IRRIGATION GENERAL NOTES

- 1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE IMPROVEMENTS SHOWN
- THE PLANS. 2. THE CONTRACTOR SHALL COORDINATE AS NECESSARY WITH THE GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE FOR SUCCESSFUL COMPLETION OF THIS WORK.
- 3. ALL IRRIGATION EQUIPMENT IS TO BE AS SPECIFIED OR APPROVED EQUAL PER THE DISCRETION OF THE OWNER'S REPRESENTATIN THE CONTRACTOR ASSUMES ALL LIABILITY ASSOCIATED WITH THE MODIFICATION OF THE IRRIGATION SYSTEM DESIGN WITHOUT NOTIFYING THE OWNER'S REPRESENTATIVE.
- 4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT A THOROUGH SITE INSPECTION AND REVIEW OF THE PROJECT CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: LANDSCAPE PLAN, UTILITY PLAN, CIVIL UTILITY PLAN, ARCHITECTURE PLAN, GRADING AND DRAINAGE PLAN AND ALL OTHER ASSOCIATED PLANS AND SPECIFICATIONS THAT AFFECT THIS WORK PRIOR TO START OF WORK. IF THE AND CONTRACTOR OBSERVES ANY DISCREPANCIES AMONG THE CONSTRUCTION DOCUMENTS AND THE EXISTING CONDITIONS ON SITE. IT IS THEIR RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY
- 5. THE CONTRACTOR MUST VERIFY THE LOCATION OF ALL PUBLIC AND PRIVATE UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR FAILS TO DO SO AND DAMAGES ANY UNDERGROUND UTILITIES. THE CONTRACTOR SHALL PAY FOR ANY REPAIR WORK ASSOCIATED WITH SAID DAMAGES.
- 6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ADEQUATE VERTICAL AND HORIZONTAL SEPARATION BETWEEN ALL IRRIGATION DISTRIBUTION LINES AND ALL UTILITIES (EXISTING OR PROPOSED), CONDUIT, STORM WATER COMPONENTS, DRAINS, ETC. 7. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL AND STATE REGULATIONS AND INSTALL THE IRRIGATION SYSTEM AND ITS
- COMPONENTS PER MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS REQUIRED BY ANY LOCAL AND STATE AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION OVER THIS SITE
- 8. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PAYING FOR CERTIFICATION OF THE BACKFLOW PREVENTER BY A STATE CERTIFIED INSPECTOR. THE CONTRACTOR SHALL PROVIDE CERTIFICATES TO OWNER'S REPRESENTATIVE PRIOR TO PROJECT ACCEPTANCE.
- 9. IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN LANDSCAPE AREAS AND WITHIN THE PROJECT LIMITS. EQUIPMENT SHOWN OUTSIDE OF THESE LIMITS IS SHOWN FOR GRAPHIC CLARITY ONLY. IF THERE IS A QUESTION REGARDING THE LOCATION OF ANY COMPONENT OF THE IRRIGATION SYSTEM, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE. IF THE CONTRACTOR NEGLECTS TO NOTIFY THE NECESSARY PARTIES, THE CONTRACTOR SHALL PAY FOR ANY REPLACEMENT OR MODIFICATION TO ENSURE PROPER LOCATION AND OPERATION OF THE IRRIGATION SYSTEM AND ITS COMPONENTS.
- 10. ALL IRRIGATION DISTRIBUTION LINES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO, MAINLINE, LATERALS, SPRAY HEADS, DRIP EMITTERS SHALL BE KEPT A MINIMUM DISTANCE OF 6' AWAY FROM ALL BUILDING AND WALL FOUNDATIONS, OR AS STIPULATED IN THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER. EQUIPMENT MAY BE SHOWN IN THIS AREA FOR GRAPHIC CLARITY. COORDINATE ALL REQUIRED SETBACKS WITH OWNER'S REPRESENTATIVE PRIOR TO START OF WORK
- 11. EACH VALVE SHALL BE INSTALLED IN A SEPARATE VALVE BOX AS DETAILED. VALVE BOX LID COLOR TO BE GREEN. INSTALL FLUSH TO FINISH GRADE AND PER CONSTRUCTION DETAILS. DO NOT INSTALL IN PAVED AREAS OR IN BOTTOMS OF DRAINAGE SWALES/BASINS. 12. CONTRACTOR SHALL INSTALL DETECTABLE MARKING TAPE OR #14g DIRECT BURY TRACER WIRE IN ALL PRESSURE MAINLINE
- TRENCHES. SEE IRRIGATION DETAILS FOR MORE INFORMATION. 13. PLANT MATERIAL LOCATIONS TAKE PRECEDENCE OVER ROUTING OF IRRIGATION PIPING. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL
- 14. THE CONTRACTOR SHALL MARK THE LOCATION OF THE MAINLINE, CONTROL VALVES, GATE VALVES AND HEAD LAYOUT OF A REPRESENTATIVE SPRAY ZONE. SCHEDULE A REVIEW WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- 15. INSTALL SCH. 40 BALL VALVE AND OPERATIONAL INDICATOR AT ENDS OF ALL DRIP LATERALS AS DETAILED. FLUSH ALL LATERALS THOROUGHLY BEFORE INSTALLING EMITTERS AND BUBBLERS.
- 16. CONTRACTOR SHALL FINE TUNE AND ADJUST NOZZLE DIRECTION AND RADIUS TO REDUCE OVERSPRAY ONTO PAVING OR HARD SURFACES.
- 17. CONTRACTOR SHALL INSTALL A QUICK COUPLER IN 10" VALVE BOX AT THE END OF ALL BRANCHES OF THE MAINLINE, OR AS SHOWN ON PLANS, FOR WINTERIZATION AND FLUSHING OF MAINLINE.
- 18. THE CONTRACTOR SHALL PERFORM A PRESSURE TEST ON ALL MAINLINES. CONTRACTOR SHALL PRESSURIZE MAINLINES TO 120 PSI AND MAINTAIN PRESSURE AT 120 PSI FOR A MINIMUM CONTINUOUS PERIOD OF TWO (2) HOURS TO ACHIEVE FINAL ACCEPTANCE.
- 19. THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE DURING A THREE(3) NIGHT PER WEEK, SIXTEEN(16) HOURS PER NIGHT WATERING WINDOW. DRIP IRRIGATION ZONES MAY BE ALLOWED TO RUN ON A SEPARATE SCHEDULE FROM THIS WATER WINDOW DEPENDING JURISDICTION. LANDSCAPE ESTABLISHMENT WILL REQUIRE INCREASED IRRIGATION WATER FOR DURATION OF THE ESTABLISHMENT PERIOD AND MAY REQUIRE TWICE THE AMOUNT OF WATER AS ESTABLISHED PLANT MATERIAL. THE CONTRACTOR SHALL COORDINATE WATERING SCHEDULES AND APPLICATION RATES WITH THE OWNER'S REPRESENTATIVE PRIOR TO FINAL ACCEPTANCE.
- 20. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED PEAK SEASON WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND VARIABLE WEATHER CONDITIONS.
 - FESCUE/BLUEGRASS BLEND TURF 1.75" PER WEEK PEAK SEASON
 - BUFFALO BLUE GRAMA/ DOG TUFF, TAHOMA 31 1.00" PER WEEK PEAK SEASON
- TREE, SHRUB, AND PERENNIAL PLANT MATERIAL 1.00" PER WEEK PEAK SEASON NATIVE DROUGHT TOLERANT SEED MIX 0.75" PER WEEK PEAK SEASON
- 21. THE CONTRACTOR SHALL PROVIDE A SEASONAL MAINTENANCE SCHEDULE WHICH SHALL BEGIN ON APRIL 15TH AND END ON OCTOBER 15TH TO ENSURE THE EFFICIENCY AND LONGEVITY OF THE IRRIGATION SYSTEM. THE MAINTENANCE SCHEDULE SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING LIST OF BEST MANAGEMENT PRACTICES:
- CHECK HEADS FOR COVERAGE AND LEAKAGE.
- CHECK CONTROLLER PROGRAMMING AND ADJUST FOR SEASONAL CHANGES AS NECESSARY.
- VERIFY THAT THE WATER SUPPLY AND PRESSURE ARE AS STATED IN THE DESIGN.
- CERTIFY THE BACKFLOW PREVENTION DEVICE AND SUBMIT TEST RESULTS TO THE PROPERTY MANAGER.
- PERIODICALLY VERIFY THE THE SENSORS IN THE IRRIGATION SYSTEM ARE OPERATING CORRECTLY.
- WINTERIZATION AND SPRING START UP PROCEDURES.



