



ANDREW M. CUOMO
Governor

**STATE ENVIRONMENTAL QUALITY REVIEW ACT
DETERMINATION OF NON-SIGNIFICANCE (NEGATIVE DECLARATION)
RESTORATION AND FLOOD MITIGATION PROJECT AT GULF BROOK
ESSEX COUNTY, NY**

DATE: February 5, 2019

NAME OF ACTION: Restoration and Flood Mitigation Project at Gulf Brook

LOCATION: Mitigation measures within and adjacent to Gulf Brook at 44°15'25.36" North and -73°47'35.72" West, southeast reach and 44°15'27.43" North and -73°46'40.43" West, northwest reach. The project is located near the Town of Keene, near the intersection of NYS Routes 73 and 9N, Essex County, New York

SEQRA CLASSIFICATION: Type I; Unlisted

REVIEW TYPE: Coordinated; Uncoordinated

DETERMINATION OF SIGNIFICANCE: Negative Declaration; Positive Declaration

The Proposed Project:

The project is the implementation of various stream restoration and flood mitigation measures within Gulf Brook (also known as Jones Brook). The proposed project area is within the bed, banks and adjacent upland areas of Gulf Brook. The proposed project actions are located upstream approximately 1,000 feet east of the intersection of Jackson Road and Hurricane Road to the downstream confluence of Gulf Brook and the East Branch of the Ausable River. The project starts at the northwest (upstream) coordinate of 44°15'25.46" North and -73°46'40.41" to the southeast (downstream) coordinate of 44°15'22.95" North and -73°47'31.87" (See Attachment 1 and Attachment 2) The project has been designed in two phases as described below.

Gulf Brook Phase 2

The project will include the excavation and re-shaping of approximately 1,100 linear feet of channels and bank stabilization to address constrictions caused by the two bridges. Two bridges span Gulf Brook - a New York Department of Transportation Bridge on Route 9N and a smaller Essex County Bridge (also referred to as Bucks Lane Bridge) that provides access to several private residences. The Bucks Lane Bridge will be dismantled, removed and replaced with a new 45-foot span concrete bridge. The bridge at Route 9N will not be modified, but sediment will be removed from underneath the bridge to accommodate a new river vertical alignment. These improvements will increase water and sediment transport capacity of Gulf Brook and restore its natural function. This project will protect private and municipal properties in the Town of Keene from future flooding at Gulf Brook. The project may require and realignment of the outfall into East Branch of the Ausable River.

The proposed project includes the construction of cross channel boulder vanes and boulder clusters within Gulf Brook (see Attachment 3, Sheet C.201). Both banks of Gulf Brook will be stabilized by using vegetated Type VI rock slope projection (see Attachment 3, Sheet C.401).

Tree and brush removal will be required. The project area will be restored and vegetated.

Land acquisition will be required. Acquisition for this project will involve the relocation of one existing structure. In addition, certain permanent and/or temporary parcels may be acquired to allow the project to succeed. The extent of property acquisition will be determined during the design phase of the project.

These improvements will increase water and sediment transport capacity of Gulf Brook and restore its natural function. This project will protect private and municipal properties in the Town of Keene from future flooding at Gulf Brook. The project may require replacement of the County Bridge and realignment of the outfall into East Branch of the Ausable River.

Gulf Brook Phase 3

The Gulf Brook Phase 3 project will include five distinct projects areas. These areas begin on the Auer property and continue upstream of the Hurricane Road bridge at Jackson Road. During Tropical Storm Irene, damage to these five areas included: destruction of an undersized bridge; undermining of the road embankment and stream banks; severe deposition of woody debris and coarse sediment; severe erosion and down cutting in the river channel (i.e., incision); and large slope failure, which contributed significant amounts of sediment and debris to the stream channel. The following flood mitigation and restoration measures will be implemented along this segment of Gulf Brook to protect downstream infrastructure, homes and businesses from future storm events:

- Removal of spoils, debris, and sediment;
- Floodplain / flood chute reconnection by re-grading and “roughening” the floodplain;
- Installation of grade control structures (i.e. weirs) to slow flood flow velocity and encourage the capture of debris and sediment;
- Stabilizing road banks (armoring and bioengineered stabilization techniques);
- Slope and toe protection at the base of the steep banks that failed; and
- Bioengineering to stabilize the upper slope.

A conceptual design and resilience Improvement Recommendation have been completed. (See Attachment 4)

During Hurricane Irene, rainfall caused Gulf Brook to overflow its banks and flow down the center of Route 9N. Floodwater inundated roadways, homes and businesses and caused severe damage. Completion of the proposed project fosters the recovery of the community by reducing the risk of localized flooding for the residences and businesses in the Town of Keene and by providing a flood-safe area for redevelopment of residential and commercial facilities in the Town.

The severe slopes and instability of the stream bank contributed to slope failure, deposition of tons of debris and degradation of aquatic habitat. The impacts to the project area from Hurricane Irene caused unprecedented destruction of the natural features of the riparian environment. Since the storm, some efforts have succeeded in the reconstruction of much of the damaged infrastructure as well as the protection of some properties from damage in future storms, but while these measures have stabilized the channel banks and provided flood mitigation in specific areas, properties adjacent to other parts of the stream, particularly downstream of the Bucks Lane Bridge still remain vulnerable.

The proposed project (both phases) will provide flood mitigation for approximately 1,100 linear feet and address constrictions caused by the two bridges. Additionally, the proposed project will also provide flood mitigation to 2,500 linear feet of flood mitigation measures starting immediately upstream of the Ticknor property and continue upstream of the Hurricane Road bridge. These improvements will increase water and sediment transport capacity of Gulf Brook and restore its natural function.

The proposed project will mitigate intermittent flood related damage due to excessive rainfall events by expanding the capacity of Gulf Brook to transport water and sediment through required changes in the channel and the two bridges, creating a flood resistant area for residents and businesses. The mitigation activity will reduce the risk of localized flooding for residences and businesses in the target area.

Purpose and Need:

The Town of Keene is built on an alluvial fan formed where Gulf Brook exits a steep mountain canyon and meets the valley bottom. In its current state, Gulf Brook is straightened and confined between the bluff and NYS Routes 9N and 73. There are two bridges that span Gulf Brook: a New York State Department of Transportation Bridge on Route 9N and a smaller Essex County Bridge (referred to as Bucks Lane Bridge) that provides access to several private residences. During Hurricane Irene, Gulf Brook overflowed its banks and flowed down the center of Main Street and severely damaged more than a dozen properties, including the Keene Firehouse, the public library, a medical center, several small businesses and a number of private residential properties. The proposed project will provide flood mitigation for approximately 3,600 linear feet of Gulf Brook, stream bed, slopes, and upland areas. The project consists of two phases, Phase II is approximately 1,100 linear feet and address constrictions caused by the bridges and sediment/debris channel deposits in Gulf Brook from the confluence with the Ausable River to upstream of Bucks Lane Bridge. Phase III consists of 2,500 linear feet of flood mitigation measures starting immediately upstream of the Ticknor property and continue upstream past the intersection of Jackson Road and Hurricane Road. These improvements will increase the water and sediment transport capacity of Gulf Brook and restore its natural function.

The proposed project will mitigate intermittent flood-related damage due to excessive rainfall events by expanding the capacity of Gulf Brook to transport water and sediment through required changes in the channel and the two bridges, creating a flood resistant area for residents and businesses. The mitigation activity will reduce the risk of localized flooding for residences and businesses in the target area

Existing Conditions:

During Hurricane Irene, rainfall caused Gulf Brook to overflow its banks and flow down the center of Route 9N. Floodwater inundated roadways, homes and businesses and caused severe damage. Completion of the proposed project fosters the recovery of the community by reducing the risk of localized flooding for the residences and businesses in the Town of Keene and by providing a flood-safe area for redevelopment of residential and commercial facilities in the Town.

The severe slopes and instability of the stream bank contributed to slope failure, deposition of tons of debris and degradation of aquatic habitat. The impacts to the project area from Hurricane Irene caused unprecedented destruction of the natural features of the riparian environment. Since the storm, some efforts have succeeded in the reconstruction of much of the damaged infrastructure and to protect some properties from damage in future storms, but while these measures have stabilized the channel banks and provided flood mitigation in specific areas, properties adjacent to other parts of the stream, particularly downstream of the Bucks Lane Bridge remain vulnerable.

Funding:

The total project cost is estimated at \$3,709,196.30. GOSR proposes to allocate funding pursuant to the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant-Disaster Recovery (CDBG-DR) program as authorized by the Disaster Relief Appropriations Act of 2013 (Public

Law 113-2, approved January 29, 2013). The NYS Housing Trust Fund Corporation (HTFC), which administers the CDBG-DR program funds on behalf of GOSR, intends to approve funding for the proposed project as described in this notice.

Environmental Considerations:

All work will be completed in accordance with permit conditions which are protective of the environment. The Proposed Project might require:

- Adirondack Park Agency Permit (APA Project No. 2018-0002) application submitted 1/2/2018
- USACE Nationwide Permit 3
- NYSDEC Article 15, Stream Disturbance
- Clean Water Act Section 401, Water Quality Certification.
- NYSDOT- Highway Work Permit

The Proposed Project requires NYSHCR CDBG-DR funding. Additionally, work will be conducted in accordance with Town of Keene Town Board approvals with over sight by Essex County. The Essex County Department of Public Works will be contacted in regarding to any digging and work within the right-of-way.

The Proposed Project is a permitted use and does not require any zoning changes.

No remediation sites were identified within a 2,000-foot radius of the project site.

GOSR submitted a consultation on August 28, 2017 to the USFWS for mitigation in the lower portion of Gulf Brook, known as Gulf Brook Phase II. Twelve trees will be removed from the lower portion of Gulf Brook. According to the USFWS Information, Planning and Conservation (IPaC) online planning tool and Trust Resource List generated for the proposed project the endangered Indiana Bat (*Myotis sodalis*) and the threatened Northern Long-eared bat (NLEB) (*Myotis septentrionalis*) can be found within the vicinity of the project area.

GOSR submitted a second consultation to the USFWS on November 5, 2018 for the upper portion of Gulf Brook known as Gulf Brook Phase III. The upper portion of Gulf Brook includes 5 work areas. The USFWS IPaC online tool Trust Resource List generated for the five project areas lists the following Federally-listed species as having the potential to occur within the vicinity of the proposed project: Indiana Bat (*Myotis sodalis*) endangered and NLEB (*Myotis septentrionalis*) – threatened. Primary habitat associated with bats include trees. Approximately 0.25 acres of trees will be removed from the five project areas.

NYSDEC conducted a Phase I Summer Habitat Assessment conducted on October 26, 2018 for the five project areas and found: Project Areas 2–5: these areas are at a high enough location (elevation) that Indiana bats would not be a concern (IPaC only lists NLEB). The project areas are about 11.5 – 12.5 miles from the nearest known NLEB hibernation site and is nearly 17 miles from the nearest Indiana bat occurrence. Project Area 1: this project area is low enough that IPaC lists both NLEB and Indiana bats. There are a few snags and trees that are large enough to be potential roosts. To minimize potential impacts to the IB and NLEB, tree clearing will take place from November 1 to March 31, which is outside of the active season of the IB and NLEB. If winter tree is determined at latter to be infeasible, an acoustic survey will be completed after May 15, 2019 or emergence surveys will be completed as determined by consultation with USFWS.

A consultation letter was submitted to NYNHP on 10/10/2018. A response indicating that NYNHP had no records of rare or state-listed animals or plants, or significant natural communities directly at the project site was received on 10/29/2018.

The Town of Keene is located in the Adirondack Park, the largest publicly protected area in the contiguous United States. The Adirondack Park encompasses over 6 million acres of land, approximately 46% of which is owned

by New York State (NYS). Keene serve as gateways to the High Peaks region of the Adirondack Park. The scenic beauty of the area and its tremendous recreational opportunities are a driver of tourism and, for many residents, a prime reason to live in Keene.

The geographic constraints of the Adirondack Mountains and the Ausable River shaped and limited where development could occur when Keene was first settled. Since the establishment of the Adirondack Park, the presence of forest preserves and the creation of the Adirondack Park Land Use and Development Plan (APLUDP) have further influenced development by introducing regulations designed to minimize the impact on the Park.

Keene encompasses the 5,344-foot Mount Marcy, which is New York State's tallest peak. Although Keene is approximately 165 square miles in size, more than half of the area is too rugged to have ever been settled, and a majority of the land is classified by NYS as 'Forever Wild.' The trailheads of some of the most popular hiking and climbing in the Adirondack Park are located in Keene along Route 73.

Recreational tourism and ecotourism are critically important to the economy of Town of Keene. Historically the area has attracted artists, authors and philosophers who came for the summer months and stayed in guesthouses and hotels. That tradition continues today, with the presence of the Au Sable Club, a private club located in St. Huberts in the southern part of town, and a variety of bed and breakfasts and small inns. Keene, which has approximately 1,100 year-round residents, nearly doubles during the summer months, when those with summer homes return to spend time in the Region.

The environmental setting of the Town of Keene makes it prone to flooding as a result of runoff from heavy rains, ice jams, and from snowmelt and the presence of Beede Brook, Johns Brook, Gulf Brook, and Styles Brook. These tributaries to the Ausable River descend from steep mountain headwaters. As they reach the valley floor and the grade changes, they slow down, fan out, and deposit sediment. Over time, this sediment accumulates into geomorphic features called alluvial fans. An alluvial fan is a dynamic feature, with the main channel sometimes changing course during larger flood events. This was evident during Hurricane Irene, where tributaries swollen with runoff and debris encountered obstacles (bridges, roads, etc.), changed course, and impacted houses, small businesses, and infrastructure. For example, runoff was unable to pass under the Route 73 Bridge on Little Johns Brook. As a result, it backed up and diverted course, inundating multiple properties in the center of Keene Valley that lie well outside the mapped Federal Emergency Management Agency (FEMA) floodplain.

Based on Flood Insurance Map 3611510025C, Phase 2 of the project area is within mapped Special Flood Hazard Area (SFHA) Zone A. The remainder of the project mapped as flood zone C. The project is within a flood hazard area and a 5-step floodplain management plan was prepared and followed. The project in total will not have any long-term negative effects on floodplain.

The New York State Historic Preservation Officer (SHPO) has determined that the proposed project would not affect historic properties (Attachment 6). In addition, representatives of the Representatives of the St. Regis Mohawk Tribe were sent consultation letters. The no comments were received from the tribe.

The project site is not located over a Federal Sole Source Aquifer.

The project site is not located within the boundaries of a New York State Coastal Zone.

Standard Requirements:

Any change to the Proposed Project as described will require re-evaluation by GOSR's Certifying Officer for compliance with SEQRA and other law, regulations and policies.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local

environmental permits and clearances may jeopardize federal funding.

Additional Mitigation Measures:

To the extent required and/or practicable, any approval of the proposed project is subject to following mitigation measures being adhered to by the grant recipient to minimize environmental impacts and create a more sustainable project:

- Construction and demolition – to the maximum extent possible, utilize local and recycled materials in construction process and recycle materials generated onsite.
- Clean diesel – implement diesel controls, cleaner fuel, and cleaner construction practices for on-road and off-road equipment used for transportation, soil movement, or other construction activities, including:
 - Strategies and technologies that reduce unnecessary idling, including auxiliary power units, the use of electric equipment, and strict enforcement of idling limits; and
 - Use of clean diesel through add-on control technologies like diesel particulate filters and diesel oxidation catalysts, repowers, or newer, cleaner equipment.
- Stormwater – utilize low impact development (LID) principles such as minimizing effective imperviousness to create site drainage, and the planting of native and non-invasive vegetation on the project site for stormwater management purposes. Other LID practices can include bio retention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements;
- Cost-efficient, environmentally friendly landscaping – EPA’s GreenScapes program provides cost-efficient and environmentally friendly solutions for landscaping;
- Energy efficiency – energy-efficient technologies should be incorporated into the station house when possible; and
- Water conservation and efficiency – promote water conservation and efficiency through use of water efficient products (toilets, faucets, showerheads) and practices. Consider use of products with the WaterSense label where appropriate.

In addition to the factors considered above, the GOSR considered the following guidance from the State Environmental Quality Review Act and its implementing regulations and determined that the Proposed Action would:

- (i) Not result in “a substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems;” (§617.7(c)(1)(i))
- (ii) Not result in “the removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impacts on a significant habitat area; substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species; or other significant adverse impacts to natural resources;”(§617.7(c)(1)(iii))
- (iii) Not result in “the impairment of the environmental characteristics of a Critical Environmental Area as designated pursuant to subdivision 617.14(g) of this Part;” (§617.7(c)(1)(iii))
- (iv) Not result in “the creation of a material conflict with a community’s current plans or goals as officially approved or adopted;” (§617.7(c)(1)(iv))
- (v) Not result in “the impairment of the character or quality of important historical, archaeological, architectural, or aesthetic resources or of existing community or neighborhood character;” (§617.7(c)(1)(v))
- (vi) Not result in “a major change in the use of either the quantity or type of energy;” (§617.7(c)(1)(vi))
- (vii) Not result in “the creation of a hazard to human health;” (§617.7(c)(1)(vii))

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- (viii) Not result in “a substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses;” (§617.7(c)(1)(viii))
- (ix) Not result in “the encouraging or attracting of a large number of people to a place or places for more than a few days, compared to the number of people who would come to such place absent the action;” (§617.7(c)(1)(ix))
- (x) Not result in “the creation of a material demand for other actions that would result in one of the above consequences;” (§617.7(c)(1)(x))
- (xi) Not result in “changes in two or more elements of the environment, no one of which has a significant impact on the environment, but when considered together result in a substantial adverse impact on the environment; or (§617.7(c)(1)(xi))

Therefore, GOSR, acting as Lead Agency, and having prepared a Long Environmental Assessment Form (EAF), has determined that the proposed action will not have a significant effect on the environment and a Draft Environmental Impact Statement will not need to be prepared.



Lori A. Shirley
Certifying Officer
Governor’s Office of Storm Recovery
38-40 State Street
Albany, NY 12207
Office: (518) 474-0755
Lori.Shirley@nyshcr.org

Environmental Assessment Form
Negative Declaration Distribution List

Attachments:

- Attachment 1 – Site Location Figure
- Attachment 2 - Site Aerial Figure
- Attachment 3 – Gulf Brook Channel Phase 2 Design Plans
- Attachment 4 – Gulf Brook Restoration –Up Stream Resilience Improvement Recommendations (Phase 3)
- Attachment 5 – USFWS and NYSDEC NHP Reviews
- Attachment 6 - NYS SHPO and Tribal Consultations
- Attachment 7 – Lead Agency Letter Responses

A copy of this Notice and attachments is available at the following web address:

<http://www.stormrecovery.ny.gov/environmental-docs>

The attachments are large and therefore, have not been mailed out.

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either “Yes” or “No”. If the answer to the initial question is “Yes”, complete the sub-questions that follow. If the answer to the initial question is “No”, proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Essex County Gulf Brook Restoration and Flood Mitigation Project		
Project Location (describe, and attach a general location map): Confluence of Ausable River and Gulf Brook, Intersection of NYS Routes 73 and 9N, Hamlet of Keene, Town of Keene, Essex County, New York.		
Brief Description of Proposed Action (include purpose or need): The project is the implementation of various stream restoration and flood mitigation measures within Gulf Brook (also identified as Jones Brook). The proposed project area is within the bed, banks and adjacent upland areas of Gulf Brook. The proposed project actions are located upstream approximately 1,000 feet east of the intersection of Jackson Road and Hurricane Road to the downstream confluence of Gulf Brook and the East Branch of the Ausable River. The project starts at the northwest (upstream) coordinate of 44°15'25.46" North and -73°46'40.41" to the southeast (downstream) coordinate of 44°15'22.95" North and - 73°47'31.87". The project has been designed in two phases. Phase II includes the lower section of Gulf Brook, approximately 1,100 feet upstream from the confluence of the East Branch Ausable River. The project will include the excavation and re-shaping of channels and bank stabilization to address constrictions caused by the two bridges and dismantlement, removal and replacement with a new 45' span concrete bridge of the Essex County Bridge (Bucks Lane Bridge). Phase III project will include approximately 2,500 linear feet in the upper portion of Gulf Brook. Phase III has five distinct projects areas and is planned to include removal of spoils, debris and sediment from Gulf Brook, flood chute re-grading, grade control structures, stabilizing road banks, slope and toe protection and bioengineering to stabilize upper slopes.		
Name of Applicant/Sponsor: Essex County	Telephone: (518) 873-3895	E-Mail: areynolds@co.essex.ny.us
Address: P.O. Box 217		
City/PO: Elizabethtown	State: NY	Zip Code: 12932
Project Contact (if not same as sponsor; give name and title/role): Anna Reynolds	Telephone: (518) 873-3895	E-Mail: areynolds@co.essex.ny.us
Address: P.O. Box 217		
City/PO: Elizabethtown	State: NY	Zip Code: 12932
Property Owner (if not same as sponsor): The are 18 individual property owners along the stream banks.	Telephone:	E-Mail:
Address: Access agreements will be obtained.		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. (“Funding” includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Council, Town Board, <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No or Village Board of Trustees	Town of Keene Town Board	
b. City, Town or Village Planning Board or Commission <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
c. City Council, Town or Village Zoning Board of Appeals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
d. Other local agencies <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
e. County agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Essex County DPW - Digging/Right-of-Way Permit	
f. Regional agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Adirondack Park Agency - Major Permit	
g. State agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	New York State DEC - (multiple permits) New York State DOT - Highway Work Permit	
h. Federal agencies <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	HUD CDBG-DR funding; USACE - Nationwide Permit (NWP) #3	2014
i. Coastal Resources. <ul style="list-style-type: none"> i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No iii. Is the project site within a Coastal Erosion Hazard Area? <input type="checkbox"/>Yes <input checked="" type="checkbox"/>No 		

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? Yes No

- **If Yes**, complete sections C, F and G.
- **If No**, proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? Yes No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? Yes No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) Yes No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? Yes No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. Yes No
If Yes, what is the zoning classification(s) including any applicable overlay district?

b. Is the use permitted or allowed by a special or conditional use permit? Yes No

c. Is a zoning change requested as part of the proposed action? Yes No

If Yes,

i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Keene Central School District

b. What police or other public protection forces serve the project site?
New York State Police and Essex County Sheriff

c. Which fire protection and emergency medical services serve the project site?
Keene Fire Department

d. What parks serve the project site?
Not applicable.

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mix of residential, commercial and recreational

b. a. Total acreage of the site of the proposed action? _____ 10.8 acres
b. Total acreage to be physically disturbed? _____ 10.8 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? _____ 1.82 acres

c. Is the proposed action an expansion of an existing project or use? Yes No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? Yes No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)

_____ Yes No

ii. Is a cluster/conservation layout proposed? Yes No

iii. Number of lots proposed? _____

iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will proposed action be constructed in multiple phases? Yes No

i. If No, anticipated period of construction: _____ months

ii. If Yes:

- Total number of phases anticipated _____ 2
- Anticipated commencement date of phase 1 (including demolition) _____ 3 month _____ 2019 year
- Anticipated completion date of final phase _____ 3 month _____ 2020 year

• Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: Work will completed from the downstream area to upstream and may need to stop due to weather. The upstream portion will be completed after the downstream.

f. Does the project include new residential uses? Yes No
 If Yes, show numbers of units proposed.

	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>	<u>Multiple Family (four or more)</u>
Initial Phase	_____	_____	_____	_____
At completion	_____	_____	_____	_____
of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? Yes No
 If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____ height; _____ width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? Yes No
 If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: Ground water Surface water streams Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source. _____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? Yes No
 (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)
 If Yes:

i. What is the purpose of the excavation or dredging? Clear storm debris and sediments from stream channel

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): > 100 tons (actual amounts will be field determined)
- Over what duration of time? Assumed to be over a period of 3 to 6 months

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.
Naturally occurring upland stream debris (trees, shrubs), bed load boulders and sediments.

iv. Will there be onsite dewatering or processing of excavated materials? Yes No
 If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ < 10 acres

vi. What is the maximum area to be worked at any one time? _____ < 4 acres

vii. What would be the maximum depth of excavation or dredging? _____ < 5 feet

viii. Will the excavation require blasting? Yes No

ix. Summarize site reclamation goals and plan: _____
Establish stable flow conditions in the stream by removal of storm placed debris. Stream slopes and banks will be stabilized and new vegetation established

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? Yes No
 If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): Stream No. 830-303; Ausable River, East Branch

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:
 Approximately 550 linear feet of brook bank will be excavated and reconstructed further away from the brook to accommodate the channel widening, with vegetated rock armor. Approximately 910 linear feet of brook banks will be excavated and reconstructed in place with vegetated rock armor. Approximately 390 linear feet of the brook banks will be excavated and replaced with a retaining wall. The replacement of the existing 25-foot span of the Bucks Lane Bridge will impact approximately 50 linear feet of banks.

iii. Will proposed action cause or result in disturbance to bottom sediments? Yes No
 If Yes, describe: _____

iv. Will proposed action cause or result in the destruction or removal of aquatic vegetation? Yes No
 If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____
- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

c. Will the proposed action use, or create a new demand for water? Yes No
 If Yes:

i. Total anticipated water usage/demand per day: _____ gallons/day

ii. Will the proposed action obtain water from an existing public water supply? Yes No
 If Yes:

- Name of district or service area: _____
- Does the existing public water supply have capacity to serve the proposal? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No
- Do existing lines serve the project site? Yes No

iii. Will line extension within an existing district be necessary to supply the project? Yes No
 If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____
- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? Yes No
 If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

vi. If water supply will be from wells (public or private), maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? Yes No
 If Yes:

i. Total anticipated liquid waste generation per day: _____ gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

iii. Will the proposed action use any existing public wastewater treatment facilities? Yes No
 If Yes:

- Name of wastewater treatment plant to be used: _____
- Name of district: _____
- Does the existing wastewater treatment plant have capacity to serve the project? Yes No
- Is the project site in the existing district? Yes No
- Is expansion of the district needed? Yes No

• Do existing sewer lines serve the project site? Yes No
 • Will line extension within an existing district be necessary to serve the project? Yes No
 If Yes:
 • Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? Yes No
 If Yes:
 • Applicant/sponsor for new district: _____
 • Date application submitted or anticipated: _____
 • What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans):

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? Yes No
 If Yes:
 i. How much impervious surface will the project create in relation to total size of project parcel?
 _____ Square feet or _____ acres (impervious surface)
 _____ Square feet or _____ acres (parcel size)
 ii. Describe types of new point sources. _____

 iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

 • If to surface waters, identify receiving water bodies or wetlands: _____

 • Will stormwater runoff flow to adjacent properties? Yes No

iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? Yes No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? Yes No
 If Yes, identify:
 i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

 ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

 iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? Yes No
 If Yes:
 i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) Yes No
 ii. In addition to emissions as calculated in the application, the project will generate:
 • _____ Tons/year (short tons) of Carbon Dioxide (CO₂)
 • _____ Tons/year (short tons) of Nitrous Oxide (N₂O)
 • _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
 • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆)
 • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflouorocarbons (HFCs)
 • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? Yes No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? Yes No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust): _____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? Yes No

If Yes:

i. When is the peak traffic expected (Check all that apply): Morning Evening Weekend
 Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of semi-trailer truck trips/day: _____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? Yes No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____

vi. Are public/private transportation service(s) or facilities available within 1/2 mile of the proposed site? Yes No

vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? Yes No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? Yes No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? Yes No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): _____

iii. Will the proposed action require a new, or an upgrade to, an existing substation? Yes No

l. Hours of operation. Answer all items which apply.

