



# DENVER AMENDMENT PROPOSAL FORM FOR PROPOSALS TO THE 2019 DENVER BUILDING CODE AMENDMENTS AND THE 2021 INTERNATIONAL CODES

**DENVER**  
THE MILE HIGH CITY

## 2021 CODE DEVELOPMENT CYCLE

1) **Name:** NORESKO **Date:** 11/18/2021  
**Email:** ksalinas@noresko.com **Representing (organization or self):** Denver

2) One proposal per this document is to be provided with clear and concise information.

Is a separate graphic file provided ( "X" to answer):  Yes or  No

3) Highlight the code and acronym that applies to the proposal

| <u>Acronym</u> | <u>Code Name</u>                               | <u>Acronym</u> | <u>Code Name</u>               |
|----------------|------------------------------------------------|----------------|--------------------------------|
| DBC-AP         | Denver Building Code–Administrative Provisions | IPC            | International Plumbing Code    |
| IBC            | International Building Code                    | IRC            | International Residential Code |
| IECC           | International Energy Conservation Code         | IFGC           | International Fuel Gas Code    |
| IEBC           | International Existing Building Code           | IMC            | International Mechanical Code  |
| IFC            | International Fire Code                        | DGC            | Denver Green Code              |

Please provide all the following items in your amendment proposal.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <p><b><u>Code Sections/Tables/Figures Proposed for Revision:</u></b><br/> <b>Instructions:</b> If the proposal is for a new section, indicate (new), otherwise enter applicable code section.<br/> (New) Chapter 6- Elective (All Residential and commercial projects)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <p><b>Proposal:</b><br/> <b>Instructions:</b> Show the proposal using <del>strikeout</del>, underline format.<br/> <b>Place an "X" next to the choice that best defines your proposal:</b> <input type="checkbox"/> Revision <input checked="" type="checkbox"/> New Text <input type="checkbox"/> Delete/Substitute <input type="checkbox"/> Deletion</p> <p><u>601.3.9 (6.3.9) Drought Preparedness (Elective). The building site and/or building project shall comply with two of three sections: 601.3.9.1, 601.3.9.2, and 601.3.9.3.</u></p> <p><u>601.3.9.1 Sprinkler Efficiency: Where sprinklers are installed for the project landscaping, all spray sprinkler bodies shall have an internal pressure regulator and be WaterSense® labeled.</u></p> <p><u>601.3.9.2 Waterless Toilets: Commercially manufactured waterless toilets certified by the National Sanitation Foundation (NSF) and compliant with NSF 41 shall be used in all private restrooms and count for a minimum of 20% of the provided fixtures in public restrooms. Rough plumbing for optional future conventional water flushing fixtures shall be installed per IPC. Proper ventilation to the outside must be designed.</u></p> <p>a. <u>Capacity: The volume of the unit shall be sufficient to accommodate the number of occupants, frequency and kind of use, and maintenance of ideal composting conditions. The volume of the unit must include sufficient area for the use of composting materials which must not be toxic to the process or hazardous to persons and which must be used in sufficient quantity to assure proper decomposition.</u></p> <p>b. <u>Treatment Systems: Treatment systems including the addition of any materials, the turning of drums, and the utilization of heating elements and timers shall be managed per manufacturer instruction.</u></p> <p>c. <u>Waste Removal: Waste from the unit must be properly disposed of at 75% capacity by adhering to the methods provided by the manufacturer and acceptable to the Denver Department of Public Health and Environment. Disposal methods must prevent contamination of water and not cause a public health nuisance. Disposal using solid waste practices is recommended. Waste shall be disposed of only after such time as the material is thoroughly and completely decomposed and rendered noninfectious. Total and fecal coliform organisms shall not exceed the levels specified in the NSF Standard Number 41.</u></p> |

- d. Maintenance: Adequate access to service and maintenance of all necessary components of the waterless toilet and its accessories shall be provided. Composting toilets shall be maintained and operated in a sanitary condition, to control vectors, abatement of odors, and management of leachate. Screening, mechanical parts and structural soundness shall be kept in working order.
- e. Low Temperature: Where systems will be installed in low temperatures (below 60-degrees) , design and installation must address the effects of the low temperature to optimize the composting process.

**601.3.9.3 High Water End-Uses:**

- a. Swimming Pools: All indoor and outdoor pools shall be outfitted with a semi-automatic or automatic pool cover to prevent evaporation during times of non-use. Placement and use of a pool cover shall be included in the building project's maintenance plan and communicated to users in pool area. Chemical pool covers do not comply.
- b. Commercial Kitchen: Pre-Rinse spray valves must meet DOE regulations for maximum flow rate (gpm) allowable per product class. Restrict flow rates on dipper wells to 0.1gpm or eliminate dipper wells from design.

