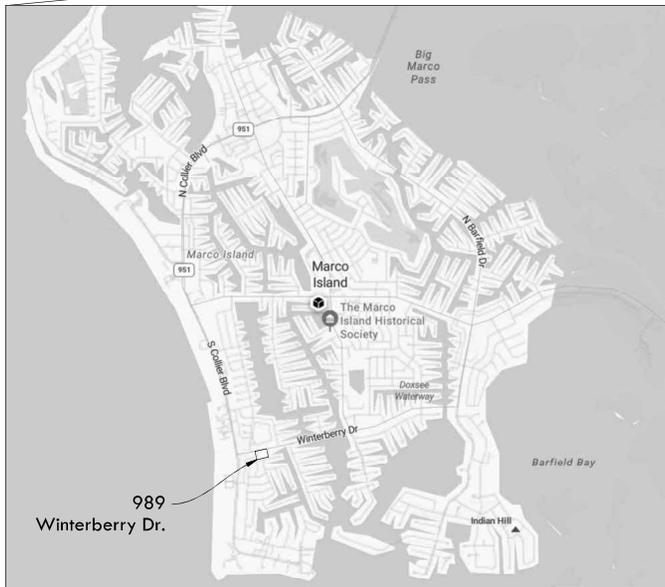
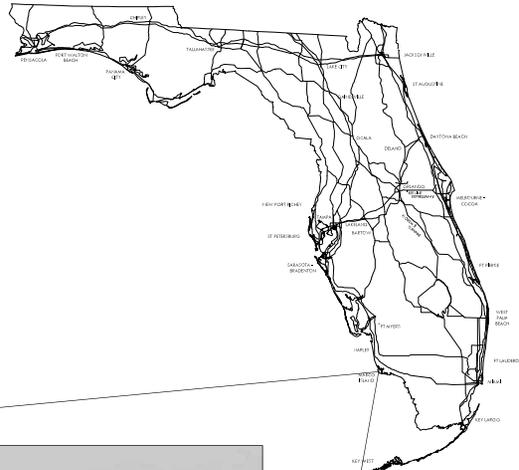


989 WINTERBERRY DRIVE, MARCO ISLAND, FL

Reviewed for code compliance
M Holden
 11/26/2024 12:37:02 PM

IRRIGATION PLANS



SHEET INDEX

NAME	SHEET
COVER SHEET	COV
IRRIGATION PLAN	IR-1
IRRIGATION SPECIFICATIONS	IR-2
IRRIGATION DETAILS	IR-3

INVESTIGATE BEFORE YOU EXCAVATE. "Call Sunshine State One" Toll Free 1-800-432-4770, Florida Statute 553.851 (1979) requires minimum of 2 days and maximum of 5 days notice before you excavate.

S.L.yarchitecture

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SUBMITTAL SET
 8/29/24

Orig. Issue Date: 06/17/2024

REV.	Description	Date
A	Adjusted material list and irrigation details per above.	8/29/24

