## Manufactured Home Limitations – local floodplain management ordinance amendments or local technical code amendments CCR Title (Part 2 building, Appendix G)

Submit draft ordinances amending the flood provisions of the building code (in <track changes>) for review well in advance of first reading to DWR\_NFIP@water.ca.gov or FEMA-NFIP-R9@fema.dhs.gov. Please put community name in subject line.

**Before you start:** Review the General Instructions for Amending the California Building Standards Code (CCR Title 24) to Adopt Higher Standards for Buildings and Development Located in Flood Hazard Areas.

**NFIP Community Rating System Credits.** Adoption and enforcement of this higher standard may qualify for CRS points (credits). Communities should review the [*CRS Coordinators Manual*](https://www.fema.gov/media-library/assets/documents/8768)and consult with their CRS Resource Specialists. FEMA/ISO determines which provisions qualify for points.

**Description[[1]](#footnote-1):** Post-flood investigations by FEMA and others document that manufactured homes, even if elevated to the minimum height specified by the NFIP, are more vulnerable to flood damage than conventional homes and modular homes with lowest floors at the same elevation. In addition, typical pier construction may not provide adequate resistance in some flood conditions, such as in floodways, Zone V and Coastal A Zones where floodwater tends to be deeper, velocities tend to be faster, debris impacts may be more significant, and waves are higher.

To protect public health, safety, and welfare, some communities prohibit the installation of new manufactured homes in floodways and Zone V except in “existing manufactured home parks or subdivisions,” a term defined by the NFIP and in local regulations. Existing parks and subdivisions are those that were completed before the date a community adopted floodplain management regulations (often the date the community joined the NFIP). Completed means construction of facilities for the lots, including utilities, streets, and final grading or pouring of slabs have been completed. Existing manufactured home parks and subdivisions are sometimes described as “Pre-FIRM,” referring to the date of a community’s first Flood Insurance Rate Map (although that day may differ from the date the community adopted regulations).

Pre-engineered foundations for some flood conditions, wind speeds, and seismic conditions are available in FEMA P-85, *Protecting Manufactured Homes from Floods and Other Hazards* <http://www.fema.gov/library/viewRecord.do?id=1577>

**California DHCD Form 547.** Where DHCD is the enforcement agency applicants who apply for permits to install manufactured homes must submit completed Form 547 Floodplain Ordinance Compliance Certification. Local floodplain management agencies must complete the form, indicating flood hazard information and elevation requirements.

**HUD Installation Standards.** The US Department of Housing and Urban Development regulations for manufactured home installation standards are in 24 CFR Part 3285. The standards include basic NFIP requirements for homes installed in SFHAs. Importantly, the burden is on the installer to determine whether a home site is in an SFHA. Also, HUD requires manufacturers to indicate whether installation instructions are or are not designed to address flood loads.

**How Part 2.5 (residential) and Part 2 Appendix G specify requirements for installation of manufactured homes:** Part 2 (residential) R322.1.9 was not adopted by the Commission because CCR Title 24 does not govern installation of manufactured homes.

**The “36-inch option” is not in CBC Appendix G.** The NFIP allows replacement manufactured homes in existing manufactured home parks and subdivisions (NFIP-defined term) to be elevated on foundation elements that are just 36” above the highest adjacent grade, even if that means lowest floors are below BFE. The 36” option is not applicable if the unit being replaced was substantially damaged by flood.

Part 2 Appendix G, Section G501 Manufactured Homes**, does not include the 36” option**.

Part 2 Appendix G specifies requirements for manufactured homes:

* Elevation of the lowest floor
* Foundations in accordance with CRC R322
* Anchoring
* Protection of equipment and appliances
* Enclosures below elevated homes in accordance with CRC R322

**INSTRUCTIONS**

**Modify Local Regulations.** Use this amendment to modify local floodplain management regulations to limit installation of NEW manufactured homes in floodways, coastal high hazard areas (Zone V), and Coastal A Zones. The phrasing shown is based on the Model Ordinance.

