



**BASEMENT FINISH STANDARD REQUIREMENTS**

**Based on the 2009 International Residential Code**

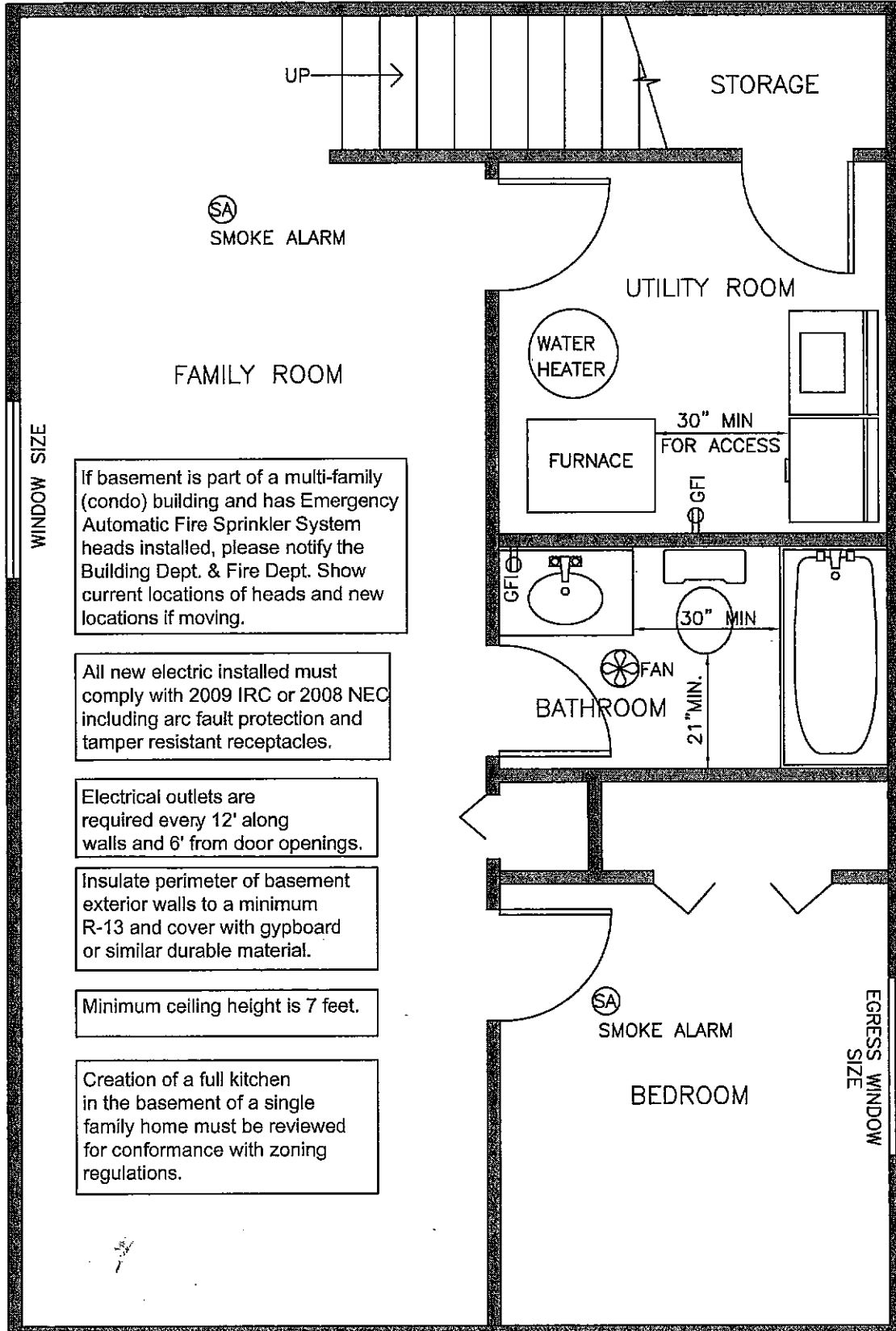
**You have been issued a permit to finish or remodel your basement. The following items will give you a list of some basic code requirements with which you are responsible for. City of Fort Collins Building Inspectors will confirm compliance at the time of your inspections.**

