAL	DATE
	PROJECT ENGINEER		
	OPERATION		
	W.O.#	S.A.	COORD.

EMWD Title Block

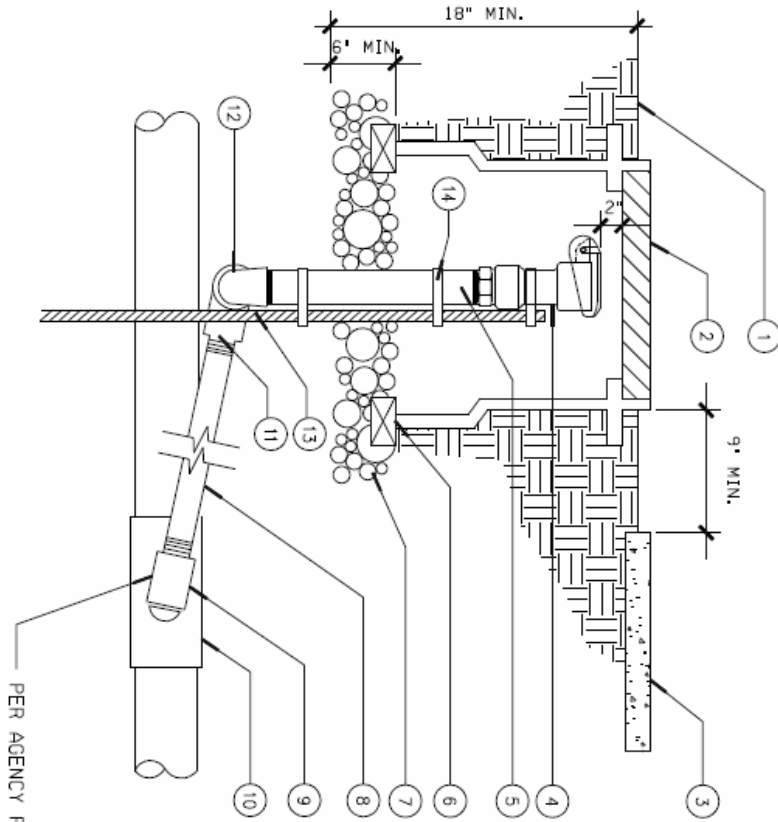
County (City) of "X"	WO#
	I.D.
TRACT NO. "X" RECYCLED WATER LANDSCAPE IMPROVEMENT PLANS PROJECT NAME TITLE SHEET (OR) INDEX MAP (OR) IRRIGATION PLAN	S.A.
	COORD.
	SHT. _____ OF _____
	WO-

EMWD Revision Block

DATE	BY	MARK		APPR.	DATE
ENGINEER			REVISIONS	EMWD	

Sample Recycled Water Quick Coupling Valve Detail

NOTE:
 1) QUICK COUPLERS SHALL BE OF A TYPE
 APPROVED FOR RECYCLED WATER USE.