<p>i. During Construction:</p> <ul style="list-style-type: none"> • Monday - Friday: <u>7 am to 5 pm</u> • Saturday: <u>None</u> • Sunday: <u>None</u> • Holidays: <u>None</u> 	<p>ii. During Operations:</p> <ul style="list-style-type: none"> • Monday - Friday: <u>NA</u> • Saturday: <u>NA</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u>
--	---

<p>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes:</p> <p>i. Provide details including sources, time of day and duration: <u>Noise from construction machinery during construction hours</u></p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe: _____</p>	
<p>n. Will the proposed action have outdoor lighting? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes:</p> <p>i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures: _____</p>	
<p>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Describe: _____</p>	
<p>o. Does the proposed action have the potential to produce odors for more than one hour per day? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____</p>	
<p>p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Product(s) to be stored _____</p> <p>ii. Volume(s) _____ per unit time _____ (e.g., month, year)</p> <p>iii. Generally describe proposed storage facilities: _____</p>	
<p>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe proposed treatment(s): _____</p>	
<p>ii. Will the proposed action use Integrated Pest Management Practices? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If Yes:</p> <p>i. Describe any solid waste(s) to be generated during construction or operation of the facility:</p> <ul style="list-style-type: none"> • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) <p>ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ <p>iii. Proposed disposal methods/facilities for solid waste generated on-site:</p> <ul style="list-style-type: none"> • Construction: _____ • Operation: _____ 	

s. Does the proposed action include construction or modification of a solid waste management facility? Yes No
 If Yes:
 i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____
 ii. Anticipated rate of disposal/processing:
 • _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
 • _____ Tons/hour, if combustion or thermal treatment
 iii. If landfill, anticipated site life: _____ years

t. Will proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? Yes No
 If Yes:
 i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

 ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

 iii. Specify amount to be handled or generated _____ tons/month
 iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

 v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? Yes No
 If Yes: provide name and location of facility: _____

 If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.
 i. Check all uses that occur on, adjoining and near the project site.
 Urban Industrial Commercial Residential (suburban) Rural (non-farm)
 Forest Agriculture Aquatic Other (specify): Hamlet - community (residential, municipal, business)
 ii. If mix of uses, generally describe:

b. Land uses and coverytypes on the project site.

Land use or Coverytype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces			
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)	1.82	1.82	
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: _____ _____			

c. Is the project site presently used by members of the community for public recreation? Yes No
i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? Yes No
If Yes,
i. Identify Facilities:

e. Does the project site contain an existing dam? Yes No
If Yes:
i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____
iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? Yes No
If Yes:
i. Has the facility been formally closed? Yes No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? Yes No
If Yes:
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? Yes No
If Yes:
i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: Yes No
 Yes – Spills Incidents database Provide DEC ID number(s): _____
 Yes – Environmental Site Remediation database Provide DEC ID number(s): _____
 Neither database
ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? Yes No
If yes, provide DEC ID number(s): _____
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

v. Is the project site subject to an institutional control limiting property uses? Yes No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? Yes No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? _____ 40 feet

b. Are there bedrock outcroppings on the project site? Yes No
 If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site: Gravelly sand including cobbles and _____ 100 %
large boulders _____ %
 _____ %

d. What is the average depth to the water table on the project site? Average: _____ 6-12 feet

e. Drainage status of project site soils: Well Drained: _____ 100 % of site
 Moderately Well Drained: _____ % of site
 Poorly Drained _____ % of site

f. Approximate proportion of proposed action site with slopes: 0-10%: _____ 76 % of site
 10-15%: _____ % of site
 15% or greater: _____ 24 % of site

g. Are there any unique geologic features on the project site? Yes No
 If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? Yes No

ii. Do any wetlands or other waterbodies adjoin the project site? Yes No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? Yes No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 830-303 Classification AA (T)
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters (APA Wetland) Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? Yes No
 If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? Yes No

j. Is the project site in the 100 year Floodplain? Yes No

k. Is the project site in the 500 year Floodplain? Yes No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? Yes No
 If Yes:
 i. Name of aquifer: Principal Aquifer

m. Identify the predominant wildlife species that occupy or use the project site: _____ _____ _____	
n. Does the project site contain a designated significant natural community? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <i>i.</i> Describe the habitat/community (composition, function, and basis for designation): _____ _____ <i>ii.</i> Source(s) of description or evaluation: _____ <i>iii.</i> Extent of community/habitat: <ul style="list-style-type: none"> • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres 	
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Trees provide habitat for the Federal listed threatened Northern-Long Eared Bat and endangered Indiana Bat. Trees will be removed during the winter. If winter tree cutting is not feasible, a survey and/or acoustic survey will be conducted to determine the presence of bats.	
p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, give a brief description of how the proposed action may affect that use: <u>Fishing in streams, access to stream may be somewhat limited</u>	
E.3. Designated Public Resources On or Near Project Site	
a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, provide county plus district name/number: _____	
b. Are agricultural lands consisting of highly productive soils present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>i.</i> If Yes: acreage(s) on project site? _____ <i>ii.</i> Source(s) of soil rating(s): _____	
c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <i>i.</i> Nature of the natural landmark: <input type="checkbox"/> Biological Community <input type="checkbox"/> Geological Feature <i>ii.</i> Provide brief description of landmark, including values behind designation and approximate size/extent: _____ _____ _____	
d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes: <i>i.</i> CEA name: _____ <i>ii.</i> Basis for designation: _____ <i>iii.</i> Designating agency and date: _____	

<p>e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on, or has been nominated by the NYS Board of Historic Preservation for inclusion on, the State or National Register of Historic Places?</p> <p>If Yes:</p> <p>i. Nature of historic/archaeological resource: <input type="checkbox"/> Archaeological Site <input type="checkbox"/> Historic Building or District</p> <p>ii. Name: _____</p> <p>iii. Brief description of attributes on which listing is based: _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>g. Have additional archaeological or historic site(s) or resources been identified on the project site?</p> <p>If Yes:</p> <p>i. Describe possible resource(s): _____</p> <p>ii. Basis for identification: _____</p>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>h. Is the project site within five miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource?</p> <p>If Yes:</p> <p>i. Identify resource: NYS Route 73, High Peaks Scenic Byway</p> <p>ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): _____</p> <p>iii. Distance between project and resource: _____ miles.</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666?</p> <p>If Yes:</p> <p>i. Identify the name of the river and its designation: <u>Ausable River, East Branch</u></p> <p>ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666?</p>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

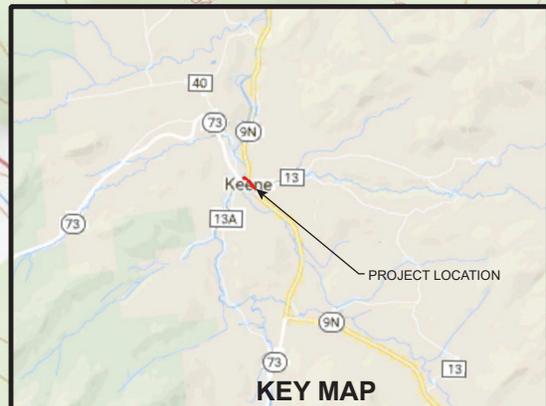
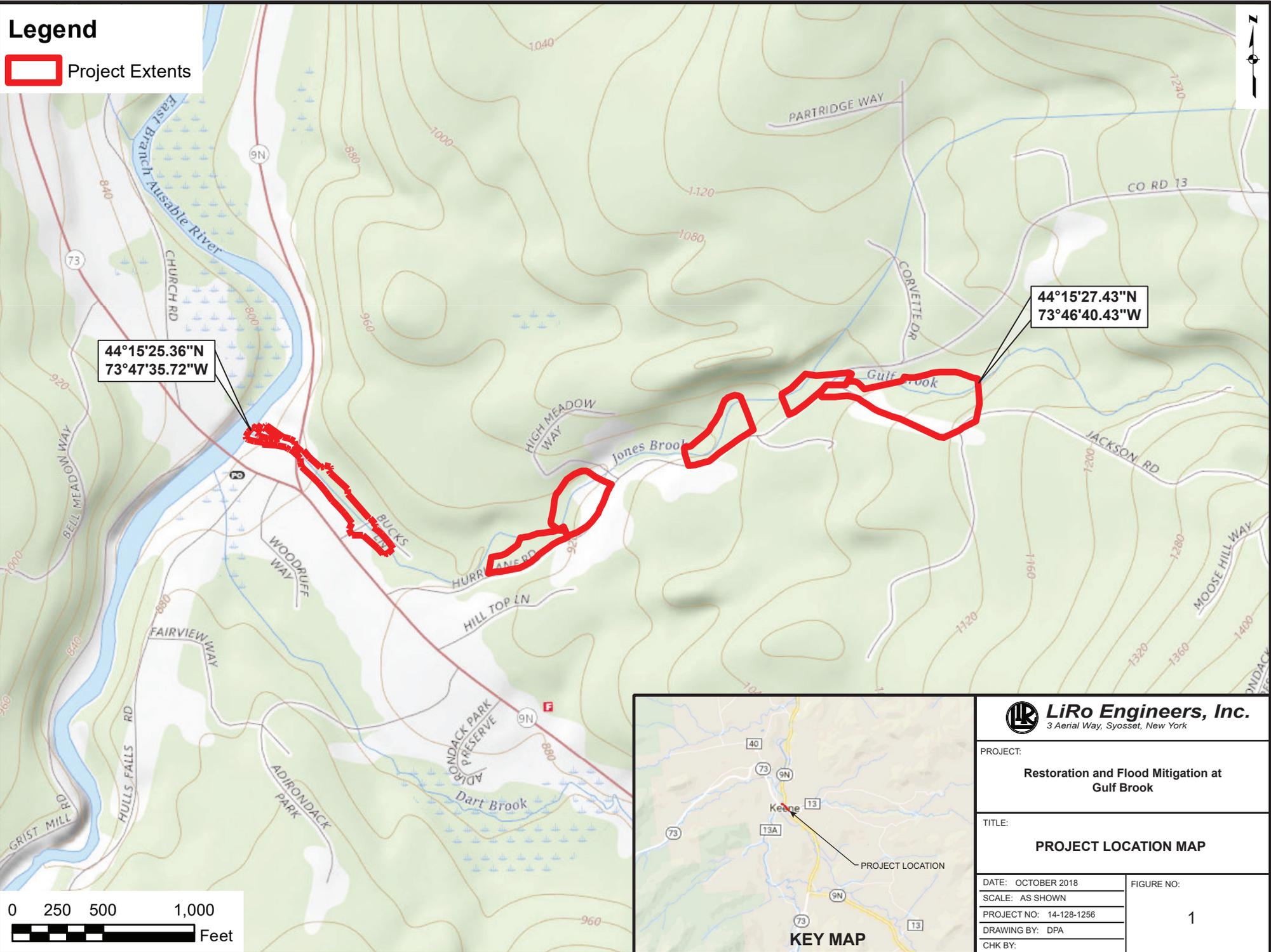
I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Essex County Community Resources Date 12-14-2018

Signature  Title Director of Community Resources

Legend

 Project Extents



 LiRo Engineers, Inc. <small>3 Aerial Way, Syosset, New York</small>	
PROJECT: Restoration and Flood Mitigation at Gulf Brook	
TITLE: PROJECT LOCATION MAP	
DATE: OCTOBER 2018 SCALE: AS SHOWN PROJECT NO: 14-128-1256 DRAWING BY: DPA CHK BY:	FIGURE NO: <p style="text-align: center; font-size: 24px;">1</p>

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Project :

Date :

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency’s reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer “**Yes**” to a numbered question, please complete all the questions that follow in that section.
- If you answer “**No**” to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box “Moderate to large impact may occur.”
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the “whole action”.
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land			
Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1)		<input type="checkbox"/> NO	<input type="checkbox"/> YES
<i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

2. Impact on Geological Features The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g) <input type="checkbox"/> NO <input type="checkbox"/> YES <i>If "Yes", answer questions a - c. If "No", move on to Section 3.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

3. Impacts on Surface Water The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h) <input type="checkbox"/> NO <input type="checkbox"/> YES <i>If "Yes", answer questions a - l. If "No", move on to Section 4.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	<input type="checkbox"/>	<input type="checkbox"/>

I. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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4. Impact on groundwater The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) <i>If "Yes", answer questions a - h. If "No", move on to Section 5.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	<input type="checkbox"/>	<input type="checkbox"/>
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

5. Impact on Flooding The proposed action may result in development on lands subject to flooding. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. E.2) <i>If "Yes", answer questions a - g. If "No", move on to Section 6.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in development within a 100 year floodplain.	E2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in development within a 500 year floodplain.	E2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	<input type="checkbox"/>	<input type="checkbox"/>
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	<input type="checkbox"/>	<input type="checkbox"/>

g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
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6. Impacts on Air			
The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If "Yes", answer questions a - f. If "No", move on to Section 7.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels: i. More than 1000 tons/year of carbon dioxide (CO ₂) ii. More than 3.5 tons/year of nitrous oxide (N ₂ O) iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs) iv. More than .045 tons/year of sulfur hexafluoride (SF ₆) v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions vi. 43 tons/year or more of methane	D2g D2g D2g D2g D2g D2h	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may reach 50% of any of the thresholds in "a" through "c", above.	D2g	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

7. Impact on Plants and Animals			
The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If "Yes", answer questions a - j. If "No", move on to Section 8.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	<input type="checkbox"/>	<input type="checkbox"/>

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____	E1b	<input type="checkbox"/>	<input type="checkbox"/>
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	<input type="checkbox"/>	<input type="checkbox"/>
j. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

8. Impact on Agricultural Resources			
The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.)		<input type="checkbox"/> NO	<input type="checkbox"/> YES
<i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	<input type="checkbox"/>	<input type="checkbox"/>
h. Other impacts: _____		<input type="checkbox"/>	<input type="checkbox"/>

9. Impact on Aesthetic Resources The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>				<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	<input type="checkbox"/>	<input type="checkbox"/>		
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	<input type="checkbox"/>	<input type="checkbox"/>		
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>		

10. Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>				<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on the National or State Register of Historical Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places.	E3e	<input type="checkbox"/>	<input type="checkbox"/>		
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	<input type="checkbox"/>	<input type="checkbox"/>		
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	<input type="checkbox"/>	<input type="checkbox"/>		

d. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>
e. If any of the above (a-d) are answered “Moderate to large impact may occur”, continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	<input type="checkbox"/>	<input type="checkbox"/>
ii. The proposed action may result in the alteration of the property’s setting or integrity.	E3e, E3f, E3g, E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>

11. Impact on Open Space and Recreation			
The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) <i>If “Yes”, answer questions a - e. If “No”, go to Section 12.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or “ecosystem services”, provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	<input type="checkbox"/>	<input type="checkbox"/>
e. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

12. Impact on Critical Environmental Areas			
The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) <i>If “Yes”, answer questions a - c. If “No”, go to Section 13.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	<input type="checkbox"/>	<input type="checkbox"/>
c. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

13. Impact on Transportation The proposed action may result in a change to existing transportation systems. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.j) <i>If "Yes", answer questions a - f. If "No", go to Section 14.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action will degrade existing transit access.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

14. Impact on Energy The proposed action may cause an increase in the use of any form of energy. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.k) <i>If "Yes", answer questions a - e. If "No", go to Section 15.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	<input type="checkbox"/>	<input type="checkbox"/>
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light The proposed action may result in an increase in noise, odors, or outdoor lighting. <input type="checkbox"/> NO <input type="checkbox"/> YES (See Part 1. D.2.m., n., and o.) <i>If "Yes", answer questions a - f. If "No", go to Section 16.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may result in routine odors for more than one hour per day.	D2o	<input type="checkbox"/>	<input type="checkbox"/>

d. The proposed action may result in light shining onto adjoining properties.	D2n	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	<input type="checkbox"/>	<input type="checkbox"/>
f. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.)
If "Yes", answer questions a - m. If "No", go to Section 17.

NO

YES

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	<input type="checkbox"/>	<input type="checkbox"/>
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	<input type="checkbox"/>	<input type="checkbox"/>
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	<input type="checkbox"/>	<input type="checkbox"/>
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	<input type="checkbox"/>	<input type="checkbox"/>
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	<input type="checkbox"/>	<input type="checkbox"/>
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	<input type="checkbox"/>	<input type="checkbox"/>
m. Other impacts: _____ _____			

17. Consistency with Community Plans			
The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) <i>If “Yes”, answer questions a - h. If “No”, go to Section 18.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action’s land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	<input type="checkbox"/>	<input type="checkbox"/>
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	<input type="checkbox"/>	<input type="checkbox"/>
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	<input type="checkbox"/>	<input type="checkbox"/>
h. Other: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

18. Consistency with Community Character			
The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) <i>If “Yes”, answer questions a - g. If “No”, proceed to Part 3.</i>		<input type="checkbox"/> NO	<input type="checkbox"/> YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	<input type="checkbox"/>	<input type="checkbox"/>
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	<input type="checkbox"/>	<input type="checkbox"/>
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	<input type="checkbox"/>	<input type="checkbox"/>
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	<input type="checkbox"/>	<input type="checkbox"/>
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	<input type="checkbox"/>	<input type="checkbox"/>
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	<input type="checkbox"/>	<input type="checkbox"/>
g. Other impacts: _____ _____		<input type="checkbox"/>	<input type="checkbox"/>

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: Type 1 Unlisted

Identify portions of EAF completed for this Project: Part 1 Part 2 Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the
the Governor's Office of Storm Recovery _____ as lead agency that:

A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Restoration and Flood Mitigation Project at Gulf Brook

Name of Lead Agency: Governor's Office of Storm Recovery

Name of Responsible Officer in Lead Agency: Lori A. Shirley

Title of Responsible Officer: Certifying Officer

Signature of Responsible Officer in Lead Agency:

Lori A Shirley

Date: 02/05/2019

Signature of Preparer (if different from Responsible Officer)

Alicia Schultz

Date: 02/05/2019

For Further Information:

Contact Person: Lori A. Shirley

Address: 38-40 State Street, Hampton Plaza, Albany, NY 12207

Telephone Number: (518) 474-0755

E-mail: Lori.Shirley@nyshcr.org

For Type I Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)

Other involved agencies (if any)

Applicant (if any)

Environmental Notice Bulletin: <http://www.dec.ny.gov/enb/enb.html>

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance
Continued

Impact to Flooding:

The proposed project will mitigate intermittent flood related damage due to excessive rainfall events by expanding the capacity of Gulf Brook to transport water and sediment through required changes in the channel and the two bridges, creating a flood resistant area for residents and businesses. The mitigation activity will reduce the risk of localized flooding for residences and businesses in the target area.

Impact on Plants and Animals:

GOSR submitted a consultation on August 28, 2017 to the USFWS for mitigation in the lower portion of Gulf Brook, known as Gulf Brook Phase II. Twelve trees will be removed from the lower portion of Gulf Brook. According to the USFWS Information, Planning and Conservation (IPaC) online planning tool and Trust Resource List generated for the proposed project the Federally endangered Indiana Bat (*Myotis sodalis*) and the threatened Northern Long-eared bat (NLEB) (*Myotis septentrionalis*) can be found within the vicinity of the project area.

GOSR submitted a second consultation to the USFWS on November 5, 2018 for the upper portion of Gulf Brook known as Gulf Brook Phase III. The upper portion of Gulf Brook includes 5 work areas. The USFWS IPaC online tool Trust Resource List generated for the for the five areas lists the following Federally-listed species as having the potential to occur within the vicinity of the proposed project: Indiana Bat (*Myotis sodalist*) endangered and Northern Long-eared Bat (*Myotis septentrionalis*) (NLEB) – threatened. Trees are the essential habitat used by these bat species. Approximately 0.25 acres of trees will be removed from the five project areas.

NYSDEC conducted a Phase I Summer Habitat Assessment conducted on October 26, 2018 for the five project areas and found: Project Areas 2–5: these areas are at a high enough location (elevation) that Indiana bats would not be a concern (IPaC only lists NLEB). The project areas are about 11.5 – 12.5 miles from the nearest known NLEB hibernation site and is nearly 17 miles from the nearest Indiana bat occurrence. Project Area 1: this project area is low enough that IPaC lists both NLEB and Indiana bats. There are a few snags and trees that are large enough to be potential roosts. To minimize potential impacts to the IB and NLEB, tree clearing will take place from November 1 to March 31, which is outside of the active season of the IB and NLEB.

If winter tree is determined at latter to be infeasible, an acoustic survey will be completed after May 15, 2019 or emergence surveys will be completed as determined by consultation with USFWS.

A consultation letter was submitted to NYNHP on 10/10/2018. A response indicating that NYNHP had no records of rare or state-listed animals or plants, or significant natural communities directly at the project site was received on 10/29/2018,

The banks along Gulf Brook will be restored with native plants after stream mitigation construction is completed.

Involved/Interested Agencies – Gulf Brook Restoration and Flood Mitigation Project

Involved Agencies:

Mr. Joe Pete Wilson, Supervisor
Town of Keene
P.O. Box 89
Keene, NY 12942

Mr. Jim Dugan
Deputy of Public Works
Essex County
8053 US Route 9
Elizabethtown, NY 12932

Marc Migliore, Regional Permit Administrator, Region 5
New York State Department of Environmental Conservation
P.O. Box 296
1115 State Route 86
Ray Brook, NY 12977

Mr. Sam Zhou, P.E., Regional Director
New York State Department of Transportation Region 1
50 Wolf Road
Albany, NY 12232

Douglas W. Miller
Project Administrator
New York State Adirondack Park Agency
Division of Regulatory Programs
P.O. Box 99
1133 NYS Route 86
Ray Brook, NY 12977

Interested Agencies:

Ms. Susan Whitney
Clerk to the Supervisor
Town of Keene
P.O. Box 89
Keene, NY 12942

Ms. Anna Reynolds, Director
Essex County Office of Community Resources
73 Court Street
P.O. Box 217

Elizabethtown, NY 12932

Mr. Rob Wick, PMP
Project Management Specialist
Essex County Office of Community Resources
73 Court Street
P.O. Box 217
Elizabethtown, NY 12932

Mr. Robert Cherry
NYS Department of Transportation
Office of Planning
6th Floor, POD 6-1
50 Wolf Road
Albany, NY 12232

Mr. Ron Rausch, Director
Environmental Management Bureau
Office of Parks, Recreation and Historic Preservation
625 Broadway, 2nd Floor
Albany, New York 12238

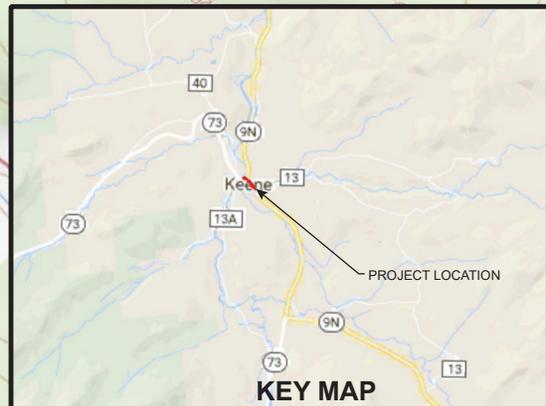
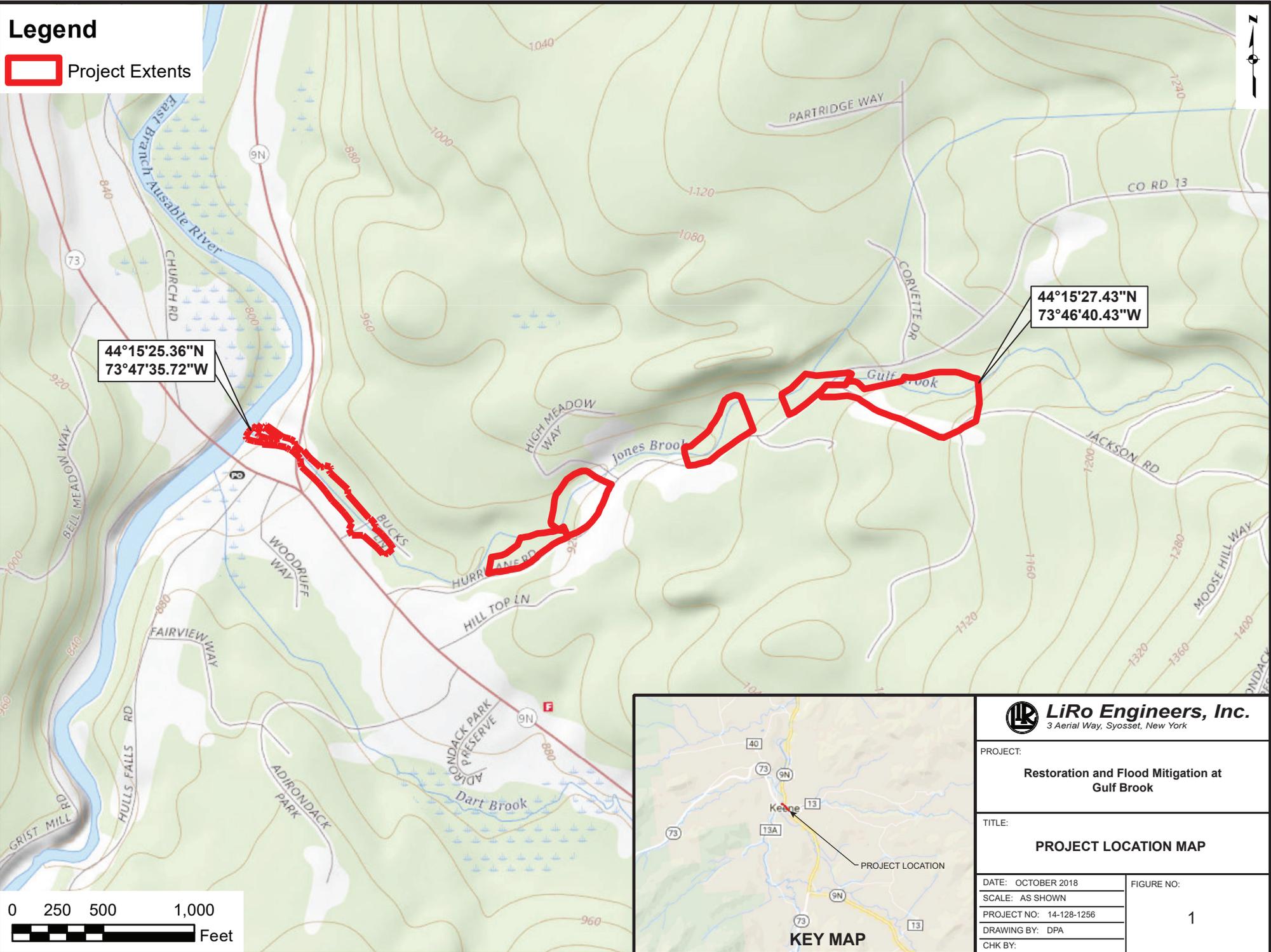
Mr. Randy Andre
Chief of Mitigation Programs & Agency Preservation Officer
NYS Division of Homeland Security & Emergency Services
1220 Washington Avenue
Building 7A, Floor 4
Albany NY 12242