1. Basements and each sleeping room shall be provided with an egress window, See **Egress Window Detail** on the back side. Installing new windows in foundations require additional plan review.
2. Minimum ceiling height is 7 feet..
3. Each new bedroom requires an electric smoke detector connected to the existing house smoke detectors, Provide battery smoke detectors in all existing bedrooms and one on each floor.
4. A carbon monoxide alarm is required in the vicinity of the sleeping rooms.
5. All new electric work must comply with the electric provisions of the 2009 IRC or the current National Electrical Code (NEC) including arc fault protection and tamper resistant receptacles.
6. Electric general use outlets are required at any wall space of 2' wide, within 6' of any door or opening in the wall, at 12' intervals between outlets, and at counters of 1' wide or more, and within 4' of another counter outlet.
7. Electrical outlets at bathroom and wet-bar counters shall be GFCI protected.
8. Provide one GFCI protected electric outlet in the mechanical room.
9. Provide fire blocking in framed walls at ceilings, soffits, and furred walls at 10' intervals. See attached **Fire Blocking** details.
10. All furred exterior walls shall be insulated to R-13 minimum and covered with gypsum wallboard or durable material.
11. Storage space under stairs shall be protected by ½ inch gypsum wallboard.
12. Provide mechanical room with combustion air. See attached **Combustion Air Chart**.
13. Bathrooms shall be provided with exhaust fan ducted to the exterior or with an operable window.
14. Access to mechanical rooms shall not be through a bedroom or bathroom, except when the access door is solid, with closer and gasketed edges and top.
15. Mechanical return air should be provided in each room for better comfort.
16. Rooms without windows for ventilation shall provide a 3" duct from the exterior of the building connected to the return plenum of the mechanical system, **or** shall provide the following: 1) The room adjacent to the windowless room shall have exterior openings, for ventilation sufficient for both rooms, at 4% of the total floor area, and 2) An opening in the wall, common to both rooms equal to 1/20<sup>th</sup> of the floor area of the windowless room or 25 square feet which ever is least.
17. Any installed fireplace or heating equipment shall be either electric or gas, vented to the outside and installed in accordance with the manufacturer's specifications.
18. Separate permits shall be required for solid fuel (wood) burning appliances.
19. Newly install plumbing fixtures that require under slab piping work shall be protected by an approved "backwater valve".
20. Showers require "anti-scald" valves.
21. If basement is part of a multi-family (condo) building and has emergency fire sprinkler system heads installed; please notify the Building dept. and Fire dept. Show current location of heads and new locations if moving.

**Homeowner Notice regarding contractor licensing requirements:** Except for supervised unpaid volunteers; City Ordinance Article V stipulates that individuals performing work, for which monies or goods are paid in exchange, are considered contractors and are required to be licensed with the City of Fort Collins.  
(updated 10-14-2010)

**RESIDENTIAL BASEMENT FINISH HANDOUT - 2009 IRC**

REVISED 10/14/10



Enclosed accessible space under stairs must be protected with 1/2" gypboard on the inside.

Provide a clear 30" working space in front of furnace.

Water heater must be able to be removed with the furnace intact.

Gas fired furnace &/or water heater cannot be located in a room used as a bedroom, bathroom or closet.

Provide combustion air (fresh air) to furnace and HW heater.

GFI elec outlet required within 3 feet of sink.

Anti-scalding valve required for shower.

A exhaust fan is required in the bathroom unless there is a operable window.

Install electrically operated smoke alarms in basement and every bedroom. Install battery operated alarms in all existing bedrooms and floors not equipped with smoke alarms. All new electrical circuits must be Arc-fault circuit breakers.

A carbon monoxide detector must be installed within 15ft of all bedrooms.

Engineering required for new window openings in foundation.

Show window size. An egress window is required in each bedroom or one for the entire basement if there are no bedrms. See chart in this handout for required egress window size per the date of the house.

WINDOW SIZE

EGRESS WINDOW SIZE

If basement is part of a multi-family (condo) building and has Emergency Automatic Fire Sprinkler System heads installed, please notify the Building Dept. & Fire Dept. Show current locations of heads and new locations if moving.

All new electric installed must comply with 2009 IRC or 2008 NEC including arc fault protection and tamper resistant receptacles.

Electrical outlets are required every 12' along walls and 6' from door openings.