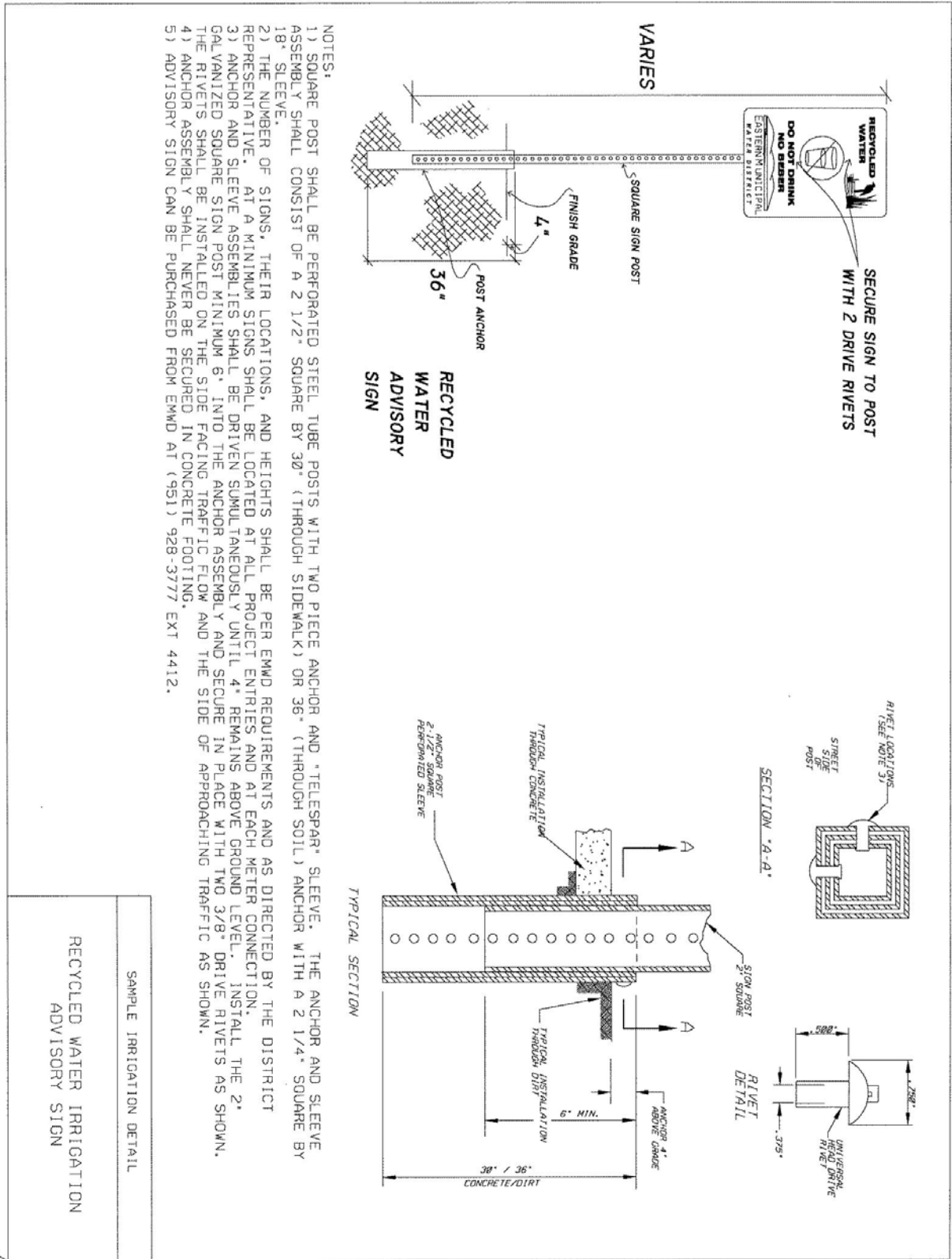
LEGEND:

- 1) FINISH GRADE
- 2) PURPLE VALVE BOX
- 3) STRUCTURAL HARDSCAPE WHERE OCCURS
- 4) QUICK COUPLING VALVE WITH LOCKING PURPLE COVER AND ACME THREAD
- 5) BRASS NIPPLE
- 6) BRICK (1 OF 3)
- 7) 3/4" WASHED CRUSHED AGGREGATE BASE
- 8) BRASS NIPPLE
- 9) BRASS 90 STREET ELL FITTING
- 10) PRESSURE SUPPLY LINE
- 11) BRASS 90 STREET ELL
- 12) BRASS 90 ELL
- 13) *4 REBAR STAKE (24" MIN)
- 14) STAINLESS STEEL SCREW CLAMP