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| **Sec. 304-1. Limitation on installation in floodways, coastal high hazard areas and Coastal A Zones.** New installations of manufactured homes shall not be permitted in identified floodways, coastal high hazard areas and Coastal A Zones. **Sec. 304-2. - Installation.** Where permitted, ~~All~~ manufactured homes installed in flood hazard areas shall be installed by an installer that is licensed pursuant to the Business and Professions Code and shall comply with the requirements of the Department of Housing and Community Development (HCD) and the requirements of these regulations. In addition to permits pursuant to these regulations, permits from the HCD are required where the HCD is the enforcement agency for installation of manufactured homes. Upon completion of installation and prior to the final inspection by the Floodplain Administrator, the installer shall submit certification of the elevation of the manufactured home, prepared by a licensed land surveyor or registered civil engineer, to the Floodplain Administrator.**Sec. 304-3. - Foundations**. Where permitted, ~~All~~ new and replacement manufactured homes, including substantial improvement of manufactured homes installed in flood hazard areas shall be installed on permanent, reinforced foundations that: In flood hazard areas (Zone A) other than coastal high hazard areas and Coastal A Zones, are designed in accordance with the foundation requirements of Section R322.2 of the residential code and these regulations. Foundations for manufactured homes subject to Section 304-6 of these regulations are permitted to be reinforced piers or other foundation elements of at least equivalent strength.1. In coastal high hazard areas (Zone V) and Coastal A Zones, are designed in accordance with the foundation requirements of Section R322.3 of the residential code and these regulations.

**Sec. 304-4. - Anchoring.** Where permitted, ~~All~~ new and replacement manufactured homes to be placed or substantially improved in a flood hazard area shall be installed using methods and practices which minimize flood damage and shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. Methods of anchoring are authorized to include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind loads and seismic loads.**Sec. 304-5. - General elevation requirement.** Unless subject to the requirements of Section 304-6 of these regulations, where permitted, ~~all~~ manufactured homes that are placed, replaced, or substantially improved on sites located: (a) outside of a manufactured home park or subdivision; (b) in a new manufactured home park or subdivision; (c) in an expansion to an existing manufactured home park or subdivision; or (d) in an existing manufactured home park or subdivision upon which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated such that the lowest floor, or bottom of the lowest horizontal member of the lowest floor, as applicable to the flood hazard area, is at or above the base flood elevation. **Sec. 304-6. - Elevation requirement for certain existing manufactured home parks and subdivisions.** Where permitted, Manufactured homes that are not subject to Section 304-5 of these regulations, including manufactured homes that are placed, replaced, or substantially improved on sites located in an existing manufactured home park or subdivision, unless on a site where substantial damage as a result of flooding has occurred, shall be elevated such that either the:1. Lowest floor, or bottom of the lowest horizontal structural member, as applicable to the flood hazard area, is at or above the base flood elevation.
2. Bottom of the frame is supported by reinforced piers or other foundation elements of at least equivalent strength that are not less than 36 inches in height above grade.

*Remainder unchanged* |

**Modify Title 2 Appendix G.** Communities that elect to adopt Title 2 Appendix G should use this amendment to limit installation of NEW manufactured homes in floodways, coastal high hazard areas (Zone V), and Coastal A Zones.

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| *CCR Title 24, Part 2 Appendix G Section G501 is hereby amended as follows:***SECTION G501 MANUFACTURED HOMES****G501.1 Limitation on installation in floodways, coastal high hazard areas and Coastal A Zones.** New installations of manufactured homes shall not be permitted in identified floodways, coastal high hazard areas and Coastal A Zones. **G501.2 ~~G501.1~~ Elevation.** Where permitted, ~~all~~ new and replacement manufactured homes to be placed or substantially improved and replacement manufactured homes in a flood hazard area shall be elevated such that the lowest floor of the manufactured home is elevated to or above the elevation specified in Section R322 of the California Residential Code ~~design flood elevation~~.**G501.3 ~~G501.2~~ Foundations**. Where permitted, ~~All~~ new and replacement manufactured homes, including substantial improvement of existing manufactured homes, shall be placed on a permanent, reinforced foundation that is designed in accordance with Section R322 of the *California Residential Code*.**G501.4 ~~G501.3~~ Anchoring.** Where permitted, ~~All~~ new and replacement manufactured homes to be placed or substantially improved and replacement manufactured homes in a flood hazard area shall be installed using methods and practices which minimize flood damage. Manufactured homes shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement. Methods of anchoring are authorized to include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.*Remainder unchanged* |

1. Reference: [*Reducing Flood Losses Through the International Codes: Coordinating Building Codes and Floodplain Management Regulations*](http://www.fema.gov/media-library/assets/documents/96634)(5th Edition, 2019), International Code Council and FEMA. [↑](#footnote-ref-1)