

IRRIGATION CONSUMER *Bill of Rights*

TURF/LANDSCAPE

Note: This supplements various Bills written for specific irrigation methods. Discuss these items with your irrigation contractor/designer before purchasing your irrigation system. The discussion will help you to make wiser selections of design options and to appreciate the obligation of both yourself and the contractor/designer in creating your irrigation system.

Contractor/Designer Qualifications

- Does the contractor and his employees have the necessary license and insurance?
- Is the contractor able to secure bonding?
- What are the contractor/designer credentials (formal training, references, contractor/designer certification by the Irrigation Association)?
- Does contractor/designer belong to the local or national Irrigation Association and abide by their standards?

Design/Installation Features (General)

- What is the life expectancy of system components?
- What safety features have been included?
 - backflow
 - master valve
- What are the options for future upgrades?
 - adding new zones
 - extra wiring
- Does the system meet all electrical and plumbing codes?

Specific Operating/Design Parameters

- What will be the distribution uniformity on the irrigated areas? Is water distributed evenly?
 - matched precipitation sprinkler heads
 - head to head coverage
 - sprinkler operating pressure
 - slopes
 - wind consideration
- Does the system provide climate control, rain stat, moisture sensors?
- Water Requirements?
 - What is the precipitation rate (quantity of water applied per hour) of the sprinkler system zones?
 - What is the anticipated quantity and cost of water used per year?
 - What is the recommended programming for the sprinkler system used?

Estimate

- What does the estimate include?
 - Price of system including labor, material, all local taxes and permits
 - Sprinkler system design, specifications, parts list, cut sheets, guarantees
 - Cost of design if any

Warranties

- Who provides equipment installation, start-up and adjustment, winterization?
- What are the warranties on individual components and "system" design performance?
- Who is providing warranties and what do the warranties cover and exclude?
- Are the providers financially capable of standing behind their warranties?
- What is the availability of replacement parts?
- Does the contractor provide operating instructions to the consumer?

Pumping Supplement

- Energy Consumption
 - Is it possible to pump all water during off-peak hours?
 - What are the pump and motor/engine efficiencies?
 - Are you provided with a pump curve showing the GPM and pressure?
 - What is the sensitivity of pump flow rates to well water level changes?
 - What is the approximate energy cost per year for pumping?
- Filtration
 - Is filtration necessary, and if so, what type is provided?
- Chemical Injection
 - Are locally required backflow prevention and safety devices provided?
 - What is the capacity of the injector, in gallons per hour?
 - Can the equipment inject both fertilizers and other chemicals?
- Flow Meter
 - Does it measure both flow rate (GPM) and volume (acre-foot) applied?
 - Does installation follow the manufacturer's recommendations with regard to lengths of straight pipe, pipe diameter and straightening vanes?
- Pressure, Air and Flushing
 - Are there adequate continuous air vents, vacuum relief valves, and flushouts?
 - What are the number, type and size of pressure relief valves?
 - Is the pressure rating of all system components sufficiently high for the anticipated water temperature, surge pressures and normal pressures?

