

IRIGATION NOTES

1. THE PLANS AND DRAWINGS ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. SOME COMPONENTS MAY BE SHOWN OUTSIDE THE WORK AREA FOR CLARITY. THE WORK SHALL BE EXECUTED IN A MANNER TO AVOID CONFLICTS WITH UTILITIES AND OTHER ELEMENTS OF CONSTRUCTION, INCLUDING LANDSCAPE MATERIALS. ALL DEVIATIONS FROM THE PLANS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE BEING INSTALLED.

2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS, IRRIGATION SYSTEM SPECIFICATIONS AND ALL CONTRACT DOCUMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT LOCAL CODES, ORDINANCES, AND REGULATIONS.

3. ALL IRRIGATION MAINLINE AND LATERAL LINES ARE TO NOT EXCEED A VELOCITY OF 5FPS.

4. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY ASPECT OF THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS AND DRAWINGS, WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES EXIST THAT MIGHT NOT HAVE BEEN KNOWN DURING THE DESIGN OF THE IRRIGATION SYSTEM. IN THE EVENT THAT NOTIFICATION OF THE CONFLICT IS NOT APPROVED BY THE OWNERS REPRESENTATIVE, THE CONTRACTOR WILL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS.

5. REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREE ROOT BALLS WHEN INSTALLING IRRIGATION EQUIPMENT. CALL 811 AND REFER TO UTILITY PLANS PRIOR TO TRENCHING.

6. IRRIGATION CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, INCLUDING UTILITY LOCATIONS BEFORE INSTALLATION OF THE IRRIGATION SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION WITH ALL OTHER CONSTRUCTION ON SITE, ESPECIALLY LANDSCAPE INSTALLATION. THE IRRIGATION SYSTEM SHALL BE RELOCATED AT NO ADDITIONAL COST FOR ANY CONFLICT WITH LANDSCAPE INSTALLATION OR ANY OTHER SITE CONSTRUCTION OR EXISTING CONDITIONS.

7. VERIFY THE REQUIRED MINIMUM STATIC WATER PRESSURE IS AVAILABLE AT THE PROJECT SITE PRIOR TO BEGINNING THE IRRIGATION INSTALLATION. NOTIFY THE IRRIGATION DESIGN CONSULTANT AND LANDSCAPE ARCHITECT IN WRITING IF THE MINIMUM STATIC WATER PRESSURE OR WATER VOLUME IS NOT AVAILABLE. SEE PLAN SHEET FOR REQUIREMENTS.

8. WHERE EXISTING OR NEW TREES, LIGHT FIXTURES, SIGNS, ELECTRONIC CONTROLLERS AND/OR OTHER OBJECTS ARE AN OBSTRUCTION TO AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN PROPER COVERAGE OF AN IRRIGATION SPRINKLER'S PATTERN. THE COMPONENT AND PIPING SHALL BE RELOCATED AS NECESSARY TO OBTAIN THE PROPER COVERAGE WITHOUT DAMAGING THE OBSTRUCTION.

9. 100% HEAD TO HEAD COVERAGE IS REQUIRED. ASSURE THAT ANY MODIFIED SPACING DOES NOT EXCEED THE SPACING SHOWN IN THE PLANS.

10. IRRIGATION CONTRACTOR SHALL ADJUST ALL SPRINKLERS TO AVOID OVER SPRAY ONTO IMPERVIOUS AREAS.

11. ALL MATERIALS AND EQUIPMENT SHOWN SHALL BE NEW AND INSTALLED AS SHOWN ON THE PLANS. IF THE DRAWINGS DO NOT THOROUGHLY DESCRIBE THE TECHNIQUES TO BE USED, THE INSTALLER SHALL FOLLOW THE INSTALLATION METHODS AND INSTRUCTIONS RECOMMENDED BY THE PRODUCT MANUFACTURER.

12. THE LOCATION OF THE IRRIGATION MAINLINE SHALL BE IDENTIFIED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION.

13. CONTRACTOR IS TO SUBMIT PRODUCT SPECIFICATION SHEETS FOR ALL IRRIGATION EQUIPMENT TO BE USED FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

14. THE QUANTITIES SHOWN IN THE LEGEND SHEETS SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING A COMPREHENSIVE MATERIALS TAKEOFF TO DETERMINE THE ACTUAL QUANTITIES OF MATERIAL NECESSARY TO EXECUTE THE WORK DESCRIBED IN THE DOCUMENTS.

15. ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN DEBRIS-FREE MATERIALS.

16. IRRIGATION CONTRACTOR IS TO INSTALL CHRISTY ZONE TAGS WITH THE CORRESPONDING CONTROLLER ZONE NUMBER AT EACH CONTROL VALVE.

17. AS BUILT DOCUMENTS ARE TO BE PROVIDED TO THE OWNER UPON COMPLETION OF THE PROJECT. THE MAINLINE, CONTROL VALVES, ISOLATION VALVES, GROUND RODS AND SPLICE BOXES SHALL BE LOCATED WITH A MEASUREMENT FROM TWO FIXED POINTS.

18. IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF ON-SITE OPERATIONS.

19. A MAINLINE PRESSURE TEST IS TO BE CONDUCTED BEFORE BACKFILLING. ALL FINDINGS ARE TO BE REPORTED TO THE LANDSCAPE ARCHITECT WITHIN TWENTY FOUR HOURS POST TEST.

20. ALL IRRIGATION HEADS ARE TO BE INSTALLED AT THE END OF PARKING SPACES IN LINE WITH PARKING STRIPES OR 2.5 FEET FROM BACK OF CURB.

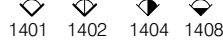


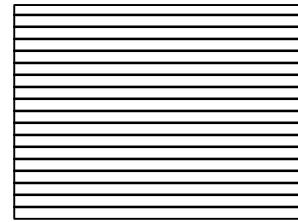






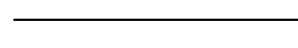


21. ALL SLEEVES ARE TO BE TWO TIMES THE SIZE OF THE PIPE.

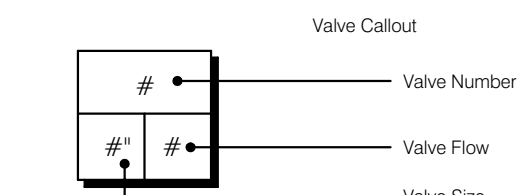
22. ROUTE AN ELECTRICAL CONDUIT FROM THE CONTROLLER TO THE MAINLINE TRENCH FOR THE CONTROL WIRES. RUN THE CONDUIT AND CONTROL WIRES PARALLEL TO THE MAINLINE.

23. THE IRRIGATION SYSTEM IS TO BE INSPECTED AND APPROVED BY THE PROJECT OWNER PRIOR TO RECEIVING CERTIFICATION.

24. ANY PRODUCT SUBSTITUTIONS MADE BY THE IRRIGATION CONTRACTOR ARE TO BE REVIEWED AND APPROVED BY THE OWNER PRIOR TO INSTALLATION.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	RAIN BIRD 1800-1400 FLOOD FIXED FLOW RATE 0.25 GPM - 2.0 GPM, FULL CIRCLE BUBBLER, 1/2IN. FIPT.	47	30
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD XCZ-100-LC WIDE FLOW DRIP CONTROL KIT, FOR LIGHT COMMERCIAL USES. 1IN. PEB VALVE, WITH 1IN. PRESSURE REGULATING 40PSI BASKET FILTER. 0.3-20 GPM.	2	
	RAIN BIRD XCZ-150-LCS HIGH FLOW CONTROL ZONE KIT, FOR LARGE COMMERCIAL DRIP ZONES. 1-1/2IN. PEB GLOBE VALVE WITH SINGLE 1-1/2IN. PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. FLOW RANGE: 15-62 GPM.	7	
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-09-12 XFS SUB-SURFACE PRESSURE COMPENSATING DRIPLINE W/COPPER SHIELD TECHNOLOGY. 0.9 GPH EMITTERS AT 12" O.C. LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. UV RESISTANT. SPECIFY XF INSERT FITTINGS.	9,020 L.F.	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD PGA GLOBE 1IN. 1-1/2IN., 2IN. ELECTRIC REMOTE CONTROL VALVE, GLOBE.	2	
	ZURN 975XL 1-1/2" REDUCED PRESSURE BACKFLOW DEVICE	1	
	RAIN BIRD ESP4ME3 WITH (2) ESP-SM3 (1) ESP-SM6 16 STATION, HYBRID MODULAR OUTDOOR CONTROLLER. FOR RESIDENTIAL OR LIGHT COMMERCIAL USE. LNK WIFI MODULE AND FLOW SENSOR READY.	1	
	RAIN BIRD LNK2WIFI UPGRADES CONTROLLERS (ESP-M, ESP-RXZE, ST8) TO HAVE WEATHER DATA FOR ET-BASED ADJUSTMENTS (WATERSENSE APPROVED) & WIFI CAPABILITIES -	1	
	RAIN BIRD RSD-BEX RAIN SENSOR, WITH METAL LATCHING BRACKET, EXTENSION WIRE.	1	
	WATER METER 1-1/2" BADGER RECORDALL DISC METER OR EQUAL	1	
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	2,140 L.F.	
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	485.0 L.F.	
	PIPE SLEEVE: PVC SCHEDULE 40	275.8 L.F.	



