APPENDIX A – EXISTING CONDITIONS AND PROPOSED PLANS

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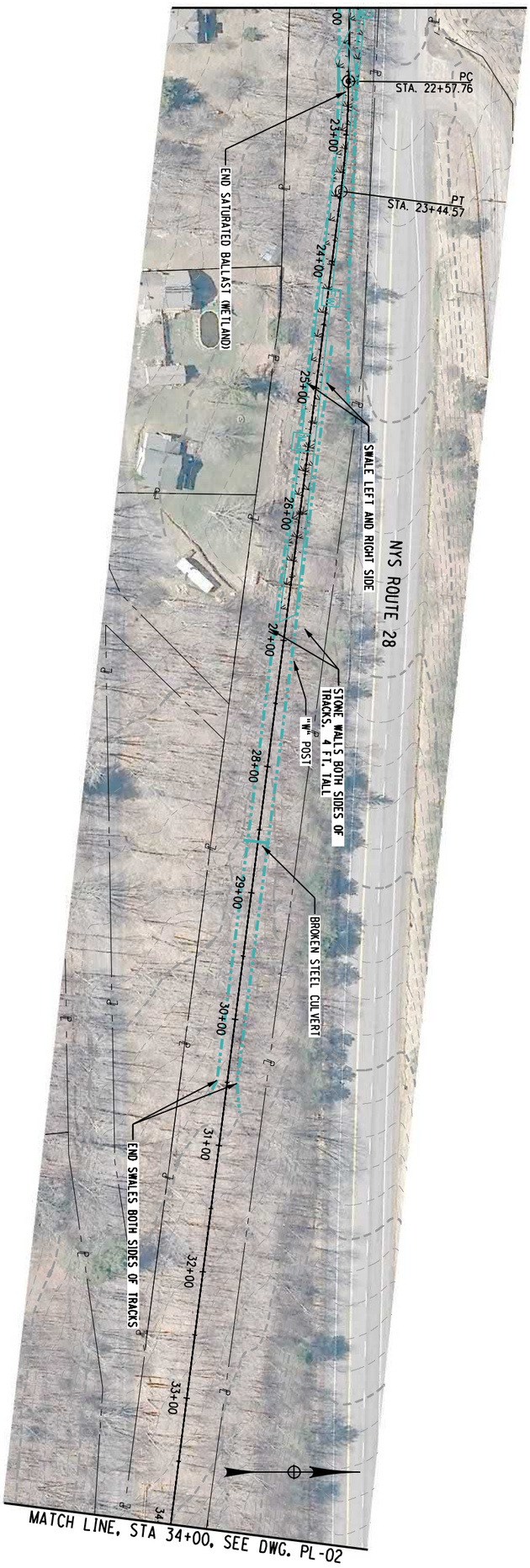
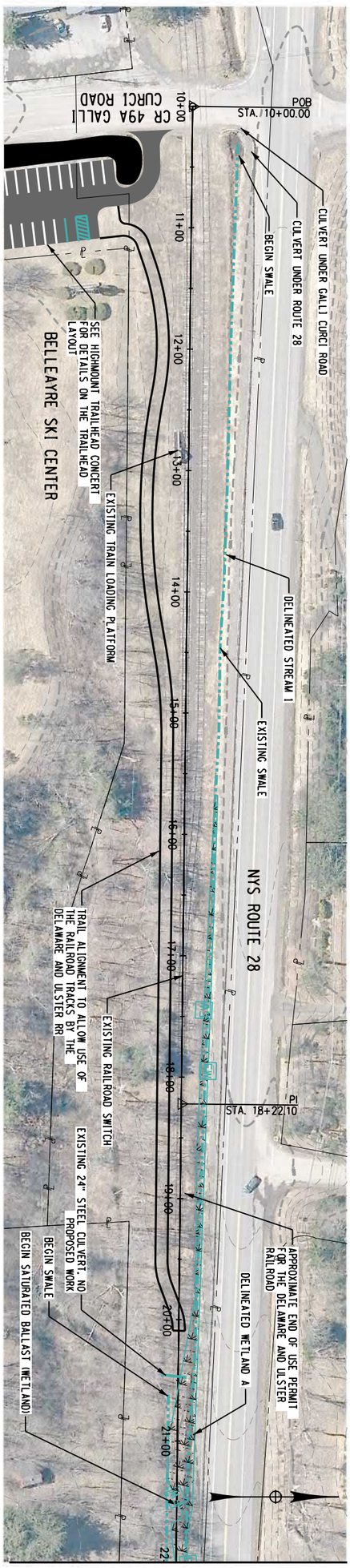
PREPARED BY: BARTON & LOGUIDICE, D.P.C.





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GENERAL PLANS
DRAWING PL-01
DATE ISSUED: 10/2020
SCALE: 1" = 100'-0"

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

Barton & Loguidice

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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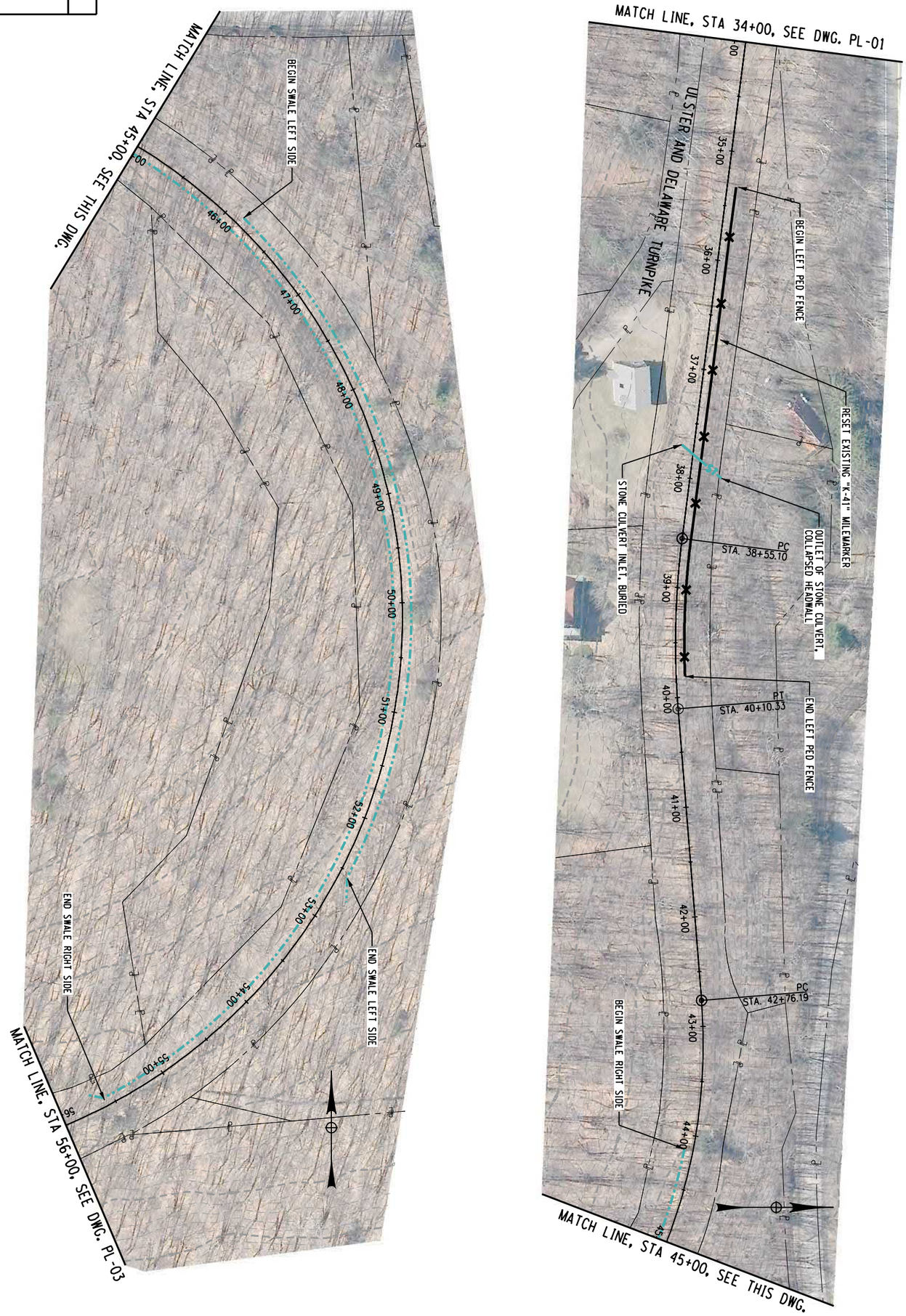
IN CHARGE OF TCB | DESIGNED BY CKD | CHECKED BY DJR | DRAFTED BY CKD | CHECKED BY DJR

PREPARED BY: BARTON & LOGUIDICE, D.P.C.



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SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

GENERAL PLANS

SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020
DRAWING PL-02

Barton & Loguidice

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ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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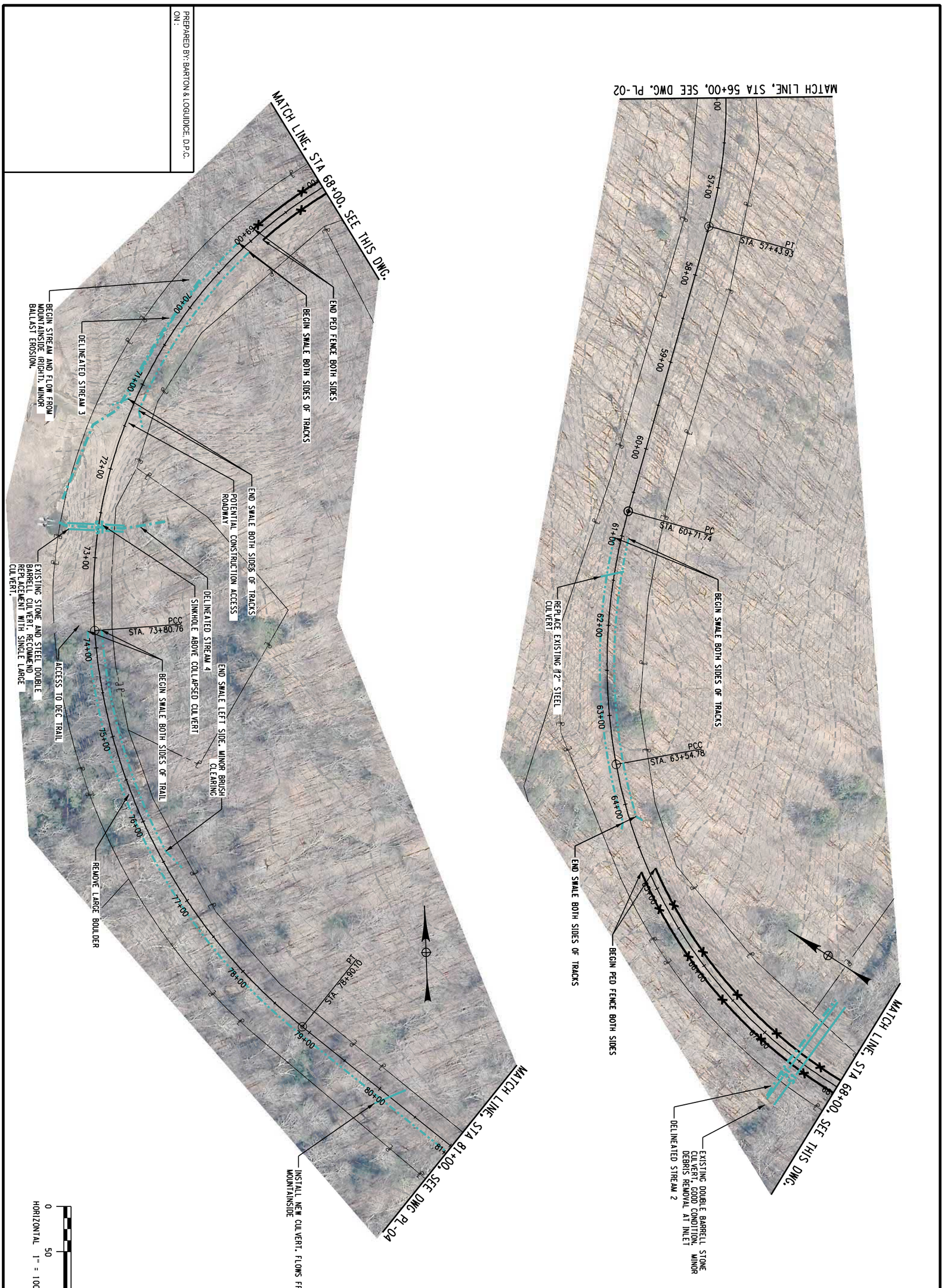
PREPARED BY: BARTON & LOGUIDICE, D.P.C.



GENERAL PLANS

SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020
DRAWING PL - 03

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

Barton & Loguidice

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ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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IN CHARGE OF TCB DESIGNED BY CKD CHECKED BY DJR DRAFTED BY CKD CHECKED BY DJR

PREPARED BY: BARTON & LOGUIDICE, D.P.C.

GENERAL PLANS

SCALE: 1" = 100'-0"

DATE ISSUED: 10/2020

DRAWING PL - 04

SHANDAKEN

TOWN OF ULSTER

ULSTER COUNTY

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ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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IN CHARGE OF TCB DESIGNED BY CKD CHECKED BY DJR DRAFTED BY CKD CHECKED BY DJR

PREPARED BY: BARTON & LOGUIDICE, D.P.C.

HORIZONTAL 1" = 100 FEET
0 50 100

GENERAL PLANS

SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020
DRAWING PL - 05

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

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ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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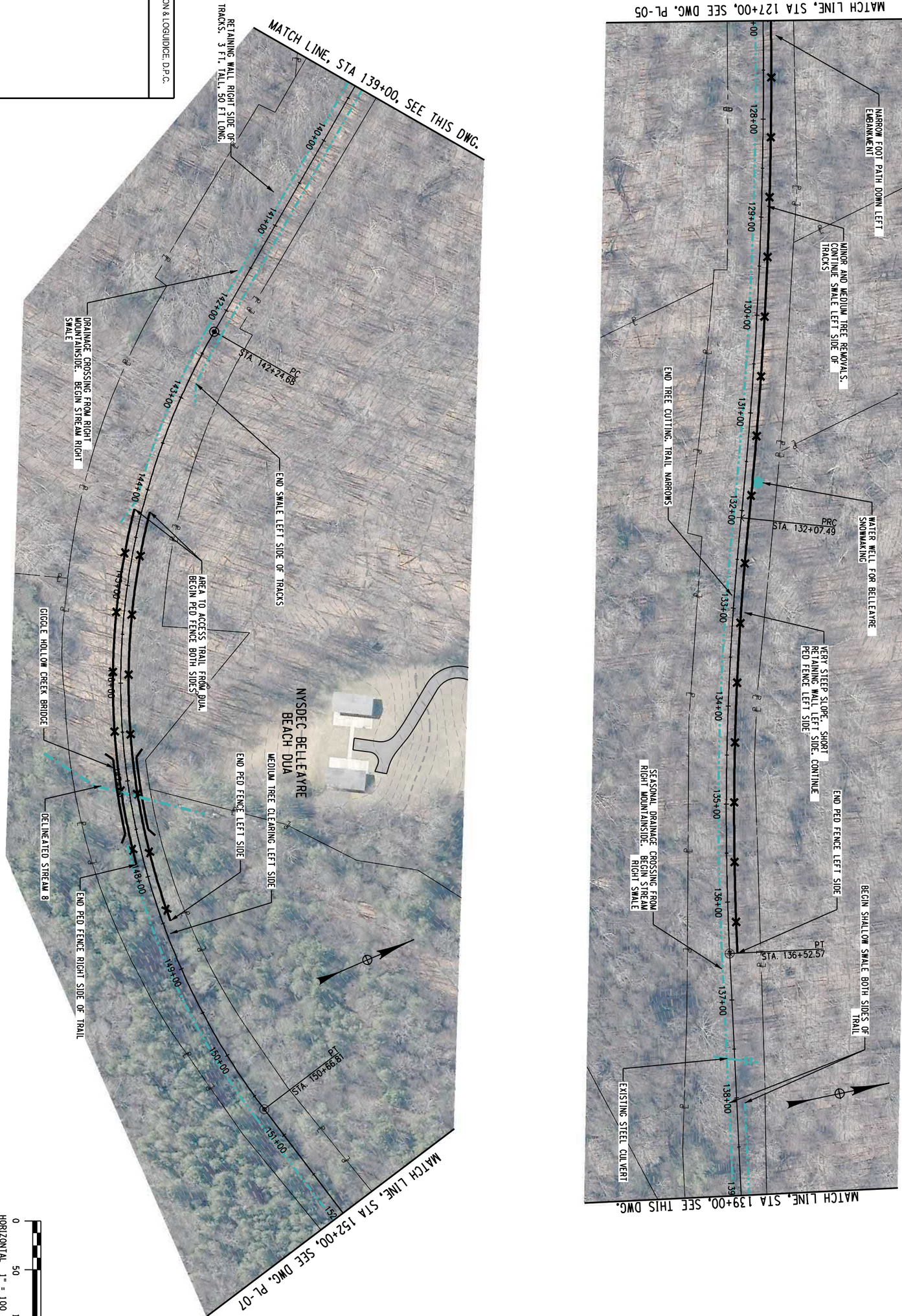
PREPARED BY: BARTON & LOGUIDICE, D.P.C.



