



IR1.4 IR1.3

IR1.2 IR1.1

Order Plans

CONTROLLER/BUILDING CONNECTION
 1. CONTROLLER IS TO BE CONNECTED TO THE BUILDING MANAGEMENT SYSTEM.
 2. GIC TO REGISTER IRRIGATION CONTROLLER AT WWW.GASELNEYS.COM/KROGER. AFTER CONTROLLER REGISTRATION ORDER THE BASELINE PART # BK KROGER KIT.
 3. INSTALL THE COMMUNICATION KIT, WHICH CONSISTS OF A BICOODER AND A INTERFACE UNIT.
 4. INSTALL 16 GA WIRE FROM THE IRRIGATION CONTROLLER TO THE BUILDING MANAGEMENT SYSTEM PROGRAM CONTROLLER TO SEND ALERT MESSAGES TO THE BUILDING MANAGEMENT SYSTEM.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	QPM	PSI	PSI @ 100 GPM	PSI @ 200 GPM
C1	Rain Bird PEB	1.1/2"	Turf Spray	2400	54.44	43.22	1.95 gpm
C2	Rain Bird PEB	1.1/2"	Area or Dripline	7.65	28.51	47.52	1.42 gpm
C3	Rain Bird PEB	1.1/2"	Turf Spray	25.40	58.55	65.55	1.58 gpm
C4	Rain Bird PEB	1.1/2"	Turf Spray	7.65	32.87	48.26	1.43 gpm
C5	Rain Bird PEB	1.1/2"	Shrub/Rotary	28.12	39.48	69.50	1.45 gpm
C6	Rain Bird PEB	1.1/2"	Turf Spray	31.27	35.59	47.52	1.39 gpm
C7	Rain Bird PEB	1.1/2"	Turf Rotary	17.54	35.59	53.09	1.55 gpm
C8	Rain Bird PEB	1.1/2"	Turf Rotary	18.60	42.41	52.43	1.52 gpm
C9	Rain Bird PEB	1.1/2"	Turf Rotary	18.20	41.48	52.22	1.51 gpm
C10	Rain Bird PEB	1.1/2"	Turf Rotary	22.50	42.41	57.72	1.62 gpm
C11	Rain Bird PEB	1.1/2"	Turf Rotary	35.55	39.48	69.79	1.59 gpm
C12	Rain Bird PEB	1.1/2"	Chg. Emitter	5.54	25.21	47.52	1.33 gpm
C13	Rain Bird KCZ-100-PRB-LC	1"	Area or Dripline	6.55	28.87	46.50	1.43 gpm
C14	Rain Bird PEB	1.1/2"	Chg. Emitter	5.54	25.21	47.52	1.33 gpm
C15	Rain Bird PEB	1.1/2"	Shrub/Rotary	18.00	33.48	58.50	1.48 gpm
C16	Rain Bird PEB	1.1/2"	Area or Dripline	5.84	24.48	48.18	1.42 gpm
C17	Rain Bird PEB	1.1/2"	Turf Rotary	18.20	34.48	53.18	1.49 gpm
C18	Rain Bird PEB	1.1/2"	Shrub/Rotary	10.67	34.48	48.18	1.42 gpm
C19	Rain Bird PEB	1.1/2"	Shrub/Rotary	14.13	32.20	54.80	1.39 gpm
C20	Rain Bird PEB	1.1/2"	Turf Rotary	27.60	36.48	61.18	1.52 gpm
C21	Rain Bird PEB	1.1/2"	Turf Rotary	25.65	34.25	55.55	1.37 gpm
C22	Rain Bird PEB	1.1/2"	Shrub/Rotary	11.44	30.48	48.18	1.32 gpm
C23	Rain Bird PEB	1.1/2"	Turf Rotary	7.73	33.09	46.35	1.33 gpm
C24	Rain Bird PEB	1.1/2"	Area or Dripline	11.44	33.48	48.18	1.43 gpm
C25	Rain Bird PEB	1.1/2"	Turf Spray	8.19	33.84	47.60	1.40 gpm
C26	Rain Bird PEB	1.1/2"	Area or Dripline	3.54	23.17	35.59	1.19 gpm
C27	Rain Bird PEB	1.1/2"	Turf Rotary	8.80	34.37	47.84	1.41 gpm
C28	Rain Bird PEB	1.1/2"	Chg. Emitter	5.26	22.17	35.59	1.14 gpm
C29	Rain Bird PEB	1.1/2"	Turf Rotary	13.58	31.22	53.95	1.29 gpm
C30	Rain Bird KCZ-100-PRB-LC	1"	Area or Dripline	2.92	22.31	35.24	1.13 gpm

