Schools in Flood Zones

December 16, 2013

Flood Zones: Areas of Special Flood Hazard

- **V**: Coastal High Hazard Areas, 3’ wave heights
- **AE**: High flood risk… 1% annual-chance flood event
- **Shaded X**: Moderate flood risk… 0.2% annual-chance flood event

- **BFE**: Base Flood Elevation - flood levels expected in High Risk (V or AE) Areas in the 1% annual-chance flood

Schools in AE Flood Zones

- Map updated December 5, 2013
- New York City is now in the “Preliminary Flood Insurance Rate Map” Phase. This means there is a period of public commentary before they are officially adopted.
- Supersedes the previous “Preliminary Work Map”, which superseded the “Advisory Base Flood Elevation (ABFE)” maps. The following site no longer has the maps: http://fema.maps.arcgis.com

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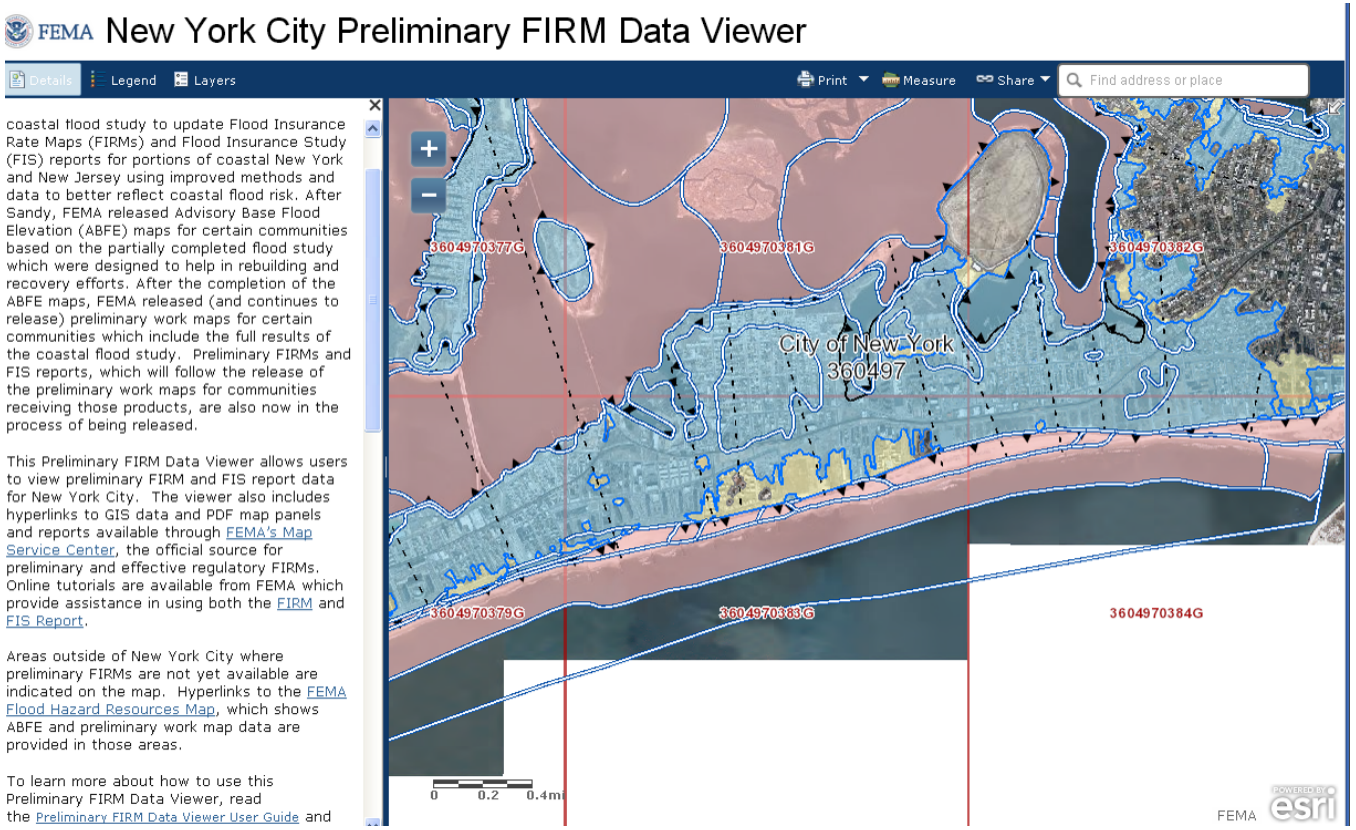
- DOB issued the following bulletin with this updated information.
  - http://www.nyc.gov/html/sirr/html/map/flood_map_update.shtml
- Location of preliminary FIRM maps indicated in that bulletin.
  - http://www.region2coastal.com/
  - http://apps.femadata.com/PreliminaryViewer/?appid=687703427dd347018b8fa2bb0adee979
- Mayor signed into law Intro 990-A. Must use the higher of existing FIRM or preliminary FIRM for projects without a Work Permit by January 4, 2014.