**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY**

ATTACHMENT 1

Legend

 Project Extents



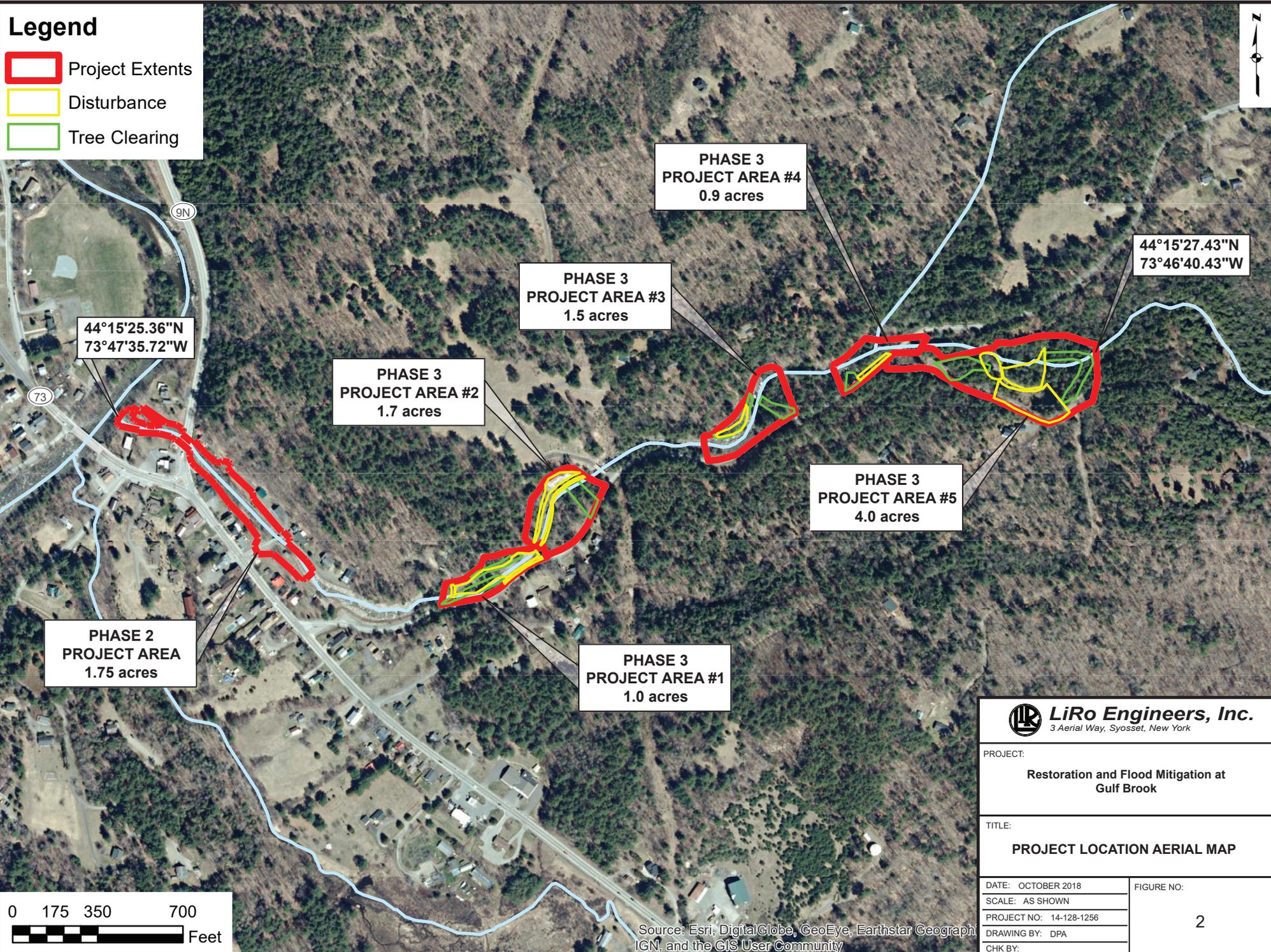
 LiRo Engineers, Inc. <small>3 Aerial Way, Syosset, New York</small>	
PROJECT: <p style="text-align: center;">Restoration and Flood Mitigation at Gulf Brook</p>	
TITLE: <p style="text-align: center;">PROJECT LOCATION MAP</p>	
DATE: OCTOBER 2018 SCALE: AS SHOWN PROJECT NO: 14-128-1256 DRAWING BY: DPA CHK BY:	FIGURE NO: <p style="text-align: center;">1</p>

**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY**

ATTACHMENT 2

Legend

- Project Extents
- Disturbance
- Tree Clearing



44°15'25.36"N
73°47'35.72"W

PHASE 3
PROJECT AREA #4
0.9 acres

PHASE 3
PROJECT AREA #3
1.5 acres

44°15'27.43"N
73°46'40.43"W

PHASE 3
PROJECT AREA #2
1.7 acres

PHASE 3
PROJECT AREA #5
4.0 acres

PHASE 2
PROJECT AREA
1.75 acres

PHASE 3
PROJECT AREA #1
1.0 acres

 **LiRo Engineers, Inc.**
3 Aerial Way, Syosset, New York

PROJECT:
**Restoration and Flood Mitigation at
Gulf Brook**

TITLE:
PROJECT LOCATION AERIAL MAP

DATE: OCTOBER 2018
SCALE: AS SHOWN
PROJECT NO: 14-128-1256
DRAWING BY: DPA
CHK BY:

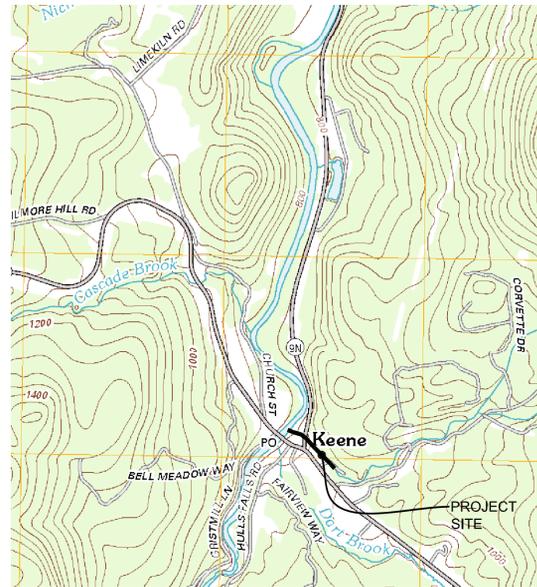
FIGURE NO:
2



**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY**

ATTACHMENT 3

SITE LOCATION BASE MAP OBTAINED FROM THE USGS



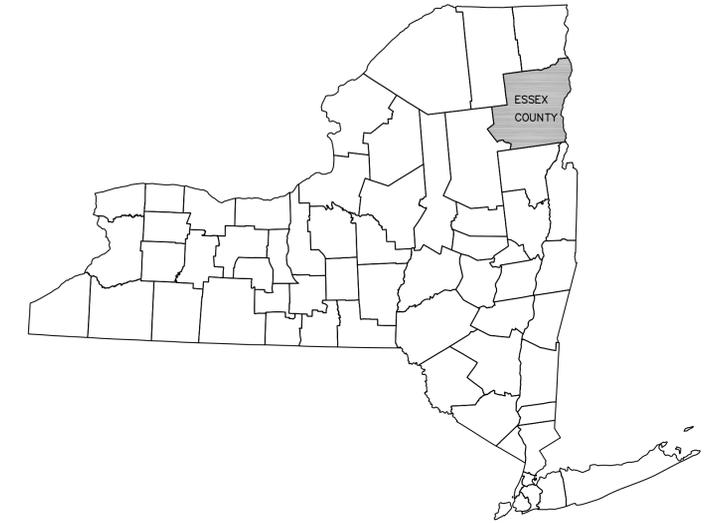
SITE LOCATION MAP
SCALE: NTS

GULF BROOK CHANNEL RESTORATION PROJECT PHASE 2

FUNDED BY: NEW YORK STATE COMMUNITY DEVELOPMENT BLOCK GRANT (DISASTER RECOVERY FUNDS)

KEENE, NY MARCH, 2017

THIS PROJECT INVOLVES THE RESTORATION OF APPROXIMATELY 1,100 LINEAR FEET OF THE GULF BROOK INCLUDING THE CONSTRUCTION OF AN ENHANCED CHANNEL SECTION WITH A MINIMUM BANK FULL WIDTH OF 40- FEET, INSTALLATION OF CHANNEL BANK ROCK ARMOR PROTECTION, CONSTRUCTION OF BOULDER VANES, CONSTRUCTION OF IN-STREAM BOULDERS FOR HABITAT ENHANCEMENT, REMOVAL OF THE EXISTING BUCKS LANE BRIDGE AND REPLACEMENT WITH A PROPOSED 45' SPAN BRIDGE, INSTALLATION OF APPROXIMATELY 460 LF OF CONCRETE BLOCK RETAINING WALL, TEMPORARY AND PERMANENT MEASURES TO STABILIZE UPPER CHANNEL BANKS, AND ADDITIONAL MISCELLANEOUS WORK PER THESE DESIGN PLANS.



NEW YORK STATE MAP
SCALE: NTS

LIST OF ABBREVIATIONS

BW	BOTTOM OF WALL
C#	ALIGNMENT CURVE
CONT.	CONTAINER
E	EASTING
EG	EXISTING GRADE
ELEV.	ELEVATION
EX	EXISTING
FG	FINISHED GRADE
GAL	GALLON
H	HORIZONTAL
I.E.	INVERT ELEVATION
L#	ALIGNMENT LINE
LxWxH	LENGTH, WIDTH, HEIGHT
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
N	NORTHING
N.T.S.	NOT TO SCALE
OHW	ORDINARY HIGH WATERMARK
PC	POINT OF CURVATURE
PRO	PROPOSED
PT	POINT OF TANGENCY
RCP	REINFORCED CONCRETE PIPE
RT	RIGHT
S	SLOPE
SB	SOIL BORING
STA	STATION
TBD	TO BE DECIDED
TYP	TYPICAL
TW	TOP OF WALL
V	VERTICAL
VSEL	WATER SURFACE ELEVATION



PROJECT AREA MAP
SCALE: 1"=50'

**PRELIMINARY DESIGN PLAN
NOT FOR CONSTRUCTION**

SHEET INDEX:

- CV.001: COVER SHEET
- C.101: EXISTING CONDITIONS PLAN
- C.201: CIVIL PLAN AND PROFILE (STATION 15+50 TO 21+25)
- C.202: CIVIL PLAN AND PROFILE (STATION 21+25 TO 26+40)
- C.203: CONCRETE BLOCK WALL PLAN AND PROFILE VIEWS
- C.204: BUCKS LANE BRIDGE - DEMOLITION AND SITE PLAN
- C.205: BUCKS LANE BRIDGE - PROFILE, ELEVATION, SECTIONS AND DETAILS
- C.301: CROSS SECTIONS FROM STATIONS 15+50 TO 22+00
- C.302: CROSS SECTIONS FROM STATIONS 22+50 TO 25+50
- C.401: TYPICAL CROSS SECTION DETAILS
- C.402: TYPICAL CROSS SECTION DETAIL

DESIGN TEAM:



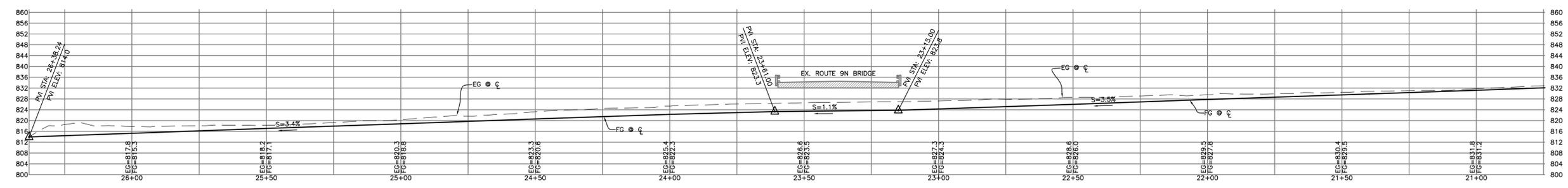
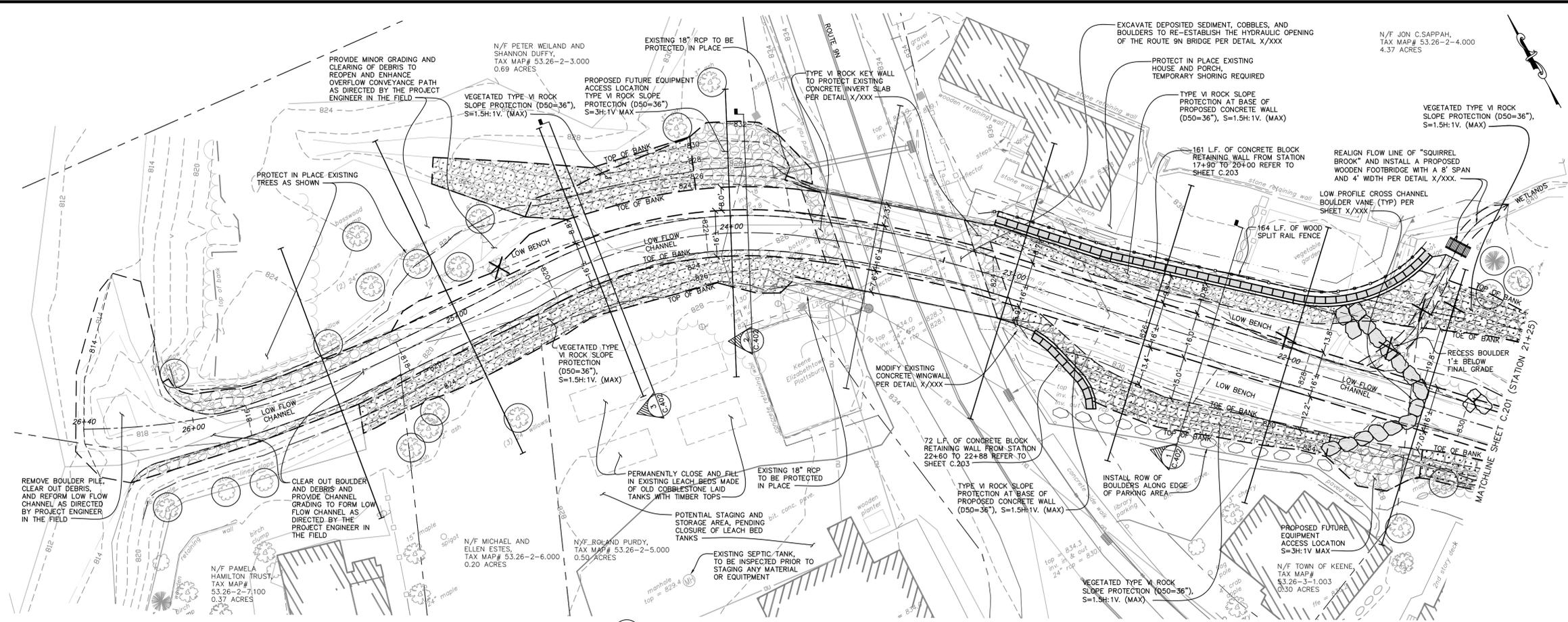
CIVIL AND ENVIRONMENTAL ENGINEERING
P.O. BOX 2787, STE 500, PLATTSBURGH, NY 12901
WWW.ESPC-CONSULTING.COM
TEL: 518-563-9445 FAX: 518-562-5189



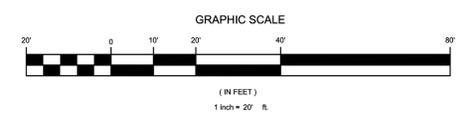
SCHODER RIVER ASSOCIATES
EVERGREEN PROFESSIONAL PARK
453 DIXON ROAD, STE. 7, BLDG. 3
QUEENSBURY, NY 12804
WWW.SRAENGINEERS.COM
TEL: 518-761-0417



FITZGERALD ENVIRONMENTAL ASSOCIATES, LLC.
18 SEVERANCE GREEN, SUITE 203 / COLCHESTER, VT 05466
WWW.FITZGERALDENvironmental.COM
TEL: 802-876-7778



- LEGEND**
- | | | |
|----------|----------|---|
| PROPOSED | EXISTING | |
| --- | --- | CONTOURS |
| --- | --- | BREAKLINES/SITE FEATURES |
| --- | --- | SLOPE TOE/TOP CATCHLINE |
| --- | --- | EDGE OF WATER (LOW FLOW) |
| --- | --- | FENCE |
| --- | --- | PARCEL LINES (FROM TAX MAP) |
| --- | --- | CHANNEL CENTERLINE |
| --- | --- | WATERLINE (TBD) |
| --- | --- | ORDINARY HIGH WATER MARK |
| --- | --- | APPROXIMATE LIMITS OF DISTURBANCE |
| --- | --- | CROSS SECTION (@ 50' ON CENTER) |
| --- | --- | TREELINE |
| --- | --- | WETLANDS |
| --- | --- | GRAVEL ROAD |
| --- | --- | ROCKERY SLOPE PROTECTION
SIZE AS SPECIFIED |
| --- | --- | VEGETATED ROCK SLOPE
PROTECTION |
| --- | --- | BUILDINGS |
| --- | --- | TEMPORARY BENCH MARK |
| --- | --- | BOULDER (4' TO 6"± AVERAGE SIZE)
WITHIN LOW FLOW CHANNEL |
| --- | --- | EX. TREES |
| --- | --- | EX. TREE TO BE REMOVED |
| --- | --- | EX. TREES TO BE PROTECTED |



REVISIONS	BY

ESPC
CIVIL AND ENVIRONMENTAL ENGINEERING
P.O. BOX 2787 / 43 DUKE STREET, STE 500, PLATTSBURGH, NY 12901
WWW.ESPC-CONSULTING.COM
TEL: 518-563-9445 FAX: 518-562-5189

KEENE, NY
GULF BROOK CHANNEL RESTORATION PROJECT
PHASE II
CIVIL PLAN AND PROFILE
STATIONS 21+25 TO 26+40
KEENE, NY

DRAWN	SJD
CHECKED	ES
DATE	11/14/16
SCALE	AS SHOWN
JOB NO.	ESPC # 20151258

C.202

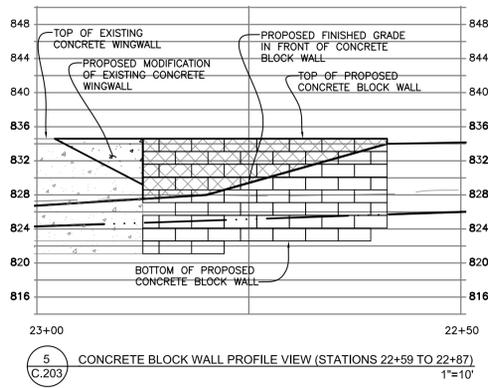
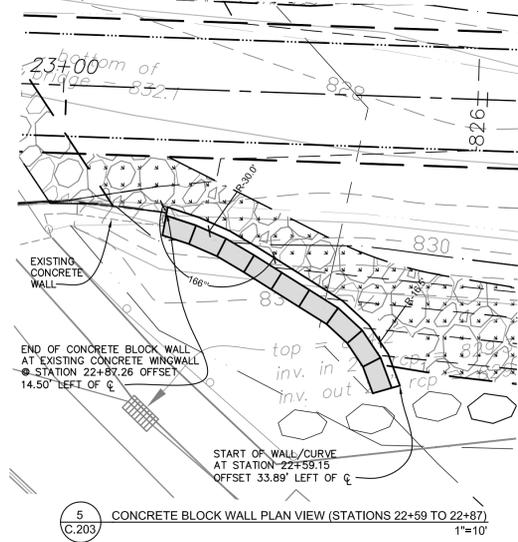
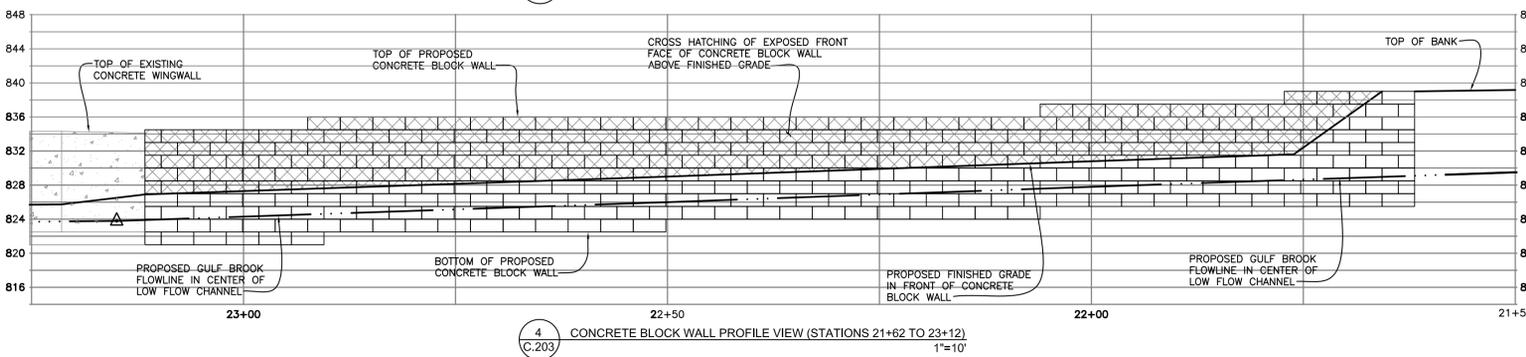
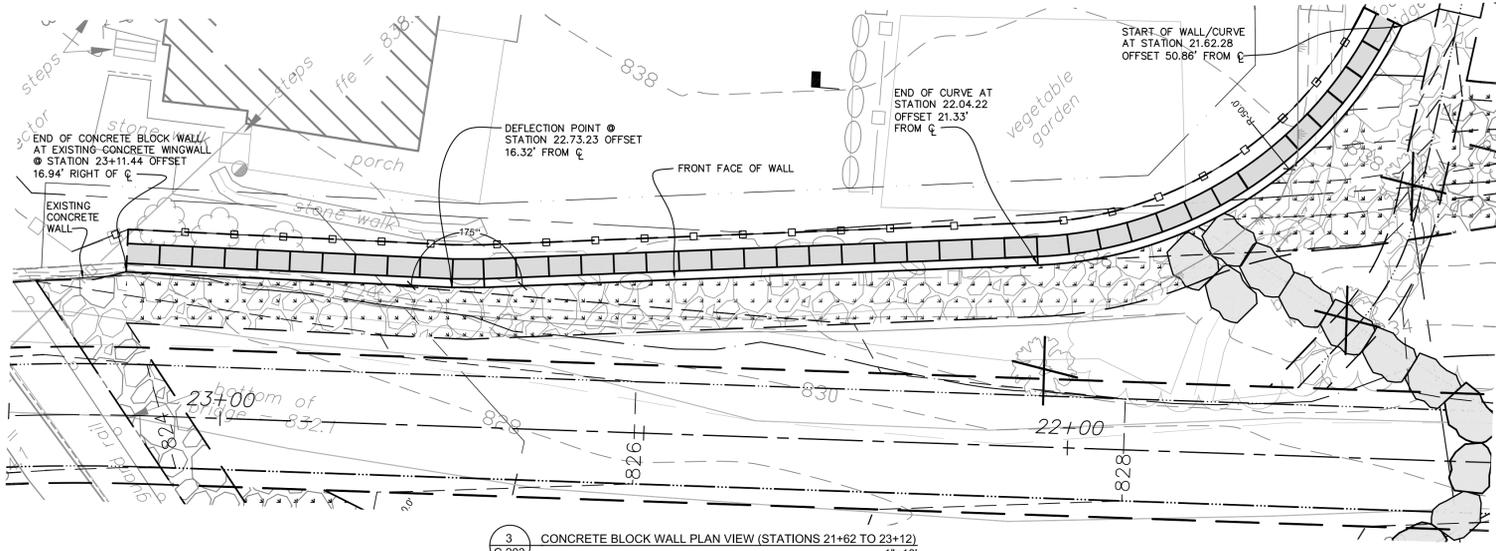
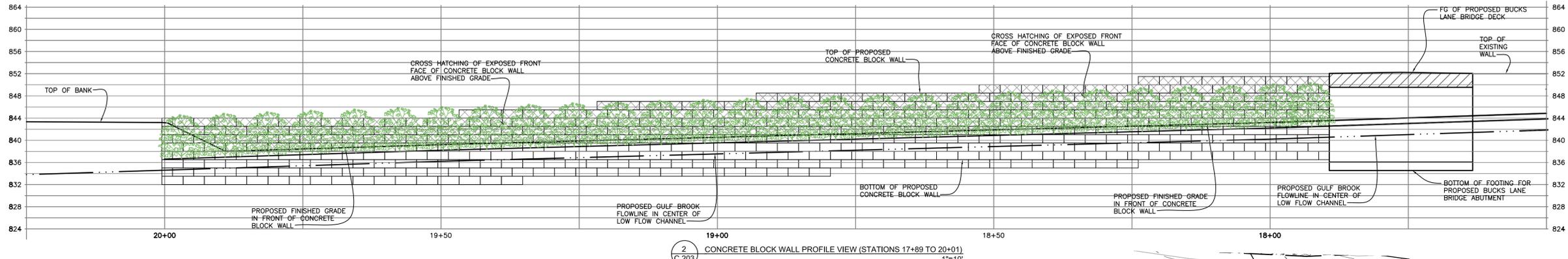
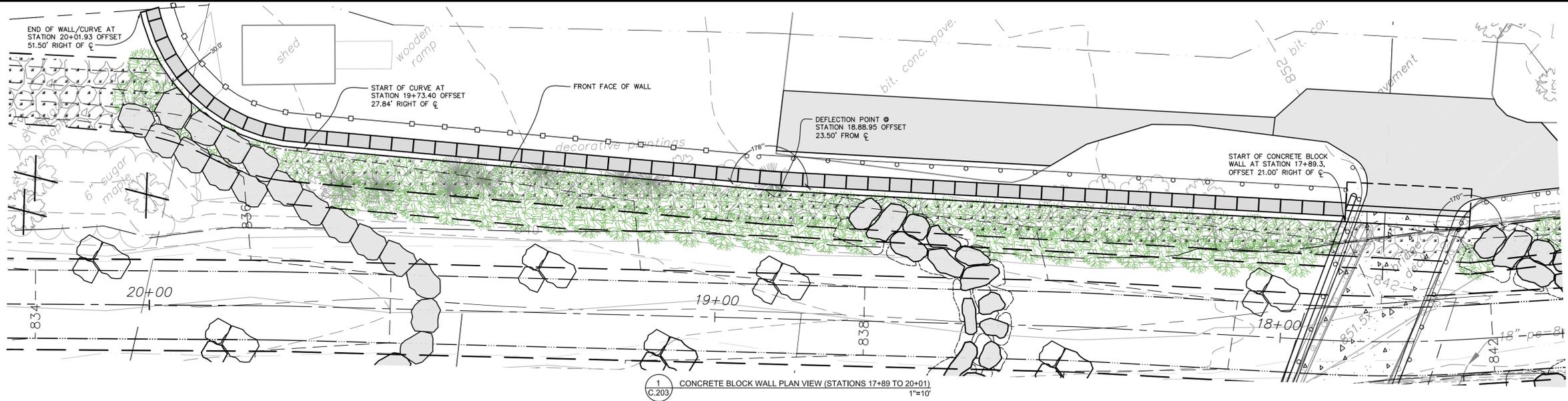
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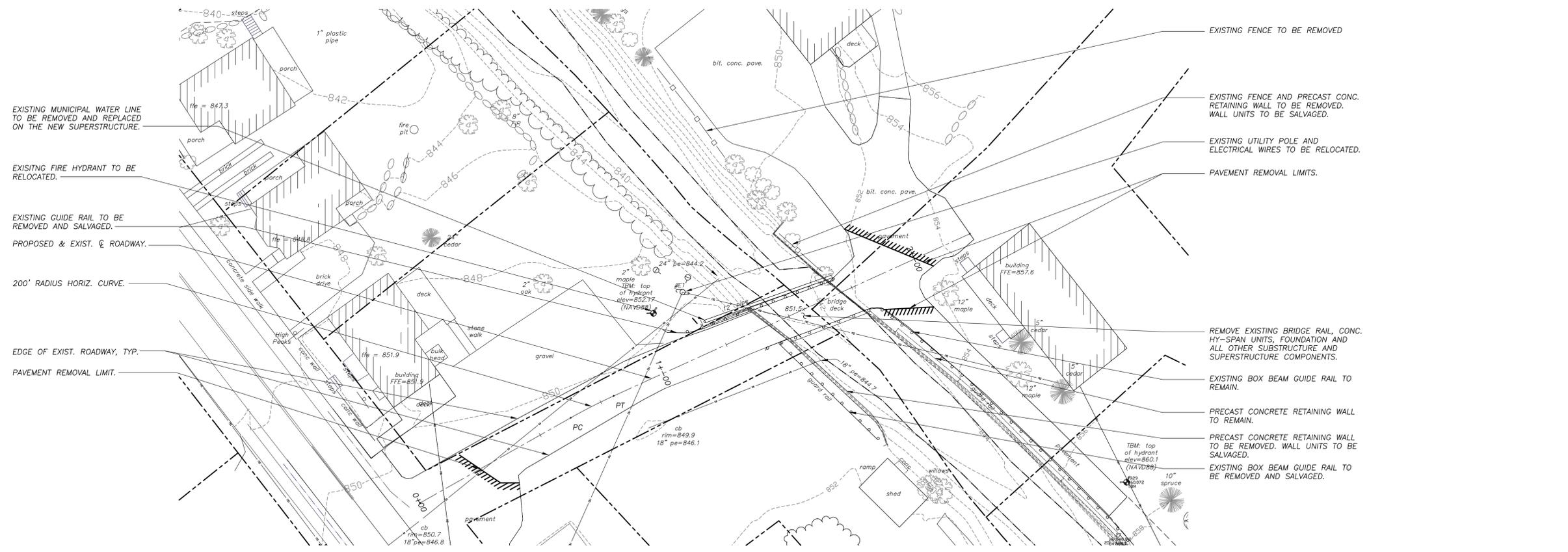
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KEENE, NY
 GULF BROOK CHANNEL RESTORATION PROJECT
 PHASE II
 CONCRETE BLOCK WALL
 PLAN AND PROFILE VIEWS
 KEENE, NY

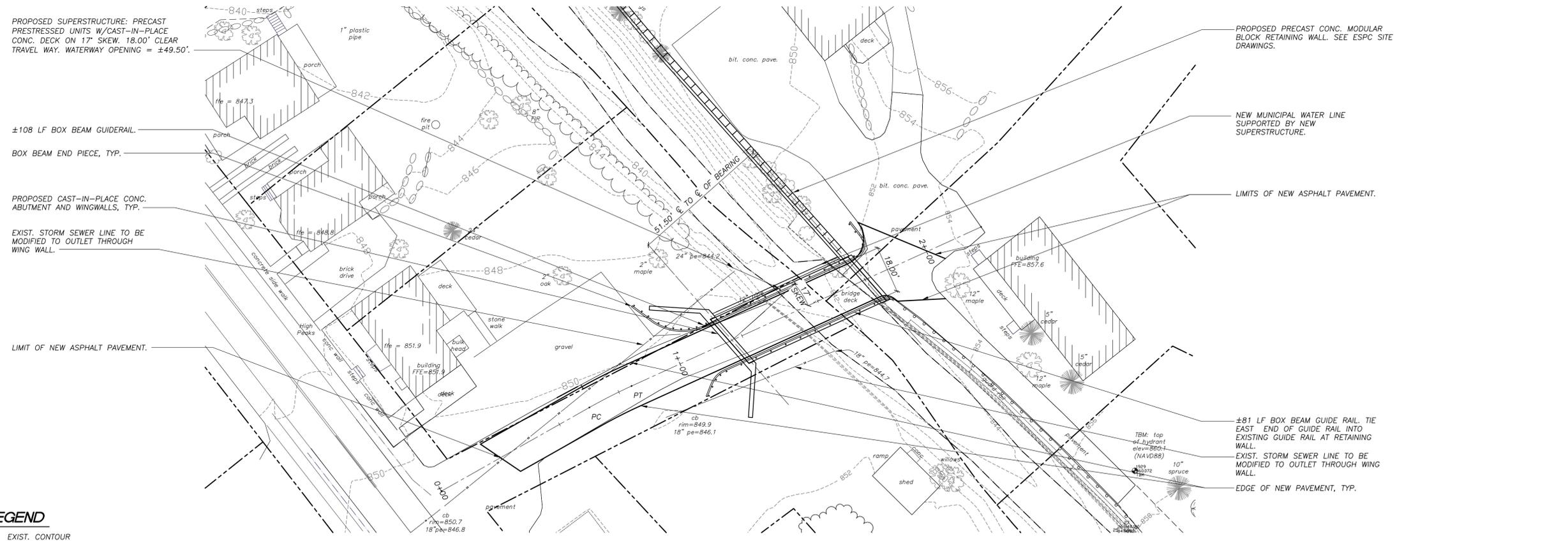
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CHECKED	ES
DATE	11/17/16
SCALE	AS SHOWN
JOB NO.	ESPC # 20151258

C203





PRELIMINARY BRIDGE REMOVALS PLAN
1"=20'-0"



PRELIMINARY BRIDGE SITE PLAN
1"=20'-0"

LEGEND

- - - - - EXIST. CONTOUR
- - - - - PROPERTY LINE
- - - - - EXISTING STREAM CHANNEL

NOTE: SEE ESPC DWG. C.201 FOR SITE PLAN INFORMATION NOT SHOWN.

