

IS ELEVATION RIGHT FOR YOU?

# AN ELEVATION GUIDEBOOK FOR HOMEOWNERS



NEW JERSEY OFFICE OF EMERGENCY MANAGEMENT

**MITIGATION UNIT**



# CONTENTS

---

- EXECUTIVE SUMMARY ..... 1
- SECTION 1 INTRODUCTION ..... 2
  - ELEVATION CAN PROTECT LIVES!.....2
  - ELEVATION CAN SAVE MONEY! .....2
  - ELEVATIONS CAN KEEP HOMEOWNERS IN THEIR COMMUNITY! .....2
  - ELEVATIONS ARE GRANT ELIGIBLE! .....2
  - ELEVATION CAN WORK FOR YOU!.....3
- SECTION 2 FEMA PROGRAMS IN SUPPORT OF  
ELEVATION, ELEVATION REQUIREMENTS, AND  
METHODS ..... 4
  - HAZARD MITIGATION GRANT PROGRAM – DISASTER RELATED ..... 4
  - FLOOD MITIGATION ASSISTANCE PROGRAM – NON-DISASTER..... 4
  - PRE-DISASTER MITIGATION / BUILDING RESILIENT INFRASTRUCTURE  
COMMUNITIES – NON-DISASTER ..... 4
  - WHO IS ELIGIBLE TO APPLY FOR FEMA HAZARD MITIGATION ASSISTANCE  
GRANTS? ..... 5
  - PROPERTY ELIGIBILITY - GENERAL.....6
  - PROPERTY DESIGNATION ..... 7
  - DO YOU UNDERSTAND THE COSTS INVOLVED?.....9
  - ADDITIONAL FUNDING AVAILABILITY OUTSIDE OF GRANT PROGRAMS ..... 9
  - ELEVATION REQUIREMENTS AND METHODS ..... 10
  - NJOEM STRATEGY AND PROGRAMMATIC PRIORITIES..... 14
- SECTION 3 IS ELEVATION RIGHT FOR YOU?..... 16
  - IS STRUCTURAL ELEVATION RIGHT FOR YOU? ..... 16
  - IS YOUR HOME STRUCTURALLY SOUND TO ELEVATE? ..... 17
  - DO YOU UNDERSTAND THE COSTS INVOLVED?..... 18
  - ARE YOU ALLOWED TO ELEVATE?..... 19
  - WHAT IF THE HOME CAN'T BE ELEVATED? ..... 20
- SECTION 4 GRANT APPLICATION..... 21
- SECTION 5 GRANT AWARDED – WHAT MUST  
HOMEOWNERS DO? ..... 23
  - ADDITIONAL INFORMATION TO CONSIDER ..... 27
- SECTION 6 HOMEOWNER REIMBURSEMENT ..... 31
  - SUMMARY ..... 32
- SECTION 7 FREQUENTLY ASKED QUESTIONS FOR  
HOMEOWNERS ..... 34



# APPENDICES

---

APPENDIX A	Flood Insurance Premium Comparisons
APPENDIX B	Insurance Impacts as Premiums Move to Actuarial
APPENDIX C	Insurance Premium Savings by BFE
APPENDIX D	FEMA FIRM Fact Sheet
APPENDIX E	Eligible Elevation Costs
APPENDIX F	Ineligible Elevation Costs
APPENDIX G	FEMA's Homeowner Guides (includes FEMA P-312, Homeowner's Guide to Retrofitting – Third Edition [2014] and FEMA P-347, Above the Flood: Elevating Your Floodprone House [2000])
APPENDIX H	FEMA Fact Sheet - Second-Story Conversion – Elevation Project Design Considerations for Hazard Mitigation Assistance Applicants
APPENDIX I	FEMA Fact Sheet – Substantial Damage
APPENDIX J	CRS Credits
APPENDIX K	FHA-203
APPENDIX L	Duplication of Benefits Guide
APPENDIX M	Acquisition Fact Sheet
APPENDIX N	Homeowner Disclosure of Additional Work
APPENDIX O	Homeowner Application Package
APPENDIX P	Homeowner Implementation Package
APPENDIX Q	Cost Template
APPENDIX R	Invoice Example for Elevation Contractor
APPENDIX S	ADA Concurrence letter with State and Local Community
APPENDIX T	Contractor Non-Eligible Work Acknowledgement
APPENDIX U	Homeowner Non-Eligible Work Acknowledgment
APPENDIX V	Elevation Certificate Fact Sheet



# ACRONYMS

---

ADA	Americans with Disabilities Act
ASCE	American Society of Civil Engineers
BCA	Benefit Cost Analysis
BFE	Base Flood Elevation
BRIC	Building Resilient Infrastructure and Communities
CFR	Code of Federal Regulations
CRS	Community Rating System
DOB	Duplication of Benefits
DRRA	Disaster Recovery Reform Act
EHP	Environment Planning and Historic Preservation
FEMA	Federal Emergency Management Agency
FFE	First-Floor Elevation
FHA	Federal Housing Administration
FIRM	Flood Insurance Rate Maps
FMA	Flood Mitigation Assistance
HMA	Hazard Mitigation Assistance
HMGP	Hazard Mitigation Grant Program
HOA	Homeowner Association
HVAC	Heating, Ventilation, and Air Conditioning
ICC	Increased Cost of Compliance
LIDRS	Lowest Impact Debris Removal Stipulations (Form)
NFIP	National Flood Insurance Program
NJDCA	New Jersey Department of Community Affairs
NJDEP	New Jersey Department of Environmental Protection
NJOEM	New Jersey Office of Emergency Management
NOVI	Notice of Voluntary Interest
PDM	Pre-Disaster Mitigation
PM	Project Management
	NJOEM ELEVATION GUIDEBOOK FOR HOMEOWNERS, 2020



- RL Repetitive Loss
- SD Substantially Damaged
- SFHA Special Flood Hazard Area
- SRL Severe Repetitive Loss



# EXECUTIVE SUMMARY

The New Jersey Office of Emergency Management (NJOEM) created this guidebook to help homeowners determine whether elevation is the best mitigation option to reduce flood risk. If so, the guidebook can serve as a resource to effectively apply for, manage, and implement an elevation grant. This guidebook provides more specific guidance, broken down into understandable steps, to supplement the high-level guidance currently available from the Federal Emergency Management Agency (FEMA) and to address the issues, concerns, and questions that have arisen during implementation of elevating homes in the State of New Jersey since Superstorm Sandy.

This guidebook serves to help homeowners determine the next steps toward elevation as a mitigation action and is set up to address each step in the following sections and appendices:

- **Section 1 – Introduction:** This section provides an overview of the purpose, logistics, and administration of the available State-supported grant programs for homeowners to use to elevate structures to reduce the impacts of flooding.
- **Section 2 – FEMA Programs in Support of Elevation:** This section reviews FEMA grant programs for which local communities can apply.
- **Section 3 – For Homeowners:** This section provides guidance for a homeowner who is considering participating in a community-led elevation program. It provides a decision flow chart to inform the homeowner of issues to consider, decision points, and potential costs associated with elevating a structure.
- **Section 4 – Applying for a Grant:** This section provides guidance for a homeowner who is applying to a community-led elevation program.
- **Section 5 – Grant Awarded – What Must Homeowners Do?:** This section provides guidance for a homeowner who is participating in a community-led elevation program.
- **Section 6 – Reimbursement and Grant Closeout:** This section provides guidance for a homeowner who has completed their home elevation and is ready to close the grant.
- **Frequently Asked Questions:** This section provides answers to the most frequently asked questions about structural elevations for both the community and the homeowners.
- **Appendices:** These sections provide relevant FEMA and NJOEM guidance documents, elevation packets, diagrams, and forms to assist homeowners throughout the elevation project implementation.

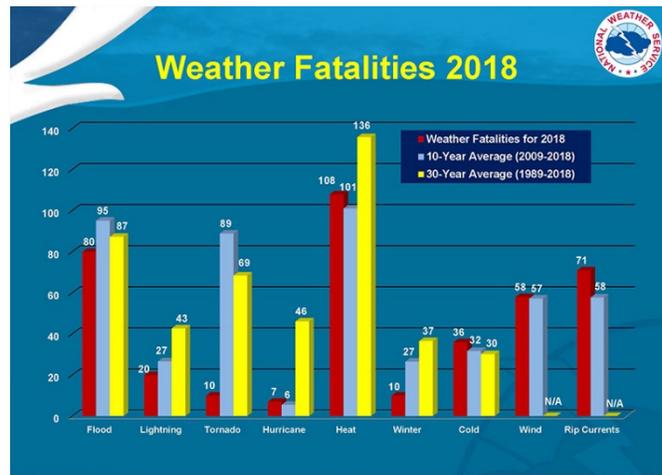


# SECTION 1 INTRODUCTION

Hazard mitigation works to ensure that fewer individuals and communities become victims of disasters. Mitigation efforts are sustained actions taken to reduce or eliminate the long-term risks and impacts to people and property from hazards. It results in safer communities that resist becoming victims when disaster strikes. Elevation is one of the tools in a community's toolbox to mitigate hazards and become more resilient.

## ELEVATION CAN PROTECT LIVES!

Floods of any size can have devastating effects on homes, families, and communities. In 2018, flooding was the second leading cause of death by weather-related fatalities. Elevating structures can mitigate the impacts flooding can have on the lives of a community's population.



## ELEVATION CAN SAVE MONEY!

From reductions in flood insurance premiums, to improving a community's Community Rating System (CRS) classification, to reducing flood-related structural damages, elevating structures saves homeowners and communities money.



## ELEVATIONS CAN KEEP HOMEOWNERS IN THEIR COMMUNITY!

Unlike acquisitions, elevation allows residents to stay in their homes and in the community by protecting and enhancing the existing structure. Families stay in their homes, and communities are stronger.

## ELEVATIONS ARE GRANT ELIGIBLE!

This guidebook will help homeowners determine how best to apply for and access grants to elevate homes, with many of these grants offering reimbursement to communities and homeowners for elevation costs.



# ELEVATION CAN WORK FOR YOU!

---

FEMA recognizes the importance of mitigation measures and has funded community grants to assist with mitigation. One way to mitigate flood loss to individual at-risk structures is by elevating the first floor above the base flood elevation (BFE). NJOEM is responsible for supporting the FEMA grant programs for elevation and assisting New Jersey communities applying for and implementing awarded elevation grants. Elevations, while a viable option to help protect properties from flooding, are complex to administer.

Several FEMA documents include general requirements and guidelines related to elevating homes; however, there is not one specific document dedicated to providing a community-specific direction to apply for and administer awarded elevation grants. Therefore, in coordination and review with FEMA, NJOEM has developed this elevation guidebook to assist homeowners and communities through the elevation process—from application to implementation, reimbursement, and closeout. Before getting into all of the processes and documentation, homeowners and communities need to ask themselves if an elevation program is worth the effort and expense because it will provide a significant benefit to the community.