Schools in AE Flood Zones

- 117 Building ID's in AE Flood Zones
  - –http://apps.femadata.com/PreliminaryViewer/?appid=687703427dd347018b8fa2bb0adee979



- 48 impacted by Sandy, including TCU's, mini's and AF's

Schools in AE Flood Zones

- Determine Building location and place on map.
- Any portion of the building that touches the AE zone is thus in the zone. If the site is in the zone but the building isn't, it is not considered in the zone.
- Must use the higher of existing FIRM or preliminary FIRM for projects that do not have a WORK PERMIT by January 4, 2014.

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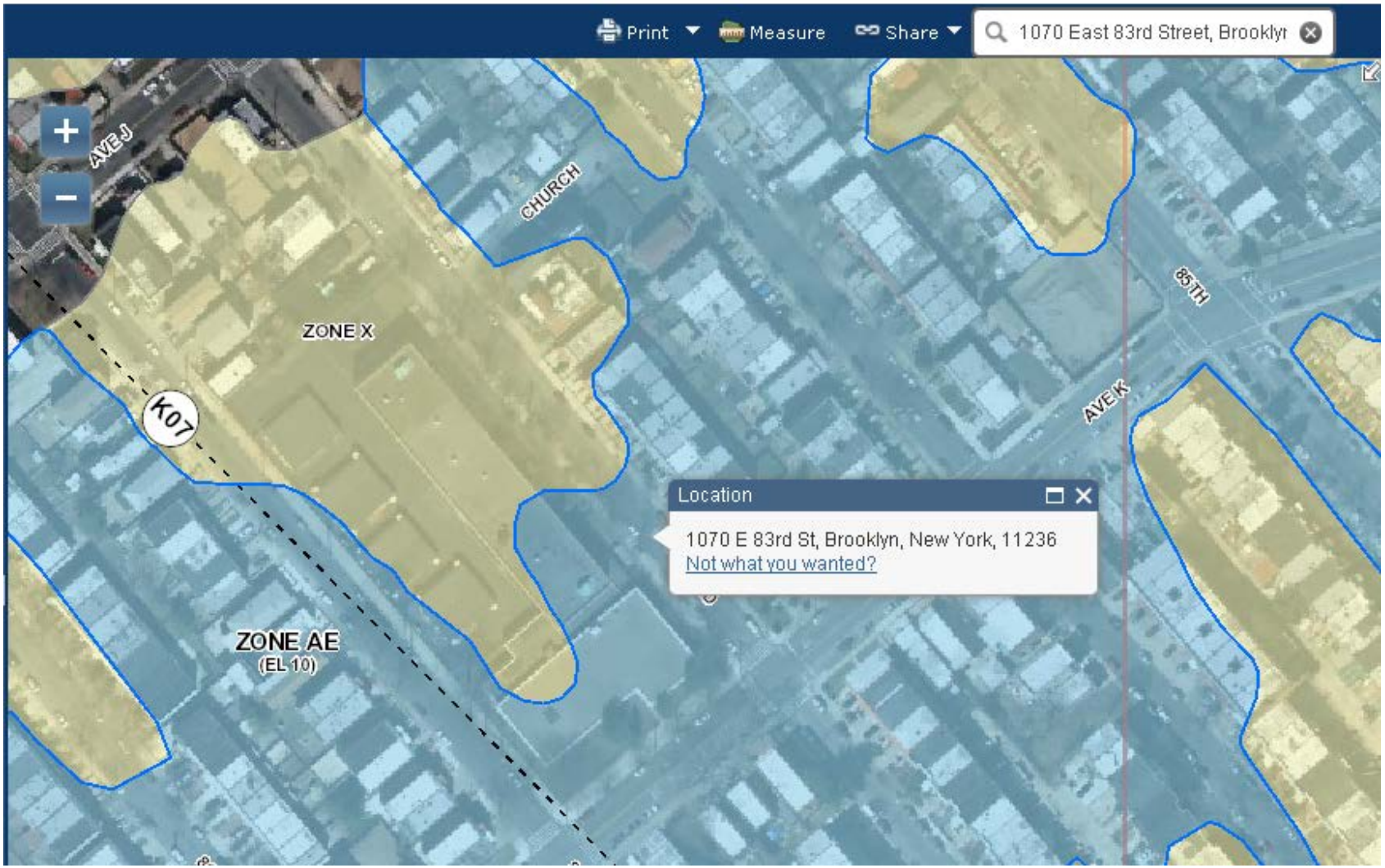
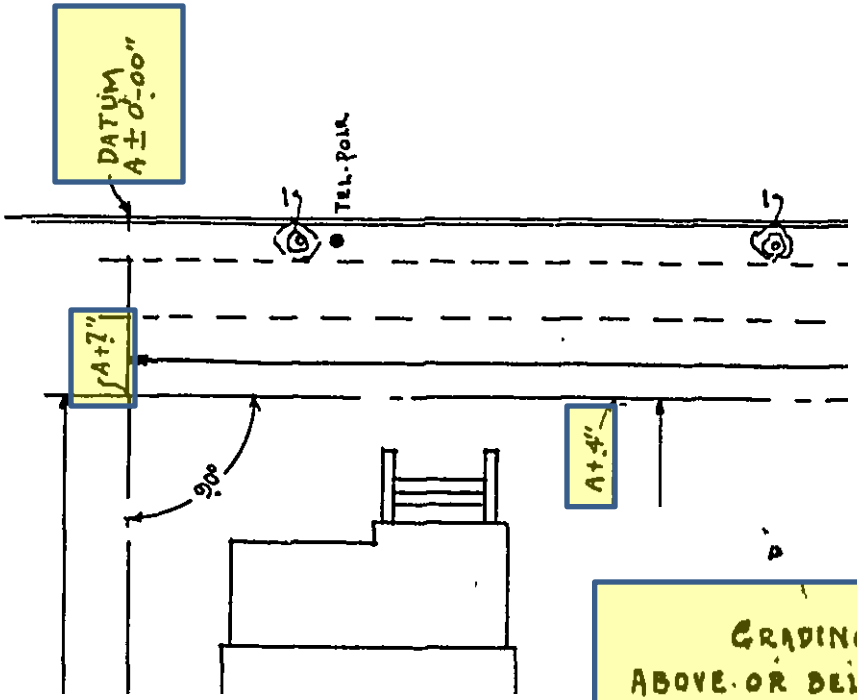
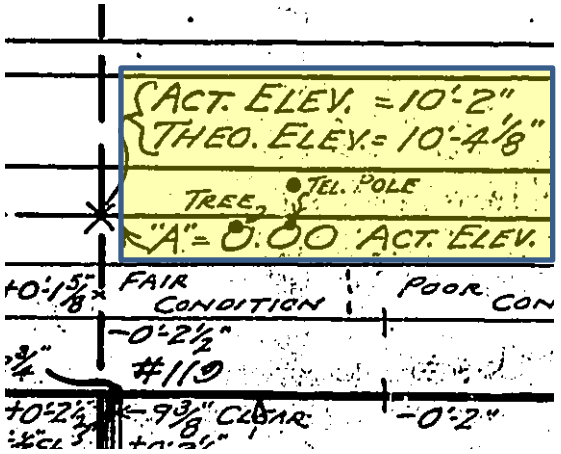
PS 276- Brooklyn