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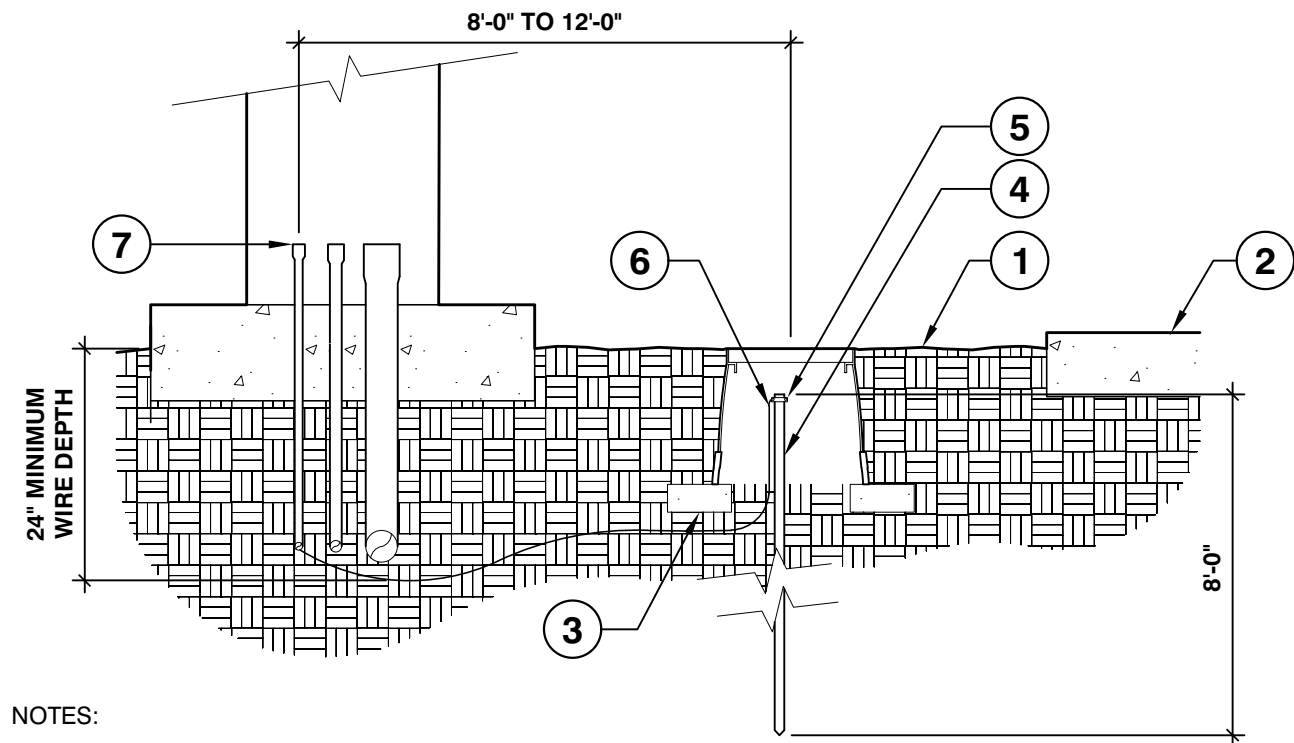
VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PRECIP
1	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	18.41	1.44 in/h
2	RAIN BIRD PGA GLOBE	1"	BUBBLER	7.5	1.7 in/h
3	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	17.3	1.44 in/h
4	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	23.34	1.44 in/h
5	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	12.89	1.44 in/h
6	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	13.43	1.44 in/h
7	RAIN BIRD PGA GLOBE	1"	BUBBLER	12.5	1.7 in/h
8	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	16.25	1.44 in/h
9	RAIN BIRD XCZ-150-LCS	1-1/2"	AREA FOR DRIPLINE	16.62	1.44 in/h
10	RAIN BIRD XCZ-100-LC	1"	AREA FOR DRIPLINE	11.01	1.44 in/h