Additional information on how homeowners can benefit from elevating homes is provided in **Appendix A** (Flood Insurance Premium Comparisons), **Appendix B** (Insurance Impacts as Premiums Move to Actuarial), and **Appendix C** (Insurance Premium Savings by BFE).

This guidebook will help homeowners answer the question: *Is an elevation program right for you?* It addresses funding considerations, physical elevation considerations, and community capabilities for elevation. It serves to guide homeowners through the grant application process, and if awarded, the implementation, required documentation, reimbursement, and closeout of the grant.

Additionally, NJOEM developed a companion guidebook that provides communities with information regarding the elevation process, financial and structural abilities, the roles of the community after grant award, and answers to frequently asked questions (Elevation Guidebook for Local Communities).



# SECTION 2 FEMA PROGRAMS IN SUPPORT OF ELEVATION, ELEVATION REQUIREMENTS, AND METHODS

FEMA has three primary grants for which jurisdictions can apply for home elevations: the Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA) Program, and Building Resilient Infrastructure and Communities (BRIC) Program. Each of these programs are described in this section.

## HAZARD MITIGATION GRANT PROGRAM – DISASTER RELATED

---

The HMGP was authorized in 1988 by the Stafford Act with the purpose of providing funding to significantly reduce or eliminate future risk to lives and property from natural hazards. The primary disaster-related features of the HMGP are summarized below:

- A Presidential declaration of a major disaster triggers the availability of HMGP funds.
- Administered through the State, and available funds are based on a sliding scale of the total federal assistance for a disaster.
- HMGP funds projects in accordance with priorities outlined in FEMA-approved state and local hazard mitigation plans.
- Cost-share requirements state that HMGP funds may be used to pay up to 75 percent of the eligible project costs.

## FLOOD MITIGATION ASSISTANCE PROGRAM – NON-DISASTER

---

The FMA Program is authorized by Section 1366 of the National Flood Insurance Act of 1968. The primary features of the FMA Program are summarized below:

- Funding is appropriated by Congress annually with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP).
- Properties submitted under this program must be covered by NFIP-backed Insurance in order to qualify for the grant.
- Cost shares are based on guidance given by FEMA each year with the application.

## BUILDING RESILIENT INFRASTRUCTURE COMMUNITIES – NON-DISASTER

---

The BRIC program replaced the PDM program in 2020 as a result of the Disaster Recovery Reform Act (DRRA) of 2018. The primary features of BRIC are summarized below:



- FEMA's vision for BRIC is to reduce costs and loss of life from natural disasters by building a national culture of preparedness through encouraging investments to protect our communities and infrastructure and strengthening national mitigation capabilities to foster resilience.
- Funding appropriated by Congress annually.
- Cost shares are based on the guidance given by FEMA each year with the application.
- While elevation is an eligible mitigation project, the program is highly competitive, which makes this grant very difficult to obtain for elevations.

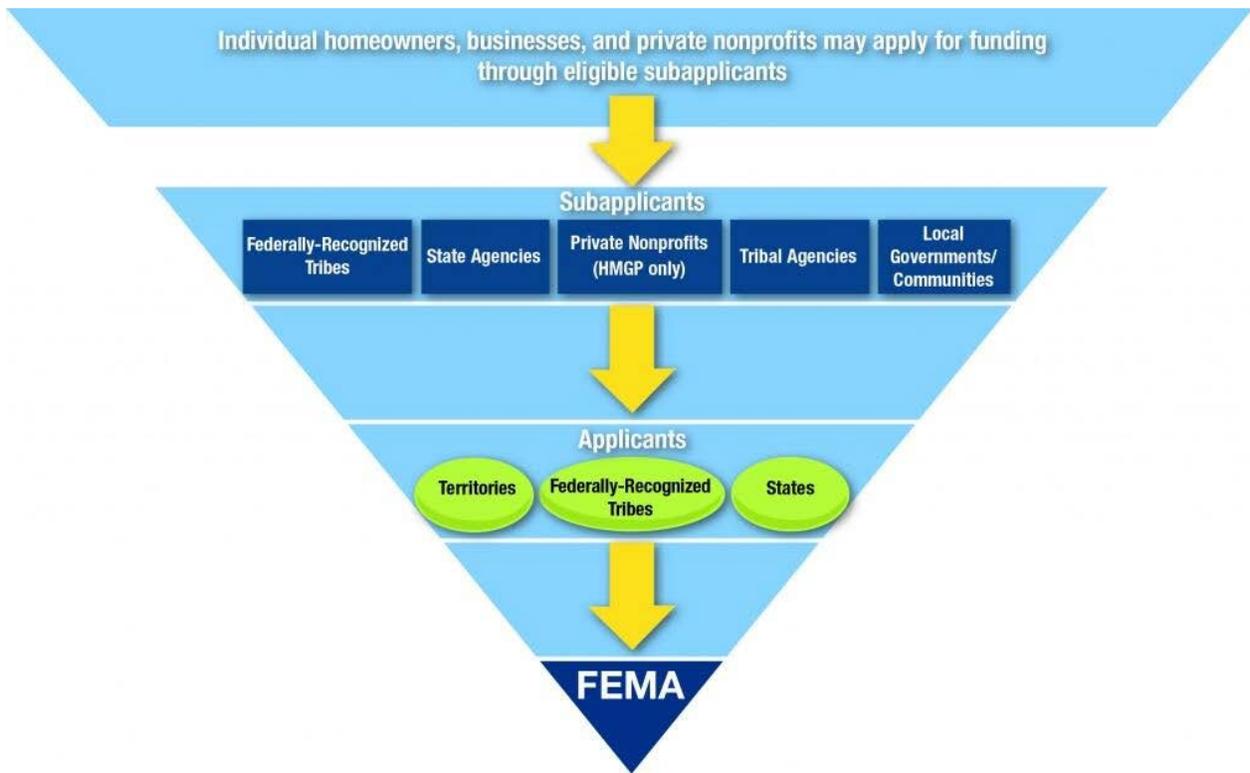
## WHO IS ELIGIBLE TO APPLY FOR FEMA HAZARD MITIGATION ASSISTANCE GRANTS?

Homeowners are not eligible to apply directly for the grant programs described above; however, an eligible subapplicant may apply on their behalf. NJOEM acts as the applicant for all FEMA Hazard Mitigation Assistance (HMA) grant programs, with State agencies on local communities acting as subapplicants. The table below provides a list of eligible entities that may apply on behalf of a homeowner to HMA grants.

Entity	HMGP	BRIC	FMA
<b>State agencies</b>	✓	✓	✓
<b>Federally-recognized tribes</b>	✓	✓	✓
<b>Local governments/communities</b>	✓	✓	✓
<b>Private nonprofit organizations (PNP)</b>	✓		

For example, homeowners within a community may request their community government submit for an elevation grant through an available FEMA program. If the community agrees to pursue the elevation grant, the community will collect the necessary application information from the interested homeowners, and in turn, submit the application to NJOEM for review and possible selection. NJOEM acts as the applicant for all FEMA HMA grants and submits selected community projects to FEMA for funding consideration. If the community application is selected for funding by FEMA, NJOEM will become a grantee for the FEMA funds, with the local community acting as the subgrantee. The chart below shows the process for applying for funding through the identified eligible entities.





## PROPERTY ELIGIBILITY - GENERAL

FEMA has certain requirements for any properties submitted for the purpose of elevation. The following are basic criteria that must be met for each type of grant program:

- Property must be located within the FEMA-designated Special Flood Hazard Area (SFHA)
- **Appendix D** (FEMA FIRM Fact Sheet) contains information about FEMA's Flood Insurance Rate Maps (FIRM), and more information for flood zone designations can be found at <https://www.fema.gov/flood-zones>.
- Property must be structurally sound and able to withstand elevation.
- Elevation work cannot occur or have occurred prior to grant award. An elevation already in progress or started before grant award will be disqualified from funding.

**Timing:** While this program is a reimbursement grant, NO work can occur prior to grant award (see Section 5 for more information about timing after grant is awarded).

In addition to the general requirements, the specific insurance requirements presented below also apply.

### At Time of Application Submission:

- Properties included in a project subapplication for FMA funding must be NFIP-insured at the time of the application submittal.
- Insurance must be through an NFIP-backed policy, FEMA does not recognize private insurance policies for this funding program.



- Properties submitted under HMGP or BRIC are not required to be NFIP-insured at time of submittal.

**Post Grant Award:** FEMA requires any home elevated with grant funds, regardless of the program used to fund the elevation, to carry flood insurance to an amount at least equal to the project cost or to the maximum limit of coverage made available with respect to the particular property (whichever is less), for the life of the structure that was elevated. In fact, FEMA requires that the homeowner file a deed restriction on the property after the elevation, which states:

*“This property has received Federal hazard mitigation assistance. Federal law requires that flood insurance coverage on this property must be maintained during the life of the property regardless of transfer of ownership of such property. Pursuant to 42 U.S.C. 5154a, notwithstanding any other provision of law, no Federal disaster relief assistance made available in a flood disaster area may be used to make a payment (including any loan assistance payment) to a person for repair, replacement, or restoration for damage to any personal, residential, or commercial property if that person at any time has received flood disaster assistance that was conditional on the person first having obtained flood insurance under applicable Federal law and subsequently having failed to obtain and maintain flood insurance as required under applicable Federal law on such property. The property owner is also required to maintain this property in accordance with the floodplain management criteria of 44 [Code of Federal Regulations] CFR Section 60.3 and any city/county ordinance.”*

## PROPERTY DESIGNATION

Property designations can affect the federal cost share provided under the FMA program, as well as the way the application is prioritized by the State for submission to FEMA. For more information about State priorities see further below in section.

**Proving designation status:** FEMA requires that homeowners verify the designations for their property through NFIP documentation. Further information about NFIP documentation can be found in this section.

### Repetitive Loss and Severe Repetitive Loss Properties

Per FEMA’s yearly guidance, under the FMA program, federal cost shares are based upon a property’s designation as either NFIP-insured (75 percent), FMA Repetitive Loss (RL) (90 percent), or FMA Severe Repetitive Loss (SRL) (100 percent). The table below lists the NFIP and FMA Program definitions for RL and SRL properties, which include additional information on the cost share.



