



# NY Rising Housing Recovery Program

## Home Elevation Design Guidance

July 29, 2014

The following provides construction related information to a Homeowner and/or Design Professional for designing and elevating a dwelling in the 100-year flood plain using funding provided by the NY Rising Program. **Please also see the “Fact Sheet for Optional Items” which explains NY Rising Program requirements and funding guidelines.**

### Basic Elevation Requirements of the NY Rising Program

The Program will assist you to elevate your home if it is within the 100-year flood plain identified by the FEMA Flood Insurance Rate Map or by the local Authority Having Jurisdiction (AHJ). If your home was substantially damaged, as determined by your municipality, you **MUST** elevate your home, and if it was not substantially damaged you have the option to elevate with Program assistance. The elevation must be to a height of the Base Flood Elevation plus two feet, although some municipalities may require a higher elevation. If so, and the requirement is in writing from the municipality, the Program will fund the additional height.

- 1. Hiring a Designer** - Because elevating a home is complicated and technical, Homeowners **must** work with a licensed Design Professional (designer) to develop the best alternative for their specific project. A designer, which could be an architect or engineer, is able to coordinate the architectural, foundation design and structural, lifting and setting of the dwelling, site work as well as the mechanical, electrical, plumbing and HVAC design requirements of the project. A contractor is not authorized to complete all the forms that the Program requires prior to approving the elevation scope of work (**see #5 & 6 below**).
- 2. Beginning the Design Process** - Have your designer conduct a site visit. If the designer determines that pre-design investigative services, such as those described below, are necessary to assist in evaluating the existing conditions of your home, the costs for these services are eligible Program expenses up to certain maximums:
  - a. Land Survey** – A survey performed by a licensed professional land surveyor will provide property boundary information as well as the location of the existing home on the site and other important information necessary to complete your project.
  - b. Soil Boring Report** – In some cases, a soil boring report might be necessary to determine how to design the best and most cost effective foundation for your home. This process involves drilling a small hole to a depth identified by your designer.
- 3. Pre-construction Elevation Certificate** - **The Program requires that you submit** this document, which is typically prepared by a surveyor. It will identify which flood zone your home is in, the current



height of your home, the adjacent grade (the ground) and the height of Base Flood Elevation. If you are also doing a land survey, this document can be prepared simultaneously by the surveyor.

4. **Documenting the Scope of Your Elevation Work** - At the time of the initial inspection of your home the Program prepared a rough estimate of the Estimated Cost of Repair (ECR) for elevation. The documentation that your designer submits will allow the Program to arrive at a final approved elevation cost. The designer must evaluate all of the following and compare these to the initial ECR for elevation on the **“Scope of Work Change Itemization 6100” form**. **This form and all other required Program forms are available on the Program website: <http://stormrecovery.ny.gov/homeowner-resources-and-forms>**. **The Program will use the designer’s specifics of size, depth, linear feet, and quantities to determine the final approved cost.**

- a. **Required Height** – The designer should use required elevation height (Base Flood Elevation plus 2 ft. and statutory additional height, if any) and align it (up or down) with the height provided in the Program’s original estimate of ECR.
- b. **Foundation Piles or Piers** –The designer must determine the type, depth and number of piles or piers, if any, which are necessary for your foundation based on the soil boring report and measurements of your home. The standard depths that are used are 16’, 20’, and 25’ with a separate unit cost for each 5’ extension. The designer should specify the total number and dimensions of any piers as well as the pier footings for your project.
- c. **Foundation perimeter walls** –These are walls that extend from the ground to the bottom of the elevated structure and may be wood, reinforced concrete or concrete block. The designer should specify the height and linear feet of the walls above grade and beneath grade with the size of the footing beneath.
- d. **Grade Beams/Pile Caps** – These are reinforced concrete beams that extend in each direction from the top of the piles or between piles and that offer stiffness to the piles. If required, the designer should provide the material, dimensions (width and height) and the total linear feet required.
- e. **Stairs** – Given the height of the elevation, the designer must determine the height of the stairs. The Program provides a cost per vertical foot for stairs. The designer should also look at the stair design to determine where the stairs will “land” on the ground. The survey will identify any setbacks or non-buildable areas, on which the stairs cannot be constructed. If they stairs must turn 90 or 180 degrees in order to avoid the setback, this will require an additional landing and should be accounted for.
- f. **Landings** – The Program provides a cost for a landing at each exterior door of your home according to minimum code requirements. The designer should align the number of door exits that you have with the number provided in the original ECR plus any that may result from the stair alignment.
- g. **Utilities** – The Program provides an allowance for the disconnection, raising and reconnection of utilities based on the square footage of the home and the vertical elevation. Based on the elevation height, the designer should include any necessary extensions for the reconnection of





9. **How Your Award will be Determined** - The Program will use Xactimate pricelists and templates to establish unit costs for items that may be approved and added. The review of the information will not comprise a detailed “take-off” of all elements and components of the design information. An order of magnitude and/or systems-unit approach will be utilized within Xactimate. Once the review is complete and changes approved, the final approved ECR for elevation will be determined.
10. **New Award Table** – When the elevation work and the final approved ECR for elevation have been approved, a new Award Table will be sent to you. You will have the opportunity to review it and make a final determination if you wish to proceed with the work. Assuming you want to proceed you would sign the new Grant Agreement, and receive a check for 50% of the approved elevation cost, minus the design funds already received.
11. **Engaging a Contractor** – After receiving the first construction payment, you should use the permit documents and Form 6100 for pricing and contract negotiations in order to engage a general contractor.
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### **Design Document Checklist**

- Designer’s signed original properly completed Scope of Work Change Itemization Form (Form 6100) in pdf format;
- Scope of Work Change Itemization Form (Form 6100) - in excel format;
- Design Request for Change Form properly executed by the Designer;
- Pre-construction elevation certificate prepared by the surveyor;
- Land survey, as necessary;
- Subsurface soil report, as necessary;
- Elevation permit application or permit issued by the municipality;
- Schematic base floor plan, highly recommended;
- Schematic building section, highly recommended;
- Photographs/sketches as necessary.