

**Please Note:**

This guide is for general information only and does not identify every code requirement which may apply.

**PERMITS:**

- Basement finishing requires a building permit.
- Plumbing, electrical, and mechanical permits may also be required.
- Fireplace installation requires a separate permit.

**PLAN SUBMITTAL:**

- Application for a building permit requires plans showing:
  - Basement layout indicating use of each room. Include dimensions of rooms and egress.
  - Walls doors and windows (Indicate if new or existing)
  - Smoke detectors and Carbon Monoxide required.
  - Sump baskets
  - Furnace, water heater, plumbing fixture layout and other equipment
  - Electric panels
  - Please leave a blank space (3"x4") on the plan for city approval stamp and comments

**GENERAL CODE REQUIREMENTS:**

- Minimum headroom clearance in finished habitable areas is 6'4". Indicate, in your drawings, the amount of headroom that will be provided once finished.
- All wood in contact with concrete shall be pressure treated lumber.
- Walls built against the foundation shall meet the following conditions:
  1. Foundation walls must be in good condition and not show signs of allowing moisture into that basement area. If signs of moisture intrusion exist, finishing of the area should not occur until remedial action is taken to correct the moisture problem.
  2. Apply drywall, or other approved finishing material, over the Insulation.
    - A great resource for basement insulation information can be found in the Home Energy Guide from the MN Department of Commerce Website at: <https://mn.gov/commerce-stat/pdfs/basement-insulation.pdf>
- Enclosed areas under stairs must be entirely finished with ½" gypsum board.
- Smoke detectors are required on all levels of the house and in all sleeping rooms. Centrally locate smoke detectors in hallways within 10 feet of each sleeping room and provide one on each level. Only areas being remodeled are required to have smoke detectors hardwired, **interconnected** (when available), and equipped with a battery backup. Existing bedrooms not being remodeled shall also have smoke detectors installed. These smoke detectors may be battery operated.
- A complying handrail and guardrail shall be provided to the lower level. A guardrail shall be provided alongside the stairs. A minimum of 36" high guardrail with spacing between balusters not to exceed 4" (see "stairway" handout for handrail requirements).
- New bedrooms need to have an escape (egress) window installed (reference "egress window" handout for additional details).
- Habitable rooms (bedrooms, family room, etc.) must have a heat supply and cold air return.
- Stairway illumination is required.

- Bedrooms must be at least 70 square feet in area.
- All rigid foam board insulation must be covered with min ½ inch of gyp board unless UL listed for use without covering.
- Basement spray foam requires a 1-inch space between the studs and foundation wall.

### **Plumbing Issues to Consider:**

- Bathrooms require an operable window, or an exhaust fan connected directly outside and insulated a min of 3 feet from the exterior.
- Water closets must be centered in a clear space of not less than 30 inches wide and have a clear space in front of not less than 24 inches.
- Whirlpool/bathtubs that are installed against walls must have a factory flange to receive drywall or other finish. Whirlpool/bathtubs that do not have a factory flange are of the drop-in deck set type and must not be installed against the wall.
- Shower stalls must be at least 1024 square inches in floor area and large enough to provide a 30-inch diameter clear circle measured at the height of the shower control handle with 6-foot 4 inches clearance.
- All plumbing fixtures must be listed and labeled for its use.
- Steel nail plates shall be installed to protect plumbing and electrical installed closer than 1 inch from the face of the stud.
- Standalone whirlpool tubs and bathtubs require an ASSE 1070 Mixing valve.
- Shower pan liners must be visually inspected and flood tested.
- 710.1 Backwater valve required when floor is below up-stream manhole cover.
- Except for accessible showers, ALL shower valves must be adjustable without the user entering the shower spray. Shower heads may not be directed at the shower entrance.
- A shower or combination shower-bath in a new remodeled installation must be equipped with an anti-scald type shower control valve. (ANSI/ASSE Standard 1016-96)
- Access must be provided for service and replacement of:
  - Water heaters, water conditioning equipment, water, electric and gas meters, traps and slip joints on bathtubs/whirlpools, pump equipment and controls on whirlpool tubs, plumbing cleanouts, and plumbing valves (water, gas)

### **Mechanical Issues to Consider:**

- Furnaces must have an unobstructed working space of at least 30 inches in front of the unit and other clearances as required by the manufacturer specifications. A 24"x 80" door shall be available to access the space. Equipment shall not have to be moved for replacements.
- Furnaces and water heaters must be provided with outside combustion air.
- Furnaces may not be accessed through or located in a bedroom or bathroom.
- Furnace and water heater vents must have a minimum clearance to combustibles of 1 inch when class 'B' pipe is installed and 6 inches for single wall pipe.
- Provide access to balance dampers on duct branches.
- Fireplaces must be installed per the manufacturer's instructions; a gas line pressure test is required. A shutoff valve is required at the appliance and the manifold.
- Gas line pressure test is required.
- All duct work must be hard piped and sealed.