GENERAL PLANS

SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020
DRAWING PL - 06

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

Barton & Loguidice

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW ARTICLE 145 SECTION 7209

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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PREPARED BY: BARTON & LOGUIDICE, D.P.C. ON:

HORIZONTAL 1" = 100 FEET
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GENERAL PLANS	SHANDAKEN	Barton & Loguidice	NO. DATE BY REVISION
SCALE: 1" = 100'-0"	TOWN OF ULSTER	UNAUTHORIZED ALTERATION OR ADDITION TO THIS DRAWING IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW ARTICLE 145 SECTION 7209	UCTC ULSTER COUNTY TRANSPORTATION COUNCIL
DATE ISSUED: 10/2020	ULSTER COUNTY		
DRAWING PL - 07			

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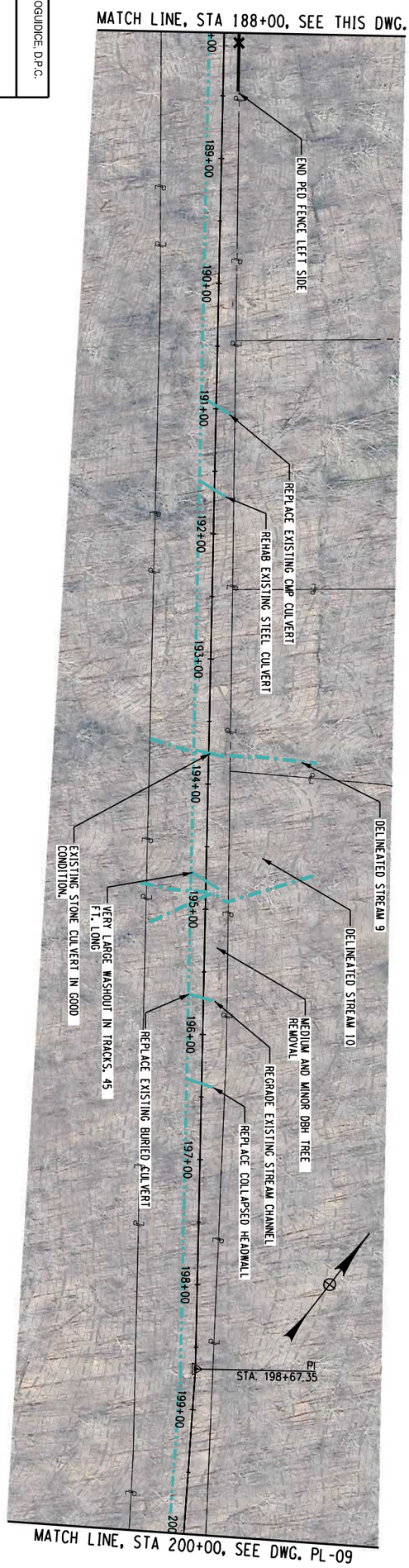
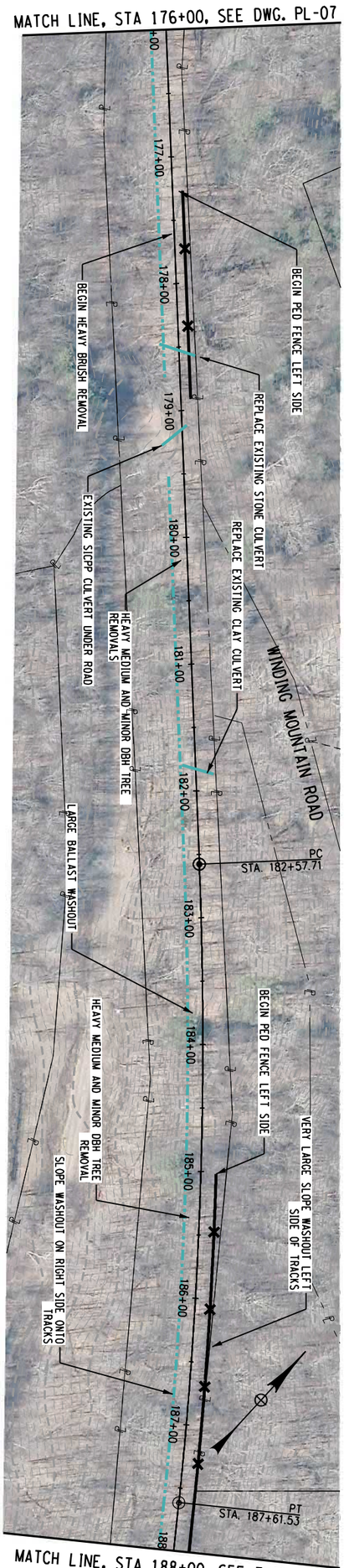
PREPARED BY: BARTON & LOGUIDICE, D.P.C.





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0 50 100

GENERAL PLANS

SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020
DRAWING PL-08

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

Barton & Loguidice

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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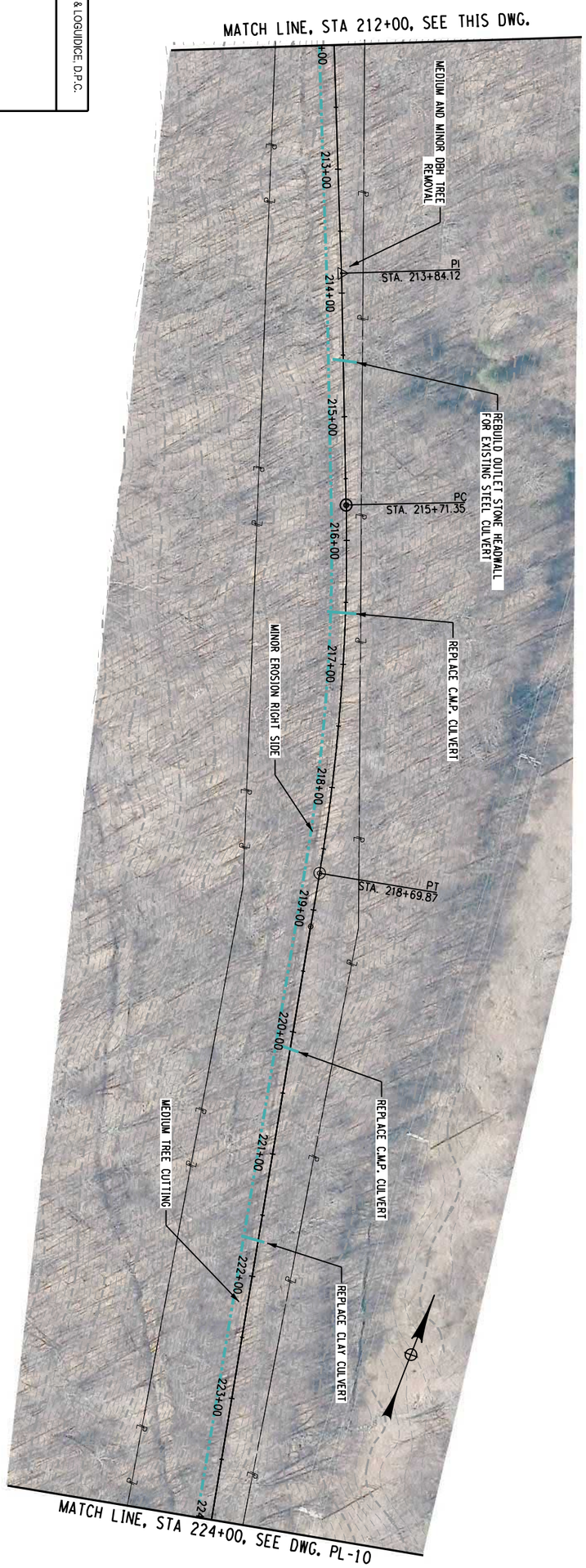
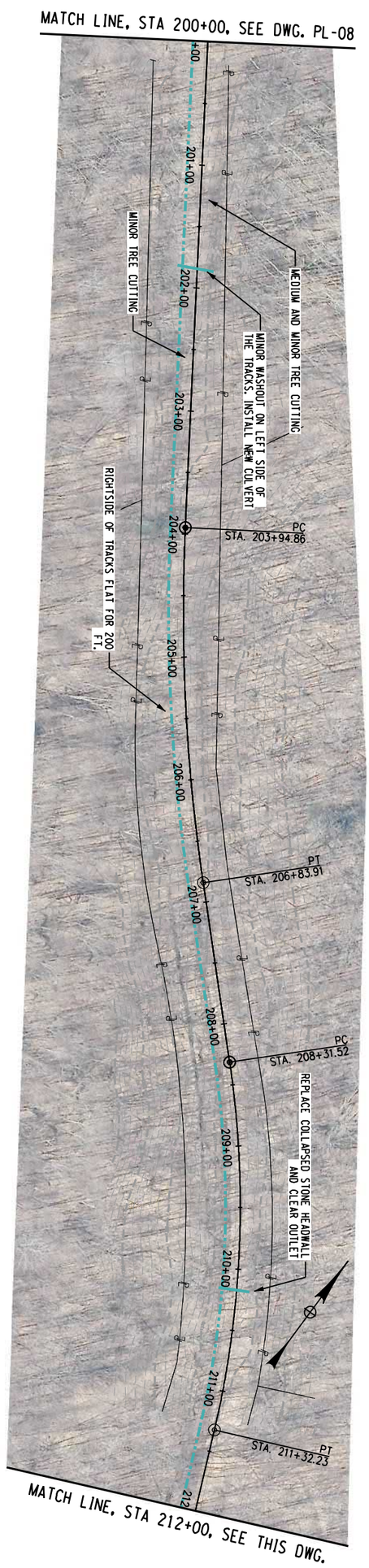
PREPARED BY: BARTON & LOGUIDICE, D.P.C.





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GENERAL PLANS

SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020
DRAWING PL-09

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

Barton & Loguidice

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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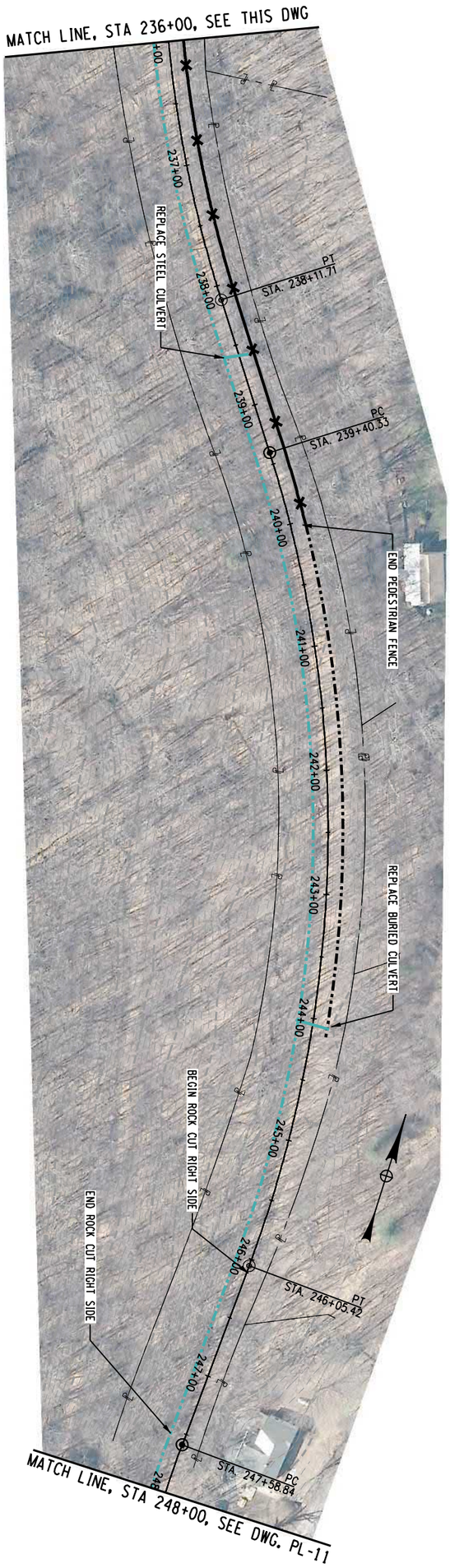
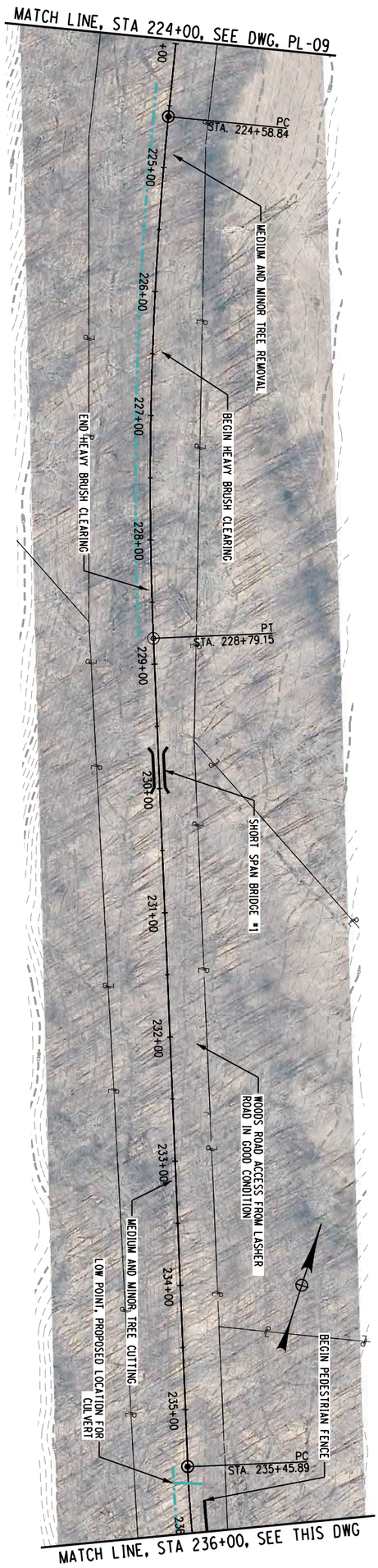
PREPARED BY: BARTON & LOGUIDICE, D.P.C.





