

SAN DIEGO MIRAMAR COLLEGE  
SOUTH CAMPUS PROJECT

SAN DIEGO COMMUNITY COLLEGE DISTRICT

SHEET INDEX:

NUMBER	TITLE
RW-1.0	RECYCLED WATER TITLE SHEET
LI-1.1	IRRIGATION PLAN
LI-1.2	IRRIGATION PLAN
LI-2.1	IRRIGATION SCHEDULE AND NOTES
LI-3.1	IRRIGATION DETAILS
LI-3.2	IRRIGATION DETAILS
LI-3.3	IRRIGATION DETAILS

- RECYCLED WATER NOTES:
1. TEMPORARY DOMESTIC WATER POINT OF CONNECTION SHALL BE THE FIRE HYDRANT ON THE NORTH SIDE OF THE EXISTING PARKING STRUCTURE, AS INDICATED ON IRRIGATION PLANS.
  2. DO NOT DRINK SIGNS SHALL BE LOCATED AS INDICATED ON IRRIGATION PLANS WITH ASTERISK.
  3. THERE ARE NO OUTDOOR EATING OR FOOD PREPARATION AREAS.
  4. PLANS WERE PREPARED ON OCTOBER 25, 2017.
  5. PRIOR TO EXCAVATION FOR THE IRRIGATION SYSTEM AND CONNECTION TO THE EXISTING RECYCLED WATER MAIN, PLEASE CONTACT JAMES O'CONNOR AT 619-533-3512 OR 619-358-3269.
  6. WATER DEMAND ESTIMATE IS 415,814 GAL/YR. OR 1.28 ACRE FEET/YR.

DECLARATION OF RESPONSIBLE CHARGE

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

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO AND THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS THE LANDSCAPE ARCHITECT OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

WIMMER YAMADA AND CAUGHEY  
3067 FIFTH AVENUE  
SAN DIEGO, CA 92103  
(619) 232-4004

BY: PATRICK CAUGHEY  
REGISTRATION NO: 2895  
EXPIRATION DATE: 08/31/18  
DATE: 11/29/17

APPROVED

City of San Diego  
Recycled Water Program  
Approved  
Antero Penafior  
2/12/2018  
Date  
Assistant Engineer-Civil  
Public Utilities Department

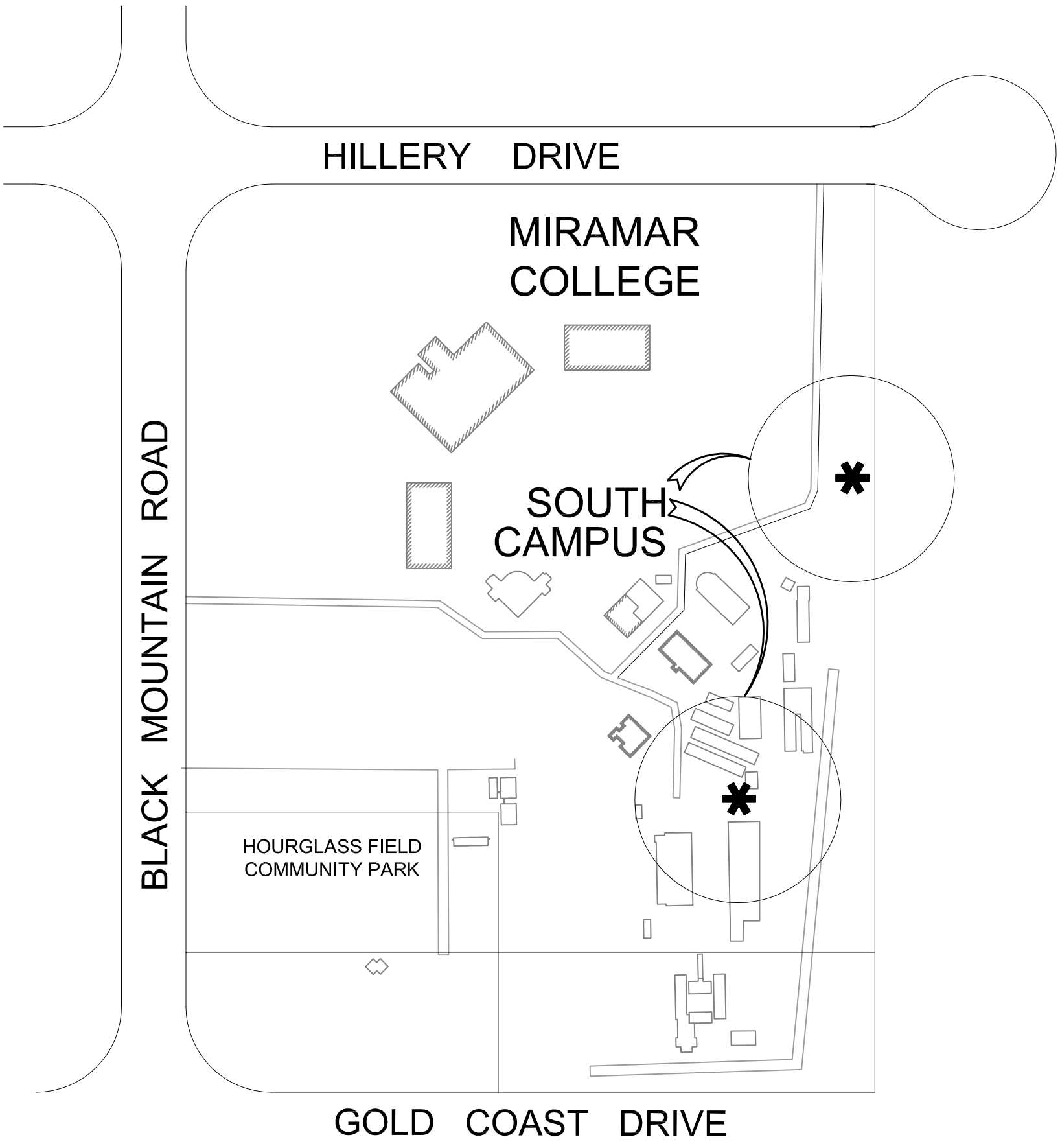
CITY OF SAN DIEGO WATER PRESSURE ZONES:

- 1) EXISTING RECYCLED WATER MAIN ON HILLERY DRIVE IS RECYCLED WATER PRESSURE ZONE No. 890 (ALL IRRIGATION SHOWN ON THESE PLANS IS RECYCLED WATER FROM THIS ZONE).
- 2) EXISTING POTABLE WATER IS PRESSURE ZONE No. 712.

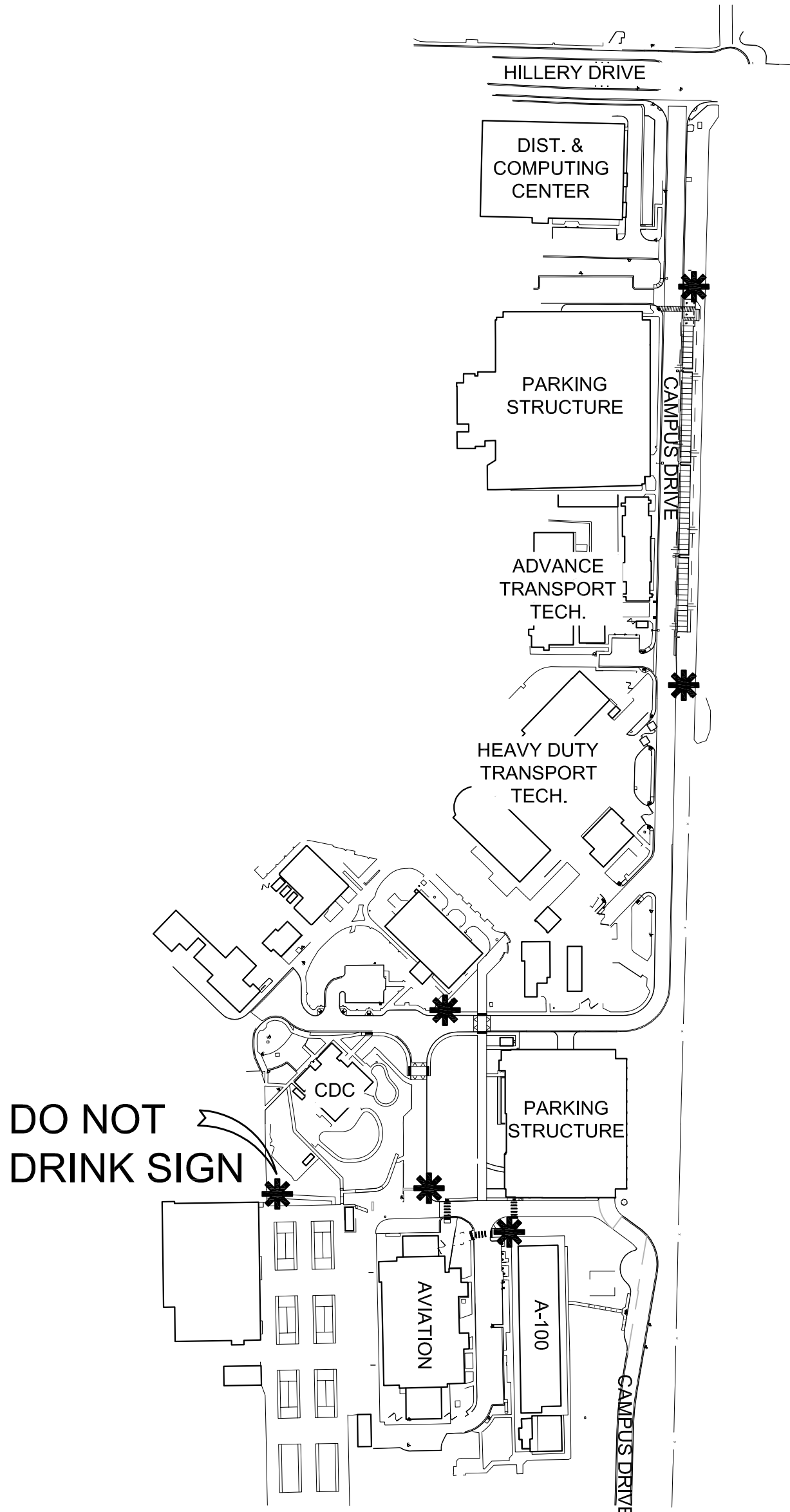
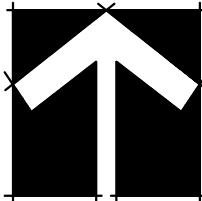
CITY OF SAN DIEGO  
WORK ORDER No. 539264

COUNTY OF SAN DIEGO  
Department of Environmental Health  
Land and Water Quality Division  
Glenn Leeks  
1/26/18  
DATE:  
GLENN LEEKS  
Environmental Health Specialist

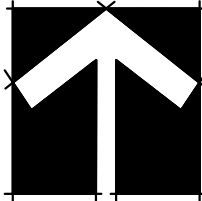
Landscape Architecture | Environmental Planning  
3067 Fifth Avenue, San Diego, California 92103-5440  
P 619-232-4004 F 619-232-0640 WWW.WYAC.COM



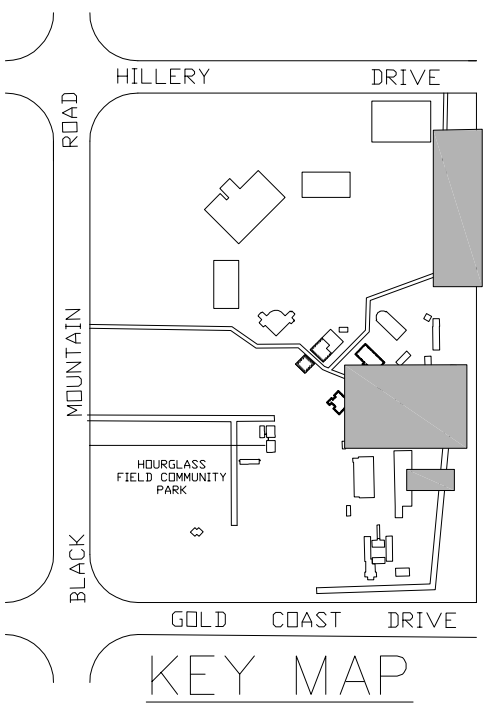
VICINITY MAP  
N.T.S.



DO NOT DRINK  
SIGN DIAGRAM  
N.T.S.



20 10 0 20 40 60  
GRAPHIC SCALE 1"= 20'-0"



KEY MAP

WYAC PROJECT #12-003.001

LANDSCAPE ARCHITECT OF WORK  
PATRICK CAUGHEY  
L.A. NO. 2895  
EXP. 08-31-16

APPROVED BY  
DATE  
D.S.A.

APPROVED BY  
DATE  
DISTRICT ARCHITECT

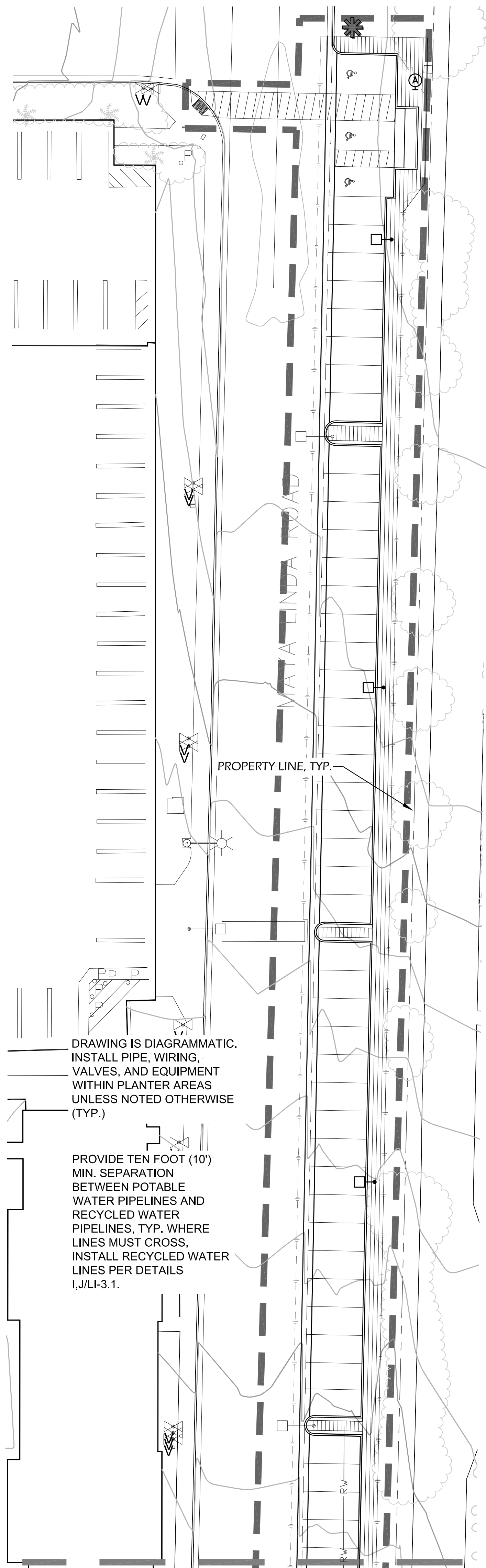
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RECYCLED WATER TITLE SHEET

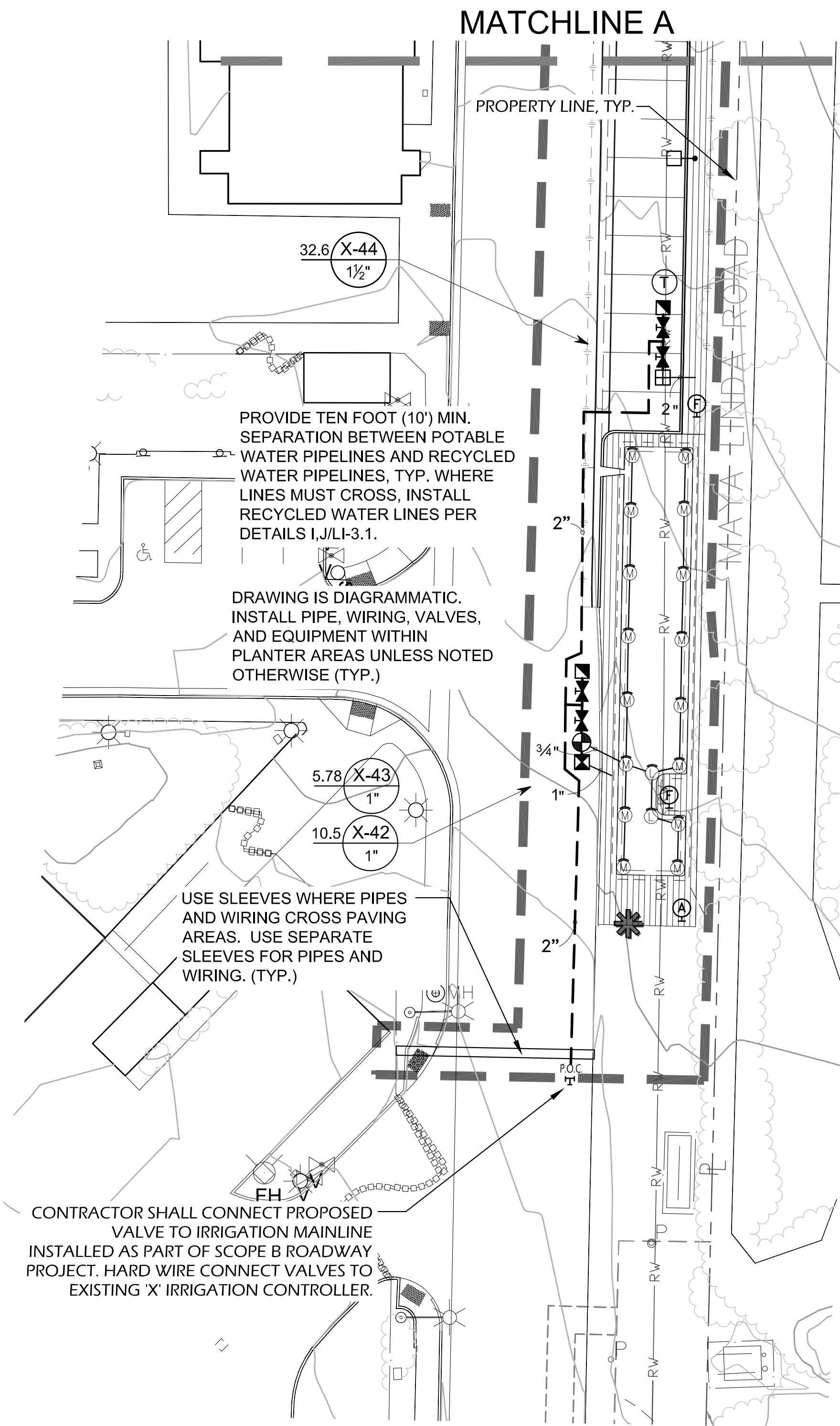
MIRAMAR COLLEGE  
INFRASTRUCTURE AND SITE  
DEVELOPMENT PHASE II ( SOUTH )  
SCOPE "B"

SAN DIEGO COMMUNITY COLLEGE DISTRICT

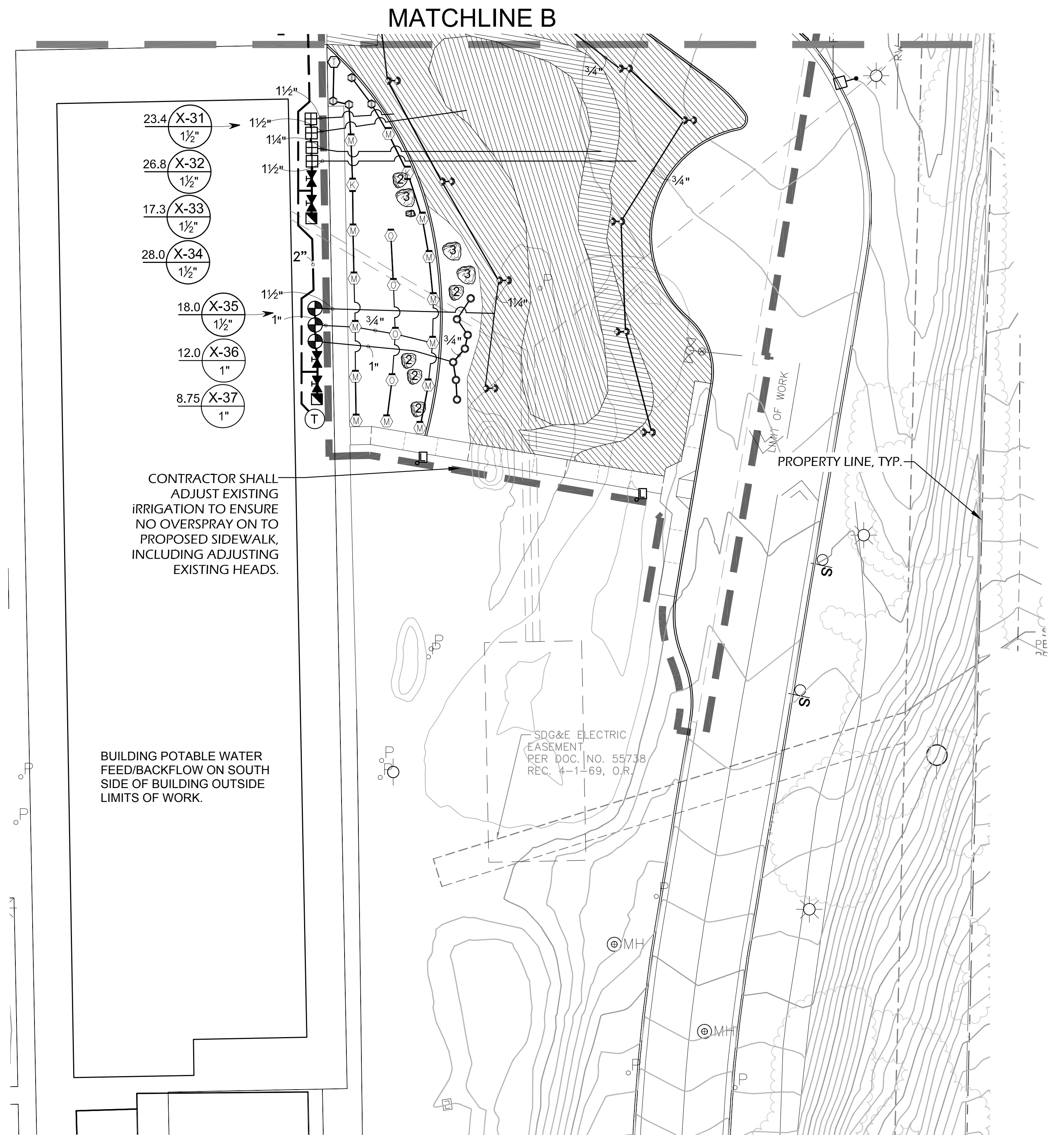
DATE  
SEPTEMBER 1, 2017  
SHEET  
RW-1.0  
OF 44



MATCHLINE A



MATCHLINE A



MATCHLINE B

**SPECIAL NOTES FOR MIRAMAR COLLEGE:**  
THE FOLLOWING NOTES PROVIDED BY THE DISTRICT FOR CONTRACTOR REFERENCE:

**CAUTION:**  
1. THE CONTRACTOR MAY ENCOUNTER OLD MILITARY ORDNANCE. THE CONTRACTOR SHALL NOTIFY THE DISTRICT IMMEDIATELY IF THEY ENCOUNTER ANY ORDNANCE.

