

City of Goodyear

Approved Materials List for Parks & Right of Ways

2014

IRRIGATION CONTROLLER(S)

The irrigation controllers have been field tested a minimum of two years and approved for use by the Parks Department. Please submit a request for alternative equipment with comparable features for Parks Department's approval. All electric controllers shall be hard wired on 120VAC single phase, 1 amp on their own circuit. Output shall be 24VAC, 1.5 amp max

Parks

- Calsense Controller ET2000E -R- RRE wall mount TPP or enclosure SSE-R.
Multiple controllers at one site require model ET2000E- R-M-RRE

Right of Ways & Medians with electricity

- Parks to approve type of controller used. Must provide stainless steel enclosure (Strongbox or equivalent) for controller.

Right of Ways & Medians without electricity -Solar

- Hunter –model # XCH 4,6,8,10,12 station with solar panel model # SPXCH. DC latching solenoids to match valve. Mounting pole and mounting bracket supplied by Hunter for controller
- Do not mount controller in backflow cages

IRRIGATION CONTROL VALVES

No brass or bronze valves will be accepted. Minimum valve size shall be 1". All parts manufactured to ASTM Standards. A ball valve shall be installed with each zoned electric valve. All valves shall be purchased for their desired use of potable or non- potable water.

Electric Valves

- Hunter- model ICV – potable water –for turf or drip areas
- Hunter – model ICV- non potable water - for turf or drip areas
- Hunter – model PGV – potable water– for drip and bubbler valves (1"0 only)
- Rainbird- model PEB – potable water –for turf or drip areas
- Rainbird- model PESB - non-potable water –for turf or drip areas
- Rain Bird- model DVF – potable water-for drip & bubbler valves only)

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Ball Valve

- PVC- Schedule 80 size ½" - 2 ½" model –spears IPS 2621-020G or equivalent approved by parks department
- Bronze Full Port- Watts, Febco, or equivalent. Used only on main lines between meter & backflow device
- Ductile Iron 3"- 12" Gate Valves

Master Valve

- Normally closed (only)

Valve Boxes

- Jumbo Boxes used on all valves – Rainbird – model VB-JMB or equivalent approved by parks department
- 10" round boxes – Rainbird – model VB-10RND used on ball valves, isolation valves, wire splices, quick couplers,
- 7" round boxes – Rainbird model VB -7 RND used for flush caps and manifold outlets use same colors schemes Jumbo Boxes
- All round and valve boxes shall be engraved with controller and station numbers on lids and inside of boxes
- All Jumbo boxes located in turf to have bricks under box for support (would prefer that valve boxes be located in granite areas when possible)
- Color scheme green in turf, tan in granite and purple for reclaim

Sprinklers

Spray heads

- Hunter- adjustable Pro-Spray with pro spray adjustable nozzles
- Rain Bird- 1800 series with adjustable Van Nozzles

Rotor Heads

- Hunter- I-20, I-25, I-35, I-40, I-40ON (Full Circle)
- Rain Bird- 5000, 5500, 6504, 7005,

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Bubblers

- Palm Tree use only
- Hunter- PCN, RZWS
- Rain Bird- 1400 Series, RWS

Pressure reducers and filters

- Rainbird model PRF-100-RBY or equivalent approved by parks department

Emitters

- Rain Bird model XERI bug emitter .5 gal -2.0 gal per hour or equivalent approved by parks department

Manifold

- Rain Bird model EMT- 6XERI , 6 outlet manifold
- Bowsmith model M200L10 1.0 gal /hour or Bowsmith model m200L20 2.0 gal / hour

Micro tubing

- Rainbird XQ -100' or 1000' roll of ¼ " tubing or equivalent approved by parks department

Poly tubing

- Rainbird XBS black strip tubing or equivalent approved by parks department

Cross Connection Devices

Reduced Pressure Backflow Preventer Assembly

- 1- 2" Febco- 825Y, 825YA Reduced Pressure
- 1-2" Febco 765 Pressure Vacuum Breaker
- 2-1/2"and above- Wilkins 375AST Reduced Pressure

Installation Requirements

- Concrete pad with sleeves 2x diameter of pipe coming up thru pad
- Security Enclosure- Shall have internal locking eye loops cemented thru concrete pad.
- (Guard Shack,) – Model GS-INT style 1,2 or 3

Piping

Exposed Piping

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- Copper- Type K

Pipe between Water Meter and Vacuum Breaker

- Copper- Type K

Main & Lateral Lines (PVC Pipe)

- Schedule 40
- Connections shall be solvent welded
- Fittings to match pipe material type and ratings, Schedule 80 to be used on all threaded fittings

Connections

- PVC to Metal- Male end shall be PVC Schedule 80, female end shall be of metal
- Solvent welds- shall be of Purple Primer and appropriate glue for size /type of pipe. (Parks Department requires the use of 725 Wet n Dry glue)

Sleeves

- **Shall be Schedule 40 PVC or class 200 to be approved by parks**
- **6" separation between sleeves**
- 2' of compacted cover
- 2 times the size of pipe(s) for which it is used for

Miscellaneous Items

Pump Systems

- Approved by the Parks Department

Electrical Wire & Connections

- UL Type UF-600V, No. 14 gauge min., solid copper, PVC insulated, feeder cable
- Dri-Splice- DS-400 pre-filled only

Flow Sensors

- Calsense -model FM for Calsense controllers
- Rainbird –PVC model FS schedule 80 for other controllers

Slip Fix

- Spears NSF81 PVC I sizes ½" to 4" or equivalent approved by parks department

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- Dayton Compression fittings for 2-1/2" – 6" or equivalent approved by parks department

Coupling for larger fixes

- JCM Industries- Model JCM Ductile Iron Coupling -4" - 10" or equivalent approved by parks department

Unions

- King Bros Industries – model CPVS CTS union threaded and slip types 3/4" - 2" or equivalent approved by parks department

Swing joints

- RainBird - Model TSJ - PRS sizes 1/2" - 1"
- Hunter - model SJ swing joint 1/2" - 1"

Quick couplers

- Hunter- model - HQ5 –1 piece body threaded
- Rainbird – model 5-LRC- BSP 1" threaded