CRITICAL ANALYSIS

Comments: 2018/10/30 08:51

P.C.C. NUMBER 01
 Water Source Information

FLOW AVAILABLE
 1.1/2" 46.47 gpm

PRESSURE AVAILABLE
 Static Pressure at POC 76.00 psi
 Elevation Change 5.00 ft
 Friction Loss 1.10 ft
 Loss @ 1/2" Service Line 13.00 psi
 Pressure Available 58.90 psi

DESIGN ANALYSIS
 Maximum Station Flow 50.00 gpm
 Flow Available at POC 48.45 gpm
 Residual Flow Available 17.45 gpm

CRITICAL STATION C22
 Design Pressure 30.00 psi
 Friction Loss 0.37 psi
 Elevation Change 0.00 psi
 Loss Through Valve 1.59 psi
 Pressure Req. at Critical Station 30.69 psi
 Loss for Friction 1.42 psi
 Loss for Main Line 14.77 psi
 Loss for POC to Valve Elevation 1.00 psi
 Loss for Water Valve 12.11 psi
 Loss for Water Meter 1.80 psi
 Critical Station Pressure at POC 76.00 psi
 Pressure Available 75.00 psi
 Residual Pressure Available 2.00 psi

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	DETAIL
15	Hunter PROE-06-PRB30-CV-F-48-1/2" Turf Spray, 30 psi regulated 5/8" Pop-Up. With factory installed Drain Check Valve. Co-molded wiper seal with UV Resistant Material.	
16	Hunter PROE-06-PRB30-CV-AD-J Turf Spray, 30 psi regulated 5/8" Pop-Up. With factory installed Drain Check Valve. Co-molded wiper seal with UV Resistant Material.	
17	Hunter MP Corner PROE-06-PRB30-CV Turf Rotary, 37 psi pop-up with factory installed check valve, pressure regulated to 30 psi, MP Rotator nozzle. 1" Turquoise adj. sec. 46-105.	
18	Hunter MP Strip PROE-06-PRB30-CV Turf Rotary, 37 psi pop-up with factory installed check valve, pressure regulated to 30 psi, MP Rotator nozzle. 1.5" Heavy left strip, 8/8" Brown side strip, 8/8" Turquoise right strip.	
19	Hunter MP 100 PROE-06-PRB30-CV Turf Rotary, 37 psi pop-up with check valve, pressure regulated to 30 psi, MP Rotator nozzle. M-Watson adj. sec. 90 to 210, L-Light Blue 210 to 270 sec. O-Drive 360 arc.	
20	Hunter MP 2000 PROE-06-PRB30-CV Turf Rotary, 37 psi pop-up with check valve, pressure regulated to 30 psi, MP Rotator nozzle. K-H Back adj. sec. 90-210, O-Drive adj. sec. 210-270, R-Red 360 arc.	
21	Hunter MP 3000 PROE-06-PRB30-CV Turf Rotary, 37 psi pop-up with factory installed check valve, pressure regulated to 30 psi, MP Rotator nozzle. B-Blue adj. sec. 90-210, Y-Yellow adj. sec. 210-270, A-Gray 360 arc.	
22	Hunter MP 3000 PROE-06-PRB30-CV Turf Rotary, 37 psi pop-up with factory installed check valve, pressure regulated to 30 psi, MP Rotator nozzle. L-Black right adjustable arc. 90-210.	
23	Hunter MP Strip PROE-12-PRB30-CV Strip-Rotary, 12" pop-up with factory installed check valve, pressure regulated to 30 psi, MP Rotator nozzle. 1" Turquoise adj. sec. 46-105.	
24	Hunter MP Strip PROE-12-PRB30-CV Strip-Rotary, 12" pop-up with factory installed check valve, pressure regulated to 30 psi, MP Rotator nozzle. 1.8" Heavy left strip, 8/8" Brown side strip, 8/8" Turquoise right strip.	
25	Hunter MP 1000 PROE-12-PRB30-CV Strip-Rotary, 12" pop-up with check valve, pressure regulated to 30 psi, MP Rotator nozzle. M-Watson adj. sec. 90 to 210, L-Light Blue 210 to 270 sec. O-Drive 360 arc.	
26	Hunter MP 2000 PROE-12-PRB30-CV Strip-Rotary, 12" pop-up with check valve, pressure regulated to 30 psi, MP Rotator nozzle. K-H Back adj. sec. 90-210, O-Drive adj. sec. 210-270, R-Red 360 arc.	
27	Hunter MP 3000 PROE-12-PRB30-CV Strip-Rotary, 12" pop-up with factory installed check valve, pressure regulated to 30 psi, MP Rotator nozzle. B-Blue adj. sec. 90-210, Y-Yellow adj. sec. 210-270, A-Gray 360 arc.	
28	Hunter PROE-06-PRB30-CV Turf Rotary, 30 psi regulated 5/8" Pop-Up. Adjustable and Full Circle. Plastic Rise. Drain Check Valve. 48-1/2" Pop-Up.	
29	Hunter MP 1000-48-1/2" Pop-Up. Adjustable and Full Circle. Plastic Rise. Drain Check Valve. 48-1/2" Pop-Up.	
30	Hunter MP 1000-48-1/2" Pop-Up. Adjustable and Full Circle. Plastic Rise. Drain Check Valve. 48-1/2" Pop-Up.	