REVISIONS		
REV.	DATE	DESCRIPTION

**PRELIMINARY
NOT FOR
CONSTRUCTION**

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SR SCHODER RIVERS ASSOCIATES
Consulting Engineers, P.C.
Evergreen Professional Park
453 Dixon Road, Suite 7, Bldg. 3
Queensbury, New York 12804
(518) 761-0417, FAX: (518) 761-0513

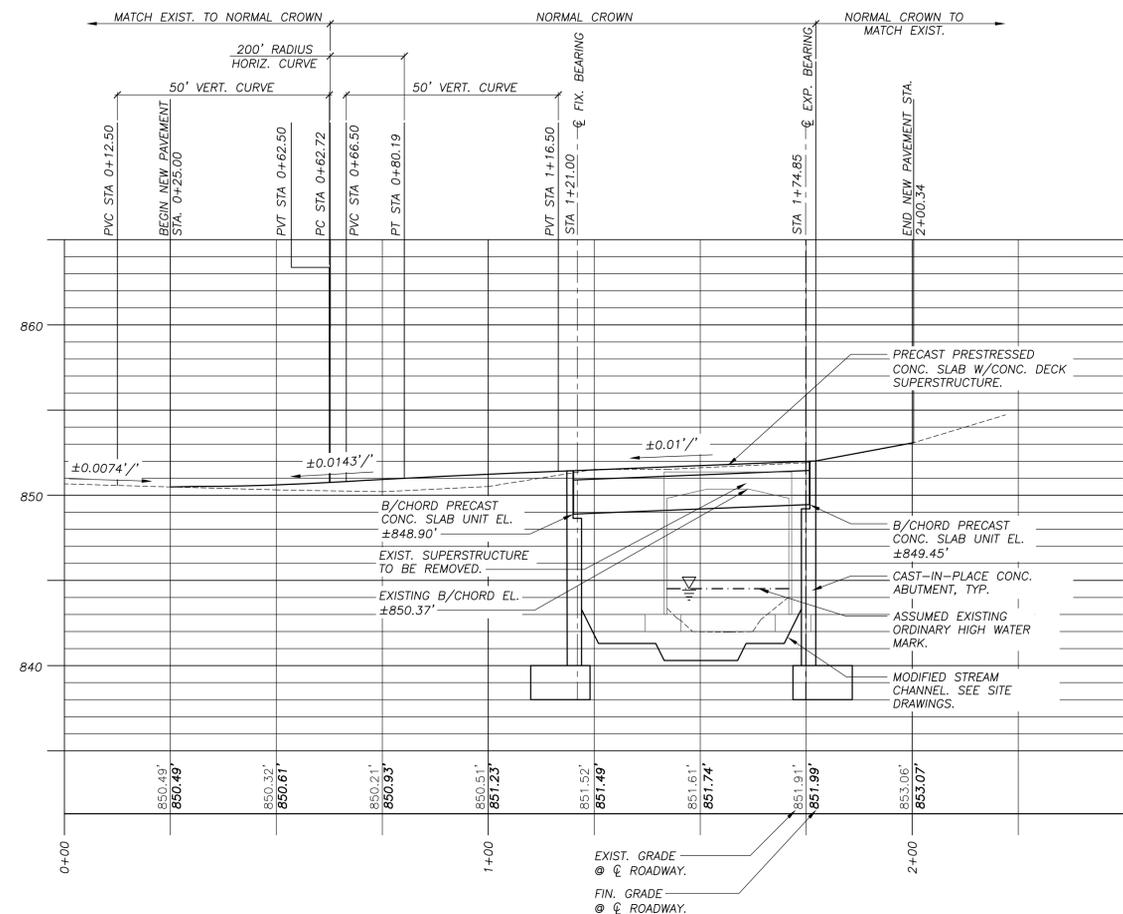
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DATE: 2/10/2017 ENG. BY: SRA
PROJ. NO: 15-881 CHK'D BY: MEH

CLIENT NAME
**TOWN OF KEENE
KEENE, NY**

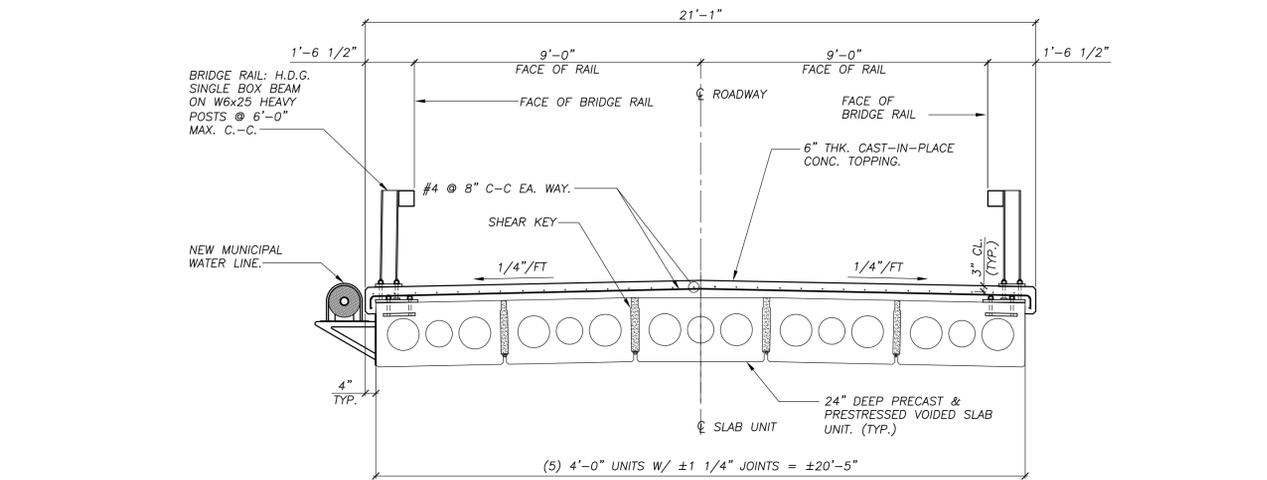
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**BUCKS LANE BRIDGE
REPLACEMENT OVER GULF BROOK**

PRELIMINARY BRIDGE PLANS

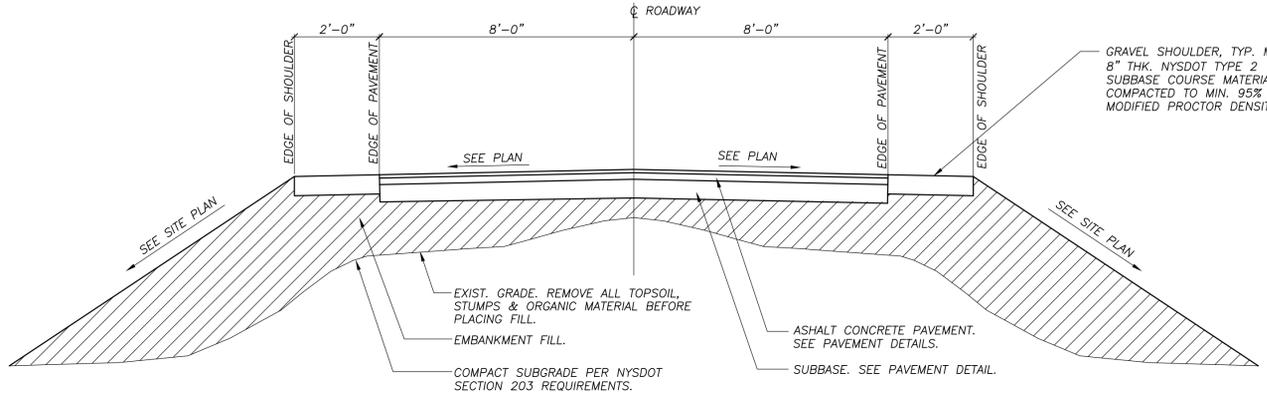
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REV. 0



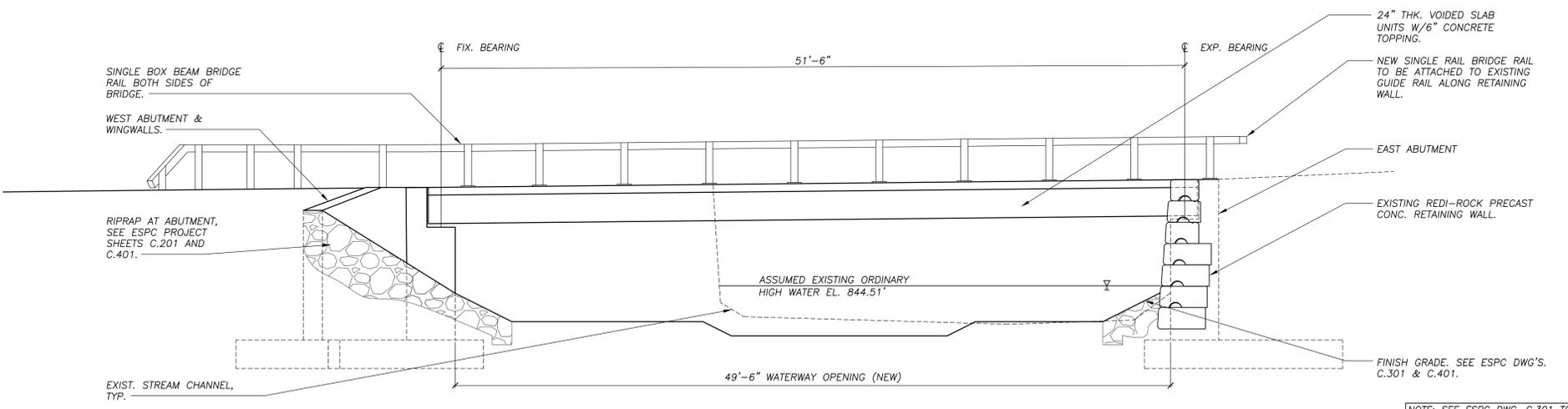
ROADWAY CENTERLINE PROFILE
 1"=20' HORIZ.
 1"=5' VERT.



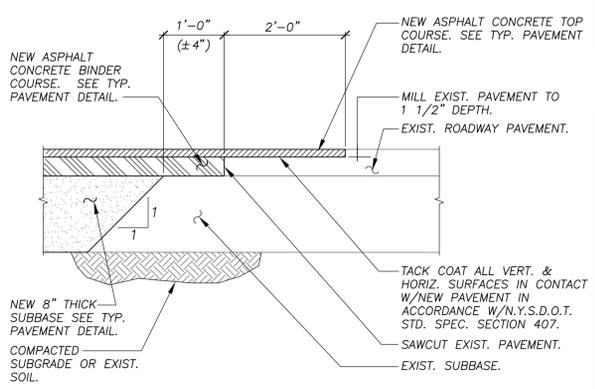
BRIDGE CROSS SECTION
 3/8"=1'-0"



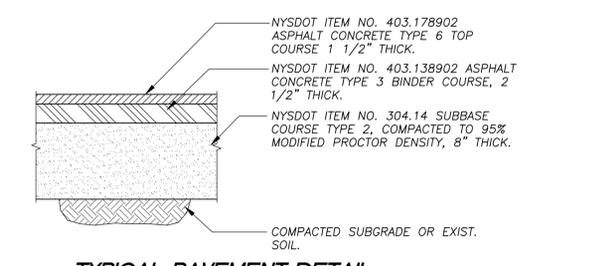
TYPICAL ROADWAY SECTION
 N.T.S.



BRIDGE ELEVATION (LOOKING NORTHWEST)
 1"=5'-0"



PAVEMENT TRANSITION DETAIL
 N.T.S.



TYPICAL PAVEMENT DETAIL
 N.T.S.

REVISIONS		
REV.	DATE	DESCRIPTION

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 Consulting Engineers, P.C.
 Evergreen Professional Park
 453 Dixon Road, Suite 7, Bldg. 3
 Queensbury, New York 12804
 (518) 761-0417, FAX: (518) 761-0513

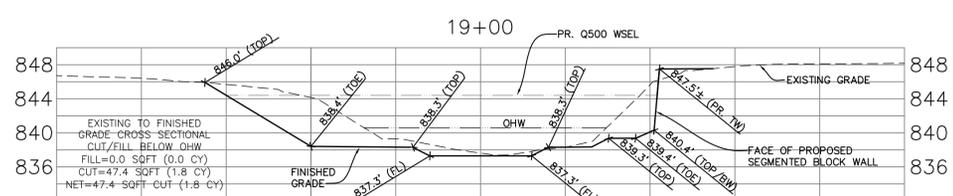
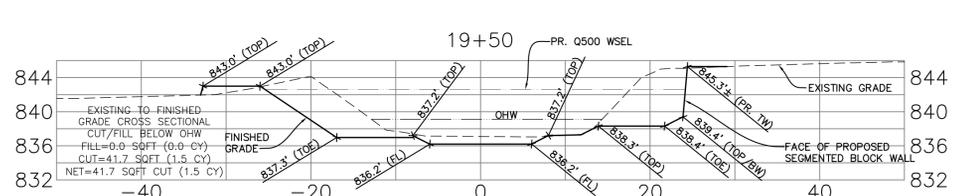
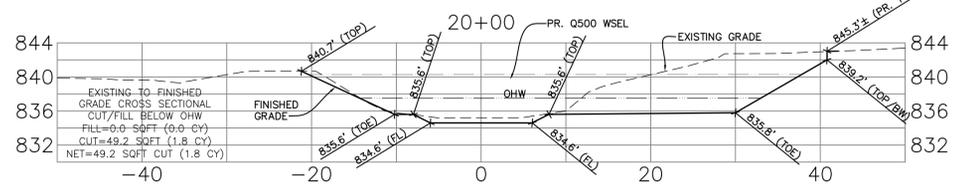
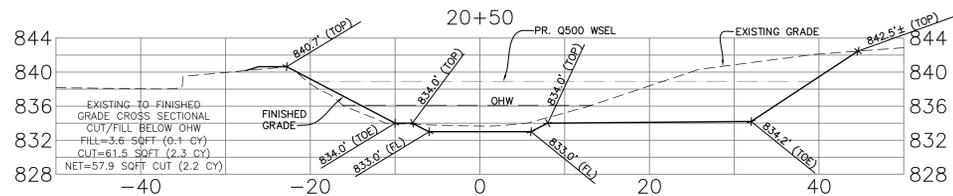
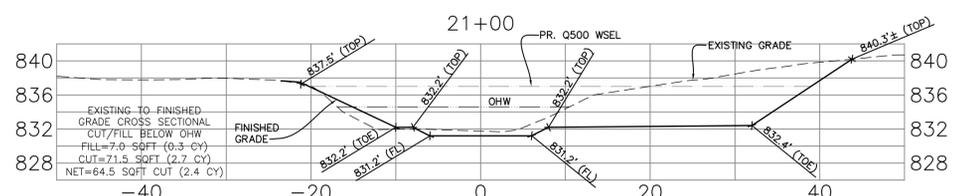
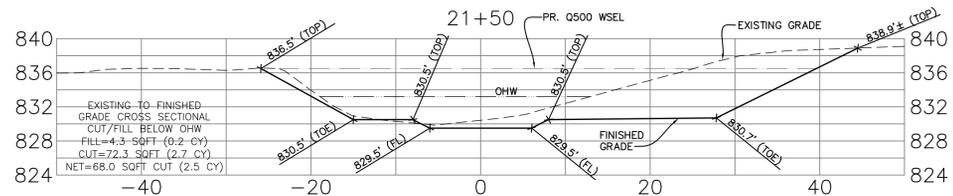
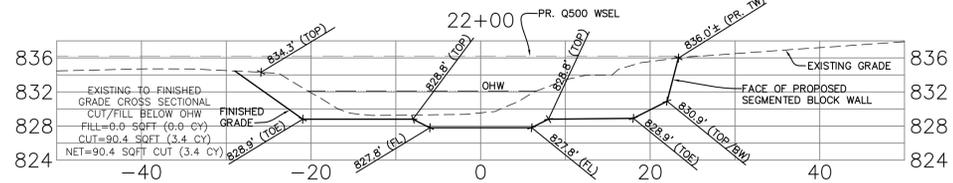
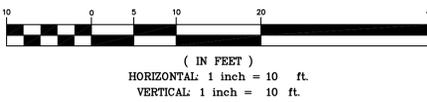
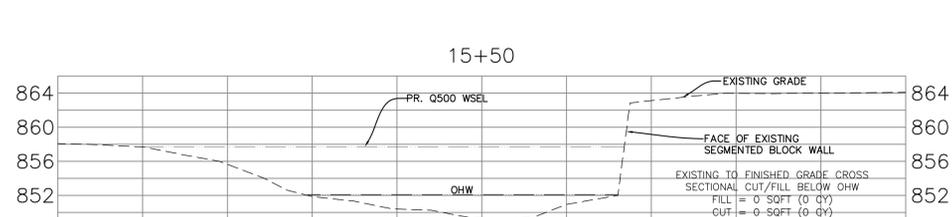
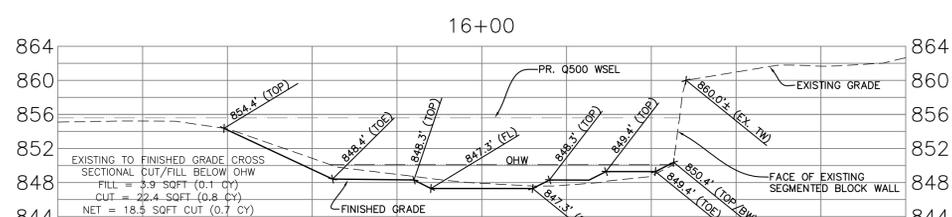
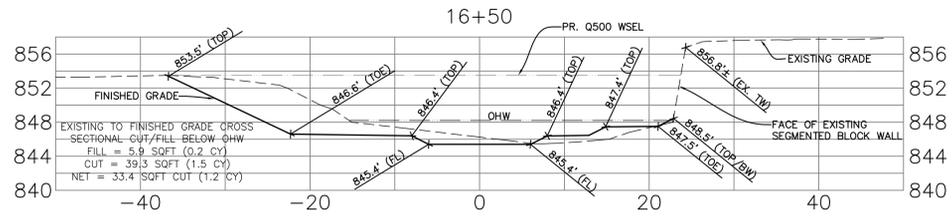
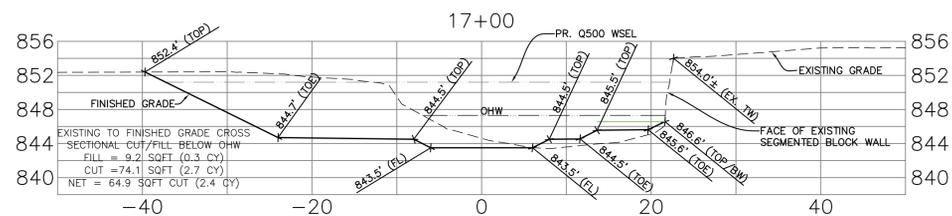
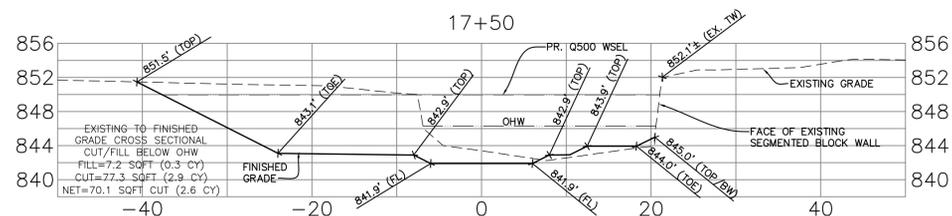
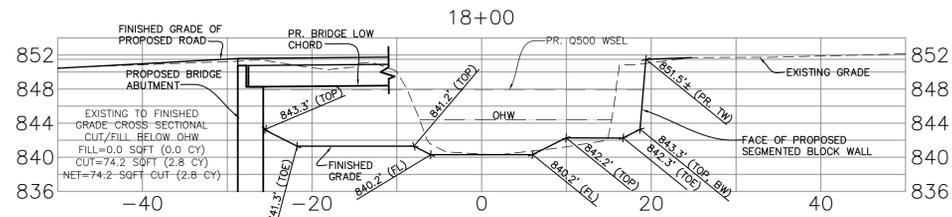
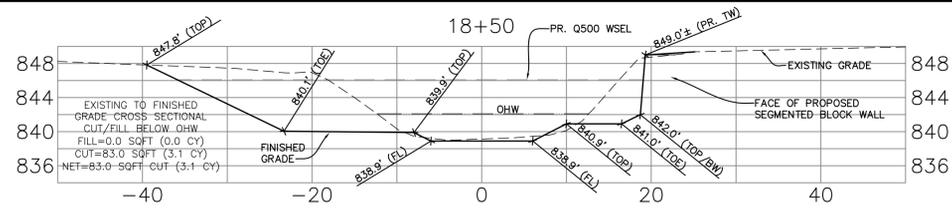
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 DATE: 2/10/2017 ENG. BY: SRA
 PROJ. NO: 15-881 CHK'D BY: MEH

CLIENT NAME
**TOWN OF KEENE
 KEENE, NY**

DRAWING TITLE
**BUCKS LANE BRIDGE
 REPLACEMENT OVER GULF BROOK
 PRELIMINARY CENTERLINE
 PROFILE, ELEVATION,
 SECTIONS AND DETAILS**

DRAWING NO. **C.205** SHT. 2 OF 2
 REV. 0

NOTE: SEE ESPC DWG. C.301 TO C.401 FOR DETAILED CHANNEL CROSS SECTION AT BRIDGE.



