



Planning, Development & Transportation Services

Community Development & Neighborhood Services

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Green Build FAQs

Q: Will attendance at Fenestration installation class provide licensing w/AAMA—does that give you certification to install.

A: Attending the fenestration class will allow you to verify that windows have been installed properly per Ft Collins standards but will not make you AAMA certified. AAMA certification is more advanced than our training. Attending Ft Collins class will make you an “approved agency” for Ft Collins only.

Q: Do we need to attend these classes in order for us to renew our Contractors License?

A: No, The green classes are not a prerequisite to maintaining a Ft. Collins contractor's license. Contractors are strongly encouraged to attend so that you become familiar with the new requirements and have an understanding of what documentation is required to verify compliance and who it is that can submit the required documents.

Q: When do new rules related to construction debris go into effect?

A: The green code amendments will go into effect January 1, 2012 and will be tracked by the first application/permit number issued on Jan 2nd. The first number is typically B1200001; all permit #'s issued after B1200001 will be subject to the green code amendments.

Q: Mike (Chief Building Official Mike Gebo) what, from your perspective, would be useful in the Green Classes Series for a plumbing contractor.

A: The only Green aspects of plumbing are the reduce flows on residential and commercial fixtures. The attached is the commercial chart. The residential is the same depending on what fixture you're describing.

Section 604.4 Maximum flow and water consumption. The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4 **and such fixtures shall be Environmental Protection Agency (EPA) WaterSense® labeled fixtures or such fixtures and fittings that provide the equivalent maximum flow rates.**

TABLE 604.4 MAXIMUM FIXTURE AND FITTING FLOW RATES FOR REDUCED WATER CONSUMPTION

<u>PLUMBING FIXTURE</u> <u>OR FIXTURE FITTING</u>	<u>PLUMBING FIXTURE</u> <u>OR FIXTURE FITTING</u>
<u>Lavatory, private</u>	<u>1.5 gpm at 60 psi</u>
<u>Lavatory, public (metering)</u>	<u>0.25 gallon per metering cycle</u>
<u>Lavatory, public (other than metering)</u>	<u>0.5 gpm at 60 psi</u>
<u>Shower head^a</u>	<u>2.0 gpm at 80 psi</u>
<u>Sink faucet</u>	<u>1.8 gpm at 60 psi</u>
<u>Urinal</u>	<u>0.5 gallons per flush</u>
<u>Water closet</u>	<u>1.28 gallons per flushing cycle, with minimum MaP threshold of 350 grams</u>
<u>Prerinse Spray Valves</u> <u>(food service industry)</u>	<u>Must meet federal requirements</u>
<u>Bar sinks</u> <u>(food service industry)</u>	<u>2.2 gpm at 60 psi</u>

For SI: 1 gallon per minute (gpm) = 3.785 L/m.

1 pound per square inch (psi) = 6.895 kPa

a. A handheld shower sprayer is also a shower head

Consumption tolerances shall be determined from referenced standards

Q: Are these the same as the class that was offered this past spring (2011) on the new green amendments?

A: The class you are referring to was the one related to 2009 International Building Code Updates. That class last Spring was needed for your contractor's recertification. Although we touched on the new green codes, these classes go into details of those new green codes that go into effect January 2012. We're suggesting that contractors take the class that matches their license and learn the new details. These classes are NOT a requirement to keep your license current, just more detailed information.

Q: We're a small construction company, doing mainly additions and remodels in Old Town, with an occasional commercial tenant finish or new home build. We've printed off the "cheat sheet" of residential building code green building amendments and are wondering...

- Will paperwork need to be submitted by an "approved agency" for each green building practice (e.g. building envelope, insulation, etc.)? We do realize that the applicability may differ between GB practices.
- Will the general contractor be responsible for submitting all paperwork, and therefore, need to be "approved" in all areas? Or will subcontractors (e.g. plumbers, HVAC technicians) be submitting paperwork?

A: The "approved agency" formula is a way for the City to verify that an individual is knowledgeable in the Ft Collins specific green codes. There is an expectation that certain documents will need to be submitted to the City, prior to final approval, that attest that a specific green code has been complied with. The City will accept documents only from an approved agency, persons who have attended the green code class for that specific trade. An example would be: a final document that confirms that the residential HVAC has been tested and is operating as designed. This document could be submitted from any one, most likely a mechanical contractor, who has attended the Residential system design and testing classes.

Q: We just need one person from our (HVAC) company to do this training, correct?

A: These classes are intended to present Ft Collins' specific amendments around Green Code Amendments and energy code changes. Builders of each new home will need to submit documentation that these amendments have been complied with and certain testing functions have been performed. Only "approved agencies" will be able to sign off on these functions and testing. By attending these Ft Collins classes we are assured that you have been presented the Ft Collins amendments and understand what Ft Collins is looking for in the testing procedures. By attending these classes, each person becomes an "approved agency" able to sign for these final documents. Individuals designated as approved agencies (not companies) will be responsible for performing or observing the required test and then can sign the final test documents required prior to the City issuing a CO.