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
31	Rain Bird ACZ-100-PRB-LC. Wet/Fire Dose Control Kit, for Light Commercial Uses. 1" FIB Valve, with 1" Pressure Regulating 40 psi Backflow Filter. 0.3gpm to 2.0gpm.
32	Weather 1.5 CV Manual Drain Valve. Install as per plan detail.
33	Rain Bird OPERND Drip System. Operative industry, stem rises 8" for cover stability when drip emitter is changed to a minimum of 10psi. Includes 10" or 12" distribution tubing with connection fitting pre-installed.
34	Drip Tree Ring Rain Bird RFS-CV-08-18 inline drip tubing installed as per plans. Drip Tree Ring details.
35	Area to Restore Dripline Rain Bird RFS-CV-08-18 RFS-CV On Surface Landscape Dripline with a Heavy Duty 4.5 psi Check Valve. 0.6 GPM emitter at 10" O.C. Dripline valves spaced at 12" apart, with emitters offset for triangular pattern. Greet for elevation change. Specify XJ insert fittings.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
36	Rain Bird PEB 1" x 1.1/2" 2" Plastic Industrial Valve. Low Flow Operating Capability, Globe Configuration.
37	Hunter HQ-44-RCAW Quick coupler valve, yellow collar holding cover, red brass and stainless steel, with 1" NPT Female, 1/2" Male body. Acts as a backflow stop.
38	Nico T-113 Class 125 bronze gate shut-off valve with wheel handle, same size as mainline pipe diameter, as valve location. Stock Range: 1/4" - 2"
39	Buckner Superior 3100 1-1/2" Normally Open Brass Master Valve. Backflow Protection. ANSI/ASME Std. 11.1-1/2", 1-1/2", 2", 2-1/2" and 3"
40	Falco ESY 1-1/2" Reduced Pressure Backflow Preventer
41	Baseline BL-100K Two-way controller in large 16 gauge powder-coated wall mount cabinet, base model 55 stations, expandable to 75 or 100 stations.
42	Baseline BL-50T Single station direct burial B-Coder
43	Baseline BL-520T Two station direct burial B-Coder
44	Baseline BL-604 Four station direct burial B-Coder
45	Baseline BL-531S 58-Sensor Soil Moisture Sensor
46	Baseline BL-5150 Baseline 1.0" PVC Flow Sensor with Integrated Flow Decoder, Flow Sensor is 1/2" with hole. With a Flow Decoder built into the sensor.
47	Water Meter 1/2"
48	Ingoton Lower Line PVC Class 200 SDR 21
49	Ingoton Mainline PVC Class 200 SDR 21
50	Pipe Emitter PVC Schedule 40
51	Valve Cabinet

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION
1	Irrigation water source is 1-1/2" service line, 1-1/2" meter and 1-1/2" 80' Z headflow pressure. System requires 35 gpm at a static pressure of 70 psi. Verify available flow and static pressure prior to construction.
2	Install Master Valve and Flow Sensor as per plan details, notes and manufacturer's installation instructions.
3	Coordinate exact location of the irrigation controller. Provide 12vac 10 amp power to the controller from a dedicated source. Ground controller to building grounding system as per manufacturer's recommendations, include Baseline BL-5400 anti-rat kit.
4	1-1/2" PVC electrical conduit from the controller to the mainline branch.
5	Provide and install 1/2" x 1/2" x 1/2" 1.5" heated enclosure over backflow preventer. Pressure requirement is 12vac 10 amp power. Size wire and conduit to "hot box" as per NEC.
6	1/2" PVC electrical conduit with 1/2" gage communication wire from the irrigation controller to the building control system. Program controller to alert building controller of all controller alarm messages.
7	Moisture Sensor for all turf zones on the turf program.
8	Moisture Sensor for all strip zones on the strip program.
9	Moisture Sensor for the perimeter planting zones program.
10	Pipe location is diagrammatic. Install all pipe as per plan notes and details.



KROGER STORE #473

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ISSUE LOG

NO.	REV.	DESCRIPTION	DATE
1		PERMIT SET	12/06/18
2		BID SET	03/21/19

JOB: 2019041 SCALE: 1" = 40'

SHEET NO. IR1.0 IRRIGATION PLAN SHEET KEY AND SCHEDULES

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