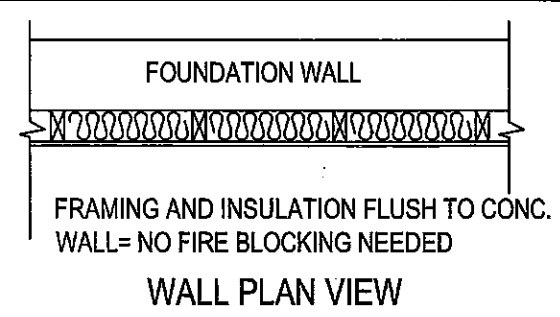
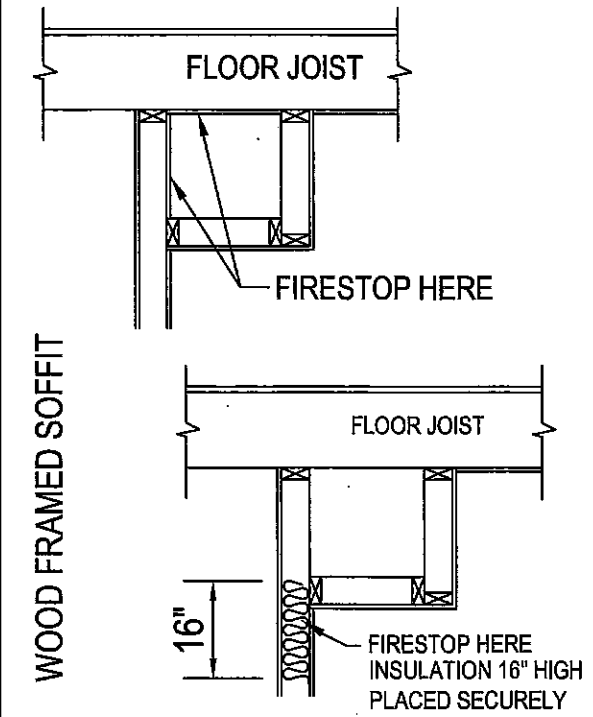
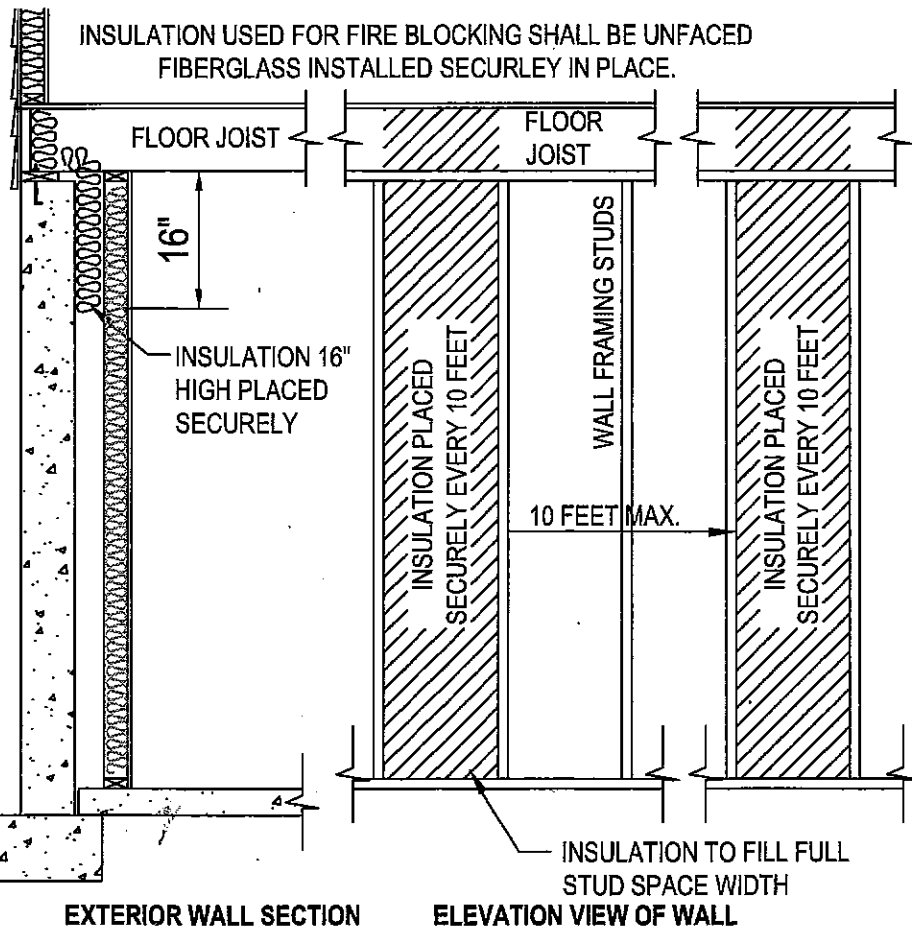
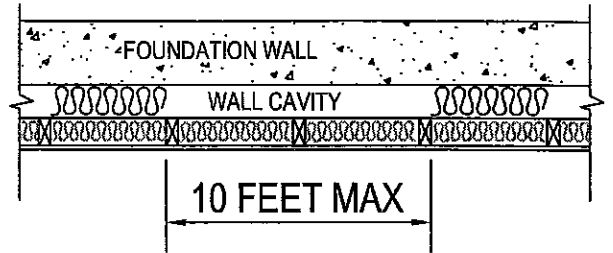
