

## Residential Basement Finish

A basement finish requires a plan review and permit before work commences. The licensed general contractor or homeowner (performing the work) obtains the permit and is responsible for inspections being completed.

Exception: If the home is a rental property, a licensed general contractor must obtain the permit and is responsible for all work passing inspections, including any work performed by licensed subcontractors.

### PLANS

The homeowner, designer or architect provides a basement finish plan that is drawn to 1/4" = 1' scale. Identified on the plan is the address of the basement finish, and the name of the plan designer, address and phone number. (Please refer to the sample floor plan drawing in this packet.)

Most basement finish plans can be reviewed and a permit issued the same day. (The plans reviewer can usually determine if a variance is required when existing, nonconforming conditions impede compliance with a code provision, such as finished ceiling heights and soffit dimensions.)

### PERMITS

After the plan is approved, the permit is issued. A homeowner may obtain the permit and perform all of the work, or the homeowner may choose licensed subcontractors to perform portions of the work, such as electrical, mechanical or plumbing. When a general contractor or homeowner obtains the permit, they are to specify the subcontractors and the type of work they will be performing (electrical, plumbing, mechanical, etc.) After the permit is issued, post the placard where it can be viewed from the street.

## Basement finishes done without Permit & Inspections

If a basement was finished or work began prior to obtaining a permit, please follow these guidelines:

- Provide a plan for review of building, mechanical, plumbing and electrical work.
- Inspections will require access to this work. Plans reviewers will determine the areas where sheetrock and ceiling material must be removed for inspections to be the least invasive.
- It is the responsibility of the homeowner or contractor to remove these finishes and replace the finishes after inspections are performed and work is passed.
- The individual who obtained the permit (including attached subcontractors) is responsible for calling to request the inspections, and making corrections of work required to pass inspections. If this is a rental property, the permit must be obtained by the appropriately licensed contractor.

Please be aware that inspections of finished basements are limited to the areas of work exposed, and therefore Pikes Peak Regional Building Department cannot validate that all work complies with code.

# RESIDENTIAL BASEMENT FINISH

## GENERAL REQUIREMENTS

**Bedroom:** Any room larger than 70 square feet having a closet.

**Ceiling heights:** Minimum 7'6" finished height floor to ceiling; 6'8" below beams and ducts 8'0" maximum width, or 50 percent of ceiling area of room except for bathrooms, closets, hallways, utility and storage rooms.

**Egress window wells:** Minimum 36" from exterior foundation to inside of well; 30" for homes built prior to Jan. 1, 2000. A vertical depth of 44" requires a permanently affixed, approved ladder with the lowest rung no greater than 18" above grade.

**Exits/Egress:** Two (2) exits required, stairway and window egress or door. Window egress required for each bedroom; minimum 20" width, 24" height and 4.5 sq. ft. of opening area. Maximum 44" sill height from finished floor. Bedrooms must have egress windows or doors to exterior.

**Fire stopping:** Top of walls (furred) and 10' horizontal - vertical where soffit and wall meet.

**Gas fueled appliances:** Gas furnaces and water heaters cannot be located in or obtain combustion air from a bedroom, bathroom or closet. Clothes dryers can't be located in the same room as gas fueled appliances unless makeup air is provided.

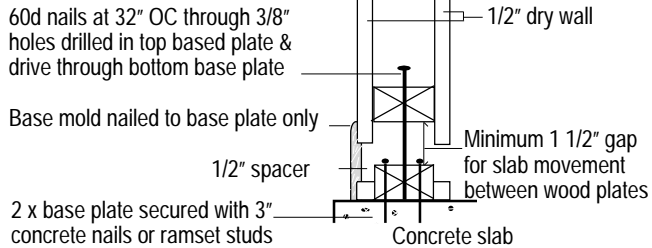
**Insulation exterior wall** - Minimum R-10 insulation.

**Natural light & ventilation:** 8 percent and 4 percent respectively of square footage of floor area require for habitable rooms. Alternative option is providing artificial light of minimum average illumination of 6 foot-candles, and mechanical ventilation of a minimum 0.35 air changes per hour. Exception: Bedrooms that require emergency egress.

