

Ulster County Rail Trail Project: *Ashokan Rail Trail*



MICHAEL P. HEIN
ULSTER COUNTY EXECUTIVE

Public Information Meeting

December 1, 2016 – 7-9 PM
Onteora High School/ Middle School Auditorium
4166 Route 28, Boiceville, NY



Ashokan Rail Trail Project

Public Information Meeting Agenda

Introduction and Project Background

Chris White, Deputy Director of Planning, Ulster County

Discussion of Watershed Protection & Recreation

Ira Stern, Chief, Natural Resources Division, NYC DEP

Presentation of Preliminary Trail Design

Thomas Baird, P.E., Associate, Barton & Loguidice

Overview of Trailhead Design & Access Points

Charles Laing, Recreation & Property Manager, NYC DEP

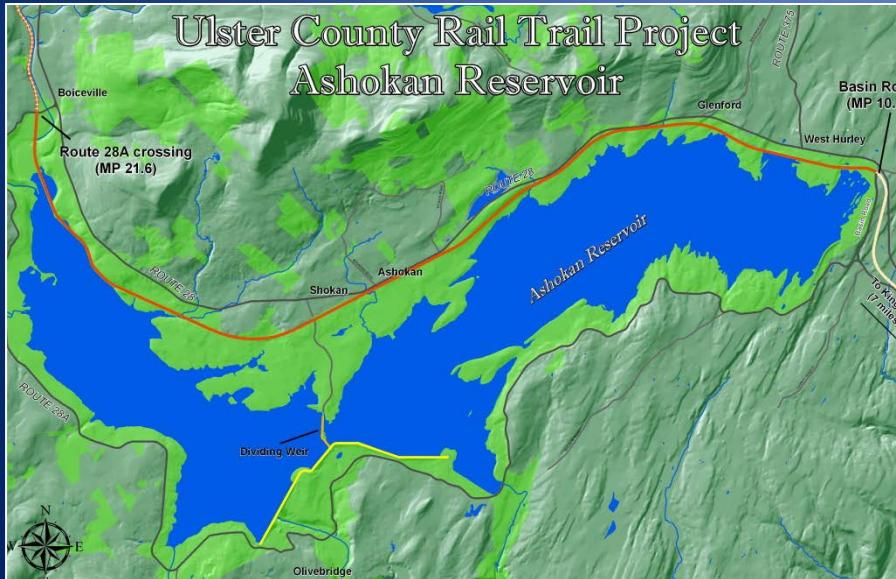
Public Questions and Comments



Ashokan Rail Trail Project

Introduction and Project Background

- ❖ **Non-motorized, fully-accessible recreational trail for hiking, bicycling, running, nature observation, and winter activities**
- ❖ **Planned for the northern edge of the Ashokan Reservoir from West Hurley to Boiceville (11.5 miles)**
- ❖ **Project will use the Ulster & Delaware (“U&D”) Corridor, which U.C. Legislature slated for conversion to trail**





Ashokan Rail Trail Project

Project Evolution

- 1954:** Passenger train service ends
- 1976:** Freight rail service discontinued
- 1979:** County purchases U&D railroad
- 2012:** County Executive Mike Hein proposes trail development
- 2013:** Historic agreement with NYC DEP announced to facilitate and partially fund project (\$2.5 million plus trailheads)
- 2013:** New York State awards \$2 million
- 2014:** Feasibility Study- OSI, WLC, DF; State awards additional \$630k
- 2014:** Ulster County Legislature passes Res. No. 275 policy for “segmented rail-with-trail”
- 2015:** Legislature unanimously (23-0) adopts Res. No 488 compromise policy/ authorizes *A.R.T.* design

- 2016:** Engineering consultants start preliminary trail design and environmental investigations; CMRR lease expires (May)
- 2017:** Proposed construction starts (Oct)





Ashokan Rail Trail Project Trail Agreement with NYC DEP



*Approved by Ulster County
Legislature in May 2015--
Resolution No. 187*

- ✓ **Allows recreational trail use along Ashokan Reservoir**
- ✓ **Protects County's perpetual railroad easement for future**
- ✓ **Provides \$2.5 Million in funding from NYC DEP**
- ✓ **Includes DEP construction of three public trailheads**
- ✓ **Requires unpaved trail surface/ prohibits horses/ motor vehicles**
- ✓ **Preserves hunting and fishing access to DEP lands**
- ✓ **Incorporates biking/walking facilities on new DEP bridges**



Ashokan Rail Trail Project

Project Goals and Expected Benefits

- Protect quality of drinking water supply
- Expand public recreational opportunities for all 
- Promote increased tourism/economic development
- Improve public health through active lifestyles
- Enhance quality of life
- Preserve and stabilize the historic U&D corridor
- Educate public on history and natural resources



“We have a unique opportunity to create a world-class tourism destination and connect the Walkway Over the Hudson to the Ashokan Reservoir and Catskills.”

