FloodHelpNY

For definitions of the technical terms below, see the **GLOSSARY** on page 8.

ADDRESS

123-45 66th St, New York NY

OWNER

John Doe

PROPERTY CHARACTERISTICS

Age YEARS	98	Number of Stories	2
Additional Building Uses	There are no additional building uses.	Residential Units	1
Building Width FEET	18.00	Building Length FEET	37.00
Ground Floor Area SQUARE FEET	670.00	Total Building Area SQUARE FEET	1,332.00
Attachment Comments		Attachment Type	Detached

The structure is a two-story dwelling with a subgrade crawlspace. The homeowner stated that the residence is used as a single-family but is deeded as a two-family.

ELEVATION CERTIFICATE INFORMATION

Current Flood Risk Zone	AE	Estimated Future Flood Risk Zone*	AE
Current Base Flood Elevation (BFE) FEET	8.00	Estimated Future BFE* FEET	11.00
Datum Referenced	NGVD '29	Lowest Ground Level {c2.f} FEET	5.80
Lowest Floor Elevation {c2.a} FEET	5.60	Next Floor Elevation {c2.b} FEET	8.30

All measurements are in feet to sea level. For example, **5** means *five feet above sea level.*

*This is the Flood Risk Zone and Base Flood Elevation for your property under FEMA's advisory New York City Flood Insurance Rate Map, which was issued in 2013. The advisory map should only be used as a guide for future rates. A final map is under development.

{x} This code corresponds to the line item under Section C2 of your Elevation Certificate

Is the Lowest Floor Elevation below Estimated** Future BFE? **Yes**

Is the Lowest Floor Elevation below Lowest Adjacent Grade? **Yes**

Is the Next Floor Elevation below the Estimated** Future BFE? **Yes**

PRIMARY RESILIENCY OPTIONS

Could the basement be filled in? **Yes**

Notes **There is no basement at this residence. The crawlspace is approximately 0.2 feet below the Lowest Adjacent Grade. The space can be filled to match exterior grade, along with the installation of flood vents. While this action alone would minimize the risk of damage to the foundation, it would leave the first floor below the Preliminary BFE.**

Estimated Cost Range to Implement Above Recommendations **$5,000** to **$10,000**

Should the first floor be abandoned? **No**

Notes **Although the first floor elevation is approximately 2.7 feet below the Preliminary BFE, it contains the homeowners main living area (including kitchen, bath and utilities) and cannot be abandoned.**

Estimated Cost Range to Implement Above Recommendations **N/A** to **N/A**

Is it feasible to elevate the whole structure? **Yes**

Notes **It is possible to elevate this home above the DFE. Lifter should consider the fact that several structural reinforcements were performed (sistering of joists and exterior studs; replacement of sill, reinforcing of girder) and that there is possibly balloon framing. If the home is elevated in its entirety all utilities will be located above the Preliminary DFE (13'). The following cost considers lifting the home, constructing new foundations, installing flood vents. Add the cost of fill above.**

Estimated Cost Range to Implement Above Recommendations **$90,000** to **$140,000**

Can any utilities or equipment*** be elevated? **Yes**

Notes **If the structure is elevated, the hot water heater and washer/dryer would be elevated in the process and be above the Preliminary BFE. The exterior A/C condenser needs to be elevated on a higher platform above the Preliminary BFE as well. If home elevation is not considered, the hot water heater and washer/dryer should be relocated to an upper floor and above the Preliminary BFE. Approximately 50 SF would be needed to accommodate.**

Estimated Cost Range to Implement Above Recommendations **$5,000** to **$15,000**

Other Resiliency Comments

Resiliency options include:
1. Elevate the structure in its entirety to above the Preliminary DFE (13').
2. Elevate the hot water heater and washer/dryer to an upper floor and above the Preliminary BFE.
3. Infill existing crawl space and install flood vents. This option would help protect the foundation, but would leave the first floor below the Preliminary BFE.

** This is the Flood Risk Zone and Base Flood Elevation for your property under FEMA's advisory New York City Flood Insurance Rate Map, which was issued in 2013. The advisory map should only be used as a guide for future rates. A final map is under development.

*** Please review pages 3-6 for more detailed information.

‡ The proposed mitigation options listed on page 2 are meant to increase your home's resiliency and have the potential to lower the rate you pay for flood insurance. Proposed mitigation options listed on pages 3-6 are meant to increase your home's resiliency only, but are unlikely to affect your insurance rate.

EXTERIOR

Roof Shape: **Gable**

Other Roof Type: The roof is gable in configuration and covered with asphalt shingles, which were replaced within the past year.

