

Owego Apalachin School District
Administration Building

Appendix G

EO 11988 & 11990 Eight-Step
Review Documentation

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EO 11988 & EO 11990 Eight-Step Decision Making Process Summary
Owego Apalachin Central School District, Owego, NY
Owego Apalachin Administration Building Facility Construction Project
FEMA-4031-DR-NY PW 02000

Executive Order 11988 (Floodplain Management) and Executive Order 11990 (Protection of Wetlands) require Federal agencies “to avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of the floodplains/wetlands and to avoid direct or indirect support of floodplains/wetland development wherever there is a practicable alternative.” FEMA’s implementing regulations are contained in 44 CFR Part 9, which includes an Eight-Step Decision Making Process for compliance with this part.

This Eight-Step Decision Making Process is applied to the proposed Owego Apalachin Administration Building Facility Construction Project. The Village of Owego, Tioga County, New York experienced storm damages and flooding from Tropical Storm Lee that occurred September 7, 2011 to September 11, 2011. The storm incident period was declared a major declaration by President Barack H. Obama on September 13, 2011 (amended September 23, 2011). The project purpose is to provide an administration facility for the Owego Apalachin Central School District to restore the functionality of the flood damaged facility at 36 Talcott Street in Village of Owego and reduce future flood damage. The project is described in FEMA-4031-DR-NY PW 02000 (hereon, the Project). The Grantee for the proposed project is the New York State Department of Homeland Security and Emergency Services and the Subgrantee is the Owego Apalachin Central School District.

The project worksheet was originally written to repair the facility in kind and then revised to incorporate flood damage risk reduction measures to floodproof the building by building a floodwall. The Subgrantee’s proposed action, as noted in their submitted alternative analysis documentation, is to construct a new facility along Sheldon Guile Boulevard in the Village of Owego to provide administrative services at a location outside of the 100-year floodplain. This project will utilize alternative procedures for FEMA’s Public Assistance (PA) Program (Section 428) authorized by the Sandy Recovery Improvement Act of 2013. A pilot program using these procedures is being implemented in New York. Applicants may request funding for permanent work based on an estimate for repair, restoration, reconstruction or replacement of a public facility damaged in a disaster. The purpose of the pilot program is to increase flexibility for PA applicants, reduce costs for the PA program, expedite assistance to eligible applicants, and provide financial incentives for timely, cost-effective completion of PA projects. This project would take advantage of this pilot program and available federal funding would be applied through the Section 428 program to the Subgrantee’s preferred alternative.

The steps in this decision making process are steps 1, 2, 3, 4, 5, 6, 7, and 8 per 44 CFR Part 9.5(d), as follows:

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Step 1 Determine if the proposed action is located in, affects or is affected by the Floodplain or Wetland.

The Owego Apalachin Administration Building (36 Talcott Street; GPS: 42.110031, -76.270320) is located in Zone AE within the 100-year floodplain, also referred to as the Special Flood Hazard Area (SFHA), as noted on the National Flood Insurance Program's Flood Insurance Rate Map (FIRM), Community Panel Number 36107C0382E, effective April 17, 2012. The Base Flood Elevation (BFE) at the original facility site is approximately 816 feet NAVD 1988. The elevation of the 100-year base flood elevation plus two feet at the existing facility location is equivalent to the approximate 500-year floodplain elevation. The existing building was determined substantially damaged per the local code enforcement official/floodplain manager. See attached correspondence dated August 29, 2012.

The proposed relocation site for the new facility is located along Sheldon Guile Boulevard in the Village of Owego (GPS: 42.116812 -72.271159). The proposed relocation site is partially located in the 500-year floodplain; however, it is located entirely outside the 100-year floodplain, as noted on FIRM, Community Panel Number 36107C0382E, effective April 17, 2012. The BFE in proximity to the relocation site is approximately 818 feet NAVD 1988. Refer to the FIRM in *Appendix D Subgrantee's Environmental Evaluation Documentation* showing the location of the proposed site location. Neither the existing site nor the proposed relocation site is located within wetlands. The proposed scope of work would not affect wetlands, thus no further wetland analysis is required.

Step 2 Early public notice (Preliminary Notice)

A cumulative public notice for the disaster was published in the *New York Press Service* newspapers on October 10, 2011. As indicated in the notice, "projects and activities may adversely affect historic property, floodplains or wetlands, or may result in continuing vulnerability to damage by flooding...however, certain measures to mitigate the effects of future flooding or other hazards may be included in the work". The notice also states that "mitigation measures will be incorporated on an action by action basis and this (the October 10, 2011 notice) may be the only public notice concerning these actions. In addition, a project specific notice integrated with the Notice of Availability of the National Environmental Policy Act (NEPA) Environmental Assessment will be published in the local newspapers, the *Binghamton Press & Sun-Bulletin*. The public notice will invite comments within 15 days of the publication date of the notice.

Step 3 Identify and evaluate alternatives to locating in the base floodplain.