989 WINTERBERRY

ADDRESS: 989 WINTERBERRY DRIVE,
 MARCO ISLAND, FL 34135

SDP
IRRIGATION PLANS

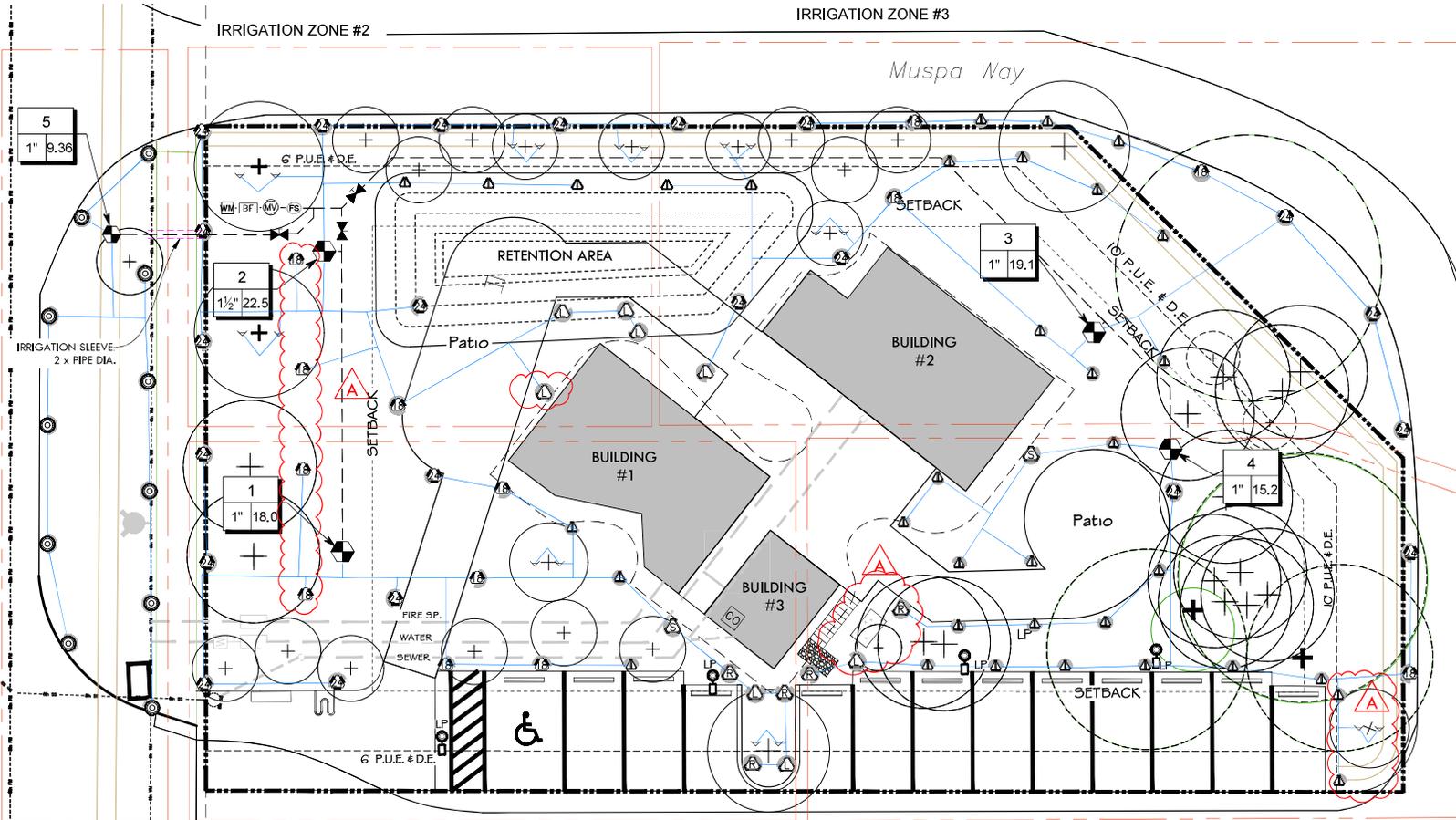
Project Number:
 Date: 06/17/2024
 Drawn By: WVB
 Checked By: EG

IR-COV

SHEET 1 OF 4

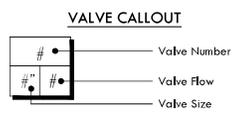
Scale:

Winterberry Drive



IRRIGATION HEAD KEY

SYMBOL	MANUFACTURER/MODEL
⊙	Rain Bird R-VAN18 1806-SAM-P45 RV-18
△	Rain Bird R-VAN-STRIP 1812-SAM-P45 LCS
△	Rain Bird R-VAN-STRIP 1812-SAM-P45 RCS
△	Rain Bird R-VAN-STRIP 1812-SAM-P45 SST
△	Rain Bird R-VAN14 1812-SAM-P45 RV-14
△	Rain Bird R-VAN18 1812-SAM-P45 RV-18
△	Rain Bird R-VAN24 1812-SAM-P45 RV-24
△	Rain Bird R-VAN24 1812-SAM-P45 RV-24F
▽	Rain Bird 1806-1400 Flood 1402



IRRIGATION EQUIPMENT KEY

SYMBOL	DESCRIPTION
BF	BACKFLOW PREVENTER
FS	FLOW SENSOR
CO	IRRIGATION CONTROLLER
IV	ISOLATION VALVE
MV	MASTER VALVE
RS	RAIN SENSOR
RCV	REMOTE CONTROL VALVE
WM	WATER METER