Program	Repetitive Loss (RL) Definition	Severe Repetitive Loss (SRL) Definition
NFIP	Any insurable building for which two or more claims of more than \$1,000 were paid by the NFIP within any rolling 10-year period since 1978. At least two of the claims must be more than 10 days apart but within 10 years of each other. A repetitive loss property may or may not be currently insured by the NFIP.	A severe repetitive loss property: <ul style="list-style-type: none"> <li>• Is covered under a contract for flood insurance made available under the NFIP?</li> <li>• Has incurred flood related damage? <ul style="list-style-type: none"> <li>○ For which 4 or more separate claims payments (includes building and contents) have been made under flood insurance coverage with the amount of each such claim exceeding \$5,000, and with the cumulative amount of such claim payments exceeding \$20,000, or</li> <li>○ For which at least 2 separate claims payments (includes only building) have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.</li> </ul> </li> </ul>
FMA	A structure covered by NFIP-backed flood insurance that: <ul style="list-style-type: none"> <li>• Has incurred flood-related damage on two occasions, in which the cost of the repair (on average) equaled or exceeded 25% of the market value of the structure at the time of such flood event; and</li> <li>• At the time of the second incidence of flood-related damage, the contract for flood insurance contains Increased Cost of Compliance (ICC).</li> </ul>	Same as the NFIP definition

## Substantial Damage

Another important property designation is Substantial damage, which applies to a structure in an SFHA – or 1-percent annual chance floodplain – for which the total cost of repairs is 50 percent or more of the structure’s market value before the disaster occurred, regardless of the cause of damage. This percentage could vary among jurisdictions, but must not be below NFIP standards.

The decision about whether a structure is “substantially damaged” is made at a local government level, generally by a building official or floodplain manager. If a building in a floodplain is determined by the local official to be substantially damaged, it must be brought into compliance with local floodplain management regulations.

Owners may decide to do one of the following:

- Elevate their structures, or change them in some other way to comply with those local floodplain regulations and avoid future losses.
  - Relocate or demolish the structure.
- Flood-proof a non-residential structure.



Property owners who have a flood insurance policy through the NFIP and a substantially damaged building (from flooding) in a SFHA may be able to use additional funds – known as Increased Cost of Compliance (ICC) – from their flood insurance policy (up to \$30,000) to help defray the costs of elevating, relocating, demolishing a structure, or flood-proofing a non-residential structure. More information on ICC is presented in the subsequent section below, “Additional Funding Availability Outside of Grant Programs.” Cost-share requirements for the different programs are summarized in the table below.

Programs	Mitigation Activity (Percent of Federal / Non-Federal Share)
HMGP	75/25
BRIC	75/25
FMA – NFIP-insured properties	75/25
FMA – Repetitive loss property (1)	90/10
FMA – Severe repetitive loss property (1)	100/0

(1) See previous section for RL/ SRL FMA program definitions.

Notes:

- Federal funding amount per structure is based on estimates provided in the approved application, limited to award amount regardless of final cost.
- Only expenses necessary for elevation of the home are eligible. See **Appendix E** (Eligible Elevation Costs) and **Appendix F** (Ineligible Elevation Costs) for the FEMA and NJOEM guidance for eligible and ineligible structure elevation costs.

## DO YOU UNDERSTAND THE COSTS INVOLVED?

The federal percentages listed above are the covered costs of elevation that are determined as grant eligible, and do not include non-grant eligible costs, which are covered by the homeowner at 100 percent.

It is important to note, if a home is awarded a FEMA-funded grant administered by NJOEM, a homeowner participating in the program will not be reimbursed for eligible/approved incurred costs, as presented in **Appendix E** (Eligible Elevation Costs), until the home elevation is complete and a certificate of occupancy is issued. The community facilitates this reimbursement request on behalf of the homeowner, receives the reimbursement from the State, and then reimburses the homeowner, as discussed in the Homeowner Reimbursement section of Additional Information to Consider below.

## ADDITIONAL FUNDING AVAILABILITY OUTSIDE OF GRANT PROGRAMS

In addition to the aforementioned grant programs, homeowners may be able to use Coverage D of the flood insurance policy to offset up to \$30,000 of a required non-federal share (local match). This is referred to as Increased Cost of Compliance (ICC), and a homeowner might be eligible for this type of funding if one or more of the following situations apply:

- A jurisdiction official determines that the building is substantially damaged as a result of a flood.



- Substantial damage meets the cost of repair equal or exceeding 50 percent of the building's value.
- When elevated, the home meets local floodplain management ordinance requirements.
- A floodplain management ordinance requires that a substantially damaged building be elevated to or above the level of the BFE.
- If Coverage D is included in the flood policy for the home.

Homeowners need to coordinate with their insurer, as NJOEM and the community have no involvement with this funding mechanism.

There are many requirements to access ICC funds. FEMA guidance relative to ICC states:

*“A policy holder may be able to receive a partial advance payment for up to half of the eligible benefit or up to \$15,000 once the claims representative has a copy of the signed contract for work, a permit from the community to do the work, and a return of your signed ICC Proof of Loss. If the work is not completed, you must return any partial payment to your insurer.”*

*When the work is completed local officials will inspect and issue a certificate of occupancy or a confirmation letter. Once you submit this document to your claims representative, your insurer will pay the final installment or full payment.*

*ICC claims will only be paid on flood-damaged homes and businesses and can only be used to pay for costs of meeting the floodplain management ordinance in your community. For more information on ICC coverage, call your insurance agent, or call the NFIP toll-free at 1-800-427-4661 or TDD#1-800-427-5593.”*

## ELEVATION REQUIREMENTS AND METHODS

---

FEMA requires communities and homeowners to follow specific conditions and methods when elevating homes in a FEMA-funded program, as detailed below. These requirements apply to all grant programs mentioned in the previous section.

### Elevation Requirements

Structure elevation is defined in HMA Guidance as physically raising and/or retrofitting an existing structure in accordance with American Society of Civil Engineers (ASCE) 24-10 BFE or higher, when required by FEMA or local ordinance. The State supports having structures mitigated to the highest standard. For additional information about structure elevation projects, communities and homeowners should review the HMA 2015 Guidance and Addendum, specifically Addendum, Part E (<https://www.fema.gov/media-library/assets/documents/103279>).



Buildings proposed for structure elevation must be structurally sound and capable of being elevated safely. Important design considerations for structure elevations consistent with 44 CFR Part 60 are as follows:

- The lowest floor of the structure must be elevated to the most restrictive State or local requirements. Upon completion of the elevation work, an elevation certificate (FEMA Form 81-31) verifying “as-built” elevations must be completed to ensure that the structure complies with the local floodplain ordinance and NFIP floodplain management and HMA requirements.
- Elevation projects must be designed and adequately anchored to prevent flotation, collapse, and lateral movement of the structure caused by hydrodynamic and hydrostatic loads, including the effects of buoyancy. An engineer must certify the design elevation will withstand the depth and velocity of 1% annual chance flood events (hydrostatic and hydrodynamic loads), any potential increase in wind load, or any other relevant load factors.
- For elevation projects in Zone V with open foundations (piles, piers, posts, or columns), the space below the lowest floor must be free of obstructions or constructed with non-supporting breakaway walls, open wood lattice-work, or screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. Guidance on free-of-obstruction and breakaway wall requirements is available in FEMA Technical Bulletin (TB) 5, Free-of-Obstruction Requirements (2008), and FEMA TB-9, Design and Construction Guidance for Breakaway Walls Below Elevated Coastal Buildings (2008).
- For elevation projects on continuous foundation walls with fully enclosed areas below the lowest floor, the area must be used solely for parking of vehicles, building access, or storage as identified in 44 CFR 60.3(c)(5).
- Elevation projects on continuous foundation walls must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs to meet these criteria must be certified by a registered Professional Engineer or meet or exceed the criteria in 44 CFR 60.3(c)(5). Guidance on meeting this requirement can be found in FEMA TB-1, Openings in Foundation Walls and Walls of Enclosures (2008).

## Elevation Methods

Standard structure elevation methods are identified in FEMA P-312, Homeowner’s Guide to Retrofitting – Third Edition (2014), and FEMA P-347, Above the Flood: Elevating Your Floodprone House (2000) (refer to **Appendix G**). In addition, FEMA has developed guidance for the design of appropriate foundations based on the requirements of the International Codes and other applicable standards, as provided in FEMA P-550 and available for use with HMA structure elevation projects. Furthermore, FEMA requires applicants and subapplicants to design all structure elevation projects in accordance with ASCE 24-14, or latest edition.

Available elevation methods, which are thoroughly described in FEMA P-312, Chapter 5, FEMA P-347, and *FEMA Fact Sheet: Second-Story Conversion (Appendix H)* include the following:

- Elevating the existing structure on piles, posts, or piers.
- Filling in the basement and replacing it with an elevated floor.

NJOEM ELEVATION GUIDEBOOK FOR HOMEOWNERS, 2020



- Elevating by vertically extending the foundation walls of the home.
- Abandoning the first floor or converting the second story.

Activities that result in the construction of new living space at or above the BFE are considered only when they are consistent with mitigation reconstruction requirements described in HMA 2015 Guidance, Addendum Part E.2.1. Activities include structure elevations that abandon a lower enclosed area and add a second story above the BFE to an existing structure.

The method that is selected for elevating a house depends on factors such as:

- Foundation type.
- Condition of the house.
- Applicable State and local building codes.
- Soil type and bearing capacity.
- Weight of the house and lateral forces on the house from water and other natural hazards, such as winds and earthquakes.
- Height of proposed elevation above the grade level.
- Number of additions to the original structure.

Determining the elevation height of a home, a community should use best available data that provides the **most restrictive** flood hazard areas, the highest BFE, and/or the greatest discharge (NJAC 7:13).

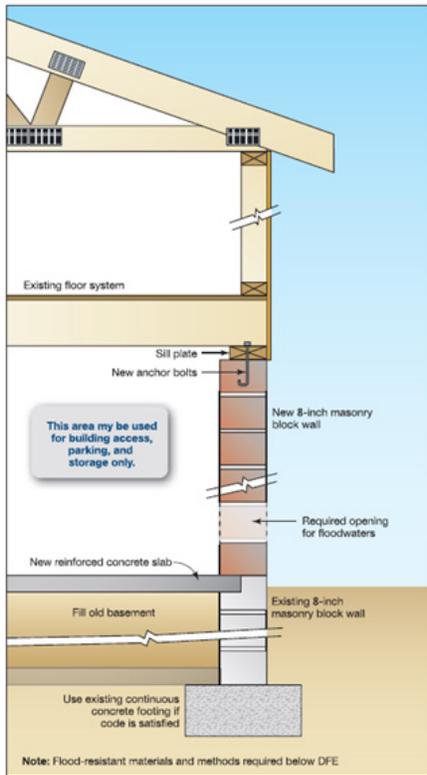
The most common foundation types include the following:

- Crawl space on foundation walls.
- Slab-on-grade.
- Open type foundation – piers, posts, or pilings.