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GENERAL PLANS
DRAWING PL-10
SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

Barton & Loguidice

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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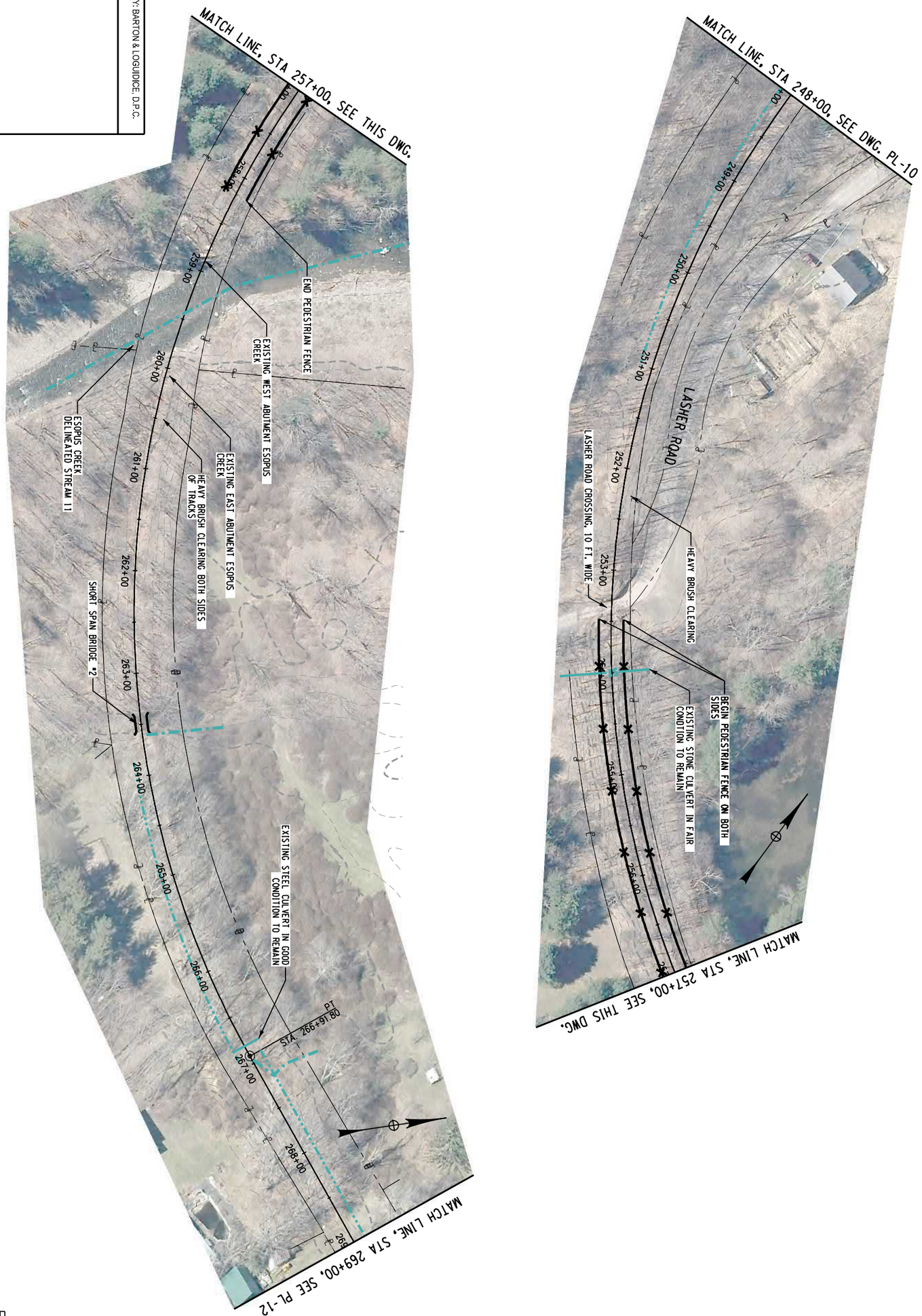
PREPARED BY: BARTON & LOGUIDICE, D.P.C.



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GENERAL PLANS

DRAWING PL-11
SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

Barton & Loguidice

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION

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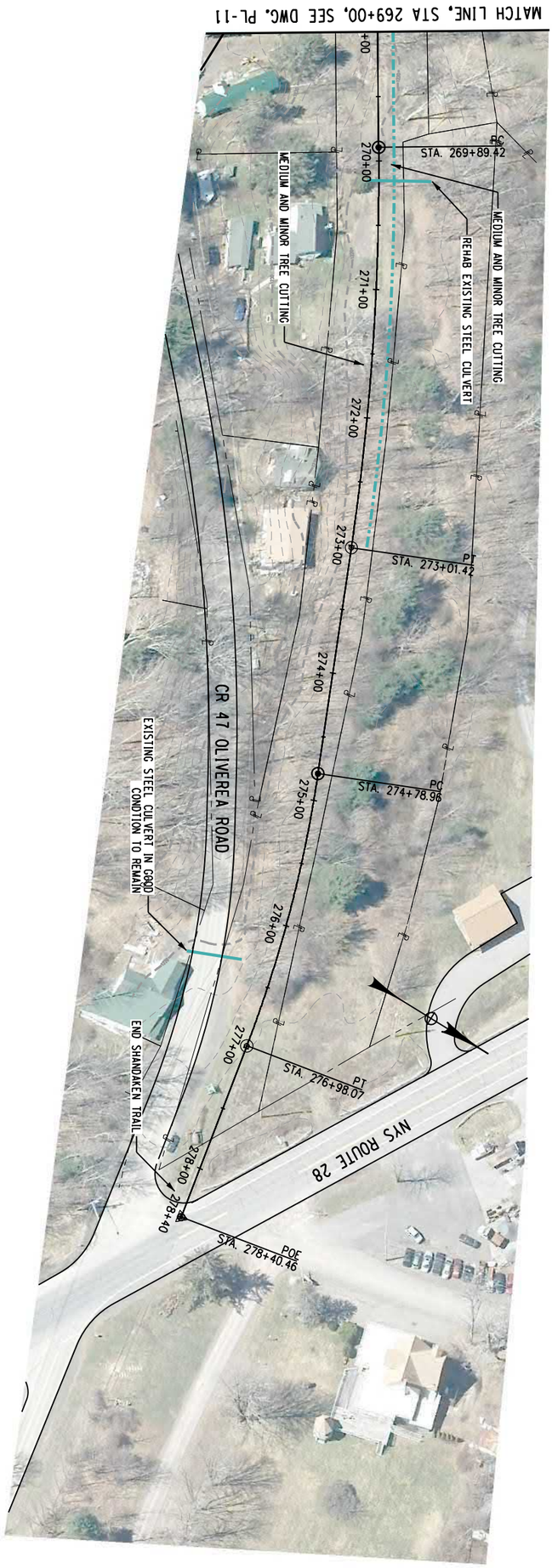
PREPARED BY: BARTON & LOGUIDICE, D.P.C.



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GENERAL PLANS

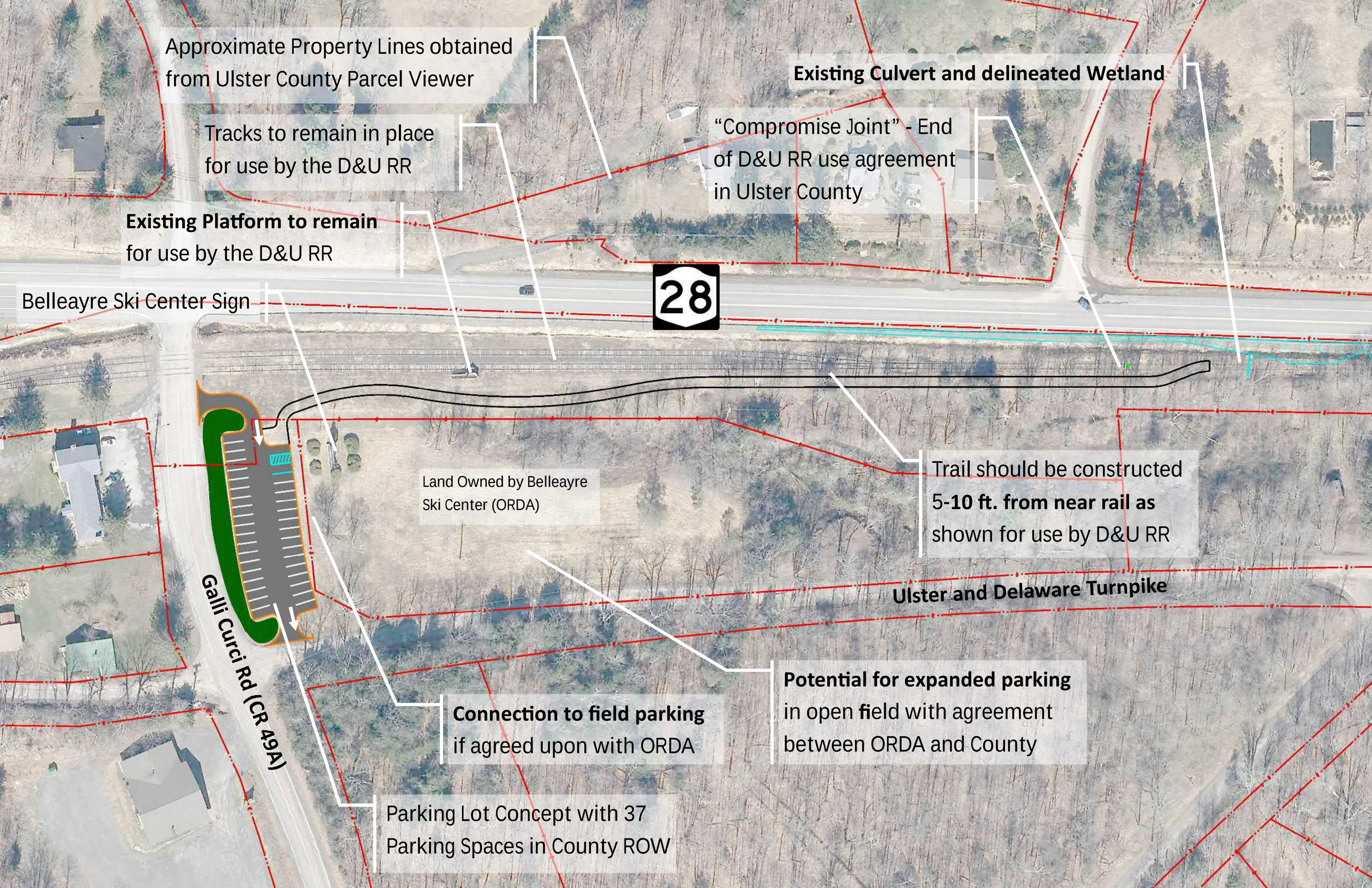
SCALE: 1" = 100'-0"
DATE ISSUED: 10/2020
DRAWING PL - 12

SHANDAKEN
TOWN OF ULSTER
ULSTER COUNTY

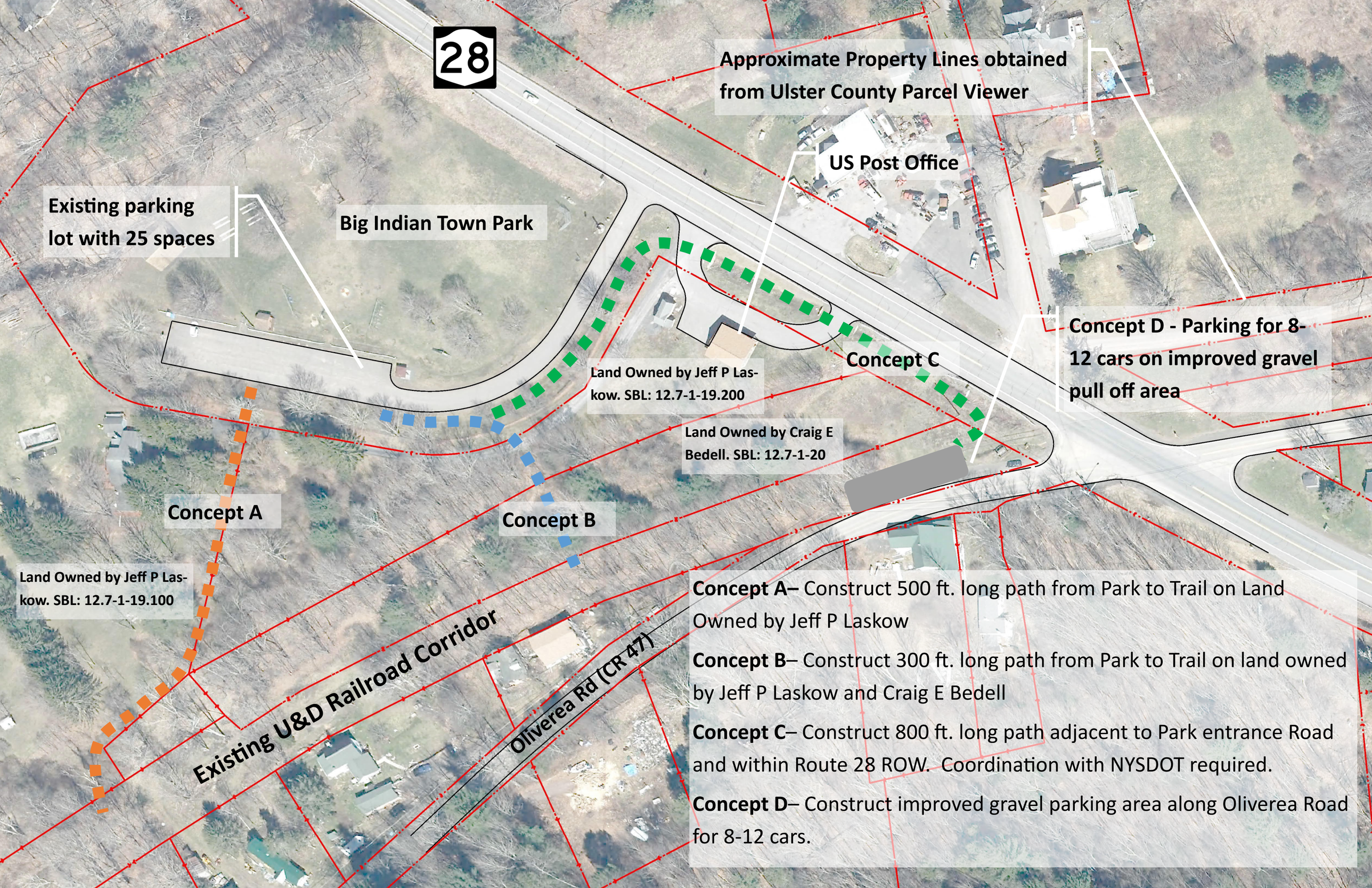
Barton & Loguidice

UCTC
ULSTER COUNTY TRANSPORTATION COUNCIL

NO.	DATE	BY	REVISION


Approximate Property Lines obtained from Ulster County Parcel Viewer
Existing Culvert and delineated Wetland
Tracks to remain in place for use by the D&U RR
"Compromise Joint" - End of D&U RR use agreement in Ulster County
Existing Platform to remain for use by the D&U RR
Belleayre Ski Center Sign
28
Land Owned by Belleayre Ski Center (ORDA)
Trail should be constructed 5-10 ft. from near rail as shown for use by D&U RR
Ulster and Delaware Turnpike
Galli Curci Rd (CR 49A)
Connection to field parking if agreed upon with ORDA
Potential for expanded parking in open field with agreement between ORDA and County
Parking Lot Concept with 37 Parking Spaces in County ROW


