



Department of Planning Services
Building Inspection Division
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Manufactured Home Installation Requirements



Division 3, Section 23-4 of the Weld County Code lists allowed uses and requirements for manufactured homes in Weld County. The following is a brief summary:

Principal Dwelling: The manufactured home is the only residence on a property. Manufactured homes can be set on a permanent engineered foundation or block and tied. **A manufactured home building permit is required.**

Accessory Use: The manufactured home is not the principal dwelling and will be used for employee housing, temporary office or temporary housing during construction of the principal dwelling. A Mobile Home Zoning Permit (ZPMH) is required as well as a manufactured home building permit; and the unit cannot be placed on a permanent foundation. The mobile home utilized in this capacity is required to be **subordinate** to the principal dwelling on the property where the accessory use occurs.

Limitations: The Weld County Code (Section 29-2-110) does not allow a mobile home or manufactured home to be located in or relocated within Weld County unless it bears a Housing and Urban Development (HUD) label and meets the installation standards described in this handout and the Weld County Code (Section 29-2-110, 29-7-10). Note: Typically, mobile homes or manufactured homes built prior to 1976 do not have a HUD label.

Floodplain Districts may require further permitting through Weld County Planning Department. Please contact the Department of Planning Services office if you have specific questions regarding building permit or zoning permit requirements.

INSTALLATION REQUIREMENTS

The installation of a mobile or manufactured home shall strictly follow the manufacturer's installation instructions. Manufacturer's installation instructions shall be made available to the inspector at the

job site. No manufactured home or mobile home shall be occupied before a Certificate of Occupancy is issued. When a mobile or manufactured home has been previously set up and the manufacturer's installation instructions are not available, the setup shall meet the standards based on ANSI 225.1-1994. Engineered foundations based on a soils report or an open hole inspection are required for any mobile or manufactured home placed on a basement or crawlspace. (Weld County Code, Section 29-2-110)

Manufacture's Installation Handbook: To obtain a copy of the *Installation NFPA 225-2018 Handbook from the Colorado Division of Housing for the Installation of Manufactured Homes and Factory Built Housing*, contact the Colorado DOH at 1313 Sherman St #518, Denver, CO 80203, phone (303) 866-2033.

Clearance Under Homes: A minimum clearance of 12 inches shall be maintained beneath the lowest member of the frame (I-beam or channel beam) and the ground under the home.

Footings: Footings and foundations shall be installed in accordance with the manufactured home installation instructions. If the home was previously installed and the manufacturer's installation instructions are not available, ANSI 225.1-1994 installation standards shall be used.

Crawlspace and basements shall be insulated to meet the 2006 International Energy Conservation Code.

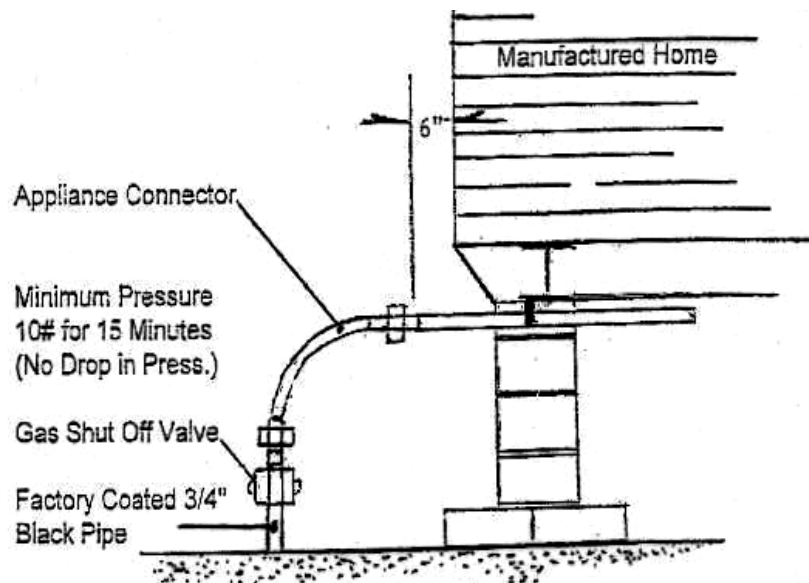
If using a soil bearing capacity other than 1000 pounds per square foot, follow the instructions in Chapter 2 of the *Installation Handbook from the Colorado Division of Housing for the Installation of Manufactured Homes and Factory Built Housing*.