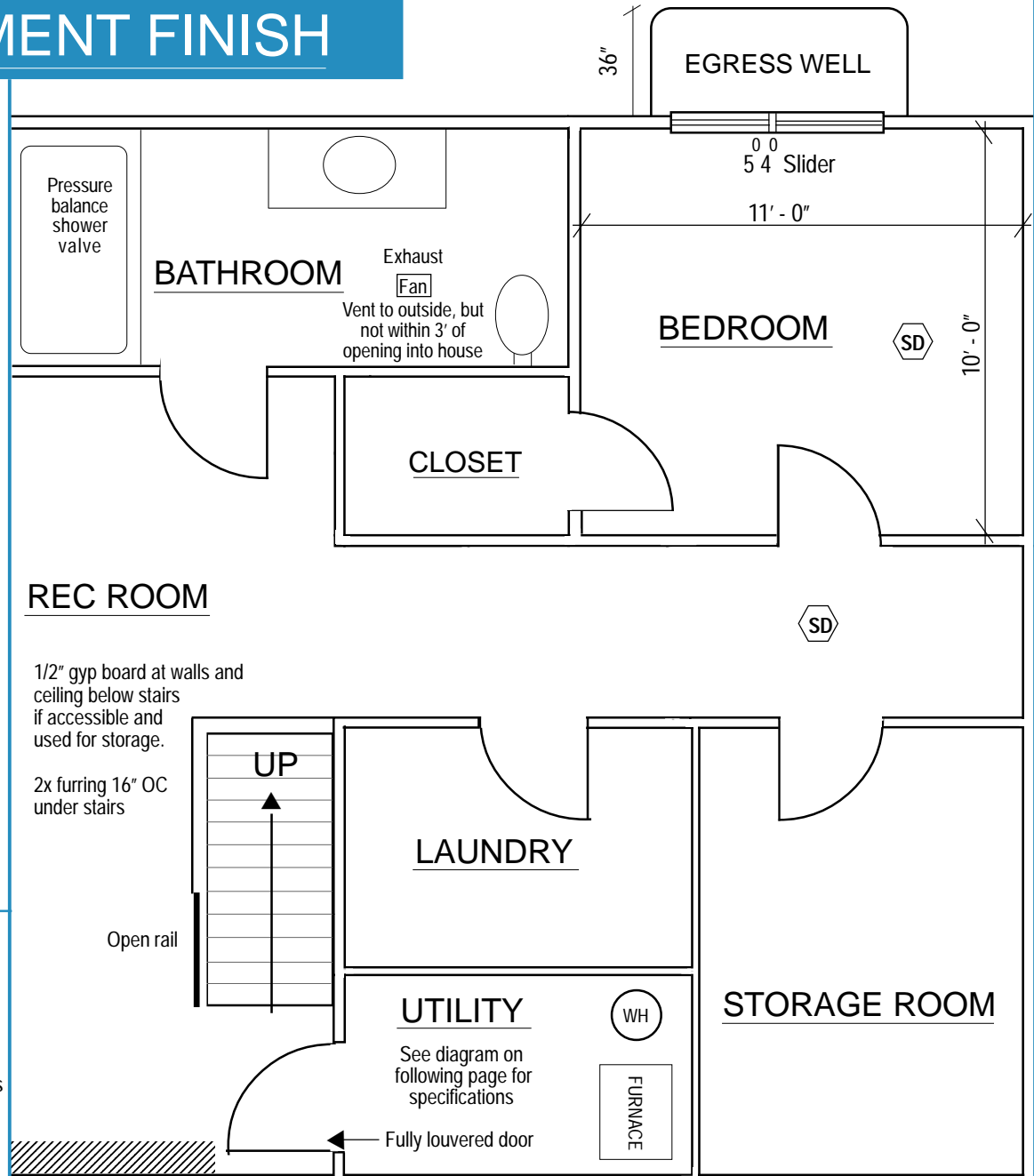
**Bathroom exhaust fan:** Must be a minimum of 50 CFM, be ducted to the outside using rigid or flexible metallic duct, or Class 1 Duct product. Must terminate a minimum of 3' from any opening into the building (window, door, outside air intake to the furnace return air) or gas meter.

**Non-bearing walls:** Required to be floating (see diagram below).

**Smoke detectors:** Install at least one smoke detector per level, in all bedrooms and hallways to bedrooms; interlink where possible.