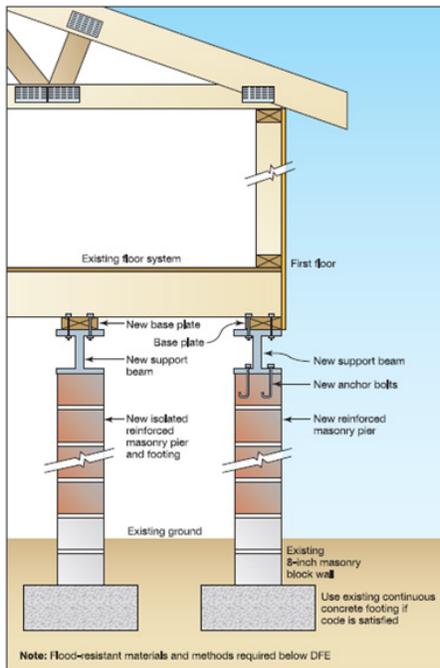
The graphics below illustrate solid foundation walls and elevation on piers.



## Elevation on Solid Perimeter Foundation Walls



## Elevation on Piers



Additional guidance to consider when implementing an elevation project can be found in the following publications:

- FEMA P-55, Coastal Construction Manual, Fourth Edition (2011).
- NJOEM ELEVATION GUIDEBOOK FOR HOMEOWNERS, 2020



- FEMA P-259, Engineering Principles and Practices of Retrofitting Floodprone Structures (2012).
- FEMA P-499, Home Builders Guide to Coastal Construction Technical Fact Sheet Series (2010).
- ASCE 24-14, Flood Resistant Design and Construction (2014), or most restrictive edition.
- FEMA Fact Sheet: Second-Story Conversion.
- N.J.A.C. 7:13, Flood Hazard Area Control Act Rules (last amended July 15, 2019).

This list is not a comprehensive list of publications on retrofitting and elevations. More documents are available at <http://www.fema.gov/building-science-publications>.

## NJOEM STRATEGY AND PROGRAMMATIC PRIORITIES

This section lays out NJOEM's priorities for funding. As mentioned previously, NJOEM – Mitigation Unit acts as the grantee for all projects submitted to FEMA under the various grant programs. As funding under these programs is limited, NJOEM - Mitigation Unit is responsible for prioritizing community submitted applications. Should a homeowner choose to participate in a community-led elevation program, the community application will be ranked according to the below NJOEM priorities.

### Maximum Resiliency = BFE+4

BFE+4 should be a starting point for all elevation projects. This achieves the greatest long-term insurance savings. Grant applicants should consider a thorough review of the increased cost associated with achieving the higher standard of protection, considering cost share, construction cost, return on investment, and long-term savings. If a project cannot achieve this recommendation, the project should use the state or municipal regulatory standards.

Section 8 of the 2019 State Hazard Mitigation Plan details the State's RL strategy. The State Mitigation Strategy consists of the following objectives:

- Ensure that local jurisdictions with SRL properties take actions to reduce the number of these properties.
- Include SRL in the description of process for providing funding and technical assistance to prepare mitigation plans.
- Prioritize project grants for communities that have RL and SRL properties.

The State has categorized New Jersey elevation and buyout projects into six levels of priority. Funding to mitigate SRL properties that are substantially damaged (SD) is the highest priority. The six categories are listed below in order of priority:

1. SD, SRL Properties (FEMA-insured)
2. SD, RL Properties (FEMA-insured)
3. SRL Properties (FEMA-insured)
4. RL Properties (FEMA-insured)
5. SD (FEMA-insured)
6. Other Properties (Non-FEMA-insured)



Additional information is included to **Appendix I** (FEMA Fact Sheet – Substantial Damage).

The State has placed a high priority on the mitigation of RL and SRL properties as evidenced by the successful mitigation of 2,651 SRL properties in the State as of 2019. The State actively coordinates and prioritizes mitigation planning and project grant funding and continues to prioritize SRL and RL mitigation actions.

In the wake of Superstorm Sandy and the massive impact on vulnerable properties, the State has continued to place a high priority on the mitigation of SRL properties. According to the State of New Jersey Hazard Mitigation Grant Program Administrative Plan (FEMA-4086-DR-NJ), under a State-run acquisition and/or reconstruction/elevation program, eligible identified projects include SD, RL, and SRL properties. The State prioritizes eligible properties based on the following criteria:

- Groups of SD properties located near publicly-owned or preserved, undeveloped natural areas.
- Groups of SRL or RL properties located near publicly-owned or preserved, undeveloped natural areas.
- Homes located in the SFHA.
- Other properties identified as priority by NJOEM.

When applying for an elevation grant, a community should consider the above priorities to compare with the structures they wish to elevate. Additionally, the State evaluates competitive applications based on the following criteria:

- Most cost effective projects with the highest level of protection.
- Projects that identify mitigation measures that result in the most cost-effective insurance options (majority of structures mitigated to highest standard for maximum insurance savings).
- Projects that increase insurance penetration - number of insurance policies in the SFHA.
- Projects that increase livability, resiliency, and economic viability of flood-prone communities.
- Projects that maximize available CRS credits (see **Appendix J**, CRS Credits).

It is important to understand that the funding available through these grant programs is limited. NJOEM will seek funding from FEMA for as many applications as possible but because of the limited availability of funds, projects will have to be ranked based on the above priorities. If your community's application is not selected for funding within a given fiscal year grant cycle, the application can be resubmitted for funding consideration in the next fiscal year grant cycle (if community chooses to resubmit).

It is also important that any homeowner participating in an application that was selected for funding is able to complete the elevation of their home within the given period of performance provided by the grant. The next section discusses everything a homeowner should consider before participating in a community led elevation program.



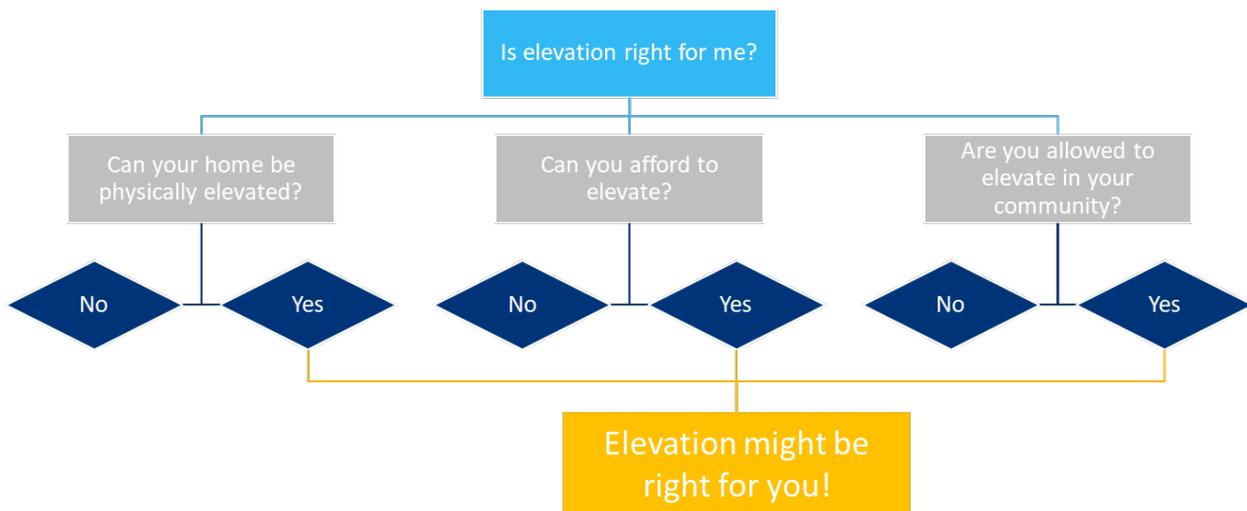
# SECTION 3 IS ELEVATION RIGHT FOR YOU?

Now that you have been informed about the available programs and the elevation requirements, this section of the guidebook will assist homeowners in determining whether or not elevation is the right choice.

## IS STRUCTURAL ELEVATION RIGHT FOR YOU?

While elevation is an effective means to protect a home from future flood damage, it might not always be the best option for a homeowner. It is important to understand the physical limitations of the house, your financial ability to elevate, and if an elevation is allowed at the property location (e.g., SFHA restriction, height restriction). The diagram below can assist a homeowner in determining whether elevation might be an option. As the diagram illustrates, a homeowner must determine whether the home can withstand an elevation, if the homeowner can afford the costs of elevating, and if the home's property has any local, state, or federal restrictions preventing feasibility to elevate. If "yes" is the answer to all three questions, elevation is an option for the homeowner.

The following diagram gives details to help guide a homeowner's decision.



Is your home structurally sound to elevate?

- What qualifications would you look for when hiring a structural engineer to perform the required evaluation of the existing foundation and assess its integrity to ensure it can support the loads of the elevated structure and withstand the horizontal and vertical forces?
- What type of foundation was used for the original structure (basement, crawlspace, slab-on-grade, piers, posts, piles) and would be proposed for the elevation?
- Are soil conditions favorable for an elevation?
- What are the specific load requirements from high winds, flooding, and seismic events? What are the building code requirements for buoyancy, hydrostatic/dynamic pressure and debris impact, erosion and scour?



Do you understand the costs involved? Can you afford it?

- Does the homeowner have a general understanding of the costs associated with an elevation?
- Does the homeowner have the financial means to cover all of the elevation costs upfront?
- Did the homeowner already receive any assistance to repair a damaged home (e.g., insurance claim)?
- Did the homeowner receive any funds for home elevations? If so, review previous funding to ensure not duplicative to elevation costs covered by a FEMA elevation grant.



Are you allowed to elevate? (home's location in the community)

- Does the local ordinance have any restrictions on home elevations?
- What is required per local ordinance?
- Does the homeowner have an elevation certificate to determine how high to elevate?
- Is the home historic or are there any environmental concerns?



## IS YOUR HOME STRUCTURALLY SOUND TO ELEVATE?

The most important questions to ask when considering home elevation is whether or not your home is structurally sound, and whether it can withstand elevation. Homeowners should hire a licensed structural engineer experienced in evaluating the structural integrity of homes considering elevation. The engineer might determine an alternative method to traditional elevation, such as abandoning the bottom floor and building a second floor.

The evaluation completed by a structural engineer will determine the integrity of the existing foundation relative to buoyancy, wind, erosion, horizontal and vertical forces; soil conditions; overall condition of the home; and recommended elevation methodology. The engineer will provide a stamped and sealed report, which should include recommendations for the home's elevation based on ASCE 24-14, Flood Resistant Design and Construction (most current version).

This report will help a homeowner and a community determine whether elevation is possible and will assist in cost estimating.