Install fence or natural barrier (plantings) to separate Beach facility from trail
Existing beach parking lot to remain. 107 spaces
Relocate entry fee collection booth and gate. Widen existing entrance road
Existing U&D Railroad Corridor
Existing parking lot 26 spaces
Giggle Hollow Bridge
Concept A— Two New Parking Lots at existing fountain with 33 Parking Spaces
Concept B—New Parking Lot in Open Field with 23 Parking Spaces
Concept C—New Parking Lot in Open Field with 33 Parking Spaces
Birch Creek
Gated One Lane Covered Bridge
Existing Entry Fee Collection Booth
28
Friendship Manor Rd
Install and update wayfinding signs to differentiate between ORDA and trail facilities
Utilize existing roadway network within facility



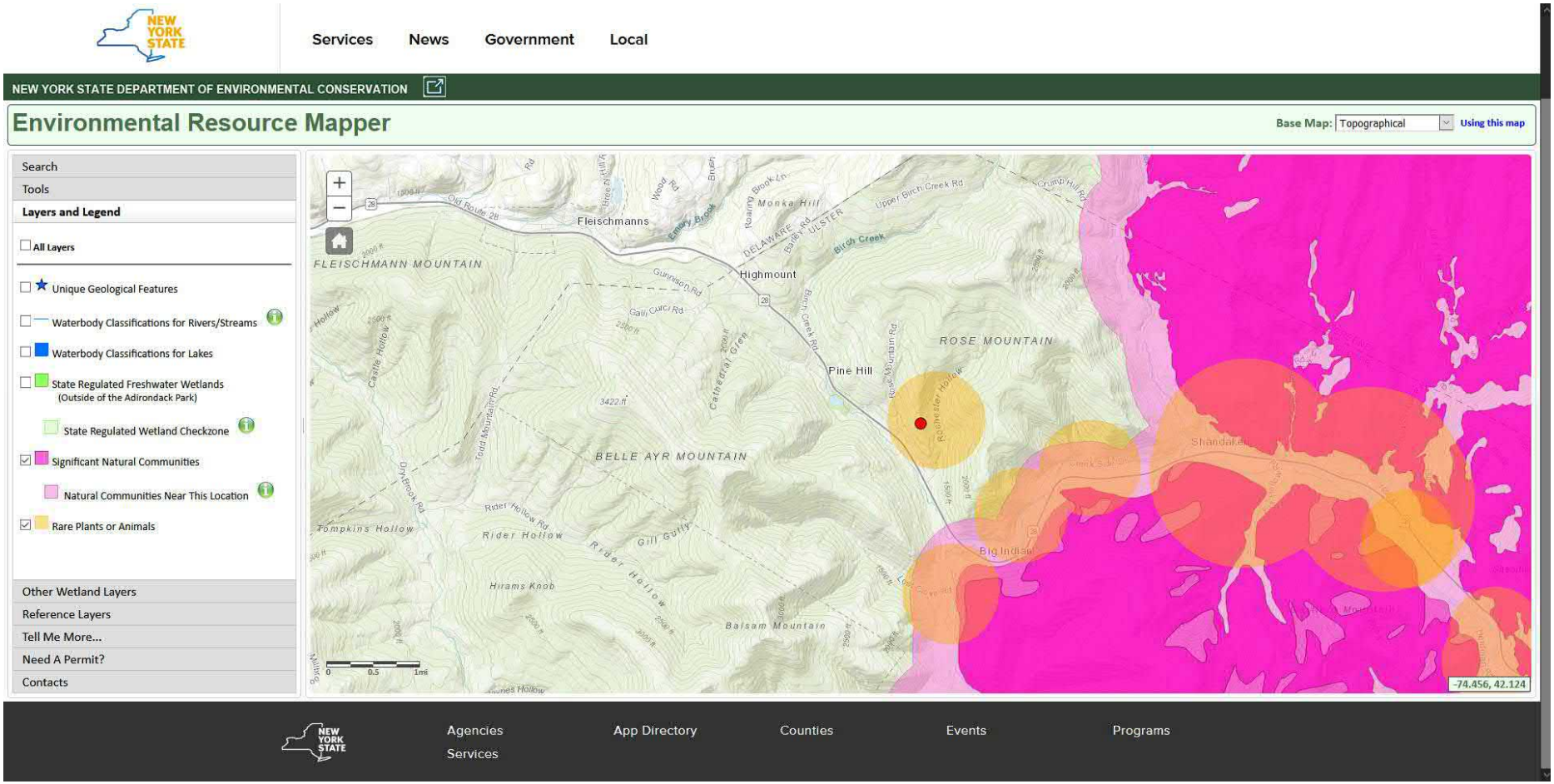
Concept A– Construct 500 ft. long path from Park to Trail on Land Owned by Jeff P Laskow

Concept B– Construct 300 ft. long path from Park to Trail on land owned by Jeff P Laskow and Craig E Bedell

Concept C– Construct 800 ft. long path adjacent to Park entrance Road and within Route 28 ROW. Coordination with NYSDOT required.

Concept D– Construct improved gravel parking area along Oliverea Road for 8-12 cars.

APPENDIX B – ENVIRONMENTAL INFORMATION


NEW YORK STATE
Services
News
Government
Local
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Environmental Resource Mapper
Base Map: Topographical
Using this map
Search
Tools
Layers and Legend
All Layers
Unique Geological Features
Waterbody Classifications for Rivers/Streams
Waterbody Classifications for Lakes
State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
State Regulated Wetland Checkzone
Significant Natural Communities
Natural Communities Near This Location
Rare Plants or Animals
Other Wetland Layers
Reference Layers
Tell Me More...
Need A Permit?
Contacts
Fleischmanns
Highmount
Pine Hill
FLEISCHMANN MOUNTAIN
BELLE AYR MOUNTAIN
ROSE MOUNTAIN
Big Indian
Shandaken
Rider Hollow
Hirams Knob
Balsam Mountain
Tompkins Hollow
Gill Gully
-74.456, 42.124
Agencies
Services
App Directory
Counties
Events
Programs

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

LOGIN.GOV SIGN IN MIGRATION

In mid-to-late December 2020, IPaC will change its sign-in process to use Login.gov. At that time, you will need an account with Login.gov to sign in to IPaC.

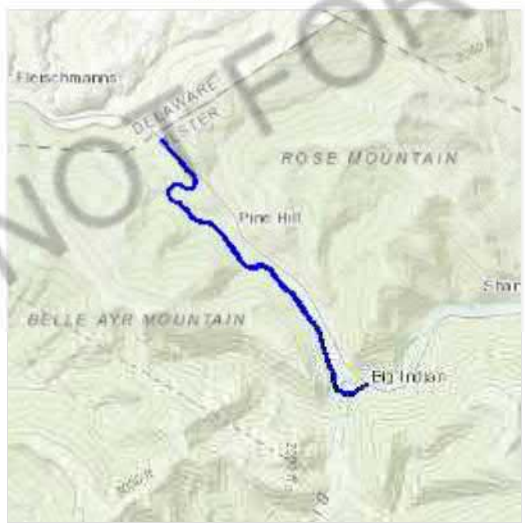
ECOS applications other than IPaC have already switched to Login.gov. Until IPaC moves to Login.gov in December, you will need to sign in to both platforms separately.

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

Ulster 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

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 species[1] 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 Fisheries[2]).

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.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31
Black-capped Chickadee *Poecile atricapillus practicus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Long-eared Owl *asio otus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3631	Breeds Mar 1 to Jul 15

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31

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

Yellow-bellied Sapsucker sphyrapicus varius — Breeds May 10 to Jul 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8792

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.
3. 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 (|)

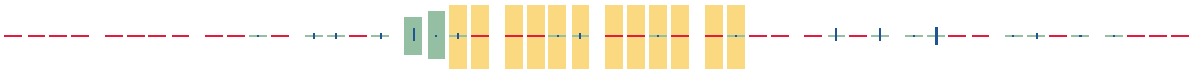
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

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

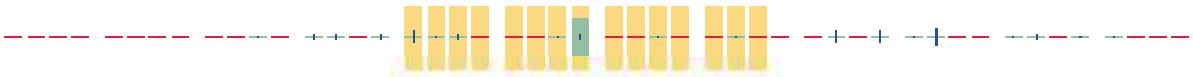
No Data (–)
A week is marked as having no data if there were no survey events for that week.

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.

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

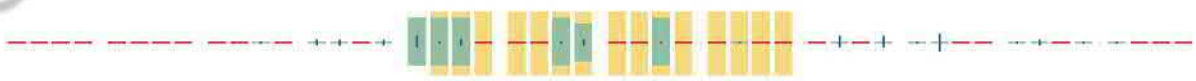


Eastern Whip-poor-will
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Long-eared Owl
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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



Yellow-bellied Sapsucker
BCC - BCR
(This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

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 AKN Phenology 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 EMERGENT WETLAND

- PEM1E

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1A

RIVERINE

- R2UBH
- R3UBH
- R4SBA
- R4SBC

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

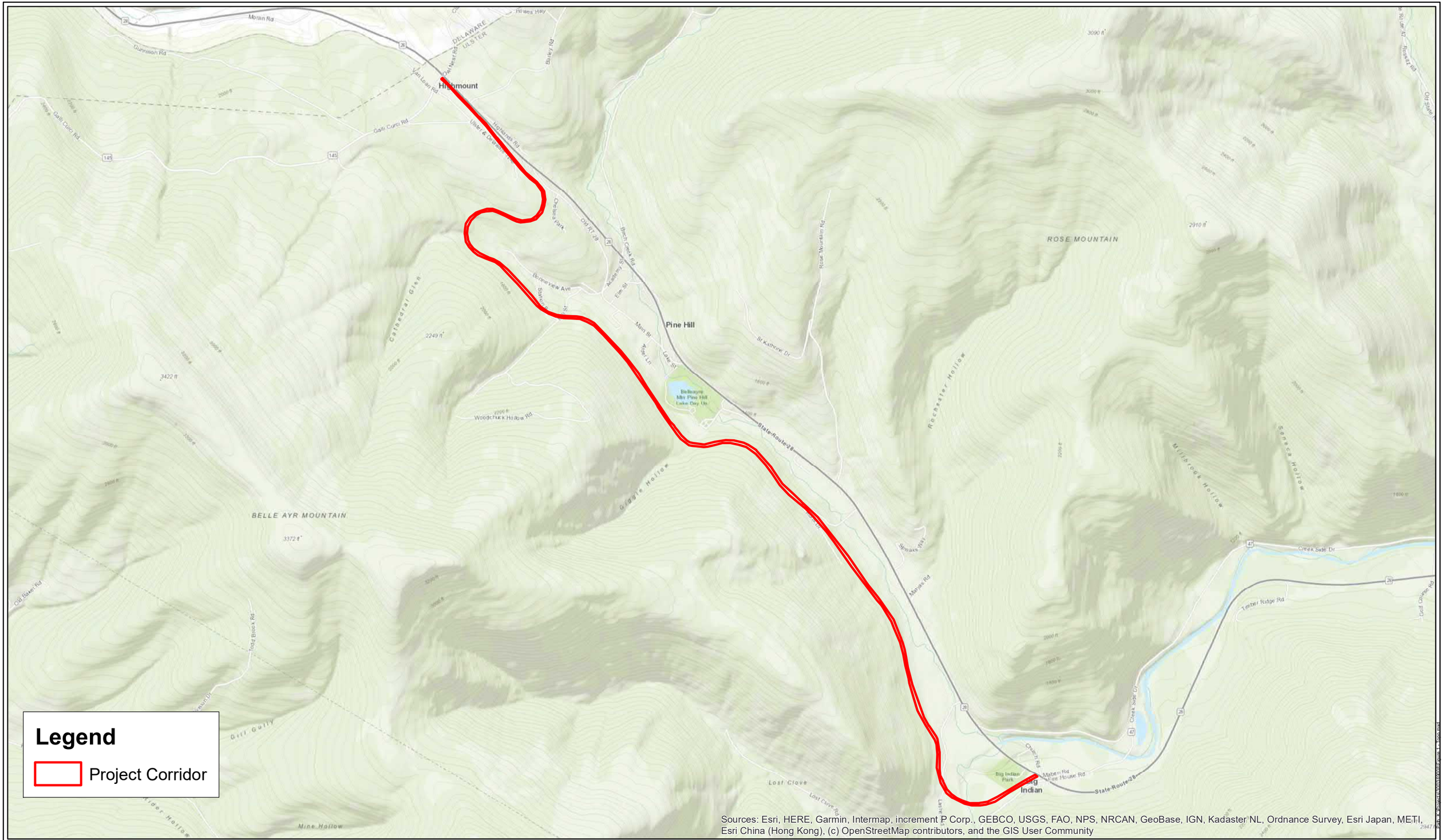
depicted on the map and the actual conditions on site.

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 tuberficid 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.