	IR	RIGATION POINT OF CONNECTION NOTES
ON	1.	POINT OF CONNECTION: THERE IS ONE (1) POINT OF CONNECTION ON EACH LOT UNLESS OTHERWISE SPECIFIED. POC #1 : 3/4" TYPE K COPPER (DEDICATED IRRIGATION) WATER SERVICE LINE ROUTED FROM RESIDENTIAL WATER SUPPLY (UPSTREAM OF DOMESTIC BACKFLOW PREVENTION UNIT) TO THE EXTERIOR LANDSCAPE AREA (REFER TO PLANS).
Æ.		 CONTRACTOR TO LOCATE AND CONNECT TO THE DEDICATED IRRIGATION WATER SERVICE WITH TYPE K COPPER AND EXTEND TO PRESSURE VACUUM BREAKER (PVB) OR REDUCED PRESSURE ZONE ASSEMBLY (RPZ) IF SITE TOPOGRAPHY CONDITIONS PREVENT THE USE OF PVB (SEE IRRIGATION DETAIL #4). EXTEND COPPER PIPING 24" BELOW FINISH GRADE AND INSTALL MANUAL DRAIN VALVE; TRANSITION TO AND EXTEND CLASS 200 PVC TO THE MASTER VALVE, FLOW SENSOR, AND MAINLINE VALVES AS SHOWN.

 ALL PIPING FROM DEDICATED IRRIGATION WATER SUPPLY THROUGH DRAIN VALVE DOWNSTREAM OF THE BACKFLOW PREVENTER SHALL BE THE SAME SIZE.

 THE CONTRACTOR SHALL CONFORM TO ALL STATE AND LOCAL CODES, OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS ASSOCIATED WITH THIS WORK. FINAL LOCATION OF THE BACKFLOW PREVENTION UNIT SHALL BE APPROVED BY LICENSED PLUMBER PRIOR TO INSTALLATION. 2. CONTROLLER LOCATION: THERE IS ONE (1) CONTROLLER PER LOT.

CONTROLLER A: WALL MOUNTED CONTROLLER TO BE LOCATED ON GARAGE WALL (INTERIOR OR EXTERIOR) AS PREFERRED. 120V ELECTRICAL AND IRRIGATION STATION WIRE CONDUIT TO BE COORDINATED PRIOR TO CONSTRUCTION.

