

# Basement Finishing

1. Minimum ceiling height of 6 feet 4 inches for existing basements, R305.2.1
2. Heat capable of maintaining 68 degrees 3 feet off the floor and 2-feet from exterior walls in all habitable rooms, R303.9. System must be balanced after installing heat ducts and cold air returns
3. **Smoke alarms** shall be provided throughout the home on each level, in each bedroom and in the immediate vicinity outside of the bedrooms. They must be hardwired and interconnected if access can be provided without removal of interior wall or ceiling finishes, R314
4. **Carbon Monoxide alarm** shall be installed outside of but not more than 10-feet from bedrooms, R315.1.1
5. Basements and every sleeping room shall have at least one operable emergency escape a rescue opening that opens directly into public way or to a yard or court that opens to a public way, R310
6. Egress window minimum net clear openings are: 5.7 total square feet, 310.1.1, 24 inch height, R310.1.2, 20 inch width, 310.1.3, and sill height of not more than 44-inches from the floor, R310.1. Replacement windows are exempt from these requirements when window not smaller in size with same operating style that provides equal or greater opening are of existing widow, R310.1.5
7. Window wells shall have at least 9 square feet of net clear area with a minimum horizontal projection and width of 36-inches. R310.2 An attached ladder or step is required when the vertical depth below grade exceeds 44-inches. The ladder or rungs shall be at least 12-inches wide, project at east 3-inches from the wall and spaced not more than 18 inches apart, R310.2.1 A window well drainage system is required when not in well drained soils, R310.2.2.
8. Bathroom with no openable window requires exhaust fan exhausting to outside. Exhaust duct must be insulated to minimum R-3.3 for first 3-feet from exterior wall, R303.3 and energy code R403.2.1.
9. Stairs with four or more risers require a continuous full-length handrail with no sharp edges on least one side. It must have a minimum 1 1/2 inch space between the handrail and wall or guard, R311.7
10. Enclosed accessible space under stairs shall be protected on the enclosed side with ½ inch gypsum board, R302.7
11. Wood in contact with concrete or masonry that is in direct contact with the ground must be treated or separated from the concrete or masonry by an impervious moisture barrier, R317
12. Minimum insulation requirements: exterior above ground walls R-20, foundation walls R-10, foundation walls R15 (R10 with exception) rim R-10. Refer to foundation wall insulation handout for specific requirements, Energy Code Table R402.1.1. And R402.2.8.

A separate **Electrical Permit** is required. Contact the State Electrical Inspector, Mark Thoma at 320-309-9483.

# SMOKE ALARMS & CARBON MONOXIDE DETECTORS

## INFORMATIONAL HANDOUT

### Smoke Alarms

**International Residential Code (IRC) Section R314**, When alterations, repairs, or additions requiring a permit occurs in existing dwellings, **Smoke alarms** shall be located as required for new construction. Permit examples are:

- Window or door replacements/modifications
- Addition
- Sleeping room added
- Interior remodel
- Basement or bathroom finish

Exceptions:

- Interconnections and hardwiring of smoke alarms is not required in existing areas with finished ceilings and walls
- Work on exterior surfaces of the dwelling such as roofing and siding
- Permits for plumbing, electrical and mechanical alterations or repairs

### Carbon Monoxide Alarms

**International Residential Code (IRC) Section R315 - Carbon Monoxide (Co2) Alarms**

All new and existing single family homes shall have an approved **Carbon Monoxide alarm** within the immediate vicinity of each sleeping room, R315.3. **Carbon Monoxide alarms** must either be hardwired into the building electrical wiring, directly plugged into a non-switched outlet and when primary power is interrupted have a battery backup, R315.5

**Dwelling Exceptions:**

- Dwellings with no fuel fired appliances or no attached garage, may be exempted if owner can certify to the Local Unit of Government or Building Official there is no Co2 risk to occupants

**Effective Dates:**

- January 1, 2007, Newly constructed single family and multifamily dwellings
- August 1, 2008, existing single family homes
- August 1, 2009, existing multifamily and apartment dwelling units