**Supporting Information:**

All proposals must include a written explanation and justification as to how they address physical, environmental, and/or customary characteristics that are specific to the City and County of Denver. The following questions must be answered for a proposal to be considered.

- Purpose: What does your proposal achieve?  
This proposal allows additional drought resiliency strategies to be prioritized in design and operations. Integration of these types of strategies in building projects allows for implementation of non-conventional water use reduction opportunities and allows best practices to be generated.
- Reason: Why is your proposal necessary?  
Encourage projects to prioritize drought resiliency through additional methods outside of DGC water efficiency measures.
- Substantiation: Why is your proposal valid? (i.e., technical justification)  
Codifying drought resiliency strategies in order to track and manage effective use of resiliency measures.

**Bibliography and Access to Materials** (as needed when substantiating material is associated with the amendment proposal):

- Denver Parks and Rec Resiliency Strategy: <https://www.denvergov.org/Government/Agencies-Departments-Offices/Parks-Recreation/Trees-Natural-Resources/Resiliency>
- Colorado Resiliency Framework: <https://www.coresiliency.com/colorado-resiliency-framework>
- Colorado Resiliency Playbook: <https://static1.squarespace.com/static/5fd3ae01f8f3aa3014a8069a/t/606ce3661904853a717be14b/1617748842436/CO+Resiliency+Playbook.pdf>
- A Guide to a Regenerative Recovery for Colorado: <https://www.thealliancecenter.org/wp-content/uploads/2020/10/Colorados-Regenerative-Recovery-Report-1.pdf>
- Nevada composting toilets: [http://qcode.us/codes/nevadacounty/?view=desktop&topic=3-vi-5-1\\_2](http://qcode.us/codes/nevadacounty/?view=desktop&topic=3-vi-5-1_2)
- Title 20 Appliance Regulations: [https://calwep.org/wp-content/uploads/2020/10/Title-20-Oct-2020-Factsheet\\_01-1.pdf](https://calwep.org/wp-content/uploads/2020/10/Title-20-Oct-2020-Factsheet_01-1.pdf)
- EPA Water Efficiency Technology Fact Sheet, Composting Toilets: <https://assets.bouldercounty.org/wp-content/uploads/2017/02/composting-toilet-factsheet.pdf>
- Washington State DOH Water Conserving On-Site Wastewater Treatment Systems: <https://www.doh.wa.gov/Portals/1/Documents/Pubs/337-016.pdf>
- DOE Pre-Rinse Spray Valves: <https://www.regulations.gov/document/EERE-2019-BT-STD-0034-0012>
- Commercial Kitchens Water Use Efficiency and Best Practices Guide: [https://www.ashland.or.us/SIB/files/AWE\\_Commercial\\_Kitchens\\_Guide.pdf](https://www.ashland.or.us/SIB/files/AWE_Commercial_Kitchens_Guide.pdf)
- Colorado drought mitigation and response plan: [https://drought.unl.edu/archive/plans/Drought/state/CO\\_2018.pdf](https://drought.unl.edu/archive/plans/Drought/state/CO_2018.pdf)
- Composting Toilets: <https://www.solaripedia.com/files/1146.pdf>

**Other Regulations Proposed to be Affected**

**\*For proposals to delete content from the 2019 Denver Green Code in conjunction with adding it to other mandatory Denver codes and/or regulations, only.**

Please identify which other mandatory codes or regulations are suggested to be updated (if any) to accept relocated content.

**Referenced Standards:**

List any new referenced standards that are proposed to be referenced in the code.

NSF International 41 Non-liquid Saturated Treatment Systems

**Impact**

How will this proposal impact cost and restrictiveness of code? ("X" answer for each item below)

|                       |                                              |                                   |                                    |
|-----------------------|----------------------------------------------|-----------------------------------|------------------------------------|
| Cost of construction: | <input checked="" type="checkbox"/> Increase | <input type="checkbox"/> Decrease | <input type="checkbox"/> No Impact |
| Cost of design:       | <input checked="" type="checkbox"/> Increase | <input type="checkbox"/> Decrease | <input type="checkbox"/> No Impact |
| Restrictiveness:      | <input checked="" type="checkbox"/> Increase | <input type="checkbox"/> Decrease | <input type="checkbox"/> No Impact |