The document *FEMA P-312, Homeowner's Guide to Retrofitting 3rd Edition (2014)* provides homeowners with additional information on home elevation to help understand the steps involved in elevating a home. **Appendix G** (FEMA's Homeowner Guides) provides Section 5.0 of this publication *Elevating Your Home*.

## DO YOU UNDERSTAND THE COSTS INVOLVED?

Costs to prepare a house to be elevated include lifting the house to the required elevation, temporary lodging for residents during the elevation, and obtaining required certificates to allow the homeowner to move back into the home after the elevation. If an elevation grant is awarded, the community will inform homeowners of items that can be updated simultaneously with the elevation and those that will need to wait until the elevation is complete and the grant is closed out.

An example of items included in an elevation and an estimated range of cost for each are found in the table below. Costs vary depending on type of foundation, required lift height, complexity of elevation, size of house, location of house, temporary living requirements, and ingress and egress requirements. The table below provides an example of elevation costs.

Example of Elevation Costs

Item Name	Estimated Range of Cost*
Pre-Construction Elevation Certificate	\$500-\$1,000
Permits	\$1,000-\$5,000
Design Engineer and Architect	\$2,500-\$20,000
Utility Disconnect and Reconnects	\$3,500-\$10,000
Lodging (approximately 3-6 months displacement)	\$2,500-\$10,000
Foundation Surveyor	\$3,500-\$10,000
Elevation and Construction Costs	\$50,000-\$150,000
Electrical Finishing	\$5,000-\$15,000
Heating, Ventilation, and Air Conditioning (HVAC) Finishing	\$2,500-\$7,500
Plumbing Finish	\$5,000-\$15,000
Interior/Exterior Finish	\$5,000-\$15,000
Portable Bathroom	\$500-\$1,500
Final Elevation Certificate	\$500-\$1,500
Legal/Deeds	\$250-\$500
Final Site Restoration	\$500-\$3,500

\* Per FEMA regulations, a structure must be physically able to be elevated. When elevating older structures, additional costs may be required to bring the structure into code compliance.

It is important to note, if a home is awarded a FEMA-funded grant administered by NJOEM, a homeowner participating in the program will not be reimbursed for eligible/approved incurred costs, as presented in **Appendix E** (Eligible Elevation Costs), until the home elevation is complete and a certificate of occupancy is issued. The community facilitates this reimbursement request on behalf of the homeowner, receives the reimbursement from the State, and then



reimburses the homeowner, as discussed in the Homeowner Reimbursement section of Additional Information to Consider below.

Homeowners will need to be sure they can obtain a loan (private, Federal Housing Administration [FHA]-203 [k], Small Business Administration, or other) or have the funds readily available to be able to pay for all of the costs in advance of receiving reimbursement. The federal program, FHA-203, helps homeowners (borrowers) ensure a single, long-term, fixed or adjustable-rate loan that can cover the cost of elevating a property. **Appendix K** (FHA-203) provides information on FHA-203, titled *Using Federal Housing Administration's 203(k) Rehabilitation Program*.

FEMA grants require an amount paid toward the grant, known as a local match. Reimbursement levels are based on the type of grant and the FEMA categorization of the home to be elevated (based on prior NFIP paid claims). The Cost Share Requirements discussion in Section 2 above provides the ratios, and the community grant administrator can help with determination.

## Reduced Funding for Duplication of Benefits

Federal regulations require that a homeowner does not receive funding that exceeds the cost of elevating their home. FEMA HMA funds cannot be used where an individual's disaster recovery or disaster mitigation needs have been or will be met through other assistance. If assistance under any program or source is used for anything other than its intended purpose, a Duplication of Benefits (DOB) may exist and the federal award amount may be reduced. For information regarding DOB, refer to **Appendix L** (Duplication of Benefits Worksheet).

## ARE YOU ALLOWED TO ELEVATE?

---

Is the home located in a floodway or in the SHFA in your community? Is fill needed for the elevation? How high must the house be elevated? Does the design adhere to any height ordinances? Is the house designated as a historical site? Does it have any environmental considerations that will preempt its ability to be elevated under a federally funded grant? Does your home meet New Jersey programmatic goals? These are questions that will need to be addressed for any property to be included in an application for elevating with federal funds. Any information that a homeowner can gather will help the community with this assessment. Where possible, a homeowner should obtain the following documents:

1. An elevation certificate from a licensed surveyor. This will identify the current elevation of the home's first floor, known as first-floor elevation (FFE), and the base flood elevation (BFE). This certificate will determine how high the house must be elevated. The homeowner is responsible for covering the cost of this initial elevation certificate.
2. A report/letter from a professional/structural engineer to determine whether it is structurally sound to be elevated. As stated earlier, this report will include an evaluation of the integrity of the existing foundation relative to buoyancy, wind, erosion, horizontal and vertical forces, soil conditions and overall condition of the home. This report will assist in determining the viability of elevating the home and in the cost estimate to be used in an application. The cost to obtain this report is a cost that must be borne by the homeowner.
3. A statement from FEMA NFIP that outlines the designation of the property (e.g., SRL, RL) and all prior flood insurance claims. These data are used to complete the FEMA-required Benefit Cost Analysis (BCA) and is used narratively in the application to highlight the flood



risk of the home and the need for the home to be elevated. It is also used to extrapolate the data necessary to determine whether the property meets the grant definitions for FMA RL and FMA SRL. A copy of the property's current flood insurance (NFIP-backed insurance only for FMA), if applicable, should also be provided.

4. From the floodplain manager in the community, any restrictions to elevating on the property (SFHA, floodway, coastal velocity zone) and the post-elevation foundation requirements (breakaway walls versus concrete block walls). Refer to **Appendix D** (FEMA FIRM Fact Sheet)
5. From the engineer or building code official in the community, any height restrictions on the property.

## WHAT IF THE HOME CAN'T BE ELEVATED?

---

With the above information, homeowners can make informed decisions on whether or not elevation is right for them. If it is, the next step is to determine whether the community will sponsor a grant application for the elevation of the home, as discussed in the Grant Application section below. The community will work with the homeowners to determine the documentation needed from the homeowner to be included on an application. Information on required documentation needed for a grant application is described below.

If home elevation is not practical or possible, other mitigation options may be considered. These include mitigation reconstruction (demolishing and rebuilding the home at the required elevation) or property acquisition and demolition (open space preservation).

### Mitigation Reconstruction

Mitigation reconstruction, as defined by FEMA, is the construction of an improved, elevated building on the same site where an existing building and/or foundation has been partially or completely demolished or destroyed. Mitigation reconstruction is only permitted for structures outside of the regulatory floodway or coast high hazard area (Zone V), as identified by available flood hazard data. Activities that result in the construction of new living space at or above the BFE will only be considered if consistent with the mitigation reconstruction requirements, and the cost is capped at \$150,000. More information regarding mitigation reconstruction can be found in FEMA's HMA Guidance Addendum at [https://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA\\_Addendum\\_022715\\_508.pdf](https://www.fema.gov/media-library-data/1424983165449-38f5dfc69c0bd4ea8a161e8bb7b79553/HMA_Addendum_022715_508.pdf)

### Property Acquisition and Structure Demolition

Property acquisition and structure demolition, as defined by FEMA, involves the voluntary acquisition of the structure and the underlying land and conversion of the land to open space through the demolition of the structure. In an application, the home must have a BCA completed on the property, whereby the ratio must be 1 or greater to be considered benefit-cost effective. If the home value is equal to or less than \$276,000 (greatest savings to the fund), FEMA will allow for this amount to be used in lieu of a BCA. Once purchased, the property must be deed-restricted in perpetuity to open-space uses to restore and/or conserve the natural floodplain functions. For more information on acquisitions, refer to **Appendix M** (Acquisition Fact Sheet).



# SECTION 4 GRANT APPLICATION

If a property is selected to participate in a community-led elevation grant, homeowners will need to provide the following information to their community's grant manager:

**Homeowners must disclose any plans to complete additional work or increase the footprint of their existing home, in addition to the elevation.**

- **Notice of Voluntary Interest (NOVI) –** Prospective participants must be informed in writing that participation in the program is voluntary. By signing the NOVI, property owners are agreeing to be submitted under the community elevation application for FEMA funding consideration. The documentation must include the name and signature of the interested property owners associated with each property.
- **FEMA Model Acknowledgement of Conditions –** Model agreement that property meets regulations for mitigation in a SFHA.
- **FEMA Declaration and Release –** Certification of the nationality of participating property owners. At the time of certification, the subrecipient will ask the property owner to show a form of identification (any government-issued identification displaying the signer's name is sufficient).
- **Affidavit of DOB –** DOB is the term used to describe when assistance from more than one source is used for the same purpose or activity. Federal regulations require that a homeowner does not receive funding that exceeds the cost of elevating their home. The DOB analysis takes into consideration all of the funds the owner has received/will receive.
- **FEMA Low-Impact Debris Removal Stipulations (LIDRS) Form –** This form was created to expedite the FEMA Environmental and Historic Preservation (EHP) review of the project. By providing this form, the homeowner and community acknowledge that upon award, the selected elevation contractor will adhere to the best practices described within the form.
- **NFIP Flood Insurance Declaration Page –** This provides proof of NFIP-backed flood insurance in order to qualify for the FMA program. As the HMGP and BRIC program do not require flood insurance at time of submission, this document is not required but strongly recommended if the property is already insured.
- **Pictures –** Photographs of the structure/property that show the four sides of the structure including the foundation and roof are required.
- **Elevation Certificate**
- **Engineering Report and Cost Estimate –** The cost estimate includes a line-item breakdown of all costs associated with the home elevation. The evaluation completed by a structural engineer will determine the integrity of the existing foundation relative to buoyancy, wind, erosion, horizontal and vertical forces; soil conditions; overall condition of the home; and recommended elevation methodology. The engineer will provide a stamped and sealed report, which should include recommendations for the home's elevation from ASCE 24-14, Flood Resistant Design and Construction (most current version). This report will help a homeowner and a community determine whether elevation is possible and will assist in cost estimating.



- **Disclosure document** indicating any plans to complete additional work or increase the footprint of the existing structure, in addition to the elevation (see **Appendix N**, Homeowner Disclosure of Additional Work).

**Appendix O** (Homeowner Application Package) provides examples of each of the required.

Once all participating homeowners have provided the required documentation, the community may submit the application to NJOEM for review and consideration for funding selection. The FMA and BRIC notice of funding opportunity, provided by FEMA each grant fiscal year, will determine the timeframe for submission.

## Note On Timing

Please note, in NJOEM's experience the time between application submission to FEMA and FEMA's actual award of funding with a notice to proceed can take almost 2 years. No construction can occur before FEMA has approved the grant award. If a homeowner begins elevation work prior to FEMA's award approval they will be disqualified from the grant program. Homeowners should take this timeframe into consideration when contemplating elevation.