2. GEOTECHNICAL INVESTIGATIONS FOR THE SURROUNDING IMPROVEMENTS DESCRIBE THE UNDERLYING SOILS AS SANDY CLAY OVER HIGHLY CEMENTED GRAVEL AND COBBLE CONGLOMERATE (LINDA VISTA FORMATION AND STADIUM CONGLOMERATE). NO GROUNDWATER WAS ENCOUNTERED. TRENCHING INTO THE LINDA VISTA FORMATION AND STADIUM CONGLOMERATE WILL BE DIFFICULT AND MAY REQUIRE HEAVY EQUIPMENT.

SEE SHEET LI-2.1 FOR IRRIGATION SCHEDULE AND NOTES.  
SEE SHEETS LI-3.1 AND LI-3.2 FOR IRRIGATION DETAILS AND CALCULATIONS.

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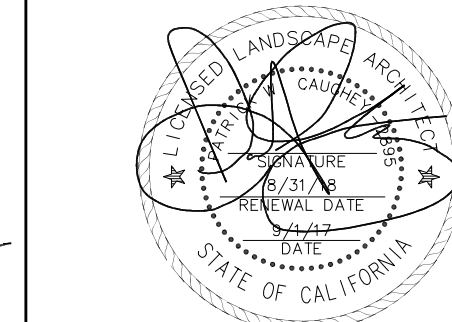
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CITY OF SAN DIEGO  
WORK ORDER No. 539264

WYAC PROJECT #12-003.001



LANDSCAPE ARCHITECT OF WORK  
PATRICK CAUGHEY L.A. NO. 2895 DATE EXP. 08-31-16

APPROVED BY

D.S.A.

APPROVED BY

DISTRICT ARCHITECT

DRAWN

LE

CHECKED

REVISION

**IRRIGATION PLAN**

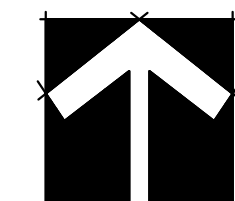
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DEVELOPMENT PHASE II ( SOUTH )  
SCOPE "B"

SAN DIEGO COMMUNITY COLLEGE DISTRICT

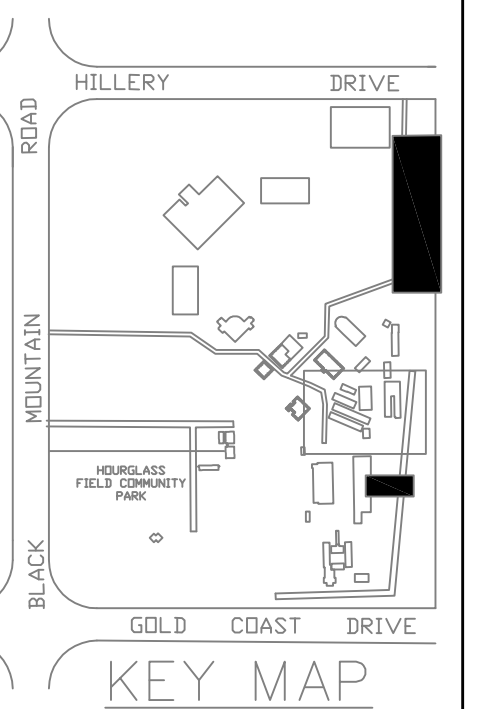
DATE  
SEPTEMBER 1, 2017

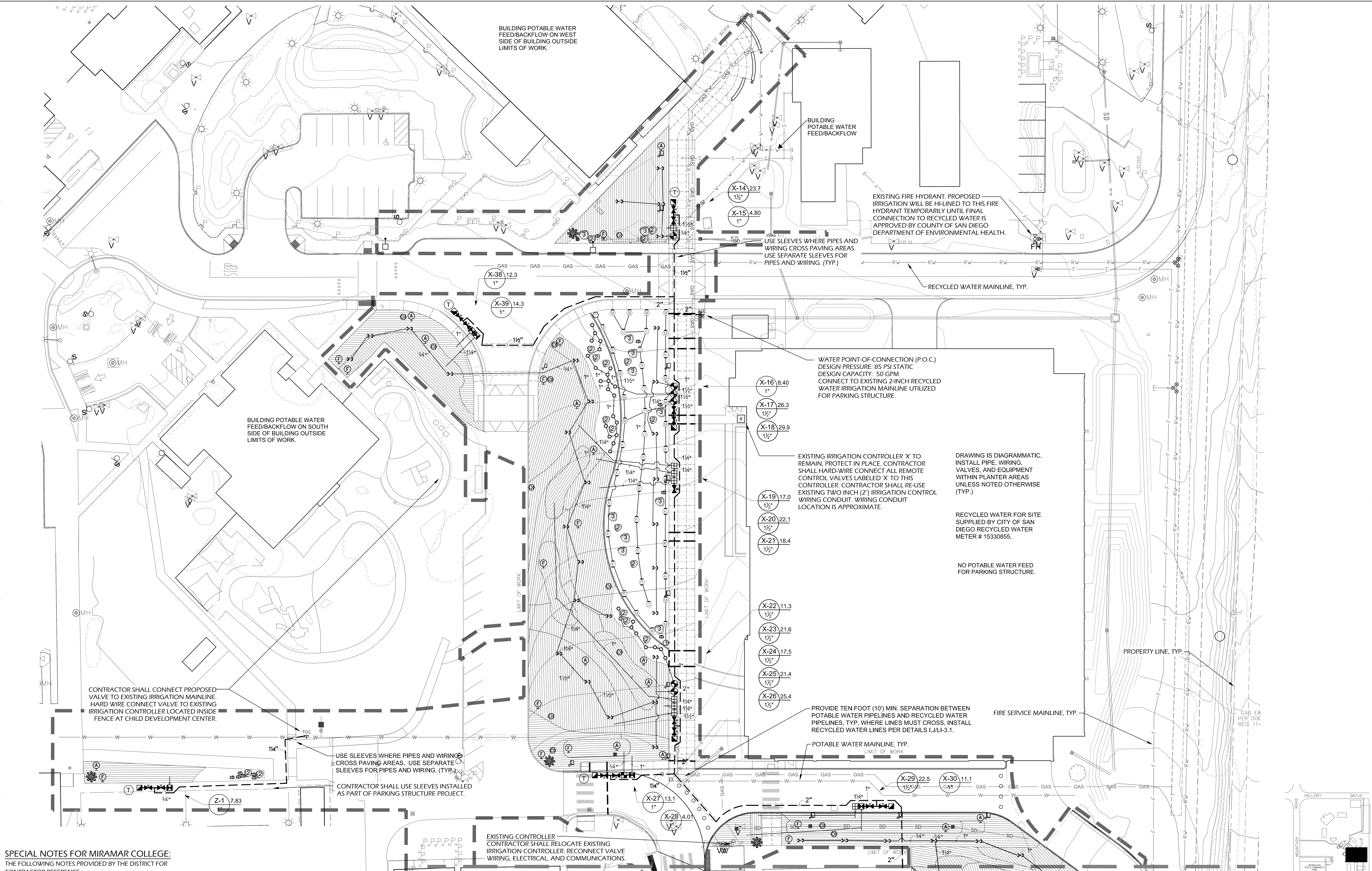
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LI-1.1  
OF 44



20 10 0 20 40 60  
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**SEE SHEET LI-2.1 FOR IRRIGATION SCHEDULE AND NOTES.  
SEE SHEETS LI-3.1 AND LI-3.2 FOR IRRIGATION DETAILS AND CALCULATIONS.**

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WYAC PROJECT #12-003.001

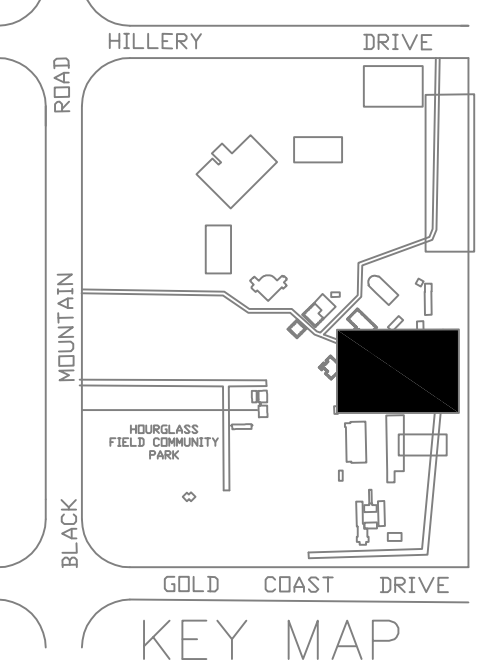
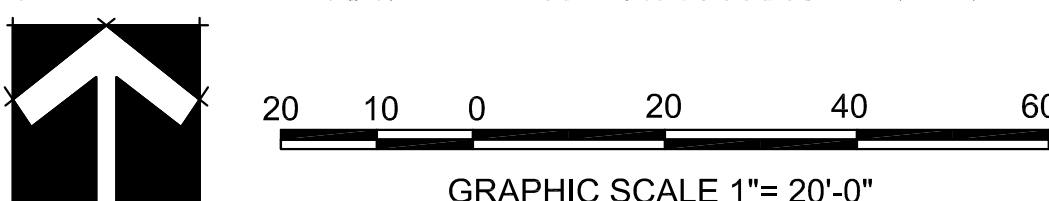
LANDSCAPE ARCHITECT OF WORK  
PATRICK CAUGHEY  
EXP. 08-31-16  
L.A. NO. 2895  
DATE

APPROVED BY  
D.S.A.

APPROVED BY  
DISTRICT ARCHITECT

DRAWN  
LE  
CHECKED  
BH  
REVISION

IRRIGATION PLAN			DATE
MIRAMAR COLLEGE INFRASTRUCTURE AND SITE DEVELOPMENT PHASE II ( SOUTH ) SCOPE "B"			SEPTEMBER 1, 2017
SAN DIEGO COMMUNITY COLLEGE DISTRICT			SHEET
			LI-1.2
			OF 44



IRRIGATION NOTES:

1. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM STATIC PRESSURE OF 85 PSI, AND THE MAXIMUM FLOW DEMAND OF 50 GPM AT THE WATER POINT OF CONNECTION (P.O.C.). THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION AND SHALL REPORT ANY DIFFERENCES BETWEEN THE DESIGN WATER PRESSURE AND THE ACTUAL WORKING PRESSURE READING AT THE IRRIGATION P.O.C. TO OWNER'S REPRESENTATIVE.
2. THIS DESIGN IS DIAGRAMMATIC. THESE DRAWINGS ARE INTENDED TO BE A SCHEMATIC REPRESENTATION OF THE FINISHED IRRIGATION SYSTEM. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING, AND ARCHITECTURAL FEATURES. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD ADJUSTMENTS TO ACCOMMODATE ACTUAL SITE CONDITIONS.
3. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THESE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF WORK.
4. CONTRACTOR SHALL NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THESE DRAWINGS WHEN IT IS OBVIOUS THAT FIELD OBSTRUCTIONS AND/OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MAY NOT HAVE BEEN CONSIDERED IN THE SYSTEM ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER'S REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT GIVEN, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
5. CONTRACTOR TO COORDINATE SLEEVING UNDER ALL PAVING WITH OTHER TRADES AS NECESSARY. NO TEES OR ELLS SHALL BE INSTALLED UNDER PAVING. ALL SLEEVES SHALL EXTEND A MINIMUM OF TWENTY-FOUR INCHES (24") BEYOND EDGE OF PAVING. ALL SLEEVING LOCATED UNDER PAVING SHALL BE TWO (2) TIMES THE OUTSIDE DIAMETER OF THE PIPE TO BE SLEEVED, MINIMUM TWO-INCH (2") DIAMETER. CONTRACTOR TO INSTALL METALLIC BACKED TAPE ALONG THE ENTIRE LENGTH OF THE SLEEVE, TWELVE INCHES (12") DIRECTLY ABOVE THE SLEEVE. TAPE SHALL BE MARKED "IRRIGATION" IN TWO INCH (2") CAPITAL LETTERS EVERY THREE FEET ALONG THE TAPE.
6. REMOTE CONTROL VALVES SHALL BE INSTALLED ADJACENT TO WALKWAYS UNLESS OTHERWISE NOTED.
7. CONCRETE THRUST BLOCKS SHALL BE USED ON ALL IRRIGATION MAINLINES WHERE CHANGES OF DIRECTION OF FORTY-FIVE (45) DEGREES OR MORE SHOULD OCCUR.
8. WHERE TREES, LIGHT STANDARDS, ETC., ARE AN OBSTRUCTION TO IRRIGATION COVERAGE, THEN PIPING AND SPRINKLER HEADS SHALL BE ADJUSTED AND/OR RELOCATED AS NECESSARY TO OBTAIN FULL COVERAGE AND MINIMUM OVERSPRAY. DO NOT EXCEED SPACING AS PER MANUFACTURER'S RECOMMENDATIONS.
9. CONTRACTOR SHALL FLUSH ALL MAIN LINES PRIOR TO INSTALLATION OF THE VALVES, AND SHALL FLUSH ALL LATERAL LINES PRIOR TO INSTALLATION OF THE SPRINKLER HEADS.
10. CONTRACTOR SHALL FINE-TUNE AND ADJUST ALL SPRINKLER SYSTEMS TO ACHIEVE OPTIMUM PERFORMANCE AND COMPLETE COVERAGE, WITH MINIMUM OVERSPRAY ONTO HARDSCAPE AREAS. THIS INCLUDES ADJUSTMENT OF THE FLOW CONTROL STEM AT EACH REMOTE CONTROL VALVE TO OBTAIN THE OPTIMUM OPERATING FLOW / PRESSURE FOR THAT SYSTEM, AND ADJUSTMENT OF ALL SPRINKLER NOZZLES.
11. COORDINATE IRRIGATION WORK WITH PLANTING PLANS TO AVOID CONFLICTING LOCATIONS BETWEEN PIPING AND PLANT PITS. SPECIMEN TREE LOCATIONS TAKE PRECEDENCE OVER IRRIGATION PIPING. LOCATE SPECIMEN TREES PRIOR TO TRENCHING FOR IRRIGATION PIPING.
12. ALL LATERAL END RUNS ARE AS PER CONTRACT DOCUMENTS.
13. TRENCH MARKER: ALL DIRECT BURIAL WIRES SHALL BE MARKED WITH A CONTINUOUS RED COLORED TRENCH MARKER TAPE PLACED NINE INCHES (9") BELOW FINISH GRADE DIRECTLY ABOVE THE BURIED WIRES. MARKER TAPE SHALL BE EQUAL TO "ALAMA TAPE" AS MANUFACTURED BY PAUL POTTER WARNING TAPE INC. TAPE SHALL BE FOUR INCHES (4") WIDE.
14. IRRIGATION SYSTEMS ARE TO BE INSTALLED AS DESIGNED AND IN ACCORDANCE WITH THE CRITERIA AND APPLICABLE STANDARDS AS OF THE APPROVED DATE OF THESE PLANS. ALL IRRIGATION SYSTEM COMPONENTS SHALL BE INSTALLED PER LOCAL CODE. CONTRACTORS SHALL SECURE ALL NECESSARY PERMITS.
15. FOR REMOTE CONTROL VALVE MANIFOLDS, BALL VALVE SIZE SHALL EQUAL THE SIZE OF THE LARGEST REMOTE CONTROL VALVE IN THE MANIFOLD.
16. PROVIDE PULL BOXES FOR CONTROL WIRING AT ALL CHANGES IN DIRECTION GREATER THAN FORTY-FIVE (45) DEGREES AND WHERE WIRE RUNS EXCEED THREE HUNDRED FEET (300') IN LENGTH. IN-LINE WIRE SPLICES SHALL BE MADE ONLY IN PULL BOXES, WITH WATERPROOF CONNECTORS.
17. CONTRACTOR SHALL PROVIDE ONE (1) SET OF EXTRA CONTROL WIRES PER MANIFOLD.
18. BACKFILL MATERIAL SHALL BE CLEAN AND FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), AND OBJECTS WITH SHARP EDGES.
19. CONTRACTOR SHALL INSTALL IN-LINE ANTI-DRAIN VALVES AS WARRANTED BY SITE CONDITIONS TO ALLEVIATE LOW-HEAD DRAINAGE.

