

Public Review Draft

Proposed Addendum ai to Standard 189.1-2023

Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

Second Public Review ISC
(Draft Shows Proposed Changes to PPR1 Draft)

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Foreword

The first public review draft of this addendum added a definition of *smart controller* and modifies Section 6.3.1.3, Irrigation System Controls, to incorporate that definition. The first publication public review had one comment which was to change the defined term to *smart irrigation controller*. This second public review makes that change in the definition and in 6.3.1.3.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum ai to 189.1-2023, 2nd PPR ISC

Modify Section 3 as follows:

smart irrigation controller: a device that estimates or measures depletion of water from the soil moisture reservoir and operates an irrigation system to replenish water as needed while minimizing excess.

Modify Section 6.3.1.3 as follows:

6.3.1.3 Irrigation System Controls. Where any irrigation system for the project site uses an *automatic* controller, the system shall be controlled by a qualifying *smart irrigation controller* that uses *evapotranspiration (ET)* and weather data or soil moisture data to adjust irrigation schedules. Qualifying *smart irrigation controllers* shall comply with the requirements of the USEPA *WaterSense Specification for Weather-Based Irrigation Controllers* or tested in accordance with Irrigation Association *SWAT* Climatologically Based Controllers, 8th Testing Protocol. *Smart irrigation controllers* that use *ET* data shall provide the following irrigation amounts:

- Irrigation adequacy*—80% minimum ETc
- Irrigation excess*—not to exceed 10% of ETc

The following settings and schedule for the irrigation control system shall be posted on or adjacent to the controller:

- Precipitation rate of each *irrigation station*
- Plant factors for each *hydrozone*
- Soil type

- d. Rain sensor settings
- e. Soil moisture sensor settings, where installed
- f. Peak demand schedule, including run times, cycle starts, and soak times
- g. Maximum runtimes to prevent water runoff

Exception to 6.3.1.3: Temporary irrigation systems used exclusively for the *landscape establishment period*.

Note to reviewers: Addendum aa to 189.1-2023 is also proposing changes to Section 6.3.1.3. If addendum aa is published without changes, the changes proposed by this addendum will appear as follows. The language below is shown for information only and is not open for comment.

6.3.1.3 Irrigation System Controls. Where any irrigation system for the project site uses an *automatic* controller, the system shall be controlled by a qualifying *smart irrigation controller* that uses *evapotranspiration (ET)* and weather data or soil moisture data to adjust irrigation schedules and that complies with the minimum requirements. Qualifying *smart irrigation controllers* shall comply with the requirements of the USEPA *WaterSense Specification for Weather-Based Irrigation Controllers* or USEPA *WaterSense Specification for Soil Moisture -Based Irrigation Controllers*.

The following settings and schedule for the irrigation control system shall be posted on or adjacent to the controller:

- a. Precipitation rate of each *irrigation station*
- b. Plant factors for each *hydrozone*
- c. Soil type
- d. Rain sensor settings
- e. Soil moisture sensor settings, where installed
- f. Peak demand schedule, including run times, cycle starts, and soak times
- g. Maximum runtimes to prevent water runoff

Exception to 6.3.1.3: Temporary irrigation systems used exclusively for the *landscape establishment period*.