THE IRRIGATION CONTRACTOR IS TO SET THE RUN TIMES FOR EACH ZONE TO MATCH THE PLANT WATER REQUIREMENTS, SITE CONDITIONS AND MICRO-CLIMATE FACTORS. SEE THE LANDSCAPE PLANS FOR PLANT SPECIFICATIONS. THE IRRIGATION CONTRACTOR IS TO PROGRAM 1-2 ZONES TO OPERATE SIMULTANEOUSLY.

CRITICAL ANALYSIS

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P.O.C. NUMBER: 01	
Water Source Information:	BADGER RECORDALL DISC METER OR EQUAL
FLOW AVAILABLE	
Water Meter Size:	1-1/2"
Flow Available	75 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	60 PSI
Elevation Change:	0 ft
Service Line Size:	3"
Length of Service Line:	20 ft
Pressure Available:	60 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	23.34 GPM
Flow Available at POC:	75 GPM
Residual Flow Available:	51.66 GPM
Critical Station:	10
Design Pressure:	30 PSI
Friction Loss:	2.06 PSI
Fittings Loss:	0.21 PSI
Elevation Loss:	0 PSI
Loss through Valve:	9.62 PSI
Pressure Req. at Critical Station:	41.9 PSI
Loss for Fittings:	0.02 PSI
Loss for Main Line:	0.22 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	13.4 PSI
Loss for Water Meter:	0.17 PSI
Critical Station Pressure at POC:	55.7 PSI
Pressure Available:	60 PSI
Residual Pressure Available:	4.3 PSI