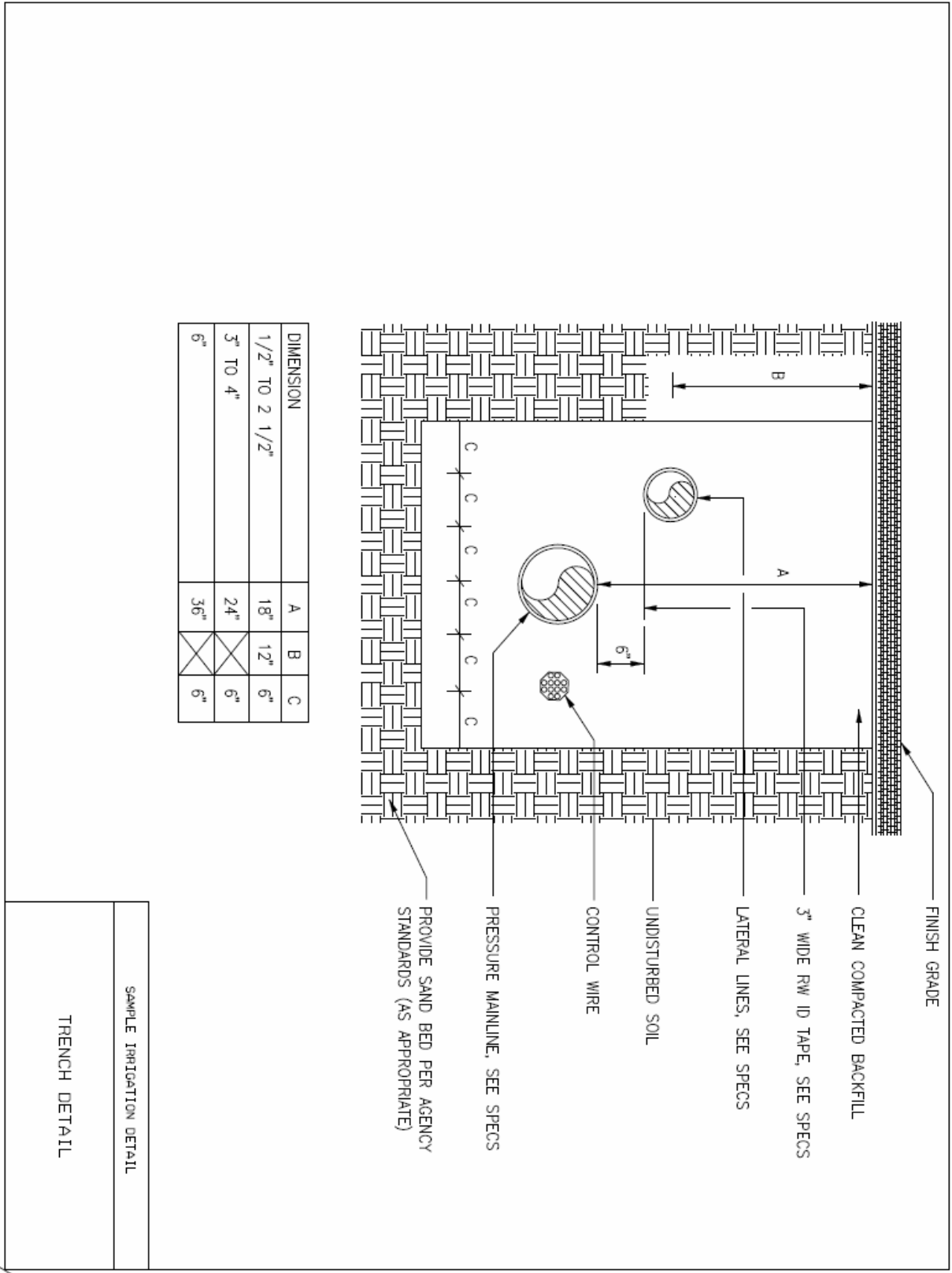
PER AGENCY REQUIREMENTS

SAMPLE IRRIGATION DETAIL
QUICK COUPLING VALVE

Sample Recycled Water Irrigation Advisory Sign Detail



Sample Trench for Recycled Water Irrigation Mainline and Laterals Detail