**FLOATING WALL DETAIL**



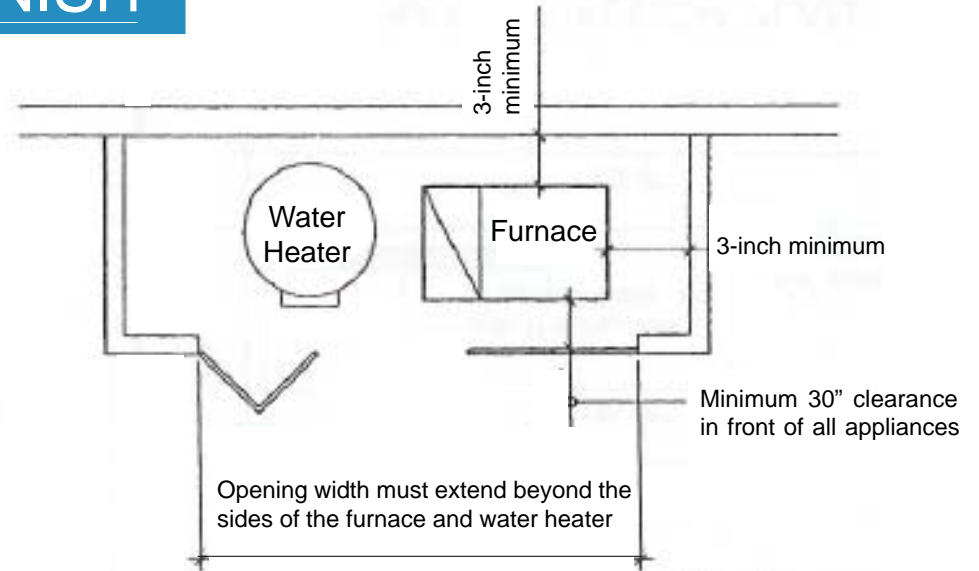
# RESIDENTIAL BASEMENT FINISH

## FURNACE & WATER HEATER ENCLOSURES

Combustion air must be provided to an area with volume of 100 cubic feet per 1000 BTUs for draft hood appliances; 50 cubic feet per 1000 BTUs for fan-assisted appliances. For structures built prior to the adoption of the 2003 International Fuel Gas Code, combustion air is provided to an area with volume of 50 cubic feet per 1000 BTUs for draft hood appliances; 30 cubic feet per 1000 BTUs for fan-assisted appliances.

**Provide either a fully louvered door or two transfer grills in the wall.**

Each transfer grill is to be sized of net free area at 1 square inch per 1,000 BTU/hr input ratings of all the appliances within the room, or 100 square inches, whichever is greater. When using two grills, the upper grill must be located within 12" of the ceiling, and the lower grill must be located within 12" of the floor. (For clearances and door dimensions, see diagrams A and B.)



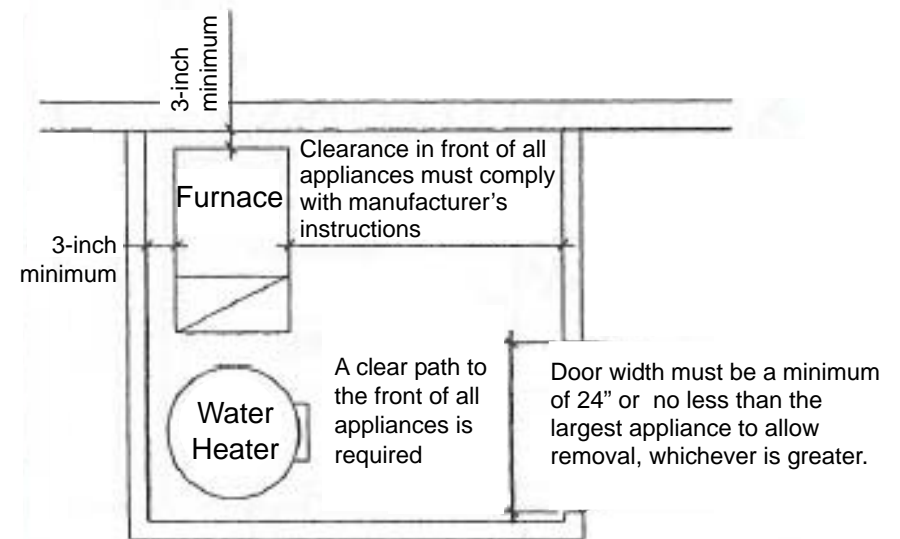
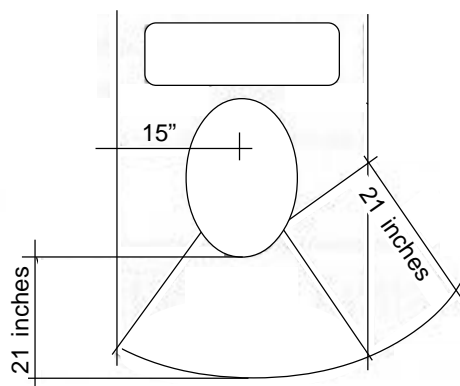
(A) FURNACE & WATER HEATER ENCLOSURES

## CRITICAL BATHROOM DIMENSIONS

The shower must have a minimum finished floor area of 900 square inches and encompass a 30-inch diameter circle, (32" x 32" shower base is acceptable.)

The water closet (toilet) must be installed with not less than a 15-inch clearance to either side of its center line and have a clear space of a minimum 21 inches to the front. (See diagram C.)

## (C) WATER CLOSET CLEARANCES



(B) FURNACE & WATER HEATER ENCLOSURES

# BASEMENT ELECTRICAL