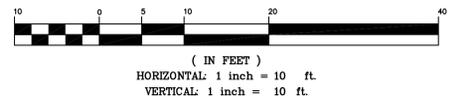
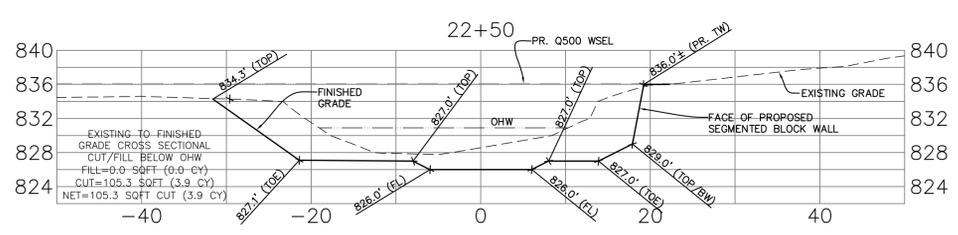
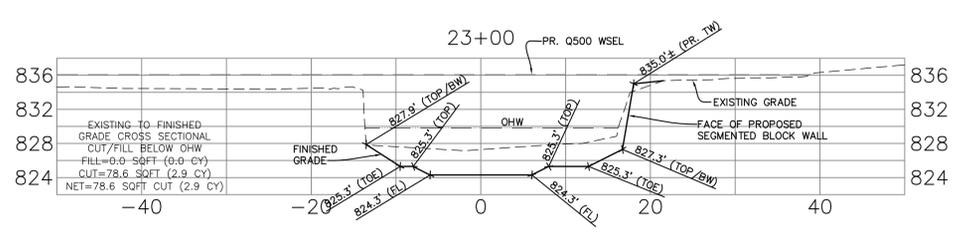
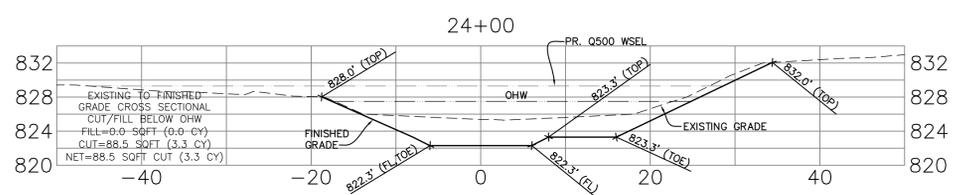
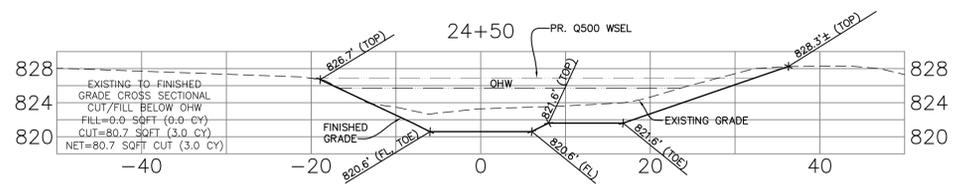
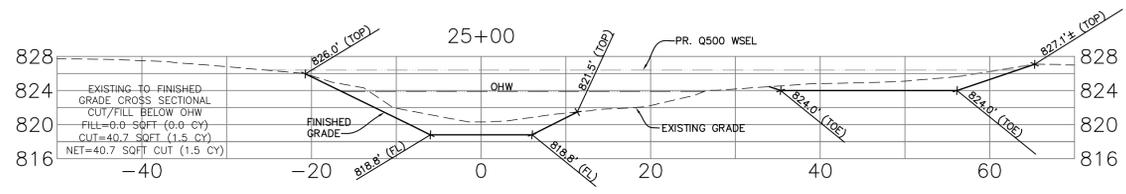
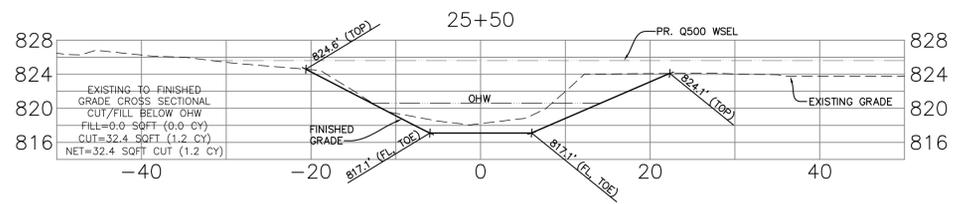
REVISIONS	BY

ESPC
 CIVIL AND ENVIRONMENTAL ENGINEERING
 P.O. BOX 2787, PLATTSBURGH, NY 12901
 WWW.ESPCCONSULTING.COM
 TEL: 518-563-9445 FAX: 518-562-5189

KEENE, NY
 GULF BROOK CHANNEL RESTORATION PROJECT
 CROSS SECTION STATIONS 15+50 TO 22+00
 KEENE, NY

DRAWN	SJD
CHECKED	SJD
DATE	3/9/17
SCALE	AS SHOWN
JOB NO.	ESPC # 20141253

C.301



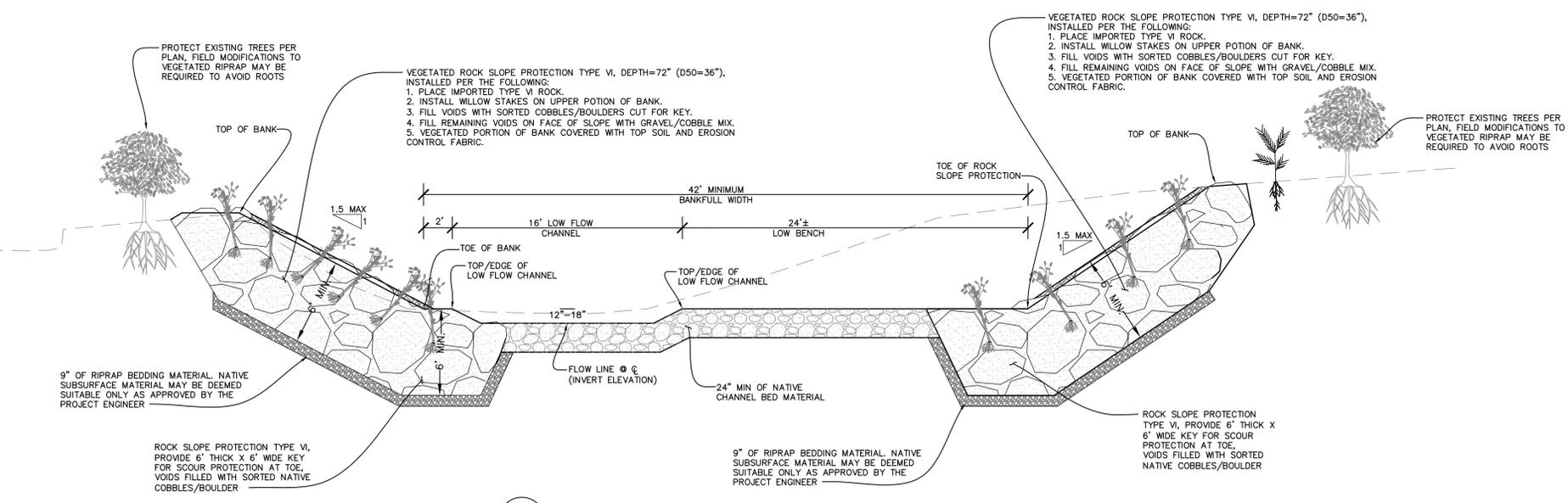
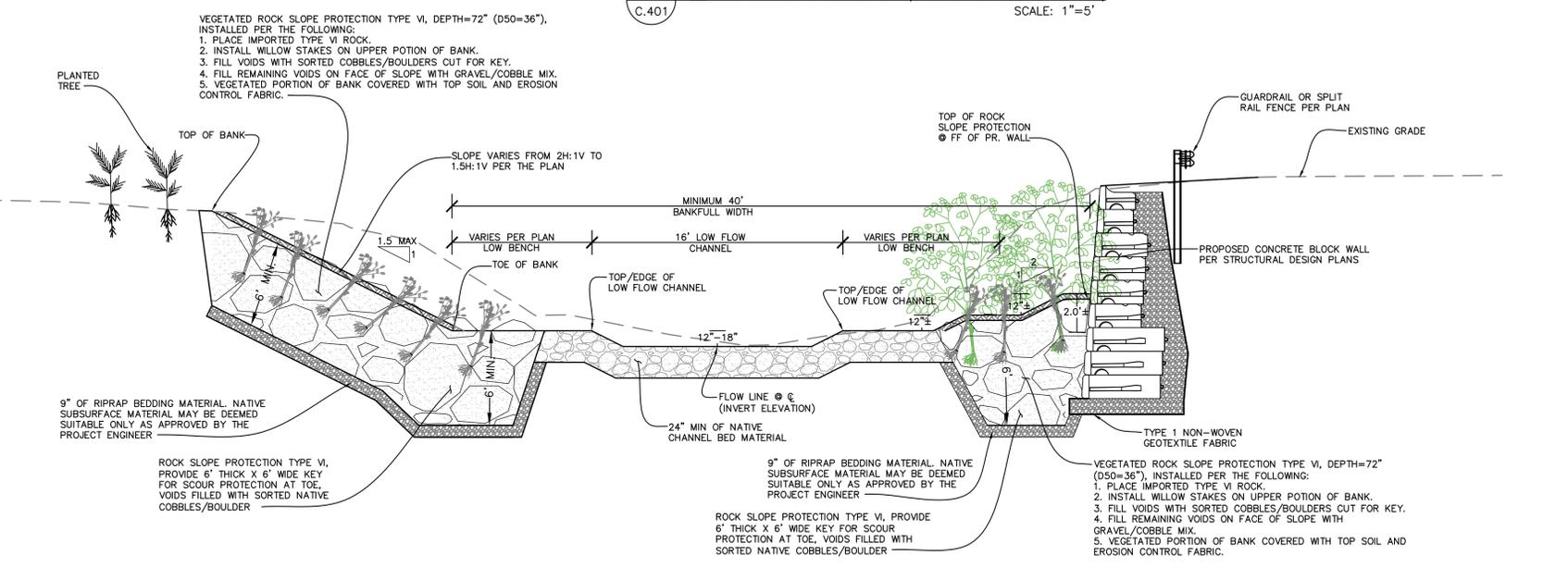
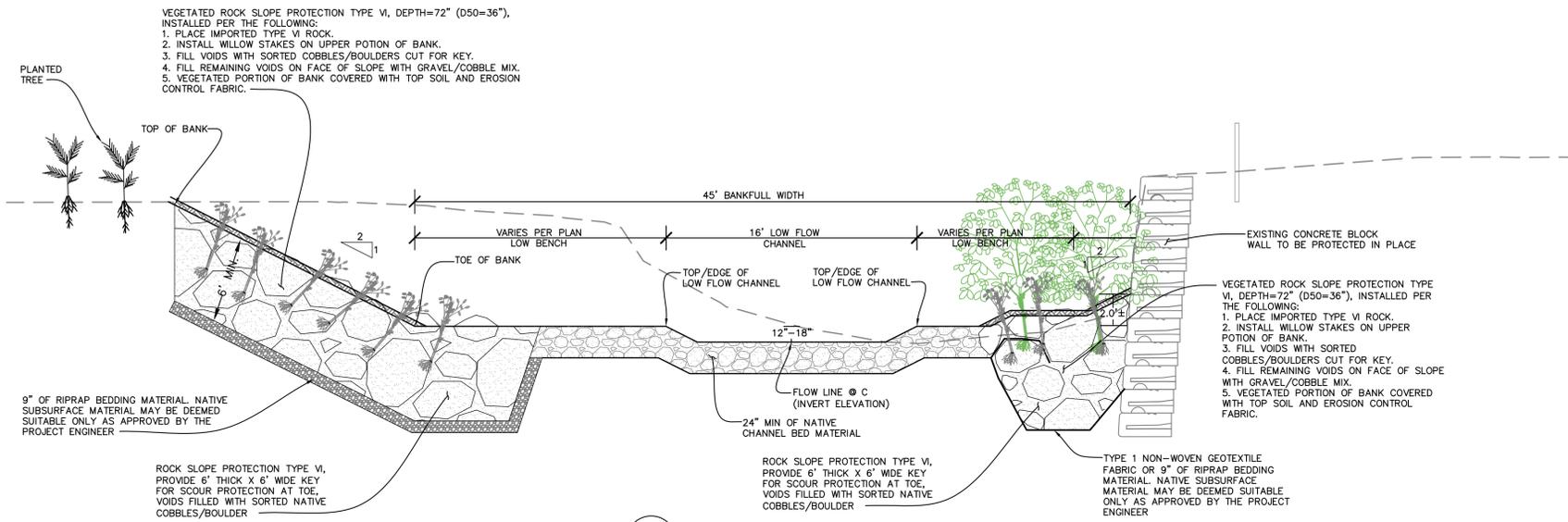
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KEENE, NY
 GULF BROOK CHANNEL RESTORATION PROJECT
 CROSS SECTION STATIONS 22+50 TO 25+50
 KEENE, NY

DRAWN	SJD
CHECKED	SJD
DATE	3/9/17
SCALE	AS SHOWN
JOB NO.	ESPC # 20141253

C.302



- ROCK SLOPE PROTECTION SPECIFICATIONS:**
- ROCK SELECTION:**
- ROCKS MUST BE APPROVED, HARD, ANGULAR, BLASTED, STRONG, RESISTANT TO WEATHERING, AND RING WHEN STRUCK WITH A GEOLOGY HAMMER.
 - ROCKS MUST BE FREE OF MAJOR WEAK ZONES SUCH AS CRACKS, SEAMS, AND FOLIATION.
 - THE SPECIFIED ROCK SLOPE PROTECTION SHALL BE PLACED IN ONE COURSE THICKNESS AS SHOWN ON THE PLANS IN A MANNER THAT WILL RESULT IN A REASONABLY WELL GRADED SURFACE. CARE SHALL BE TAKEN IN THE PLACING TO AVOID DISPLACING THE UNDERLYING MATERIAL.
 - THE ROCK SLOPE PROTECTION SHALL BE PLACED AND DISTRIBUTED SO THAT THERE WILL BE NO ACCUMULATIONS OF EITHER THE LARGER OR SMALLER SIZES OF STONE. REARRANGEMENT OF THE STONE FILL BY HAND LABOR OR MECHANICAL EQUIPMENT MAY BE REQUIRED TO OBTAIN THE SPECIFIED RESULTS.
 - WHEN ROCK SLOPE PROTECTION AND FILTER BLANKET ARE TO BE PLACED AS PART OF AN EMBANKMENT, THE PROTECTIVE MATERIALS SHALL BE PLACED CONCURRENTLY WITH THE CONSTRUCTION OF THE EMBANKMENT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. WHERE ROCK FILL ARE TO BE PLACED UNDER WATER, METHODS SHALL BE USED THAT WILL MINIMIZE SEGREGATION AND ENSURE THAT THE REQUIRED THICKNESS OF PROTECTIVE MATERIAL WILL BE OBTAINED.
 - THE ROCK SLOPE PROTECTION SHALL BE PLACED ON THE PREPARED SLOPE SO THAT THERE WILL BE A MINIMUM OF SPACE BETWEEN THE STONES. THE DEPTH OF EACH STONE SHALL BE EQUAL TO THE THICKNESS OF THE COURSE SHOWN ON THE PLANS. THE VOIDS BETWEEN THE STONES SHALL BE CHINKED WITH SMALLER STONES TO PRODUCE A RELATIVELY SMOOTH AND UNIFORM SURFACE.
 - THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE ROCK SLOPE PROTECTION AS A WELL COMPACTED MASS, WITH STONES INTERLOCKED WITH EACH OTHER AND WITH NO LARGE VOIDS TO REDUCE THE POTENTIAL FOR UPLIFT AND MOVEMENT.
 - TO ACHIEVE A WELL COMPACTED MASS, CONTRACTOR MAY BE REQUIRED TO FOLLOW THE INITIAL PLACEMENT OF ROCK SLOPE PROTECTION WITH ADDITIONAL PASSES OF SMALLER MATERIAL. SELECTIVE HAND PLACEMENT OF ROCK OR STONE FOLLOWED BY COMPACTED MAY ALSO BE REQUIRED.
 - DUMPING OF ROCK SLOPE PROTECTION AT THE TOP OF SLOPES AND ROLLING OR PUSHING INTO PLACE SHALL NOT BE PERMITTED.
 - ROCK SLOPE PROTECTION SHALL MEET THE GRADATION BELOW AS BEST AVAILABLE FROM LOCAL SOURCES.

TYPE VI ROCK SLOPE PROTECTION GRADATION

% PASSING	SIZE
100	60"-72"
85	54"-66"
50	36"-48"
15	30"-42"
0	24"

- NATIVE CHANNEL BED MATERIAL NOTES:**
- NATIVE CHANNEL BED MATERIAL SHALL BE EXISTING BED MATERIAL EXCAVATED DURING THE WORK UNDER THIS PROJECT. THE MATERIAL SHALL BE STOCKPILED AND REUSED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER.
- LOW FLOW CHANNEL NOTES:**
- THE LOW FLOW CHANNEL AND LOW CHANNEL BENCHES SHALL BE EXISTING CHANNEL MATERIAL AND SHALL BE PLACED TO MIMIC THE NATURAL COBBLE / ROCK RIVER BOTTOM AND ROUGHNESS THROUGHOUT THE PROJECT TO THE SATISFACTION OF THE ENGINEER.

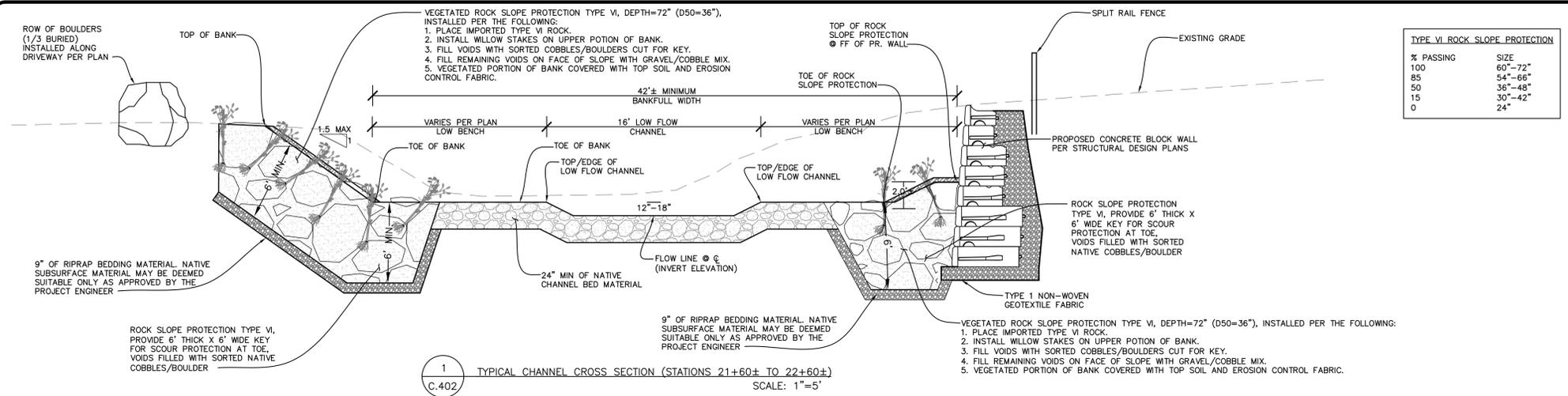
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ESPC
 CIVIL AND ENVIRONMENTAL ENGINEERING
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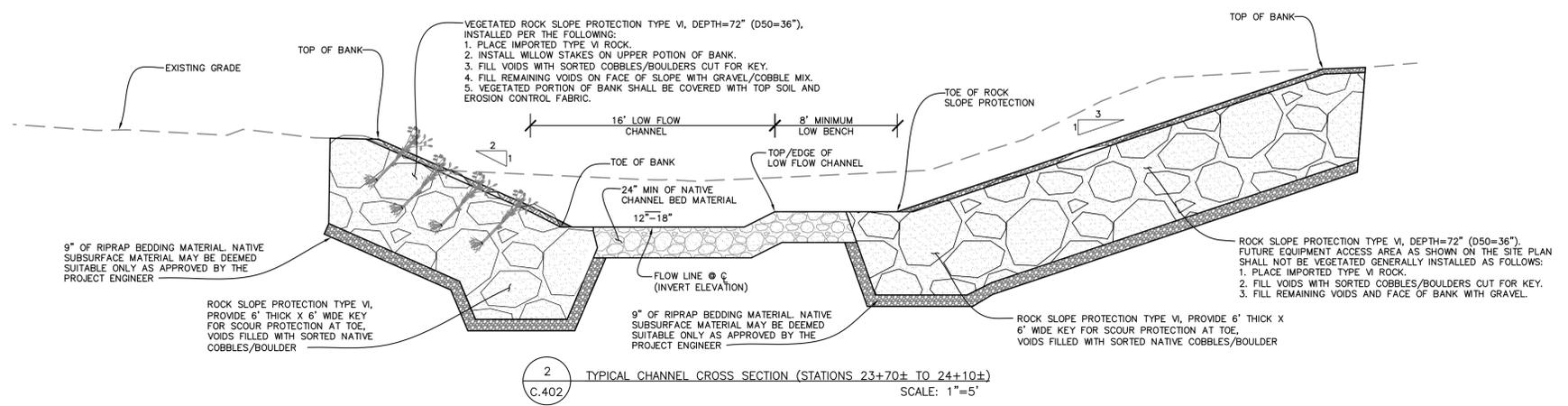
KEENE, NY
 GULF BROOK CHANNEL RESTORATION PROJECT
 TYPICAL CHANNEL CROSS-SECTION DETAILS
 KEENE, NY

DRAWN	SJD
CHECKED	SJD
DATE	3/9/17
SCALE	AS SHOWN
JOB NO.	ESPC # 20141253

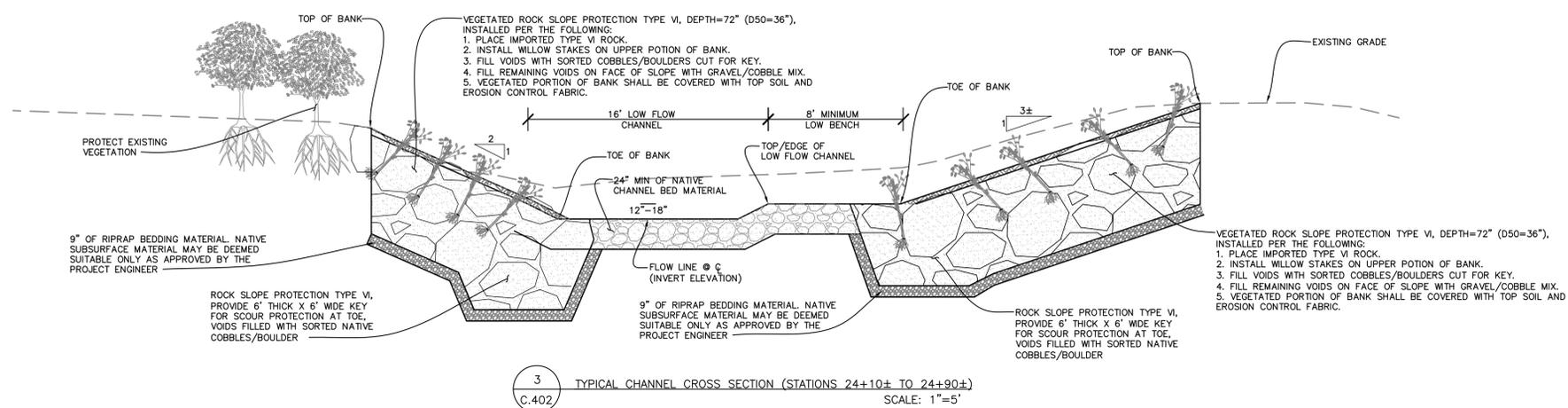
C.401



1 TYPICAL CHANNEL CROSS SECTION (STATIONS 21+60± TO 22+60±)
C.402 SCALE: 1"=5'



2 TYPICAL CHANNEL CROSS SECTION (STATIONS 23+70± TO 24+10±)
C.402 SCALE: 1"=5'



3 TYPICAL CHANNEL CROSS SECTION (STATIONS 24+10± TO 24+90±)
C.402 SCALE: 1"=5'

REVISIONS	BY

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 CIVIL AND ENVIRONMENTAL ENGINEERING
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KEENE, NY
 GULF BROOK CHANNEL RESTORATION PROJECT
 TYPICAL CHANNEL CROSS-SECTION DETAILS
 KEENE, NY

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CHECKED	SJD
DATE	3/9/17
SCALE	AS SHOWN
JOB NO.	ESPC # 20141253

C.402

**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY**

ATTACHMENT 4



Notes
 - No mapped wetlands in Phase III project area per Adirondack Park Agency.
 - NYSODP Imagery from 2017.
Map By: EHB and JHB
Date: October 1, 2018

Depth of Disturbance*
 Greater than 2ft
 *Tree removal required in depth of disturbance areas.

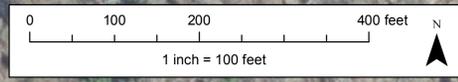
Stream Centerline
Parcel Boundary
Potential Tree Clearing Area of Potential Extent (APE)

**Gulf Brook Phase III
 Keene, NY**

Project Areas for Review

Fitzgerald Environmental Associates, LLC.
 18 Severance Green, Suite 203
 Colchester, VT 05446
 Tel: 802.256.7276
 www.fitzgeraldenvironmental.com

ESPC
 civil and environmental engineering





engineering and environmental consulting

May 12, 2016

Mr. William Ferebee, Supervisor
Town of Keene
P.O. Box 89
Keene, NY 12942

RE: **Gulf Brook Restoration** – Up Stream Flood Resilience Improvement
Recommendations

Dear Mr. Ferebee:

As you know, the ESPC Project Team is working for Essex County to develop design plans and complete permitting for the Gulf Brook Restoration Project. This project focuses on implementing measures that are located within Keene Hamlet to provide improved flood protection and resiliency. It has been strongly recommended to also focus efforts on implementing stabilization measures upstream of the hamlet to help reduce the loading of coarse sediment into the hamlet during large storm events. As such, part of our scope has included assessing conditions and developing conceptual improvements for implementation in Gulf Brook upstream of Keene Hamlet.

Five project areas have been identified in Gulf Brook that are located upstream of the hamlet. Attached to this letter includes a map identifying the location of each project area and a brief narrative description characterizing each area and the presentation of restoration concepts.

In order to provide improved flood protection to the hamlet, provide better protection to the existing and new infrastructure that is currently in design and soon to be constructed, and to aid the Town and the County in channel and structure maintenance in the future, it is recommended that designs be developed for each of these project areas upstream of the hamlet and that those designs be constructed either at the same time as construction of the improvements in the hamlet or as soon as possible thereafter.

ESPC and its Project Team are pleased to be completing this project for the Town of Keene and Essex County. Please feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Erik C.F. Sandblom', is written over a horizontal line.

Erik C.F. Sandblom, P.E.
Principal Engineer

Enclosure

Cc: Michael Mascarenas, Essex County Community Planning
Jim Dougan, Essex County Public Works

ERIK SANDBLOM, PC

VERMONT OFFICE:

P.O. BOX 212

589 AVENUE D

SUITE 10

WILLISTON, VT 05495

TEL 802-383-0486

FAX 802-383-0490

NEW YORK OFFICE:

P.O. BOX 2787

43 DURKEE STREET

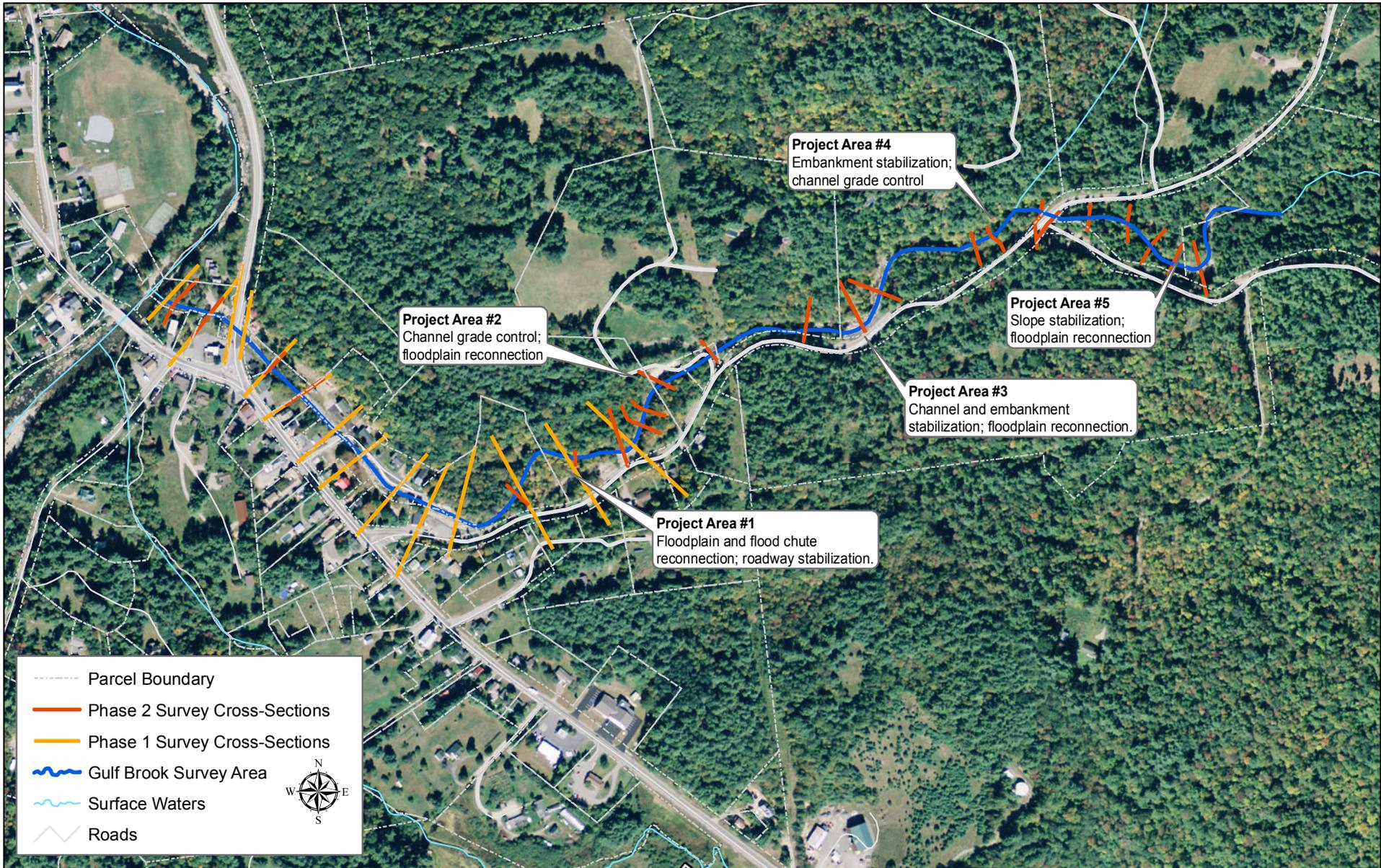
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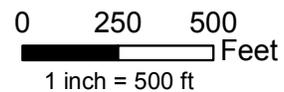
Fitzgerald
Environmental
Associates, LLC



civil and environmental engineering

Town of Keene, NY

Gulf Brook Restoration Project Phase 2 - Geomorphic Recommendations



Date: Apr 20, 2016
Drawn: JHB; EPF

Notes:
- Background imagery is post-Irene
- Geomorphic surveys were conducted
by FEA staff August-October 2015

Keene Gulf Brook Restoration – Phase 2 Upstream Project Areas

April 20, 2016

Project Area #1

This site is located immediately upstream of the Gulf Brook Phase 1 project limits on the Auer property and along Hurricane Road. At this location the channel has good access to a floodplain located between the channel and Hurricane Road. During Tropical Storm Irene, this area experienced severe deposition of woody debris and coarse sediment. This is likely exacerbated by an undersized bridge on the driveway serving the Auer residence across the brook. A portion of Hurricane Road was flooded and eroded in 2011, and flood recovery work left piles of dredging spoils and berms along the banks of the brook (see photo below).