# SECTION 5 GRANT AWARDED – WHAT MUST HOMEOWNERS DO?

A community has been awarded a grant for home elevations. The following section will provide expectations of the homeowner, what information will be needed and provided to the community, and how elevation contractors will be selected. The reimbursement process is discussed later on.

## Introduction

The community will determine how the elevation contractor will be procured. **Appendix P** (Homeowner Implementation Package) provides this information.

## Kick-Off Meeting

After the grant has been awarded, the community will host a kick-off meeting for both homeowners and interested elevation contractors. The meeting will include a discussion of the following:

- Grant type.
- Grant management and associated fees.
- Period of Performance.
- Eligible properties.
- Eligible costs for elevation of existing structure.
- Homeowner budget.
- Capped relocation assistance.
- Roles and responsibilities of the community and homeowner.
- Continued Participation Form.
- Flood Insurance Requirement .
- Review of Required Forms.
- Scope of work and cost changes.

## Pre-Bid Meeting

Homeowners should be informed that the local community's project management (PM) team will hold a pre-bid meeting at each home. However, contractors will not be present at this pre-bid meeting and contractors will not be allowed to meet directly with homeowners until after the pre-bid meeting. After the pre-bid meeting, high-level home specifications are developed and provided to contractors, and the PM team receives, reviews, and approves contractor bids for release to homeowners.

At this pre-bid meeting, the PM team will discuss the following:

- Documentation of the following to include in the grant application:
  - Current home elevation certificate provided by the homeowner using the engineer's report.
  - Foundation type (slab-on-grade, slab separation, combo).



- Vertical footprint (measured and drawn).
- Description of ancillary structures, such as garages, patios, and carports, with an indication as to whether they will be elevated or left at their current elevation.
- Unique lift requirements that might affect bids.
- Potential Americans with Disabilities Act (ADA) requirements.
- Desired extras that could be part of the project at 100-percent homeowner expense (non-grant eligible items). The owner's disclosure provided in (**Appendix N**, Homeowner Disclosure of Additional Work) should be discussed during the application process. Again, few will be allowed – any and all extras that can wait, must wait until completion of the executed grant. Considerations include the following:
  - Increasing the size of ingress and egress points (landings, decks) is considered an extra.
  - Where there is an approved ADA lift on a two-story home, adding a third stop to reach the elevated second floor is considered an extra.
  - Unique Homeowner Association (HOA) requirements that cannot wait until after the grant-eligible portion is complete might be addressed on a case-by-case basis.
  - Owners need to start working with HOAs early in the process to determine what an HOA may require.
- The PM team will walk the interior and exterior of each home, giving homeowners a chance to highlight any items of concern and fill out an environmental risk assessment, noting that homes built before 1978 that may have lead or asbestos.

After the pre-bid meeting the PM team will discuss the following:

- A bid specification sheet, that includes the following information:
  - Elevation height.
  - Foundation type (slab-on-grade, slab separation, combo).
  - Vertical footprint.
  - Whether or not ancillary structures (garages, patios, carports) will be lifted.
  - Any other unique lift requirements that must be bid.
  - Whether or not ADA access should be quoted.
  - Photos of concerned areas (if any).
  - Agreed upon extras.
  - HOA name and any requirements.
- ALL bids will go to PM team for thorough review prior to presentation to homeowner and must include the required cost items template used in the contract and invoices (**Appendix Q**, Cost Template). The PM team will accomplish the following:
  - Address any inconsistencies between the bids and the specifications.
  - Ensure the cost categories follow the template.
  - Standardize the pricing of extras.
  - Compare to the grant budget.
  - If pricing cannot be reconciled back to budget (lift height, foundation type, one or two story, vertical footprint), the bid will either need to be adjusted or deemed invalid.



- All discussion of compliance and bids will occur between PM team and contractors.
- PM team will review finalized bids for ALL homes prior to releasing any bids to homeowners.
- If a contractor provides a bid directly to homeowner, that bid will be disqualified, and the contractor can be removed from the program.
- All approved bids will be sent to homeowners by the PM team.

## Selection of An Elevation Contractor By Homeowner

Once the homeowners receive the bids, contractors will be given a chance to meet with homeowners to discuss the specifics of their bid and their specific approach to the home's elevation. The homeowners will be given a set time, identified by the PM team, to meet with contractors and make their selections. The homeowner will inform the PM team, in writing, of their selection within the given schedule identified by the PM team.

### *Contract Vehicles - Homeowner and Community*

While working on selecting an elevation contractor, the homeowner will need to provide the following to their community (refer to **Appendix P**, Homeowner Implementation Package for the various documents and forms):

- Elevation project agreement between the community and the homeowner. This agreement is used to extend the terms of the grant from the community to homeowner.
- FEMA Acknowledgment of conditions form. This is the form whereby the homeowner acknowledges the post-elevation deed restriction requirement.
- HOA Acknowledgement, if applicable. The grant will only reimburse projects to meet the municipal standards. If HOA requirements are more stringent, the grant will not reimburse and it is the homeowner's responsibility to cover any costs associated with HOA requirements.
- Non-Eligible Work Acknowledgement.
- Homeowners acknowledge they cannot ask for nor accept any work for free from the chosen elevation contractor. Once chosen, elevation contractors sign a similar form.
- Primary Residence Acknowledgment. Owner certifies the property is his/her primary residence, thus allowing access temporary living.
- Completed W9 – For the municipality or county to reimburse the homeowner, the municipality or county may require the homeowner to complete a W9 for payment purposes only.
- Copy of the current flood declaration page (if FMA funded).

### *Homeowner and Contractor*

Prior to elevation beginning, the homeowner and the contractor must enter into a contract. A fully executed contract must be provided to the PM team for review and concurrence.

An example of a contract between the homeowner and contractor can be found in **Appendix P** (Homeowner Implementation Package). Each contractor has his/her own contract, but there are standard clauses that are required be included in all homeowner/contractor contracts to ensure the inclusion of clauses such as the following:

- Bond requirements.



- Insurance requirement.
- Warranty requirements.

Typical contracts must include, at a minimum the following:

- The required NJOEM cost template with the breakdown of costs.
- Acknowledgement of how payment to contractor will occur.
- Work schedule.
- Certification that contractor has provided a payment bond and insurance information to the jurisdiction.
- Estimated days of homeowner displacement.

### *Cost Template*

NJOEM requires the contractor to use a specific cost template, as provided in **Appendix Q** (Cost Template) for their proposals, contracts, and invoices to the homeowner. NJOEM will only accept these defined cost categories, and all work outside of this template (ineligible for grant work) must be invoiced and paid separately.

### *Notice to Proceed*

Prior to “notice to proceed” being given for a home elevation, the PM team must receive the following from the contractor/homeowner:

- Fully executed contract between homeowner and contractor (must include cost template provided in **Appendix Q**, Cost Template).
- Performance bonds and payment bonds.
- Proof of insurance (with homeowner and community listed as additionally insured as appropriate).
- Permit for the elevation.
- Separate contract for any approved homeowner extras outside of the elevation of the home.
- Request from homeowner for notice to proceed that acknowledges budget, conditions, and elevation contractor insurances and New Jersey Department of Community Affairs (NJDCA) registration.

Once these documents have been reviewed and approved, the homeowner and contractor should receive from the PM team a formal notice to proceed letter with the approved budget amount, a requirement for the contractor to use the cost template in the invoice and provide an example of the invoice and a request for a schedule. Often, a community will require that if the homeowners are paying for the grant, only cancelled checks or credit card receipts are allowed and there is an understanding that no cash payments will be accepted as a form of payment. An example of an invoice is found in **Appendix R** (Invoice Example for Elevation Contractor).

### **WARNING!**

Any work started before the homeowner receives a Notice to Proceed will be **disqualified** from the grant program.



## ADDITIONAL INFORMATION TO CONSIDER

---

Regardless of the contractor path the community chooses, there are some general items both paths must consider.

### American Disabilities Act Requirement and Grant Eligibility

The grant allows for construction of ADA-compliant access facilities or ramps when an owner or a member of the owner's family has a permanent disability using a physician's written certification. An ADA-compliant access to ingress/egress is allowable for funding unless specified otherwise in applicable State or local codes. The ADA website (<http://www.ada.gov>) provides additional information on ADA. If ramps are not technically feasible, a mechanical chair lift may be installed. FEMA has a form that should be used by the jurisdiction and the homeowner who is seeking ADA access facilities under a FEMA-funded mitigation grant program for the elevation or mitigation/reconstruction of a home. The signature of the homeowner with the disability (or authorized caretaker) is required below prior to submitting this request to the jurisdiction and the State and review and processing. **Appendix S** (ADA Concurrence Letter with State and Local Community) provides FEMA's Hazard Mitigation Assistance Unified Guidance dated February 27, 2015, that discusses requirements for the homeowner to provide a physician's written certification.

The homeowner must provide a physician's written certification that meets the following requirement per FEMA's Hazard Mitigation Assistance Unified Guidance dated February 27, 2015, as detailed in **Appendix S** (ADA Concurrence Letter with State and Local Community).

In accordance with FEMA's Hazard Mitigation Assistance Unified Guidance addendum, dated February 27, 2015, in a case where an owner or member of the owner's family has a permanent physical disability, a physician's written certification is required before ADA access facilities can be allowed as an eligible cost. An ADA-compliant access to ingress/egress is allowable for funding unless specified otherwise in applicable state or local codes (for more information on ADA, see <http://www.ada.gov>). If ramps are not technically feasible, a mechanical chair lift may be installed.

The physician's written certification should be on the physician's letterhead and should contain at the following information:

- Name of person requiring Access Facilities and relation to the homeowner.
- The type of ADA access facilities required for a medical disability.
- ADA form, as provided in **Appendix S** (ADA Concurrence Letter with State and Local Community).

The homeowner must provide a cost breakdown for the ADA access facilities that meets the minimum industry standards, as described in the physician's written certification and the applicable community's codes. Any costs above the minimum requirements are the responsibility of the homeowner and are not subject to reimbursement by the grant program.

After the required physician certification and other documents are received, the community should work with the State to review the request and obtain written concurrence from the State before permission is given to the homeowner and contractor to proceed.



## Pre-Elevation Home Inspection

One area that tends to cause issues during implementation and the closeout of a home elevation is a dispute between homeowner and contractor as to condition and working order of the homes mechanical systems and finishes. To reduce these disputes, it is strongly recommended each contractor include in his/her bids a full pre-elevation home inspection report with pictures. This inspection will document the condition and working order or items such as HVAC, hot water heaters, sprinkler systems, pools and pool equipment, driveways, and interior flooring (such as ceramic tile). This should be signed off on by both the homeowner and contractor.