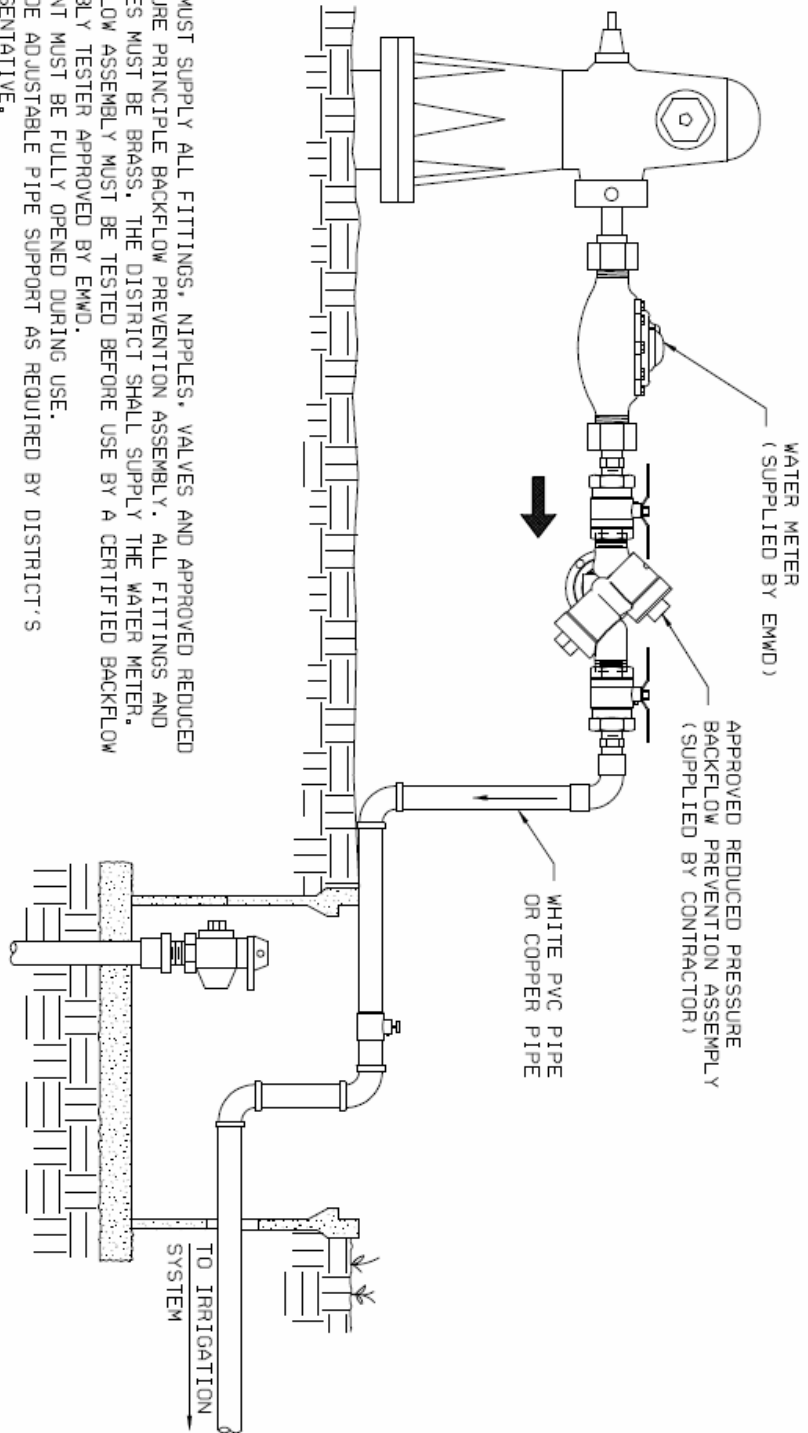


SAMPLE IRRIGATION DETAIL

TRENCH DETAIL

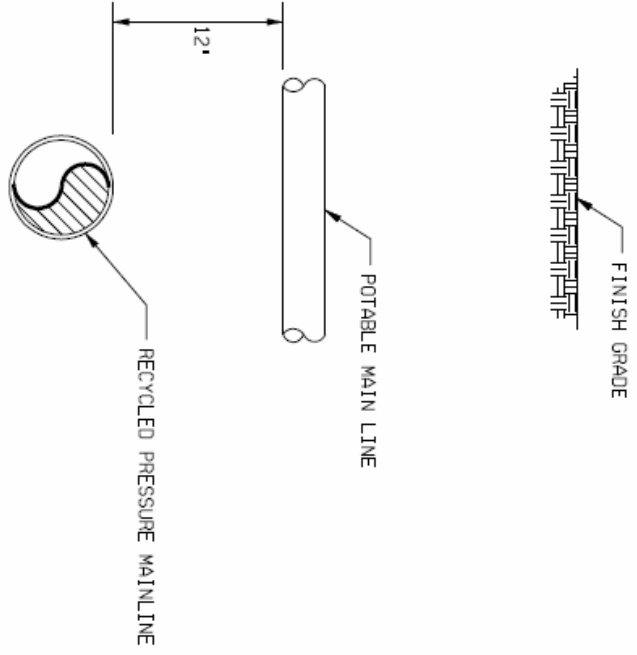
Sample Temporary Hi-Line Potable Water Service Connection Detail