Roof Material: **Asphalt shingle**

Roof Resiliency Comments

The homeowner reported that the roof shingles were damaged during Superstorm Sandy. He also stated that he was contemplating installing solar panels.

Exterior Finish Material: **EFIS**

Exterior Finish Condition: **Poor**

Grading: **Not Visible**

Exterior Grade: **N/A**

Exterior Finish Resiliency Comments

The exterior walls are clad with EIFS. The homeowner reported widespread issues with water intrusion throughout the exterior. Several horizontal cracks were noted on the left wall.

Does the home have a backwater valve?

Unknown

Has the home experienced sewer backflow?

Unknown

Backflow entry point(s)

Unknown

Drainage Resiliency Comments

Drainage is provided by gutters and downspouts which appear to discharge to grade. Discharge was not visible because of snow coverage. No issues were reported by the homeowner.

Wall Framing Type

Balloon

Wall Framing Condition: **Not Visible**

Wall Framing Resiliency Comments

The homeowner stated that balloon framing was used. This could not be verified since access to crawlspace was prevented by hard snow on the ground. Balloon-framing was prevalent for homes of this age.

H/O reported several modifications to the structure including sistering of joists and studs. First floor joists were reportedly damaged during Sandy. The studs were damaged from water infiltration through the EIFS. Sill plates were replaced due to rot.

Garage Resiliency Options

N/A

Garage Comments

There is no attached garage at this residence.

HEATING AND COOLING EQUIPMENT

Heating Equipment Type	AHU	Heating Equipment Condition	Good
Heating Equipment Location	Other	Heating Equipment Can be Elevated?	Yes

Heating Equipment Resiliency Comments

The AHU is located in the attic, well above the Preliminary BFE.

The air handling unit is located in the attic. Forced-air distributes the heat to the living areas.

Cooling Equipment Type	Central	Cooling Equipment Condition	Good
Cooling Equipment Resiliency Options		AHU Can be Elevated?	No
Elevate mechanicals		Condenser Can be Elevated?	Yes

Cooling Equipment Comments

The AHU is in the attic, above the Preliminary BFE. The condenser was replaced after Superstorm Sandy. It is approximately 2' below the Preliminary BFE. Elevate above the Preliminary BFE.

ELECTRICAL EQUIPMENT

Electrical Panel Location	Other	Electrical Panel Condition	Fair
Electrical Meter Location	Out Building	Electrical Meter Condition	Fair
Distribution System Can be Elevated?	N/A		

Electrical Equipment Resiliency Comments

The electric panel was located in the 2nd floor master bedroom and is above the Preliminary BFE.

WATER

Water Treatment Location	N/A	Water Treatment Condition	
Water Treatment Can be Elevated?	N/A	Pumps Can be Elevated?	N/A
Water Treatment Resiliency Comments			No

There is no water treatment system at the residence.

Fuel Tank on Property: Unknown

Notes: The homeowner believes a fuel tank was removed from the premises prior to his ownership. This should be verified as fuel tanks are common for homes of this age.

Hot Water Heater on Property	true	Hot Water Heater Condition	Good
Hot Water Heater Location	1st Floor		

Hot Water Heater Resiliency Comments

The hot water heater was replaced after Superstorm Sandy. It is located in a closet on the first floor which is approx. 2.2' below the Preliminary BFE. Elevate to above the Preliminary BFE.

LAUNDRY EQUIPMENT

Washer Location	1st Floor	Washer Condition	Good
Dryer Location	1st Floor	Dryer Condition	Good
Laundry Resiliency Comments		Washer/Dryer Can be Elevated?	Yes

The washer and dryer are stacked on the first floor. The washer is located approximately 2.2' below the Preliminary BFE. Elevate the structure.

ELEVATORS

Number of Elevators: 0

Notes: There is no elevator installed at the residence.

FOUNDATION

Lowest Level Use	Crawlspace	Machinery in Basement or Crawlspace	false
Foundation Type	Elevated on Crawlspace	Foundation Material	CMU
Foundation Material Conditions	Poor		

Foundation Resiliency Options

Elevate structure;Install flood vents

Foundation Comments

The crawlspace was not accessible due to ice building at the access hatch. There are assumed to be no finish materials located in the crawlspace that are not considered flood damage resistant. Cracks were observed in visible sections of foundation.

Interior Foundation Support Resiliency Comments

The crawlspace was inaccessible to due ice blocking the openings, however, the homeowner stated that a center girder was supported by CMU piers at approximately equal spacing.