- CONTROLLER SHALL BE PROGRAMMED TO RUN MULTIPLE VALVES AT ONE TIME WITH A MAXIMUM TOTAL OF 10 GPM CONTROLLER TO BE MOUNTED PER DETAILS AND MANUFACTURER'S SPECIFICATIONS.
- CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE AND ELECTRICAL PLANS FOR POWER SERVICE. ALL ELECTRICAL EQUIPMENT AND POWER CONNECTION INSTALLATION SHALL CONFORM TO ALL LOCAL CODES. INSTALL A LINE VOLTAGE SURGE DEVICE (INTERMATIC AG2401C3/ OR SQUARE D SDSA1175) FOR 120V IN A JUNCTION BOX PRIOR TO CONTROLLER.
- RAIN/FREEZE SENSOR: MOUNT THE RAIN SENSOR ON BUILDING EAVE IN PROXIMITY TO THE CONTROLLER. THE SENSOR SHALL BE MOUNTED IN A LOCATION IN FULL SUN AND OPEN TO RAINFALL. SENSOR SHALL BE NO MORE THAN 200' FROM WIRELESS RECEIVER. MOUNT WIRELESS RECEIVER ON OR ADJACENT TO THE IRRIGATION CONTROLLER.
- 3. SYSTEM PRESSURE: THE SYSTEM HAS BEEN DESIGNED PER THE FOLLOWING SPECIFICATIONS: REQUIRED MINIMUM STATIC PRESSURE OF 65 PSI AND MAXIMUM SAFE VELOCITY OF 5 FPS IN ANY PVC PIPE AND 7.5 FPS IN ANY COPPER PIPE
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PRESSURE IN THE FIELD AT THE POINT OF CONNECTION BEFORE CONSTRUCTION BEGINS AND FOR NOTIFYING THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE DESIGN PRESSURE OF THE SYSTEM AND THE MEASURED PRESSURE IN THE FIELD. IF THE CONTRACTOR FAILS TO NOTIFY OWNER'S REPRESENTATIVE OF SUCH DISCREPANCIES, THEN THE CONTRACTOR ASSUMES ALL LIABILITY AND COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS TO ACCOMMODATE THE ACTUAL PRESSURE
- 4. FLOW SENSOR: SENSOR REQUIRES A MINIMUM FLOW FOR PROPER READINGS. MULTIPLE ZONES MAY BE REQUIRED TO RUN SIMULTANEOUSLY TO ACHIEVE THE MINIMUM FLOWS REQUIRED. CONTRACTOR TO SET 'K' VALUES PER MANUFACTURER. FLOW SENSOR REQUIRES A MINIMUM FLOW OF 3 GPM.

CONVENTIONAL WIRE NOTES

- GROUNDING FOR THE IRRIGATION CONTROLLER SHALL BE INSTALLED AND COORDINATED WITH THE RESIDENTIAL BUILDING GROUND IF ACCESIBLE, OR PER THE MANUFACTURER'S SPECIFICATIONS AND PER THE AMERICAN SOCIETY OF IRRIGATION CONSULTANTS GUIDELINE 100-2002 FOR EARTH GROUNDING ELECTRONIC EQUIPMENT IN IRRIGATION SYSTEMS FOUND AT www.asic.org/Design_Guides.aspx. FOR TECHNICAL SUPPORT REGARDING THE IRRIGATION CONTROLLER OR GROUNDING PLEASE
- CONTACT THE MANUFACTURER. 2. NEW CONTROLLER WIRE SHALL BE 14AWG (18AWG MIN.) UL APPROVED WIRE. CONTRACTOR SHALL VERIFY EXISTING CONNECTIONS
- AND USE UL APPROVED WIRE STRIPPER AND 3M DBY R-6 WATERPROOF CONNECTIONS (OR APPROVED EQUAL) AT ALL NEW SPLICES AND CONNECTION POINTS. CONTRACTOR TO INSTALL RED ELECTRIC MARKING TAPE WITH CONTROLLER WIRE THAT IS NOT WITH MAINLINE. WIRES SHALL BE BUNDLED TOGETHER BY BLACK ELECTRICAL TAPE EVERY 10 L.F.
- 3. CONTRACTOR SHALL HAVE 30" OF SPARE CONTROL WIRE PRESENT AT ALL SPLICE POINTS. SPARE WIRE SHALL BE COILED IN A NEAT AND ORDERLY FASHION AT EACH SLICE POINT.
- 4. CONTRACTOR SHALL EXTEND TWO (2) SPARE CONTROL WIRES, AND ONE (1) SPARE COMMON WIRE AT THE END OF THE MAINLINE. CONTRACTOR SHALL INSTALL ONE (1) WIRE PULL BOX AT EACH END OF THE MAINLINE.

WIRE	WIRE COLOR
COMMON WIRE	WHITE
CONTROL WIRE	RED
FLOW SENSOR	BLUE
SPARE WIRE	YELLOW

SLEEVING COORDINATION NOTES

- INSTALLATION OF IRRIGATION SLEEVING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE IRRIGATION CONTRACTOR FOR LOCATION AND SIZING OF SLEEVES PRIOR TO THE START OF CONSTRUCTION
- SLEEVES SHALL BE INSTALLED PRIOR TO THE START OF PAVING OPERATIONS.
- 3. THE CONTRACTOR SHALL SLEEVE ALL IRRIGATION DISTRIBUTION LINES, VALVE CONTROL WIRES AND COMMUNICATION WIRES UNDER ALL PAVED SURFACES, WALL FOOTERS, DRAINAGE CHANNELS, INLETS, CATCH BASINS, ETC.
- ALL SLEEVES SHALL EXTEND A MINIMUM OF 12" BEYOND EDGE OF ALL OBSTRUCTIONS. NO TEES, ELLS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER ANY OBSTRUCTIONS.
- EACH PIPE SHALL BE IN A SEPARATE SLEEVE. WIRES SHALL BE IN A SEPARATE PIPE UNDER ALL PAVED SURFACES.