- County Executive Mike Hein



Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project

Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project

Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project

Views from the Corridor





Ashokan Rail Trail Project

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Ashokan Rail Trail Project

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Ashokan Rail Trail Project

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Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project

Views from the Corridor





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Views from the Corridor





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Views from the Corridor





Ashokan Rail Trail Project

Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project

Views from the Corridor





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Ashokan Rail Trail Project Views from the Corridor





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Views from the Corridor





Ashokan Rail Trail Project Views from the Corridor





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Ashokan Rail Trail Project Views from the Corridor





Ashokan Rail Trail Project Trail Connection to Rail Explorers





Ashokan Rail Trail Project

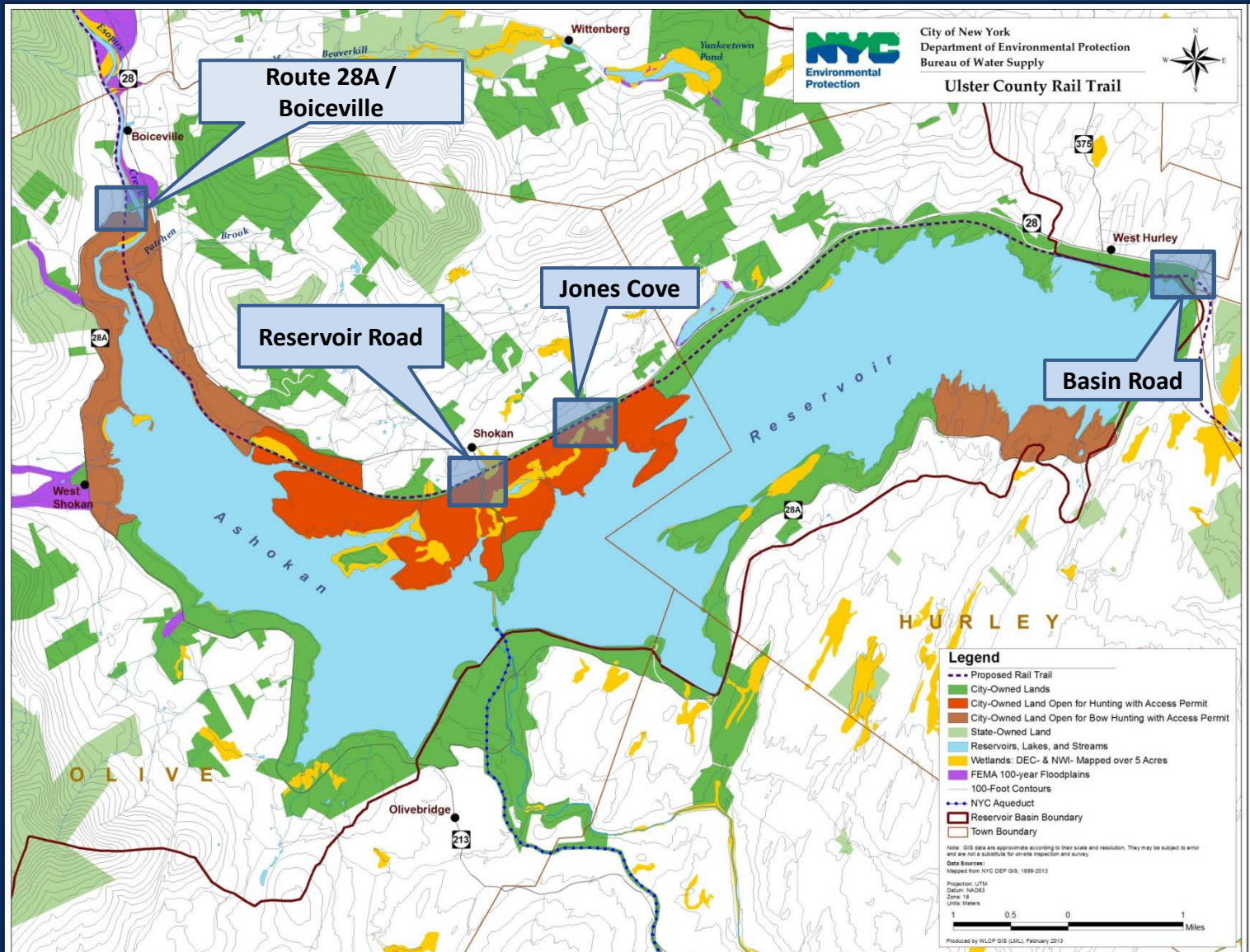


Ira Stern

Chief of Natural Resources Division

New York City Department of Environmental Protection

Ashokan Rail Trail Project





Ashokan Rail Trail Project

Watershed & Ashokan Reservoir Facts

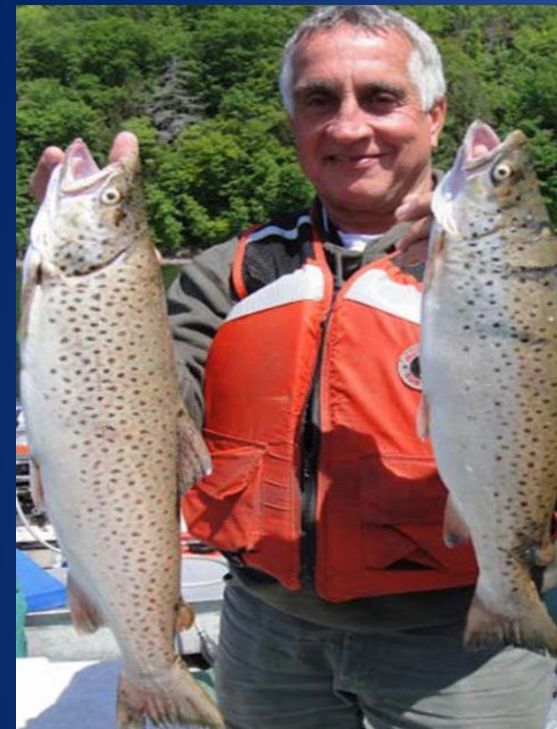
- NYC Water Supply is one of only 6 unfiltered water supplies in the United States.
- Ashokan Reservoir is a “terminal reservoir” for NYC and supplies 40% of City water supply.
- Balancing public access and public health is critical for the future.
- Major concern for water supply are pathogens and bacteria. Use restrictions are protective and compatible when recreation is well managed.