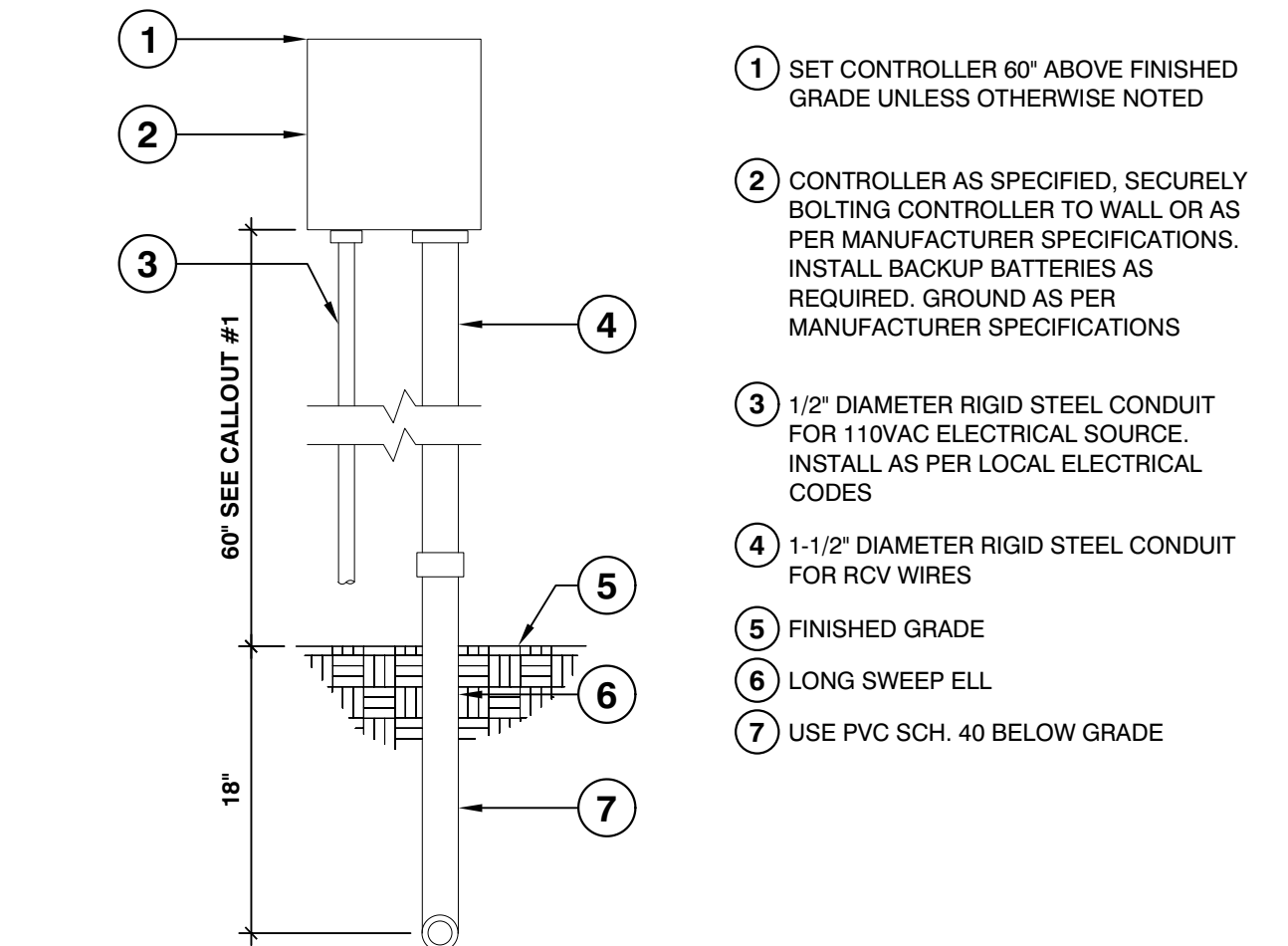


NOTES:

- ALL GROUNDING REQUIREMENTS FOR CONTROLLERS SHALL CONFORM TO LOCAL ELECTRIC CODES.
 - GROUNDING ROD SHALL NOT BE LOCATED IN THE SAME TRENCH AS IRRIGATION MAINLINES OR LATERAL LINES.
 - VALVE BOX SHALL BE WRAPPED WITH A MINIMUM 3 MIL THICK PLASTIC AND SECURED TO THE VALVE BOX USING DUCT TAPE OR ELECTRICAL TAPE.
 - INSTALL GROUNDING ROD PER THE CONTROLLER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
- FINISH GRADE
 - PAVEMENT
 - THREE (3) 4" x 8" BRICKS
 - 5/8" x 8'-0" COPPER GROUNDING ROD
 - GROUNDING ROD CLAMP
 - #6 AWG BARE COPPER WIRE
 - 1/2" PVC ELECTRICAL CONDUIT AND SWEEP FOR EARTH GROUND