2" CLASS 200 PVC

SLEEVING SHALL BE INSTALLED PER THE SIZES AND QUANTITIES SHOWN ON THE PLANS BASED ON THE CHART BELOW. PIPING **REQUIRED SLEEVE SIZE** MAINLINE PIPING (2) - 2" CLASS 200 PVC LATERAL PIPING 2X NOMINAL DIAMETER OF LATERAL

EXISTING TREE NOTES

CONTROL WIRES

- 1. ALL TRENCHING OR OTHER WORK UNDER LIMB SPREAD OF ANY AND ALL PLANT MATERIAL SHALL BE DONE BY HAND, BORING OR BY OTHER METHODS SO AS TO PREVENT DAMAGE TO LIMBS OR BRANCHES.
- 2. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES AND TREE ROOTS.
- 3. EXCAVATION AND TRENCHING, IN AREAS WHERE 2" AND LARGER ROOTS OCCUR, SHALL BE DONE BY HAND.
- 4. ROOTS 2" OR LARGER IN DIAMETER SHALL BE TUNNELED UNDER AND SHALL BE HEAVILY WRAPPED WITH BURLAP TO PREVENT SCARRING OR EXCESSIVE DRYING.
- 5. ROOTS SMALLER THAN 2" IN DIAMETER SHALL BE HAND TRIMMED AT THE WALL OF TRENCH, MAKING CLEAN CUTS THROUGH ROOTS. 6. TRENCHES ADJACENT TO TREES SHALL BE CLOSED WITHIN 24 HOURS, AND WHEN THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH
- ADJACENT TO TREE SHALL BE KEPT SHADED WITH MOISTENED BURLAP OR CANVAS UNTIL BACKFILL.

RRIGATION	SCHEDULE							
SYMBOL	DESCRIPTION	MOD DESC	EL NO. RIPTION			D # AN		
		RAIN	BIRD ESP-ME3 SERIES + LN	IK2WIFI MODULE (+ E	SPSM# EXPANSION			
A	CONTROLLER	MOD 120V	ULES AS REQUIRED) AC POWER REQUIRED - SEI	E PLANS FOR LOCATIO	N	1	1	
	RAIN SENSOR	RAIN BIRD WR2-RFC REFER TO CONTROLLER NOTES					1	
	BACKFLOW PREVENTER	FEBCO 3/4" 765 PVB (INSTALLED 12" ABOVE HIGHEST OUTLET*) *UTILIZE 3/4" FEBCO 825YA IF SITE TOPOGRAPHY CONDITIONS PREVENT THE USE OF PVB					1	
0	MANUAL DRAIN VALVE	MAT(MATCO-NORCA 1/2" 201X INSTALLED IN AEP 910L-1G2G VALVE BOX					
	MASTER VALVE	Rain With Valv	RAIN BIRD 100PEB-PRS WITH 14AWG WIRE BACK TO CONTROLLER, INSTALLED IN AEP 1015-1G2G VALVE BOX					
FS	FLOW SENSOR	RAIN WITH VALV	RAIN BIRD FG-100 WITH 14 AWG WIRE BACK TO CONTROLLER, INSTALLED IN AEP 1015-1G2G VALVE BOX					
0	QUICK COUPLER	RAIN	RAIN BIRD 3-RC INSTALLED IN AEP 910L-1G2G VALVE BOX				1	
M	ISOLATION GATE VALVE	MAT(WATCO-NORCA 514TX WATCH LINE SIZE. INSTALLED IN AEP 910L-1G2G VALVE BOX					
•	TURF VALVE ASSEMBLY	RAIN WITH	RAIN BIRD 100-DV SERIES WITH SCH 40 BALL VALVE, INSTALLED IN AEP 1015-1G2G VALVE BOX				2	
\oplus	DRIP VALVE ASSEMBLY	RAIN WITH PER	RAIN BIRD XCZ-075-PRF (0.2 - 5.0 GPM) AND XCZ-100-PRF (3.0-15 GPM) WITH SCH 40 BALL VALVE, INSTALLED IN AEP 1320-1G2G VALVE BOX, SIZED PER PLAN				2	
STRIP D D D R-VAN14 Image: Constraint of the second	TURF ROTARY	RAIN NOZZ	RAIN BIRD 1806-SAM-P45 WITH R-VAN SERIES NOZZLE NOZZLE PER PLAN					
Q T H F 3 MA 5 5 4 6 6 6 7 6 6 10 70 70 10 70 70 1	TURF SPRAY (FIXED)	Rain Nozz	RAIN BIRD 1806-SAM-PRS30 WITH MPR-SERIES NOZZLE NOZZLE PER PLAN					
8 (1) (12 (15	TURF SPRAY (ADJUSTABLE)	RAIN NOZZ	BIRD 1806-SAM-PRS30 WITI	H HE-VAN SERIES NO	ZZLE	3	2	
13 20 23 30 49 69 69 69	NATIVE ROTOR	RAIN NOZZ	RAIN BIRD 5012-SAM-R NOZZLE PER PLAN: MINIMUM PRESSURE REQUIRED 45 PSI					
/AN STRIP () () () /AN14 () () /AN18 () () /AN18 () () /AN24 () ()	NATIVE SEED ROTARY	Rain Nozz	RAIN BIRD 1812-S-P45 WITH R-VAN SERIES NOZZLE NOZZLE PER PLAN					
Q T H F O NA O	NATIVE SEED SPRAY (FIXED)	RAIN NOZZ	RAIN BIRD 1812-S-P30 WITH MPR-SERIES NOZZLE NOZZLE PER PLAN					
8 (1) (2) (15)	NATIVE SEED SPRAY (ADJ)	RAIN NOZZ	RAIN BIRD 1812-S-P30 WITH HE-VAN SERIES NOZZLE NOZZLE PER PLAN					
۲	TREE DRIP	(2) C	ONCENTRIC RINGS OF RAIN	BIRD XFS-09-12-CV D	RIPLINE	6	2	
×	PLANTER POT ASSEMBLIES	TRAN COIL	VISITION TO RAIN BIRD XBT- DRIPLINE AROUND PLANTE	10-6 MULTI-OUTLET E	MITTER	5	3	
	SLEEVING	CLAS REFE	3S 200 PVC BE ER TO SLEEVING NOTES			7	2	
	PVC MAINI INF		S 200 PVC BE	TED		8	2	
	PVC TURF	CLASS 200 PVC BE				8	2	
	PVC TREE	CLAS	SS 200 PVC BE			8	2	
	DRIP	UV R	ESISTANT POLYETHYLENE	IED		8	2	
	LATERAL FLUSH END	SIZE:	3/4" MINIMUM UNLESS OTH 40 BALL VALVE WITH HUNT	ERWISE NOTED ER ECO-OPERATIONA		6	2	
•	САР	INST	ALLED IN AEP 608L-1B2G VA	LVE BOX		0	3	
V	ALVE CALLOUT			EMITTER SCH				
VALVE/STATION NUMBER ZONE DESIGNATION: G (TURF), N (NATIVE), T (TREES), S (SHRUBS), P (PLANTER POT)			PLANI IYPE		R QTY. TOTAL GPH			
				1 0 GPH		1.0 GPH 2 0 СРН		
			DECIDUOUS SHRUBS 1.0 GPH TWO EACH EVERGREEN SHRUBS 1.0 GPH TWO EACH DECIDUOUS TREE 1.0 GPH EIGHT EACH				2.0 GPH 8.0 GPH	
	- VALVE SIZE		TREES IN NATIVE	(2) CO	ICENTRIC DRIP RINGS	EACH		
			EMITTER NOT	<u>ES</u>				
I. ALL PLANT MA 2. EMITTER SCHE NEEDS OF INDIVI	- VALVE SIZE TERIAL SHALL BE IRRIGAT EDULE IS FOR REFERENC DUAL PLANTS OR PLANT	E ONL HYDR	TREES IN NATIVE EMITTER NOT ITH RAIN BIRD XB SERIES PI Y. THE CONTRACTOR SHAL OZONES.	(2) CON ES RESSURE COMPENSA L ADJUST EMITTER A	NCENTRIC DRIP RINGS E TING EMITTERS. ND NUMBER OF EMITTE	RS BASE	D ON	