SEE SHEET IR-2, IR-3 FOR MATERIAL LIST AND SPECIFICATIONS

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SUBMITTAL SET
8/29/24

Orig. Issue Date: 06/17/2024

REV.	Description	Date
A	Adjusted final irrigation heads per SDP Irrigation Plan revision A dated 8/29/24 2. Adjusted material list and irrigation device summary per changes per above.	8/29/24

989 WINTERBERRY
ADDRESS: 989 WINTERBERRY DRIVE,
MARCO ISLAND, FL 34135

IRRIGATION PLANS

Project Number:
Date: 08/29/2024
Drawn By: WVB
Checked By: EG

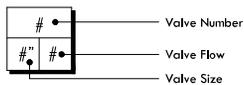
IR-1

SHEET 2 OF 4
Scale: 1/8" = 1'-0"

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird R-VAN18 1806-SAM-P45 Turf Rotary, 13ft.-18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/ 1800 turf spray body on 6in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	11
	Rain Bird R-VAN-STRIP 1812-SAM-P45 Shrub Rotary, 5ft.x15ft. (LCS and RCS), 5ft.x30ft. (SST) Hand Adjustable Multi-Stream Rotary w/ 1800 shrub spray body on 12in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	15 (8/5/2)
	Rain Bird R-VAN14 1812-SAM-P45 Shrub Rotary, 8ft.-14ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/ 1800 shrub spray body on 12in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	35
	Rain Bird R-VAN18 1812-SAM-P45 Shrub Rotary, 13ft.-18ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/ 1800 shrub spray body on 12in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	13
	Rain Bird R-VAN24 1812-SAM-P45 Shrub Rotary, 17ft.-24ft. 45-270 degrees and 360 degrees. Hand Adjustable Multi-Stream Rotary w/ 1800 shrub spray body on 12in. pop-up, with check valve and 45 psi in-stem pressure regulator. 1/2in. NPT Female Threaded Inlet.	22
	Rain Bird 1806-1400 Flood Flood Bubbler 6.0in. popup	18
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PGA Globe 1" 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe.	4
	Rain Bird PGA Globe 1 1/2" 1in., 1-1/2in., 2in. Electric Remote Control Valve, Globe.	1
	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as pipe diameter. Size Range = 1/4" - 3"	3
	Rain Bird PEB-IVM 1-1/2" 1in., 1-1/2in., 2in. Plastic Industrial Smart Valves w/ Factory Installed IVM-SOL. Low Flow Operating Capability, Globe Configuration.	1
	Febo 825Y 1" Reduced Pressure Backflow Preventer	1
	Rain Bird ESPLXME2 12 Station Traditionally-Wired, Commercial Controller. Indoor/Outdoor, Plastic Wall-Mount Enclosure.	1
	Rain Bird RSD-BEX Rain Sensor, with metal latching bracket, extension wire.	1
	Rain Bird UFS-150 1-1/2in. Ultrasonic Flow Sensors, with Glass Filled Nylon Body. Operating Range 0.5 GPM to 110 gpm. Size for Flow Not According to Pipe Size.	1
	Water Meter 3/4"	1
	Irrigation Lateral Line: PVC Class 200 SDR 21, 1/2" minimum	A/R
	Irrigation Mainline: PVC Class 200 SDR 21, 1" minimum	A/R
	Pipe Sleeve: PVC Class 200 SDR 21, Dia. size: 2 x pipe minimum	A/R

VALVE CALLOUT



INVESTIGATE BEFORE YOU EXCAVATE. "Call Sunshine State One" Toll Free 1-800-432-4770, Florida Statute 553.851 (1979) requires minimum of 2 days and maximum of 5 days notice before you excavate.