Restoration concepts for this site include floodplain reconnection, re-grading and “roughening” of the floodplain to encourage the capture of debris and sediment in the next large flood, design of a flood chute to safely pass overbank flow through the Auer property, and embankment stabilization along Hurricane Road. The flood resiliency work at this site would cover approximately 600 linear feet of Gulf Brook.



Spoils from post-Irene dredging along the Hurricane Road.

Project Area #2

This site is located immediately upstream of a 90-degree bend in Gulf Brook along Hurricane Road, which is the upstream limit of Project Area #1. During the 2011 flood an undersized bridge on High Meadows Way was destroyed and the road embankment immediately downstream was undermined. As part of the flood recovery work the bridge was rebuilt with a span of 60 feet and includes an approximate bankfull channel. However, the in-stream restoration work left the channel with a sharp change in slope and an over-widened channel in the downstream area (see photo below). This resulted in a floodplain disconnection on the right bank downstream of the repaired embankment.

Restoration concepts for this site include floodplain reconnection, installation of grade control structures (e.g., weirs), “roughening” of the channel to slow flood flow velocity and encourage the capture of debris and sediment in the next large flood, and road embankment stabilization. The flood resiliency work at this site would cover approximately 300 linear feet of Gulf Brook.



Stabilized embankment along High Meadows Way with abrupt change in channel slope downstream.

Project Area #3

This site is located between the High Meadows Way bridge and the intersection of Hurricane and Jackson Roads. During Tropical Storm Irene, this area experienced severe erosion of the road embankment and downcutting in the river channel (i.e., incision). The tall road embankment was washed out for approximately 200 feet. It was rebuilt but appears to be unstable due to the steep slope and the potential for the river bed to continue incising, thereby undermining the road embankment. On the upstream side of the embankment there are several areas of exposed fabric underlayment where the riprap has slipped down the slope (see photo below).

Restoration concepts for this site include natural channel raising, floodplain reconnection, installation of grade control structures (e.g., weirs), and road embankment stabilization. The flood resiliency work at this site would cover approximately 300 linear feet of Gulf Brook.



Unstable embankment armor along Hurricane Road.

Project Area #4

This site is located immediately downstream of the Hurricane Road bridge. During Tropical Storm Irene, this area experienced moderate to severe erosion of the road embankment and downcutting in the river channel (i.e., incision) in the downstream reach. The road embankment is unstable due to the steep slope and the potential for the river bed to continue incising, thereby undermining the road embankment. There are several areas where the bank erosion is within 3 feet of the edge of pavement (see photo below).

Restoration concepts for this site include road embankment armoring while minimizing encroachment on the channel, and installation of grade control structures (e.g., weirs) in the downstream reach. The flood resiliency work at this site would cover approximately 300 linear feet of Gulf Brook.



Unstable embankment along Hurricane Road southwest of the intersection with Jackson Road.

Project Area #5

This site is located upstream of the Hurricane Road bridge. During Tropical Storm Irene, this area experienced severe deposition of woody debris and coarse sediment. In addition, a large slope failure along Jackson Road became more unstable and contributes significant amounts of sediment to the channel. Downstream of the slope failure, the inlet to a flood chute in between the brook and Jackson Road was blocked off by a large pile of logs left by the floodwaters. The loss of access to this flood chute increases floodwater velocity resulting in greater potential for bank erosion in this area.

Restoration concepts for this site include debris removal and floodplain/flood chute reconnection, “roughening” of the channel along the eroded slope and toe protection, and bioengineering stabilization of the upper slope. The flood resiliency work at this site would cover approximately 600 linear feet of Gulf Brook.



Tall slope failure along Jackson Road.

**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY**

**ATTACHMENT 5
USFWS CONSULTATION LETTER**



**Governor's Office of
Storm Recovery**

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

November 5, 2018

Robyn A. Niver
Endangered Species Biologist
United States Fish and Wildlife Service
New York Field Office (region 5)
3817 Luker Road
Cortland, NY 13045

Re: ESA/MBTA/BGEPA Consultation for Essex County Gulf Brook Restoration and Flood Mitigation Phase 3 Project

Dear Ms. Niver:

The Governor's Office of Storm Recovery (GOSR), acting under the auspices of New York State Homes and Community Renewal's (HCR) Housing Trust Fund Corporation (HTFC), on behalf of the Department of Housing and Urban Development (HUD) is preparing an Environmental Assessment (EA) for the Essex County Gulf Brook Restoration and Flood Mitigation Project (the "Proposed Action"). Funding is being provided by the HUD Community Development Block Grant Disaster Recovery (CDBG-DR) program. The project described herein was analyzed pursuant to Section 7 of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d); and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat 755).

The purpose of this letter is to provide the U.S. Fish and Wildlife Service – New York Field Office (USFWS) notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act. We are requesting concurrence from the U.S. Fish and Wildlife Service that the proposed Essex County Gulf Brook Restoration and Flood Mitigation Phase 3 Project **may affect, but is not likely to adversely** affect the Indiana Bat and Northern Long-eared Bat.

Program Overview

During Hurricane Irene, rainfall caused Gulf Brook to overflow its banks and flow down the center of Route 9N. Floodwater inundated roadways, homes and businesses and caused severe damage. Completion of the proposed project fosters the recovery of the community by reducing the risk of localized flooding for the residences and businesses in the Town of Keene and by providing a flood-safe area for redevelopment of residential and commercial facilities in the Town.

The severe slopes and instability of the stream bank contributed to slope failure, deposition of tons of debris and degradation of aquatic habitat. The impacts to the project area from Hurricane Irene caused unprecedented

destruction of the natural features of the riparian environment. Since the storm, some efforts have succeeded in the reconstruction of much of the damaged infrastructure and to protect some properties from damage in future storms, but while these measures have stabilized the channel banks and provided flood mitigation in specific areas, properties adjacent to other parts of the stream, particularly downstream of the Bucks Lane Bridge still remain vulnerable.

The project is the implementation of various stream restoration and flood mitigation measures within Gulf Brook (also identified as Jones Brook). The proposed project area is within the bed, banks and adjacent upland areas of Gulf Brook. The proposed project actions are located upstream approximately 1,000 feet east of the intersection of Jackson Road and Hurricane Road to the downstream confluence of Gulf Brook and the East Branch of the Ausable River. The project starts at the northwest (upstream) coordinate of 44°15'25.46" North and - 73°46'40.41" to the southeast (downstream) coordinate of 44°15'22.95" North and - 73°47'31.87" (See Figures 1 and 2). USFWS has previously reviewed Phase 2 acknowledged GOSR determination of a "may affect, but not likely to adversely affect," determination for the federally listed Indiana bat (*Myotis sodalis*; Endangered) and the northern long-eared bat (*Myotis septentrionalis*; Threatened) as habitat suitable for summer roosting is present within the project area. The Service concurs with this determination as no known roosts are within or near the project area, a small amount of trees are proposed to be removed (approximately 12 trees), and tree removal will occur between November 1 and March 31, when bats are still in hibernation. However, Phase 3 has not been reviewed.

Phase 3 project activities are summarized below.

Gulf Brook Phase 3

The Gulf Brook Phase 3 project will include approximately 2,500 linear feet in the upper portion of Gulf Brook. Phase 3 has **five distinct projects areas** (see attached figures) These areas begin immediately upstream of the Ticknor property and continue upstream for approximately 1,000 feet east of the intersection of Jackson Road and Hurricane Road. During Tropical Storm Irene, damage to these five areas included the destruction of an undersized bridge; undermining of the road embankment and stream banks; severe deposition of woody debris and coarse sediment; severe erosion and down cutting in the river channel (i.e., incision); and large slope failure which contributed significant amounts of sediment and debris to the stream channel. The following flood mitigation and restoration measures will be implemented along this segment of Gulf Brook to protect downstream infrastructure, homes and businesses from future storm events:

- Removal of spoils, debris, and sediment;
- Replacement of the undersized bridge;
- Floodplain / flood chute reconnection by re-grading and "roughening" the floodplain;
- Installation of grade control structures (i.e. weirs) to slow flood flow velocity and encourage the capture of debris and sediment;
- Stabilizing road banks (armoring and bioengineered stabilization techniques);
- Slope and toe protection at the base of the steep banks that failed; and
- Bioengineering to stabilize the upper slope.

A conceptual design and resilience Improvement Recommendation have been completed. No design has been performed at the time of this environmental review.

Proposed improvements will increase water and sediment transport capacity of Gulf Brook and restore its natural function. The design goals are to mitigate flood risk and also to enhance the environmental health by addressing bank erosion, thereby improving water quality, and improving aquatic and riparian habitat. The project may require the replacement of the County Bridge and realignment of the outfall in to the East Branch of the Ausable River.

The construction for the project will involve the excavation and digging for changes in channels and bank stabilization. In addition, the existing County Bridge (Bucks Lane Bridge) may be dismantled, removed and replaced with a new steel and concrete structure, and culverts may be constructed or replaced. Construction will require digging/earthwork.

Tree removal at each site is required.

Compliance

Endangered Species Act - Effect Determinations

According to the USFWS Information, Planning and Conservation (IPaC) online planning tool and Trust Resource List generated for the proposed project (**Attachment 2**) the endangered Indiana Bat (*Myotis sodalis*) and the threatened Northern Long-eared bat (NLEB) (*Myotis septentrionalis*) can be found within the vicinity of the project area. The official species list for the proposed project indicated that there is no critical habitat in the project area.

The Indiana Bat (IB), listed as federally endangered, is a temperate, insectivorous bat. IB hibernate in caves or mines during winter and emerge during the spring, with males dispersing and remaining solitary or forming small bachelor groups until the end of the summer, and pregnant females forming maternity colonies. Summer habitat of the IB generally includes wooded areas, where they roost under loose tree bark on dead or dying trees. The IB consumes a variety of flying insects found along rivers and other inland water bodies, and the IB is sensitive to forested habitat fragmentation and urbanization of habitat that was previously used for roosting. There are no known maternity roost trees or hibernacula known to be occupied by the IB within 2.5 miles of the Project area (**Attachment 3**).

The Northern Long-eared bat (NLEB) is a temperate, insectivorous bat whose life cycle can be coarsely divided into two primary phases - reproduction and hibernation. NLEB hibernate in caves or mines during winter and then emerge in early spring, with males dispersing and remaining solitary until mating season at the end of the summer, and pregnant females forming maternity colonies in which to rear young. Summer habitat of the NLEB generally includes upland and riparian forest within heavily forested landscapes (Ford et al. 2005, Henderson et al. 2008). Roost trees are usually intact forest, close to the core and away from large clearings, roads, or other sharp edges (Menzel et al. 2002, Owen et al. 2003, Carter and Feldhammer 2005). The project site consists of a cleared stream bank lined with residential yards on either side, and the project site is surrounded by residential development. There are no known maternity roost trees or hibernacula known to be occupied by NLEB in the vicinity of the Project (**Attachment 3**).

NYSDEC conducted a summer habitat assessment for Indian bat habitat at the project site and found.

Project Areas 2–5: these areas are at a **high enough** location that Indiana bats would not be a concern (IPaC only lists NLEB). The project areas are about 11.5 – 12.5 miles from the nearest known NLEB hibernation site, and is nearly 17 miles from the nearest Indiana bat occurrence.

Project Area 1: this project area is low enough that IPaC lists both **NLEB and Indiana bats**. There is a datasheet of a habitat evaluation in the attached assessment. There are a few snags and trees that are large enough to be potential roosts.

To minimize potential impacts to the IB and NLEB, tree clearing will take place from **November 1 to March 31**, which is outside of the active season of the IB and NLEB. Trees that are proposed to be removed are part of a small strip of forested habitat located immediately adjacent to residential development and residential yard habitat. Any bats living in the vicinity of the Project area would still be able to breed, feed, and find shelter. Similar habitat (forested creek corridor surrounded by residential development) is located immediately north and south of the Project area (see aerial map in Attachment 1). Bats would not have to fly long distances or traverse open areas to get to alternative foraging habitat, as tracts of forested habitat are located immediately adjacent to the proposed Project. These forested tracts of land are accessible via strips of forested habitat surrounding the Project area and along Gulf Brook.

Since 1) tree clearing will be conducted when bats are hibernating, 2) the Project will not impact a large area of suitable habitat relative to the surrounding landscape, and 3) the Project will not impact high-quality habitat, a **‘may affect, not likely to adversely affect’** determination is warranted for the IB and NLEB.

If winter tree is determined at latter to be infeasible, an acoustic survey will be completed after May 15, 2019 or an emergence surveys will be completed as determined by consultation with USFWS.

GOSR understands that the USFWS presumes that all activities are implemented as described herein. GOSR will promptly report any departures from the described activities that would change the effect determination above to the New York Field Office. GOSR will provide the New York Field Office with the results of any surveys conducted for the IB and NLEB. Involved parties will promptly notify the New York Field Office upon finding a dead, injured, or sick IB or NLEB.

Migratory Bird Treaty Act

According to the USFWS Information for Planning and Conservation (IPaC) Resource List, accessed June 14, 2017 (Attachment 2), there are several migratory birds that could potentially be affected by the proposed Project. The primary nesting season for migratory birds is early April to mid-July. To minimize impacts to migratory birds, tree clearing will be performed from November 1 to March 31, which is outside of the primary nesting season. Precautions will be used to protect any migratory birds that may be found in or near the Project area. Such precautions include minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of potential bird presence. We anticipate these measures should avoid any take of migratory birds. It is anticipated that passerine birds would temporarily leave the area during construction due to noise and disturbance.

Bald and Golden Eagle Protection Act

The bald eagle (*Haliaeetus leucocephalus*) is a long-lived bird, with a life span of more than 30 years in the wild. Bald eagles prefer undisturbed areas near large lakes and reservoirs, marshes and swamps, or stretches along rivers where they can find open water and their primary food, fish. Bald eagles generally produce one or two, and rarely three, offspring per year. In New York, the young fledge by mid to late summer at about 12 weeks of age. A bald eagle nest is a large structure, usually located high in a tall, live white pine tree near water. The nest is re-used and added to each year, often becoming eight or more feet deep, six feet across, and weighing hundreds of pounds. Once a pair selects a nesting territory, they use it for the rest of their lives. Bald eagles mate for life, returning to nest in the general area (within 250 miles) from which they fledged.

Bald eagle overwintering and nesting sites are found in Essex County. GOSR consulted with the New York Natural Heritage Program (NYNHP) to determine if any of bald eagle nest sites are located within 660 feet of the Project area. No bald eagle nest was identified within 660 feet of the Project area.

Conclusion

For the reasons listed above, we conclude that the Gulf Brook Restoration and Flood Mitigation Phase 3 Project may affect, but is not likely to adversely affect the Indiana Bat and Northern Long-eared Bat. We request your concurrence with our determinations

If you have questions or require additional information regarding this request, please contact me at (518) 474-0647 or Alicia.Shultz@nyshcr.org. Thank you for your time and consideration.

Sincerely,



Enclosures:

- Attachment 1 – Figures
- Attachment 2 – IPaC Trust Resource Report
- Attachment 3 – NYSDEC Jurisdictional Review
- Attachment 4 – Habitat Assessment

Literature Cited

- Broders, H.G., G.J. Forbes, S. Woodley, and I.D. Thompson. 2006. Range extent and stand selection for forest-dwelling northern long-eared and little brown bats in New Brunswick. *Journal of Wildlife Management* 70: 1174-1184.
- Carter, T.C., and G.A. Feldhamer. 2005. Roost tree use by maternity colonies of Indiana bats and northern long-eared bats in southern Illinois. *Forest Ecology and Management* 219:259-268.
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- Owen, S.F., M.A. Menzel, W.M. Ford, B.R. Chapman, K.V. Miller, J.W. Edwards, and P.B. Wood. 2003. Home-range size and habitat used by the northern myotis (*Myotis septentrionalis*). *American Midland Naturalist* 150:352-359.

ATTACHMENT 1

Figures



Notes
 - No mapped wetlands in Phase III project area per Adirondack Park Agency.
 - NYSODP imagery from 2017.
Map By: EHB and JHB
Date: October 1, 2018

Depth of Disturbance*
 Greater than 2ft
 *Tree removal required in depth of disturbance areas.

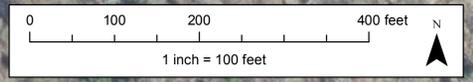
Stream Centerline
 Parcel Boundary
 Potential Tree Clearing Area of Potential Extent (APE)

**Gulf Brook Phase III
 Keene, NY**

Project Areas for Review

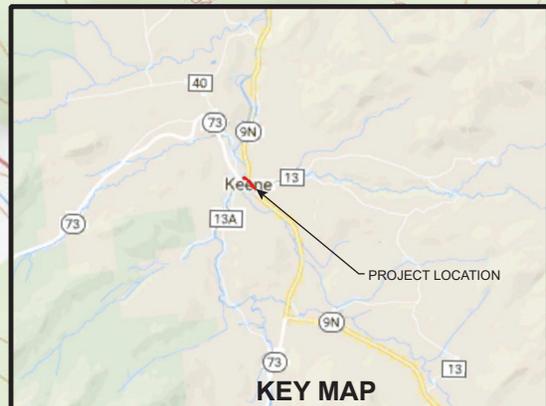
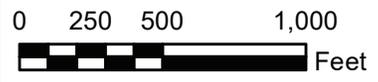
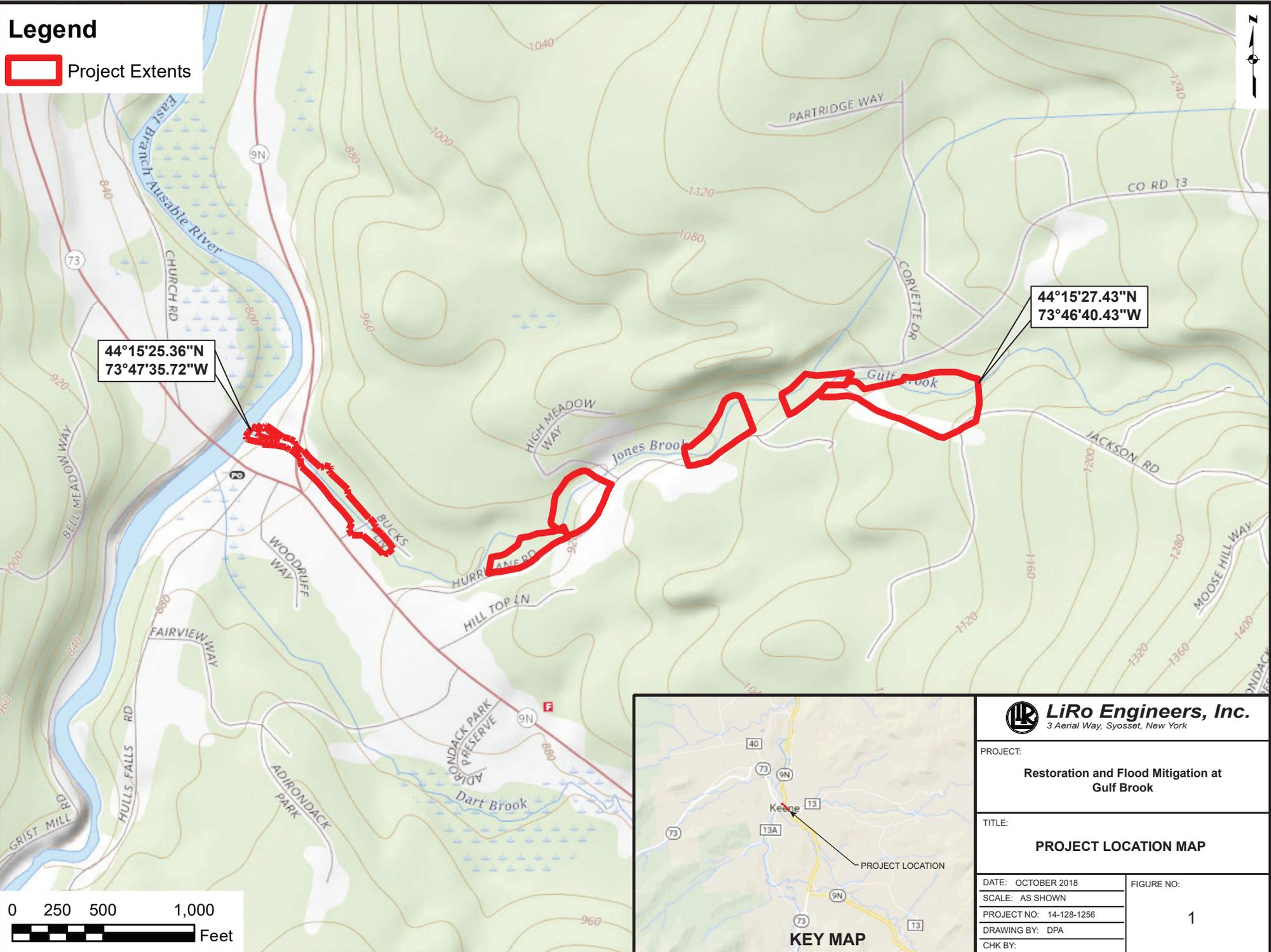
Fitzgerald Environmental Associates, LLC.
 18 Severance Green, Suite 203
 Colchester, VT 05446
 Tel: 802-256-7276
 www.fitzgeraldenvironmental.com

ESPC
 civil and environmental engineering



Legend

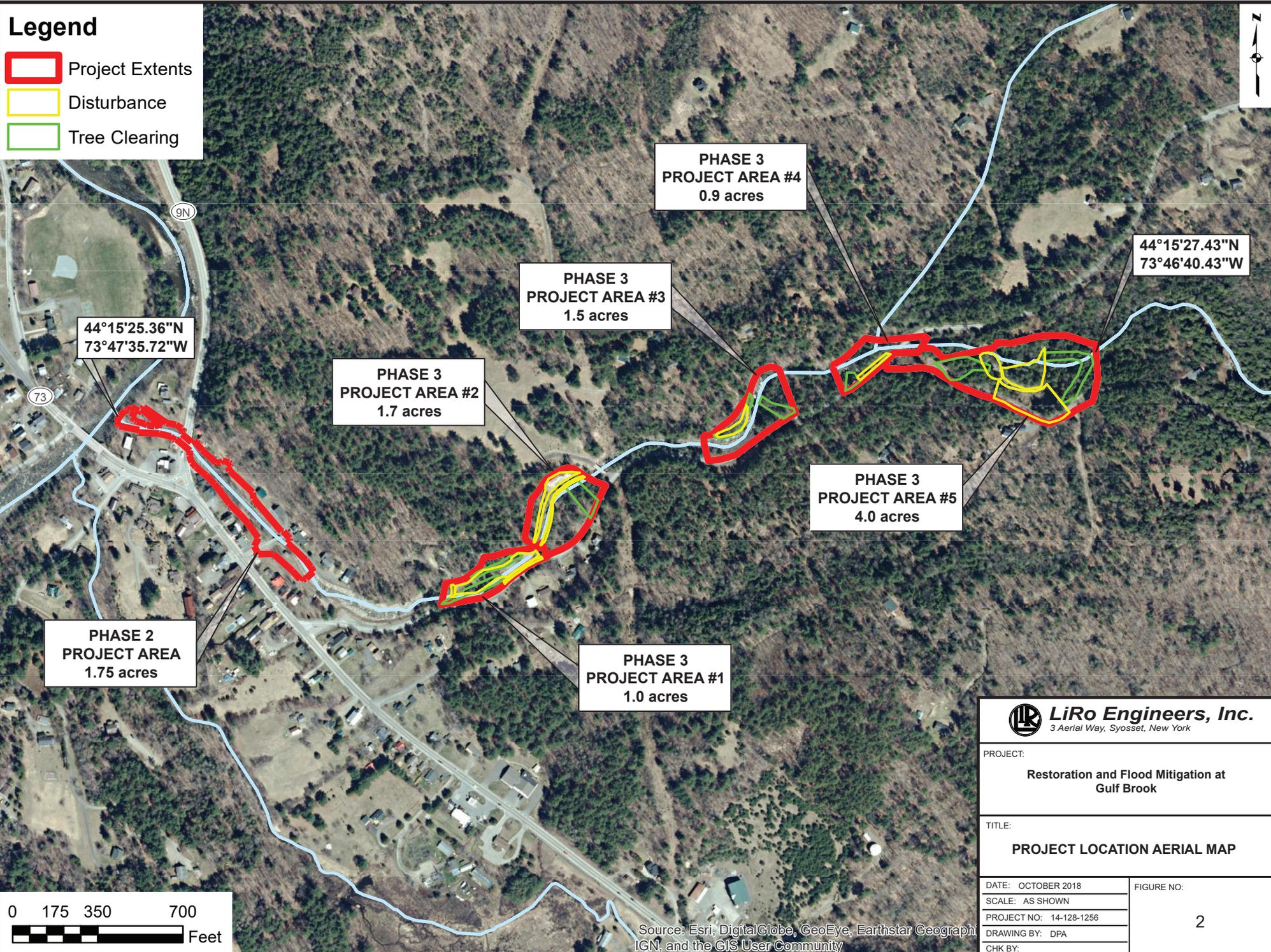
 Project Extents



 LiRo Engineers, Inc. <small>3 Aerial Way, Syosset, New York</small>	
PROJECT: Restoration and Flood Mitigation at Gulf Brook	
TITLE: PROJECT LOCATION MAP	
DATE: OCTOBER 2018 SCALE: AS SHOWN PROJECT NO: 14-128-1256 DRAWING BY: DPA CHK BY:	FIGURE NO: <p style="text-align: center; font-size: 24px;">1</p>