NEEDS OF 3. 1/4" DISTRIBUTION TUBING NOT TO EXCEED 8' IN LENGTH.

IRRIGA

2. EMITTE

RAIN BIRD DBC-025 DIFFUSER BUG CAP AND TS-025 STAKE ON ALL 1/4" DISTRIBUTION TUBING EMISSION POINTS.

5. REFER TO DRIP IRRIGATION DETAILS #1-5, ON DETAIL SHEET 3







RIGATION	SCHEDULE							
SYMBOL	DESCRIPTION	MODEL NO.						
		DESC				# #		
	IRRIGATION					1	1	
	CONTROLLER				ואר		I	
	DAINI	DAIN			אר			
\otimes								
	SENSUR	REFER TO CONTROLLER NOTES						
	BACKFLOW PREVENTER		FEBCO 3/4" 765 PVB (INSTALLED 12" ABOVE HIGHEST OUTLET*)				4	
							I	
60	MANUAL DRAIN VALVE MATCO-NORCA 1/2" 2018 MANUAL DRAIN VALVE INISTALLED IN AED 2101 1626 VALVE BOX				4	1		
						5	1	
Ŵ	WASIER VALVE	WITH 14AWG WIRE BACK TO CONTROLLER, INSTALLED IN AEP 1015-1G2G))	I	
Ee						6	1	
r3	FLUW JENJUR		WITH 14 AWG WIRE BACK TO CONTROLLER, INSTALLED IN AEP 1015-1G2G				I	
0			שוגם איי בט ואו אבם מזטו - זכטכ // <i>ו</i>			7	1	
		MAT						
M					- DUV	8	1	
		DAIN	DIDN 400 NV CEDIEC	AEF SIUL-IGZG VALVL				
•		KAIN BIRD 100-DV SERIES					2	
		DAIN	DAIN RIDD YCZ 075 DDE (0.2 5.0 CDM) AND YCZ 100 DDE (2.0.15 CDM)					
\frown	DRIP VALVE						ŋ	
Ð	ASSEMBLY		PER PLAN				2	
	PER PLAN							
۲	TREE DRIP	(2) C(2) CONCENTRIC RINGS OF RAIN BIRD XFS-09-12-CV DRIPLINE					
		CLAS	S 200 PVC BE			7	0	
	SLEEVING	REFE	R TO SLEEVING NOTES			1	Z	
	PVC	CLAS	S 200 PVC BE			0	0	
	MAINLINE	SIZE	1" UNLESS OTHERWISE NC)TED		0	۷	
	PVC TURF	CLAS	S 200 PVC BE			0	0	
LATERAL SIZE: 1" MINIMUM UNLESS OTHERWISE			RWISE NOTED		0	۷		
PVC TREE CLA			ASS 200 PVC BE				n	
	LATERAL	SIZE:	IZE: 1" UNLESS OTHERWISE NOTED				۷	
DRIP UV R			RESISTANT POLYETHYLENE				2	
	LATERAL	SIZE	3/4" MINIMUM UNLESS OTH	IERWISE NOTED		0	۷	
FLUSH END SCH 4			H 40 BALL VALVE WITH HUNTER ECO-OPERATIONAL INDICATOR			6	З	
-	CAP	INST/	ALLED IN AEP 608L-1B2G VA	LVE BOX		U	5	
VA	ALVE CALLOUT			EMITTER SCH	IEDULE			
	- VALVE/STATION NUMBE	R	PLANT TYPE	EMITTER	QTY.	TOTAL GPH		
— / г	ZONE DESIGNATION:	[PERENNIAL / GRASSES	0.5 GPH	TWO EACH	1.0 GPH		
G (TURF). N (NATIVE).				1 N CDH	ΤΙΛΙΟ ΕΔΟΗ	2 0 GPH		
	T (TREES), S (SHRUBS)),						
$\begin{array}{ c c c c } \hline & & & & & \\ \hline & & & & \\ \hline & & & & \\ \hline & & & &$				1.0 GPH		2.0 GPH		
			DECIDUOUS IREE	1.0 GPH	EIGHT EACH	8.0 GPH		
VALVE FLOW: (GPM)			EVERGREEN TREE 1.0 GPH EIGHT EACH				8.0 GPH	
VALVE SIZE			TREES IN NATIVE (2) CONCENTRIC DRIP RINGS EACH					
EMITTER NOTES								