RECYCLED WATER NOTES:

1. **TWO WORKING DAYS PRIOR** TO COMMENCEMENT OF ANY EXCAVATION ON SITE IMPROVEMENTS, CONTRACTOR SHALL NOTIFY CITY OF SAN DIEGO, PUBLIC UTILITIES DEPARTMENT, RECYCLED WATER SECTION AT **619.533.4259**.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF SAN DIEGO RULES AND REGULATIONS FOR RECYCLED WATER USE AND DISTRIBUTION WITHIN THE CITY OF SAN DIEGO AND THE COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH REQUIREMENTS.
3. ALL BACKFLOW PREVENTER INSTALLATIONS AND LOCATIONS SHALL BE SUBJECTED TO APPROVAL BY THE CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT.
4. ALL PUBLIC FACILITIES SUCH AS COMFORT STATIONS, DRINKING FOUNTAINS, ETC. SHALL BE PROTECTED FROM SPRAY AND/OR MISTING BY RECYCLED WATER.
5. NO PONDING, RUN-OFF OR OVER-SPRAY IS PERMITTED. ADJUST ALL SPRINKLER HEADS TO PREVENT OVER SPRAYING ONTO SIDEWALKS, STREETS AND PRIVATE LOTS.
6. HOSE BIBS ON RECYCLED WATER SYSTEMS ARE PROHIBITED IN PUBLIC AREAS. ALL POTABLE HOSE BIBS ONSIGHT MUST BE PROTECTED BY A HOSE BIB VACUUM BREAKER.
7. CROSS CONNECTION BETWEEN RECYCLED WATER LINES AND POTABLE IS STRICTLY PROHIBITED.
8. QUICK COUPLING VALVES USED IN RECYCLED WATER SYSTEMS SHALL CONFORM TO THE FOLLOWING:  
A. A TYPE APPROVED FOR RECYCLED WATER USE WITH A NORMAL WORKING PRESSURE OF 150 P.S.I.  
B. RECYCLED WATER QUICK COUPLER MUST BE DIFFERENT FROM POTABLE WATER QUICK COUPLER VALVES.  
C. IN ORDER TO PREVENT UNAUTHORIZED USE, THE VALVE SHALL BE OPERATED ONLY WITH A SPECIAL COUPLER KEY THAT DIFFERS FROM THE POTABLE KEY FOR OPENING AND CLOSING THE VALVE.  
D. THE COVER SHALL BE PERMANENTLY ATTACHED TO THE QUICK COUPLING VALVES. IT SHALL BE PURPLE RUBBER OR VINYL.  
E. LOCKING COVERS ARE REQUIRED.
9. NO SUBSTITUTION OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL BY THE CITY OF SAN DIEGO.
10. INSTALL APPROVED, METALLIC BACKED AND STENCILED WARNING TAPE OVER ALL PRESSURE RECYCLED WATER LINES. STENCIL AND COLOR CODE (PURPLE PANTONE 522) ALL IRRIGATION PIPE. ORIENT THE STENCILING TO THE TOP OF THE TRENCH.
11. PROVIDE A MINIMUM OF AT LEAST 18 INCHES OF COVERING OVER ALL WIRING AND PIPING.
12. OPERATE THE IRRIGATION SYSTEM ONLY BETWEEN 9:00 PM AND 6:00 AM, UNLESS THE CERTIFIED SITE SUPERVISOR IS PRESENT AT THE SITE DURING THE IRRIGATION PERIOD.
13. WHEN POTABLE WATER LINES AND RECYCLED WATER LINES CROSS, THE RECYCLED LINE SHALL BE INSTALLED WITHIN A PROTECTIVE SLEEVE. THE SLEEVE SHALL EXTEND 10 FEET FROM EACH SIDE, FROM THE CENTER LINE OF POTABLE LINE, FOR A TOTAL OF 20 FEET.
14. MAINTAIN A 10 FOOT HORIZONTAL SEPARATION BETWEEN POTABLE WATER AND RECYCLED WATER OR SEWER LINES. INSTALL SEWER LINE BELOW RECYCLED WATER LINE AND RECYCLED WATER LINE BELOW THE POTABLE WATER LINE.
15. PROVIDE A MINIMUM OF 12 INCHES OF VERTICAL SEPARATION BETWEEN POTABLE/ RECYCLED WATER/SEWER.
16. THE SITE IRRIGATION SYSTEMS AS SHOWN ON THESE DOCUMENTS WILL UTILIZE POTABLE WATER UNTIL SUCH TIME AS THE CITY OF SAN DIEGO MAKES RECYCLED WATER AVAILABLE TO THE SITE.
17. INSTALL PURPLE COLORED PANTONE #522 MATERIAL FOR ALL ABOVE GROUND IRRIGATION FACILITIES:  
  
- VALVE AND OTHER ON GRADE BOXES - INTEGRAL COLOR  
- BACKFLOW DEVICES - PAINTED 2 COATS OF ENAMEL  
- SPRINKLER HEADS - INTEGRAL COLOR PLASTIC
18. TAG ALL VALVES AND OTHER BELOW GRADE APPURTENANCES WITHIN BOXES WITH PERMANENT RECYCLED WATER LABELS IN BOTH ENGLISH AND SPANISH THAT IDENTIFY RECYCLED WATER IN USE ("RECYCLED WATER - DO NOT DRINK"). ATTACH THE LABEL WITH EITHER STAINLESS STEEL WIRE OR SELF LOCKING PLASTIC TIES.
19. THE REQUIRED INITIAL CROSS CONNECTION TEST SHALL BE DONE BY THE CITY OF SAN DIEGO PUBLIC UTILITIES DEPARTMENT AND MONITORED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY.
20. THE DESIGN LOCATIONS PROPOSED FOR RECYCLED WATER "DO NOT DRINK" SIGNS SHALL BE CALLED OUT ON THE PLANS.
21. AN ANNUAL CROSS CONNECTION INSPECTION WILL BE DONE BY THE CITY OF SAN DIEGO. COPIES OF THE INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTION PARTY. A CROSS CONNECTION TEST WILL BE PERFORMED EVERY FOUR YEARS.
22. PRIOR TO CONVERSION TO RECYCLED WATER, AN ON-SITE SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN PROPERTY, WITH THE BASIC SPECIFIC REQUIREMENTS OF RECYCLED WATER SYSTEMS. THE DESIGNATED SITE SUPERVISOR SHALL ATTEND AN APPROVED CLASS FOR RECYCLED WATER SITE SUPERVISORS. COPIES OF THE SITE SUPERVISORS CERTIFICATE, WITH A 24-HOUR CONTACT NUMBERS SHALL BE PROVIDED TO THE CITY OF SAN DIEGO AND THE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.
- IN CASE OF EMERGENCY CONTACT: ROY KINLEY AT 619-388-7823
- AFTER HOURS CONTACT: MIRAMAR COLLEGE POLICE DEPARTMENT DISPATCH AT 619-388-6406
23. A PHYSICAL SEPARATION SHALL BE PROVIDED BETWEEN ADJACENT AREAS IRRIGATED WITH RECYCLED WATER AND POTABLE WATER. SEPARATION SHALL BE PROVIDED BY DISTANCE, CONCRETE MOW STRIPS OR OTHER APPROVED METHODS.
24. CALL OUT ON THE PLANS IF THERE ARE OR ARE NOT ANY DRINKING FOUNTAINS AND/OR DESIGNATED OUTDOOR EATING AREAS ON THE SITE.
25. ALL PUBLIC AND PRIVATE POTABLE WATER MAINS INCLUDING FIRE MAINS AND ANY WATER WELLS AND WATER COURSES WITHIN THE RECYCLED WATER PROJECT SHALL BE SHOWN ON THE PLANS.
26. EDUCATE ALL MAINTENANCE PERSONNEL ON A CONTINUOUS BASIS OF THE PRESENCE OF RECYCLED WATER. PERSONNEL MUST BE INFORMED THAT RECYCLED WATER IS MEANT FOR IRRIGATION PURPOSES ONLY, AND IS NOT APPROVED FOR DRINKING PURPOSES, HAND WASHING, CLEANING OF TOOLS, ETC. GIVEN THE HIGH TURNOVER RATE OF EMPLOYEES IN THE LANDSCAPE INDUSTRY, IT IS IMPORTANT THIS INFORMATION BE DISSEMINATED ON AN ALMOST DAILY BASIS.
27. PRIOR TO INSTALLATION OF ANY RECYCLED WATER WORK, IT MUST BE INSPECTED BY RECYCLED WATER PROGRAM PERSONNEL. THE INITIAL CROSS CONNECTION TEST SHOULD BE PERFORMED USING POTABLE WATER WITH AN APPROVED BACKLOW DEVICE.
28. ALL INITIAL IRRIGATION SHALL USE POTABLE WATER. NO RECYCLED WATER SHALL BE USED UNTIL THE SITE HAS PASSED THE CROSS- CONNECTION TEST AND HAS BEEN APROVED BY THE CITY OF SAN DIEGO AND COUNTY OF SAN DIEGO.




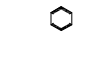
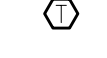






Wimmer Yamada and Caughey





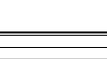

Landscapce Architectue | Environmental Planning  
3067 Fifth Avenue, San Diego, California 92103-0840  
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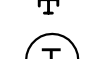



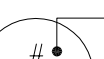


CITY OF SAN DIEGO WATER PRESSURE ZONES:

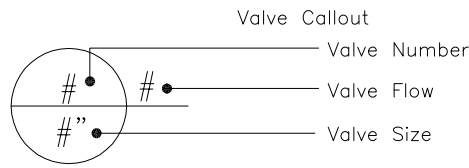
- 1) EXISTING RECYCLED WATER MAIN ON HILLERY DRIVE IS RECYCLED WATER PRESSURE ZONE No. 890 (ALL IRRIGATION SHOWN ON THESE PLANS IS RECYCLED WATER FROM THIS ZONE).
- 2) EXISTING POTABLE WATER IS PRESSURE ZONE No. 712.

CITY OF SAN DIEGO  
WORK ORDER No. 539264

IRRIGATION SCHEDULE			
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	DETAIL
	HUNTER MP1000 PROS-06-PRS40-CV-R TURF ROTATOR, 6" (15.24 CM) POP-UP WITH CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY, M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC.	40	O/LI-3.2
	HUNTER MP2000 PROS-06-PRS40-CV-R TURF ROTATOR, 6" (15.24 CM) POP-UP WITH CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY, K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	40	O/LI-3.2
	HUNTER MP3000 PROS-06-PRS40-CV-R TURF ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY, B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	40	O/LI-3.2
	HUNTER MP800SR PROS-06-PRS40-CV-R TURF ROTATOR, 6.0" POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY, ADJ=ORANGE AND GRAY ( ARC 90-210), 360=LIME GREEN AND GRAY (ARC 360)	40	O/LI-3.2
	HUNTER MP CORNER PROS-06-PRS40-CV-R TURF ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY, T=TURQUOISE ADJ ARC 45-105.	40	O/LI-3.2
	HUNTER MP1000 PROS-12-PRS40-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH CHECK VALVE, PURPLE CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE, M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC ON PRS40 BODY.	40	O/LI-3.2
	HUNTER MP2000 PROS-12-PRS40-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE, K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC ON PRS40 BODY.	40	O/LI-3.2
	HUNTER MP800SR PROS-12-PRS40-CV-R SHRUB ROTATOR, 12.0" POP-UP WITH CHECK VALVE, RECLAIMED PURPLE BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY, OR = ORANGE ADJ ARC 90 TO 210.	40	O/LI-3.2
	HUNTER MP CORNER PROS-12-PRS40-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH CHECK VALVE, PURPLE CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE, T=TURQUOISE ADJ ARC 45-105 ON PRS40 BODY.	40	O/LI-3.2
	HUNTER MP STRIP PROS-12-PRS40-CV-R SHRUB ROTATOR, 12" (30.48 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, RECLAIMED BODY CAP, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE, LST=IVORY LEFT STRIP, SST=BROWN SIDE STRIP, RST=COPPER RIGHT STRIP ON PRS40 BODY.	40	O/LI-3.2
	RAIN BIRD 1812-SAM-5 SERIES STREAM W/ PCS STREAM BUBBLER 12.0" POPUP WITH CHECK VALVE AND PRESSURE COMPENSATING SCREEN, PURPLE CAP.	30	N/LI-3.2

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	DETAIL
	RAIN BIRD XCZF-100-PRF MEDIUM FLOW DRIP CONTROL KIT, 1" DV VALVE WITH 1" PRESSURE REGULATING FILTER AT 40PSI, AND MDGF FITTING. 3GPM-15GPM.	R/LI-3.2
	RAIN BIRD XCZ-150-PRB-COM HIGH FLOW CONTROL ZONE KIT, FOR LARGE COMMERCIAL DRIP ZONES, 1-1/2" PESB VALVE WITH TWO 1" PRESSURE REGULATING (40PSI) QUICK-CHECK BASKET FILTERS. FLOW RANGE: 15-40GPM.	R/LI-3.2
	RAIN BIRD MDGFCFAP DRIPLINE FLUSH VALVE PURPLE CAP IN COMPRESSION FITTING COUPLER. FOR NON-POTABLE WATER USE.	S/LI-3.2
	RAIN BIRD ARV050 1/2" AIR RELIEF VALVE, MADE OF QUALITY RUST-PROOF MATERIALS, WITH A 6.0" DRIP VALVE BOX (SEB 7XB EMITTER BOX). USE WITH INSTALLATION BELOW SOIL, THE VALVE WILL ALLOW AIR TO ESCAPE THE PIPELINE, THUS PREVENTING WATER HAMMER OR BLOCKAGE.	T/LI-3.2
	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6" FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI, INCLUDES 16" OF 1/4" DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED.	U/LI-3.2
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-8-06-12 (12) XFS SUB-SURFACE PRESSURE COMPENSATING LANDSCAPE DRIPLINE W/COPPER SHIELD TECHNOLOGY. 0.6GPH EMITTERS AT 12.0" O.C. DRIPLINE LATERALS SPACED AT 12.0" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. PURPLE TUBING FOR NON-POTABLE WATER.	V/LI-3.2 W,X,Y/LI-3.3

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	DETAIL
	RAIN BIRD PESBR-PR-S0 ELECTRIC REMOTE CONTROL VALVE FOR RECLAIMED WATER APPLICATIONS WITH SCRUBBER MECHANISM AND PRESSURE REGULATOR.	F/LI-3.1
	NELSON #7645 QUICK COUPLER VALVE, RED BRASS, ACME THREAD WITH PURPLE LOCKING COVER WITH NELSON #7641 QUICK COUPLER VALVE KEY, RED BRASS ACME THREAD, WITH HOSE SWIVEL	G/LI-3.1
	NIBCO 4660S BALL VALVE THREADED PLASTIC BALL VALVE, PURPLE HANDLE.	E/LI-3.1
	SUPERIOR 950-200-DW-IB-RW 2" 2" MASTER VALVE, NORMALLY CLOSED	C/LI-3.1
	CALSENSE ET2000E ET2000E-48-EN-FL-RRE-SSE-R/FM28 IN STAINLESS STEEL ENCLOSURE	A/LI-3.1
	CALSENSEFM1.5B FM-1.5B INCLUDED IN CONTROLLER ASSEMBLY	B/LI-3.1
	RECYCLED WATER SIGN	M/LI-3.2
	POINT OF CONNECTION	-
	CROSS CONNECTION TEST STATION SEE CROSS CONNECTION DIAGRAM LI-3.3.	HI/LI-3.1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 AND CLASS 315 PVC SCHEDULE 40 TO 1-1/2", PVC CLASS 315 SDR 13.5 FOR PIPES 2" AND LARGER, ONLY LATERAL TRANSITION PIPE SIZES 1" AND ABOVE ARE INDICATED ON THE PLAN, WITH ALL OTHERS BEING 3/4" IN SIZE, PURPLE COLOR.	L/LI-3.1
	IRRIGATION MAINLINE: PVC SCHEDULE 40 AND CLASS 315 PVC SCHEDULE 40 TO 1-1/2", PVC CLASS 315 SDR 13.5 FOR PIPES 2" AND LARGER, PURPLE COLOR.	L/LI-3.1
	PIPE SLEEVE: PVC SCHEDULE 40 AND CLASS 315 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	K/LI-3.1



IRRIGATION SCHEDULE AND NOTES

MIRAMAR COLLEGE  
INFRASTRUCTURE AND SITE  
DEVELOPMENT PHASE II ( SOUTH)  
SCOPE "B"