Vertical Datum

- **Project Datum**: project specific with borough datum reference





GENERAL NOTES.

GRADING FIGURES SHOWN THUS -10", +7" DENOTE DISTANCE ABOVE OR BELOW DATUM 'A'.

VERIFY ALL MEASUREMENTS.

GRADE SITE TO SUIT NEW LEVELS.

DIMENSIONS LOCATING BUILDING ARE FIGURED TO THE FIRST STORY WALL LINE.

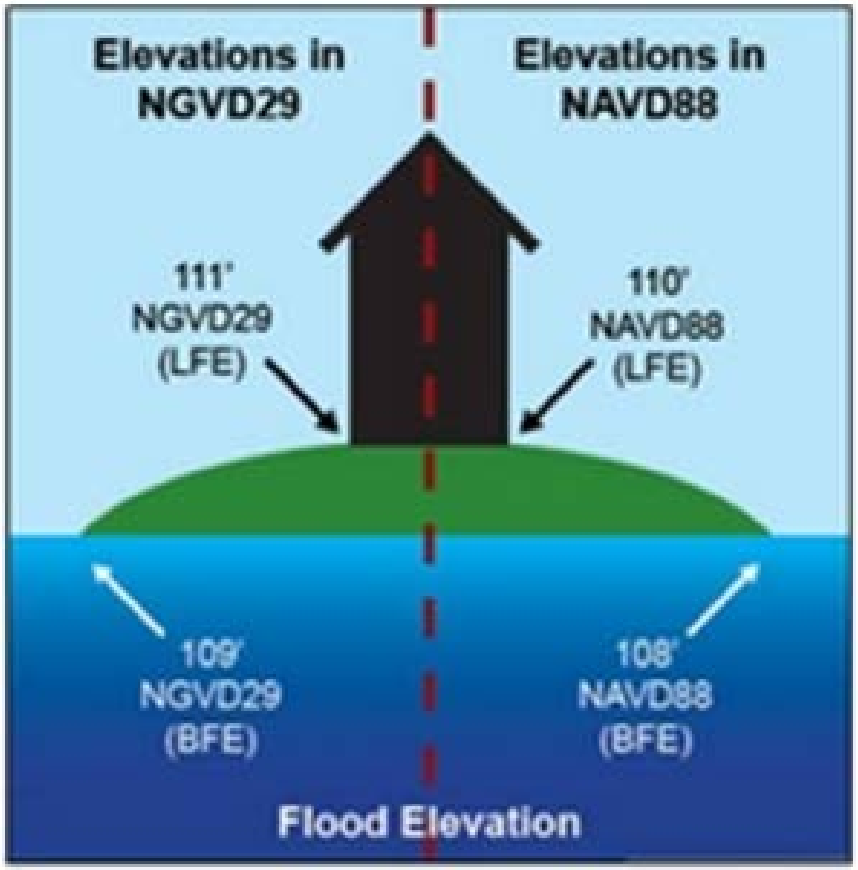
CONTRACTOR TO FURNISH W.I. TREE GUARDS AROUND ALL TREES IN SIDEWALK.