44 CFR 9.9 (b) requires that FEMA "identify and evaluate practicable alternatives to carrying out a proposed action in floodplains or wetlands, including:

- 1) Alternative sites outside the floodplain or wetland;
- 2) Alternative actions which serve essentially the same purpose as the proposed action, but which have less potential to affect or be affected by the floodplain or wetlands; and

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- 3) No action. The floodplain and wetland site itself must be a practicable location in light of the factors set out in this section.”

Factors to consider in determining practicable alternatives include:

- 1) the natural environment (topography, habitat, hazards, etc.);
- 2) social concerns (aesthetics, historical and cultural values, land patterns, etc.);
- 3) economic aspects (cost of space, construction, services and relocation);
- 4) legal constraints (deeds, leases, etc.); and
- 5) engineering feasibility.

Alternatives considered included:

- 1) The No Action Alternative- facility would remain abandoned or be demolished.
- 2) Proposed Action Alternative - Relocate the project outside the 100-Year floodplain and reunify staff and services back into one facility and reduce flood risks from future storm events. The damaged facility would be demolished.
- 3) Repair with NFIP Compliance Alternative – Repair of the existing facility with floodproofing via a floodwall to bring the structure into code compliance in accordance with the NFIP.

The No Action Alternative would not provide any Federal funding to relocate the Owego Apalachin Administration Building outside of the 100-year floodplain or repair the existing facility (36 Talcott Street) in the 100-year floodplain. It is anticipated that absent Federal financial assistance, the Subgrantee would likely not construct the new facility outside the 100-year floodplain, thus, as the No Action Alternative, the original facility would remain abandoned/rendered safe and secure or be demolished; administrative staff, who previously worked at this location, would necessarily continue to be relocated to other buildings within the school district. If the existing building was not demolished, the Subgrantee would be responsible to bring the structure into code compliance due to the substantial damage determination by the local code enforcement official/floodplain manager. The No Action Alternative would not address the proposed project’s purpose and need.

The Proposed Action Alternative would use eligible Federal funding to relocate the flood-damaged administration building to a new site outside of the 100-year floodplain at Sheldon Guile Boulevard in the Village of Owego. The Subgrantee owns the property proposed for relocation of the administration building. Relocating the facility (i.e., construct a new facility) would help the Subgrantee unify administrative services at the location near the district’s elementary, middle, and high schools. The proposed relocation site is an undeveloped parcel on the Subgrantee’s larger 100+ acre school property. Since the proposed site is located entirely outside the 100-year floodplain and mostly located outside the 500-year floodplain, the site may be less vulnerable to extraordinary flood events. The Subgrantee prefers the relocation alternative with a new facility because one section of the existing facility is over 100 years old and not up to current building codes and standards, and the relocation alternative would further minimize future flood damages and losses that may occur. This alternative would address the project purpose and need. The damaged facility would be demolished.

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The Repair with NFIP Compliance Alternative would involve repair of the building and floodproofing of the facility to the BFE+2 feet via construction of a floodwall. The Subgrantee and FEMA initially considered repairing the flood-damaged administration building (36 Talcott Street) to its pre-disaster design and function. The repairs included upgrading the facility to be compliant with existing safety codes and standards set forth by the New York State Building Code and to meet current Americans with Disabilities Act standards in the damaged areas and connecting travel paths. The facility would also be modified to meet NFIP compliance requirements. The initial floodproofing mitigation measures the Subgrantee proposed to protect the facility from flooding included small-scale dry floodproofing measures, such as installing vent covers, door dams, and window dams to help floodproof the ground floor areas. However, the Subgrantee provided letter documentation from a licensed architect dated June 25, 2012 that stated that the existing building was believed to be substantially damaged and that the existing walls could not sustain the lateral load of 5.8' of floodwaters, such that dry floodproofing of the existing structure was not feasible from an engineering perspective. The letter identified that the only practical means to meet NFIP requirements and the local floodplain code requirements for the existing facility structure was to install a floodwall around the structure to provide flood damage risk reduction to the base floodplain elevation plus two feet. The local code enforcement official/floodplain manager concurred with the findings that the building was substantially damaged and that a floodwall alternative was the only practical floodproofing alternative and recommended demolition and relocation via letter correspondence dated August 29, 2012. Refer to *Appendix G* for referenced letters.

A floodwall alternative was explored for cost estimation and initial feasibility analysis to a concept level of design. The concept floodwall alternative proposed by the Subgrantee would be to construct a 525 foot long x 6 foot high (above grade) cast-in-place concrete floodwall, with a 30-foot deep below grade steel sheet pile cut-off wall, around the building and parking lot. The floodwall project would include two 20-foot wide self-activating floodgates and one 10-foot wide floodgate, a storm water pump station and emergency generator, a sanitary sewer bypass line and pump station, installation of backflow prevention devices on the existing utility lines, and relocation of existing utility pipes as required at the new floodwall footings.