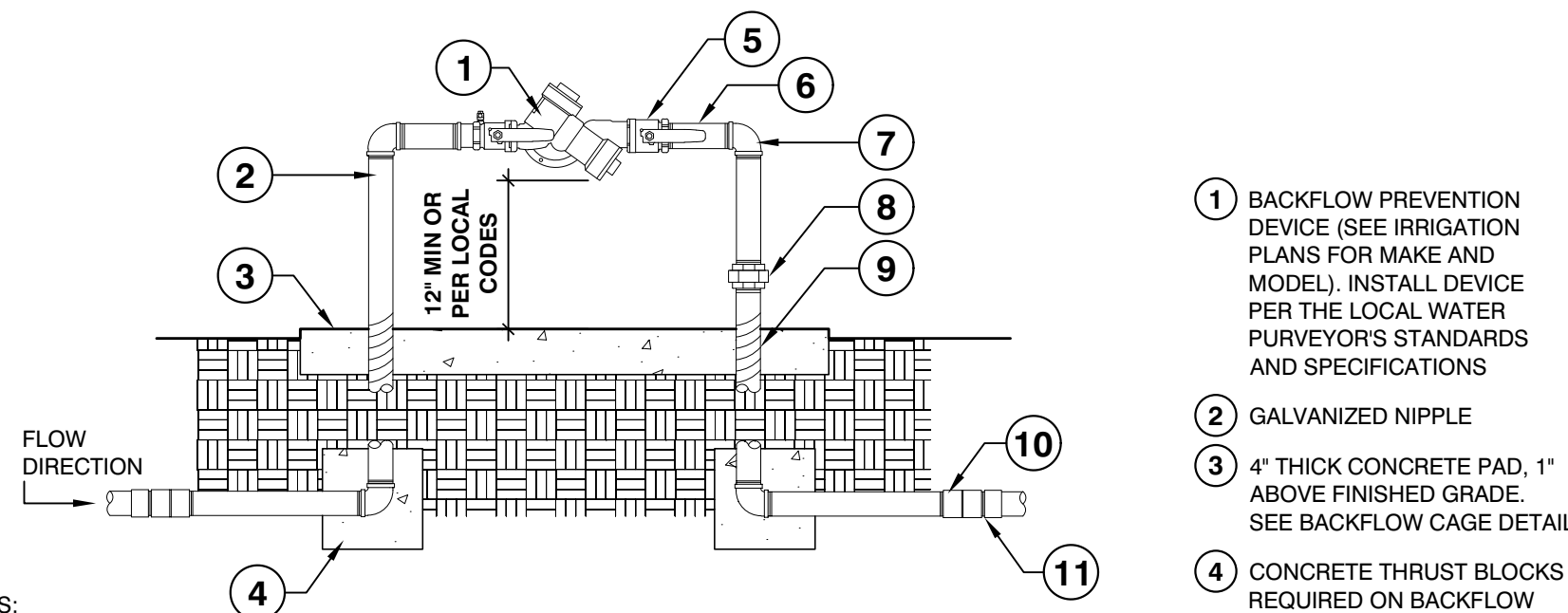
GROUNDING ROD

1" = 1'-0" FX-IR-FX-AUXEQ-01



WALL MOUNT CONTROLLER

1" = 1'-0" FX-IR-FX-CONT-06



NOTES:

- ALL ASSEMBLY PARTS (THREADED NIPPLES, FITTINGS, ETC.) SHALL BE GALVANIZED OR BRASS PER LOCAL CODES AND REQUIREMENTS.
- GALVANIZED NIPPLE SHALL EXTEND 12" PAST THE EDGE OF THE CONCRETE FOOTING.
- SCH. 80 PVC MALE ADAPTER SHALL BE USED IN CONNECTION FROM GALVANIZE TO THE MAINLINE.
- BACKFLOW PREVENTION DEVICE SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE LANDSCAPE METER.
- BACKFLOW PREVENTION DEVICE SHALL BE LOCATED IN PLANTING AREA UNLESS APPROVED BY OWNER'S REPRESENTATIVE.
- SEE DETAIL FOR BACKFLOW CAGE INSTALLATION.
- ALL BACKFLOW PREVENTION DEVICES SHALL HAVE FREEZE BLANKET INCLUDED UPON INSTALLATION.
- ALL GALVANIZED CONNECTIONS SHALL TO BE MADE USING PIPE THREAD SEALANT. ALL SCH. 80 PVC TO GALVANIZED CONNECTIONS TO BE MADE USING TEFLON TAPE.

BACKFLOW PREVENTION DEVICE

3/4" = 1'-0" FX-IR-FX-BACK-02

Date	Description	No.
Revisions		
<div>Digitally signed Theresa Wymer Date: 2023.08.03 14:51:29 -04'00' HERESA WYMER ARCHITECT FL Lic. No. LA6667363</div>		
LANGAN Langan Engineering and Environmental Services, Inc. 110 East Broward Boulevard, Suite 1500 Fort Lauderdale, FL 33301 T: 954.320.2100 F: 954.320.2101 www.langan.com FL CERTIFICATE OF AUTHORIZATION NO. 00006601LB8172LB8198		
Project		
BLP - POMPANNO BEACH		
PARCEL ID: 4942-03-00-0036, -0038, -0043 CITY OF POMPANNO BEACH		
BROWARD COUNTY FLORIDA		
Drawing Title		
IRRIGATION NOTES, SCHEDULES & DETAILS		
Project No. 330119501		Drawing No. IR-02
Date JUNE 2023		
Drawn By IDS		
Checked By MK		