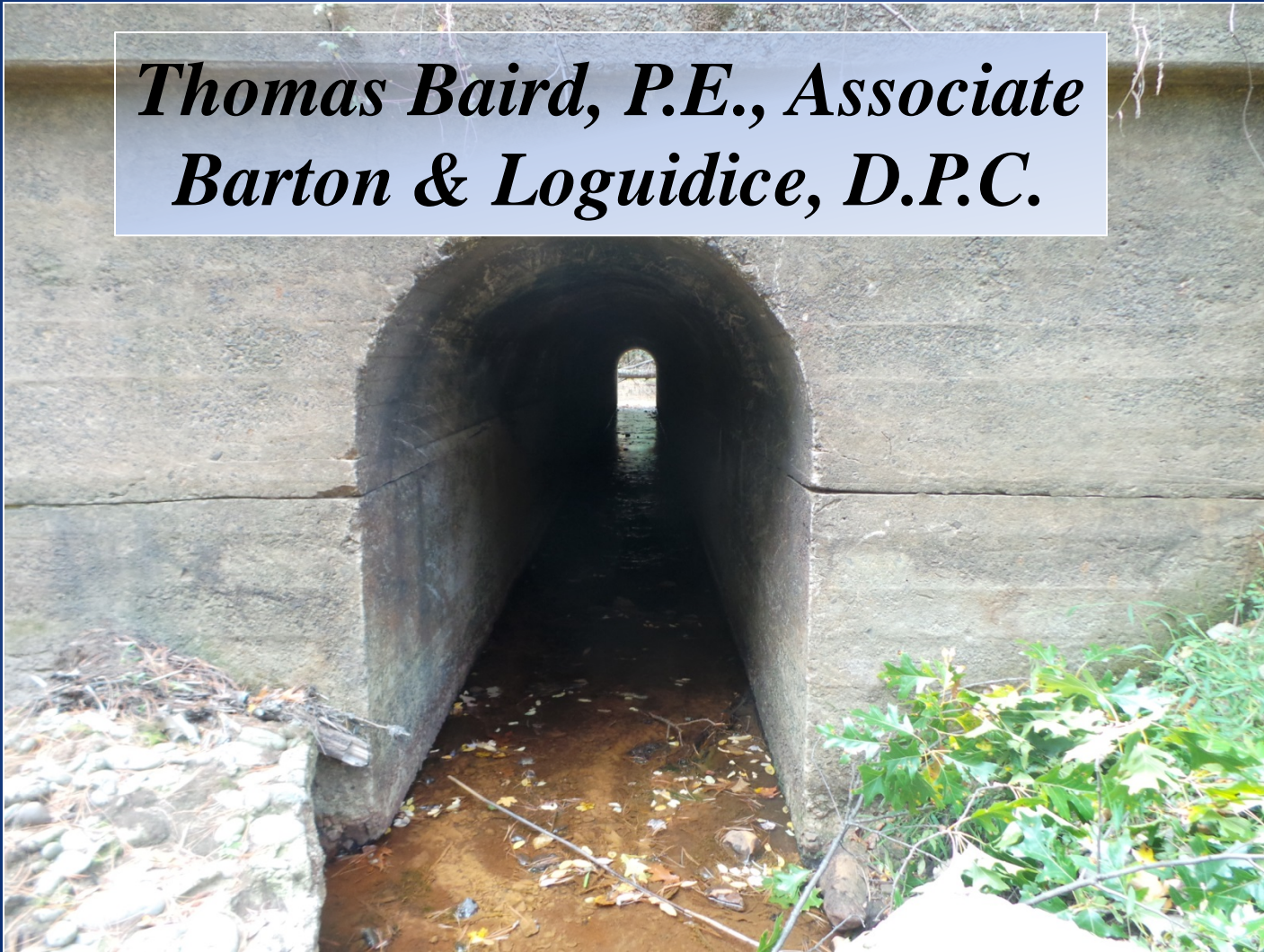
Ashokan Rail Trail Project

Balancing Multiple Uses



Ashokan Rail Trail Project

*Thomas Baird, P.E., Associate
Barton & Loguidice, D.P.C.*



Ashokan Rail Trail Project Feasibility Study (2014-2015)



SCOPE OF WORK:

- Walked, photographed and assessed 11.5-miles
- Generated mapping, surveyed and gathered data needed for planning and design
- Inventoried and assessed existing conditions
- Analyzed and provided reports on Boiceville Trestle and Butternut Creek Culvert
- Investigated wetlands and endangered species
- Assessed opportunities- public access points, scenic overlooks, trail design options, etc.
- Developed planning level cost estimates for trail project as well as the Boiceville Trestle and Butternut Culvert components
- Documented location and condition of all drainage culverts

Ashokan Rail Trail Project Feasibility Study (2014-2015)

F.S. MAJOR FINDINGS:

- Scenic views and incredible beauty along corridor offer opportunity for world-class destination
- Corridor is largely intact and conversion to trail is straightforward with exception of two large subprojects (Boiceville Trestle/ Butternut Culvert)
- Future trail has logical and feasible public access points on each end of the trail and at midpoint
- Budget for trail only approximately \$5 Million without two large subprojects (add \$3-3.5 M)
- Trail can be developed as a model for balancing watershed protection with public recreation





