



NY Rising Housing Recovery Program Home Elevation Design Guidance

April 8, 2016

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.

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 as 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; others in the flood plain may elevate. The elevation must be to a height of the Base Flood Elevation plus two feet, although some municipalities may statutorily 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 #4 & 5 below**).
2. **Environmental Risk Assessment Surveys** - Before you begin your elevation work, you must schedule an environmental risk assessment survey(s) to identify the possible presence of asbestos (for all homes) and lead-based paint (for homes built before 1978) that may be disturbed by the elevation and therefore require that special mitigation measures be taken during construction. The Program will conduct this inspection for you at no cost, but you must call the Program at (516) 830-3560 to arrange for the survey prior to beginning elevation. If asbestos or lead-based paint mitigation measures are needed, the Program may adjust your award to reflect the estimated cost of these measures. You should also review your Tier 2 environmental site assessment, which can be viewed by logging into your IntelliGrants account on your computer, to determine if you require other permits prior to starting construction.
3. **Beginning the Design Process** – It is recommended that your designer conduct a site visit before commencing any design work. 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. **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, the surveyor can prepare this document simultaneously. **You must submit this document within 180 days of your receiving elevation design fees from the program, or by August 1, 2016 whichever is later.**



- b. **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.
 - c. **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.
4. **Documenting the Scope of Your Elevation Work** - At the time of the initial inspection of your home, the Program prepared an initial Estimated Cost of Repair (ECR) for elevation using the Program’s established unit-pricing methodology, which uses the footprint of the home times the estimated required elevation height, based on the height of the flood level at the time of the storm. However, the required design documentation (Pre-Construction Elevation Certificate) which your designer must submit to the Program will allow us to adjust the elevation estimate (up or down) to reflect the actual required elevation height needed to comply with code. Your final elevation award is likely to be lower or higher than the initial estimate and will be based on this more accurate information. If you want the Program to do a full re-evaluation of the initial elevation estimate to incorporate additional foundation or other costs, please follow the instruction in section #5 below.
- a. **Required Height** – The designer should use required elevation height from the Elevation Certificate (Base Flood Elevation plus 2 ft. and any additional height required by code) and align the height (up or down) with the height provided in the Program’s initial estimate of ECR for elevation.
 - b. **Foundation Elements** – This includes walls, piers, grade beams and piles. Please refer to the **Program Maximum Design Criteria for Structural Elevation** for detailed guidance relating to these elements.
 - c. **Stairs** – Based 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 the stairs must turn 90 or 180 degrees in order to avoid the setback, this will require an additional landing and should be accounted for.
 - d. **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 of the dwelling with the number provided in the initial ECR for elevation plus any that may result from the stair alignment.
 - e. **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 utility lines. The General Contractor will coordinate with licensed electricians, plumbers and HVAC sub-contractors to disconnect and reconnect the utilities.
 - f. **Pre-Design Investigative Services** – Services such as elevation certificate costs, surveys and soil tests are eligible for inclusion in the elevation estimate up to certain maximums, and these costs must be documented with paid invoices. The Program will cover up to \$8,000 of the actual costs of these services up to the following maximums for each service: \$1,000 for a land survey by a licensed surveyor, \$750 for a pre-construction elevation certificate, \$750 for a post-construction elevation



certificate, and up to \$5,000 for an engineer's geotechnical investigation including borings, testing, lab results and final report.

- g. **Other** - In addition to the above items, the designer should also consider other items that may be applicable to the project, such as ramps or lifts for accessibility to persons with Special Needs, removal of existing concrete walls or slabs, structural beams that may be required, the resetting of electrical-mechanical equipment or backfill and leveling of crawlspaces or basement areas.
- 5. Requirements for Program to Re-evaluate the Initial Elevation Estimate:** If you want the Program to re-evaluate your elevation estimate to determine a more accurate estimate before work begins, your designer must submit the **Design Request for Change Form** and two versions of the **Scope of Work Change Itemization Form – 6100**, one stamped by your designer and another in a Microsoft Excel version and a set of schematic plans. (See Section A of the **Design Document Checklist** below). Please refer your designer to the Program Maximum Design Criteria for Structural Elevation, which can be found, like all other Program documents, on the website at <http://stormrecovery.ny.gov/homeowner-resources-and-forms>, for guidance on designing your elevation project. Within these guidelines, the Program will use the designer's specifics of size, depth, linear feet, and quantities to determine the final approved cost. Any additional funds due to the homeowner based on an increased estimate, will be released per the payout schedule described in #12 below.
- 6. How to Submit a Scope of Work Change Itemization Form - 6100:** The designer must evaluate all of the items listed in #4 above and compare these to the initial ECR for elevation on the **Scope of Work Change Itemization Form – 6100**. This form and all other required Program forms are available on the Program website. Please also keep in mind that:

 - a. Your designer is not required to provide costs for scope items requested in the scope change, only scope descriptions, quantities and unit of measure.
 - b. If you have opted to do any additional optional work, such as bulkhead repair or optional mitigation measures, or if you have acceptable evidence that you require Special Needs accommodations, your designer should document this work on the same forms in a comparable manner.
- 7. Elevation Permit** – An elevation permit must be applied for and secured from the local municipality before construction starts. Homeowners who have opted in for optional elevation must submit the Elevation Permit and a copy of their final elevation plans, stamped by their designer, in order to receive the first payment towards elevation construction costs.
- 8. Engaging a Contractor** - After completion of design documents by your design professional, he or she can assist you to engage a construction contractor.
- 9. Post-Construction Elevation Certificate and Certificate of Occupancy or Completion** – A post-construction elevation certificate and a Certificate of Occupancy (COO) or Certificate of Completion (COC) must be obtained from the municipality and submitted to the Program in order to receive final payment towards elevation costs, after all construction work has been completed.
- 10. Submitting Required Materials** – A checklist of all the materials the Program requires is found at the end of this document. These materials must be emailed to review@recreatenys.org.



- 11. How Your Award will be Determined** – Before the final elevation payment is released or upon submission of the **Scope of Work Change Itemization Form – 6100**, the Program will re-evaluate the elevation estimate for your home based on the standards outlined in the documents “**Program Maximum Design Criteria for Structural Elevation**” and the Program’s established unit-pricing methodology which uses the footprint of the home times the required elevation height as evidenced by the Pre- Construction Elevation Certificate. Your final elevation award will be adjusted either up or down from the initial estimated elevation award based on all of these factors. Permitting, pre-design investigative services and design costs will also be included. After this calculation has been done, any elevation duplication of benefits (DOB) that you have received will be deducted to compute your final elevation award.
- 12. Final Inspection** - At the completion of construction, the Program will conduct a final inspection and verify that the elevation work complies with local building codes including the required minimum height for elevation, even if it differs from the estimate, due to upgrades or construction changes.
- 13. Payment Schedule** –

 - a. For Optional Elevation Applicants: Payment for design costs (calculated at 10% of the Program’s initial elevation estimate) is released after the applicant opts in. If the applicant chooses to submit a 6100, schematic plans, and other documentation required for Program re-evaluation of the estimate (see #1 on Required Elevation Design Documents below), and the estimate increases as a result of this re-evaluation, then additional design funds due will be released once estimate has been adjusted. The first 50% payment towards elevation construction work will be issued after the program has reviewed and approved the pre-construction elevation certificate and permit/application (see #2 in Required Elevation Design Documents below). All payments are made after any deductions for elevation DOB.
 - b. For Required Elevation Applicants: Because the first 50% payment towards elevation construction costs is issued “up front” with the applicant’s first home repair award payment, re-evaluation and re-sizing of the elevation estimate can happen at any time following initial payment and before final payment. If the applicant submits **Scope of Work Change Itemization Form – 6100** and the elevation award increases as a result, any additional payment due will be issued at that time. All payments are made after a deduction for any elevation DOB.
 - c. For All Applicants: The final payment of the elevation award will be paid after the submission of the Post-Construction Elevation Certificate, a COO or a COC (see #3 in Required Elevation Design Documents below) as well as compliance with any other Program requirements and after a final inspection has been conducted. The final inspection will confirm that the elevation work complies with local building codes including the required minimum height for elevation. If it does, then final payment will be made, even if the actual work performed differs somewhat from the estimate, due to upgrades or construction changes.



Design Document Checklist

Required Elevation Design Documents

All of the documents in Section A and Section B (if applicable) must be submitted within 210 days of the date you received the first payment of elevation design fees or November 15, 2016 whichever is later.

A. All of the following must be submitted for the Optional Elevation Initial Construction Payment

1. Pre-Construction Elevation Certificate prepared by the surveyor (**this document must be submitted within 180 days of the date you received the first payment of elevation design fees or August 1, 2016, whichever is later**);
2. Elevation permit from your local building department (or submitted permit application);
3. Plans (Construction Documents) stamped by your designer;

B. Additional Documents Required if You Are Requesting that the Program Re-evaluate the Elevation Estimate

1. Design Request for Change Form properly executed by the designer;
2. Completed Scope of Work Change Itemization Form 6100 in **PDF format**, signed, dated and professionally sealed by your designer;
3. Completed Scope of Work Change Itemization Form 6100 - in Microsoft Excel file format.
4. Schematic Plans
5. Land survey, as necessary;
6. Subsurface soil report, as necessary;
7. Photographs/sketches, as necessary;
8. Documentation of any municipality requirements for Higher Regulatory Standards (i.e. additional elevated height).

C. Documents Required to Receive Final Elevation Payment

1. Post-Construction Elevation Certificate;
2. Certificate of Occupancy or Completion