Commercial Code Green Building Amendments (Prescriptive)

These amendments apply to commercial buildings and high-rise (four-story and more) multi-family housing.



| | 2/11/2011 | | | | | | |
|----|---|--|---|--|--|--|--|
| # | GB Practice | Description* | Intent | Applicability | | | |
| | RESOURCE EFFICIENCY | | | | | | |
| 1 | Construction waste recycling | Submit recycling plan (who, what, where, how) Implement recycling (non-landfill) for wood, metal, concrete and cardboard | Divert waste from landfill. Potential disposal cost savings | New: Yes Addition: Yes Alteration: No | | | |
| 2 | Certified wood | Sustainable forestry certification required for all tropical hardwoods | Support sustainable forestry practices | New: Yes Addition: Yes Alteration: Yes | | | |
| | ENERGY EFFICIENCY + CONSERVATION | | | | | | |
| 3 | Energy distribution design | Each electrical panel supplies only one of the following electricity use types - Heating, Ventilation, and Air Conditioning (HVAC), Lighting, miscellaneous loads, plug loads, & process loads. | Provides means for measurement and verification leading to potential energy savings | New: Yes Addition: Part Alteration: No | | | |
| 4 | Building envelope: air barrier | Require continuous air and thermal barrier per The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standard 189.1. Appendix B | Saves energy, improves occupant comfort, improves building durability, reduces pest problems | New: Yes Addition: Yes Alteration: No | | | |
| 5 | Building envelope: electrically heated buildings | Higher specifications for electric-heat buildings beyond 2009 International Energy Conservation Code (IECC) requirements | | New: Yes Addition: Yes Alteration: No | | | |
| 6 | Building envelope: installed insulation standards | Stud cavity insulation installed to Residential Energy Services Network (RESNET) Grade I standard. Grade II allowed if exterior insulation installed to Grade I. | Improves performance of insulation - energy savings, better occupant comfort, better building durability | New: Yes Addition: Yes Alteration: Yes | | | |
| 7 | Control of loads in hotel/motel guest rooms | Lighting, switched outlets, and televisions will be controlled when guest rooms are unoccupied. HVAC set point will be relaxed by at least 5 when room is unoccupied. | Energy savings, operations and maintenance savings through increased equipment life | New: Yes Addition: Yes Alteration: Yes | | | |
| 8 | Outdoor lighting controls | Reduce outdoor lighting by 50% 2 hours after business closes | Electricity savings, CO2 reduction | New: Yes Addition: Part Alteration: No | | | |
| 9 | Occupancy sensor controls | Occupant sensor controls to automatically reduce connected lighting power by at least 50% in corridors, enclosed stairwells, storage and stack areas not open to the public, and parking garages when unoccupied. | Electricity savings, CO2 reduction | New: Yes Addition: Part Alteration: No | | | |
| 10 | Energy assessments for alterations | Energy assessments required prior to building alterations. No-cost assessment provided by Fort Collins Utilities. | Identify energy efficiency opportunities | New: No Addition: No Alteration: Yes | | | |
| | WATER EFFICIENCY + CONSERVATION | | | | | | |
| 11 | Water Efficient Fixtures | See table (based on Water Sense standard) | Water savings | New: Yes Addition: Part Alteration: Part | | | |

(continued on other side)

| # | GB Practice | Description* | Intent | Applicability | | |
|----|---|---|--|--|--|--|
| | INDOOR ENVIRONMENTAL QUALITY (IEQ) | | | | | |
| 12 | HVAC IAQ Design | Protect ducts from contamination during construction Air handling system access & ability to clean and maintain No friable materials in air plenums | Avoid introducing contaminants into supply air and provide means for maintaining air quality. | New: Yes Addition: Yes Alteration: Yes | | |
| 13 | Building flush-out | Flush out building contaminants by operating at prescribed outside air setting for 14 days. | Remove pollutants generated from outgassing of new materials | New: Yes Addition: Part Alteration: Part | | |
| 14 | Low-Volatile Organic Compound (VOC) materials | Interior materials meet maximum VOC emissions standards: • Sealants + adhesives • Resilient flooring • Carpeting • Paints, stains, varnishes and other site-applied finishes • Structural wood panels, hardwood veneer plywood, particle board, and fiber board | Improve indoor air quality for construction workers and occupants | New: Yes Addition: Part Alteration: Part | | |
| 15 | Acoustical control | Requirements for exterior-to-interior sound transmission, interior sound transmission, and background sound levels. | Reduce noise disturbances for occupants | New: Yes Addition: Part Alteration: No | | |
| | COMMISSIONING / | | | | | |
| 16 | Commissioning | Provide Fundamental Commissioning with addition of commissioning building envelope materials and assemblies. | Ensure that building systems are installed and operate per owner's intent | New: Yes Addition: Part Alteration: No | | |

*Visit the City of Fort Collins Green Building Program web site (<u>www.fcgov.com/gbp</u>) for more information:

• Fort Collins Building Code Green Amendments

• Expanded descriptions of each green building practice

Benefits and Costs of Building Code Green Amendments