IRRIGATION NOTES

- A. GENERAL NOTES**
- The plans and drawings are diagrammatic of the work to be performed. The work shall be executed in a manner to avoid conflicts with utilities and other elements of construction, including landscape materials. Any and all deviations shall be brought to the attention of the owner or owners. 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 given to the representative, the contractor will assume full responsibility for all revisions.
 - Irrigation system shall be installed in accordance with the plans and specifications and all contract documents. Contractor shall comply with all prevailing local or State codes, ordinances and regulations.
 - Check and verify all site conditions, including service utility locations, prior to trenching or digging. Coordinate all irrigation system construction with existing and/or new plantings to avoid conflict or interference with location of piping, sleeving, cables and service utilities. The irrigation contractor is responsible for coordinating installation with all other construction on site, especially landscape installation. Irrigation system is to be relocated at no additional cost for any conflict with landscape installation or any other site construction or existing conditions. All components that are not contained within the specific areas shown on the drawings will not be accepted. All piping and other components are to remain with the property of the OWNER.
 - Where existing or new trees, light standards, 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 without damaging the obstruction. Landscape architect or representative to determine whether obstruction occurs or not.
 - Component spacings are maximum; do not exceed spacings shown or noted on the plans. Component spacings may be adjusted to accommodate changes in terrain and planting layout as long as the modified spacings do not exceed the spacings shown in the plans. Unless shown otherwise, irrigation contractor shall provide 100% coverage.
 - All materials and equipment shown shall be installed as detailed on the plans. If the drawings do not thoroughly describe the techniques to be used, the installer shall follow the installation methods/instructions recommended by their manufacturer.
 - Irrigation contractor shall adjust all sprinklers, controller and other devices to obtain specified operating characteristics, including coverage, operating pressure, flow rates and operation time, as indicated on the drawings and on the Irrigation System Specifications. Adjust all sprinklers to avoid overthrow of water onto buildings, roadways, sidewalks or existing native vegetation.
 - Contractor to provide installation shop drawings and manufacturer product information for all irrigation components. All installations shall be as recommended by manufacturers. The quantities shown in the legends and symbol sheets shall not be used for bidding purposes. The contractor will be responsible for conducting a comprehensive take-off of materials to determine the actual quantities of material necessary to execute the work described on the plans and drawings.
 - All trenches shall be backfilled with clean, debris - free material to 90% density. Clean sand shall be used for bedding material if parent soil cannot be adequately rid of rock and other extraneous debris. Pulling pipe shall be prohibited.
 - All solvent welding shall be preceded by priming of the fittings and pipe as recommended by the manufacturer.
 - Contractor to label/number all zone valve covers with corresponding controller zone number and isolation valve box covers with record drawing numbers. Provide tags to all valves as shown per detail.
 - The Irrigation system must be completely flushed for debris removal prior to final acceptance by the system by the Owner.
 - Irrigation Manufacturer may NOT be substituted without written permission from the Owner and project Landscape Architect. All equipment cut sheets shall be submitted for approval.
- B. MAINLINE & PIPING**
- All irrigation main(s) and submain(s) shall be 1120-1220 class 200 PVC gasketed pipe with gasketed fittings, except for piping through sleeves. All pipes used downstream of each remote control valve shall be class 200 PVC solvent weld pipe unless shown otherwise.
 - The depth of all lines shall be as specified per plans and details (see Detail 1, sheet IR-2). Measurements shall be from top of pipe(s) to finish grade. Contractor will be responsible for re-trenching and relaying any pipe not meeting specified depth(s).
 - All mainline fittings, when required, shall be reinforced with 2000 psi poured concrete thrust block per detail 2, sheet IR-3.
 - All mainlines will be installed with a tracing tape labeled "Irrigation Main."
 - All piping stubouts for future zone expansions shall have the end capped, and be located using a jumbo valve box.
- C. SLEEVINGS**
- All sleeving pipe sizes shall be as specified on plans and installed with Owner approved locating devices; i.e. 3M Scotchmark magnetic locating disc at each end on top of sleeving.
 - All sleeves shall extend 18" minimum beyond any pavement edge.
 - All sleeves shall be two sizes larger than the piping within, or as sized per plan.
- D. ISOLATION VALVES**
- All isolation valves shall be brass. Isolation valves shall be sized as identified by symbols on the drawings, or by matching the size of the pipes the occur within. Valves of 3/4" through 2-1/2" shall be threaded, valves 3" and larger shall be flanged.
 - All isolation valves installed along the mainline shall be installed within a jumbo size valve box. Refer to details and specifications for valve installations. Contractor shall provide valve box extensions when necessary.