Gas Piping and Pressure Test:

Gas supply piping at the inlet to the mobile or manufactured home shall be $\frac{3}{4}$ " minimum in size. It shall extend 6 inches beyond the outside wall of the home and be a minimum 6 inches above the ground. All appliances must have a valve above the floor and directly adjacent to the appliance in the same room. A shutoff valve that disconnects the gas supply shall be located in the home. A shutoff valve at an LP tank is acceptable.

The homeowner or agent will obtain a pressure gauge and attach it to the gas piping on the outside of the home. Close all gas valves to appliances, disconnect the union between the gas valve and the appliance. (This is important as air pressure may damage the gas control on each appliance.) Next, use an air pump to pressurize all inside gas piping to a pressure of 10 pounds per square inch (psi). The gas piping must hold 10 psi of air pressure for a period of 15 minutes with no appreciable drop in pressure. An inspector must view and approve the test before the pressure is released and the gauge is removed.

Means shall be provided to compensate for any settling or movement of the home. This can be accomplished through a loop installed in a copper supply line at the connection to the home gas inlet or by means of a gas appliance connector. If an appliance connector is used, it must be listed for outdoor usage and be the same size as the mobile or manufactured home gas inlet.



Any black pipe located below ground or within 6" of the ground must be factory coated to prevent corrosion. Individual fittings may be hand-wrapped using tape that is approved for the purpose.

Building Drain:

The building drain under the home shall have a slope of $\frac{1}{4}$ " per foot toward the septic tank or sewer. A cleanout is required for the building sewer. The cleanout is to be located outside or directly inside the skirting or perimeter wall. If located outside the home, it shall be brought up to the finished ground level.

ABS or PVC DWV schedule 40 is required under the house and must extend 2 feet beyond the skirting or perimeter wall. All drain pipe and fittings must be the same material. For example, PVC and ABS pipe and fittings cannot be intermixed and glued to each other but must be connected by means of approved fittings such as threaded male and female adapters or rubber "no hub" clamps. Once outside the home, it must be covered with a minimum of 12 inches of earth. Connect the main drain to the sewer line using an approved flexible connector.

Strap plastic pipes a maximum of 4 feet between straps or other approved supports.

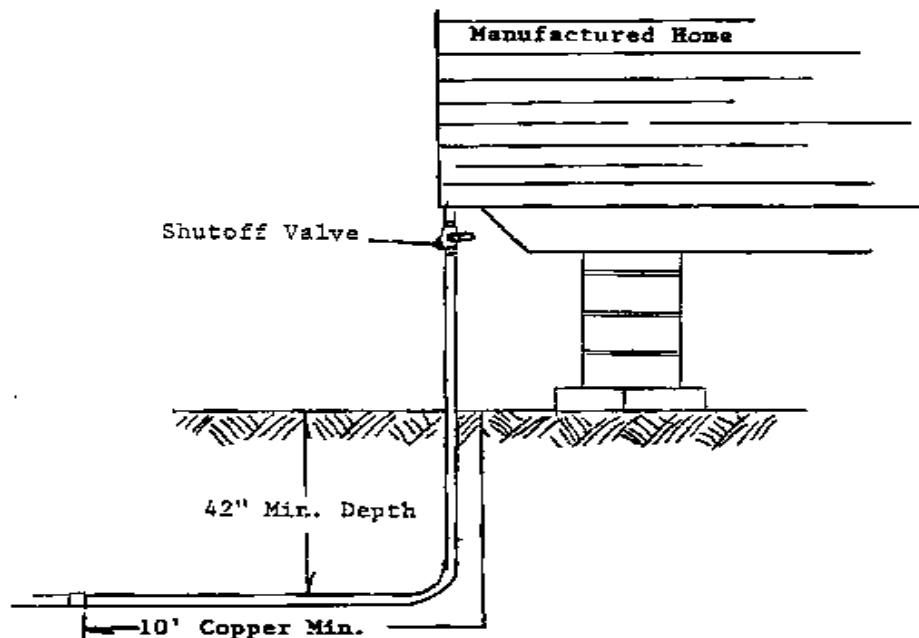
Plumbing drains shall be tested by filling all drains with water. An inspection by Weld County Building Inspection is required. The drainage line will be required to hold water for minimum of 15 minutes without leaking during the inspection.