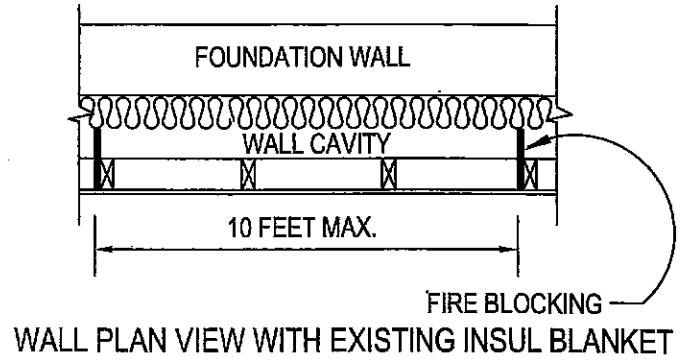
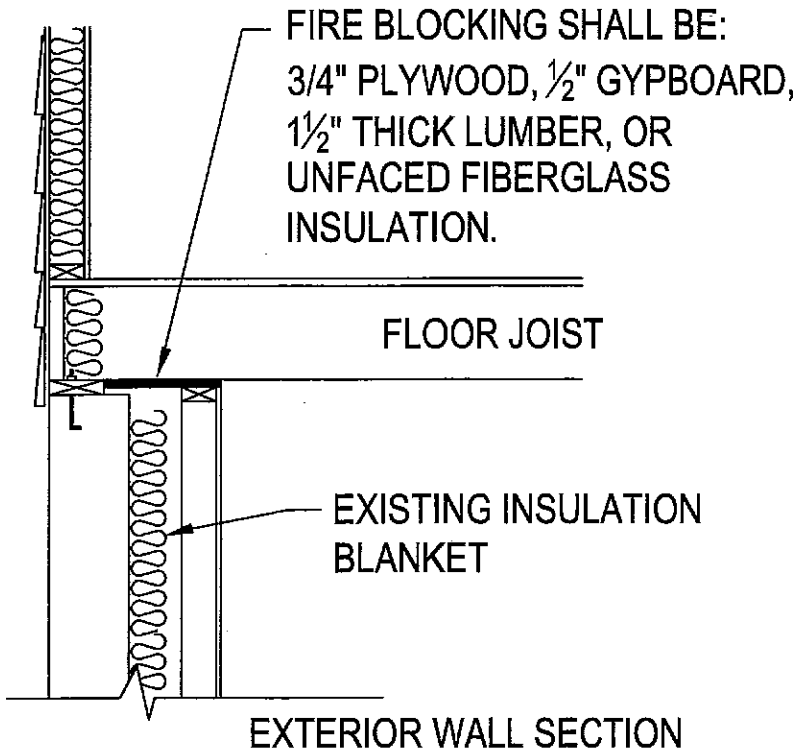
Insulate perimeter of basement exterior walls to a minimum R-13 and cover with gypboard or similar durable material.