The Village of Owego Floodplain Code dated September 4, 2012 requires that the volume of space occupied by new development below the base flood elevation be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood elevation. Further, all such excavations shall be constructed to drain freely to the watercourse. The Subgrantee identified the following compensatory floodplain mitigation to satisfy local floodplain code for a floodwall alternative. The Subgrantee would acquire three properties immediately east of the Administration Building property, demolish the existing houses, and excavate a 150 foot x 250 foot x 4 foot deep flood retention basin with 2:1 side slopes. The flood retention basin would include all work necessary (excavation, pipe bedding, backfill, pavement repairs, and rip rap at the outfall) to install 2414 feet of 18" diameter High Density Polyethylene drainage pipe from the retention basin to Owego Creek.

As the costs were considerably high for a floodwall with compensatory floodplain mitigation alternative, the Subgrantee identified that it was preferable and prudent to apply available FEMA funding from the 428 PA Program towards a relocation alternative - the proposed action, instead

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of repairing the existing structure with code compliance. The Subgrantee determined that relocating outside the floodplain was practicable for the community and a preferred approach to continued occupancy of the 100-year floodplain. The repair of the existing facility with incorporation of flood damage risk reduction measures to floodproof the facility to at or above the Base Flood Elevation (BFE) for the Special Flood Hazard Area (SHFA) was not furthered for environmental analysis; however, is an alternative maintained for cost comparison and cost-share arrangement considerations handled separate of the EA.

Step 4 Identify impacts of the proposed action associated with occupancy or modification of the floodplain.

The Proposed Action Alternative would have a positive impact on flood damage risk reduction and would not adversely affect the natural habitat values or other functions of the floodplain. The Owego Apalachin Administration Building would be relocated outside of the 100-year floodplain and predominantly outside of the 500-year floodplain; thereby reducing risk of flood damage to the facility and reducing future disruption of the operations of the facility due to flood events. The new building would be sited in the upland portion of the property outside the 500-year floodplain. The 500-year floodplain site development would not induce flooding on downstream or upstream properties. The Subgrantee's engineer documented that the proposed action would not encroach into or displace base flood storage volume.

The existing building would be demolished and removed from the floodplain, minimizing risks to the structure and risks of the building becoming floating debris during future flood events.

Step 5 Design or modify the proposed action to minimize threats to life and property and preserve its natural and beneficial floodplain values.

In order to minimize the risk of future floodplain damage to the existing facility and to comply with EO 11988 and the NFIP, FEMA must minimize potential harm to lives and the investment at risk from the base flood.

Flood damage risk reduction for the Proposed Action Alternative would be addressed via relocation of the facility outside of the 100-Year floodplain.

Stormwater management features would be designed and implemented for the Proposed Action alternative to manage for the increased impervious cover. Construction best management practices would be implemented to minimize potential sedimentation and erosion..

Step 6 Re-evaluate the proposed action.

After evaluating alternatives including impacts and minimization opportunities, as set forth by factors described in 44 CFR Part 9.9(c) and documented in Step 3 of this Eight-Step Review, FEMA has determined that:

- 1) The No Action Alternative would continue floodplain occupancy; and may have a negative impact on the floodplain if the existing building was not demolished and/or not

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properly secured such that materials remain that could become floating debris or pollutant releases during future floods or over time in the floodplain. The No Action Alternative would not be a practicable alternative, as it would not achieve the project purpose or fulfill the project need.

- 2) The Repair with NFIP Compliance Alternative, while practicable from an engineering perspective, would not achieve the flood damage risk reduction benefits that the Subgrantee's preferred relocation alternative would achieve.

The Proposed Action Alternative would relocate the facility outside the 100-Year floodplain and substantially outside the 500-Year floodplain; thereby reducing the risk of flood damage to the facility and reducing future disruption of school operations. The building would be sited outside the 500-year floodplain. The occupancy and development of the 500-year floodplain for site amenities/site grounds is outweighed by the public benefits of the proposed project. Demolition of the existing facility would benefit floodplain function and values. It is practicable for the community to undertake this alternative through applying available Public Assistance Grant funding via the 428 Program.

Step 7 Final Public Notice

FEMA's determination is documented in this summary. This Eight-Step Review as part of the Owego Apalachin Administration Building Environmental Assessment will be made available for public review and comment with a project specific public notice. The Final Public Notice will be integrated with the anticipated Finding of No Significant Impact statement.

Step 8 Implement the action.

The project will be constructed in accordance with the proposed scope of work and applicable floodplain development requirements as described in the project worksheet and per conditions of the federal grant. The Subgrantee is responsible for review of the final building plans and will need to ensure compliance with all applicable Federal, state, and local codes and standards. The Subgrantee will need to obtain all required building and site development permits, as a condition of the Federal grant, to protect the environment, and to minimize risk and harm to life and property. To restore the facility to its pre-disaster functionality, the facility must be sited, elevated or floodproofed to at/above the 100-Year Floodplain utilizing the Best Available Data for 100-year floodplain determination (*Flood Insurance Rate Map Community-Panel Number 36107C0382E dated April 17, 2012*) in accordance with the NFIP and 44 CFR Part 9.