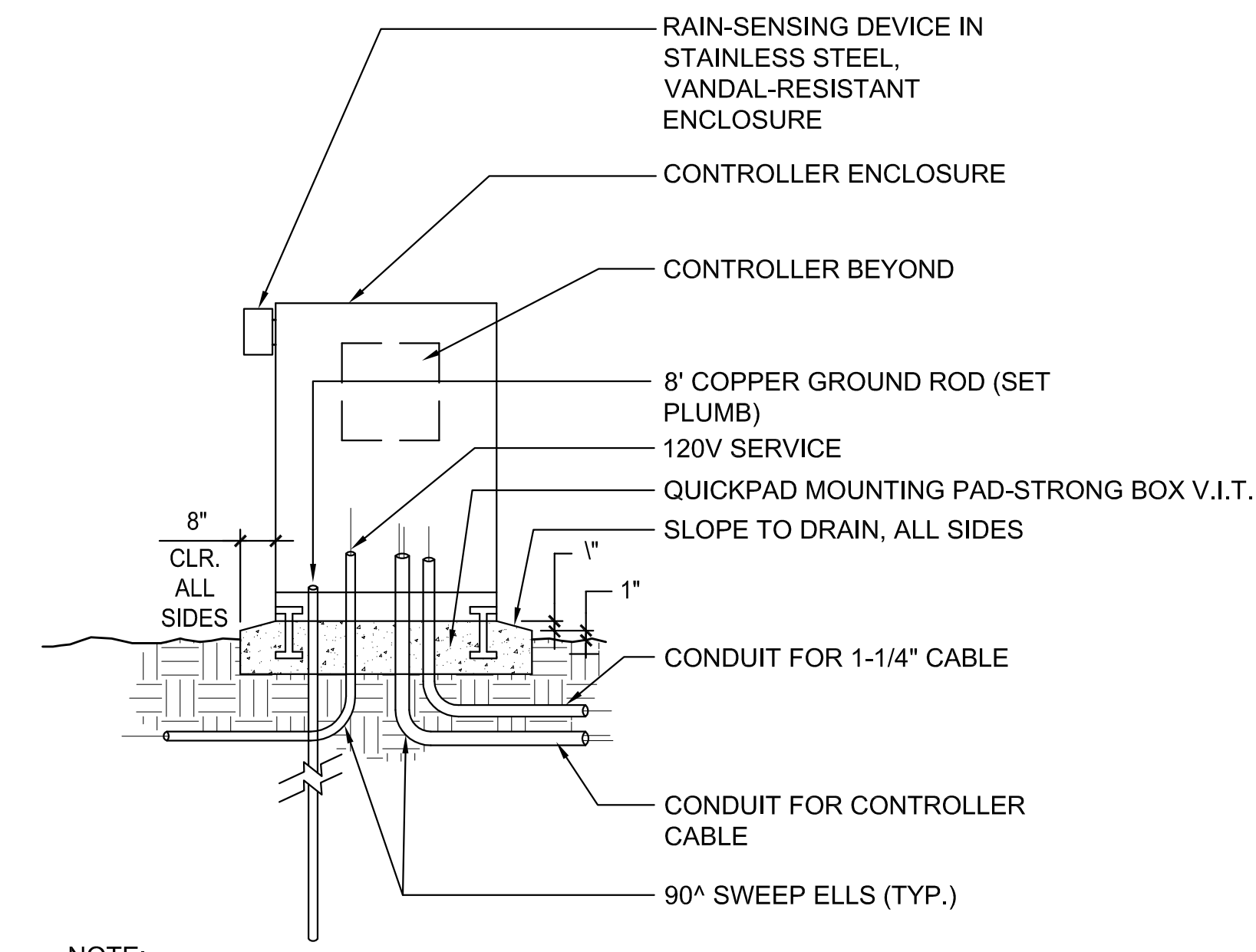
DATE  
SEPTEMBER 1, 2017

SHEET

LI-2.1

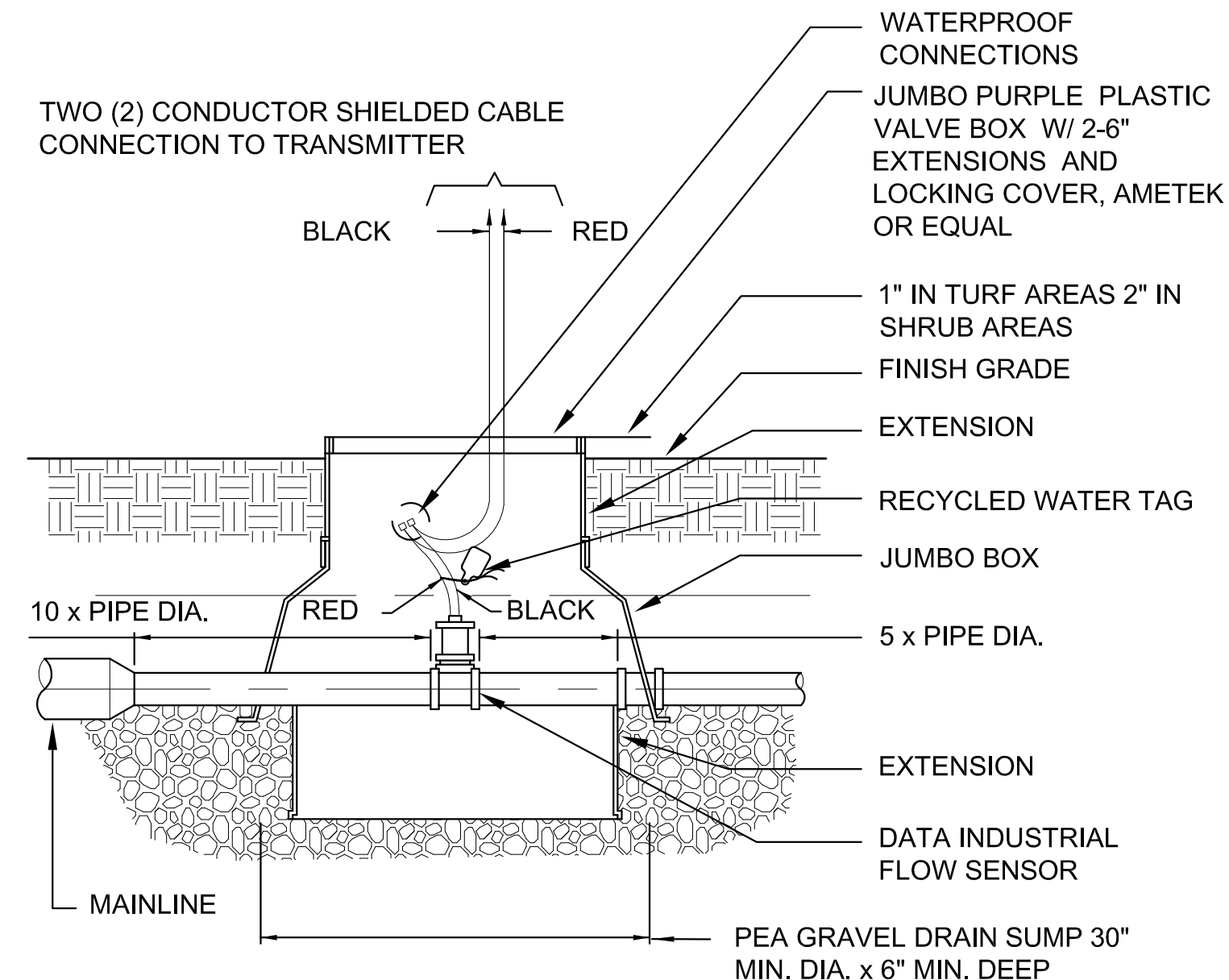
SAN DIEGO COMMUNITY COLLEGE DISTRICT

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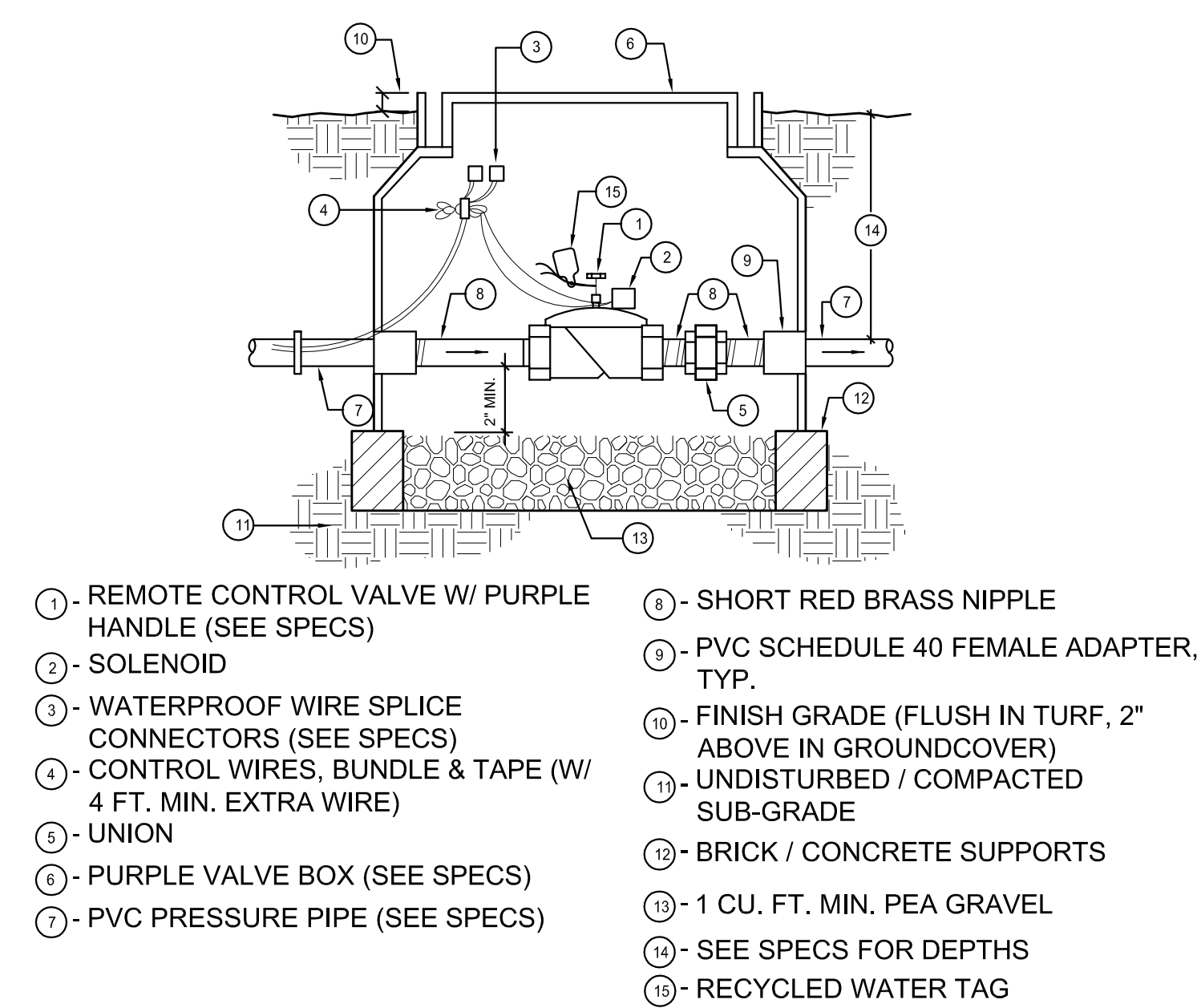


NOTE:  
INSTALL PER MANUFACTURER'S DETAILS AND SPECIFICATIONS.

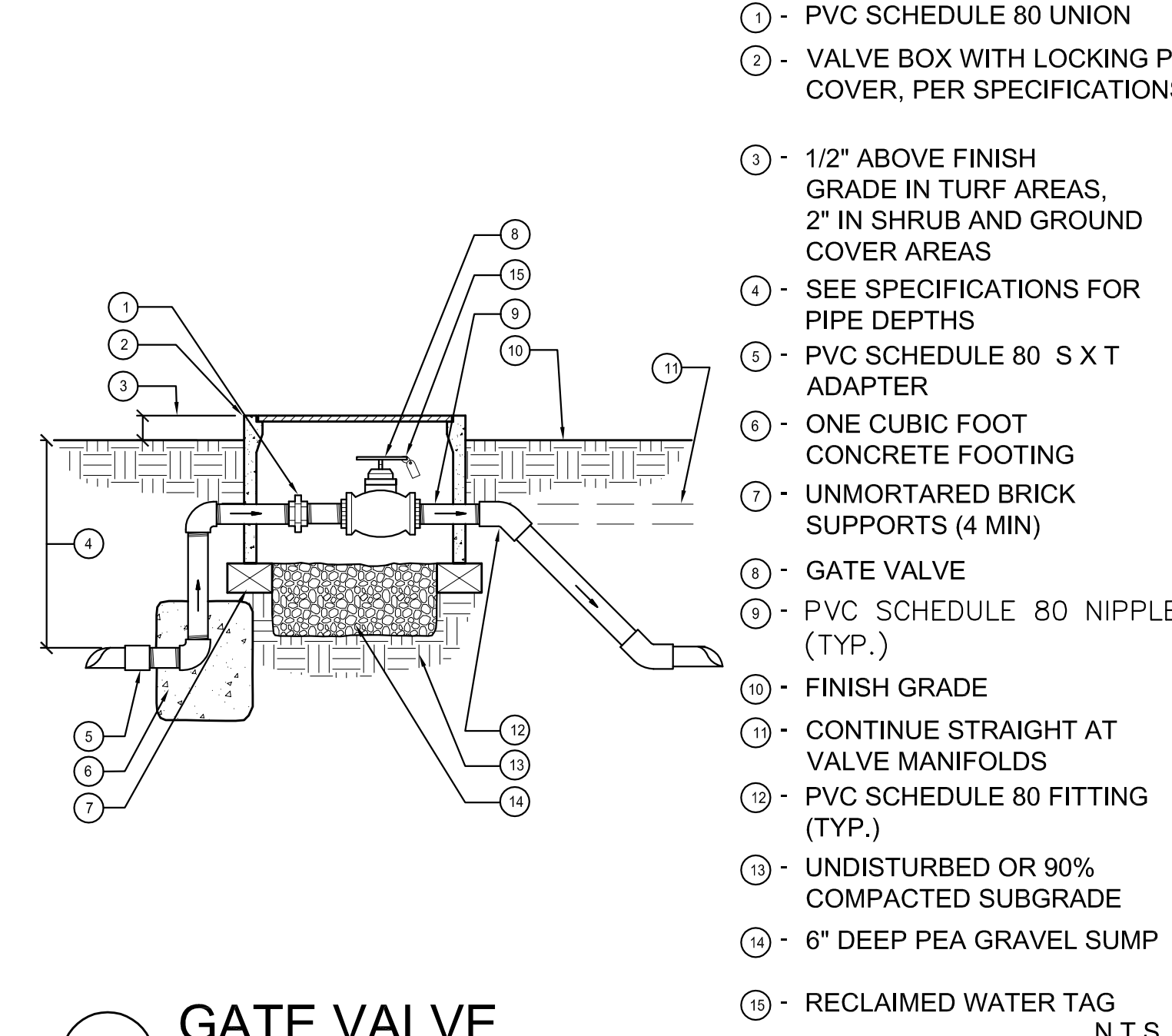
**A** **CONTROLLER ASSEMBLY** N.T.S.  
PEDESTAL MOUNT SECTION



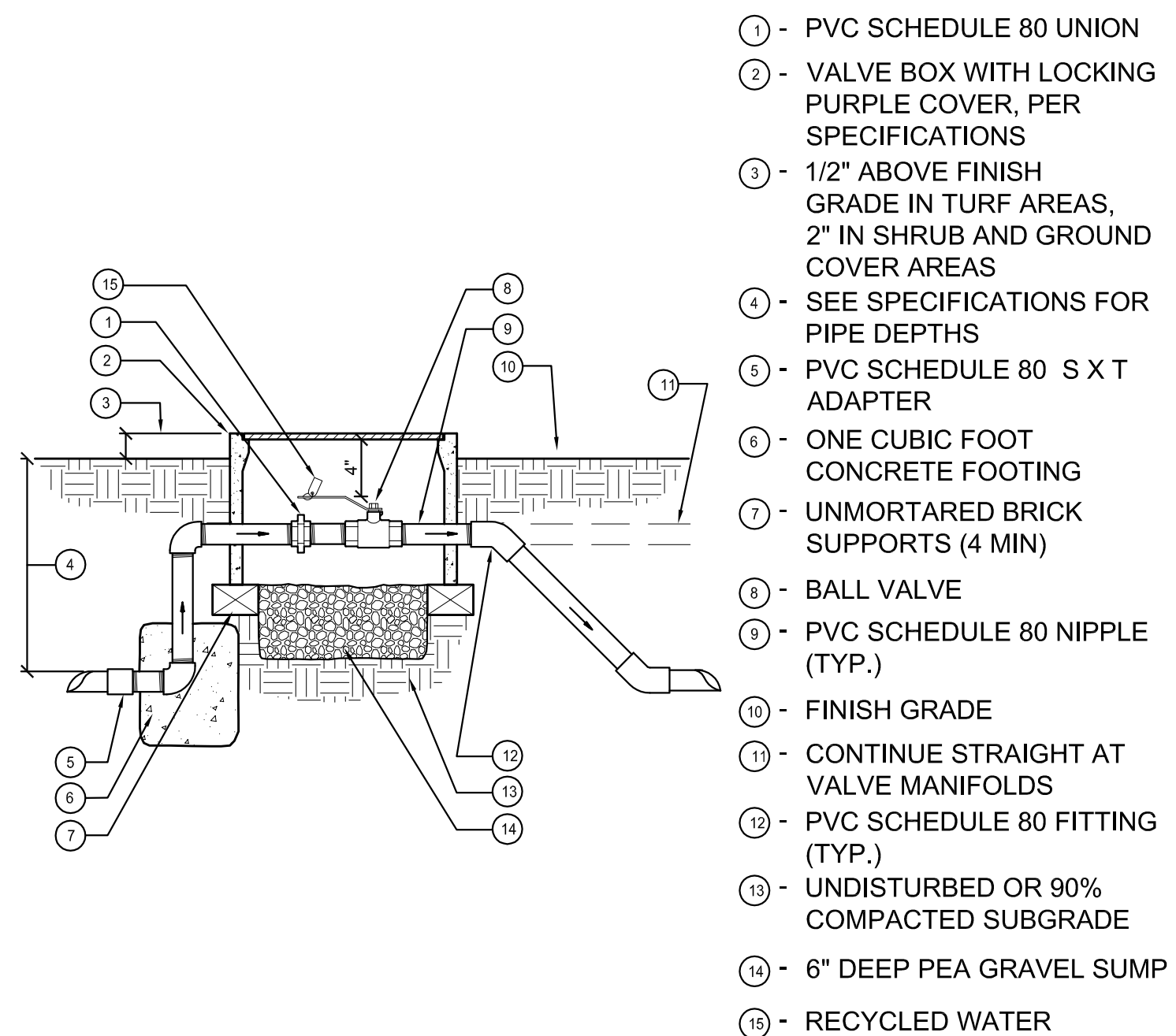
**B** **FLOW SENSOR INSTALLATION** N.T.S.  
RECYCLED WATER SECTION



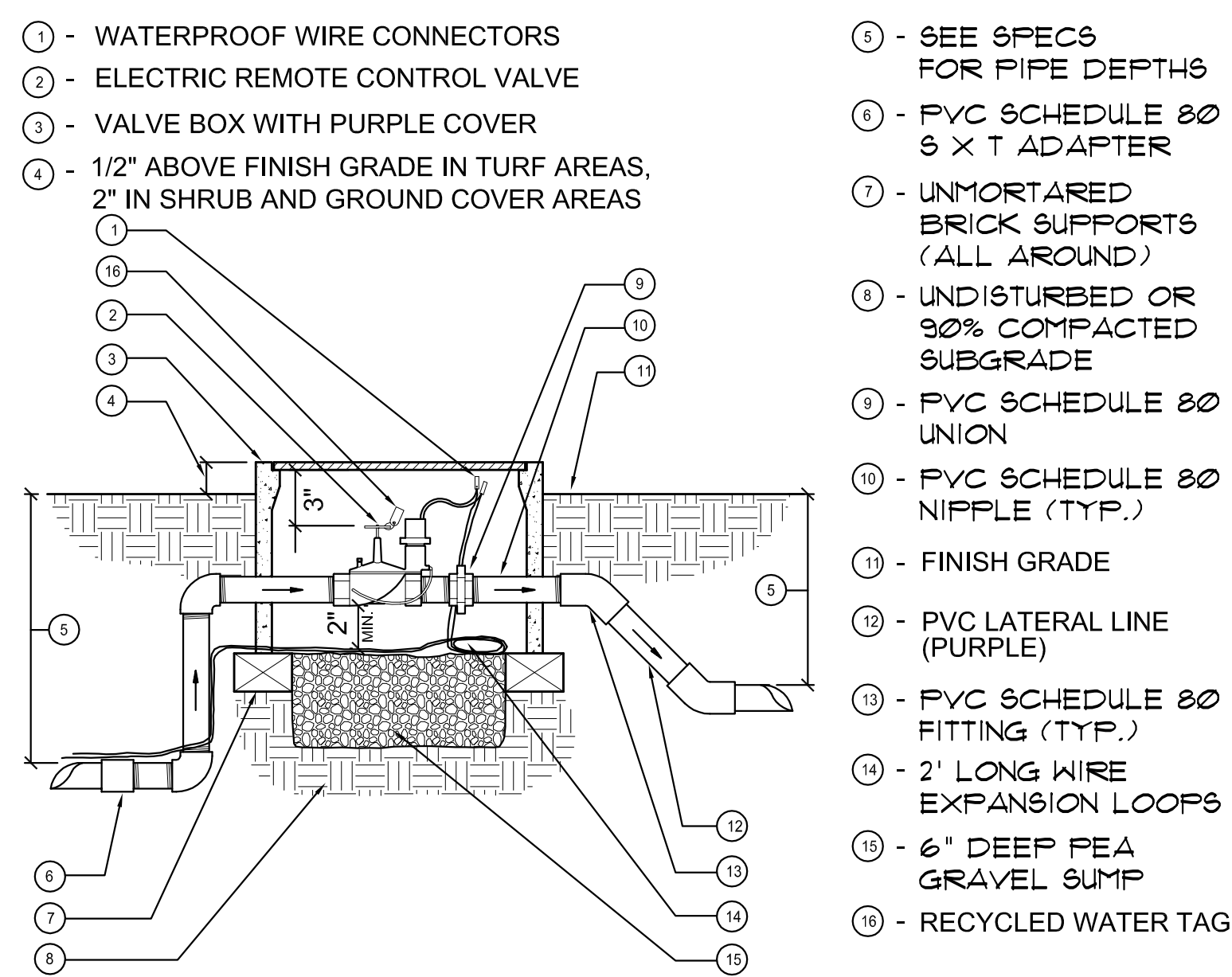
**C** **MASTER CONTROL VALVE** N.T.S.  
RECYCLED WATER SECTION



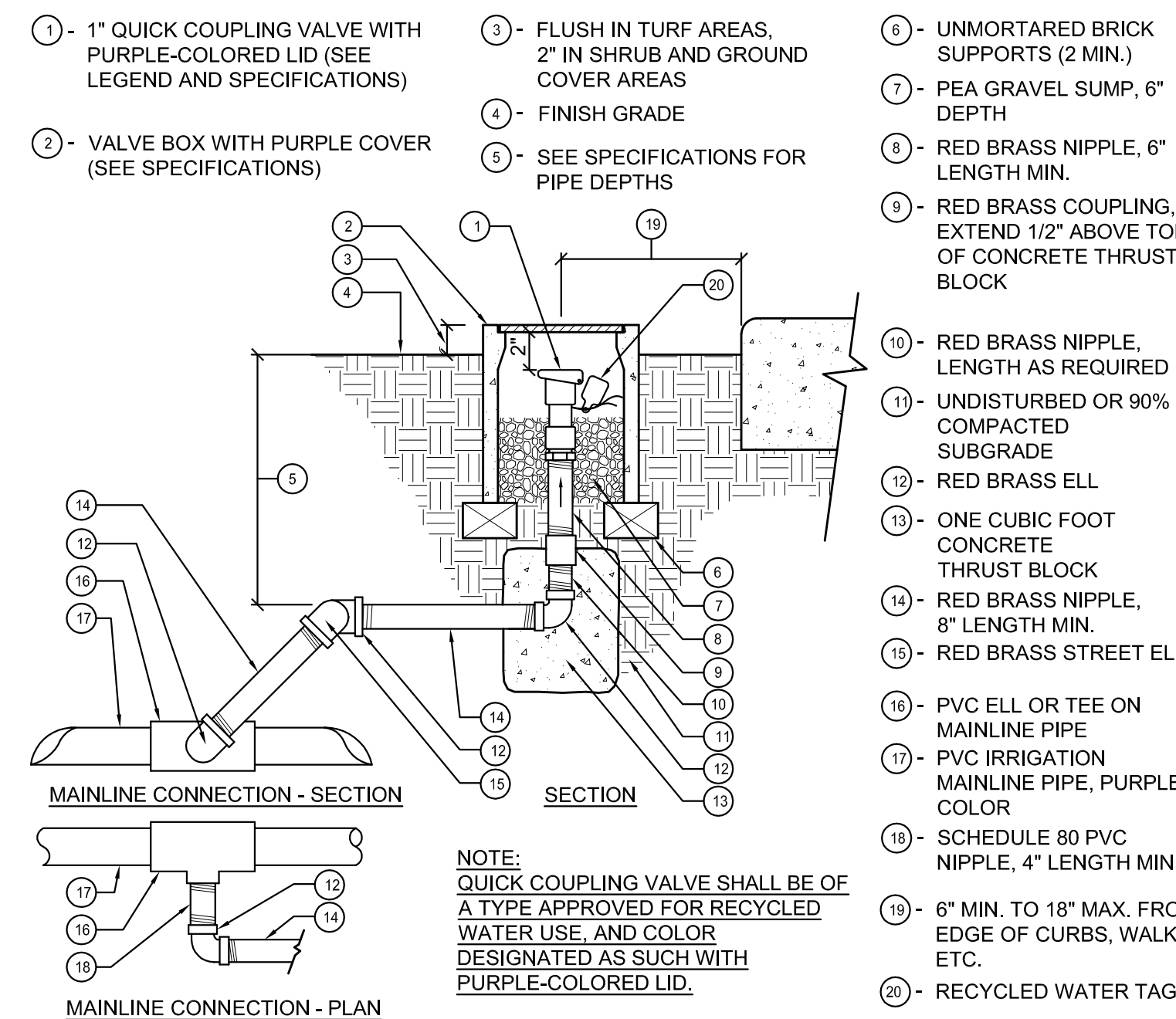
**D** **GATE VALVE** N.T.S.  
RECYCLED WATER SECTION



