

Irrigation Recommendations for New Development Carmel, IN

Irrigation System Designer:

A qualified irrigation designer or irrigation consultant shall design the system for efficient and uniform distribution of water. "Qualified" means certified by the Irrigation Association of America:

- Certified Irrigation Contractor (CIC)
- Certified Landscape Irrigation Auditor (CLIA)
- Certified Landscape Irrigation Manager (CLIM)
- Certified Irrigation Designer (CID)
- Certified Water Conservation Manager - Landscape (CWCM)

System Design:

- The system shall be comprised of either:
 - Drip/micro-irrigation components that allow for higher distribution uniformity and lower evaporation and runoff.
 - The design and layout of the emission devices provides for zero overspray across or onto a street, public driveway or sidewalk, parking area, building, fence or adjoining property. Overspray may occur during the operation of the irrigation system due to the actual wind conditions that differ from the design criteria.

System Controller:

The system should use a controller that has multi-program capability with at least four start times (for multiple repeat soak cycles) and run time adjustments in one-minute increments. The controller programming (scheduling) should be managed to respond to the changing need for water in the landscape.

Design features

- Follow all ordinances relating to irrigation systems including the installation of backflow devices.
- A design that results in uniform and efficient coverage. Sprinkler head spacing should be a minimum of "head-to-head" (minimum 50% of diameter) unless the coverage is designed for wind de-rating. Wind de-rating should be based on average nighttime wind speed. Design to avoid overspray onto hardscapes, fences, buildings and adjoining property.
- Have separate station/zones (hydrozones) for areas with dissimilar water or scheduling requirements.
- Have a minimum of a rain sensor to suspend irrigation during wet weather conditions.
- In addition to the rain sensor, use any or all water-conserving devices such as:
 - Check valves to minimize low-head drainage
 - Pressure regulators or pressure compensating screens, stems or nozzles to control high pressure.
 - Environmental sensors that can actively measure weather conditions to determine daily plant water need.
 - Soil moisture sensors to monitor soil moisture and suspend irrigation if the moisture reserve in the root zone is significantly above the allowable depletion limit.
- For commercial installations: a water meter dedicated to measuring only landscape water use. A meter with a flow rate output signal for interfacing with the controller is recommended as it can help detect leaks and manage water use.
- Install a master valve to stop unscheduled flow of irrigation water.