HIGHLAND ASSOCIATES

6/25/2012

Mr. James Mead

Code Enforcement Officer
Village of Owego
20 Elm Street
Owego, NY 13827

RE: Owego Apalachin Central School District - Administration Building
36 Talcott Street
Owego, NY 13827

Dear Mr. Mead,

On behalf of the Owego Apalachin Central School District (OACSD), I am writing to ask you to review and approve our evaluation of flood proofing measures proposed for the OACSD Administration Building.

The 10,500 square foot Administration Building, built in 1912, located at 36 Talcott Street in Owego New York, is a 2 story, non-combustible/combustible type of construction. (Type IIIB per NYSBC) the existing facility is a mixed use occupancy consisting of a "B" (Business) and A-3 (Assembly-Community Hall).

The Administration Building sustained damages in the flood of September 7 and 8, 2011. The estimated cost to repair the building to pre-disaster condition is \$449,422 as per FEMA repair cost estimate¹. The buildings current appraised value is \$336,000². The repair costs are 133.8% of the current appraised value. We believe this qualifies the building as a "substantially damaged" building under NFIP flood plain management regulations.

The existing finish first floor elevation is 812.2' (See attachment A for Certified Elevation Certificates). The entire building is within the flood zone and has a 100 year base flood elevation (B.F.E.) of 816.0'. Flood plain compliance will be required which is +2' above the B.F.E. (818.0'). Refer to Attachment B for flood map.

Finish Floor.....	812.2'
B.F.E.....	816.0'
Design Requirement (BFE + 2').....	818.0'
Flood Proofing Design Required.....	5.8'

The structure is partially constructed of CMU with a brick veneer. The majority of the building is constructed on a dry laid stone foundation. It is unknown if flood waters altered the structural integrity of foundations, footings and wall systems but it assumed some level of damage has occurred based on visual inspections. We do feel the building is safe and is not a concern form a structural standpoint. The building

¹ FEMA Project Worksheet 0C3DE97, CEF Total Project Summary, Part A

² Summary Appraisal Report of 36 Talcott Street, Owego, NY, by Congdon & Company Inc., dated 01/12/2012

Highland Center | 102 Highland Avenue | Clarks Summit, PA 18411 | (570) 586-4334 | fax(570) 586-5990 | www.highlandassociates.com

Donald Kalina, Director Dominic Provuti, RA Kevin Smith, PE Gil Ben-Ami, PE Charles Consagra, AIA Dennis Deocli, AIA Michael G. Dench, AIA Michael Wolf, AIA
Thomas G. Husck, Jr., AIA Jeffrey Pencak, AIA M. Bilal Hasan, PE William M. Flynn, AIA Teddy T. Muliawan, PE Richard J. Gudims, PE Glenn Leitch, AIA
Highland Associates, Ltd. Architecture Engineering Interior Design Highland Associates Architecture Engineering Design, P.C.

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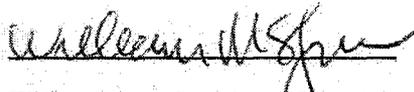
had no design features to prevent flood water intrusion. The water level within the building rapidly equalized to the level of external flooding thereby preventing large scale structural damage to the building.

In an effort to achieve floodplain compliance in accordance with FEMA Regulations¹, we have evaluated options to waterproof the structure. The existing buildings walls cannot support the lateral loading associated 5.8' of flood water against the exterior walls of the building. We have determined the only practical means of obtaining flood plain compliance would be to install a flood wall around the perimeter of the structure and back flow preventers on all service piping. Please refer to Attachment C for site drawing and flood wall design.

If you concur with our conclusion that: 1) the building is "substantially damaged" as defined by NFIP Floodplain Management regulations and 2) installing a flood wall and back flow preventers is the only practical means to obtain flood plain compliance, as mandated by NFIP requirements for "substantially damaged" buildings, please respond with a letter confirming your conclusions.

Should you have any questions, concerns or require additional information, please contact me.

Sincerely,



William Flynn, Principal, AIA, Highland Associates

cc: Dr. William Russell, Superintendent of Schools, Owego Apalachin Central School District



¹ Title 44 CFR, § 60.3 Flood plain management criteria for flood-prone areas.

(c) When the Federal Insurance Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the community shall:

(1) Require the standards of paragraph (b) of this section within all A1-30 zones, AE zones, A zones, AH zones, and AO zones, on the community's FIRM;

(2) Require that all new construction and substantial improvements of residential structures within Zones A1-30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community is granted an exception by the Federal Insurance Administrator for the allowance of basements in accordance with § 60.6 (b) or (c);

(3) Require that all new construction and substantial improvements of nonresidential structures within Zones A1-30, AE and AH zones on the community's firm (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are flood proofed shall be maintained with the official designated by the community under § 59.22(a)(9)(iii);

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expires March 31, 2012

Important: Read the instructions on pages 1-9.

