

# Anchor Manufactured Home

## Overview

- Manufactured (or mobile) homes located in the Special Flood Hazard Area should be anchored securely to a permanent foundation with the first living floor raised to at or above the Base Flood Elevation line (BFE) or the home can be anchored to the ground to prevent the home from floating, collapsing and/or moving laterally during flood events.
- Anchoring involves ties, anchors, and anchoring equipment. Ground anchors transfer the load of the home to the ground.
- Ideally, the manufactured home would be anchored to a permanent foundation with first living floor raised to at or above the BFE unless the community has a Freeboard requirement.
- Anchoring mobile homes is typically a requirement for homes located in the floodplain in local flood ordinances.
- The anchor system must meet the local ordinance's load requirements.
- Prior to installation, the structural soundness of the manufactured home, the soil type, anchor depth, and the load configuration must be determined. A design professional is recommended for anchor installation.
- Types of anchors:
  - Helical earth anchors
  - Concrete anchors
  - Cross drive anchors
- This strategy will not protect the actual home from all flood damage, but it will prevent the home from causing damage to other structures and property.
- Anchors can also help the manufactured home withstand wind forces and seismic events.



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## Key Takeaways

During flood events, manufactured homes can float, collapse, or move laterally in the floodwater. If the home moves in any way, there will likely be major flood damages to the structure and/or surrounding structures and neighboring properties.

To avoid the cost of the movement of a manufactured home, the building can be anchored to a permanent foundation with the first living floor raised to at or above the Base Flood Elevation line or it can be anchored to the ground.

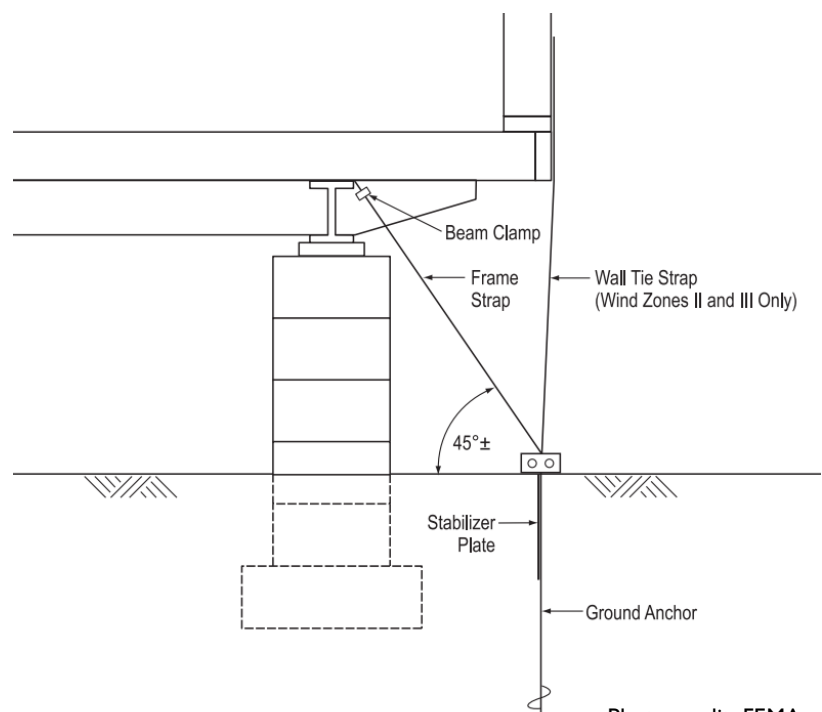


Photo credit: FEMA

# I-ADAPT

## Exterior Adaptation

### Anchor Manufactured Home

## Estimated Costs/Benefits

\*U.S. dollars (2022), estimates are subject to change

Potential Costs		Potential Benefits	
Item	Estimate	Post-Flood Recovery Actions	Estimate
Anchors	\$110-\$250	Resetting the home	\$1,000+
		<b>OR</b>	
		Demolition of destroyed mobile home	\$3,500-\$5,000+
Installation	\$1,500-\$2,000	New home	Cost of new home
<b>ESTIMATED TOTAL COST</b>	<b>\$1,610-\$2,250</b>	<b>ESTIMATED TOTAL SAVINGS</b>	<b>\$1,000-\$5,000+</b>

## Expected Maintenance

- Inspect the anchoring equipment for loose straps and failing anchors monthly and after hazard events. Loose straps must be retightened, loose anchors must be reset.
- If the home moved during the storm/flood event, it must be reset to the center of its foundation.

## Additional Resources

- [AARP Mobile Home Anchors and Tie-Downs](#)
- [FEMA Protecting Manufactured Homes from Floods and Other Hazards](#)

Resources can also be found at <https://de.gov/iadapt>

## Additional Actions

- Elevate the manufactured home if necessary.
- Create and practice an evacuation plan as the home must be vacated prior to flooding events.

## Permitting Agencies

Contacts for permitting requirements include but are not limited to the following:

- Your city and/or county government for local flood ordinances or regulations
- Your city and/or county government for building permits
- [DNREC Wetlands and Subaqueous Lands Permit](#)

## Who to Contact

- [811 Call Before You Dig](#)
- Design professional or engineer
- General contractor

Technical definitions and more information are located on the I-ADAPT website: <https://de.gov/iadapt>.



This information is intended to be used for planning purposes. It is not intended to substitute or take precedence over the guidance of design engineers, contractors, utility companies or regulatory agencies.

For more information, contact DNREC's Division of Climate, Coastal and Energy at [DNREC\\_IADAPT@Delaware.gov](mailto:DNREC_IADAPT@Delaware.gov)