Legend

Project Corridor

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Barton & Loguidice

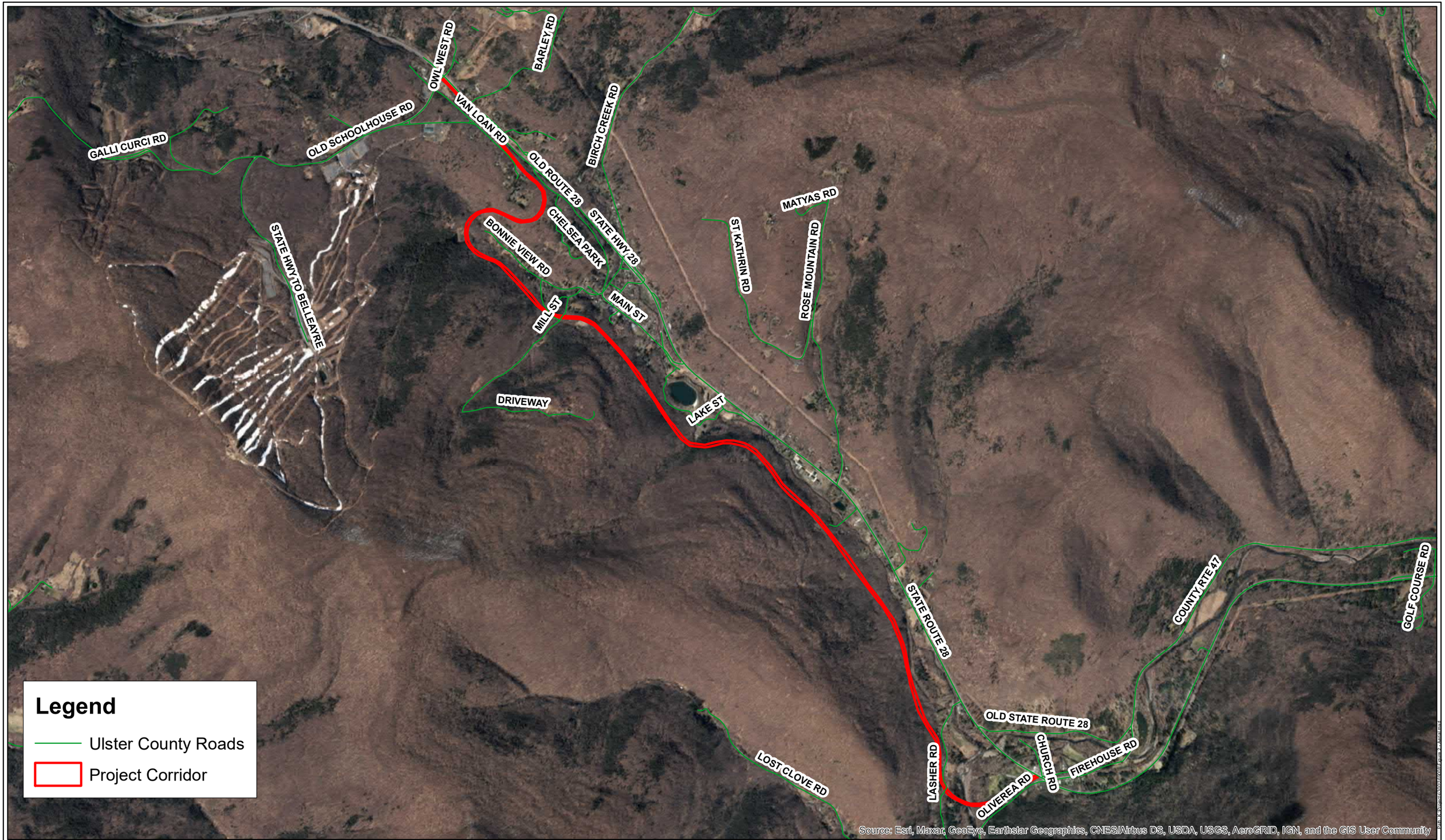
N W E S

1 inch = 2,000 feet

Shandaken
U & DCorridor Revitalization Study
Topographic Mapping
Ulster County 10/8/2020 New York

Figure 1

Project No. 369.008



Barton & Loguidice

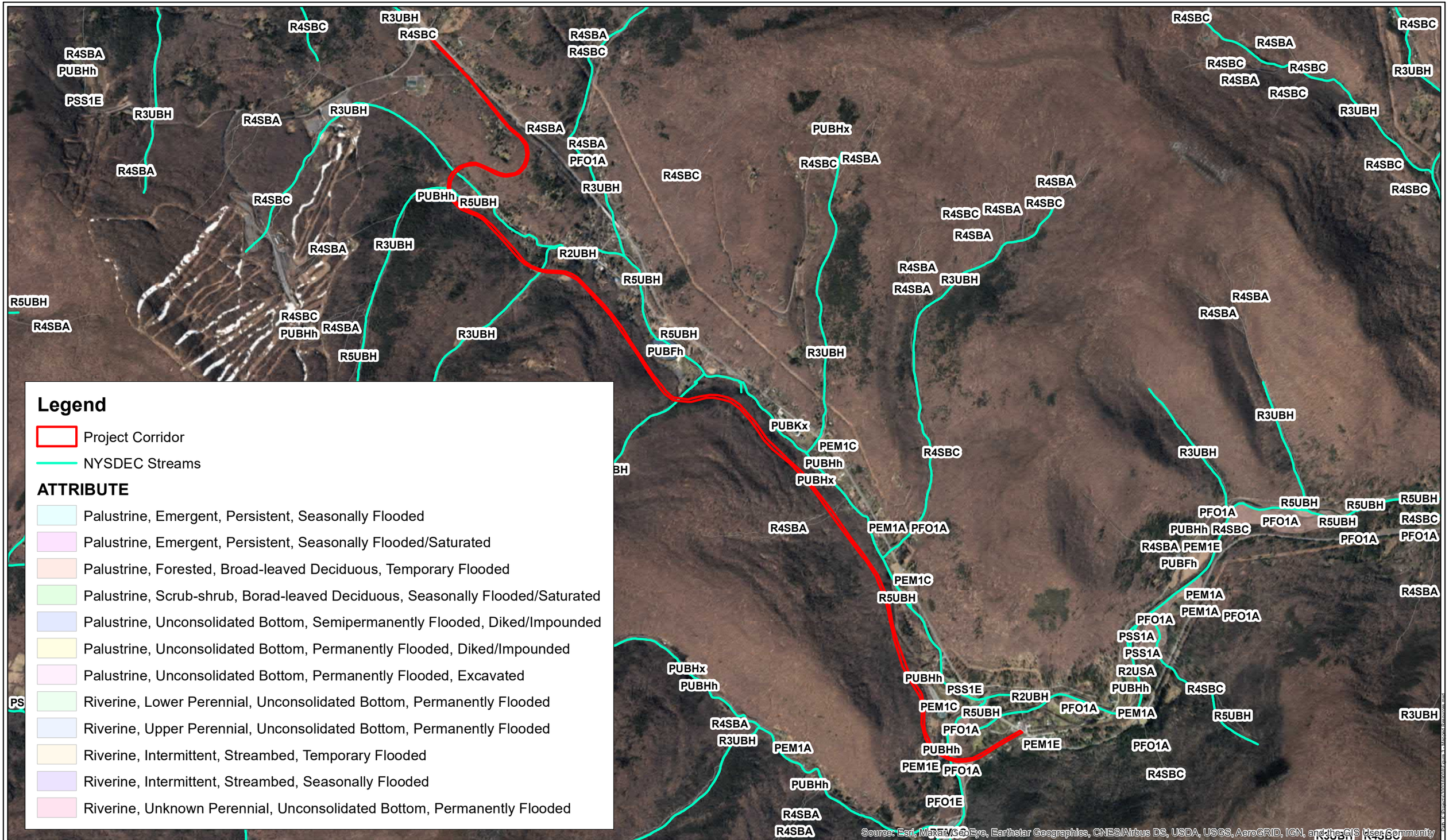
N W E S

1 inch = 2,000 feet

Shandaken
U & D Corridor Revitalization Study
Aerial Imagery
Ulster County 10/8/2020 New York

Figure 2

Project No. 369.008



Legend

- Project Corridor
- NYSDEC Streams

ATTRIBUTE

- Palustrine, Emergent, Persistent, Seasonally Flooded
- Palustrine, Emergent, Persistent, Seasonally Flooded/Saturated
- Palustrine, Forested, Broad-leaved Deciduous, Temporary Flooded
- Palustrine, Scrub-shrub, Borad-leaved Deciduous, Seasonally Flooded/Saturated
- Palustrine, Unconsolidated Bottom, Semipermanently Flooded, Diked/Impounded
- Palustrine, Unconsolidated Bottom, Permanently Flooded, Diked/Impounded
- Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated
- Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded
- Riverine, Upper Perennial, Unconsolidated Bottom, Permanently Flooded
- Riverine, Intermittent, Streambed, Temporary Flooded
- Riverine, Intermittent, Streambed, Seasonally Flooded
- Riverine, Unknown Perennial, Unconsolidated Bottom, Permanently Flooded

Barton & Loguidice

N W E S

1 inch = 2,000 feet

Shandaken
U & D Corridor Revitalization Study
Aerial Imagery
Ulster County 12/9/2020 New York

Figure 2

Project No. 369.008

NOTE: Shown for reference locations. See Plans for detailed view.

Bellayre Trailhead

Stream 1

Wetland A

Stream 2

Stream 3

Stream 4

Stream 5

Stream 6

Stream 7

Bellayre Day Use Area

Stream 8

Legend

- Stream
- Wetland
- Project Corridor

Barton & Loguidice

1 inch = 1,000 feet

Shandaken

U & D Corridor Revitalization Study

Delineated Resources

Ulster County 12/9/2020 New York

Figure 4a

Project No. 369.008

Barton & Loguidice

N
W E
S

1 inch = 1,000 feet

Shandaken
U & D Corridor Revitalization Study
Delineated Resources
Ulster County 12/9/2020 New York

Figure 4b

Project No. 369.008

Photo 1. Big Indian Park, potential trail connection site.

Photo 2. Esopus Creek (Stream 11) at Big Indian Park.

Photo 3. Existing trailhead leading to old railroad corridor.

Photo 4. Wooded area near Big Indian.

Photo 5. Tire debris from private landowner near Big Indian.

Photo 6. Existing abandoned rail.

Photo 7. Steel pipe culvert under rail – no evidence of hydrology/stream, inlets or outlets identified.

Photo 8. Old cattle crossing/access road. Water is pooled 20 feet north of structure in depression – no stream features or hydrologic connections observed.

Photo 9. Esopus Creek bridge crossing; structure to be replaced.

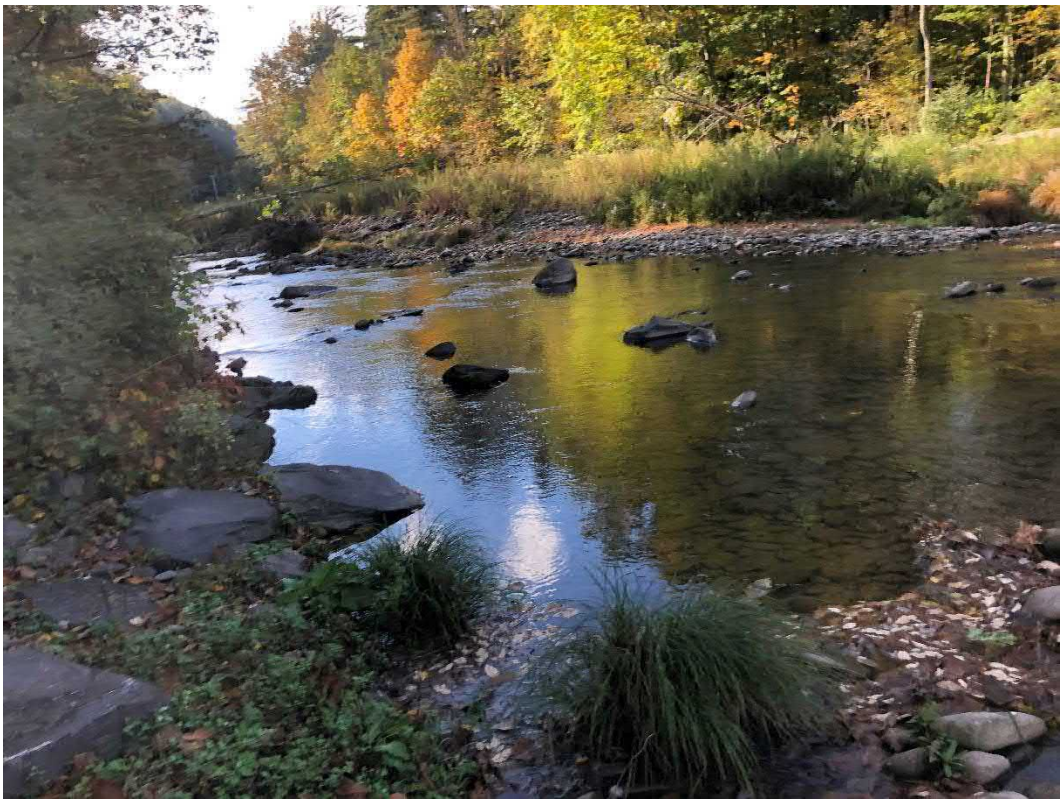


Photo 10. Esopus Creek crossing.

Photo 11. Remains of former railroad bridge over Espous Creek.

Photo 12. Covered bridge accessing Bellayre Day Use Area over Stream 7.

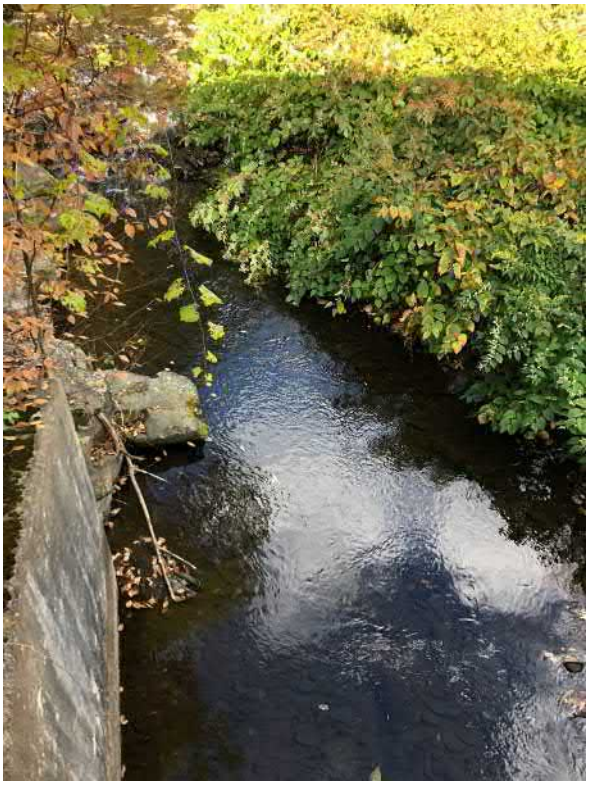


Photo 13. Stream 7 seen from covered bridge.

Photo 14. Trailhead to various Day Use Area trails – potential tie in for project.

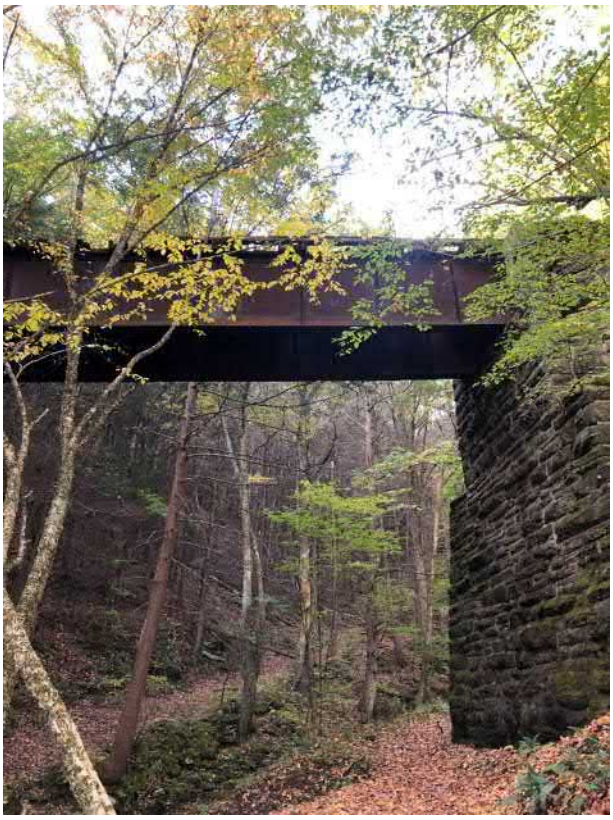


Photo 15. Railroad bridge crossing Giggle Hollow Brook (Stream 8).

Photo 16. Stream 8.

Photo 17. Typical forested section through corridor.

Photo 18. Typical forested section surrounding corridor.

Photo 19. Stream 9 – leaf clogged culvert inhibiting flow.

Photo 20. Stream 10 culvert inlet and tire debris.

Photo 21. Trail terminus at Bellayre.

Photo 22. Trail terminus – Stream 1 located at far left of photo.

Photo 23. Stream 1 and Wetland A.

Photo 24. Stream 1 and Wetland A.

Photo 25. Wetland A, looking north.

Photo 26. Wetland A, looking east.