Minimum ceiling height is 7 feet.

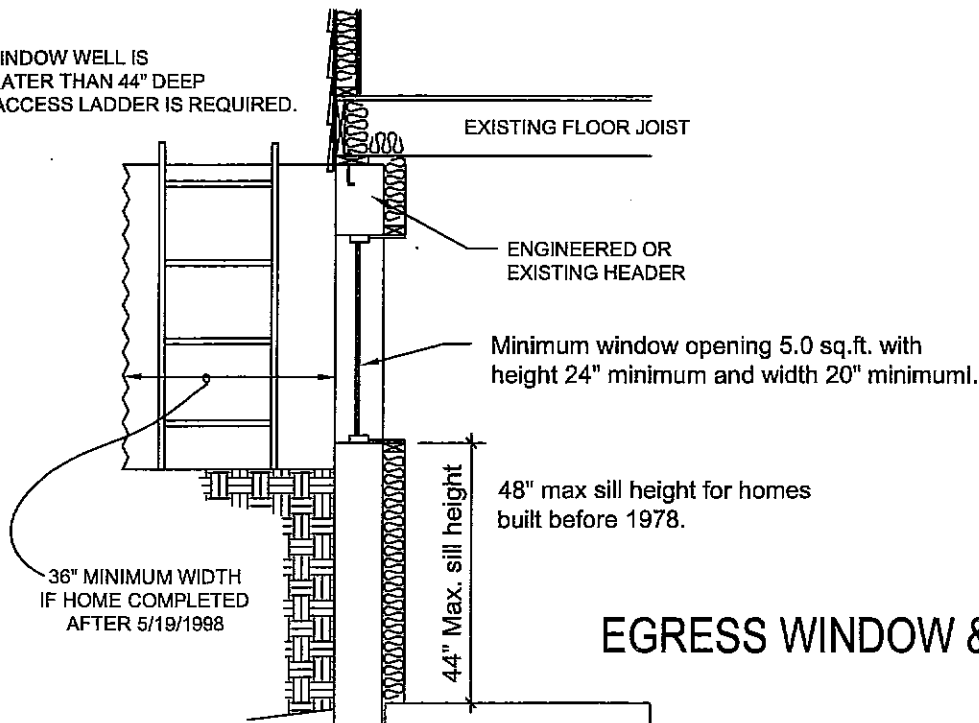
Creation of a full kitchen in the basement of a single family home must be reviewed for conformance with zoning regulations.

**BASEMENT FINISH FIREBLOCKING - 2009 IRC**

REVISED 10/21/10



IF WINDOW WELL IS  
GREATER THAN 44" DEEP  
AN ACCESS LADDER IS REQUIRED.



## EGRESS WINDOW & WELL

### BSMT FINISH GAS APPLIANCE (FURNACE) COMBUSTION AIR CHART

METHOD	CODE	DESCRIPTION	REQUIREMENTS
I	G2407	INDOOR COMBUSTION AIR	Standard Method (Older/existing houses, pre 1975) - 50 cu.ft. per 1000 btu.
II	G2407.8	ENGINEERED SYSTEM	Per submitted and engineered.
III	G2407.9	MECHANICAL COMBUSTION AIR	.35 cu.ft. per min/1000 btu
IV	G2407.6.1	OUTDOOR COMBUSTION AIR, 2 ROUND SUPPLY DUCTS	2 permanent opening method: 1 high & 1 low; vertical ducts provide 1 sq. in. per 4000 btu; horizontal ducts provide 1 sq. in. per 2000 btu.
V	G2407.6.2	OUTDOOR COMBUSTION AIR, 1 ROUND SUPPLY DUCT	One permanent opening method: provide 1 sq.in. per 3000 btu. See below. 34,000=4" DUCT, 55,000=5" DUCT, 80,000=6" DUCT, 110,000=7" DUCT, 145,000=8" DUCT, 185,000=9" DUCT, 230,000=10" DUCT.
VI		ALL APPLIANCES ARE DIRECT VENT	All combustion air taken directly to appliance therefore no duct into appliance location necessary.

#### Submittal Requirements for basement finish:

1. Two sets of plans of the proposed basement finish. See the front page as an example of the plans you will need to submit. The plans *do not* have to be professionally drawn, nor computer generated, but must be neat, clean and legible.
2. Completed two-part application form, available with other Building Services handouts at 281 N. College Ave or on the website [www.fcgov.com](http://www.fcgov.com) *The legal information requested on the application must be completed in full.*
3. Completed Homeowner's Affidavit, if applicable (for homeowners doing the construction). The form is available at Building Services, 281 N. College Ave.

#### Required inspections:

UP-Underground plumbing	RM-Rough mechanical	RE-Rough electric	FNB-Final inspection
FR-Rough framing	RP-Rough plumbing	N-Insulation	

Requesting inspections is the responsibility of the homeowner or applicant. The phone number for inspection request is 970-221-6769. In most cases if the inspection is requested by 7am, it can be done the same day.