Water Service:

Water service piping shall be $\frac{3}{4}$ " or larger. All water service pipes shall have a minimum working pressure rating of 160 psi and must be listed for potable water. The water service pipe shall be buried a minimum of 42 inches below grade.

A fullway shutoff valve shall be located in the house. The shutoff valve is required to be accessible and must be protected from freezing.

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Final Plumbing:

After the water and gas have been connected and turned on, a final plumbing inspection is required. Check all lavatories, sinks, bathtubs, showers, etc. to make sure hot water is located on the left side, as you face the plumbing fixture, and cold water is on the right. The proper installation of traps and vents is also inspected.

Electrical Service:

The *2023 National Electrical Code* devotes an entire article to the wiring provisions for mobile and manufactured homes. Providing electrical service to a home is very complicated and should be done by a professional licensed electrician; however, Colorado State law does allow homeowners to wire their own residences. For HUD units, Article 550 of the *2023 National Electrical Code* must be followed for all electrical work performed at the site. For Factory Built units, the entire *2023 National Electrical Code* must be followed.

Homes with permanent foundations, footings and grade beams require a concrete encased electrode (UFER ground) {NEC 250.52(A)(3)}. This is an electrode encased by at least 2 inches of concrete located near the bottom of the foundation or footings that is in direct contact with the earth, and which consists of at least 20 feet of ½" reinforcing bars or 20 feet of bare copper no smaller than 4 AWG.

Mobile home service equipment shall not be rated less than 100 amps, and mobile homes with 100 amp ratings shall be serviced by a permanent wiring method rated at 100 amps. Mobile home service equipment shall be readily accessible and shall be mounted a minimum of two (2) feet above grade and be located in sight from and not more than thirty (30) feet from the exterior wall of the mobile home. All mobile home service equipment shall be grounded in accordance with Article 250 of the *2023 National Electrical Code* for the service equipment. The chassis of the mobile home and the metallic water and gas pipes shall be bonded to the equipment ground in the distribution panel. The bonding connections shall be made with listed clamps. When permanent connections are made between the service equipment and the distribution panelboard in the mobile home, it shall be done with four, insulated color-coded conductors (NEC 550.33). These conductors require mechanical protection from the point of attachment to the service equipment. The neutral is required to be isolate from the distribution panelboard in the mobile home.

It is impossible to illustrate or describe all possible situations and code requirements that may be encountered. The following illustration is only designed to give a brief overview. Not all code requirements are shown.

Service Pole

Wiring shall meet the 2023 NEC and all requirements of the Weld County Building Code and any other private power utility regulations.