Photo 27. Stream 2, looking southeast from top of culvert crossing.

Photo 28. Stream 3 – source from hillside to the right of photo. Flows south into Stream 4.

Photo 29. Stream 3 partially undermining tracks to right.

Photo 30. Stream 3 -flows down hill at left into Stream 4.

Photo 31. Stream 4 from top of railroad embankment – note double culvert enters separate culvert under railroad.

Photo 32. Stream 4 outletting to north.

Photo 33. Remains of old mill along tracks to be preserved.

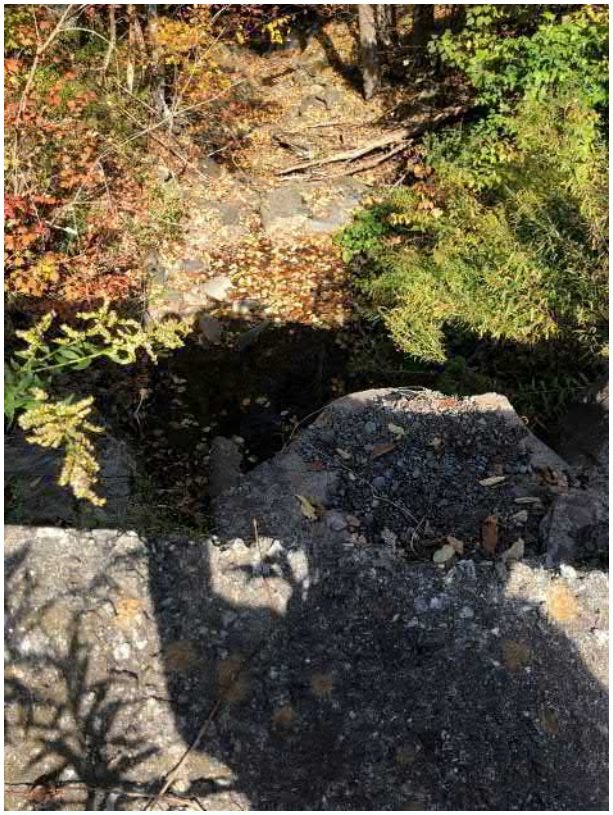


Photo 34. Stream 5.

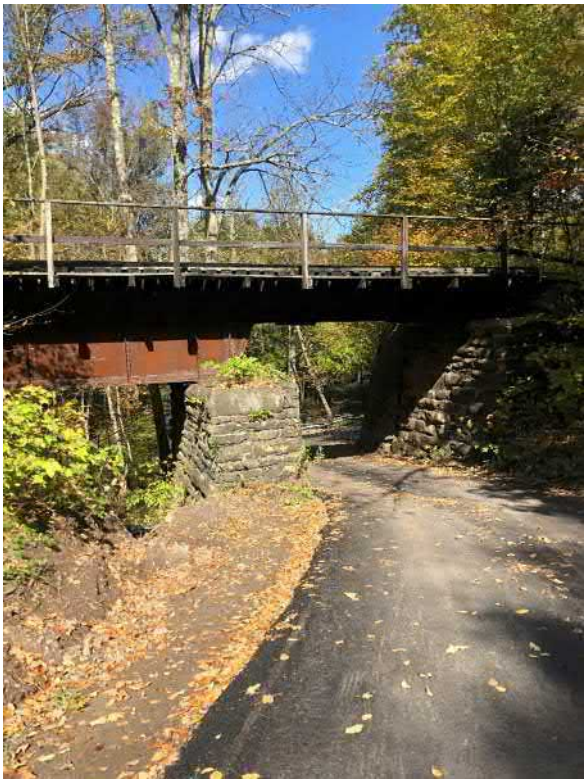


Photo 35. Railroad bridge over Stream 5 (to left) and Mill Street.

Photo 36. Stream 6 looking north.

Photo 37. Stream 6 looking north from culvert outlet.

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

November 20, 2020

Corinne Steinmuller
Barton and Loguidice, D.P.C.
10 Airline Drive
Albany, NY 12205

Re: U&D Revitalization Feasability Study
County: Ulster Town/City: Shandaken

Dear Corinne Steinmuller:

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 directly along the project corridor.

In Esopus Creek, about 1/4 mile south of where the project corridor crosses Esopus Creek, is a documented location of **Appalachian Tiger Beetle** (*Cicindela ancocisconensis*). While not listed by NYS, this beetle is rare in New York and of conservation concern. We recommend avoiding impacts, including erosion and run-off, to Esopus Creek and its riparian areas.

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.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

1127

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: U&D Revitalization Project - Shandaken City/County: Ulster Sampling Date: 10/6/20

Applicant/Owner: Ulster County State: NY Sampling Point: A

Investigator(s): Corinne Steinmuller Section, Township, Range: Shandaken

Landform (hillside, terrace, etc.): Low point b/w berm and roadway Local relief (concave, convex, none): Concave Slope %: 0

Subregion (LRR or MLRA): LRR R Lat: 42° 8'42.88"N Long: 74°29'31.38"W Datum: NAD 83

Soil Map Unit Name: Wellsboro and Wurtsboro soils complex NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes X	No ____	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland A a is located along Stream 11, which is an unmapped perennial stream feature that outlets to a tributary of Emory Brook (NYSDEC Waters Index No. D-70-80- P 368g). The wetland has expanded over the existing rail line in several locations.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ____ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- ____ Geomorphic Position (D2)
- X Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes X	No ____	Depth (inches): 2
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Wetland hydrology was present at the data plot including high water table (A2) and saturation (A3). Addtionally, water stained leaves (B9) were present. Standing water was observed outside of the dataplot to a depth of 3 inches.

VEGETATION – Use scientific names of plants. Sampling Point: A

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
		=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Lythrum salicaria*	60	Yes	OBL
2. *Bidens frondosa*	15	No	FACW
3. *Epilobium coloratum*	15	No	OBL
4. *Symphyotrichum puniceum*	5	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	95	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	80	x 1 =	80
FACW species	15	x 2 =	30
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	95 (A)		110 (B)

Prevalence Index = B/A = 1.16

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

X 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)
The wetland was dominated by the invasive purple loosestrife. Other species noted in the data plot included beggar's tick, purple-leaved willowherb, and purple stemmed aster.

SOIL

Sampling Point A

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	5YR 4/2	100					Mucky Loam/Clay	
3-7	5YR 3/2	92	5YR 5/8	2	C	M	Loamy/Clayey	Prominent redox concentrations
			10YR 6/1	6	C	M		Prominent redox concentrations
7-14	10YR 4/2	85	5YR 5/8	15	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ High Chroma Sands (S11) (**LRR K, L)**
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Marl (F10) (**LRR K, L**)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Gravel

Depth (inches): 14

Hydric Soil Present? **Yes** X **No** ___

Remarks:

The hydric soil indicator redox dark surface (F6) was satisfied with a 4" layer within the upper 12" of soil demonstrating 8% prominent redox concentrations with a matrix of 3 and chroma of 2.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 18. The **horizontal datum** was NAD 83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from digital orthophotography provided by the New York State Office of Cyber Security & Critical Infrastructure from photography dated April 2008.

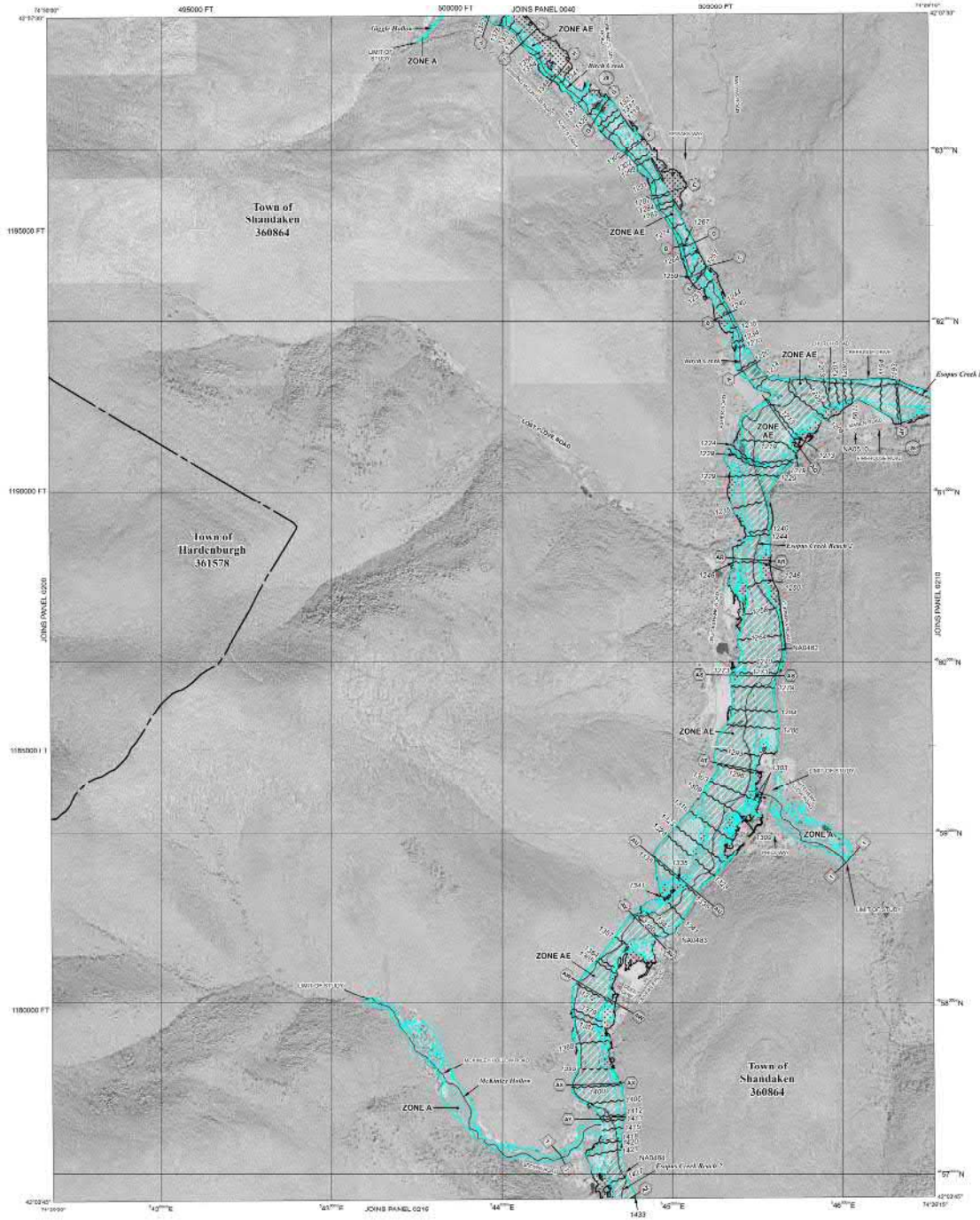
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange (FMIX) at **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/national-flood-insurance-program



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, A1-A30, AR, AR/A, AR/AE, AR/AH, AR/AO, AR/A1-A30, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** — No Base Flood Elevations determined.
- **ZONE AE** — Base Flood Elevations determined.
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by a levee from 1% annual chance flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Limited detail cross section line
- B — B — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4275000 mN — 1000-meter Universal Transverse Mercator grid values, zone 18N
- 600000 FT — 5000-foot grid values: New York State Plane coordinate system, East zone (FIPSZONE 3101), Transverse Mercator projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- ● M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 28, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
November 18, 2016 - to update map format, to change Base Flood Elevations, and to change Special Flood Hazard Areas

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0205F

FIRM

FLOOD INSURANCE RATE MAP

for ULSTER COUNTY, NEW YORK (ALL JURISDICTIONS)

CONTAINS:

COMMUNITY	NUMBER
HARDENBURGH, TOWN OF	361578
SHANDAKEN, TOWN OF	360864

PANEL 205 OF 910
MAP SUFFIX: F
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
36111C0205F

MAP REVISED
NOVEMBER 18, 2016

Federal Emergency Management Agency

APPENDIX C – COST ESTIMATE

Ulster & Delaware Railroad Corridor Revitalization Study

Preliminary Trail Construction Cost Estimate

April 2021

	HIGHMOUNT TO BIG INDIAN	HIGHMOUNT TO GIGGLE HOLLOW	GIGGLE HOLLOW TO LASHER ROAD	LASHER ROAD TO ROUTE 28
MAJOR CONSTRUCTION (ITEMS):	**COST**	**COST**	**COST**	**COST**
CLEARING & GRUBBING:	$377,000	$52,000	$294,000	$35,000
RAIL, HARDWARE & TIE REMOVAL	$721,000	$369,000	$291,000	$63,000
EARTHWORK:	$173,000	$88,000	$70,000	$15,000
TRAIL STONE:	$979,000	$501,000	$395,000	$85,000
RAILING & FENCE	$411,000	$182,000	$152,000	$57,000
DRAINAGE	$760,000	$478,000	$258,000	$17,000
ACCESS ROAD IMPROVEMENTS	$280,000	$190,000	$190,000	$0
EROSION CONTROL:	$90,000	$46,000	$37,000	$8,000
LANDSCAPING, BENCHES, SIGNS/PANELS:	$172,000	$88,000	$70,000	$15,000
WOODCHUCK HOLLOW BRIDGE	$430,000	$430,000	$0	$0
GIGGLE HOLLOW BRIDGE	$510,000	$0	$510,000	$0
SHORT SPAN STRUCTURE #1	$50,000	$0	$50,000	$0
LASHER ROAD CROSSING	$200,000	$0	$200,000	$0
ESOPUS CREEK CROSSING	$1,800,000	$0	$0	$1,800,000
SHORT SPAN STRUCTURE #2	$50,000	$0	$0	$50,000
HIGHMOUNT TRAILHAED CONCEPT	$107,000	$107,000	$0	$0
BELLLEAYRE CONCEPT C	$143,000	$143,000	$0	$0
BIG INDIAN PARK MODIFICATIONS	$49,000	$0	$0	$49,000
SUBTOTAL CONSTRUCTION ITEMS	$7,302,000	$2,674,000	$2,517,000	$2,194,000
FIELD CHANGE ORDER (USE 5% of total)	$365,100	$133,700	$125,850	$109,700
SURVEY	$73,020	$26,740	$25,170	$21,940
MOBILIZATION (4%)	$292,080	$106,960	$100,680	$87,760
CONSTRUCTION (2021 DOLLARS)	$8,032,200	$2,941,400	$2,768,700	$2,413,400
INFLATION (3%/yr)	**$481,932**	**$176,484**	**$166,122**	**$144,804**
TOTAL PROJECT CONSTRUCTION COSTS (2023 DOLLARS):	**$8,520,000**	**$3,120,000**	**$2,940,000**	**$2,560,000**
ENGINEERING	$600,000	$220,000	$210,000	$180,000
CONSTRUCTION INSPECTION & ADMIN	$1,030,000	$380,000	$360,000	$310,000
ROW INCIDENTALS AND ACQUISITIONS	$0	$0	$0	$0
TOTAL COSTS:	**$10,150,000**	**$3,720,000**	**$3,510,000**	**$3,050,000**