- NOTES:**
- 1) USER MUST SUPPLY ALL FITTINGS, NIPPLES, VALVES AND APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY. ALL FITTINGS AND NIPPLES MUST BE BRASS, THE DISTRICT SHALL SUPPLY THE WATER METER.
 - 2) BACKFLOW ASSEMBLY MUST BE TESTED BEFORE USE BY A CERTIFIED BACKFLOW ASSEMBLY TESTER APPROVED BY EMD.
 - 3) HYDRANT MUST BE FULLY OPENED DURING USE.
 - 4) PROVIDE ADJUSTABLE PIPE SUPPORT AS REQUIRED BY DISTRICT'S REPRESENTATIVE.
 - 5) PRESSURE REGULATOR, IF NEEDED, SHALL BE INSTALLED DOWNSTREAM OF BACKFLOW PREVENTOR ASSEMBLY. USE COPPER PIPE.



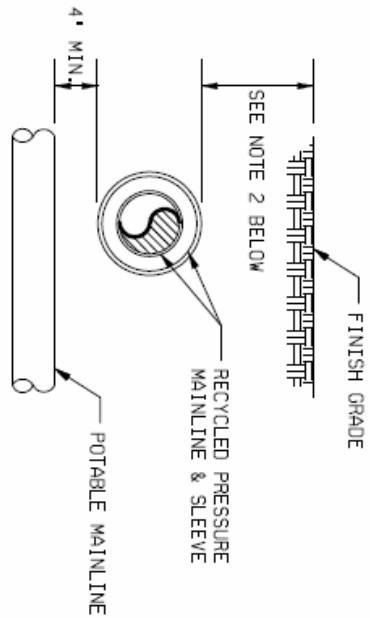
SAMPLE IRRIGATION DETAIL
TEMPORARY HI-LINE POTABLE WATER SERVICE CONNECTION

Sample Recycled Pipe / Potable Water Pipe Crossing Detail



RECYCLED WATER MAIN BELOW POTABLE MAIN

- NOTES:
- 1) SEPARATION BETWEEN POTABLE AND RECYCLED MAIN LINE SHALL MEET THE LATEST REQUIREMENTS OF CDHS GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES.
 - 2) THE MINIMUM CLEARANCE BETWEEN THE POTABLE AND RECYCLED PIPELINE IS 4'. SLEEVING IS REQUIRED FOR SEPARATION LESS THAN 12'.
 - 3) SLEEVING SHALL EXTEND TEN (10) FEET EACH SIDE FROM THE CENTERLINE OF THE POTABLE LINE, FOR TOTAL LENGTH OF TWENTY (20) FEET. THE SLEEVE SHALL BE PURPLE PVC CL 200 AND 2 TIMES THE DIAMETER OF THE RECYCLED MAINLINE.



RECYCLED WATER MAIN ABOVE POTABLE MAIN

- NOTES:
- 1) SEPARATION BETWEEN POTABLE AND RECYCLED MAINLINE SHALL MEET THE LATEST REQUIREMENTS OF CDHS GUIDANCE CRITERIA FOR THE SEPARATION OF WATER MAINS AND NON-POTABLE PIPELINES.
 - 2) MINIMUM COVER ABOVE MAINLINE PER EMD STD. SPC, SHALL BE MET AT ALL TIMES.
 - 3) SLEEVING IS REQUIRED AT ALL TIMES AND SHALL EXTEND TEN (10) FEET EACH SIDE FROM THE CENTERLINE OF THE POTABLE LINE, FOR A TOTAL LENGTH OF TWENTY (20) FEET. THE SLEEVE SHALL BE PURPLE PVC CL 200 AND TWO (2) TIMES THE DIAMETER OF THE RECYCLED MAINLINE.

SAMPLE IRRIGATION DETAIL
RECYCLED PIPE/ POTABLE WATER PIPE CROSSING

Sample Point-of-Connection (POC) Sequence Detail

