

PLUMAS COUNTY BUILDING SERVICES DEPARTMENT

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Policy Statement: Freeze Protection of Plumbing Systems & Non-Antifreeze Fire Sprinkler Piping Systems

PURPOSE

The purpose of this document is to establish the minimum requirements for freeze protection of plumbing systems installed within the jurisdiction of the Plumas County Building Department.

GENERAL

The California Plumbing Code does not allow water or waste piping to be installed outside of a building or in an exterior wall unless, where necessary, adequate provision is made to protect such piping from freezing. Since climatic conditions vary all over the state, the Plumbing Code does not provide specific requirements as to what constitutes adequate provisions to protect piping from freezing. Each local jurisdiction, taking into consideration local conditions, establishes minimum provisions.

MINIMUM REQUIREMENTS FOR FREEZE PROTECTION

New Construction and Additions:

Approved adequate provision for new construction and/or new additions to existing structures shall be as follows:

1. No water supply piping or DWV traps (drain waste & vent) are permitted to be installed in any exterior wall, unheated garage or attic, underfloor area, and all other areas that cannot be maintained reliably above 40 °F.

Exceptions:

- a. May be located in an exterior wall if the wall is a minimum 6" thick, and the piping is located such that a minimum of R-11 wall insulation is properly installed behind the piping.
 - b. Water supply lines and DWV traps are allowed in underfloor areas when:
 - i. The space above the underfloor area is a heated space, and
 - ii. The piping is located more than 5' from any foundation vent or similar opening
2. Water heaters – including tankless water heaters, washing machines, pressure tanks, recessed washing machine supply box, ice maker supply boxes, etc. are not permitted to be located in a unheated garage or attic, underfloor area, exterior wall, or any other area that cannot be maintained reliably above 40 °F.
 3. While a water supply drain-down system is recommended for all areas of the County, a drain-down system alone is not an adequate freeze protection.

4. Pipe insulation and/or heat tape may be installed, but are not an approved alternate in new construction to the freeze protection methods described above.

Existing Remodeled Areas:

New plumbing in remodeled areas shall comply with the above requirements for new construction.

Exception:

When new plumbing within an existing structure can not reasonably comply with the new structure requirements, heat tape covered with pipe insulation (must be both) is an acceptable alternative.

Construction Drawings:

The required freeze-protection shall be fully and clearly detailed on the construction drawings. Failure to fully detail the construction drawings will result in the building permit submittal being returned for corrections. Actual installation details are verified in the field by inspection.

Alternate Methods:

Alternate methods of freeze-protection may be submitted to the Building Official for approval **prior to construction**. A drain-down system alone is not adequate.