Ulster & Delaware Railroad Corridor Revitalization Study

Preliminary Trail Construction Cost Estimate

April 2021

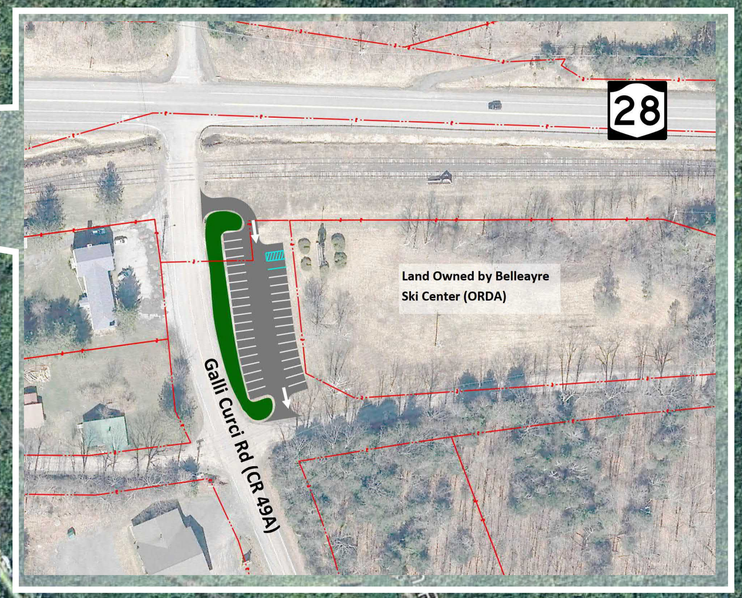
	HIGHMOUNT CONCEPT	BELLEAYRE CONCEPT A	BELLEAYRE CONCEPT B	BELLEAYRE CONCEPT C	BIG INDIAN
MAJOR CONSTRUCTION ITEMS:	**COST**	**COST**	**COST**	**COST**	**COST**
CLEARING & GRUBBING:	$0	$0	$0	$0	$5,000
EARTHWORK:	$21,000	$122,000	$32,000	$47,000	$12,000
SUBBASE:	$56,000	$55,000	$32,000	$47,000	$16,000
DRAINAGE IMPROVEMENTS:	$5,000	$25,000	$25,000	$25,000	$8,000
EROSION CONTROL:	$8,000	$9,000	$10,000	$9,000	$0
LANDSCAPE IMPROVEMENTS	$17,000	$19,000	$19,000	$15,000	$8,000
FOUNTAIN REMOVAL:	$0	$100,000	$0	$0	$0
SUBTOTAL CONSTRUCTION ITEMS	$107,000	$330,000	$118,000	$143,000	$49,000
FIELD CHANGE ORDER (USE 5% of total)	$5,350	$16,500	$5,900	$7,150	$2,450
SURVEY	$1,070	$3,300	$1,180	$1,430	$490
MOBILIZATION (4%)	$4,280	$13,200	$4,720	$5,720	$1,960
CONSTRUCTION (2021 DOLLARS)	$117,700	$363,000	$129,800	$157,300	$53,900
INFLATION (3%/yr)	**$7,062**	**$21,780**	**$7,788**	**$9,438**	**$3,234**
TOTAL CONSTRUCTION COSTS (2023 DOLLARS):	**$124,762**	**$384,780**	**$137,588**	**$166,738**	**$57,134**
ENGINEERING	$10,000	$30,000	$10,000	$20,000	$10,000
CONSTRUCTION INSPECTION & ADMIN	$20,000	$50,000	$20,000	$30,000	$10,000
ROW INCIDENTALS AND ACQUISITIONS	$0	$0	$0	$0	$0
TOTAL COSTS:	**$155,000**	**$465,000**	**$168,000**	**$217,000**	**$78,000**

APPENDIX D – DRAINAGE INFORMATION

Ulster & Delaware Railroad Corridor Culvert Data Table

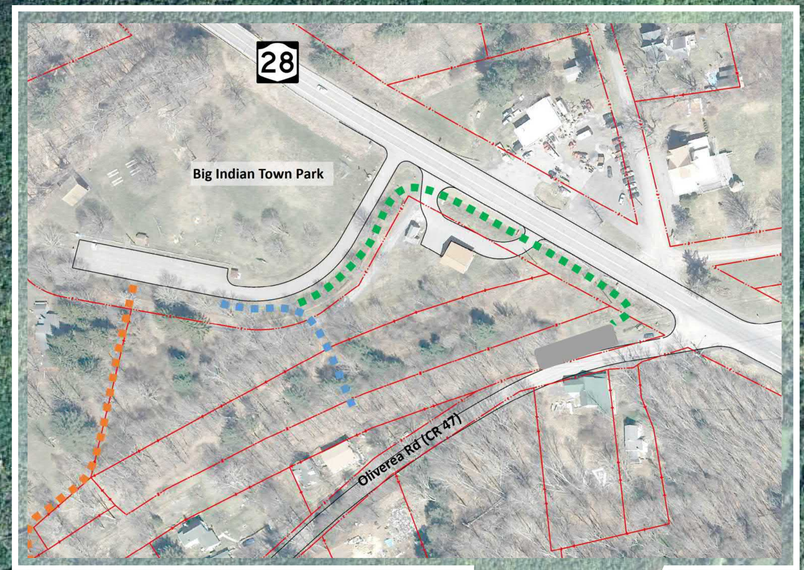
Number	Station	Size / Dia.	Length (ft.)	Material	Headwall	Upstream	Downstream	Culvert	repairs necessary
1	20+45	24"		CMP	Concrete			Under road, 50% blocked	None
2	28+60	24"	22	Steel	Concrete	Stone and grass lined swale	Outlet into roadside ditch		
3	37+75	-	45	Stone		Buried Inlet			Inlet buried 5ft. below grade, outlet headwall collapsed
4	61+50	12"	14	Steel	None	50% Buried	100% Buried	Replace or Reset	Replace existing culvert, completely buried outlet, 50% burried inlet
5	67+50	5x3.5		Stone		Minor Debris Clearing	Good condition	Double Barrell	
6	72+60	2x24"	65	Steel	Stone	Collapsed Halfway		Water Flowing through Stacked Stone	Two Steel culverts, headwall collapsing, sinkhole above collapsed middle of culvert. Replace single large culvert.
7	96+95	3x3	75	Stone	Stone	Mostly Blocked	Apparent flow channel	flows okay	Clear inlet
8	117+65	-	25	Stone	Stone	Stone catch basin partially collapsed	Head Wall Collapsed	Appears clean and flows well	catch basin and culvert rehab, headwall collapse
9	125+00							New Culvert	
10	137+60	18	13	Steel	Stone	Partially Blocked			Replace
11	159+20	-	30	Stone		defined swale, wall collapsed	outlet not found		Replace
12	166+40	12"	32	Clay	Stone	Clogged		Cracked within culvert	Cracked within culvert and inlet clogged replace
13	178+50	3x3	30	Stone	None	Not found	collapsed	Flowing Water	Replace
14	179+50	12"	30	HDPE				Culvert under winding mt. rd.	
15	181+80	8"	30	Clay	None	Partially Blocked	Defined Channel		Upstream partially blocked , fair condition replace
16	191+00	12"	25	CMP	Stone	Defined Channel	Pipe beyond headwall		Replace, pipe extends beyond headwall
17	191+60	24"	20	Steel	Stone	Collapsed			Inlet headwall collapsed, rehab
18	193+75	24	19	Stone	Stone	15-20ft flow channel		9h*5base*3top,trapezoidal	
19	194+80	20"		steel		washout	washout	bad	install new box culvert or sseveral large culverts
20	195+80	12"	12	Clay	Stone	buried, flow down sideslope	50% buried		inlet buried and outlet 50% buried, replace to accommodate two stream channels
21	196+40	12	12	?	Stone	buried, ballast erosion under ties	tall headwall		
22	210+20	24"	25	?	Stone	Headwall collapsed		clogged	Inlet headwall collapsed and clogged
23	214+60	24"	18	Steel	Stone	Flowing	Rebuild Headwall		Rebuild outlet headwall, good condtion rehab
24	216+60	12"	22	CMP	Stone	buried	ok		pipe inlet buried
25	220+15	12"	20	CMP	Stone	buried			Pipe buried, stone headwall
26	221+70	12"	20	Clay	Stone	buried	buried	cracked, erosion above pipe	Cracked Pipe and erosion above pipe, buried replace
27	238+60	12"	16	Steel	Stone	50% buried	50% buried		Half buried pipe inlet and outlet
28	244+10		15	-	Stone			buried	replace
29	254+00	2.5x2			Stone				none
30	266+85	36"	25	Steel	None		One tree to be cut		None
31	270+20	12"	50		Stone				Rehab

APPENDIX E – LARGE SCALE MAPS



Highmount Trailhead

Big Indian Trailhead



Belleayre Beach DUA Trailhead

Barton & Loguidice

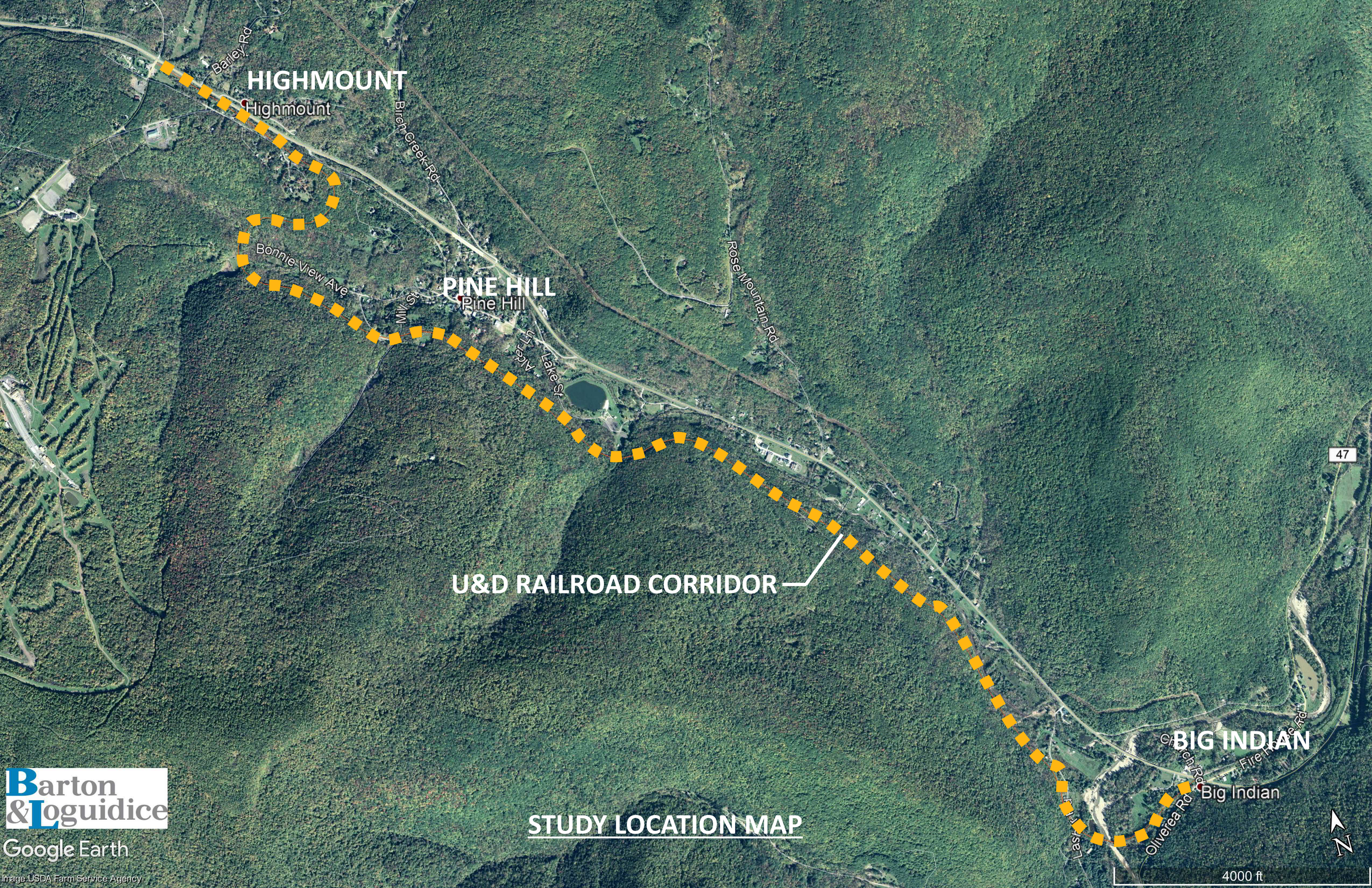
Google Earth

Image USDA Farm Service Agency

Barley Rd
Bonnie View Ave
Mill St
Lake St
Pine Hill
Fire House Rd
Church Rd
Big Indian
Oliverea Rd
Lasher Rd

N

4000 ft


HIGHMOUNT
Highmount
PINE HILL
Pine Hill
BIG INDIAN
Big Indian
Barley Rd
Birch Creek Rd
Bonnie View Ave
Mill St
Alder Ln
Lake St
Rose Mountain Rd
Fire Tower Rd
Oliverea Rd
47
U&D RAILROAD CORRIDOR
STUDY LOCATION MAP
Barton & Loguidice
Google Earth
Image USDA Farm Service Agency
N
4000 ft