Legend

- Project Extents
- Disturbance
- Tree Clearing



44°15'25.36"N
73°47'35.72"W

PHASE 3
PROJECT AREA #4
0.9 acres

PHASE 3
PROJECT AREA #3
1.5 acres

44°15'27.43"N
73°46'40.43"W

PHASE 3
PROJECT AREA #2
1.7 acres

PHASE 3
PROJECT AREA #5
4.0 acres

PHASE 2
PROJECT AREA
1.75 acres

PHASE 3
PROJECT AREA #1
1.0 acres

 **LiRo Engineers, Inc.**
3 Aerial Way, Syosset, New York

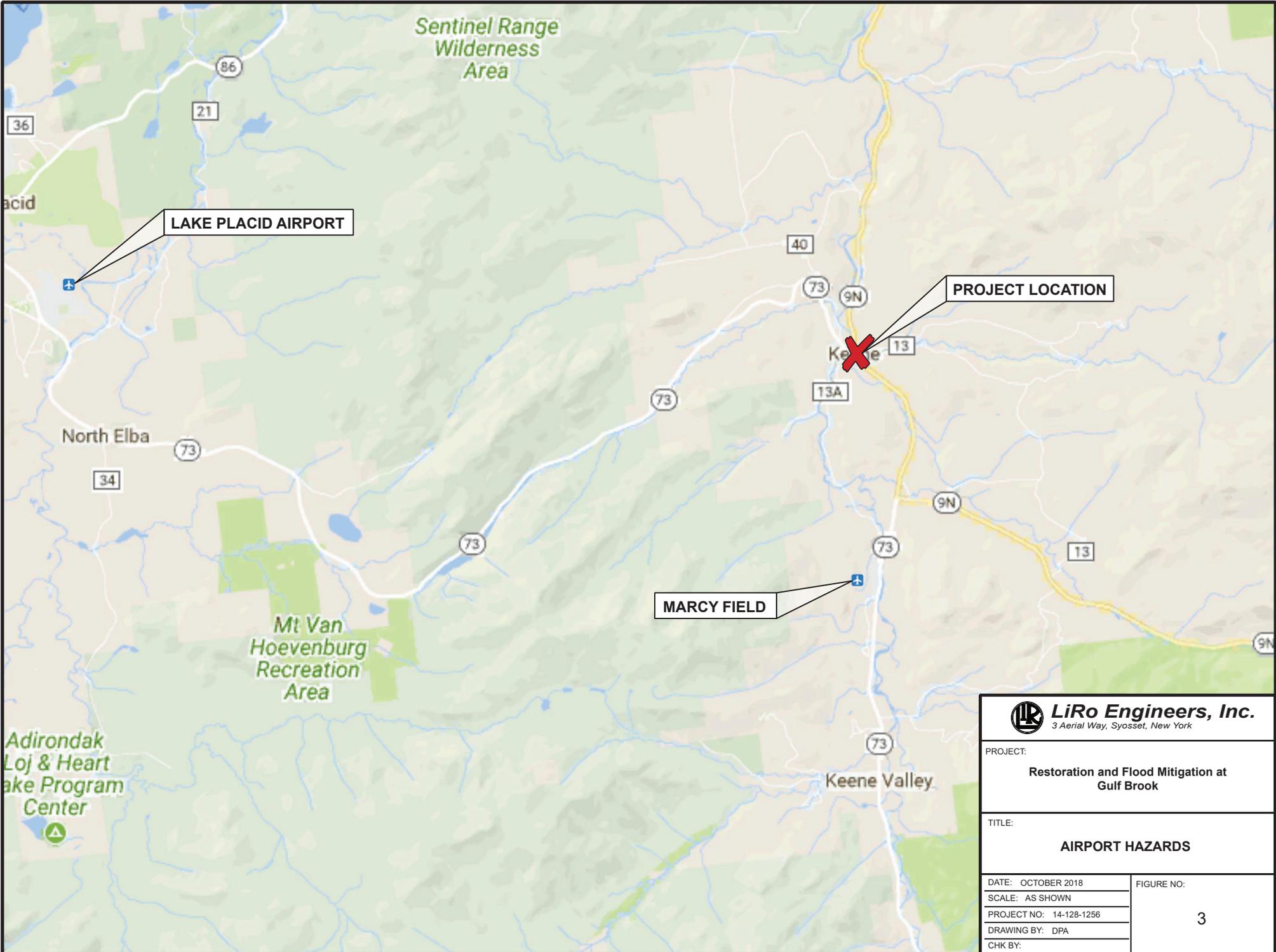
PROJECT:
**Restoration and Flood Mitigation at
Gulf Brook**

TITLE:
PROJECT LOCATION AERIAL MAP

DATE: OCTOBER 2018
SCALE: AS SHOWN
PROJECT NO: 14-128-1256
DRAWING BY: DPA
CHK BY:

FIGURE NO:
2





PROJECT:
Restoration and Flood Mitigation at Gulf Brook

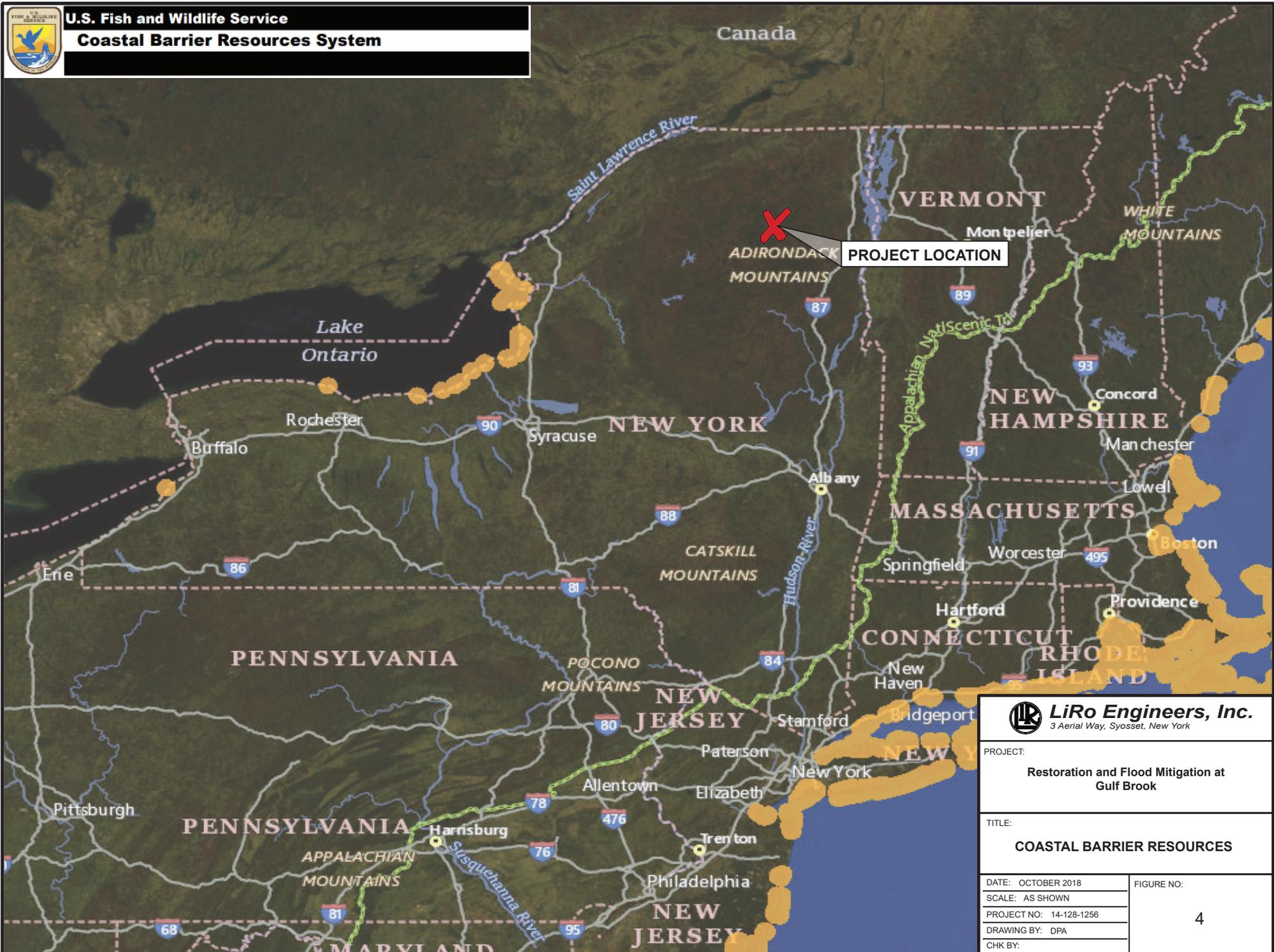
TITLE:
AIRPORT HAZARDS

DATE: OCTOBER 2018
SCALE: AS SHOWN
PROJECT NO: 14-128-1256
DRAWING BY: DPA
CHK BY:

FIGURE NO:
3



U.S. Fish and Wildlife Service
Coastal Barrier Resources System



 LiRo Engineers, Inc. 3 Aerial Way, Syosset, New York	
PROJECT: Restoration and Flood Mitigation at Gulf Brook	
TITLE: COASTAL BARRIER RESOURCES	
DATE: OCTOBER 2018	FIGURE NO.:
SCALE: AS SHOWN	4
PROJECT NO: 14-128-1256	
DRAWING BY: DPA	
CHK BY:	

ATTACHMENT 2

IPaC



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 Luker Road
Cortland, NY 13045-9385

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

In Reply Refer To:

November 05, 2018

Consultation Code: 05E1NY00-2019-SLI-0283

Event Code: 05E1NY00-2019-E-00928

Project Name: Gulf Brook Phase 3

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (<http://www.fws.gov/windenergy/>)

[eagle_guidance.html](#)). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9385

(607) 753-9334

Project Summary

Consultation Code: 05E1NY00-2019-SLI-0283

Event Code: 05E1NY00-2019-E-00928

Project Name: Gulf Brook Phase 3

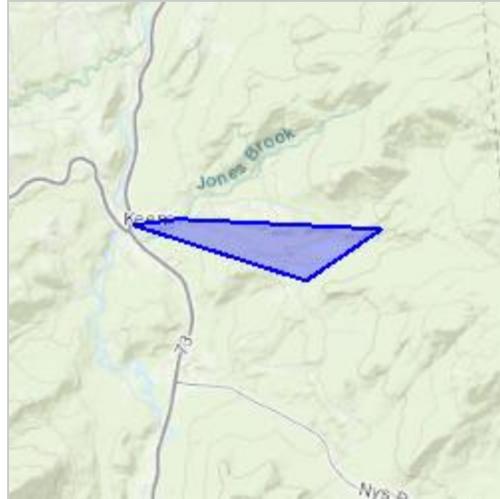
Project Type: ** OTHER **

Project Description: The Gulf Brook Phase 3 project will include approximately 2,500 linear feet in the upper portion of Gulf Brook. Phase 3 has five distinct projects areas (see attached figures) These areas begin immediately upstream of the Ticknor property and continue upstream for approximately 1,000 feet east of the intersection of Jackson Road and Hurricane Road. During Tropical Storm Irene, damage to these five areas included the destruction of an undersized bridge; undermining of the road embankment and stream banks; severe deposition of woody debris and coarse sediment; severe erosion and down cutting in the river channel (i.e., incision); and large slope failure which contributed significant amounts of sediment and debris to the stream channel. The following flood mitigation and restoration measures will be implemented along this segment of Gulf Brook to protect downstream infrastructure, homes and businesses from future storm events:

- Removal of spoils, debris, and sediment;
- Replacement of the undersized bridge;
- Floodplain / flood chute reconnection by re-grading and “roughening” the floodplain;
- Installation of grade control structures (i.e. weirs) to slow flood flow velocity and encourage the capture of debris and sediment;
- Stabilizing road banks (armoring and bioengineered stabilization techniques);
- Slope and toe protection at the base of the steep banks that failed; and
- Bioengineering to stabilize the upper slope.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/44.25331438309051N73.76033365057141W>



Counties: Essex, NY

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

ATTACHMENT 3

NYSDEC Jurisdictional Review with Bat Location Map

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife

625 Broadway, 5th Floor, Albany, NY 12233-4750

P: (518) 402-8924 | F: (518) 402-8925

www.dec.ny.gov

October 11, 2018

Alicia Shultz
38-40 State Street
Hampton Plaza
Albany, NY 12207

RE: Gulf Brook restoration and flood mitigation
Town of Keene, Essex Co, NY

Dear Ms. Shultz,

We received your jurisdictional inquiry request for the Gulf Brook restoration and flood mitigation project in the town of Keene, Essex County. It is our understanding that flood mitigation will be provided for 4,000 linear feet along Gulf Brook, and will result in tree removal in five locations to facilitate access. Based on our understanding of the project and review of the NYS Resources map created by Amanda Bailey on 10/11/2018 (attached), we have the following comments on the project:

STATE-LISTED SPECIES

All threatened or endangered species are subject to regulation under Article 11, Title 5 of the Environmental Conservation Law and a permit is required for a taking of that species pursuant to 6 NYCRR Part 182. Besides death of individuals, taking includes harassment, interference with essential behaviors, and adverse modification of habitat. **If the site is in close proximity to known occurrences of state-protected species, additional information on the proposal will be required by the appropriate regional office for a determination on the need for an incidental take permit.**

We have reviewed the available information in the New York Natural Heritage Program database on known occurrences of rare or state-listed bat species. This project area does not occur in the immediate vicinity of known occurrences of rare or state-listed bat species (see NYS Resources map, attached). The major concern for bat species in relation to this project would be the destruction of potential roosts and roosting habitat that may occur if tree clearing is required. Because this project does not take place within known occupied habitat, there are no restrictions on cutting.

The absence of data does not necessarily mean that any rare or state-listed bat species do not exist on or adjacent to the proposed site. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence of all rare or state-listed bat species. To avoid potential take, DEC *recommends* that any tree clearing be conducted between November 1 and March 31, when bats are inactive in hibernation sites. DEC also recommends that all snag and cavity trees remain uncut, unless their removal is necessary for protection of human life and property. For more information, please refer to the DEC Northern long-eared bat protective measures guidance, available at:

<http://www.dec.ny.gov/animals/106090.html>.



Department of
Environmental
Conservation

This document is only intended to address state-listed bat species. Other rare or state-listed species, natural communities or other significant habitats may exist within the project area and would require additional review. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

OTHER

USFWS Cortland Field Office

If a federal agency is involved in the project, or if federal funding is used, there are additional considerations for federally listed species. Section 7(a)(1) of the Endangered Species Act requires federal agencies to use their authorities to conserve listed species. Section 7(a)(2) requires federal agencies to consult on any action that may affect a listed species.

Other permits from this Department or other agencies may be required for projects conducted on this property now or in the future. Also, regulations applicable to the location subject to this determination occasionally are revised and you should, therefore, verify the need for permits if your project is delayed or postponed. This determination regarding the need for permits will remain effective for a maximum of one year unless you are otherwise notified. Applications may be downloaded from our website at www.dec.ny.gov under "Programs" then "Division of Environmental Permits."

Please contact this office if you have questions regarding the above information. Thank you.

Sincerely,

A handwritten signature in black ink that reads "Amanda Bailey". The signature is written in a cursive, flowing style.

Amanda Bailey
Division of Fish and Wildlife
Amanda.bailey@dec.ny.gov
518-402-8859

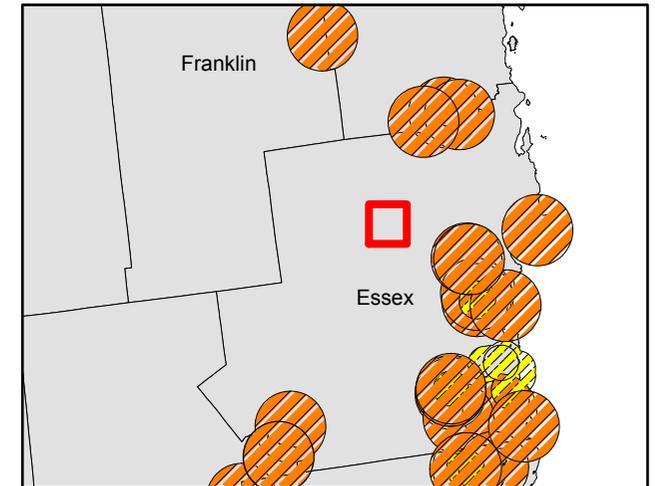
Cc: Lori Shirley, Governor's Office of Storm Recovery
May O'Malley, NYSDEC Division of Environmental Permits
Tim Watson, NYSDEC Regional Wildlife Biologist, Region 5
Marc Migliore, NYSDEC Regional Permit Administrator, Region 5



NYS Resources Map

Gulf Brook Phase III Keene, Essex County

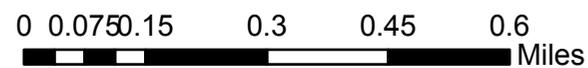
Prepared by AMB on 10/11/2018



-  Project Area
-  Indiana Bat
-  Northern Long-eared Bat



**Department of
Environmental
Conservation**



1 inch = 1,250 feet

Disclaimer: this map was prepared by the NYSDEC using the most current data available. It is deemed accurate but is not guaranteed. NYSDEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data. This map may contain information that is considered sensitive and therefore the distribution of this map is strictly prohibited.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits

625 Broadway, 4th Floor, Albany, New York 12233-1750
P: (518) 402-9167 | F: (518) 402-9168 | deppermitting@dec.ny.gov
www.dec.ny.gov

May 1, 2017

Ms. Lori Shirley
Governor's Office of Storm Recovery
99 Washington Avenue
Suite 1224
Albany, NY 12260

RE: Restoration and Flood Mitigation at Beede and Gulf Brooks
Town of Keene , Essex County

Dear Ms. Shirley:

We received your jurisdictional inquiry request for Restoration and Flood Mitigation at Beede and Gulf Brooks located at Gulf Brook as it empties into the Walton Brook near the intersection of NYS Route 9N and State Hwy 73 and Beed Brooks near the intersection of State Hwy 73 and St Huberts Rd in the Town of Keene, Essex County. It is our understanding that the project will be to regrade and roughen the floodplain, design a flood chute for overbank flow, and stabilize the embankment, rebuild the bridge, in-stream restoration work includes change of slope and widening the channel, rebuild washed out road, grade control, and debris removal. For Beede Brook they will install grade contract and drop structures to maintain channel slope and dissipate high flow energy with in the brook, expand the capacity of Gulf Brook to transport water and sediment through restoration of the floodplain and stabilized road embankments. Based on our understanding of the project and review of the Pre-Application Report dated 8/16/16, we have the following comments on the project:

WATER

Protection of Waters: A *stream/pond* is located within your project/site. The following provides a summary of the *stream(s)/pond(s)* within the project/site:

Name	Class	Waters Index Number
Beede Brook	AA(T)	C-25-27-38
Ausable River	AA	C-25-27
Gulf Brook	AA(T)	C-25-27-26

An Article 15, Protection of Waters Permit, pursuant to 6NYCRR Part 608 is required for any disturbance to the bed and banks of *this/these stream(s)/pond(s)*.



Please note that any project undertaken shall not result in the degradation or contravening of water quality standards of the stream. Activities resulting in sedimentation and/or turbid waters may constitute a violation of water quality standards and the Environmental Conservation Law (ECL). Care needs to be taken to stabilize the disturbed areas promptly after construction, and all necessary precautions be taken to prevent contamination of the stream by silt, sediment, fuels, solvents, lubricants, or any other pollutant associated with the project.

Stormwater Permit: If your project will disturb more than one acre of land, you must comply with the State Pollutant Discharge Elimination System (SPDES) Phase II regulations for Stormwater Discharges Associated with Construction Activities. Information regarding the SPDES General Permit for Stormwater Discharges can be found on the Department's website at: <http://www.dec.ny.gov/chemical/8468.html>.

STATE-LISTED SPECIES

We have reviewed the available information in the New York Natural Heritage Program database on known occurrences of rare or state-listed animals and plants, significant communities and other significant habitats. No records of *known* occurrences were found in the (immediate) vicinity of the project/site.

All threatened or endangered species are subject to regulation under Article 11, Title 5 of the Environmental Conservation Law and a permit is required for a taking of that species pursuant to 6 NYCRR Part 182. Besides death of individuals, taking includes harassment, interference with essential behaviors, and adverse modification of habitat. Additional information on the proposal will be required for a determination on the need for a permit.

The absence of data does not necessarily mean that any other rare or state-listed species, natural communities or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information which indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

CULTURAL RESOURCES

Your project/site appears to be located within an area of potential historical or archeological significance. If approvals/permits are needed from this Department, we may require consultation with the Office of Parks, Recreation and Historic Preservation (OPRHP) in order to better evaluate this project's impact to these resources.

For more information, please visit the New York State Office of Historic Preservation website at <http://www.nysparks.com/shpo/>.

OTHER

Adirondack Park Agency

Your project/site appears to be located within an area of Adirondack Park Agency. If approvals/permits are needed from this Department, we may require consultation with the Adirondack Park Agency.

For more information, please visit the New York State Adirondack Park Agency website at <https://apa.ny.gov/>.

Please note that this letter only addresses the requirements for the following permits from the Department:

Protection of Waters

Other permits from this Department or other agencies may be required for projects conducted on this property now or in the future. Also, regulations applicable to the location subject to this determination occasionally are revised and you should, therefore, verify the need for permits if your project is delayed or postponed. This determination regarding the need for permits will remain effective for a maximum of one year unless you are otherwise notified. Applications may be downloaded from our website at www.dec.ny.gov under "Programs" then "Division of Environmental Permits."

Please contact this office if you have questions regarding the above information. Thank you.

Sincerely,

A handwritten signature in black ink that reads "May O'Malley". The signature is written in a cursive, slightly slanted style.

May O'Malley
Division of Environmental Permits
may.omalley@dec.ny.gov
518-402-9154

Cc: NYSDEC Region 5 Environmental Permits

Attachment 4
Habitat Assessment

APPENDIX A
PHASE 1 SUMMER HABITAT ASSESSMENTS

INDIANA BAT HABITAT ASSESSMENT DATASHEET

Project Name: Gulf Brook Phase III Date: 10/26/2018
 Township/Range/Section: Keene, Essex County, NY
 Lat Long/UTM/ Zone: 18N 596784.35 E // 4900916.86 N Surveyor: A. Bailey

Brief Project Description

This project will work on providing flood mitigation for the Gulf Brook. The total project will address constrictions to the brook at the location of the Bucks Lane Bridge. This bridge may be replaced, and the shore bank will be stabilized. Sediment will be removed to change the channels and stabilize the banks.

Project Area

Project	Total Acres	Forest Acres		Open Acres
	~ 1 acre	~1 acre		
Proposed Tree Removal (ac)	Completely cleared	Partially cleared (will leave trees)	Preserve acres- no clearing	
	~0.25 acres		0.75 acres	

Vegetation Cover Types

Pre-Project	Post-Project
The project is located along Jones Brook. This brook runs along Hurricane Rd, and the area off the road is primarily forested.	The majority of the area will still be forested, with clearing for access to the project areas. .

Landscape within 5 mile radius

Flight corridors to other forested areas?

This project does not impact flight corridors to other forested areas. Flight corridors still exist.

Describe Adjacent Properties (e.g. forested, grassland, commercial or residential development, water sources)

The project site is located on Gulf Brook, just outside of the town of Keene (0.10 mi from town). The NLCD layer has the project area as partially open space (developed), and partially mixed forest.

Proximity to Public Land

What is the distance (mi.) from the project area to forested public lands (e.g., national or state forests, national or state parks, conservation areas, wildlife management areas)?

The project area is located within the Adirondack Park. It is located approximately 1 mile from the Boreas Ponds Wilderness, and about 3/4 miles from the Hurricane Mountain Wilderness area.

APPENDIX A PHASE 1 SUMMER HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area

*Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area
A single sheet can be used for multiple sample sites if habitat is the same*

Sample Site Description
Sample Site No.(s): <u> 1 </u>

Water Resources at Sample Site			
Stream Type (# and length)	Ephemeral 140 m	Intermittent	Perennial
Pools/Ponds (# and size)	Open and accessible to bats?		
Wetlands (approx. ac.)	Permanent 0	Seasonal 0	
Describe existing condition of water sources: The project is located on Gulf Brook/ Jones Brook. The water at this location is fast moving, with few pools.			

Forest Resources at Sample Site			
Closure/Density	Canopy (> 50')	Midstory (20-50')	Understory (<20')
	2	2	1
Dominant Species of Mature Trees	White pine, spruce, beech		
% Trees w/ Exfoliating Bark	0	1%	0
Size Composition of Live Trees (%)	Small (3-8 in)	Med (9-15 in)	Large (>15 in)
	60%	40%	0
No. of Suitable Snags	5		

1=1-10%, 2=11-20%, 3=21-40%, 4=41-60%, 5=61-80%, 6=81-100%

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR INDIANA BATS? Yes, see comment

<p>Additional Comments:</p> <p>This area may potentially support a roost tree and/or foraging habitat. It is on the slopes of a hill, which quickly rises above 1000 feet, ruling out the potential for Indiana bat at other project areas (this assessment is only for Project Area #1, where IPaC listed a potential for Indiana bats). However, the Project Area #1 does have a number of potential trees that could be used, and is at a suitable elevation. The small number of trees to be removed in the area (based on the current plans) may make an emergence count a feasible way to move forward if winter clearing cannot be completed.</p>

Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources

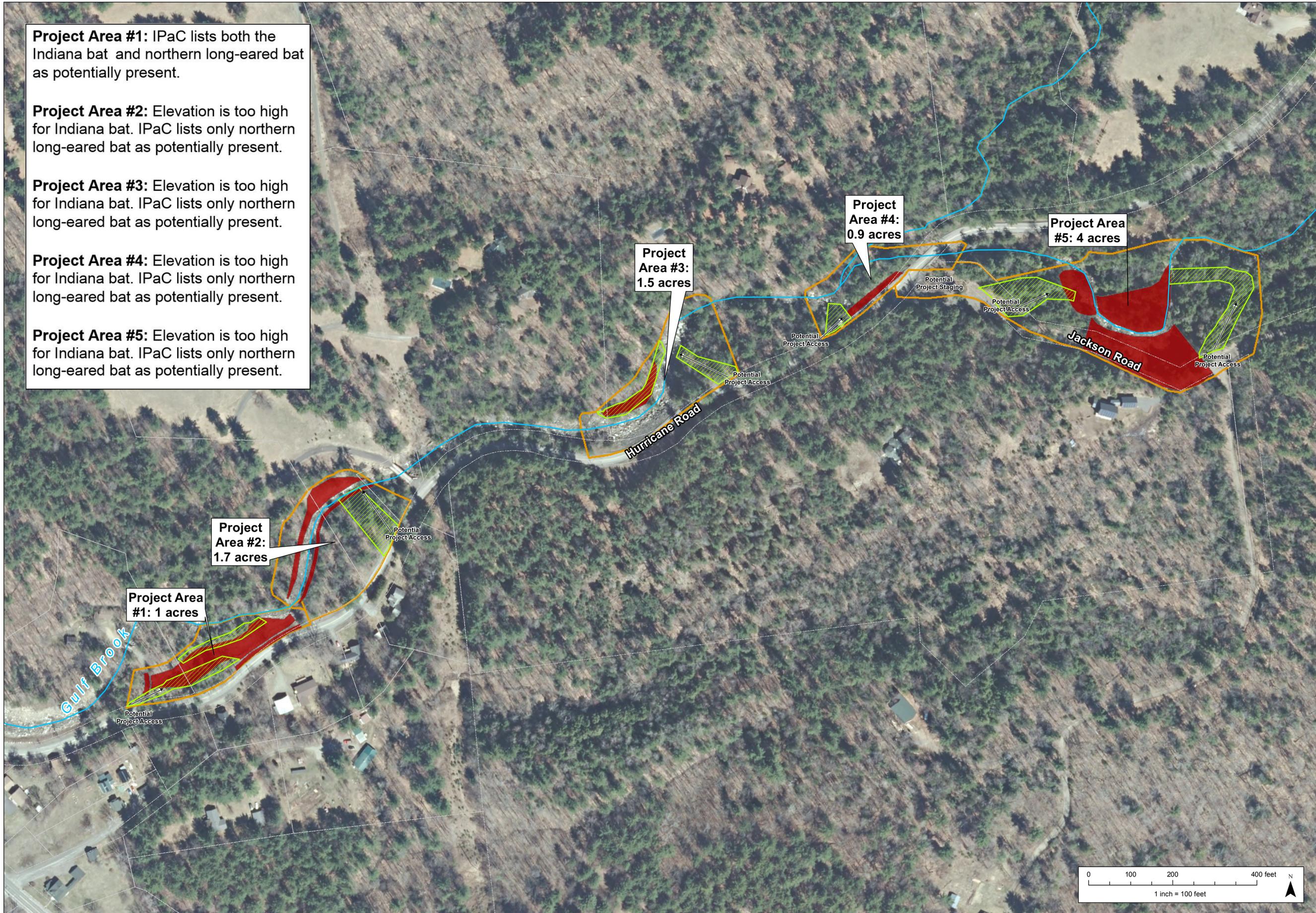
Project Area #1: IPaC lists both the Indiana bat and northern long-eared bat as potentially present.