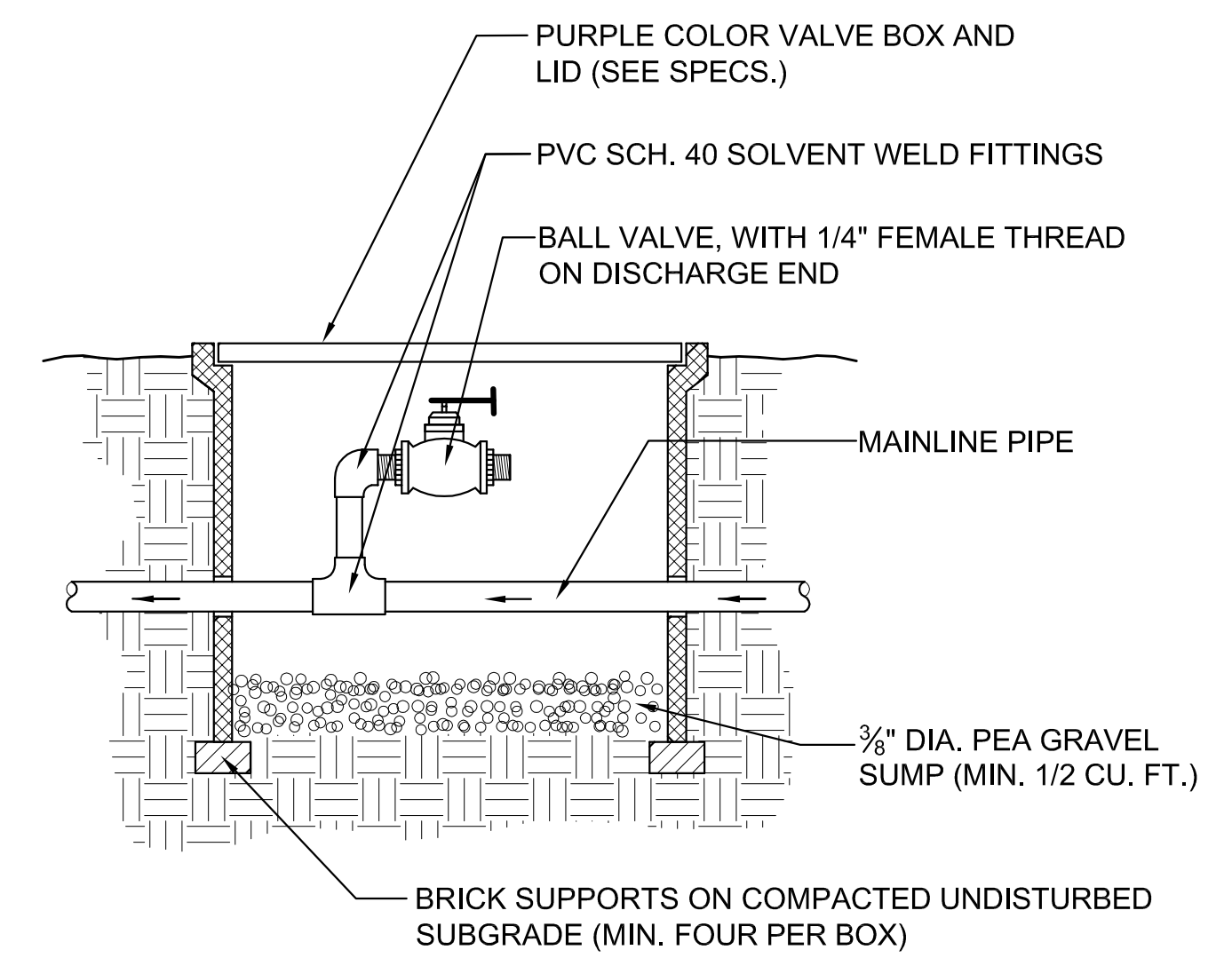
**E** **BALL VALVE** N.T.S.  
RECYCLED WATER SECTION



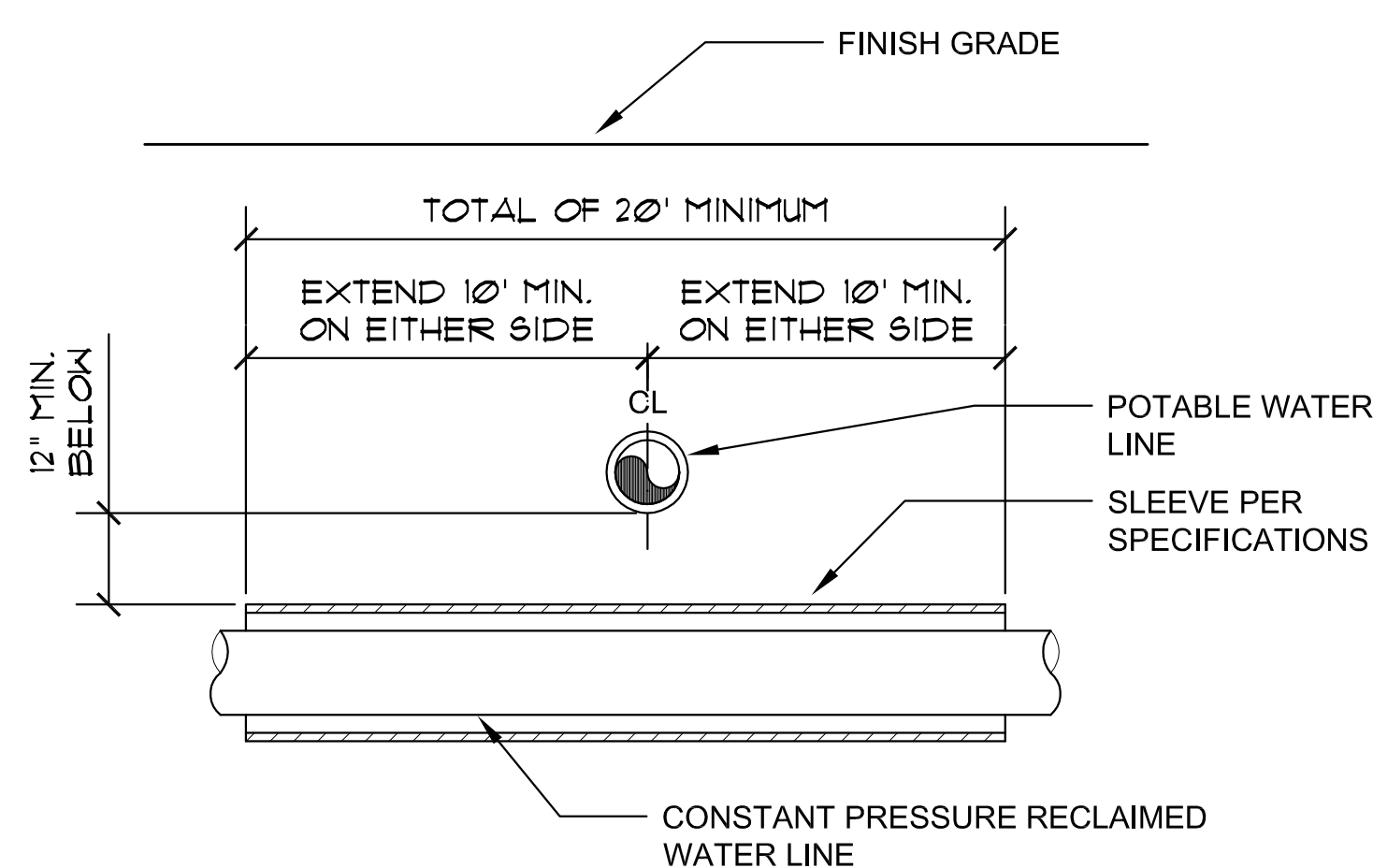
**F** **REMOTE CONTROL VALVE** N.T.S.  
RECYCLED WATER SECTION



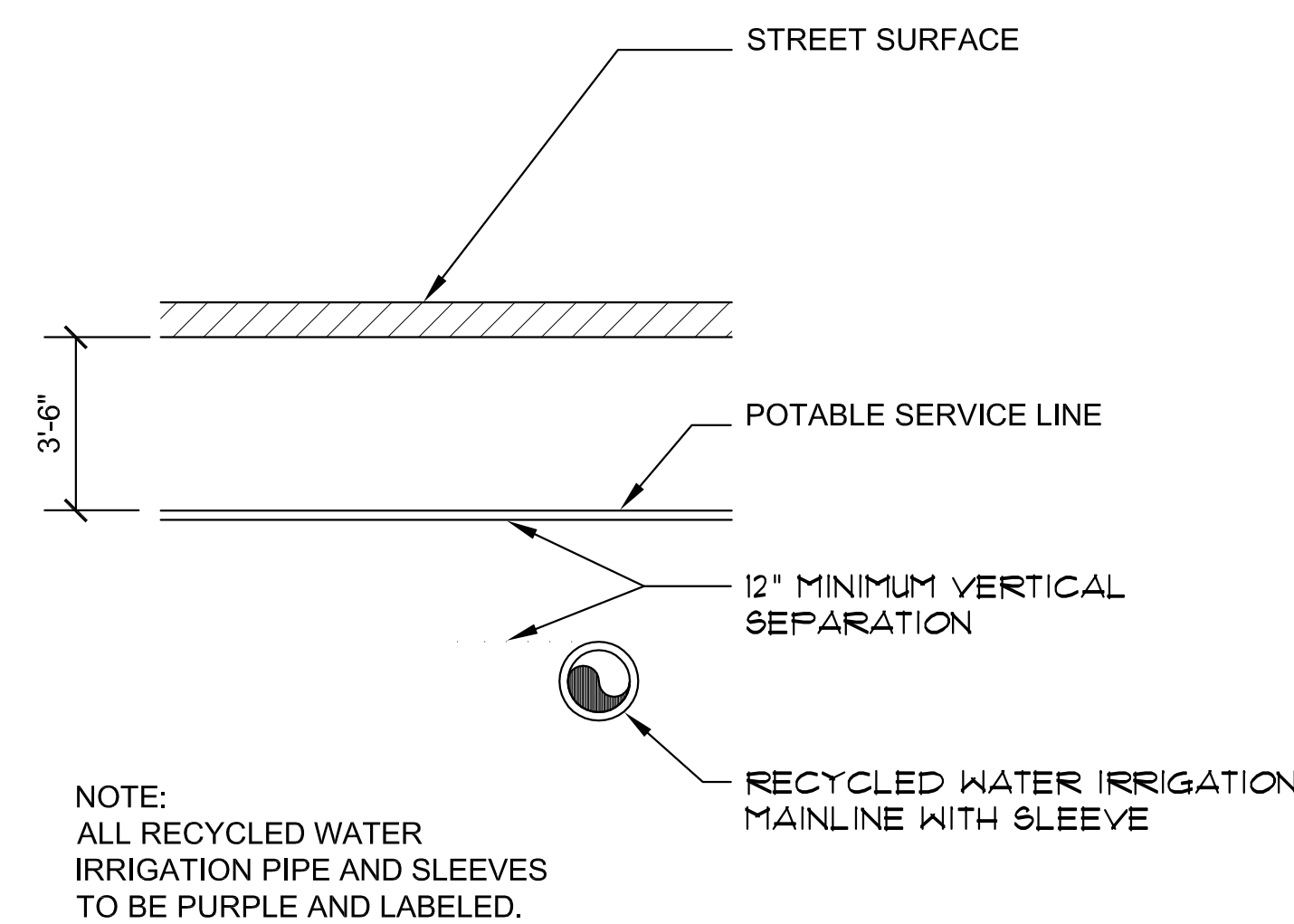
**G** **QUICK COUPLING VALVE** N.T.S.  
RECYCLED WATER SECTION AND PARTIAL PLAN



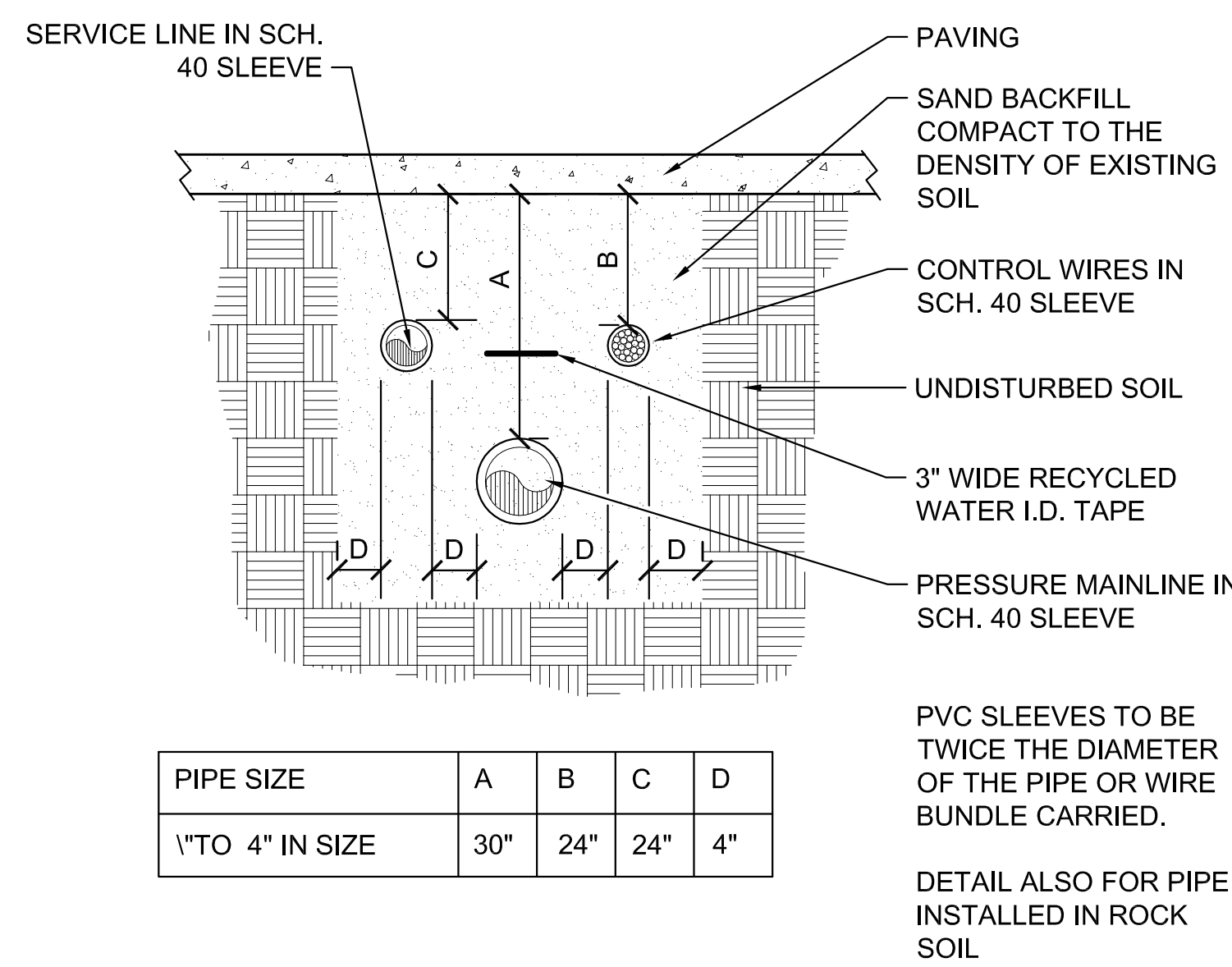
**H** **CROSS CONNECTION TEST STATION** N.T.S.



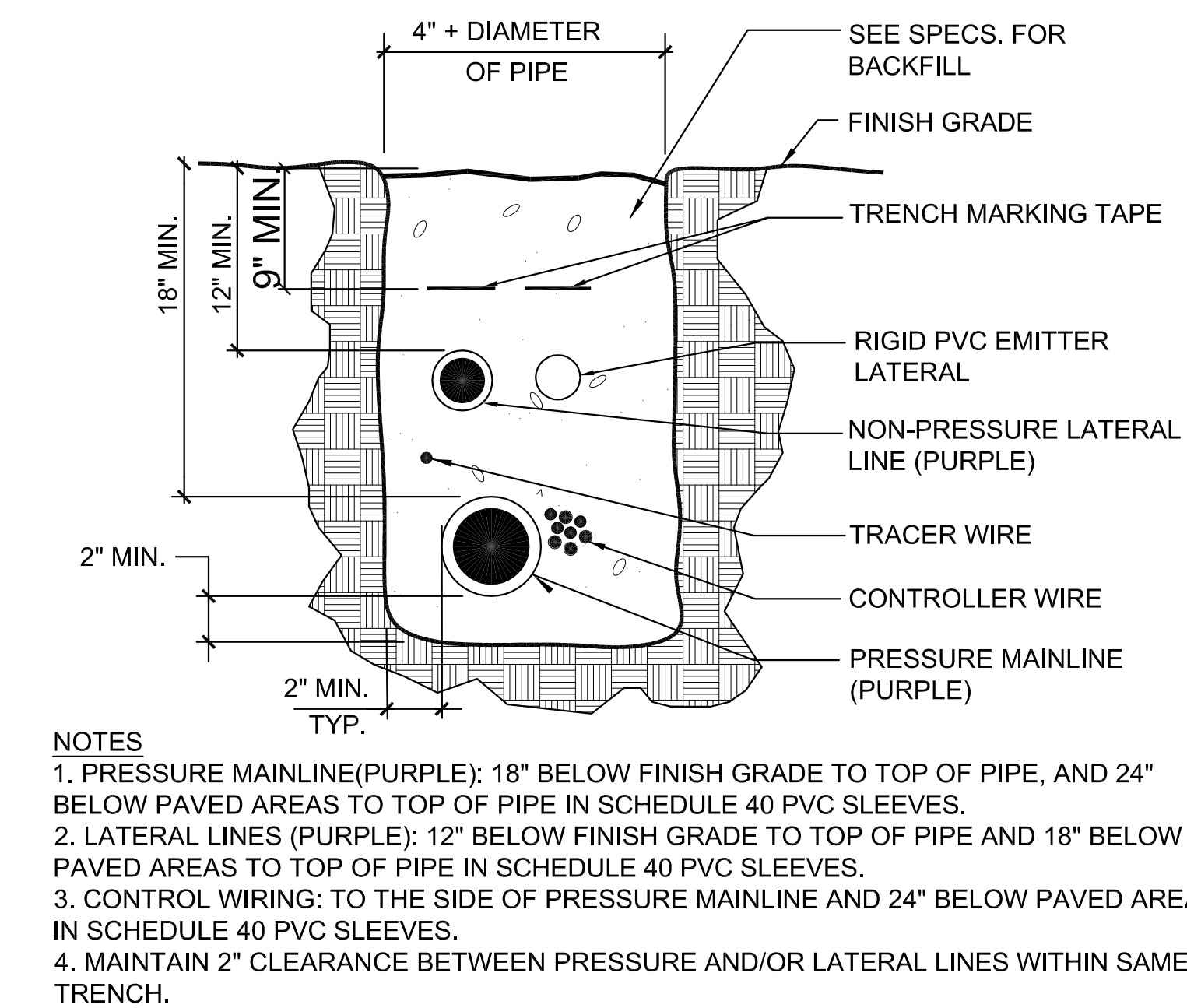
**I** **WATER LINE CROSSING** N.T.S.  
PRESSURIZED RECYCLED AND POTABLE WATER SECTION



**J** **POTABLE MAINLINE CROSSING** N.T.S.  
RECYCLED WATER SECTION



**K** **PIPE SLEEVING** N.T.S.  
RECYCLED WATER SECTION



**L** **PIPE TRENCHING** N.T.S.  
RECYCLED WATER SECTION

**CITY OF SAN DIEGO WATER PRESSURE ZONES:**

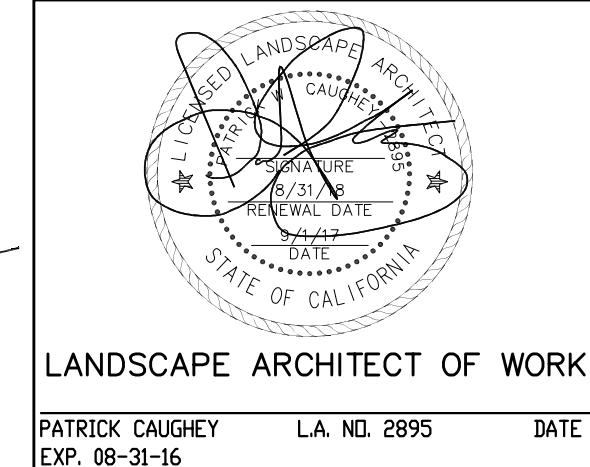
1) EXISTING RECYCLED WATER MAIN ON HILLERY DRIVE IS RECYCLED WATER PRESSURE ZONE No. 890 (ALL IRRIGATION SHOWN ON THESE PLANS IS RECYCLED WATER FROM THIS ZONE)

2) EXISTING POTABLE WATER IS PRESSURE ZONE No. 712.

CITY OF SAN DIEGO  
WORK ORDER No. 539264

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WYAC PROJECT #12-003.001



APPROVED BY  
D.S.A.