. ALL PLANT MATERIAL SHALL BE IRRIGATED WITH RAIN BIRD XB SERIES PRESSURE COMPENSATING EMITTERS.

2. EMITTER SCHEDULE IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL ADJUST EMITTER AND NUMBER OF EMITTERS BASED ON THE NEEDS OF INDIVIDUAL PLANTS OR PLANT HYDROZONES.

3. 1/4" DISTRIBUTION TUBING NOT TO EXCEED 8' IN LENGTH.

4. RAIN BIRD DBC-025 DIFFUSER BUG CAP AND TS-025 STAKE ON ALL 1/4" DISTRIBUTION TUBING EMISSION POINTS. 5. REFER TO DRIP IRRIGATION DETAILS #1-5, ON DETAIL SHEET 3



SCALE: 3/16" = 1





- ③ PROVIDE THROUGH WALL CONDUIT
- (4) CONDUIT 90° JUNCTION BOX THROUGH WALL (BOTH SIDES)
- 5 FINISH GRADE
- (6) UF DIRECT BURIAL WIRE TO **REMOTE CONTROL VALVES**
- 7 BUILDING WALL
- (8) WALL MOUNT CONTROLLER AT EYE-LEVEL INSTALL PER MANUFACTURER'S RECOMMENDATIONS
- (9) SCH. 80 PVC OR RIGID STEEL CONDUIT FOR CONTROL WIRES AND GROUNDING
- 120 VAC POWER SUPPLY JUNCTION BOX
- (1) FINISH FLOOR
- (12) MOUNT SENSOR RECEIVER ADJACENT TO CONTROLLER

10" ROUND BOX & COVER PER

SCHEDULE. TOP OF BOX TO BE

FLUSH WITH FINISH GRADE.

3 2" CL160 PVC ACCESS SLEEVE

(4) 3" DEPTH 3/4" CRUSHED GRAVEL

6" BEYOND EDGE OF BOX

LENGTH AS REQUIRED.

2 2" VALVE MARKER

SCALE: NTS



FRONT VIEW

VARIES

OPEN

2

3-

4-

5

6

NOTE

-/ 5'-MIN /-

MANUFACTURER'S SPECIFICATIONS.

SIDE VIEW

1. ALL ELECTRICAL MATERIALS SHALL BE U.L. APPROVED FOR USE AS SHOWN.

2. ALL ELECTRICAL AND CONTROLLER WIRE TO BE INSTALLED PER LOCAL CODE AND



2. LOCATE DRAIN VALVE AT POINT OF CONNECTION AND AT ALL LOW POINT(S) ALONG THE

1. ALL THREADED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE.

IRRIGATION MAINLINE AS NEEDED.

MANUAL DRAIN VALVE

5 PVC PRESSURE MAIN LINE 6 SCH. 80 TEE PER MAINLINE SIZE. ALIGN IN A DOWNWARD POSITION (7) SCH. 80 PVC NIPPLE (8) FINISH GRADE (9) 1" BRONZE STOP VALVE WITH

(1)

- SLOTTED KEY OPERATOR
- (10) SCH. 80 PVC ELL
- 11 SCH. 80 PVC NIPPLE
- (12) 3/4" GRAVEL SUMP 1 CU. FT. MIN (13) SOIL BLANKET ENCLOSING SUMP



1 FINISH GRADE

- 2 10" ROUND BOX & COVER PER SCHEDULE. TOP OF BOX TO FLUSH WITH FINISH GRADE
- 3 QUICK COUPLING VALVE W/ COVER PER SCHEDULE
- 4 SCH. 80 PVC RISER (T x T)
- 5 3" DEPTH 3/4" GRAVEL BASE EXTEND 6" BEYOND EDGE OF BOX
- 6 PVC SWING JOINT (ASSMEBLED IN FIELD)
- 7 PVC MAINLINE
- (8) 24" LONG #4 REBAR TO HOLD QUICK COUPLER IN PLACE W/ (2) STAINLESS STEEL CLAMPS

NOTE:

4

- EACH QUICK COUPLER SHALL BE IN A SEPARATE VALVE BOX
- PROVIDE (1) QUICK COUPLER KEY FOR EACH QUICK COUPLER VALVE. QUICK COUPLER SHALL HAVE RUBBER COVER.
- COMPACT SOIL AROUND GATE VALVE ASSEMBLY TO THE SAME DENSITY AS ADJACENT UNDISTURBED SUB-GRADE.
- ALL THREADED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE.