Q: Does just one person from our framing company need to attend class?

A: Same applies as the questions above. Someone will need to certify that the fenestration is installed per Ft Collins' requirements and whoever attends the fenestration class is considered an approved agency and we will accept that person's certification. On a side note, this is a short ½ day class with great information on how to maintain a proper weather resistive barrier around openings. I am recommending every one send as many folks as they can... this is good stuff that we in the building department were not really up to speed on, and I expect that the industry can gain insight from attending this class.

Mechanical

Q: What makeup air requirements are associated with vented kitchen range hoods? (IRC M1503.4, M1501.2, G2447.6)

- Three code provisions can trigger the need for makeup air in this situation. The bottom line is that makeup air is always required for high-volume hoods (> 400 cfm) and may be required for lower volume hoods when natural-draft appliances are used.
- M1503.4 requires makeup air for kitchen hoods which exhaust more than 400 cfm. The makeup airflow rate must equal the exhaust flow rate and an intake damper on the makeup air duct must be interlocked with the control for the fan.
- M1501.2 requires that “ducted exhaust systems” (such as kitchen hoods, bath fans, clothes dryers) not induce negative pressure in excess of negative 3 Pascals at the location of a natural-draft combustion appliance. This provision applies regardless of the rated airflow of the exhaust system.
- G2447.6 reinforces M1501.2, more explicitly for vented kitchen hoods. This provision is independent of the rated airflow through the hood.
- A pressure test is required to demonstrate that the depressurization level is within the 3 Pascal limit. If the depressurization limit is exceeded, makeup air is one potential solution.
- There is no requirement to temper makeup air.

Q: Are there exceptions to the -3 Pascal depressurization limit? (IRC M1501.2, G2447.6)

- There are no explicit exceptions in the code language but we are not concerned about depressurization if there are no natural-draft combustion appliances in the house.

Q: Is pressure relief required in bathrooms that have a supply air register? (IRC M1309, IMC 107.3)

- No.

Q: Is makeup air or pressure relief required in laundry rooms that include a clothes dryer exhausting to outdoors? (IRC G2439.4)

- Makeup air is required when a laundry room / closet has a gas pipe stubbed in for an optional gas dryer installation. The requirement can be met by installing a 100 sq. in. transfer grille to the core of the house.
- Makeup air is NOT required when there is no gas supply to the laundry room.
- (Recommended best practice: provide pressure relief for all laundry rooms so that dryer is not starved for airflow.)

Q: Duct leakage testing is required when any part of ductwork is in unconditioned space. What's considered "unconditioned space" in this regard? (IECC 403.2.2)

- Attic – Yes
- Floors over garages? –Yes
- Exterior walls? – No if ductwork is in chase separated from exterior wall by an air barrier; Yes if ductwork is in the wall cavity itself.
- Isolated mechanical room with natural-draft appliance – Yes

Q: In new construction, if a sealed-combustion furnace and a natural-draft water heater are specified, can the combustion safety requirements be met by building an isolated mechanical room around the water heater? (IRC G2406.2, IFGC 303.3)

- Yes, provided the mechanical room passes the differential pressure test requirement and the water heater passes a worst-case combustion safety test.

Q: In existing buildings, a combustion safety test must be performed on natural gas appliances with draft hoods. When does this provision apply? (IRC G2408.1)

- Combustion safety tests shall be required under the following conditions:
 - o All newly installed draft-hood appliances (example: replacement of conventional, natural-draft water heaters with like equipment).
 - o Replacement of any combustion appliance that alters the venting of a draft-hood appliance (example: an 80 AFUE induced-draft furnace, commonly vented with a natural-draft water heater, is replaced with a 92 AFUE sealed-combustion furnace with separate venting, and the water heater is the only appliance left on the formerly common vent).
- Combustion safety test is NOT required under the following conditions:
 - o Replacement of an 80 AFUE induced-draft furnace, common vented with a draft-hood water heater, with an 80 AFUE induced-draft furnace to the existing common vent with the draft-hood water heater, resulting in no change to the venting system of the draft-hood appliance.
 - o Replacement of any separately vented appliances, which does not alter other existing draft-hood appliances.
 - o (Recommended best practice: Test all draft-hood appliances affected by a basement finish, when the project reduces the volume of air freely available to the draft-hood appliances.)
- When combustion safety testing is required, the draft-hood appliance must pass under natural conditions. It must also be tested under worst-case depressurization conditions; if it fails, a homeowner disclosure form is required.