APPROVED BY  
DISTRICT ARCHITECT

DRAWN  
LE  
CHECKED  
BH  
REVISION

**LANDSCAPE IRRIGATION DETAILS**

MIRAMAR COLLEGE  
INFRASTRUCTURE AND SITE  
DEVELOPMENT PHASE II ( SOUTH )  
SCOPE "B"

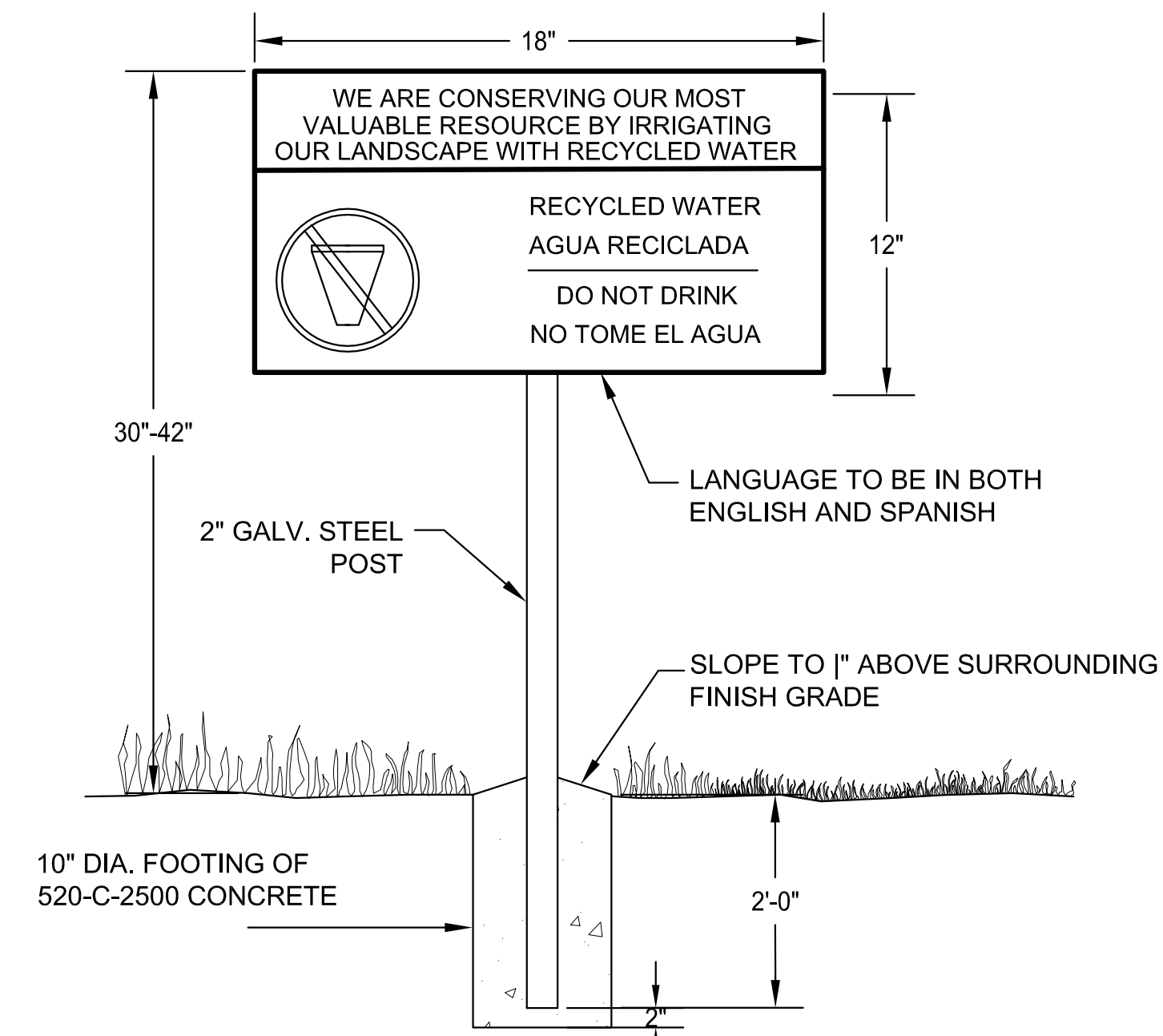
SAN DIEGO COMMUNITY COLLEGE DISTRICT

DATE  
SEPTEMBER 1, 2017

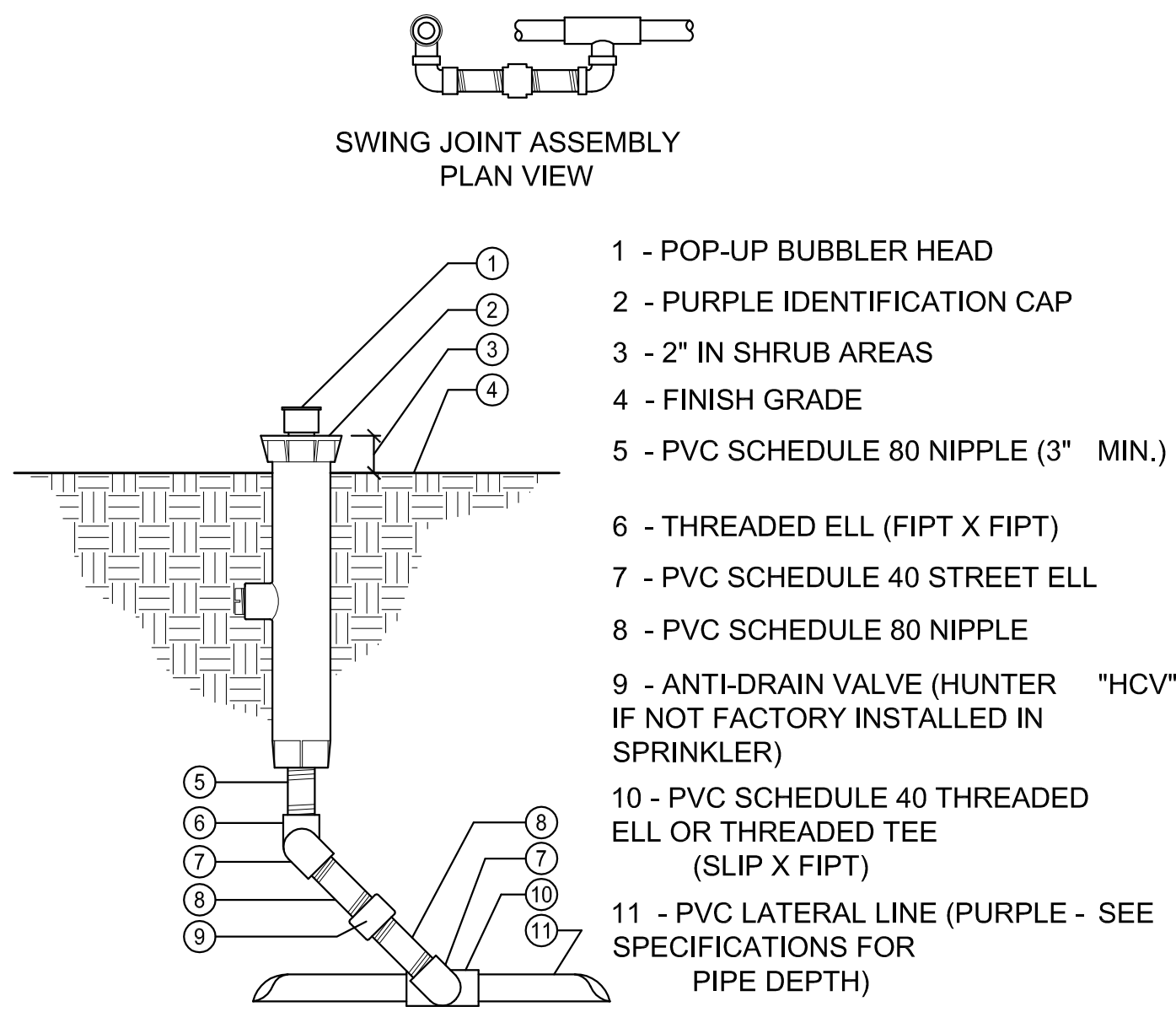
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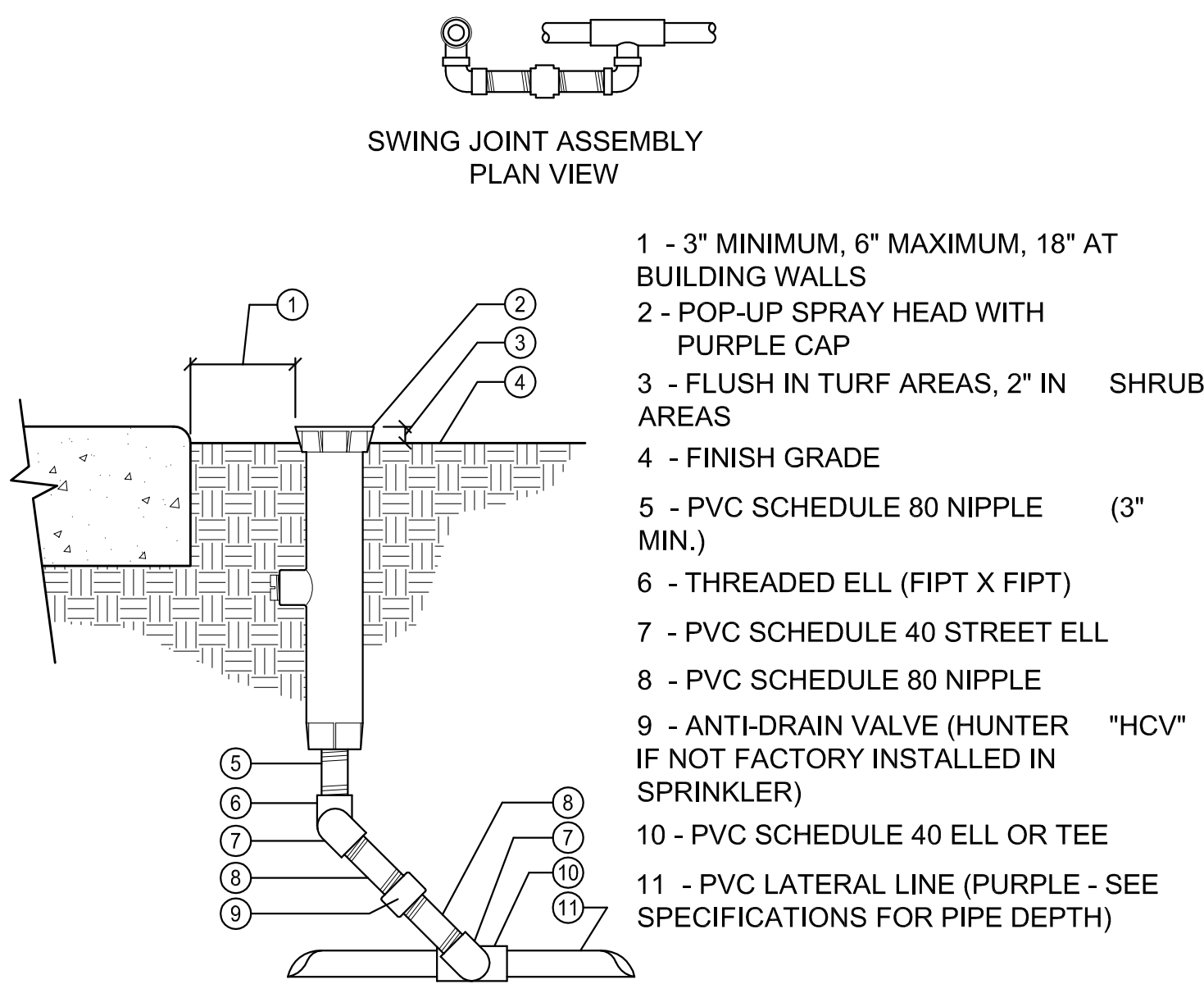
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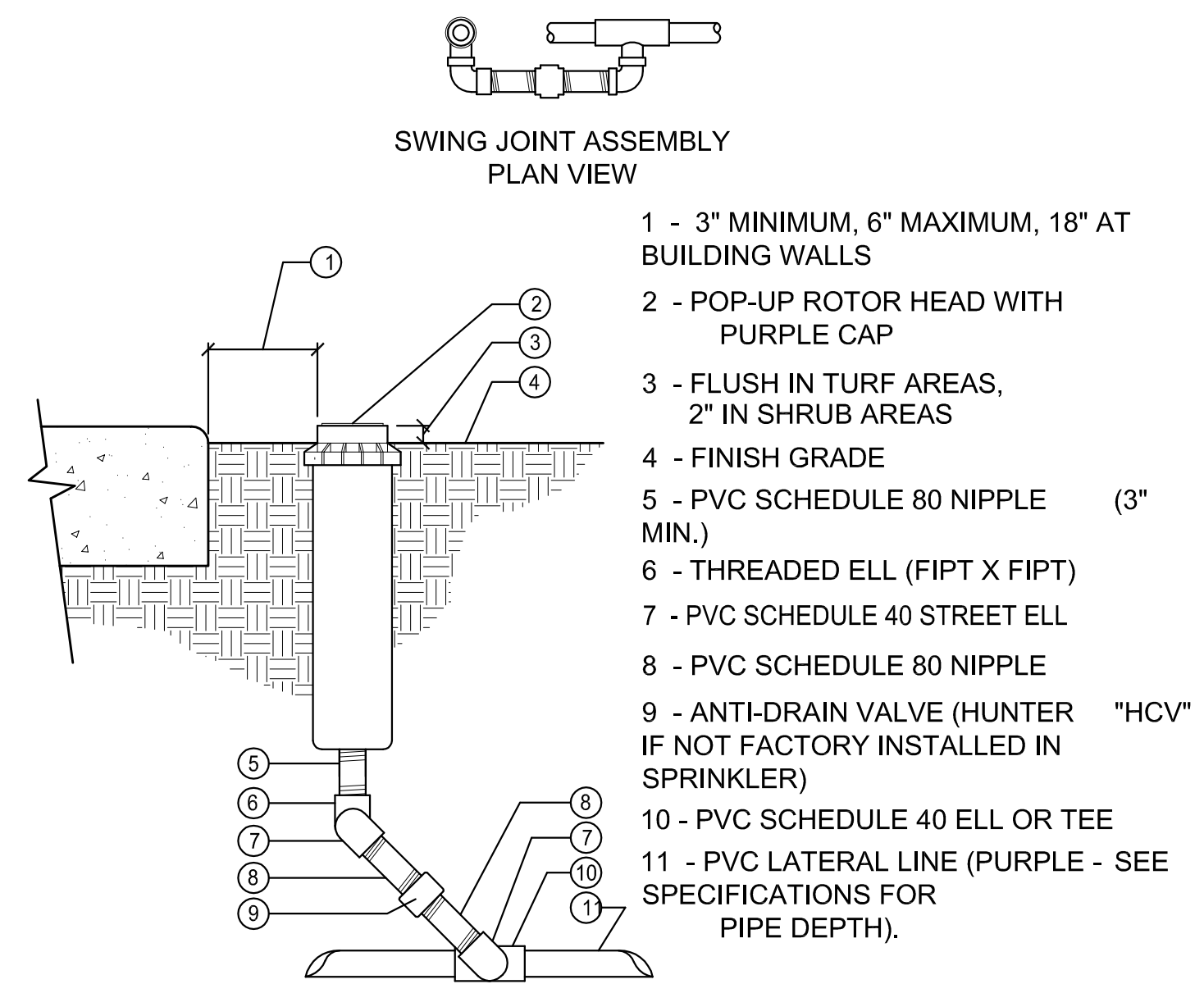
**M** RECYCLED WATER SIGN N.T.S. SECTION



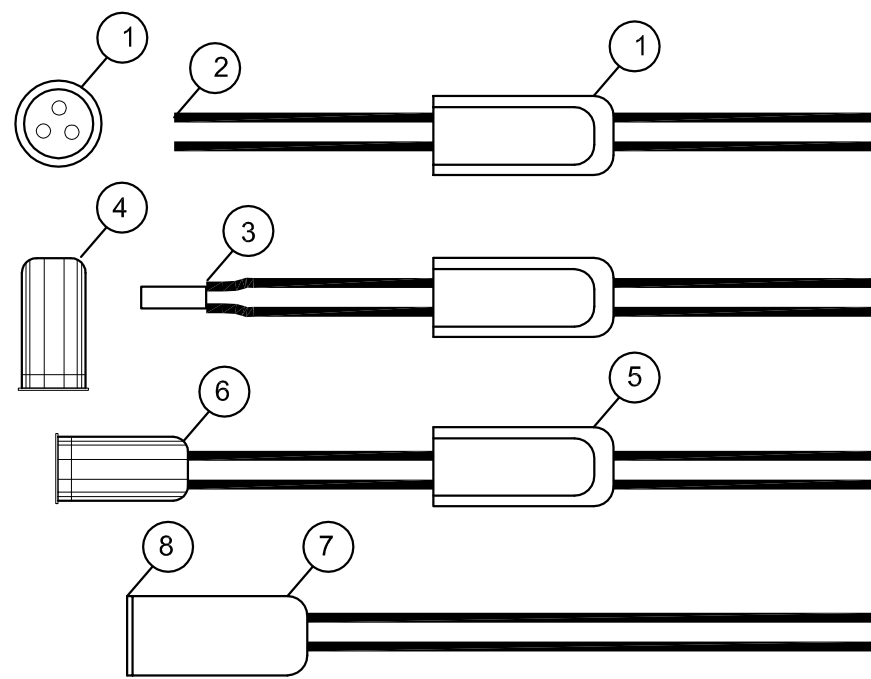
**N** POP-UP BUBBLER HEAD N.T.S. SECTION