Project Area #2: Elevation is too high for Indiana bat. IPaC lists only northern long-eared bat as potentially present.

Project Area #3: Elevation is too high for Indiana bat. IPaC lists only northern long-eared bat as potentially present.

Project Area #4: Elevation is too high for Indiana bat. IPaC lists only northern long-eared bat as potentially present.

Project Area #5: Elevation is too high for Indiana bat. IPaC lists only northern long-eared bat as potentially present.



Notes
 - No mapped wetlands in Phase III project area per Adirondack Park Agency.
 - NYSODP Imagery from 2017.
Map By: EHB and JHB
Date: October 1, 2018

Depth of Disturbance*
 Greater than 2ft
 *Tree removal required in depth of disturbance areas.

Stream Centerline
Parcel Boundary
Potential Tree Clearing Area of Potential Extent (APE)

**Gulf Brook Phase III
 Keene, NY**
Project Areas for Review

Fitzgerald Environmental Associates, LLC.
 18 Severance Green, Suite 203
 Colchester, VT 05446
 Tel: 802-256-7776
 www.fitzgeraldenvironmental.com

ESPC
 civil and environmental engineering

**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY**

**ATTACHMENT 5
NYSDEC NHP RESPONSE**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program

625 Broadway, Fifth Floor, Albany, NY 12233-4757

P: (518) 402-8935 | F: (518) 402-8925

www.dec.ny.gov

October 29, 2018

Alicia Shultz
RITM2813061
38-40 State Street
Albany, NY 12207

Re: Gulf Brook Restoration and Flood Mitigation Project
County: Essex Town/City:

Dear Ms. Shultz:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site.

Within 1/4 mile of the western portion of the project site is a documented nesting location of **Cape May warbler** (*Setophaga tigrinia*). While not listed by New York State as Endangered or Threatened, this species is a rare breeder in New York and of conservation concern. It is possible that Cape May warblers may be found in or adjacent to parts of the project site. Should any work under this project be conducted in areas with spruce, fir, or other evergreen trees, we recommend that any removal or disturbance of these trees be avoided or minimized.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 5 Office, Division of Environmental Permits, at dep.r5@dec.ny.gov.

Sincerely,



Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

1195



Department of
Environmental
Conservation



Governor's Office of Storm Recovery

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

October 10, 2018

New York State Department of Environmental Conservation
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program – Information Services
625 Broadway, 5th Floor
Albany, New York 12233-4757

Re: Natural Heritage Compliance Process Request for the Gulf Brook Restoration and Flood Mitigation Project (Essex County, NY)
Southeast portion of project at 44°15'22.95" North and -73°47'31.87" West
Northwest portion of project at 44°15'25.46" North and -73°46'40.41" West

The Governor's Office of Storm Recovery (GOSR), acting under the auspices of New York State Homes and Community Renewal's (HCR) Housing Trust Fund Corporation (HTFC), on behalf of the Department of Housing & Urban Development (HUD), are currently preparing an Environmental Assessment (EA) for the Essex County Gulf Brook Restoration and Flood Mitigation Project (see Figure 1). GOSR is acting as HUD's non-federal representative for the purposes of conducting consultation pursuant to Section 7 of the Endangered Species Act. The proposed project area is defined as Gulf Brook located immediately upstream of the Bucks Lane Bridge and downstream to the confluence of the East Branch of the Ausable River.

In its current state, Gulf Brook is straightened and confined between the bluff and Routes 9N and 73. There are two bridges that span Gulf Brook. One being a New York State Department of Transportation Bridge on Route 9N and a smaller Essex County Bridge (also referred to as Bucks Lane Bridge) that provides access to several private residences.

The project will provide flood mitigation for approximately 1,500 linear feet in the lower portion of Gulf Brook (Gulf Brook Phase II) and approximately 2,500 feet in the upper portion of Gulf Brook (Gulf Brook Phase III). This will address constrictions caused by the two bridges. It has been previously determined that the Bucks Lane Bridge opening is not wide enough to facilitate the design flow of this project.

Proposed improvements will increase water and sediment transport capacity of Gulf Brook and restore its natural function. The design goals are to mitigate flood risk and also to enhance the environmental health by addressing bank erosion, thereby improving water quality, and improving aquatic and riparian habitat. The Proposed Action provide flood mitigation for approximately 4,000 linear feet of Gulf Brook and will address constrictions caused by the two bridges. Portions of Gulf Brook will be excavated for changes in channels and bank stabilization. The banks of the brook will be stabilized with by reinforcing the banks with rip rap, rocks and vegetation. The existing County Bridge (Bucks Lane Bridge) may be dismantled, removed and replaced with a new steel and concrete structure to provide the proper sizing of the hydraulic opening. At the Route 9N bridge, sediment will be removed increasing the opening under the bridge to sufficiently allow passage of significant storm event water. Culverts may be constructed or replaced.

The purpose of this letter is to provide the New York State Department of Environmental Conservation (DEC) Natural Heritage Program (NYNHP) notice of the proposed project and determine whether the proposed project has the potential to impact any state or federal endangered, threatened, or rare species or significant natural communities.

Program Overview

During Hurricane Irene, rainfall caused Gulf Brook to overflow its banks and flow down the center of Route 9N. Floodwater inundated roadways, homes and businesses and caused severe damage. Completion of the proposed project fosters the recovery of the community by reducing the risk of localized flooding for the residences and businesses in the Town of Keene and by providing a flood-safe area for redevelopment of residential and commercial facilities in the Town.

The severe slopes and instability of the stream bank contributed to slope failure, deposition of tons of debris and degradation of aquatic habitat. The impacts to the project area from Hurricane Irene caused unprecedented destruction of the natural features of the riparian environment. Since the storm, some efforts have succeeded in the reconstruction of much of the damaged infrastructure and to protect some properties from damage in future storms, but while these measures have stabilized the channel banks and provided flood mitigation in specific areas, properties adjacent to other parts of the stream, particularly downstream of the Bucks Lane Bridge still remain vulnerable.

Compliance

According to information reviewed from the New York State Environmental Resource Mapper, there are rare plants or animals known to exist in on the site and the Essex County species lists identifies the Indiana Bat (*Myotis sodalists*) and North Long-eared Bat (*Myotis septentrionalis*). **GOSR respectfully requests NYNHP review the proposed project and location and provide consultation on whether or not the proposed project is likely to adversely affect the project location and review locations of proposed project for any records of rare species or significant natural communities in the natural heritage databases which are in the vicinity and which may be impacted by the Project Action.**

If you have questions or require additional information regarding this request, please contact me at (518) 474-0647 or Alicia.Shultz@nyshcr.org. Thank you for your time and consideration.

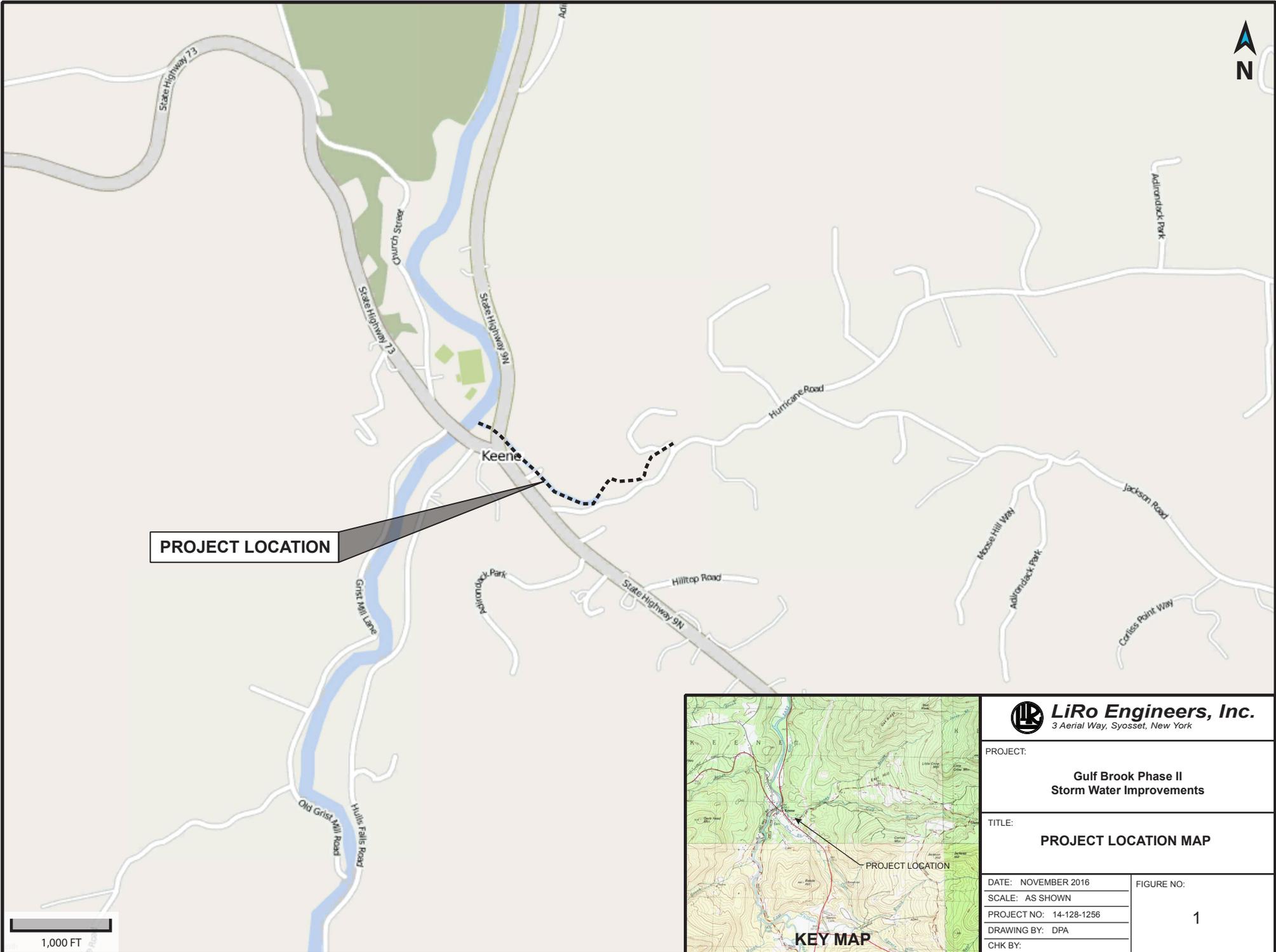
Sincerely,



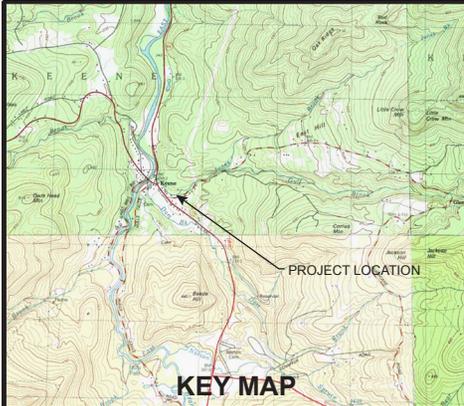
Alicia Shultz
Senior Environmental Scientist
New York State Homes and Community Renewal
38-40 State Street, Hampton Plaza
Albany NY 12207

Attachments:

Project Location Gulf Brook Phase II
Project Location Gulf Brook Phase III



PROJECT LOCATION



LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

PROJECT:
**Gulf Brook Phase II
Storm Water Improvements**

TITLE:
PROJECT LOCATION MAP

DATE: NOVEMBER 2016
SCALE: AS SHOWN
PROJECT NO: 14-128-1256
DRAWING BY: DPA
CHK BY:

FIGURE NO:
1



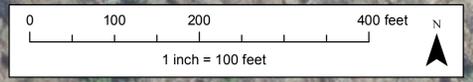
Notes
 - No mapped wetlands in Phase III project area per Adirondack Park Agency.
 - NYSODP imagery from 2017.
Map By: EHB and JHB
Date: October 1, 2018

Depth of Disturbance*
 Greater than 2ft
 *Tree removal required in depth of disturbance areas.

Stream Centerline
Parcel Boundary
Potential Tree Clearing Area of Potential Extent (APE)

**Gulf Brook Phase III
 Keene, NY
 Project Areas for Review**

Fitzgerald Environmental Associates, LLC.
 18 Severance Green, Suite 203
 Colchester, VT 05446
 Tel: 802-255-7276
 www.fitzgeraldenvironmental.com



IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Essex County, New York



Local office

New York Ecological Services Field Office

☎ (607) 753-9334

📅 (607) 753-9699

3817 Luker Road
Cortland, NY 13045-9385

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS

ENTIRE RANGE. "BREEDS ELSEWHERE"
INDICATES THAT THE BIRD DOES NOT
LIKELY BREED IN YOUR PROJECT AREA.)

Bobolink *Dolichonyx oryzivorus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 20 to Jul 31

Wood Thrush *Hylocichla mustelina*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is

the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

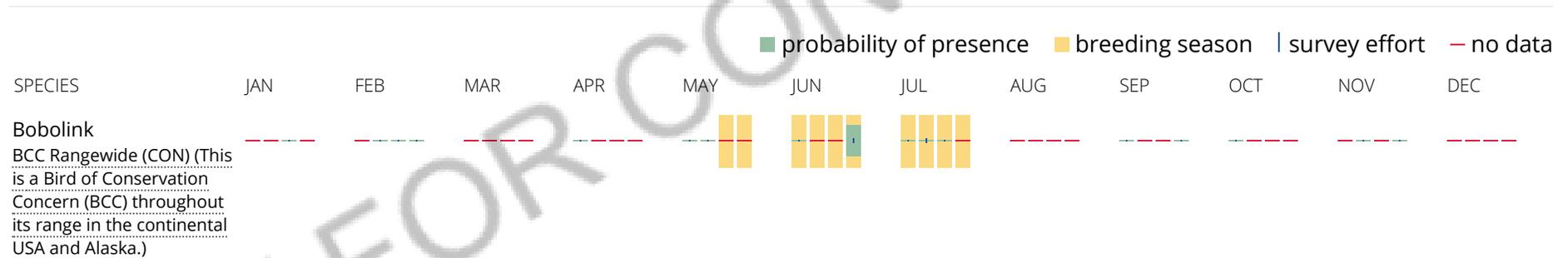
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

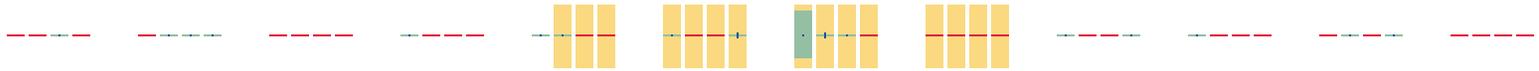
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Wood Thrush
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [E-bird Explore Data Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

[PFO1E](#)

RIVERINE

[R3UBH](#)

[R5UBH](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY**

ATTACHMENT 6



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

September 20, 2017

Mary Barthelme
Governor's Office of Storm Recovery
99 Washington Ave, Suite 1224
Albany, NY 12231

Re: HTF/ GOSR/ HUD CDBG-DR
Gulf Brook Restoration and Flood Mitigation Project
NYS Route 73 at NYS Route 9N, Keene/ Essex County
16PR08582

Dear Ms. Barthelme:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 (Title 54, Section 306108) of the National Historic Preservation Act of 1966. These comments relate only to Historic/ Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

Based on this review, it is the opinion of SHPO that there will be No Historic Properties Affected by the proposed undertaking.

If I can be of further assistance, contact me at (518) 268-2187 or Larry.moss@parks.ny.gov

Sincerely,

Larry K Moss, Historic Preservation Technical Specialist

CC: Lori Shirley

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com



ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

December 15, 2016

Ron LaFrance, Jr.; Paul Thompson; and Beverly Cook, Chiefs
St. Regis Mohawk Tribe
412 State Route 37
Akwesasne, NY 13655

Re: Section 106 Compliance for the Gulf Brook Restoration and Flood Mitigation Project,
Keene, Essex County, New York

Dear Chiefs of the St. Regis Mohawk Tribe:

Pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) and the Housing and Community Development Act (42 U.S.C. § 5301 et seq.), the Governor's Office of Storm Recovery (GOSR), an office of New York State Homes and Community Renewal's Housing Trust Fund Corporation as a recipient of Community Development Block Grant – Disaster Recovery ("CDBG-DR") funds from the United States Department of Housing and Urban Development ("HUD"), is serving as the entity responsible for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. GOSR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Tribe to respond with any concerns or comments.

GOSR processes environmental reviews for projects funded with HUD CDBG-DR on a case-by-case basis. GOSR proposes to fund stream bank restoration and flood mitigation work to a section of Gulf Brook in Keene, New York. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470a), and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, this letter serves as notification of the proposed action. This consultation is being sent to the Saint Regis Mohawk Tribe and the Mohawk Nation.

Area of Potential Effect: GOSR proposes to fund an application for stream bank restoration and flood mitigation work to a section of Gulf Brook, located in the Hamlet of Keene, within the Town of Keene, which is located at the intersection of NYS Routes 73 and 9N, Essex County, New York. A map depicting the area of potential effect is enclosed with this letter.

Proposed Project Description: During Hurricane Irene, rainfall caused Gulf Brook to overflow its banks and flow down the center of Route 9N. Floodwater inundated roadways, homes and businesses and caused severe damage. Completion of the proposed project fosters the recovery of the community by reducing the risk of localized flooding for the residences and businesses in the Town of Keene and by providing a flood-safe area for redevelopment of residential and commercial facilities in the Town.



ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

The severe slopes and instability of the stream bank contributed to slope failure, deposition of tons of debris and degradation of aquatic habitat. The impacts to the project area from Hurricane Irene caused unprecedented destruction of the natural features of the riparian environment. Since the storm, some efforts have succeeded in the reconstruction of much of the damaged infrastructure and to protect some properties from damage in future storms, but while these measures have stabilized the channel banks and provided flood mitigation in specific areas, properties adjacent to other parts of the stream, particularly downstream of the Bucks Lane Bridge still remain vulnerable.

The proposed project area is defined as Gulf Brook located immediately upstream of the Bucks Lane Bridge and downstream to the confluence of the East Branch of the Ausable River. In its current state, Gulf Brook is straightened and confined between the bluff and Routes 9N and 73. There are two bridges that span Gulf Brook. One being a New York State Department of Transportation Bridge on Route 9N and a smaller Essex County Bridge (also referred to as Bucks Lane Bridge) that provides access to several private residences. The project will provide flood mitigation for approximately 1,500 linear feet and will address constrictions caused by the two bridges. It has been previously determined that the Bucks Lane Bridge opening is not wide enough to facilitate the design flow of this project.

Proposed improvements will increase water and sediment transport capacity of Gulf Brook and restore its natural function. The design goals are to mitigate flood risk and also to enhance the environmental health by addressing bank erosion, thereby improving water quality, and improving aquatic and riparian habitat. The project may require the replacement of the County Bridge and realignment of the outfall in to the East Branch of the Ausable River. The construction for the project will involve the excavation and digging for changes in channels and bank stabilization. In addition, the existing County Bridge (Bucks Lane Bridge) may be dismantled, removed and replaced with a new steel and concrete structure, and culverts may be constructed or replaced. Construction will require digging/earthwork.

With this letter, GOSR respectfully submits for your review the attached documentation for the proposed project(s) described herein. Consultation has been initiated with the State Historic Preservation Office but no comments from SHPO have been received to date. If the Area of Potential Effect encompasses historic properties of religious or cultural significance to your Tribe please respond within 20 days or sooner. Additionally, please indicate if there are other sources of information or other parties, Nations, Tribes, or members of the public you believe should be included in the consultation process. Please respond by email or in writing to the address listed below.

Ms. Lori Shirley
Deputy Director, Bureau of Environmental Services
New York State Homes & Community Renewal
38-40 State St., 408N, Hampton Plaza
Albany, NY 12207



**Governor's Office of
Storm Recovery**

ANDREW M. CUOMO
Governor

LISA BOVA-HIATT
Executive Director

If you have any questions or require additional information regarding this request, please feel free to contact me at (518) 474-0755 or via email at lori.shirley@nyshcr.org. Thank you for your time and consideration.

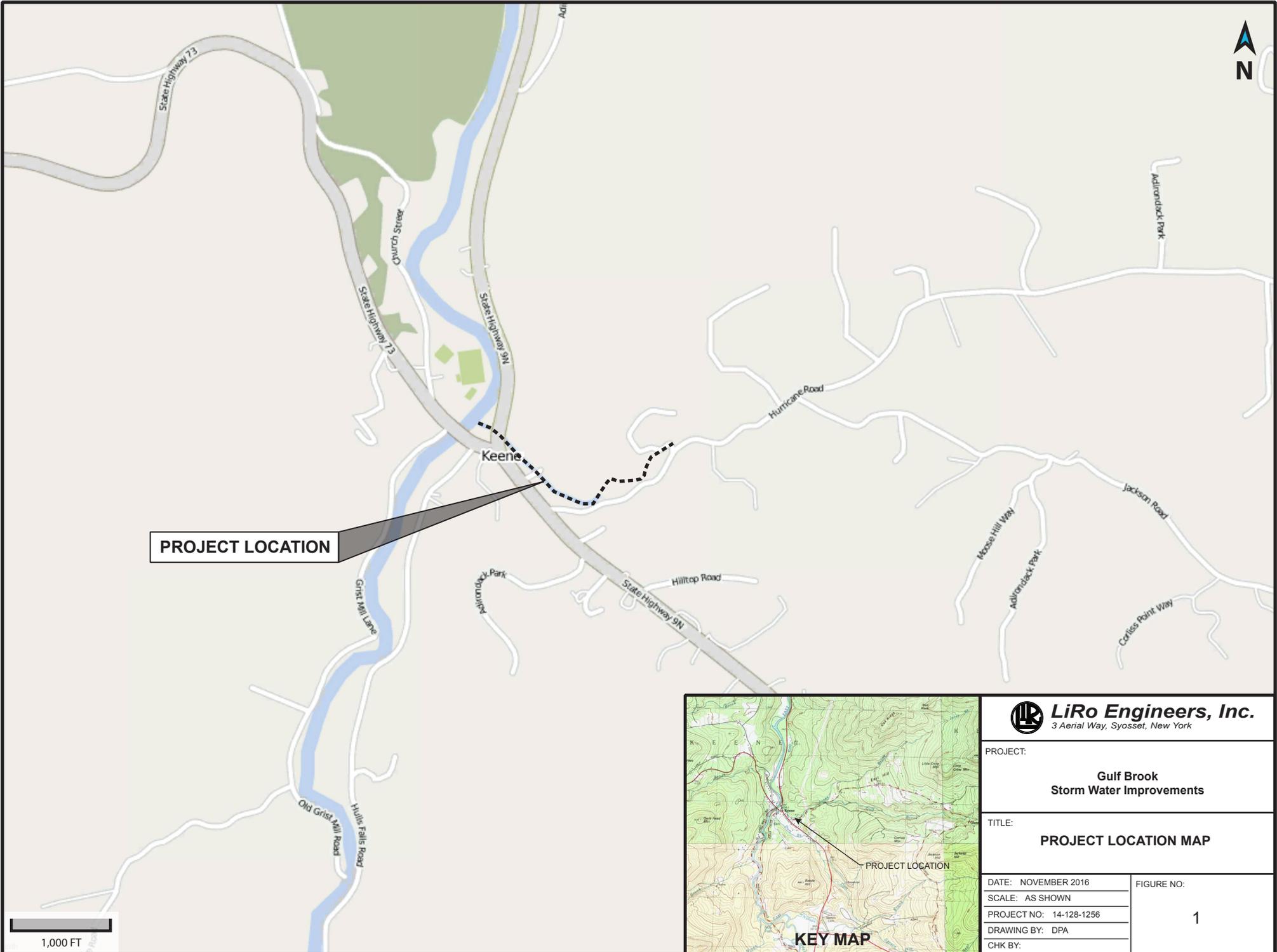
Sincerely,

Lori A. Shirley
Director
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

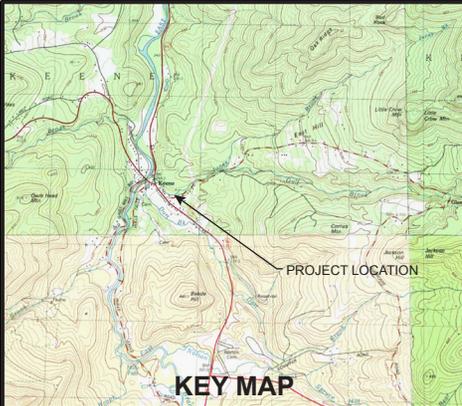
Enclosures: Project Location Maps

Electronic letter sent to:

Arnold Printup
Saint Regis Mohawk Tribe, THPO
412 State Route 37
Akwesasne, NY 13655



PROJECT LOCATION



KEY MAP

LiRo Engineers, Inc.
3 Aerial Way, Syosset, New York

PROJECT:
**Gulf Brook
Storm Water Improvements**

TITLE:
PROJECT LOCATION MAP

DATE: NOVEMBER 2016
SCALE: AS SHOWN
PROJECT NO: 14-128-1256
DRAWING BY: DPA
CHK BY:

FIGURE NO:
1



 **LiRo Engineers, Inc.**
3 Aerial Way, Syosset, New York

PROJECT:
**Gulf Brook
Storm Water Improvements**

TITLE:
PROJECT LOCATION AERIAL

DATE: NOVEMBER 2016
SCALE: AS SHOWN
PROJECT NO: 14-128-1256
DRAWING BY: DPA
CHK BY:

FIGURE NO:
2

**GULF BROOK RESTORATION AND FLOOD MITIGATION PROJECT
ESSEX COUNTY, NY
ATTACHMENT 7**

If you have any questions, please feel free to contact me at (518) 474-0755. Thank you for your consideration and cooperation.

Sincerely,



Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Officer of Storm Recovery

The undersigned hereby consents to The Governor's Office of Storm Recovery serving as lead agency for the Gulf Brook Restoration and Flood Mitigation Project.

By:  _____

Name: JAMES E. DOUGAN

Agency: ESSEX COUNTY DEPT. OF PUBLIC WORKS

Title: DEPUTY SUPERINTENDENT

Date: 12/20/18

- Enclosures:
- Long Environmental Assessment Form Part 1
 - Project Area Map
 - List of Involved and Interested Agencies

If you have any questions, please feel free to contact me at (518) 474-0755. Thank you for your consideration and cooperation.

Sincerely,



Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Officer of Storm Recovery

The undersigned hereby consents to The Governor's Office of Storm Recovery serving as lead agency for the Gulf Brook Restoration and Flood Mitigation Project.

By: Anna Lyndes
Name: _____
Agency: County Comm. Resource
Title: Director
Date: 12/20/18

Enclosures:
Long Environmental Assessment Form Part 1
Project Area Map
List of Involved and Interested Agencies

If you have any questions, please feel free to contact me at (518) 474-0755. Thank you for your consideration and cooperation.

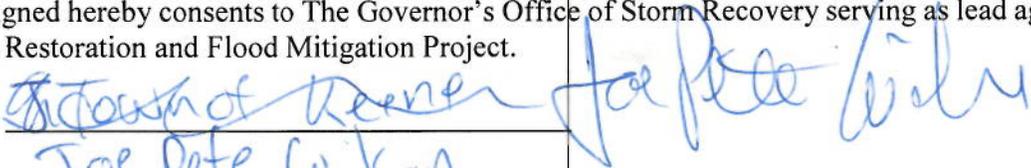
Sincerely,



Lori A. Shirley
Director, Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

The undersigned hereby consents to The Governor's Office of Storm Recovery serving as lead agency for the Gulf Brook Restoration and Flood Mitigation Project.

By:



Name:

Joe Pete Wilson

Agency:

Town of Keene

Title:

Supervisor

Date:

12-21-18

Enclosures:

- Long Environmental Assessment Form Part 1
- Project Area Map
- List of Involved and Interested Agencies