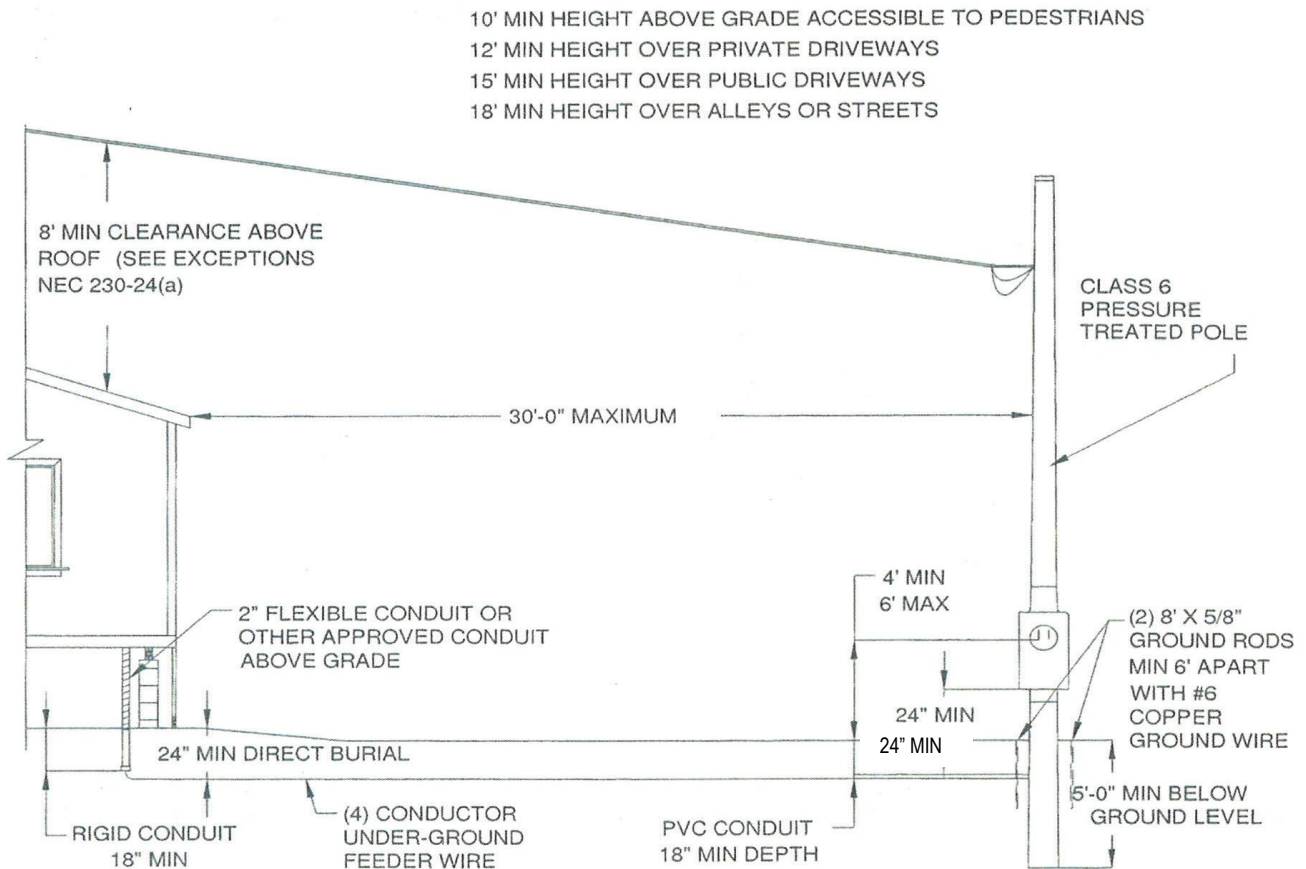


Figure 6.1 — Electrical Service Entrances

Skirting:

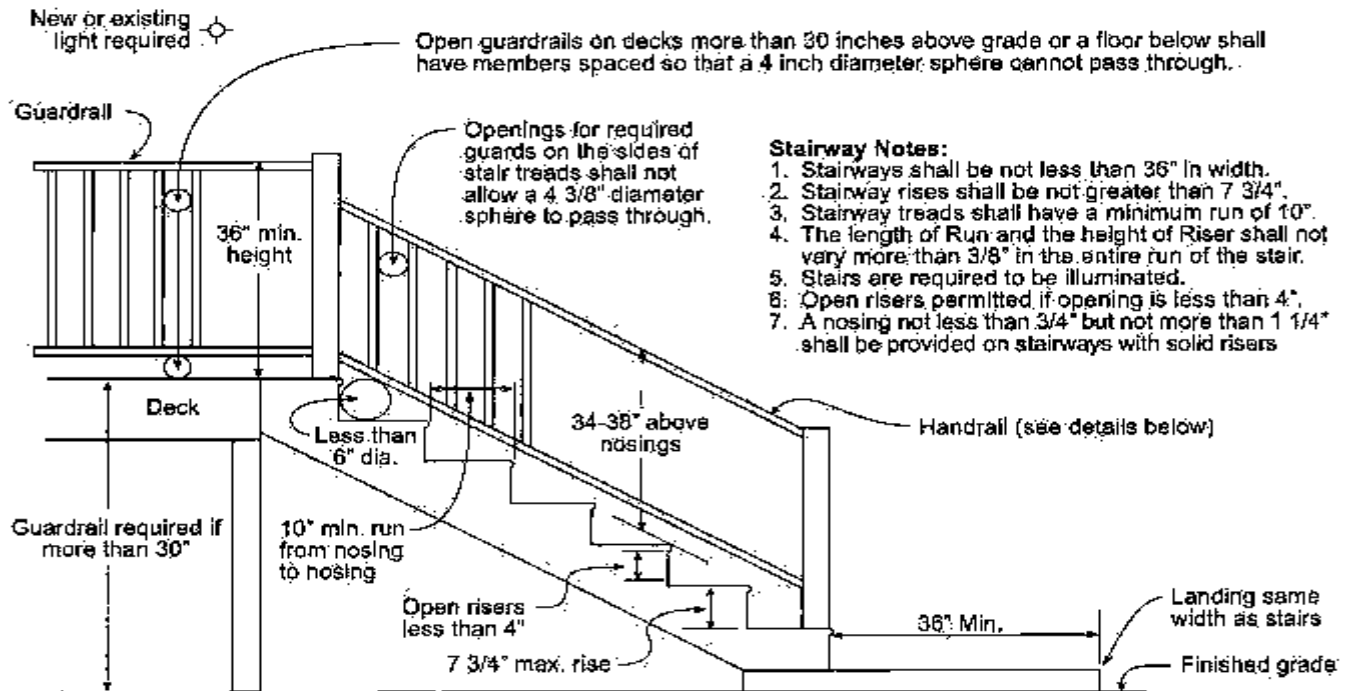
Skirting shall be of material suitable for exterior exposure and contact with the ground. Material designed specifically for skirting shall be installed in accordance with the skirting manufacturer's installation instructions. Skirting shall be adequately secured to ensure stability and to minimize vibration and susceptibility to wind damage.

Protection from Frost:

When footings are placed less than 30 inches below grade, the footings must be protected from the effects of frost heave. If the manufacturer allows a frost protected shallow foundation, then the manufacturer's instructions must be followed completely. The Colorado State Division of Housing has documents on a "floating slab system" above the frost line. This must be approved by the manufacturer or designed by a Colorado registered engineer and be compatible with anchoring requirements.

Landings and Steps:

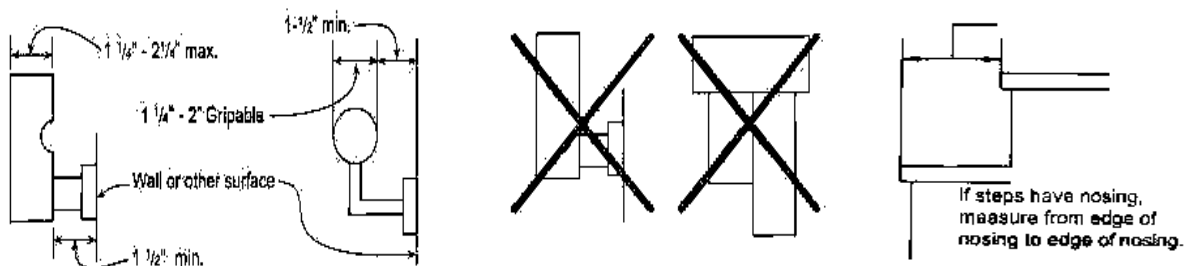
Every door is required to have a landing and a set of steps (Section R311.3 2018 IRC). The landing shall be a minimum of 36 inches by 36 inches and shall not be more than 1 inch below the floor level. When a door does not swing out over the landing, other than a screen door or a storm door, the landing may be a maximum of 7 ¾ inches below the floor level. (Screen doors and storm doors may swing out over the landing.) The landing may have a slope no greater than ¼" per foot. Landings shall be securely anchored. All wood steps and landings exposed to the weather that is 8 inches or less above the earth shall be redwood or treated wood.



Handrail Notes:

1. Handrails shall be continuous on at least one side of stairs with 4 or more risers.
2. Top of the handrails shall be placed not less than 34 inches nor more than 38 inches above stair nosings.
3. The handgrip portion of handrails shall be not less than 1-1/4 inches nor more than 2-1/4 inches in circular cross section.
4. Handrails shall be placed not less than 1-1/2 inches from any wall or other surface.
5. Handrails to be returned to wall, post or safety terminal (per 311.5.6.2 IRC)

Any wood below grade must be pressure treated. Steps or landings more than 30 inches above the ground must have a guardrail. If a landing or deck exceeds 4 feet by 4 feet or 16 feet square, is covered by a roof, or is enclosed on at least two sides, a separate building permit is required. Minimum setbacks and offsets must be met.



Retaining Walls:

Where retaining walls are used as a permanent perimeter enclosure, they shall resist the lateral displacement of soil or other materials. Retaining walls shall be constructed of approved treated wood, concrete, masonry, or other approved materials. When wood retaining walls are used, the entire wall, including bracing, must be

treated wood.

Septic Permit:

Before a permit for a mobile or manufactured home is issued, a septic permit must be applied for and issued from the Weld County Department of Environmental Health. The septic permit must have received final approval by the Environmental Health Department before final approval and a Certificate of Occupancy is issued for the building permit.

Additions, Alternations or Repair to Existing Mobile or Manufactured Homes:

Before any additions, alterations, or major repairs are made to an existing mobile or manufactured home, a separate building permit must be applied for and issued by the Weld County Planning Services, Building Inspection Division. The work described on such permits must comply with the requirements of Article VII, Section 29-7-30 of the Weld County Code.

Connection of Any Two Mobile or Manufactured Homes for Human Habitation:

Any two mobile or manufactured homes may be connected or physically attached provided all the following requirements are met: (Article VII, Section 29-7-30 of the Weld County Code)

1. Two complete sets of plans are submitted to the Building Official.
2. No intervening walkways, breezeways, rooms, or other structures are located between the two home units.
3. The two home units shall be attached so as not to interfere with the light and ventilation requirements of all rooms.
4. Escape routes and openings are not blocked from any bedrooms or other areas of the home.
5. The two home units are used as one family dwelling as defined in Chapter 23 of the Weld County Code.
6. All construction and all required inspections shall be completed and finalized within one (1) year from the date of issue of the building permit.

Permanent Installations:

The Weld County Building Inspection Division and lending institutions may request the mobile or manufactured home be permanently installed. **NOTE: This is not the same as a permanent foundation.** Tie-downs, as described in the manufacturer's installation manuals, are required in addition to a permanent installation. The warranty on the home may be voided if tie-downs are not installed. **Manufacturer's installation manuals are to be followed for permanent installation of the home. If the home was previously set up and the manufacturer's installation manual is not available, follow the standards in the HUD "Permanent foundation guide for manufactured housing" guide.**