SECTION A - PROPERTY INFORMATION		For Insurance Company Use:
A1. Building Owner's Name	Owego Apalachin Central School District No. 1	Policy Number
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.	36 Talcott Street	Company NAIC Number
City Owego State NY ZIP Code 13827		
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Tax Parcel #: 117.19-2-27		
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Non-Residential</u>		
A5. Latitude/Longitude: Lat. <u>42.1103°</u> Long. <u>76.2704°</u>		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.		
A7. Building Diagram Number <u>1</u>		
A8. For a building with a crawspace or enclosure(s):		A9. For a building with an attached garage:
a) Square footage of crawspace or enclosure(s)	<u>N/A</u> sq ft	a) Square footage of attached garage
b) No. of permanent flood openings in the crawspace or enclosure(s) within 1.0 foot above adjacent grade	<u>N/A</u>	b) No. of permanent flood openings in the attached garage within 1.0 foot above adjacent grade
c) Total net area of flood openings in A8.b	<u>N/A</u> sq in	c) Total net area of flood openings in A9.b
d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number Village of Owego 360840		B2. County Name Tioga County	B3. State New York		
B4. Map/Panel Number 0001	B5. Suffix B	B6. FIRM Index Date 4/06/1973	B7. FIRM Panel Effective/Revised Date 5/16/1977	B8. Flood Zone(s) A-9, A-3	B9. Base Flood Elevation(s) (Zone AO, use base flood depth) 816.5

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in item B9.

 FIS Profile FIRM Community Determined Other (Describe) _____B11. Indicate elevation datum used for BFE in item B9: NGVD 1929 NAVD 1988 Other (Describe) _____A2. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? Yes No
Designation Date _____ CBRS OPA

SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO. Complete items C2.a-h below according to the building diagram specified in item A7. Use the same datum as the BFE.
Benchmark Utilized U.136 Vertical Datum NGVD 1929
Conversion/Comments _____

Check the measurement used.

- | | | |
|--|--------------|---|
| a) Top of bottom floor (including basement, crawspace, or enclosure floor) | <u>812.8</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |
| b) Top of the next higher floor | <u>823.7</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |
| c) Bottom of the lowest horizontal structural member (V Zones only) | <u>N/A</u> | <input type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |
| d) Attached garage (top of slab) | <u>N/A</u> | <input type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |
| e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) | <u>813.1</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |
| f) Lowest adjacent (finished) grade next to building (LAG) | <u>812.3</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |
| g) Highest adjacent (finished) grade next to building (HAG) | <u>816.2</u> | <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support | <u>N/A</u> | <input type="checkbox"/> feet <input type="checkbox"/> meters (Puerto Rico only) |

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

 Check here if comments are provided on back of form. Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No

Certifier's Name	Scott E. Edsall	License Number	49784
Title	V.P.	Company Name	Williams & Edsall Land Surveyors, P.C.
Address	24 NYS Route 96	City	Owego
		State	NY
		ZIP Code	13827
Signature	<i>Scott E. Edsall</i>	Date	2/8/12
		Telephone	607-687-8953

Scott E. Edsall
#49784
2/6/12

IMPORTANT: In these spaces, copy the corresponding information from Section A.	For Insurance Company Use
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 36 Talcott Street	Policy Number
City Owego State NY ZIP Code 13827	Company NAIC Number

SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION (CONTINUED)

Copy both sides of this Elevation Certificate for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments C2.e) Furnace: 813.1'
Electrical Panel: 815.0'
Communication: 814.5'

* High Water (September 2011) = 817.2'

Signature Scott E. [Signature] Date 2/06/12 Check here if attachments

SECTION E - BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1-E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B, and C. For Items E1-E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

- E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).
 - a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ feet meters above or below the HAG.
 - b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ feet meters above or below the LAG.
- E2. For Building Diagrams 8-9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 8-9 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ feet meters above or below the HAG.
- E3. Attached garage (top of slab) is _____ feet meters above or below the HAG.
- E4. Top of platform of machinery and/or equipment servicing the building is _____ feet meters above or below the HAG.
- E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? Yes No Unknown. The local official must certify this information in Section G.

SECTION F - PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner's or Owner's Authorized Representative's Name _____

Address _____ City _____ State _____ ZIP Code _____

Signature _____ Date _____ Telephone _____

Comments _____

Check here if attachments

SECTION G - COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8 and G9.

- G1. The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)
- G2. A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.
- G3. The following information (Items G4-G9) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate Of Compliance/Occupancy issued
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- G7. This permit has been issued for: New Construction Substantial Improvement
- G8. Elevation of as-built lowest floor (including basement) of the building: _____ feet meters (PR) Datum _____
- G9. BFE or (in Zone AO) depth of flooding at the building site: _____ feet meters (PR) Datum _____
- G10. Community's design flood elevation _____ feet meters (PR) Datum _____