**O** POP-UP SPRAY HEAD N.T.S. SECTION

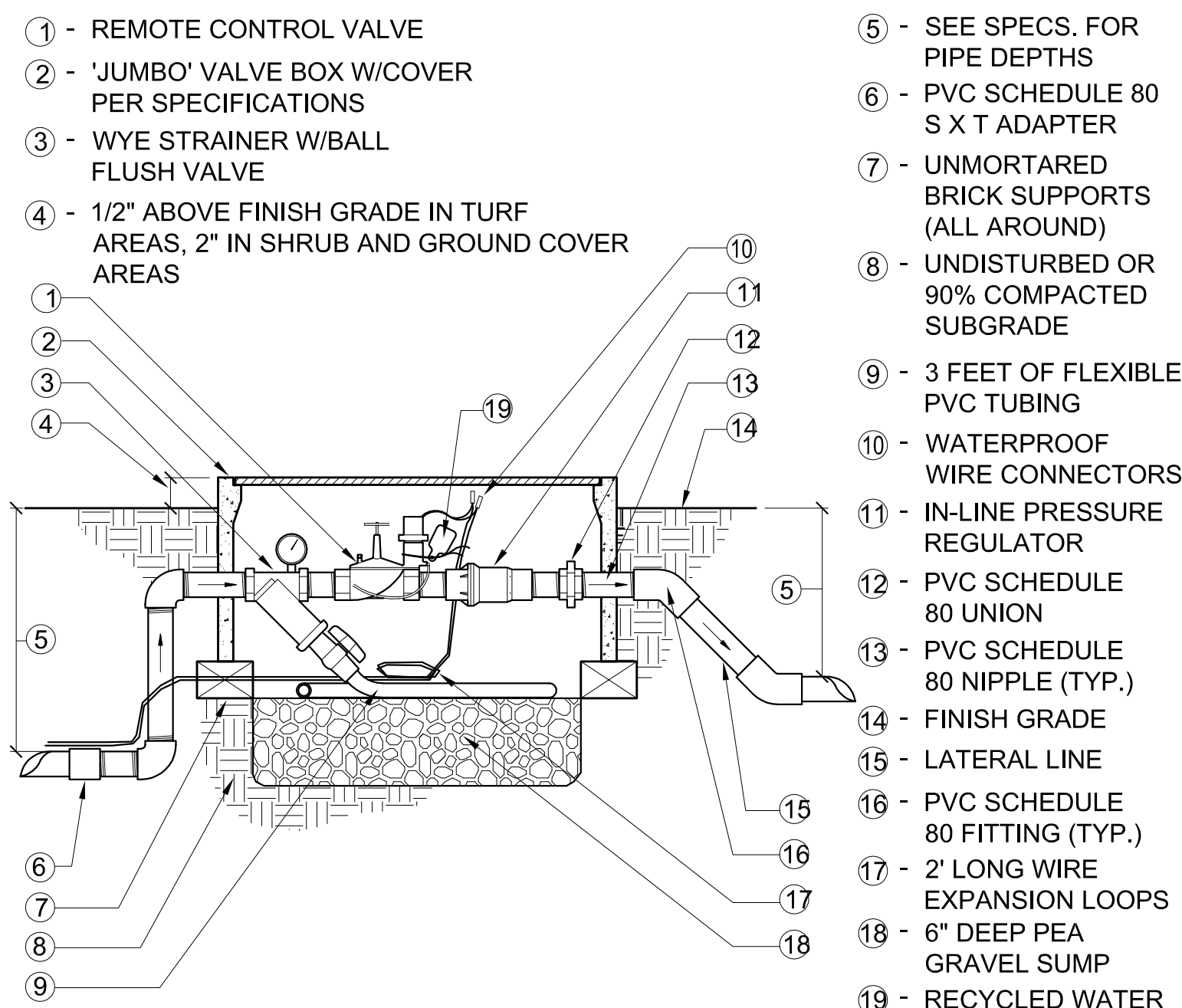


**P** POP-UP ROTOR N.T.S. SECTION

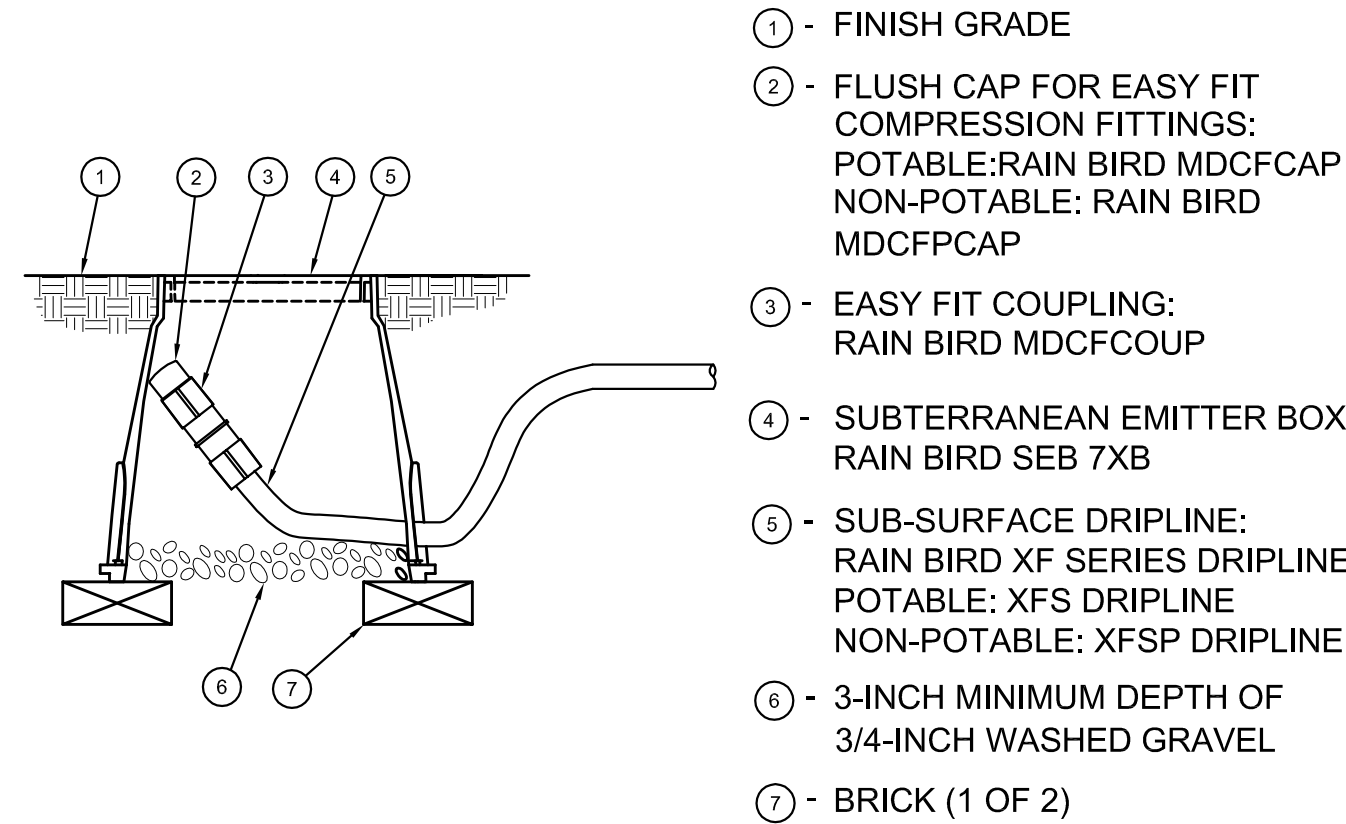


LEGEND:  
1. SLIP BASE SOCKET OVER END OF WIRES.  
2. CLEANLY STRIP WIRES APPROXIMATELY 5/8" FROM END.  
3. PUT CRIMP SLEEVE OVER WIRE ENDS - CRIMP SLEEVES AND CUT OFF EXCESS.  
4. APPLY SEALER TO INSIDE OF SEALING PLUG - FILL CAVITY WITH SEALER.  
5. PULL BASE SOCKET BACK OVER END OF WIRES AS FAR AS POSSIBLE.  
6. PUSH SEALING PLUG INTO BASE SOCKET.  
7. PUSH WIRES TO END OF BASE SOCKET TO ASSURE COMPLETE SEALING OF CONNECTION.  
8. USE DRI-SPLICE MFG. BY SPEARS, OR APPROVED EQUAL.

**Q** WIRE CONNECTOR N.T.S. SECTION

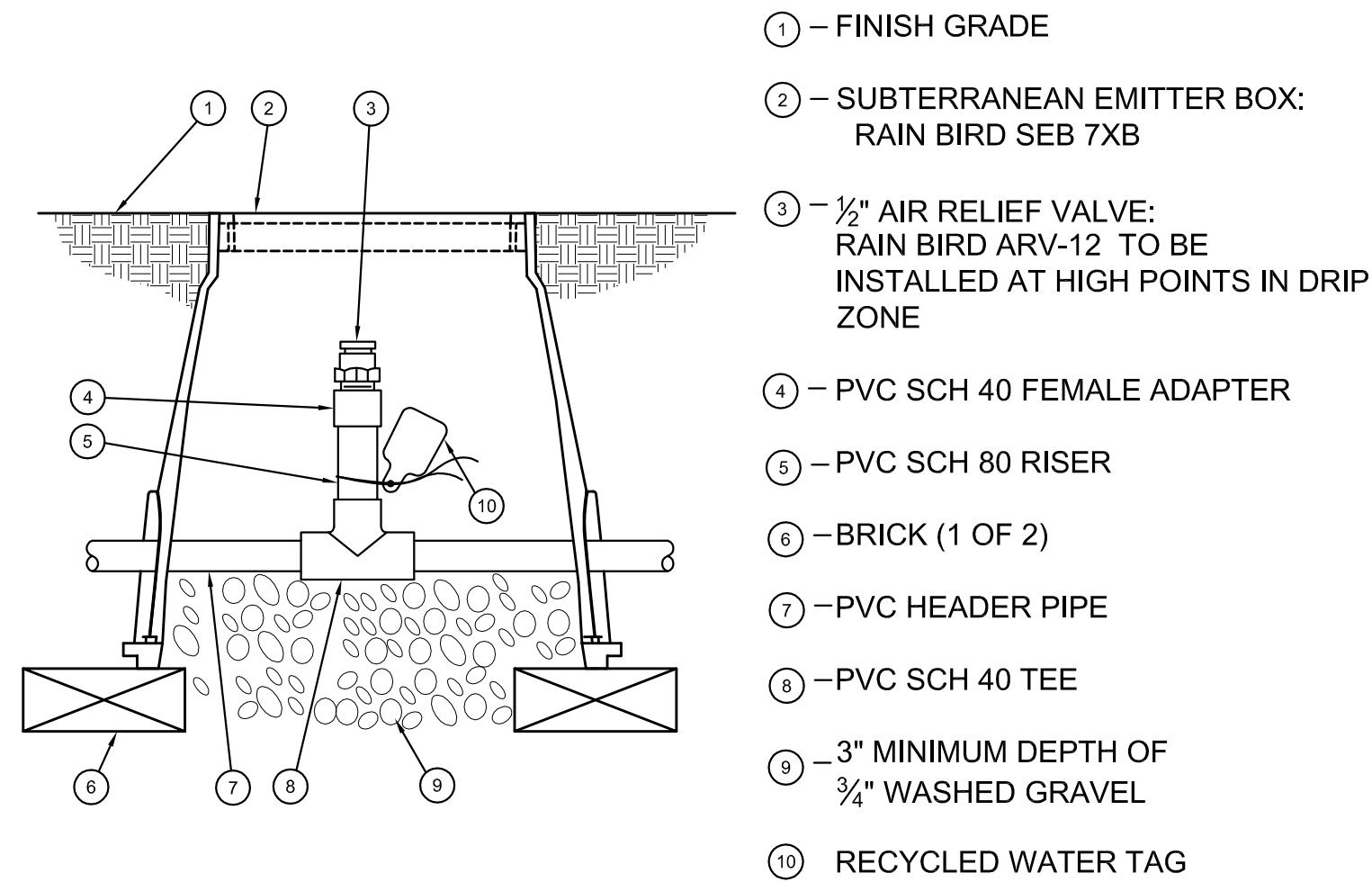


**O** DRIP VALVE N.T.S. SECTION



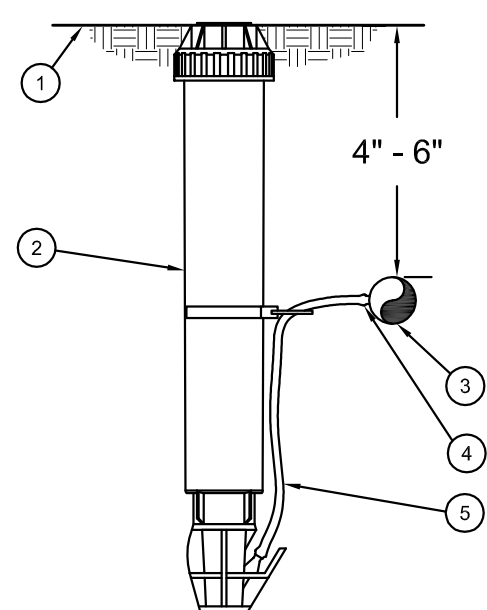
NOTE:  
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

**S** DRIPLINE FLUSH POINT N.T.S. SECTION



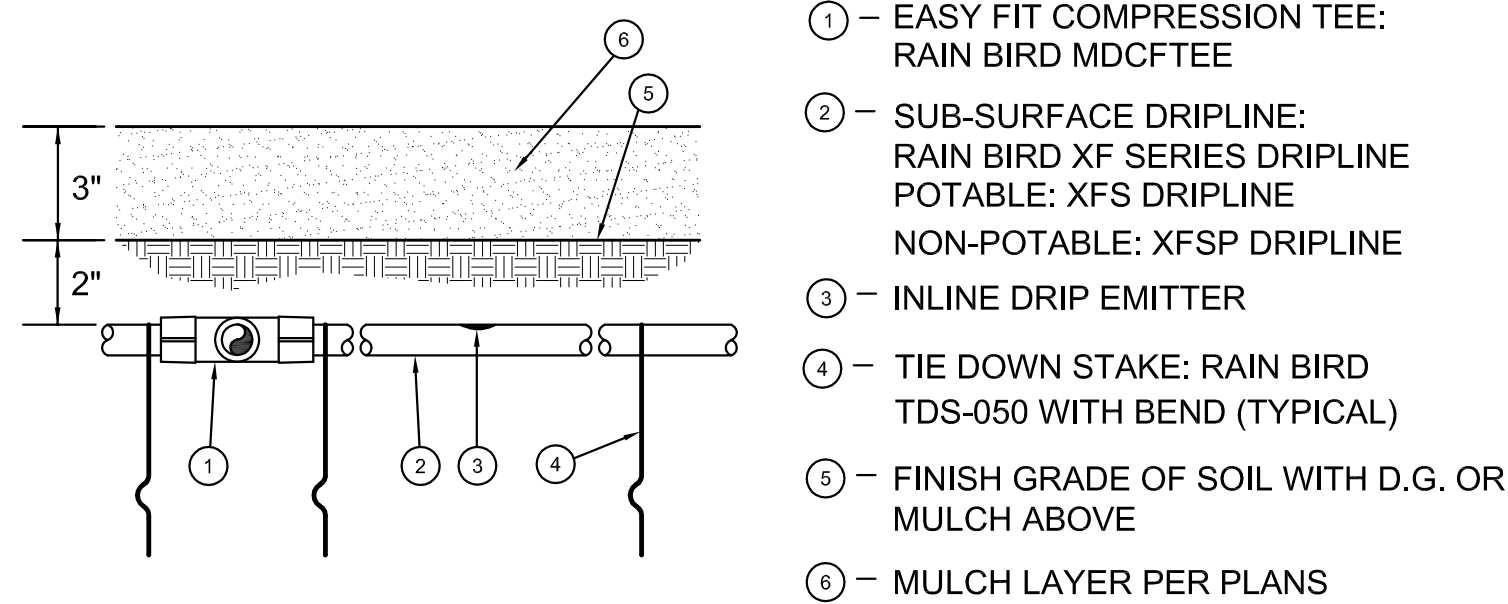
NOTE:  
INSTALL ONE AIR RELIEF VALVE AT EACH HIGHEST POINT IN EACH XFS SUB-SURFACE DRIPLINE HYDROZONE.

**P** AIR RELIEF VALVE N.T.S. SECTION



NOTES:  
1. USE XERIMAN TOOL XM-TOOL TO INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.  
2. INSTALL ONE OPERATION INDICATOR IN EACH XFS SUB-SURFACE HYDROZONE.

**U** OPERATION INDICATOR N.T.S. SECTION



NOTES:  
1. PLACE RAIN BIRD TIE DOWN STAKES EVERY THREE-FOOT ON CENTER.  
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

**V** DRIPLINE BURIAL N.T.S. SECTION

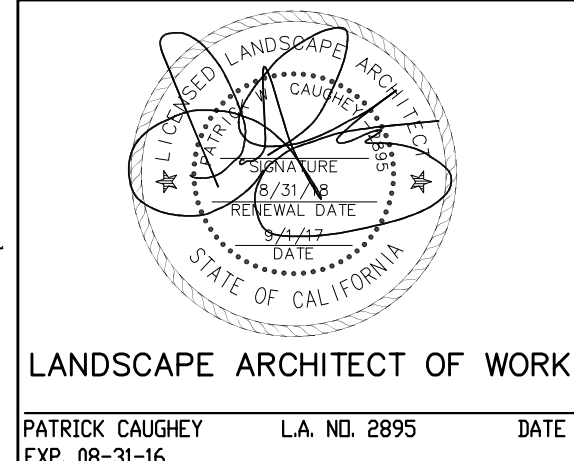
CITY OF SAN DIEGO WATER PRESSURE ZONES:

1) EXISTING RECYCLED WATER MAIN ON HILLERY DRIVE IS RECYCLED WATER PRESSURE ZONE No. 890 (ALL IRRIGATION SHOWN ON THESE PLANS IS RECYCLED WATER FROM THIS ZONE).

2) EXISTING POTABLE WATER IS PRESSURE ZONE No. 712.

CITY OF SAN DIEGO  
WORK ORDER No. 539264

WYAC PROJECT #12-003.001



APPROVED BY  
PATRICK CAUGHY  
EXP. 08-31-16  
D.S.A.

APPROVED BY  
DISTRICT ARCHITECT

DRAWN  
LE  
CHECKED  
BH  
REVISION

LANDSCAPE IRRIGATION DETAILS

MIRAMAR COLLEGE  
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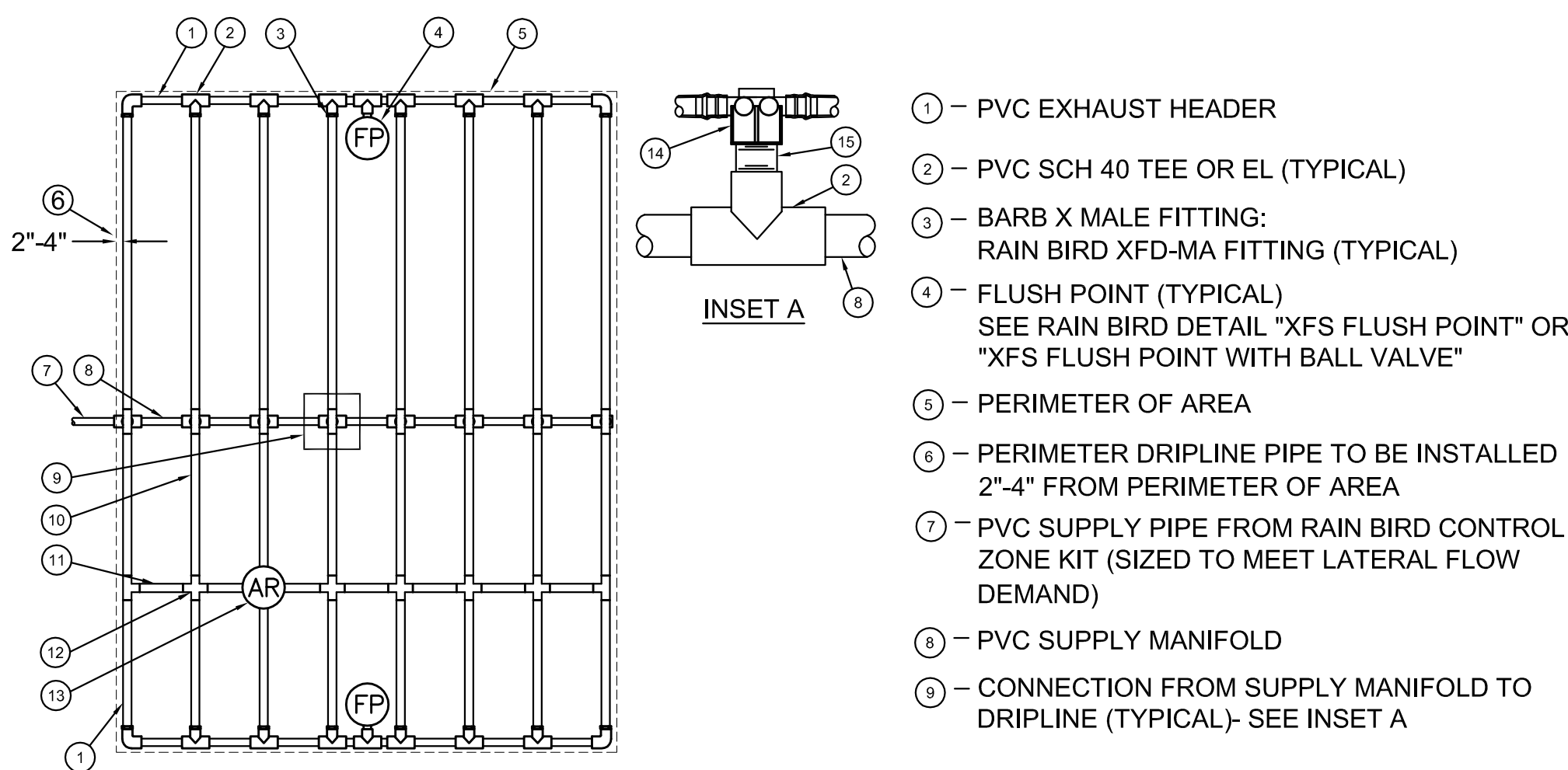
SAN DIEGO COMMUNITY COLLEGE DISTRICT

DATE  
SEPTEMBER 1, 2017

SHEET

LI-3.2

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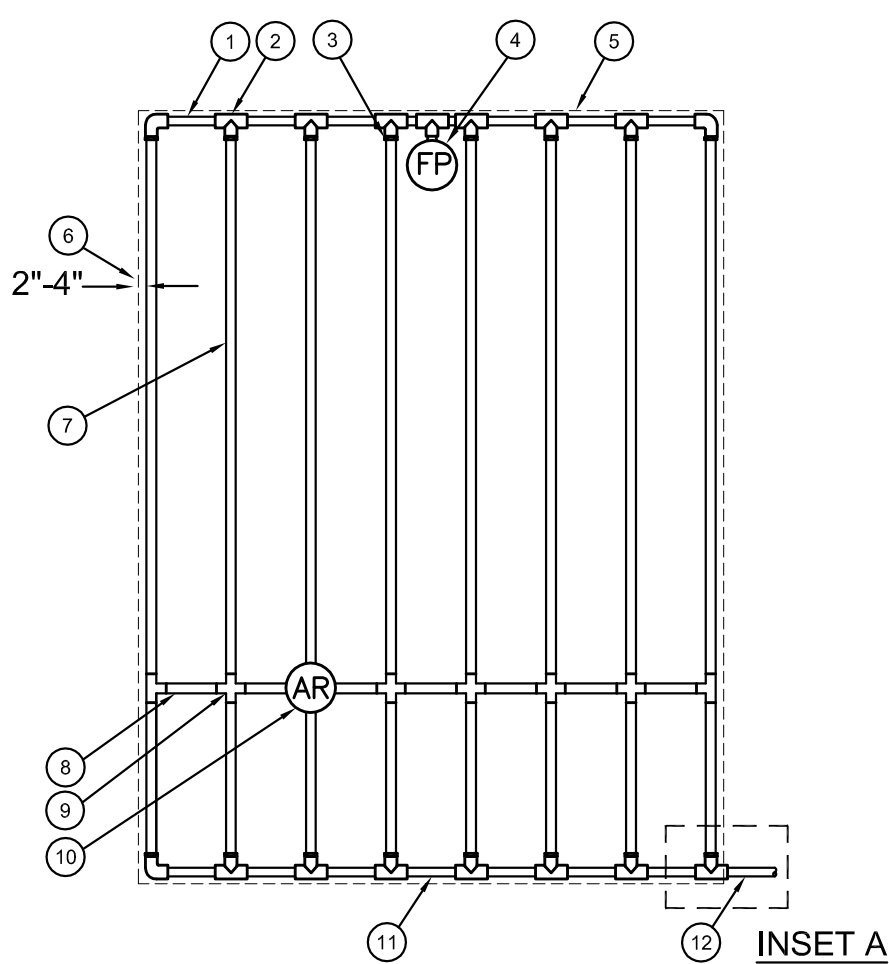
NOTES:  
1. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.  
2. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.