## Homeowner Relocation (Primary Residence Only) During Elevation

Before the elevation begins, the contractor must provide a schedule with an estimate of the time a homeowner must be vacated from the property. This will be used to set a budget for temporary living. It is recommended the jurisdiction set this budget using the current federal government lodging per diem schedule in effect for the days the homeowner is displaced. Temporary living costs are typically borne by the homeowner and then reimbursed at the approved federal share for said home. Temporary living covers lodging only, not food, utilities, or transportation. Homeowners must obtain and provide the following documents required for reimbursement:

- Rental Agreement.
- Invoice for each month's payment or receipt of payment certified by landlord.
- Cancelled check for paid rent by month.

## Clear Articulation of Eligible and Ineligible Cost

Eligible and ineligible costs have been one of the biggest implementation challenges, so making this information known, understood, written, signed and concurred in advance of the elevation is critical. To do that, the State recommends the homeowner and the contractor sign a detailed document that expressly states the Non-Eligible Work Acknowledgment and includes the list of ineligible documents and further notice that if there is a question about eligibility, the item must be reviewed by the community and NJOEM before assuming it is eligible.

## Contractor Non-Eligible Work Acknowledgement

The homeowner and contractor must sign a detailed document that expressly states the Non-Eligible Work Acknowledgment. Depending on who is signing the document, these documents are provided in **Appendix T** (Contractor Non-Eligible Work Acknowledgement) or **Appendix U** (Homeowner Non-Eligible Work Acknowledgment), and that includes the list of ineligible documents and notice if there is a question about eligibility. This document must be reviewed by the community and NJOEM before assuming costs are eligible.

## Landscaping

FEMA does not reimburse for any ornamental landscaping. The homeowner should remove anything it does not want damaged, including lighting, pavers, bushes, plants, rock walls, gardens, and ponds. It should be stipulated in the contract that if items are damaged during the elevation, costs for the repair or replacement of the items would be the responsibility of the



contractor. If the damage occurs on items that cannot be removed and/or the damage was required to in order to elevate the structure (e.g., concrete pad or walkway that is close to the house), a determination can be made if this work can be covered. The contractor will need to prepare a separate change order, following a change order approval process established in the beginning of the program with the State. The change order must include the rationale and pictures, and the situation must be reviewed and concurred with the State before the additional work can be completed.

## Utility Notification, Disconnection, and Reconnection

Due to issues with elevations and electric lines, NJDCA requires design plans to have an approval letter from the electric utility company supporting that proposed elevation will not affect safety clearances. To initiate service notification prior to issuance of building permits, homeowners must contact their electrical provider. Contact information for the primary electric suppliers in New Jersey are as follows:

- Atlantic City Electric – <https://www.atlanticcityelectric.com/MyAccount/MyService/Pages/MyService.aspx>
- JCP&L - (800) 662-3115 or [https://www.firstenergycorp.com/service\\_requests/request-electrical-work.html](https://www.firstenergycorp.com/service_requests/request-electrical-work.html)
- Orange and Rockland Electric – <https://www.oru.com/en/services-and-outages/service-management-page>
- PSE&G – 1-800-436-7734 or <https://nj.pseg.com/>

Utilities must be disconnected before the elevation work can begin. The homeowner should work closely with the contractor on when the utilities need to be tuned off and back on. Contractors should use portable generators for their electrical needs during elevation so they are not using homeowner electricity.

## Existing Decks, Porches, Stairs

If existing decks, porches and stairs are properly attached to the home and can be elevated with the home, the grant can cover these as eligible costs. However, the grant will only pay for contractor grade materials (e.g., pressure-treated wood). If these elements cannot be lifted, replacement of these items (other than to allow for ingress and egress to the elevated structure) is not grant eligible. The grant will not pay to replace ground level decks, porches, or patios that must be abandoned to elevate the home.

## Sidewalks, Driveways, Siding

If driveways and/or sidewalks are damaged to access the home for elevation, the cost of repair to these damaged areas, is a grant reimbursable cost. However, the grant is not responsible for replacing an entire driveway or sidewalk if only a portion was damaged. Documenting pre-elevation conditions of driveways, sidewalks, porches and patios is one of the many reasons for the completion of a pre-elevation home inspection. Similarly, if part of the siding had to be removed due to the elevation and cannot be salvaged or replaced, the cost for replacing this portion of siding is a grant reimbursable cost. However, the grant will not cover the cost to replace all siding caused by inability to match existing siding.



## Documentation Collection Throughout Program

Throughout the grant program, a community might require additional information and documentation from the homeowner, including the following:

- **Scope of Work Change.** If a homeowner chooses to complete additional work not identified during the grant application process, the homeowner must notify the community, and the community must prepare a scope of work change request for NJOEM. The homeowner will need to provide the following in order for NJOEM to submit the request:
  - Reason for the delay in implementing the project
  - Description of why the homeowner chose to complete additional work during the period of performance rather than during the grant application process
  - Engineering drawings showing the proposed work
  - If there is a change in cost, an explanation of the changes
- **Change Order.** If work needs to be completed in addition to the work outlined in the homeowner/contractor contract, a separate change order needs to be prepared by the contractor and the community will follow the change order approval process established in the beginning of the program. The change order must include the rationale and pictures and then must be reviewed and concurred with the State before the additional work can be completed.



# SECTION 6 HOMEOWNER REIMBURSEMENT

Homeowners will need to work with their community to understand the reimbursement process. The community will prepare a reimbursement package for each homeowner after their home is elevated and a final certificate of occupancy is issued by the community. **Appendix P** (Homeowner Implementation Package) was prepared by the State, and includes reimbursement information for homeowners. Below is a checklist of information a homeowner needs to provide to their community for reimbursement.

Homeowner Reimbursement Checklist	
Submit the following documentation to your community:	
<input type="checkbox"/>	Summary spreadsheet of all eligible and ineligible costs
<input type="checkbox"/>	Copy of pre-elevation certificate
<input type="checkbox"/>	Pictures of home pre-elevation
<input type="checkbox"/>	Copy of acknowledgement of conditions
<input type="checkbox"/>	Copy of closed construction permits
<input type="checkbox"/>	Copy of New Jersey Department of Environmental Protection (NJDEP) land use permits, if applicable
<input type="checkbox"/>	Copy of final certificate of occupancy
<input type="checkbox"/>	Proof of payment of all project costs (eligible and ineligible)
<input type="checkbox"/>	Copy of all source documentation costs (invoices, contracts, receipts, leases, etc.)
<input type="checkbox"/>	Copy of signed contracts with contractor(s)
<input type="checkbox"/>	Copy of final elevation certificate
<input type="checkbox"/>	Copy of recorded deed amendment
<input type="checkbox"/>	Copy of current flood insurance declaration page
<input type="checkbox"/>	Pictures of home post-elevation
<input type="checkbox"/>	Duplication of benefits worksheet*
<input type="checkbox"/>	Copy of most recent flood insurance proof of loss with associated details

\*Documentation is detailed below.

The following provides details on some of the required documentation. If a homeowner has questions regarding the information, they should contact their community.

### *Copy of Recorded Deed Amendment*

Once the home is elevated, the owner is required to legally record with the county or appropriate jurisdiction's land records a notice that includes the name of the current homeowner (including book/page reference to record of current title, if readily available), a legal description of the property, and the following notice of flood insurance requirements:

*“This property has received Federal hazard mitigation assistance. Federal law requires that flood insurance coverage on this property must be maintained during the life of the property regardless of transfer of ownership of such property. Pursuant to 42 U.S.C. §5154a, failure to maintain flood insurance on this property may prohibit the owner from receiving Federal disaster assistance with respect to*



*this property in the event of a flood disaster. The Homeowner is also required to maintain this property in accordance with the flood plain management criteria of Title 44 of the Code of Federal Regulations Part 60.3 and CITY/County Ordinance.”*

#### *Duplication of Benefits Worksheet*

Federal regulations require that a homeowner does not receive funding that exceeds the cost of elevating their home. The DOB analysis takes into consideration all of the funds the owner has received/will receive. DOB (duplication of benefits) is the term used to describe when assistance from more than one source is used for the same purpose or activity. The purpose may constitute all or a portion of a mitigation project. Specifically, FEMA HMA funds cannot be used where an individual's disaster recovery or disaster mitigation needs have been or will be met through other assistance. If assistance under any program or source is used for anything other than its intended purpose, a DOB may exist. In addition, as part of the DOB review, expenditure of other funds received will be verified through the review of receipts, contract records, insurance records, written determinations by building inspectors or appraisers, or other forms of documents approved for use by FEMA and the State. Refer to **Appendix L** (Duplication of Benefits Guide) for information on duplication of benefits.

#### *Copy of Most Recent Flood Insurance Proof of Loss with Associated Details*

Along with the DOB Guide, a homeowner needs to provide the community with a copy of their most recent proof of loss claim and associated details (i.e., explanation of the damages).

#### *Grant Management*

If a community contracts for grant management, the grant will reimburse the grant portion, as described in the “Cost Share Requirements” section above (for example, 75, 90, 100 percent). However, the homeowner will be responsible for the local share (for example, 25, 10, 0 percent). The community may choose to request those funds upfront from the homeowner or have funds deducted from the final reimbursement check issued to the homeowner. The community will provide the homeowner with a budget that outlines budgeted costs for each property. This will include a line item for grant management.