QUICK COUPLER



SUSTAINABLE IRRIGATION TEMPLATES | IRRIGATION DETAILS (SHEET 1 OF 3) 12/07/2023

SCALE: NTS

GATE VALVE

2. DO NOT REST VALVE BOX OR ACCESS SLEEVES ON MAINLINE OR LATERAL LINE. 3. PROVIDE GATE VALVE KEY - LENGTH AS REQUIRED.

- UNDISTURBED SUBGRADE
- 1. COMPACT SOIL AROUND GATE VALVE ASSEMBLY TO THE SAME DENSITY AS ADJACENT

- NOTE:



LENGTH AS REQUIRED. AND SOLID WEDGE DISC PER

SCHEDULE

7 PVC MAINLINE

5 3/4" GRAVEL SUMP FILL IN AND

AROUND BOX AS REQUIRED.

6 3" DEPTH 3/4: GRAVEL EXTEND 6"

SCALE: NTS

BEYOND EDGE OF BOX

(8) COMPACTED SUBGRADE

- GATE VALVE W/ CROSS HANDLE

- 3 8" SCH 40 PVC ACCESS SLEEVE

- 2 FINISH GRADE
- FLUSH WITH FINISH GRADE
- 1 ROUND BOX & COVER PER SCHEDULE. TOP OF BOX TO BE
- SCALE: NTS



6

(10)

- 1 PVC MAINLINE
- 2 SCH. 80 PVC MALE ADAPTER

(1) SUITABLE FASCIA, WALL, OR

TO RAINFALL.

CONTROLLER.

WITHIN 500' OF THE

PER LOCAL CODES

GUTTER MOUNT. MOUNT IN

(2) WIRELESS RAIN SENSOR, LOCATE

(3) SECURE MOUNTING BRACKET TO

EXTERIOR WALL WITH SCREWS

LOCATION WHERE SENSOR CAN

RECEIVE FULL SUN AND IS OPEN

- (3) SCH. 80 PVC BALL VALVE
- (4) FINISH GRADE

5 VALVE BOX PER SCHEDULE

6 SCH. 80 PVC NIPPLE

CONNECTIONS; DBY / R-6 OR

(9) WATERPROOF ELECTRICAL

APPROVED EQUAL

(10) WIRES TO CONTROLLER

(1) BRICK SUPPORTS 2 MIN.

(13) COMPACTED SUBGRADE

12 3/4" GRAVEL SUMP - 8" DEPTH



(8) SCH. 80 PVC UNION (THREADED)











NTS

3





NOTE

2-

GROUNDING.

CONNECTION TO SOLENOID.

MASTER VALVE

- . PROVIDE WATERPROOF SEALANT FOR ALL CONDUIT AND WIRE ACCESS POINTS.
- 2. FINAL LOCATION AND MOUNTING SYSTEM TO BE DETERMINED BY OWNER.

(4) (5) (6) (7) (8) (9)

3" MIN.

(1) (12 (13) (6) (2)

1. INSTALL MASTER VALVE PER MANUFACTURER'S SPECIFICATIONS FOR WIRING AND

2. 30" MINIMUM LENGTH OF CONTROL WIRE COILED AND PLACED IN BOX AT WATER PROOF

SYSTEM OR UNDER EAVE OF HOUSE.

RAIN SENSOR SURFACE MOUNT

3. SENSOR SHOULD NOT BE MOUNTED UNDER TREES, IN AREAS AFFECTED BY SPRINKLER

(10)(1)

<u>3</u>3 i



1. INSTALL PER LOCAL CODES AND MANUFACTURER'S SPECIFICATIONS. COORDINATE WITH PLUMBING CONTRACTOR AND OWNER'S REPRESENTATIVE PRIOR TO CONNECTION.

3. PROVIDE PROPER OFFSET FROM WALL AND PIPING SUPPORTS FOR MAINTENANCE PER

MANUFACTURER'S SPECIFICATIONS. 4. PROVIDE FREEZE PROTECTION AROUND COPPER SUPPLY LINES FROM BUILDING.

5. PRESSURE VACUUM BREAKER SHALL BE INSTALLED 12" HIGHER THAN ANY DISCHARGE POINT OF THE IRRIGATION SYSTEM; UTILIZE REDUCED PRESSURE ZONE (RPZ) ASSEMBLY IF SITE TOPOGRAPHY CONDITIONS PREVENT THE USE OF PVB.

PRESSURE VACUUM BREAKER

(1)(2)

(7)

- 1 BUILDING WALL
- (2) PRESSURE VACUUM BREAKER BACKFLOW PREVENTER. LOCATE MINIMUM 12" ABOVE HIGHEST **EMISSION POINT**
- 3 COPPER SERVICE LINE FROM BUILDING (EXISTING CONNECTION OR PROVIDED BY OTHERS)
- (4) COPPER NIPPLE AND ELBOWS AS NEEDED OUT OF VACUUM BREAKER
- 5 BRONZE UNION SxS
- (6) COPPER SERVICE TO DRAIN VALVE
- TINISHED GRADE

1 WIRES TO CONTROLLER

SCALE: NTS

2 VALVE BOX PER SCHEDULE

- (3)WATERPROOF ELECTRICAL CONNECTIONS; DBY / R-6 OR APPROVED EQUAL
- (4) FLOW SENSOR PER SCHEDULE

5 DOWNSIZED MAINLINE

6 FINISH GRADE

 $\left(8\right)$

- 7 PVC MAINLINE
- (8)COMPACTED SUBGRADE
- (9)3/4" GRAVEL SUMP 8" DEPTH
- (10) BRICK SUPPORTS 2 MIN.