E. QUICK COUPLER VALVES

- All quick coupler valves shall be brass. Quick coupler valves shall occur at locations shown on the plans, if applicable. Quick coupler valves shall be installed in jumbo size valve boxes and as detailed on the drawings (see Detail 9, sheet IR-4).

F. FLOW METERS

- Install per manufacturer's specifications. See Detail 6, sheet IR-3.
- Flow meter location: Flow meters are installed between master valve and zone valves.
- The pipe bringing water into the flow meter needs to be 10 times longer than the width of the pipe. The pipe carrying water away from the meter needs to be 5 times the width of the pipe.
- To avoid false alerts, there should be no water taps or other uncontrolled water use on the downstream side of the flow meter.
- Cable (shielded direct-burial cable must be used): Two-wire cable is required. The cable gauge is determined by the total length of cable between the controller and the flow meter. The cable should consist of 2 dedicated wires and must not be in the same conduit or cable bunched as the solenoid wires. Do not share the common wire of the solenoids with the common of the sensors.
- Flow meter body: The flow meter has a marking on the body indicating the direction of water flow. Installation of the flow meter must be in the correct orientation with water flowing in the direction of the arrow on the flow meter body. All HC Flow Meters must be installed horizontally with the dial facing upward.

G. CONTROL SYSTEM

- Contractor shall be responsible for connecting irrigation valve wiring to the controller location per the plans and specifications. All hardware necessary must be included as part of connection service.
- Install per manufacturer's specifications. See Detail 7, sheet IR-3.
- Controller(s) will have a rain sensor and bypass switch installed to meet state and local codes. Rain sensors and bypass switches also will be installed in accordance to manufacturer's guidelines. Contractor shall install and wire rain sensor.
- It shall be the responsibility of the irrigation contractor to coordinate with other trades on site. Program of schedule the irrigation sequence for the irrigation system during construction and normal operation until final acceptance by the Owner. Controller & valve operation shall be chronological.

G. REMOTE CONTROL VALVES

- Install per manufacturer's specifications. See Detail 8, sheet IR-3.
- Wire sizes for control valve connections to the controller will be coated solid copper UL approved direct burial wire #12 gauge for common wire and #14 gauge for activation wires. Red wire will be used for activation, white wire for common, one additional white wire continuous along entire main line, and one additional #14 green wire for spare along entire length of main line. The contractor shall furnish sufficient wire coils for expansion, at all valve locations and at sleeve ends and change of directions.
- All electrical splices shall be made using 3M-D8Y OR 3M-3570 Scotchlock Seal Pack Connectors as detailed herein.
- All valve wiring shall be installed per pipe trenching detail.
- At no time will unshielded wiring share the same sleeve with main lines or other piping. Wiring shall be in dedicated sleeves.

H. VALVE & SPLICE BOXES

- All valve boxes shall meet specifications, be sized & installed as shown and detailed herein (see Detail 3, sheet IR-3). Top of valve boxes shall be 4 inches higher than grade when installed. Contractor to reinstall and level boxes if soil settling occurs.
- Where possible and feasible install valve boxes within planting bedlines. No valve boxes shall be installed within 3 feet of a sidewalk or other pedestrian used surface, 5' from any vehicular roadways or in the center of roadway medians. Do NOT install at the bottom of swales(s) or any other low point.
- Valves boxes (including shut off, air relief, flush, remote control) for systems using non-potable water require a standard purple color denoting non-potable water.
- Contractor shall locate and flag all valve locations prior to installation for approval by the OWNER.

IRRIGATION DEMAND SUMMARY

ZONE	PREC. (in./hr)	MONDAY		WEDNESDAY		FRIDAY		
		RUN TIME (min.)	GPM (total/zone)	RUN TIME (min.)	GPM (total/zone)	RUN TIME (min.)	GPM (total/zone)	
1	0.6	18	20	360	20	360	20	360
2	0.6	22.5	20	450	20	450	20	450
3	0.5	19	20	380	20	380	20	380
4	0.5	15.2	20	304	20	304	20	304
5	0.5	9.4	20	188	20	188	20	188
SUBTOTALS		74.7	1494	1494	1494	1494	1494	1494
WEEKLY TOTAL		4482						