## W CENTER FEED LAYOUT

XFS SUB-SURFACE DRIPLINE

N.T.S.  
SECTION

XFS Dripline Maximum Lateral Lengths (Feet)						
Inlet Pressure	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (GPH)		Nominal Flow (GPH)		Nominal Flow (GPH)	
psi	0.6	0.9	0.6	0.9	0.6	0.9
15	255	194	357	273	448	343
20	291	220	408	313	514	394
30	350	266	494	378	622	478
40	396	302	560	428	705	541
50	434	333	614	470	775	594



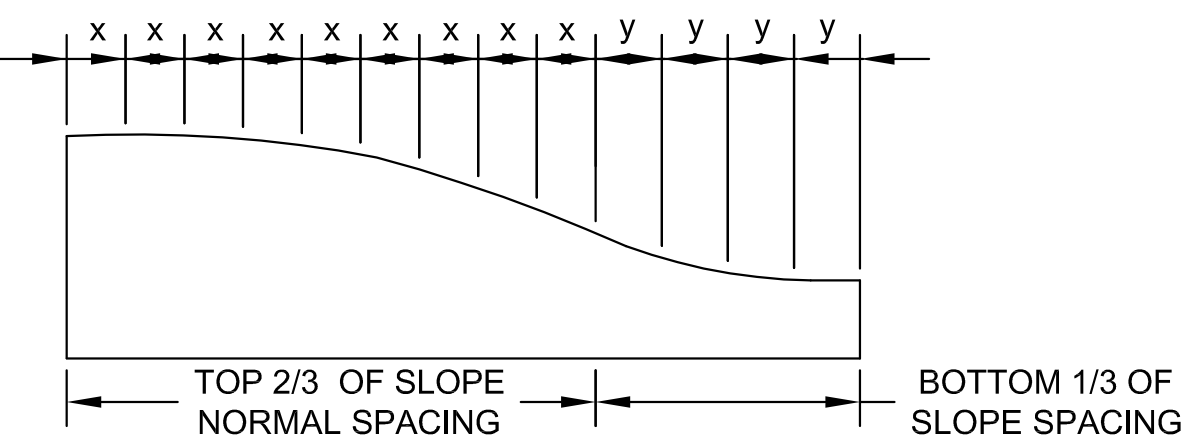
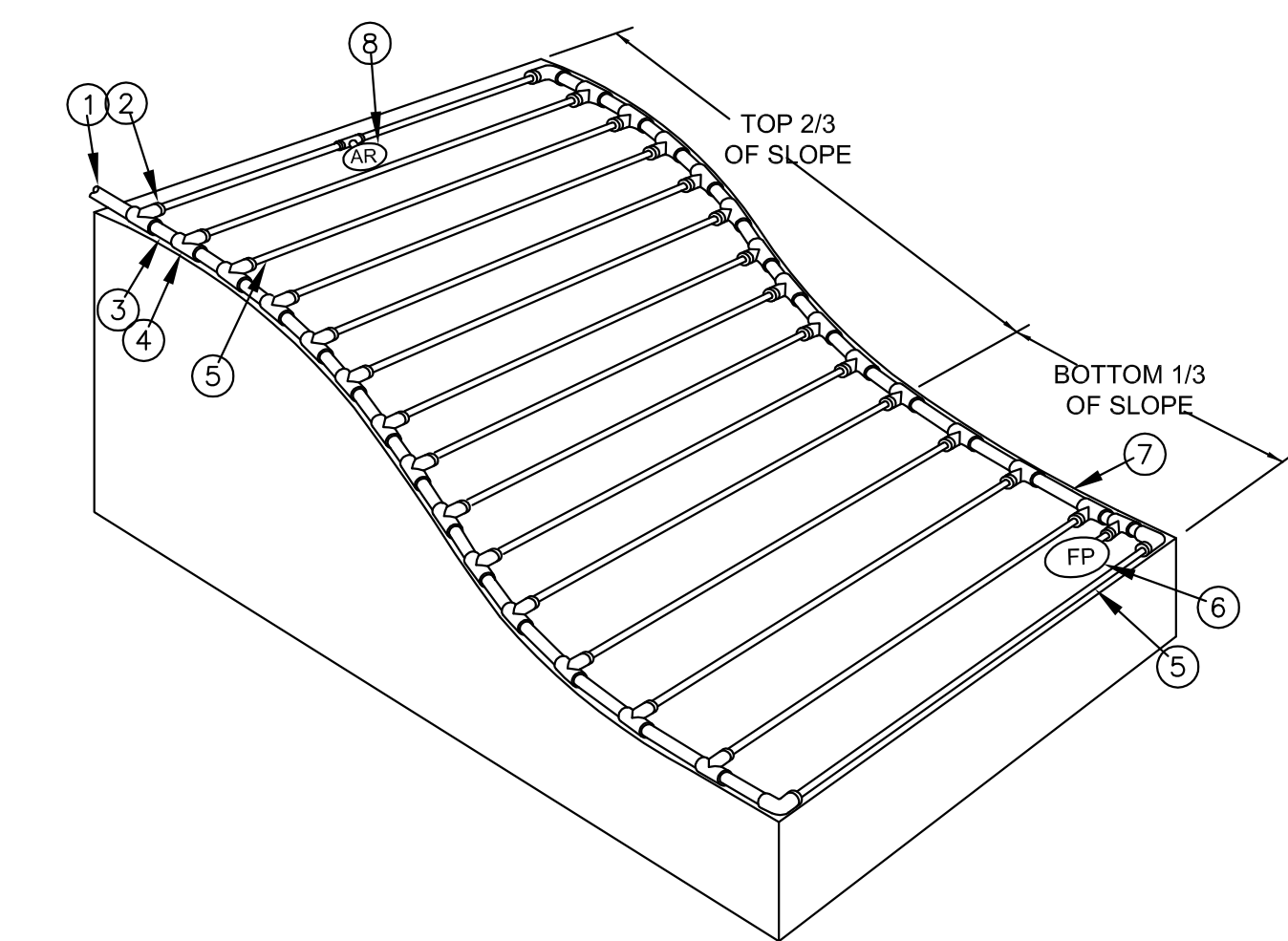
NOTES:  
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFS DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.  
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.  
3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.

## X END FEED LAYOUT

XFS SUB-SURFACE DRIPLINE

N.T.S.  
SECTION

XFS Dripline Maximum Lateral Lengths (Feet)						
Inlet Pressure	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (GPH)		Nominal Flow (GPH)		Nominal Flow (GPH)	
psi	0.6	0.9	0.6	0.9	0.6	0.9
15	255	194	357	273	448	343
20	291	220	408	313	514	394
30	350	266	494	378	622	478
40	396	302	560	428	705	541
50	434	333	614	470	775	594



x = DISTANCE BETWEEN ROWS OF DRIP LATERALS AS DETERMINED BY PLANT AND SOIL TYPE. SEE NOTE 1.  
y = INCREASED DISTANCE BETWEEN ROWS OF DRIP LATERALS AS DETERMINED BY PLANT AND SOIL TYPE. SEE NOTE 1.

## Y DRIP SLOPE LAYOUT

XFS SUB-SURFACE DRIPLINE

N.T.S.  
SECTION

XFS Dripline Maximum Lateral Lengths (Feet)		
Inlet Pressure psi	12" Spacing	
	Nominal Flow (gph)	
	0.6	0.9
15	273	155
20	318	169
30	360	230
40	395	255
50	417	285
60	460	290

- 1 - PVC DRIPLINE MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
- 2 - BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL)
- 3 - PVC SUPPLY HEADER
- 4 - PVC SCH 40 TEE OR EL (TYPICAL)
- 5 - SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL)  
POTABLE: XFS DRIPLINE  
NON-POTABLE: XFSP DRIPLINE
- 6 - FLUSH POINT: SEE RAIN BIRD XFS DETAILS FOR FLUSH POINT INSTALLATION
- 7 - PVC FLUSH HEADER
- 8 - 1/2" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050  
SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION

NOTES:  
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. DISTANCE BETWEEN LATERAL ROWS FOR BOTTOM 1/3 OF SLOPE TO BE SPACED GREATER THAN OPTIMAL ROW DISTANCE. SEE RAIN BIRD XFD DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACING.  
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.  
3. WHEN ELEVATION CHANGE EXCEEDS 8 FEET IT IS RECOMMENDED THAT A NEW DRIPLINE ZONE BE CREATED.  
4. INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.  
5. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

Wimmer  
Yamada  
and  
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## IRRIGATION WATER DEMAND

PROJECT: MIRAMAR SOUTH CAMPUS 12-030.001  
BY: WYAC DATE: 11/15/2017

ESTIMATED TOTAL WATER USE

MAXIMUM APPLIED WATER ALLOWANCE

ETWU = (ETo) x (0.62) x (PF x HA / IE)

MAWA = (ETo) x (0.62) x (.45) x LA

INFORMATION REQUIRED TO CALCULATE FORMULAS:

ETWU ESTIMATED TOTAL WATER USE (GALLONS PER YEAR)  
ETo REFERENCE EVAPOTRANSPIRATION, SAN DIEGO, CIMIS = 51  
PF CONVERSION FACTOR (GALLONS PER SQUARE FOOT)  
PLANT FACTOR FROM WUCOLS  
0.8 - HIGH WATER USE PLANTS  
0.4 - MEDIUM WATER USE PLANTS  
0.3 - LOW WATER USE PLANTS  
HA HYDROZONE AREAS  
IE IRRIGATION EFFICIENCY  
0.81 - DRIP  
0.75 - OVERHEAD IRRIGATION / BUBBLERS

INFORMATION REQUIRED TO CALCULATE FORMULAS:

MAWA MAXIMUM APPLIED WATER ALLOWANCE (GALLONS PER YEAR)  
ETo REFERENCE EVAPOTRANSPIRATION PER YEAR, ESENCIA, CIMIS = 51  
.45 ET ADJUSTMENT FACTOR FOR PLANT FACTOR & IRRIGATION EFFICIENCY (ETAF)  
1.0 ET ADJUSTMENT FACTOR (SLA)  
LA LANDSCAPE AREA (SQUARE FEET)  
0.62 CONVERSION FACTOR (GALLONS PER SQUARE FOOT)

MAXIMUM APPLIED WATER ALLOWANCE

MAWA = (ETo) (0.62) (.45) (LA) + (ETo)(.62)(1)(SLA)  
MAWA = (51) (0.62) (.45) (19,338) + (51)(.62)(1)(6,026)  
MAWA = 275,160 + 190,542

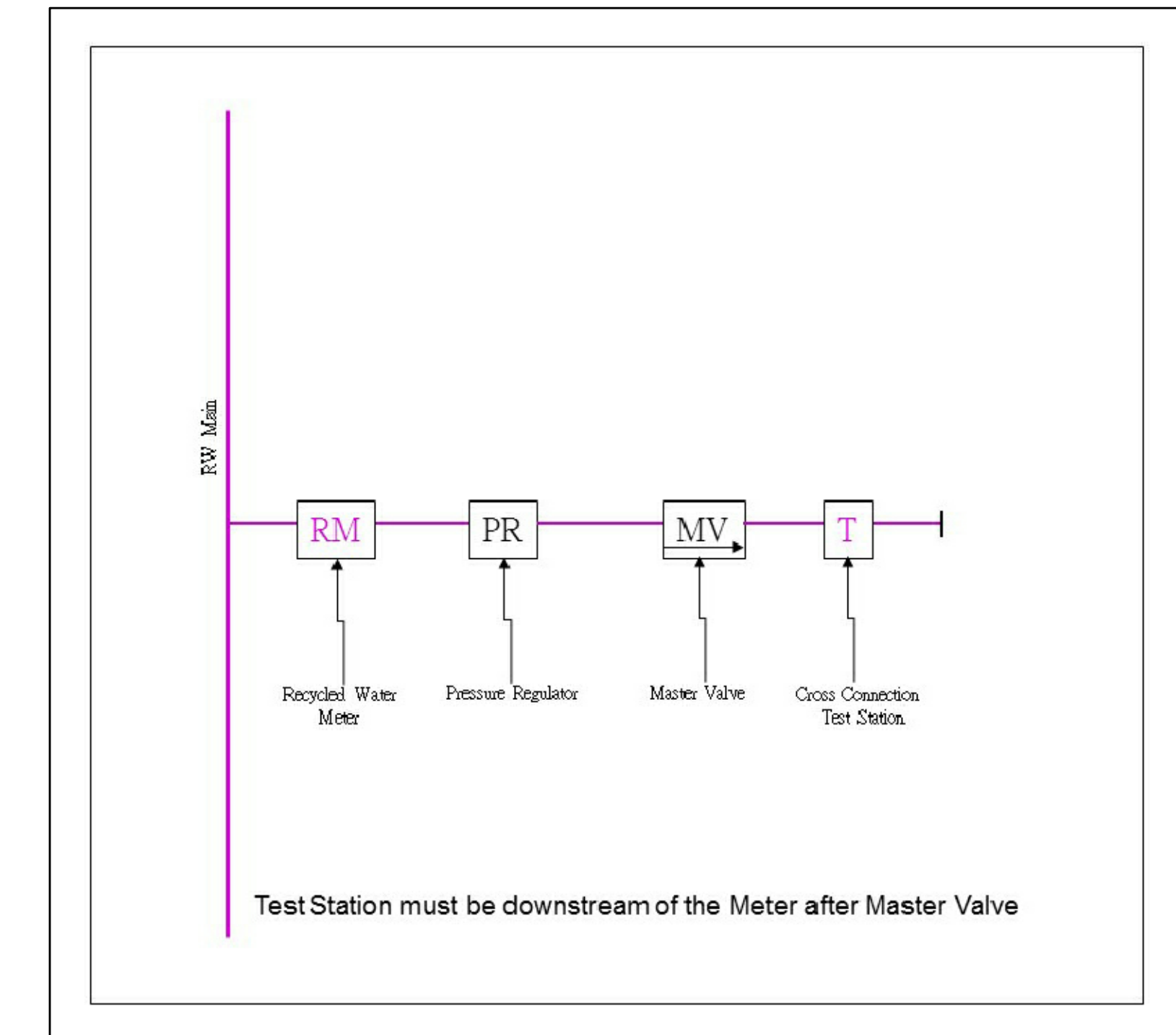
ESTIMATED TOTAL WATER USE / ETWU = (ETo) (0.62) (PF x LA / IE)

TOTAL MAWA = 465,702 GALLONS / YEAR

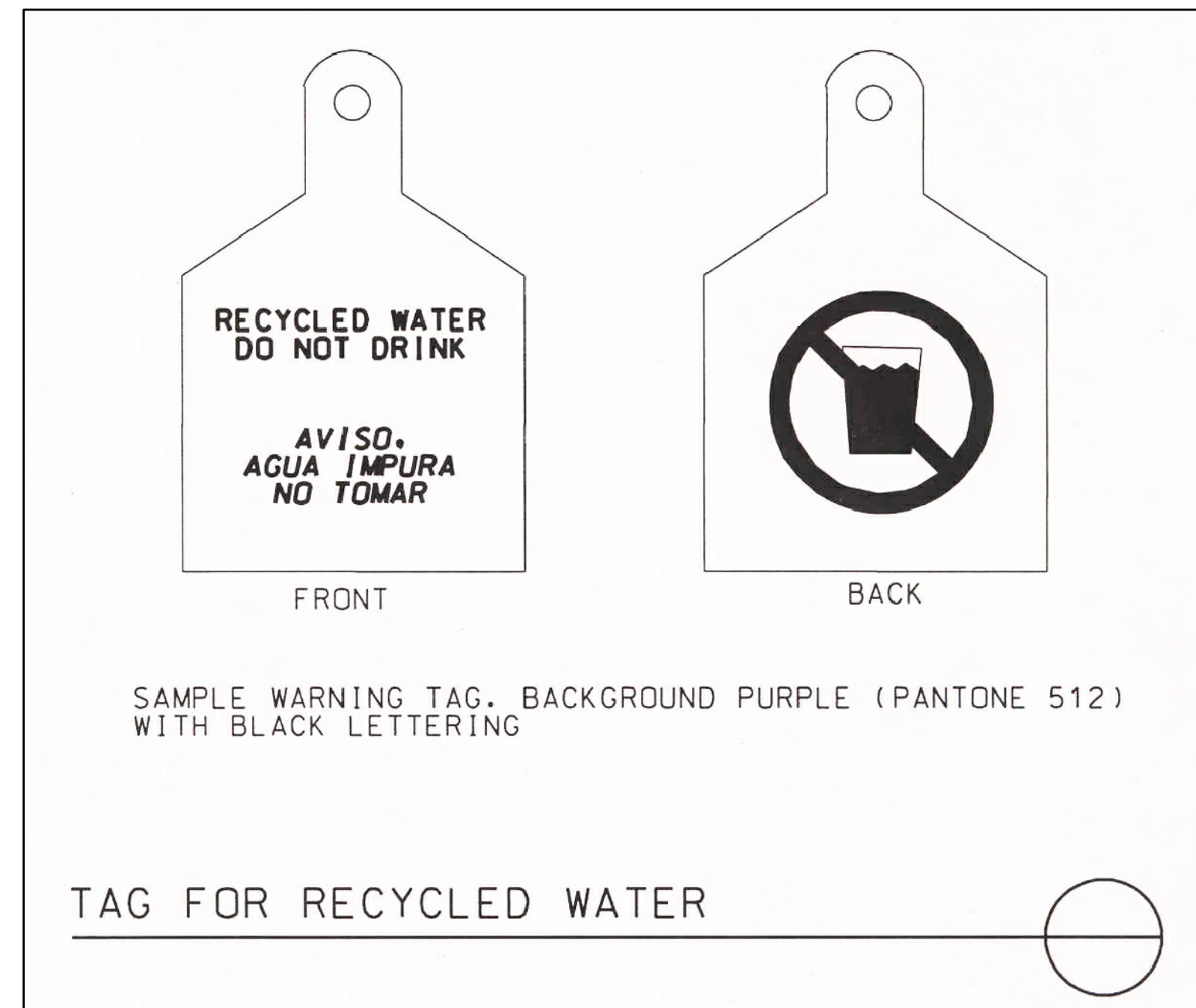
LOW WATER USE SHRUBS (51) X (.62) X (.3 X 19,338 / .81) = 226,469 GAL. (DRIP)

HIGH WATER USE TURF (51) X (.62) X (.8 X 6,063 / .75) = 189,345 GAL. (SPRAYS)

TOTAL ETWU = 415,814 GALLONS / YEAR | 1.28 ACRE FEET/YEAR



CROSS CONNECTION TEST STATION DIAGRAM



TAG FOR RECYCLED WATER

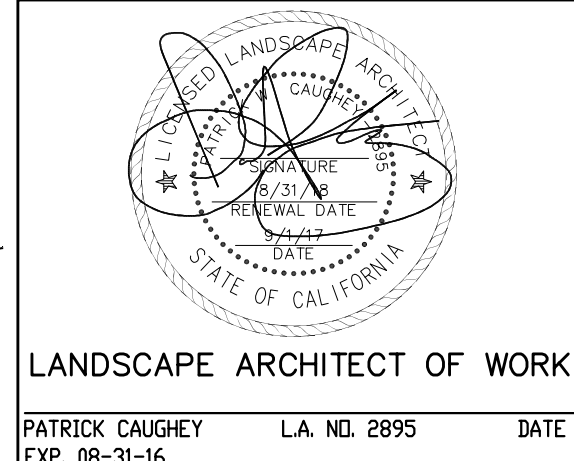
### CITY OF SAN DIEGO WATER PRESSURE ZONES:

1) EXISTING RECYCLED WATER MAIN ON HILLERY DRIVE IS RECYCLED WATER PRESSURE ZONE No. 890 (ALL IRRIGATION SHOWN ON THESE PLANS IS RECYCLED WATER FROM THIS ZONE).

2) EXISTING POTABLE WATER IS PRESSURE ZONE No. 712.

CITY OF SAN DIEGO  
WORK ORDER No. 539264

WYAC PROJECT #12-003.001



APPROVED BY  
D.S.A.

APPROVED BY  
DISTRICT ARCHITECT

DRAWN  
LE  
CHECKED  
BH  
REVISION

### LANDSCAPE IRRIGATION DETAILS

MIRAMAR COLLEGE  
INFRASTRUCTURE AND SITE  
DEVELOPMENT PHASE II ( SOUTH )  
SCOPE "B"

SAN DIEGO COMMUNITY COLLEGE DISTRICT

DATE  
SEPTEMBER 1, 2017  
SHEET  
LI-3.2  
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