MINIMUM DOWNSTREAM MINIMUM UPSTREAM DISTANCE 10x **DISTANCE 5x** FLOW METER SIZE FLOW METER SIZE OF CLEAN STRAIGHT PIPE OF CLEAN STRAIGHT PIPE 1. INSTALL FLOW SENSOR PER MANUFACTURER'S SPECIFICATIONS FOR WIRING AND GROUNDING. 2. 30" MINIMUM LENGTH OF CONTROL WIRE COILED AND PLACED IN BOX AT WATER PROOF CONNECTION TO

34567

3. IF AN ALTERNATE FLOW SENSOR IS UTILIZED A SPOOL WILL BE REQUIRE TO REMOVE FLOW SENSOR FOR WINTERIZATION

FLOW SENSOR

SCALE: NTS





SUSTAINABLE IRRIGATION TEMPLATES | IRRIGATION DETAILS (SHEET 2 OF 3) 12/07/2023











(1) VALVE BOX; ALIGN EVENLY AND SPACE EVENLY FROM SIDEWALK, STRUCTURE, WALL, OR CURB

SCALE: NTS

SCALE: NTS

- 2 SIDEWALK OR PAVING
- (3) VALVE BOX LID BRANDED WITH **CONTROLLER & STATION** NUMBER

1 PVC DRIP MANIFOLD PIPE

SCALE: NTS

- 2 PVC SCH 40 TEE OR EL
- (3) DRIP BLANK TUBING
- (4) CROSS INSERT FITTING
- 5 TEE INSERT FITTING
- 6 PROJECTED CANOPY LINE OF TRFF
- (7) SUB-SURFACE DRIPLINE
- 8 ROOT BALL
- (9) TIE DOWN STAKE

- (2) POP-UP SPRAY HEAD PER SCHEDULE
- 3 PVC LATERAL PIPE
- (4) SWING JOINT ASSEMBLY
- 5 PVC SCH. 40 TEE OR ELL (S x T)
- 6 WALLS, WALKS, COURTS, CURB, FTC.
- (1) FINISH GRADE













1. COMPACT SOIL AROUND VALVE BOX TO THE SAME DENSITY AS ADJACENT UNDISTURBED

2. INSTALL OPERATIONAL INDICATOR WITHIN 24" OF FLUSH VALVE.

3. ALL THREADED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE.







NOTE

NOTE:

5

NTS

SUBGRADE.

2





- 1 DIFFUSER CAP W/ DRIP STAKE
- 2 PLANT CENTER
- 3 PLANT ROOTBALL
- 4 SINGLE OUTLET EMITTER
- 5 3/4" POLYETHYLENE DRIP TUBING
- 6 1/4" DISTRIBUTION TUBING
- (LENGTH NOT TO EXCEED 8')





1 6" ECO-OPERATIONAL INDICATOR

SCALE: NTS

- 2 ROUND BOX & COVER PER SCHEDULE. TOP OF BOX TO BE FLUSH WITH FINISH GRADE
- 3 1/2" SCH. 40 PVC BALL VALVE
- 4 FINISH GRADE
- 5 1/2" MxI MALE ADAPTER W/ CLAMPS
- 6 1/2" POLYETHYLENE DRIP TUBING - 24" COIL IN BOX FOR MAINTENANCE
- (7) BRICK (2 REQUIRED MIN.)
- (8) 3/4" GRAVEL SUMP, 4" DEPTH
- () 1/2" SCH. 80 NIPPLE (LENGTH AS NEEDED)
- (10) 1/2"x1/2"x1/2" lxlxF INSERT TEE
- (1) 3/4" X 1/2" POLY ADAPTER

DRIP FLUSH VALVE WITH OPERATIONAL INDICATOR

SCALE: NTS

MAXIMUM LENGTH OF ONE DISTRIBUTION TUBE SHALL BE 8' 2. ALL EMISSION POINTS SHALL BE LOCATED ON UPHILL SIDE OF PLANT MATERIAL. ONE EMISSION POINT SHALL BE DIRECTLY TO PLANT BALL AS INDICATED. ADDITIONAL EMISSION POINTS SHALL BE WITHIN PLANT PIT PERIMETER AS DIRECTED IN THE EMITTER SCHEDULE. 3. SECOND EMISSION POINTS (IF NEEDED) AS PER THE EMITTER SCHEDULE FOR TREES WITH 3" CALIPER OR GREATER OR CONIFEROUS TREES 10' OR GREATER IN HEIGHT. 4. THIS IS A WATERING GUIDE ONLY. SITE, SOIL AND PLANT CONDITIONS VARY GREATLY. CONTRACTOR MUST OBSERVE THE PLANT MATERIAL AND MAKE ADJUSTMENTS AS NECESSARY FOR PROPER PLANT WATER REQUIREMENT.

TREE EMITTER PLACEMENT

- (1) EMISSION POINT. DIFFUSER CAP W/ DRIP STAKE (TYP.)
- 2) PLANT ROOT BALL (TYP.)
- 3 PLANT CENTER (TYP.)
- SECOND EMISSION POINTS SEE NOTE 3 BELOW
- 5 TREE TRUNK
- 6 MULCH LAYER
- (7) 1/4" DISTRIBUTION TUBING
- (LENGTH NOT TO EXCEED 8')
- (8) 3/4" POLYETHYLENE DRIP TUBING
- (9) SINGLE OUTLET EMITTER 10 ROOTBALL

SCALE: NTS