PIPE SIZING CHART			
Gallons per minute	Pipe Size	Gallons per minute	Pipe Size
1 - 11 gpm maximum	3/4"	36 - 35 gpm maximum	2"
12 - 16 gpm maximum	1"	56 - 70 gpm maximum	2 1/2"
17 - 28 gpm maximum	1 1/4"	71 - 110 gpm maximum	3"
29 - 35 gpm maximum	1 1/2"	111 - 190 gpm maximum	4"

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Seal & Signature



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SUBMITTAL
SET
8/29/24

Orig. Issue Date: 06/17/2024

REV.	Description	Date
A	Adjusted color irrigation heads per 2024 Irrigation Plan revision A dated 8/29/24. Adjusted material list and Irrigation Demand Summary per changes per above.	8/29/24

989 WINTERBERRY

ADDRESS: 989 WINTERBERRY DRIVE,
MARCO ISLAND, FL 34135

IRRIGATION
SPECIFICATIONS

Project Number:

Date: 08/29/2024

Drawn By: WVB

Checked By: EG

IR-2

SHEET 3 OF 4

Scale:



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SUBMITTAL SET
8/29/24

Orig. Issue Date: 06/17/2024

REV.	Description	Date
A	Adjusted/added irrigation heads per 5/29/24 Plan revision A dated 8/29/24	8/29/24
	2. Adjusted material list and Irrigation Demand Summary per changes per above.	

989 WINTERBERRY

ADDRESS: 989 WINTERBERRY DRIVE,
MARCO ISLAND, FL 34135

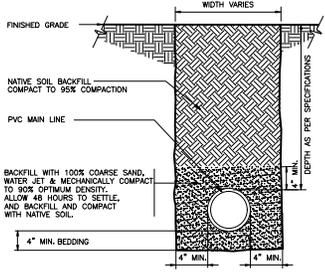
**IRRIGATION
DETAILS**

Project Number:
Date: 08/29/2024
Drawn By: WVW
Checked By: EG

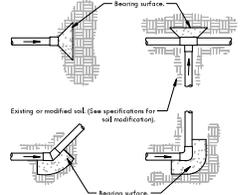
IR-3

SHEET 4 OF 4
Scale:

- Notes:
- Size thrust blocks shall be specified as show in the table above.
 - Control wires shall not be exposed to concrete.
 - All fittings shall be wrapped with polyethylene to prevent concrete from entering to cause fittings to clog.
 - Joint end bells shall be convertible for repairs.
 - Thrust blocks shall be a minimum of 8" thick.
 - One 80 Bl. sack of concrete shall cover 3 ft².

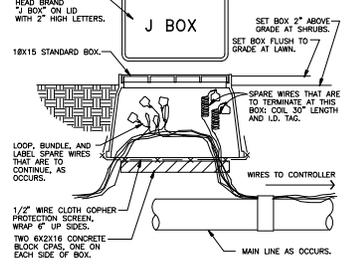


1 MAINLINE WITH SAND BEDDING
1 1/2" = 1'-0"
FX-IR-FX-AUG6-13

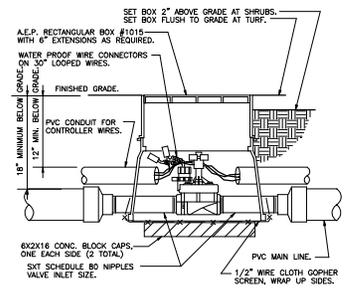


80-Block Weight Surface Area	80' BLD	80' BLD	80' BLD	80' BLD
1 1/2"	0.45 SFT ²	0.45 SFT ²	0.45 SFT ²	0.45 SFT ²
2"	0.60 SFT ²	0.60 SFT ²	0.60 SFT ²	0.60 SFT ²
3"	0.90 SFT ²	0.90 SFT ²	0.90 SFT ²	0.90 SFT ²
4"	1.20 SFT ²	1.20 SFT ²	1.20 SFT ²	1.20 SFT ²
5"	1.50 SFT ²	1.50 SFT ²	1.50 SFT ²	1.50 SFT ²
6"	1.80 SFT ²	1.80 SFT ²	1.80 SFT ²	1.80 SFT ²
8"	2.40 SFT ²	2.40 SFT ²	2.40 SFT ²	2.40 SFT ²
10"	3.00 SFT ²	3.00 SFT ²	3.00 SFT ²	3.00 SFT ²