FLOODPROOFING

Dry Floodproofing can be Installed in Sub-BFE Space? **No**

Notes: **Due to flood depths at this residence, dry-proofing sub BFE space can be considered.**

Dry Floodproofing Recommended for Mechanical Equipment? **No**

Notes: **Dry floodproofing on a wood floor in a confined areas is not recommended because of access, permeability and accessibility.**

Dry Floodproofing Recommended for Electrical Equipment? **N/A**

Notes: **The electrical equipment is wall mounted on the second floor and is already above the Preliminary BFE.**

Dry Floodproofing Recommended for Floor Drains? **No**

Notes: **N/A - no floor drains were observed.**

This rapid Home Resiliency Assessment and the cost estimates included herein were prepared to present resiliency options pertaining to flooding and climate conditions, are intended to reduce property damage and time of displacement of residents in the event of flooding, and may result in lower flood insurance rates. Some recommendations included are based on information provided by the property owner/owner's agents, and other entities involved in the Residential Technical Assistance Pilot Program (RTAPP), while other recommendations are based on the rapid assessment of an experienced engineer. The information collected and the recommendations included in this report are not to be construed as the result of an in-depth feasibility investigation or a detailed design. No warranty whatsoever is provided by the Center for New York City Neighborhoods, Inc. (the "Center") or its engineers with respect to the information collected or recommendations provided. Actual costs will vary based on findings of additional investigation, design, and market conditions. Upon selection of a path forward, design should be completed by a licensed professional and bids obtained from relevant experienced construction contractors. The Center and its engineers are not liable or responsible in any manner for any designs or for the work, means and methods of any such contractors or professionals.

CENTER for NYC NEIGHBORHOODS

Governor's Office of Storm Recovery

NEW YORK STATE

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GLOSSARY

Advisory Map (a.k.a. preliminary map) New York City successfully challenged the adoption of a preliminary map released by FEMA in 2013 that greatly expanded high-risk flood zones. It is now considered an advisory map.

Base Flood Elevation (BFE) Only properties in high-risk flood zones have a BFE, which reflects the height (in feet) above sea level that flood water is projected to rise in a "100-year" storm — a storm that has a 1% per year chance of occurring.

Basement For the purposes of flood insurance, a basement is lower than ground level on all four sides, and is taller than 5 feet.

Crawlspace If the space is less than 5 feet high, it is a crawlspace.

Datum Referenced There are two sets of standard reference datum for elevations. For consistency, elevations provided on this report have been converted to the datum set referenced.

Design Flood Elevation (DFE) The DFE determines the safest elevation for construction in flood hazard zones. In New York City, the DFE is usually the Base Flood Elevation plus two feet — known as "freeboard," for added safety. Your designer or architect should consult the City Department of Buildings during design and permitting to ensure that they are following the DFE.

Elevation Elevating your home means lifting your home on temporary supports above its current foundation, then building onto or creating a new foundation that is higher, then lowering the home onto the new foundation.

Enclosure A partially or fully shut in an area of an elevated building that is below the lowest elevated floor.

FEMA FEMA stands for the Federal Emergency Management Agency. According to its website, FEMA's "mission is to support citizens and first responders to ensure that as a nation we work together to build, sustain and improve our capability to prepare for, protect against, respond to, recover from and mitigate all hazards." FEMA runs the National Flood Insurance Program (NFIP) and also provides emergency aid after a disaster.

Floodproofing Changes or additions to a property aimed at reducing the risk of flood damage. Examples include installing flood vents, raising your mechanicals, and elevating your home.

Flood Insurance Rate Maps FEMA is tasked with creating special maps that determine flood hazards and insurance premiums in communities. These maps are periodically updated. The current map for New York City was adopted in 1983.

Flood Risk Zones Flood risk zones are geographic areas that denote the level of risk properties face due to flooding. These are lettered zones and are different than the city's evacuation zones. In New York City, the three main zones are: X (low to moderate risk); AE (high risk); and VE (highest risk).

Flood Vents These are openings in a foundation wall that permit water to enter an interior area and exit when flooding recedes, all without the need for human intervention.

Freeboard Freeboard is additional elevation above the Base Flood Elevation, and ensures that construction is at a safer elevation from future flooding. In New York City, this means adding two additional fee above the BFE. Besides increasing safety from floods, freeboard can lead to lower insurance premiums that can help in recouping construction costs.

Lowest Adjacent Grade The lowest elevation of the ground next to the property.

Lowest Level The lowest floor of the lowest enclosed area in a property. This includes the basement. It does not include an unfinished or flood-resistant enclosure used solely for vehicle or other storage.

Machinery Machinery includes heating and cooling equipment, electrical equipment, water treatment, hot water equipment, and/or laundry equipment.

Primary Residence A primary residence is the home that a resident ordinarily lives in most of the time. A home that is occupied by tenants year-round is also a primary residence.

Residential Unit A residential unit is a space reserved largely for dwelling, not for commercial purposes.