Local Official's Name _____ Title _____

Community Name _____ Telephone _____

Signature _____ Date _____

Comments _____

Check here if attachments

Building Photographs

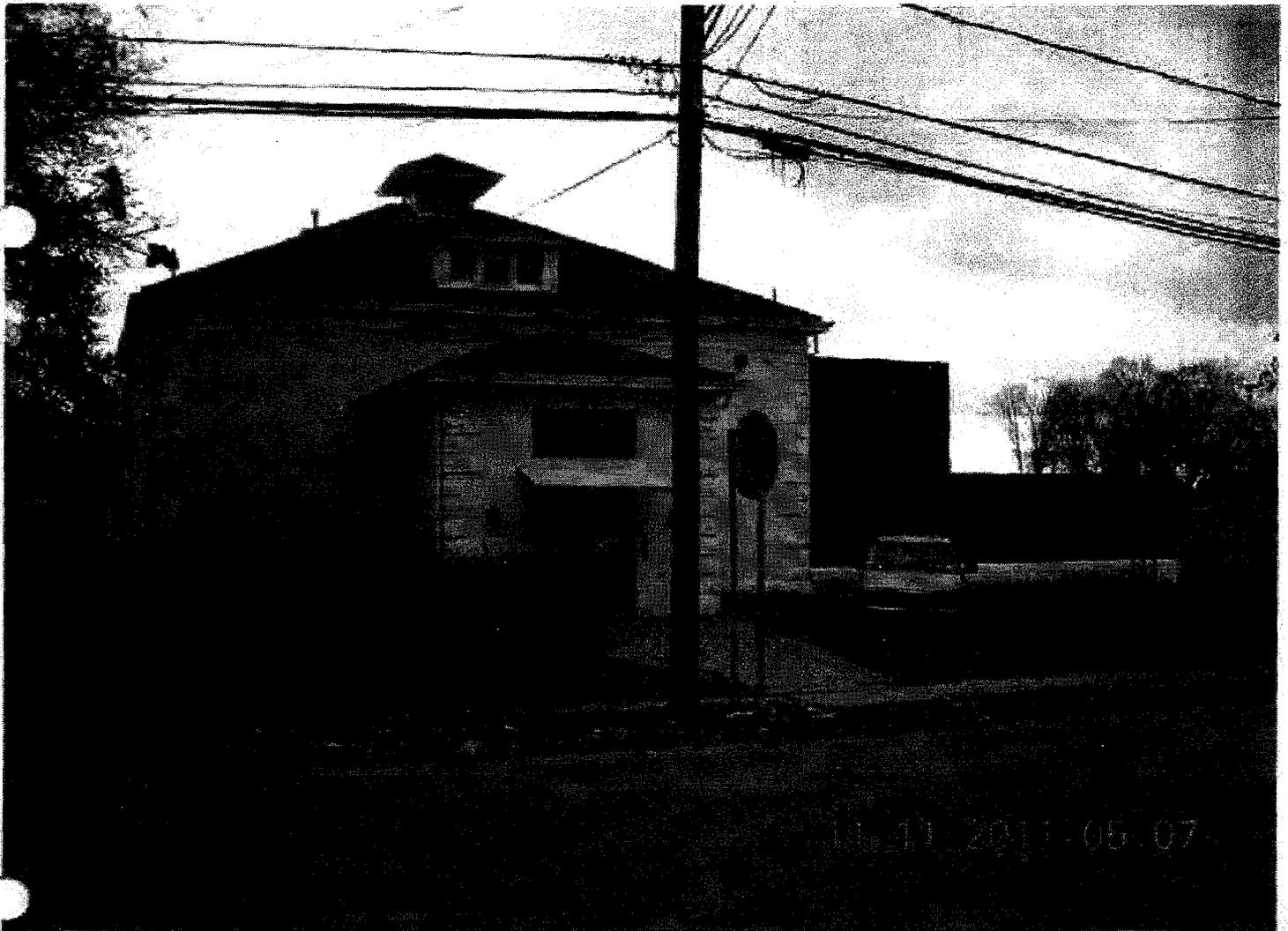
See Instructions for Item A6.

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 36 Talcott Street	For Insurance Company Use: Policy Number
City Owego State NY ZIP Code 13827	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least two building photographs below according to the instructions for Item A6. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." If submitting more photographs than will fit on this page, use the Continuation Page on the reverse.