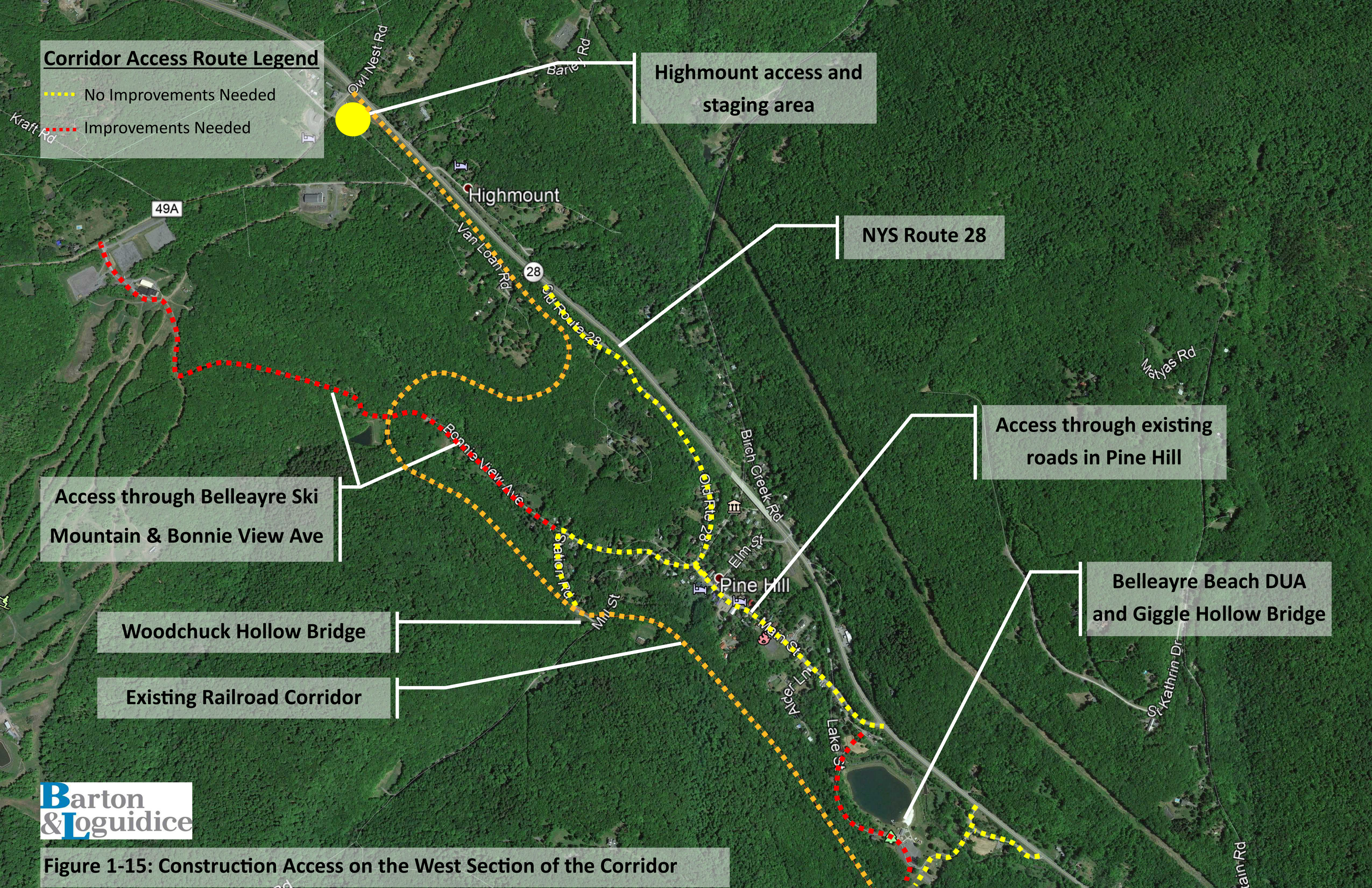


Figure 1-15: Construction Access on the West Section of the Corridor

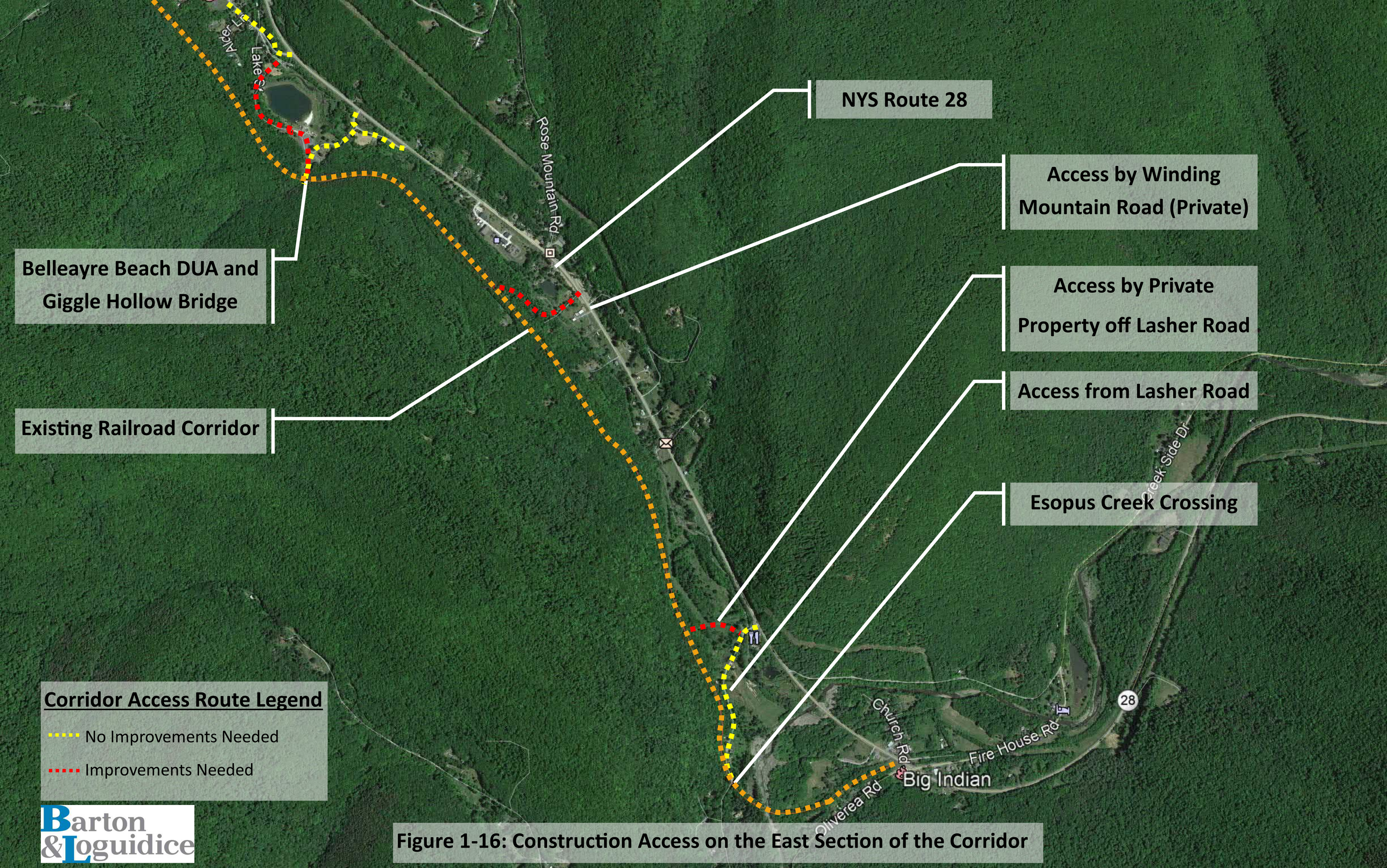


Figure 1-16: Construction Access on the East Section of the Corridor

Figure 2-1: Project Corridor showing Structure Locations

Mill Street/Woodchuck Hollow Road Bridge

Giggle Hollow Bridge

Short Span Bridge #1 (Timber Girders)

Former Lasher Road Bridge

Former Esopus Creek Bridge

Short Span Bridge #2 (Steel Girders)

Barley Rd

Highmount

Birch Creek Rd

Bonnie View Ave

Mill St

Pine Hill

Alder Ln

Lake St

Rose Mountain Rd

Lasher Rd

Church Rd

Fire House Rd

Big Indian

Oliverea Rd

47

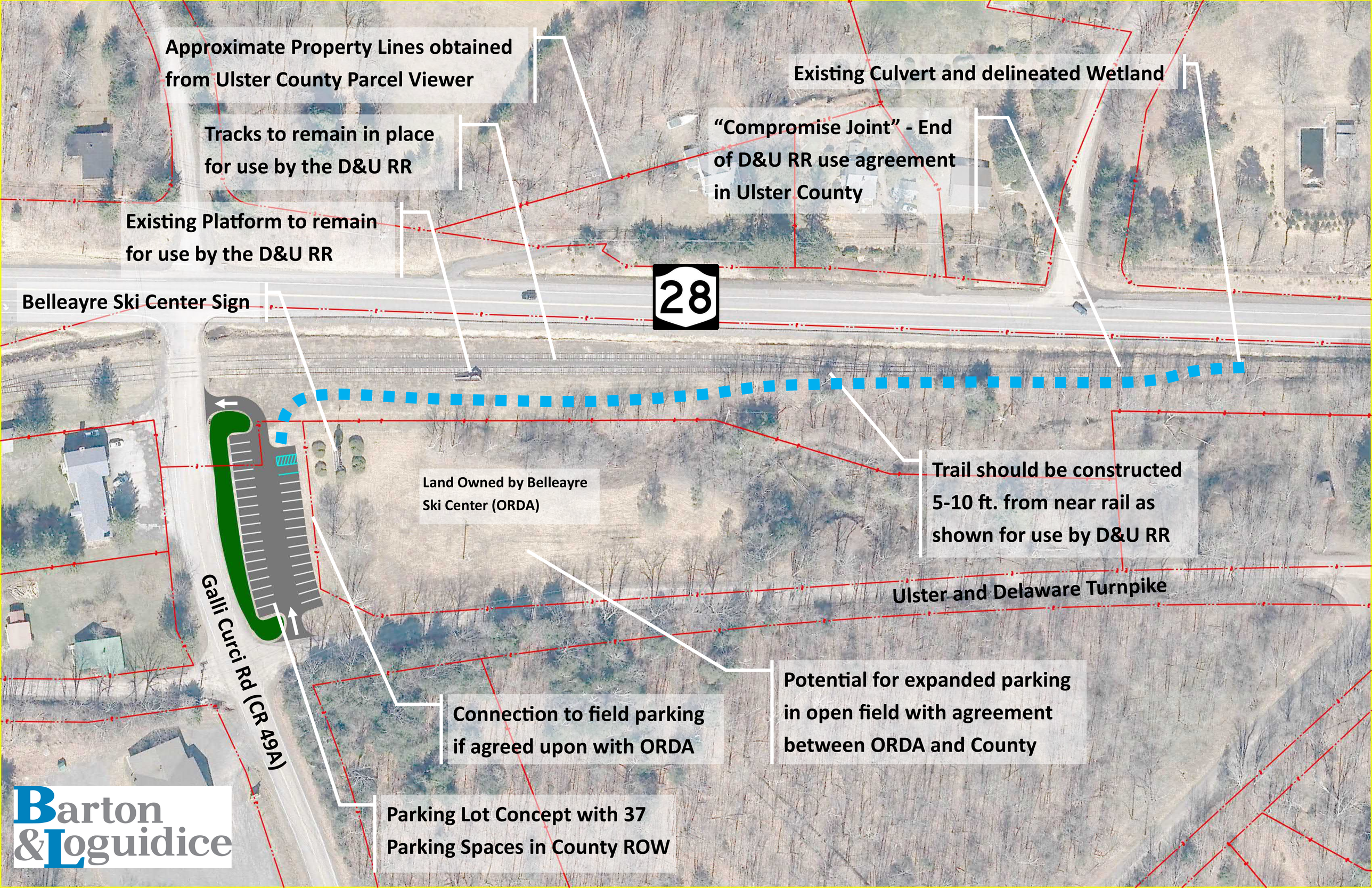
N

4000 ft

Barton & Loguidice

Google Earth

Image USDA Farm Service Agency


Approximate Property Lines obtained from Ulster County Parcel Viewer
Existing Culvert and delineated Wetland
Tracks to remain in place for use by the D&U RR
"Compromise Joint" - End of D&U RR use agreement in Ulster County
Existing Platform to remain for use by the D&U RR
28
Belleayre Ski Center Sign
Land Owned by Belleayre Ski Center (ORDA)
Trail should be constructed 5-10 ft. from near rail as shown for use by D&U RR
Galli Curci Rd (CR 49A)
Ulster and Delaware Turnpike
Connection to field parking if agreed upon with ORDA
Potential for expanded parking in open field with agreement between ORDA and County
Parking Lot Concept with 37 Parking Spaces in County ROW
Barton & Loguidice

Existing U&D Railroad Corridor

Existing beach parking lot to remain. 107 spaces

Relocate entry fee collection booth and gate. Widen existing entrance road

Existing parking lot 26 spaces converted to trail parking

Trail to provide access from parking facilities to Rail Trail

Giggle Hollow Bridge

Concept A— Two New Parking Lots at existing fountain with 33 Parking Spaces

Install fence or natural barrier (plantings) to separate Beach facility from trail

Concept B—New Parking Lot in Open Field with 27 Parking Spaces

Concept C—New Parking Lot in Open Field with 33 Parking Spaces

Birch Creek

Gated One Lane Covered Bridge

Existing Entry Fee Collection Booth

28

Friendship Manor Rd

Utilize existing roadway network within facility

Install and update wayfinding signs to differentiate between ORDA and trail facilities

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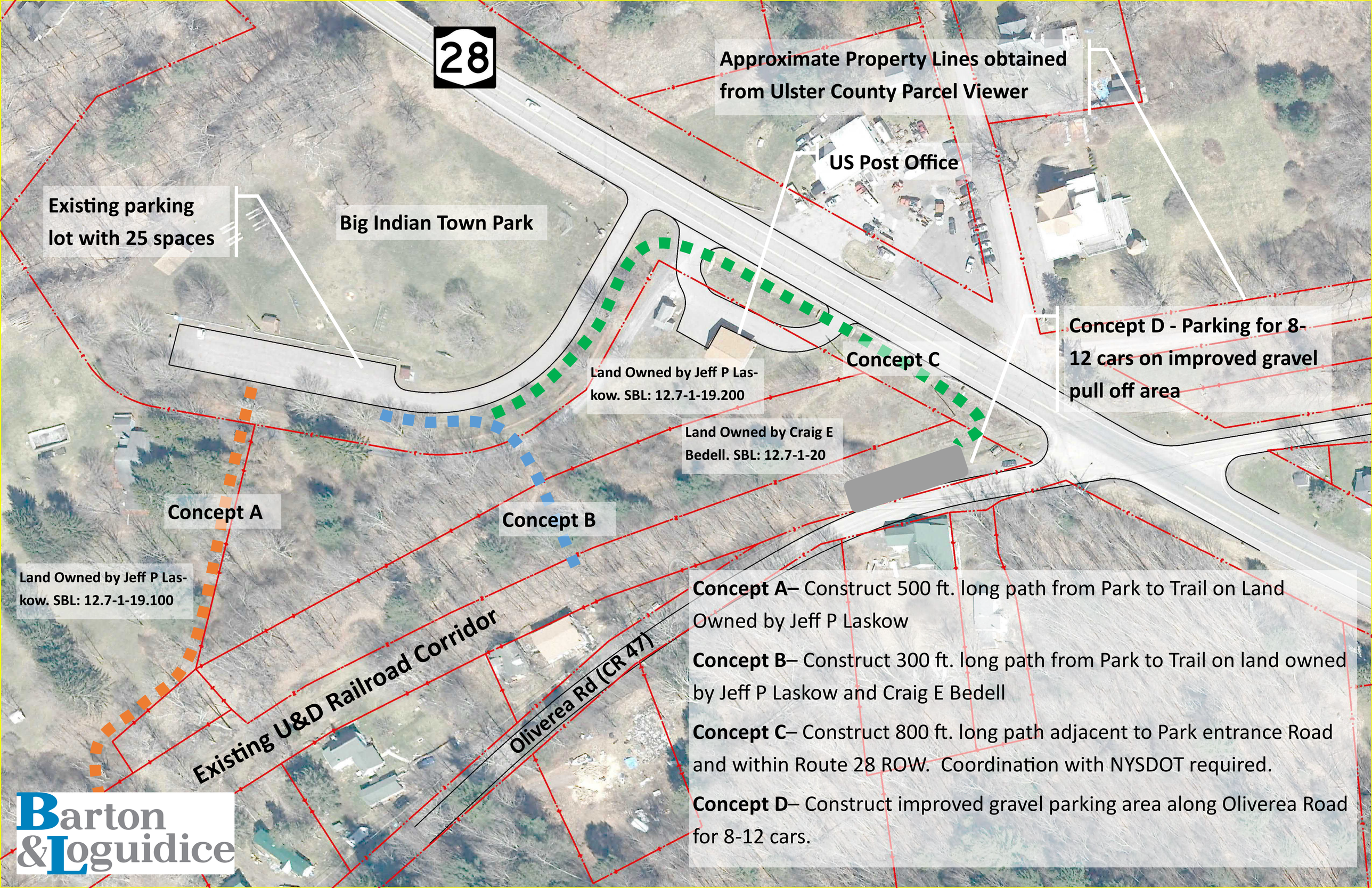

Concept A– Construct 500 ft. long path from Park to Trail on Land Owned by Jeff P Laskow

Concept B– Construct 300 ft. long path from Park to Trail on land owned by Jeff P Laskow and Craig E Bedell

Concept C– Construct 800 ft. long path adjacent to Park entrance Road and within Route 28 ROW. Coordination with NYSDOT required.

Concept D– Construct improved gravel parking area along Oliverea Road for 8-12 cars.

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