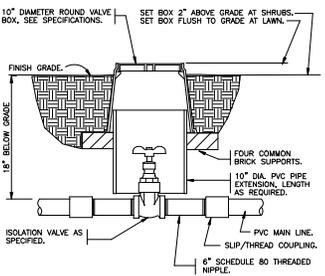
2 THRUST BLOCK
NTS
FX-IR-FX-AUG6-07



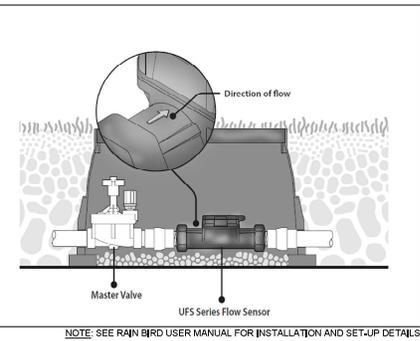
3 WIRE BUNDLE JUNCTION BOX
1 1/2" = 1'-0"
FX-IR-FX-AUG6-16



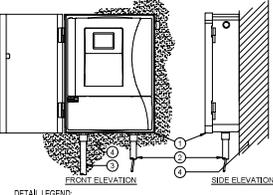
4 MASTER CONTROL VALVE
1 1/2" = 1'-0"
FX-IR-FX-WAS7-08



5 BRASS ISOLATION VALVE
1 1/2" = 1'-0"
FX-IR-FX-ISOV-01

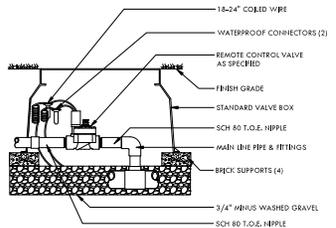


6 RAIN BIRD UFS FLOW SENSOR
NOT TO SCALE
32840R-GS-03

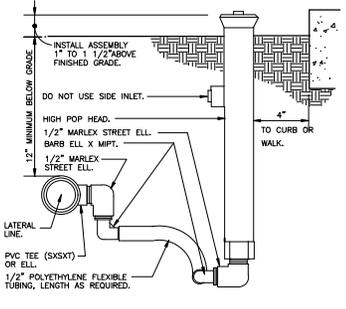


- DETAIL LEGEND:
- IRRIGATION CONTROLLER AS SPECIFIED PER PLAN
 - IRRIGATION CONTROL WIRE BY CONDUIT - SIZE AND TYPE PER LOCAL CODES
 - ELECTRICAL SUPPLY CONDUIT - CONNECT TO POWER SOURCE. J-BOX INSIDE CONTROLLER
 - ADJACENT SURFACE TO MOUNT CONTROLLER PER PLAN
- NOTES:
- CONTROLLER ACCEPTS 120 VOLTS A.C. OR 230 VOLTS A.C. (INTERNATIONAL MODEL)
 - MOUNT CONTROLLER LCD SCREEN AT EYE LEVEL. CONTROLLER SHALL BE HARDWIRED TO GRAUNDED 110 VAC POWER SOURCE
 - REFER TO THE RAIN BIRD INSTALLATION GUIDE FOR FURTHER INSTRUCTIONS.

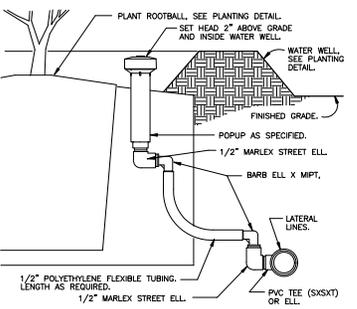
7 IRRIGATION CONTROLLER PL WALL MOUNT
NTS
32840R-13-1



8 PGA VALVE
1 1/2" = 1'-0"
FX-IR-HUNTVALV-03



9 SHRUB SPRAY HIGHPOP W/FLEX ASSEMBLY
3" = 1'-0"
FX-IR-FX-HEAD-09



10 POPUP BUBBLER AT PLANT PIT
3" = 1'-0"
FX-IR-FX-HEAD-16