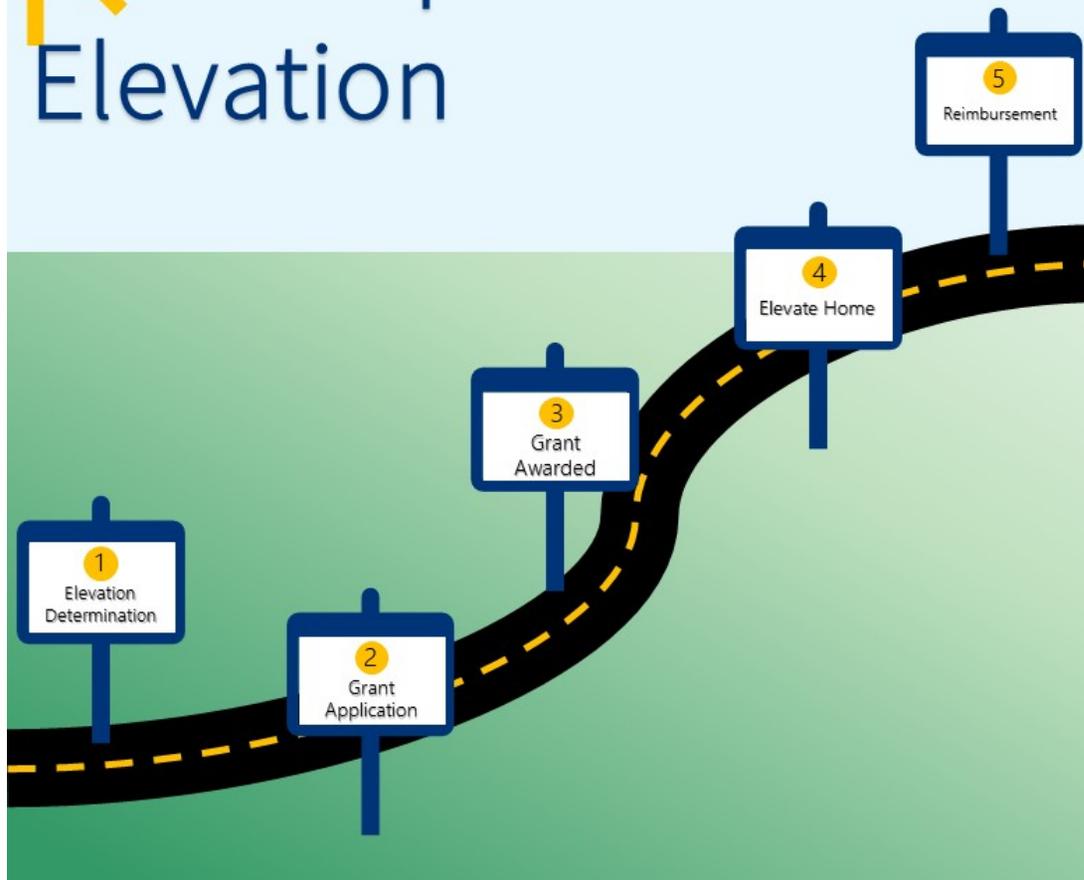
## SUMMARY

---

This guidebook outlines procedures to help individuals apply for and implement an elevation project grant. While the guidebook has attempted to answer many of the questions and issues that arise in the elevation grant process, there will always be unique circumstances that will require specialized attention. Homeowners should work closely with their communities to understand the process and expectations. The figure below provides a brief summary of the elevation process, from determining whether or not you are eligible to elevate your home, through the reimbursement process.



# Roadmap to Elevation



- 1 Elevation Determination**  
To be considered for an application, the home must be located within the SFHA and home must be structurally sound and able to elevate.
- 2 Grant Application**  
The local government will prepare the application. Homeowners will provide required documentation for the application to the community. The application will then be submitted to NJOEM and FEMA. Applying for funding is voluntary.
- 3 Grant Awarded**  
Homeowners will be presented with information about the elevation program. They must follow grant requirements throughout the entire process. Prior to work starting, homeowners must submit a Notice to Proceed request. This must be approved before any work can start.
- 4 Elevate Home**  
Once homeowner receives an approved Notice to Proceed, work can begin. Homeowners must maintain contracts, proofs of payment (e.g. cancelled checks, credit card statements), permits, etc.
- 5 Reimbursement**  
The community will prepare a reimbursement package for each homeowner after their home is elevated and a final certificate of occupancy is issued by the community.



# SECTION 7 FREQUENTLY ASKED QUESTIONS FOR HOMEOWNERS

The following provides some frequently asked questions homeowners might ask when thinking about elevating their home.

I would like to elevate my home. How can I find out how high it must be elevated?

You should contact your local community's floodplain administrator for help navigating the flood maps to determine a general elevation for your area and provide you with your community's floodplain ordinance. The floodplain ordinance includes the requirements for a home's elevation relative to the Base Flood Elevation (BFE). However, it is important to obtain the exact BFE of your house via an elevation certificate. BFE+4 should be a starting point for all elevation projects. This achieves the greatest long-term insurance savings. If a project cannot achieve this recommendation, then the project should use the state or municipal regulatory standards.

## What is a Base Flood Elevation?

The Base Flood Elevation, or BFE, is the height of the base flood (1-percent annual chance flood event), expressed in feet above sea level. The BFE was adopted by the National Flood Insurance Program (NFIP) as the basis for floodplain management and flood insurance regulations.

## What is an elevation certificate?

An elevation certificate is a document that lists a building's location, lowest point of elevation, flood zone, and other characteristics as identified by the Federal Emergency Management Agency (FEMA). It is used to determine your flood insurance premium. Refer to **Appendix V** (Elevation Certificate Fact Sheet) for details on the elevation certificate.

## Who can prepare an elevation certificate?

Elevation certificates must be prepared and certified by a New Jersey Licensed Surveyor.

I would like to elevate my house; how can I find out if the house can withstand elevation?

Homeowners should hire a licensed structural engineer who is experienced in evaluating homes, to determine the structural integrity of homes considering elevation. The engineer might determine an alternative method to traditional elevation, such as abandoning the bottom floor and building a second floor.

The evaluation, completed by a structural engineer, will assist in determining the elevation methodology and integrity of the existing foundation relative to buoyancy, wind, erosion, horizontal and vertical forces, soil conditions and overall condition of the home. The engineer will



provide a stamped and sealed report, which should include recommendations for the home's elevation from the American Society of Civil Engineers' (ASCE) most current guidance on Flood Resistant Design and Construction. This report will help a homeowner and a community determine whether elevation is possible and will assist in cost estimating.

## How much does it cost to elevate my home?

An engineer report(see above) can provide you with the information needed, including approximate costs. An example of items included in the elevation process and an estimated range of cost for each are found in the in the NJOEM Elevation Guidebook for Communities. Costs vary depending on type of foundation, required lift height, complexity of elevation, size of house, location of house, temporary living requirements, and ingress and egress requirements.

## I would like to apply to FEMA for a grant to elevate my house. What do I do?

Homeowners cannot apply for elevation grants. Communities must apply for elevation grants. You should talk to your local community officials about your interest in the community possibly applying for an elevation grant. If a community decides to apply for a grant, it will need several documents and information from you. Please see the Section 3 (For Communities) in the NJOEM Elevation Guidebook for Communities for more details.

## Does the home have to be my primary residence to be included in the grant application?

No.

## I am thinking about selling my home. Can it be included in an application and, if awarded, a grant?

Yes. If you still own your home or you sell it prior to construction, the home can be included in the application and subsequent elevation grant program. However, the new homeowners must complete and submit all required documentation. If a home is in an application and is sold before award, the new homeowner can be in the awarded grant as long as he/she meets all of the requirements of the grant and provides all of the necessary documentation before proceeding.

## A homeowner had FEMA-backed flood insurance during the application, but then switched to private flood insurance before award. Can the homeowner still be included in award?

If a homeowner switches to private flood insurance before grant award, the homeowner will no longer be eligible to be included in the grant program.



## If I am in a FEMA grant-funded elevation program, after my home is elevated, do I still need flood insurance?

Yes. In fact, as part of the program, you will be required to file a deed restriction on the house with the County Clerk that requires that the house, regardless of deed transfer, must be covered by flood insurance.

## What is a deed restriction and why must I have one regarding flood insurance?

As a condition of reimbursement, the structure must be covered by flood insurance for the life of the property. A deed restriction requiring NFIP-backed flood insurance must be maintained for any structure that has received FEMA grant funding. This reduces the risk to the federal government from future flood losses on a property where the federal government has provided mitigation funding. If you accept an award under this program, pursuant to federal law, you must maintain flood insurance on the home and a deed restriction indicating this as a requirement for future homeowners for the life of the structure.

## Do I have to vacate the house during the elevation process? If yes, is relocation during this time a reimbursable expense?

Yes, a homeowner will need to vacate the house during the elevation process. If there is a tenant occupying the home, the homeowner must provide notification to any tenants that they will need to vacate the property. The contractor must provide a schedule with an estimate of the time the homeowner must vacate the property.

Temporary living costs are eligible for reimbursement if the home is the primary residence of the homeowner. Proper documentation is needed for reimbursement. Relocation costs are capped and the homeowner is responsible for the difference.

## What expenses are eligible for reimbursement?

Only expenses necessary for elevation of the home are eligible. See the homeowner guidebook for the FEMA and NJOEM guidance for a list of eligible and ineligible structure elevation costs. Refer to **Appendix E** for eligible expenses for reimbursement.

## What costs are ineligible?

Ineligible costs are identified in **Appendix F**.

## How long does it take to lift my house?

The actual construction time may require you to be out of your home for 3 to 9 months. The process from application to construction could last months to years, depending on the complexity of environmental review and other factors at the federal level.



## Can I perform any of the work myself under this grant?

Volunteer or "DIY" work is not eligible. You must find a qualified licensed contractor to perform work being funded under this grant.

## What kind of receipts do I need to keep for reimbursement?

If the community is awarded a grant, it should provide you with a detailed list. However, in order to effectively document that eligible work was both performed and paid for, the grant requires verification of payment (e.g., detailed line item paid invoices, receipts, cancelled checks documenting work, credit card receipt, a bank statement that reflects the payment of an eligible expense).

## Is my award taxable?

FEMA grant funds are not considered taxable income. Refer to **Appendix G** (FEMA Homeowner's Guide) for details.

## Are additional fees that may come up during construction eligible?

It depends. The homeowner should contact the community to discuss the situation and the community will reach out to New Jersey Office of Emergency Management (NJOEM).



# APPENDICES

---



# Appendix A

---

## Flood Insurance Premium Comparisons



# Appendix B

---

Insurance Impacts as Premiums Move to Actuarial



# Appendix C

Insurance Premium Savings by BFE

---



# Appendix D

FEMA FIRM Fact Sheet

---



# Appendix E

Eligible Elevation Costs

---



# Appendix F

---

## Ineligible Elevation Costs



# Appendix G

---

FEMA's Homeowner Guides (includes FEMA P-312, Homeowner's Guide to Retrofitting – Third Edition [2014] and FEMA P-347, Above the Flood: Elevating Your Floodprone House [2000])



# Appendix H

---

FEMA Fact Sheet – Second-Story Conversion – Elevation Project Design  
Considerations for Hazard Mitigation Assistance Applicants



# Appendix I

---

FEMA Fact Sheet – Substantial Damage



# Appendix J

---

CRS Credits



# Appendix K

---

FHA-203



# Appendix L

Duplication of Benefits Guide

---



# Appendix M

---

## Acquisition Fact Sheet



# Appendix N

---

## Homeowner Disclosure of Additional Work



# APPENDIX O

---

Homeowner Application Package





# APPENDIX P

---

Homeowner Implementation Package



# Appendix Q

---

Cost Template



# Appendix R

---

Invoice Example for Elevation Contractor



# Appendix S

---

ADA Concurrence Letter with State and Local Community



# Appendix T

---

## Contractor Non-Eligible Work Acknowledgement



# Appendix U

---

## Homeowner Non-Eligible Work Acknowledgment



# Appendix V

---

## Elevation Certificate Fact Sheet