Front View

November 11, 2011



Building Photographs

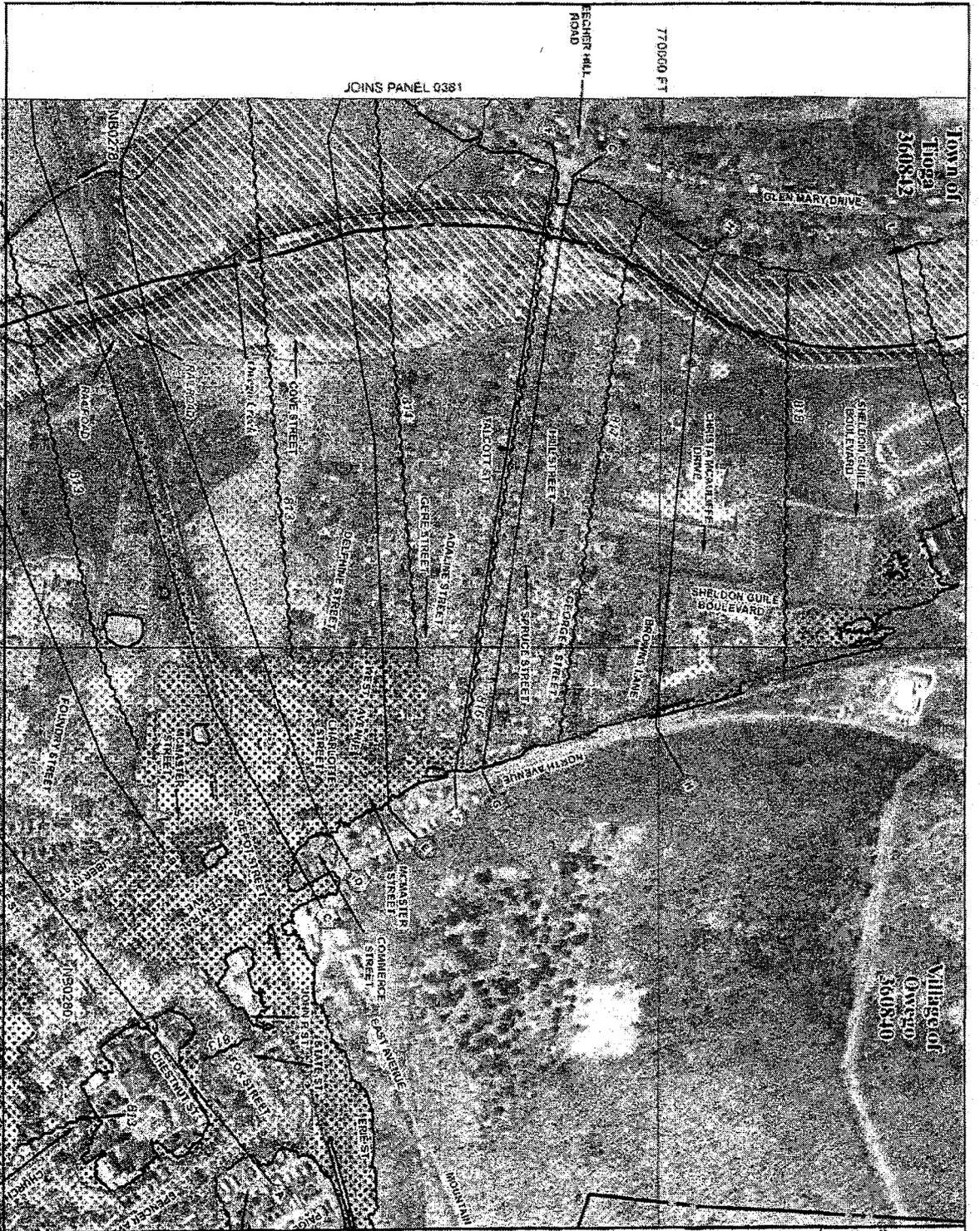
Continuation Page

Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. Talcott Street	For Insurance Company Use: Policy Number
City Owego State NY ZIP Code 13827	Company NAIC Number
If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View."	