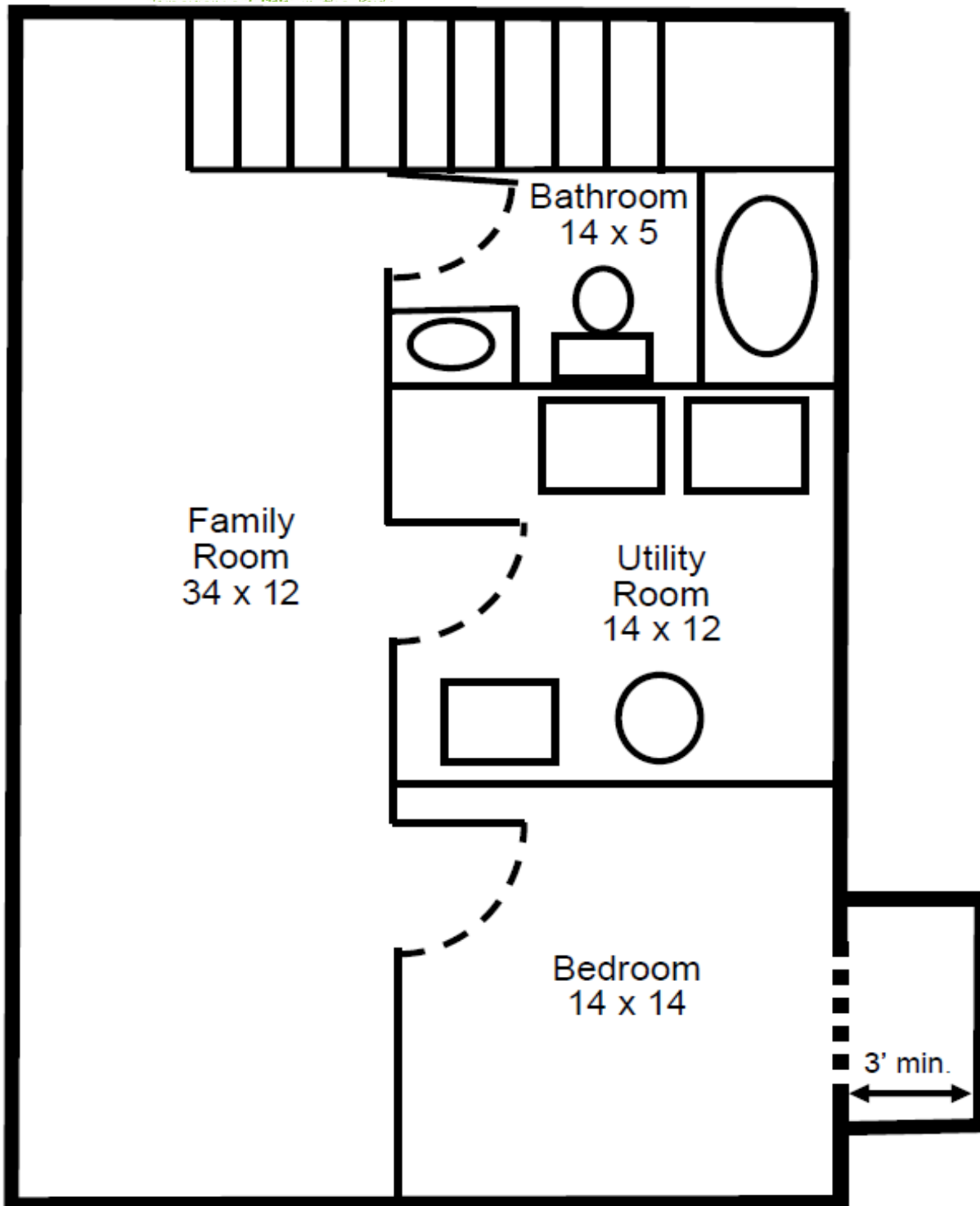
### **Electrical Issues to Consider:**

- Electrical panels must not be in bathrooms or closets and a minimum of 3 feet of clear floor space in front of panel and 30 inches side to side must be maintained.
- Bathroom receptacles must be on a dedicated 20-amp circuit and be GFCI protected and located within 3 ft of sink basin and a minimum of 3 feet horizontally from tub or shower threshold.
- No parts of hanging, cord-connected, track lighting, pendant type fixtures or ceiling paddle fans shall be located above or within 3 feet horizontally and 8 feet vertically of the top rim of a bathtub or shower stall or threshold.
- Laundry area lights and 120-volt receptacles must be AFCI protected.
- Laundry area receptacles, both 120 and 240-volt, must be GFCI protected.
- Non-IC (non-insulation contact) recessed lights must have a ½" clearance from combustible surfaces.
- Surface mounted fluorescent fixtures in closets must be a minimum of 6 linear inches from the edge of the light fixture to the nearest point of storage space.
- All electrical openings in finished areas of basement for light, power, and smoke detectors must be AFCI protected.
- GFCI and AFCI protection: Receptacles in basement finished areas must be GFCI and AFCI protected.
- GFCI protection: All receptacles, both 120 and 240-volt, in basement finished and unfinished areas, garages, and exterior must be GFCI protected.