Vertical Datum

- **NGVD 29**: National Geodetic Vertical Datum of 1929

NGVD – 1.1'

= NAVD



- **NAVD 88**: North American Vertical Datum of 1988 -

  More accurate, compatible with mapping technology & GPS

Yes. Please see the table below.

New York City Datum Conversion Table

Find the datum conversion factor value in the table below by locating the current datum of your elevation data in the top row and the datum you'd like to convert to in the left column. Then find the conversion factor value at the intersection of those fields.

Table Usage Instructions: **Step 1:** Find the datum your elevations are currently referenced to in the row to the right. **Step 2:** Find the datum you would like to convert your elevations to in the column below. **Step 3:** At the intersection of those fields, you will find the conversion factor needed to convert your elevations.	NAVD88 Datum	NGVD29 Datum	Bronx Datum	Brooklyn Datum	Manhattan Datum	Queens Datum	Richmond Datum
NAVD88 Datum	N/A	-1.1 feet	+1.508 feet	+1.447 feet	+1.652 feet	+1.625 feet	+2.092 feet
NGVD29 Datum	+1.1 ft	N/A	+2.608 feet	+2.547 feet	+2.752 feet	+2.725 feet	+3.192 feet
Bronx Datum	-1.508 feet	-2.608 feet					
Brooklyn Datum	-1.447 feet	-2.547 feet					
Manhattan Datum	-1.652 feet	-2.752 feet					
Queens Datum	-1.625 feet	-2.725 feet					
Richmond Datum	-2.092 feet	-3.192 feet					

Project Datum: Starts with a Site Plan reference point identified as one of the datum systems below

Borough Datum: Borough Highway Bureau Datum

NGVD: National Geodetic Vertical Datum

NAVD88: North American Vertical Datum of 1988

Use the Yellow Highlighted Cells to enter available datum information to yield other datum

	Borough Datum	2007 FIRMs NGVD	Preliminary Work Maps NAVD88
Manhattan	0	2.752	1.652
Bronx	0	2.608	1.508
Brooklyn	0	2.547	1.447
Queens	0	2.725	1.625
Staten Island	0	3.192	2.092

	Borough Datum	2007 FIRMs NGVD	Preliminary Work Maps NAVD88
Manhattan	-2.752	0	-1.1
Bronx	-2.608	0	-1.1
Brooklyn	-2.547	0	-1.1
Queens	-2.725	0	-1.1
Staten Island	-3.192	0	-1.1

	Borough Datum	2007 FIRMs NGVD	Preliminary Work Maps NAVD88
Manhattan	-1.652	1.1	0
Bronx	-1.508	1.1	0
Brooklyn	-1.447	1.1	0
Queens	-1.652	1.1	0
Staten Island	-2.092	1.1	0

Schools in AE Flood Zones

- Calculations
  - Determine the highest flood elevation from any of the following:
    - Preliminary FIRM (In NAVD)
    - Existing FIRM (In NGVD) – Convert to NAVD
    - Hurricane Sandy – Likely based on Borough Datum, which was based on field observations in relation to building elements. – Convert to NAVD
  - This is the Base Flood Elevation (BFE)
  - Calculate the Design Flood Elevations (DFE) – For School Buildings, it is the BFE + 1’-0” for FIRM or Preliminary Firm. If Sandy is higher, discuss with A&E.

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- Drawings
  - Provide a table showing the DFE elevations for both FIRM and Preliminary FIRM. DOB requires the elevations to be in NAVD.
  - 28-104.7.6 City Datum has been revised so that all projects without a Work Permit by January 4, 2014, shall have elevations in NAVD.