Rear View

November 11, 2011





JOINS PANEL Q381

770960 FT

Town of
HOPE
360842

Village of
OWYEGO
360840



NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

PANEL Q381 ZE

FOR TECHNICAL ASSISTANCE AND INFORMATION:
FEDERAL EMERGENCY MANAGEMENT AGENCY
400 ANDERSON DRIVE
WASHINGTON, DC 20548

OWNER	NUMBER
OWYEGO TOWN OF	360819
OWYEGO VILLAGE OF	360840
HOPE TOWN OF	360842

PANEL Q381 ZE

MAP NUMBER
3610/0382E

EFFECTIVE DATE
APRIL 17, 2012

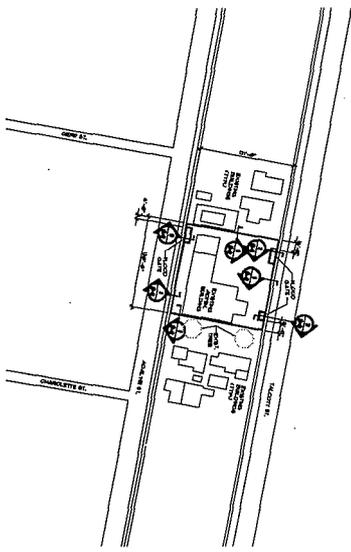
MAP NUMBER
3610/0382E

EFFECTIVE DATE
APRIL 17, 2012

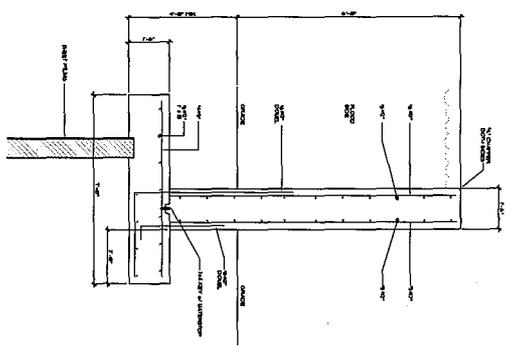
Federal Emergency Management Agency

Attachment B

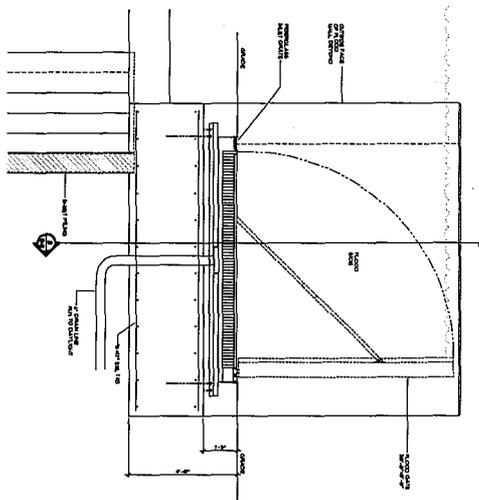
This map is a reproduction of the original map as shown on the National Flood Insurance Program's website. It is not intended to be used as a legal document. The information on this map is for informational purposes only. The information on this map is not intended to be used as a legal document. The information on this map is for informational purposes only.



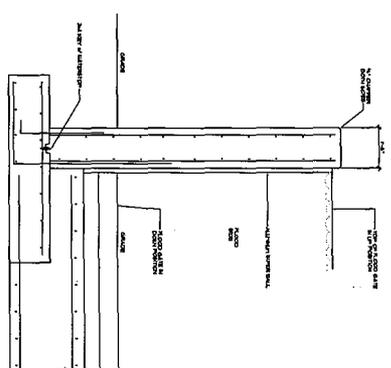
1
FLOOD WALL PLAN



A-A
SECTION



B-B
SECTION



C-C
SECTION

- GENERAL NOTES**
1. VERIFY PROPOSED NOTES BY FIELD CHECK OF ALL EXISTING UTILITIES SHALL APPLY.
 2. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND STRUCTURES.
 3. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 4. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 5. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 6. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 7. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 8. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
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 10. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
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 12. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 13. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 14. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 15. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 16. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 17. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 18. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 19. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.
 20. ALL STRUCTURES SHALL BE DESIGNED FOR A DESIGN FLOOD WAVE HEIGHT OF 17.5 FEET.

HIGHLAND
ARCHITECTS

Address: [Redacted]
Phone: [Redacted]
Fax: [Redacted]

Attachment C

ISSUED FOR PERMITS
NOT FOR CONSTRUCTION

Owego Aquatics
Central School
District

Flood Remediation
Owego, New York

FLOOD WALL MAIN
SECTION DETAILS
GENERAL NOTES

DATE: [Redacted]
DRAWN BY: [Redacted]
CHECKED BY: [Redacted]
DATE: [Redacted]
PROJECT NO: [Redacted]

FOUNDED 1787

Village of Owego

20 Elm Street

Owego, New York 13827



Office of the Mayor
Village Clerk/Treas.
FAX
Sewer Dept.
FAX

607/687-1710
607/687-3555
607/687-1787
607/687-2282
607/687-2344

Village Police Dept.
FAX
Dept. of Public Works/Code
FAX
Village Garage

607/687-2233
607/687-2235
607/687-1101
607/687-1062
607/687-1221

TO: Owego Apalachin Central School District Administration

DATE: July 24, 2012

RE: Owego Apalachin Central School District - Flood Proofing

To Whom It May Concern;

After reviewing the reports by Highland Associates on the flood proofing measures for the Owego Apalachin School bus garage/storage building, administration building and the maintenance building, it is our opinion that the conclusion that flood walls around the three separate properties is the only practical means of flood proofing compliance.

Having said that, the Village of Owego feels that the best true remediation of the structures is to demolish and remove all three structures.

Sincerely,

Jeffery J. Soules

Superintendent of Public Works



FOUNDED 1787
Village of Owego
20 Elm Street
Owego, New York 13827

Office of the Mayor	607/687-1710	Village Police Dept	607/687-2231
Village Clerk/Treas	607/687-3555	FAX	607/687-2235
FAX	607/687-1787	Dept. of Public Works/Code	607/687-4101
Sewer Dept	607/687-2282	FAX	607/687-1967
FAX	607/687-2341	Village Garage	607/687-1221

TO: Owego Apalachin Central School District Administration

DATE: August 29, 2012

RE: Owego Apalachin Central School District - Flood Proofing

TO: Dr. William Russell

After reviewing the reports by Highland Associates regarding flood proofing measures for the Owego Apalachin School District and on August 29, 2012 visiting and inspecting three sites; the bus garage/storage building, the maintenance building on Elm Street along with the administration building located on Talcott Street, there is no question that all three sites are substantially damaged from the flood of September 8, 2011. The proposed flood walls, in my opinion, are the only practical means of flood proofing compliance.

Given the facts from visiting the three structures, and reviewing the proposed flood walls, this office feels that the most effective remediation is to demolish and remove all three structures from the flood plain.

Sincerely,

James S. Mead
Code Enforcement Officer/Floodplain Manager
Village of Owego