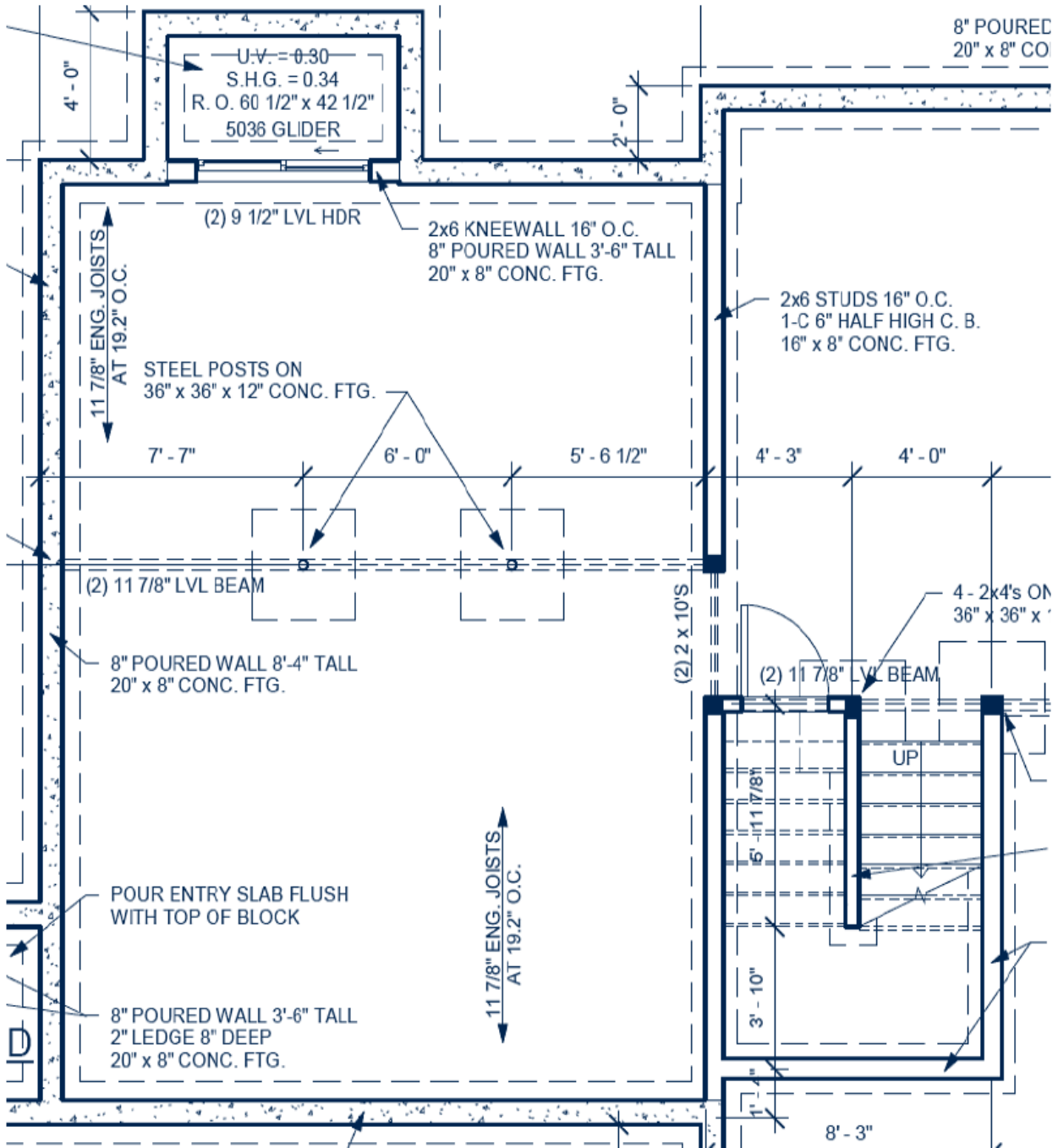
### **INSPECTIONS TO BE CONDUCTED:**

1. Rough in plumbing, electrical, and mechanical must be inspected before concealing any work.
2. Framing and insulation inspections shall be conducted after all plumbing, electrical, and mechanical systems have been approved.
3. Final electrical plumbing and mechanical inspections.
4. Final building inspections.

Please call 952.924.2588 to reach Building & Energy staff with any questions or to schedule an inspection.



**Proposed Plan**



**Existing Plan**