Ashokan Rail Trail Project

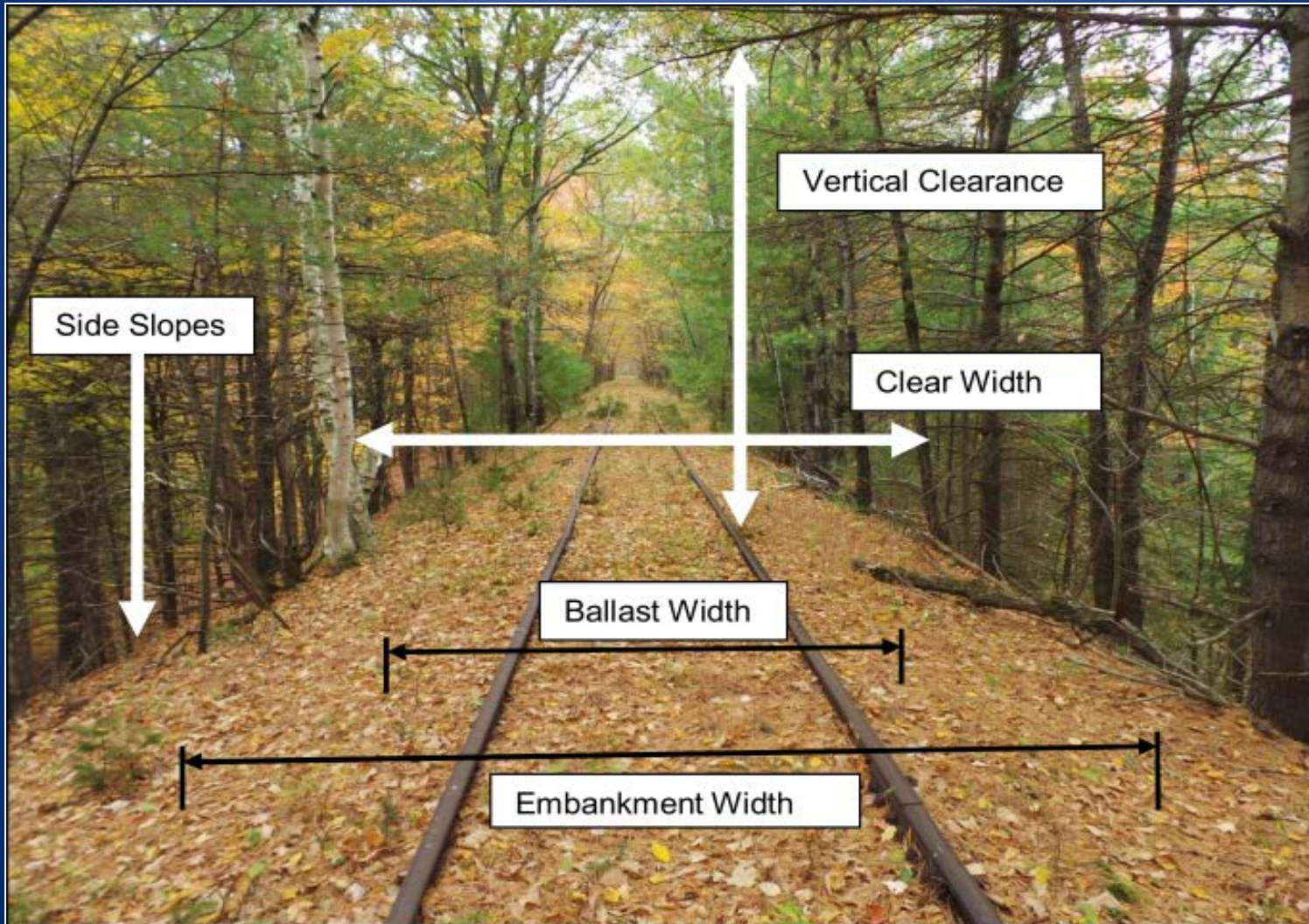
Analysis of Corridor Segments





Ashokan Rail Trail Project

Analysis of Corridor Geometry





Ashokan Rail Trail Project

Documentation of Existing Conditions



Photo 1-1– Example of Remaining Railroad Track Infrastructure – Segment 1



Photo 1-2 – Existing Rail Infrastructure Conditions – Segment 1



Ashokan Rail Trail Project

Documentation of Existing Conditions



Photo 1-4 – Rock Cut Section



Photo 1-5
Rock Slide in Segment 1



Ashokan Rail Trail Project

Documentation of Existing Conditions



Photo 1-6

Separation and Structural Damage Inside Culvert
RR Tracks Directly above Damaged Section



Photo 1-7

Only Minor Restoration and Maintenance
Required Internally



Ashokan Rail Trail Project

Documentation of Existing Conditions





Ashokan Rail Trail Project

Documentation of Existing Conditions





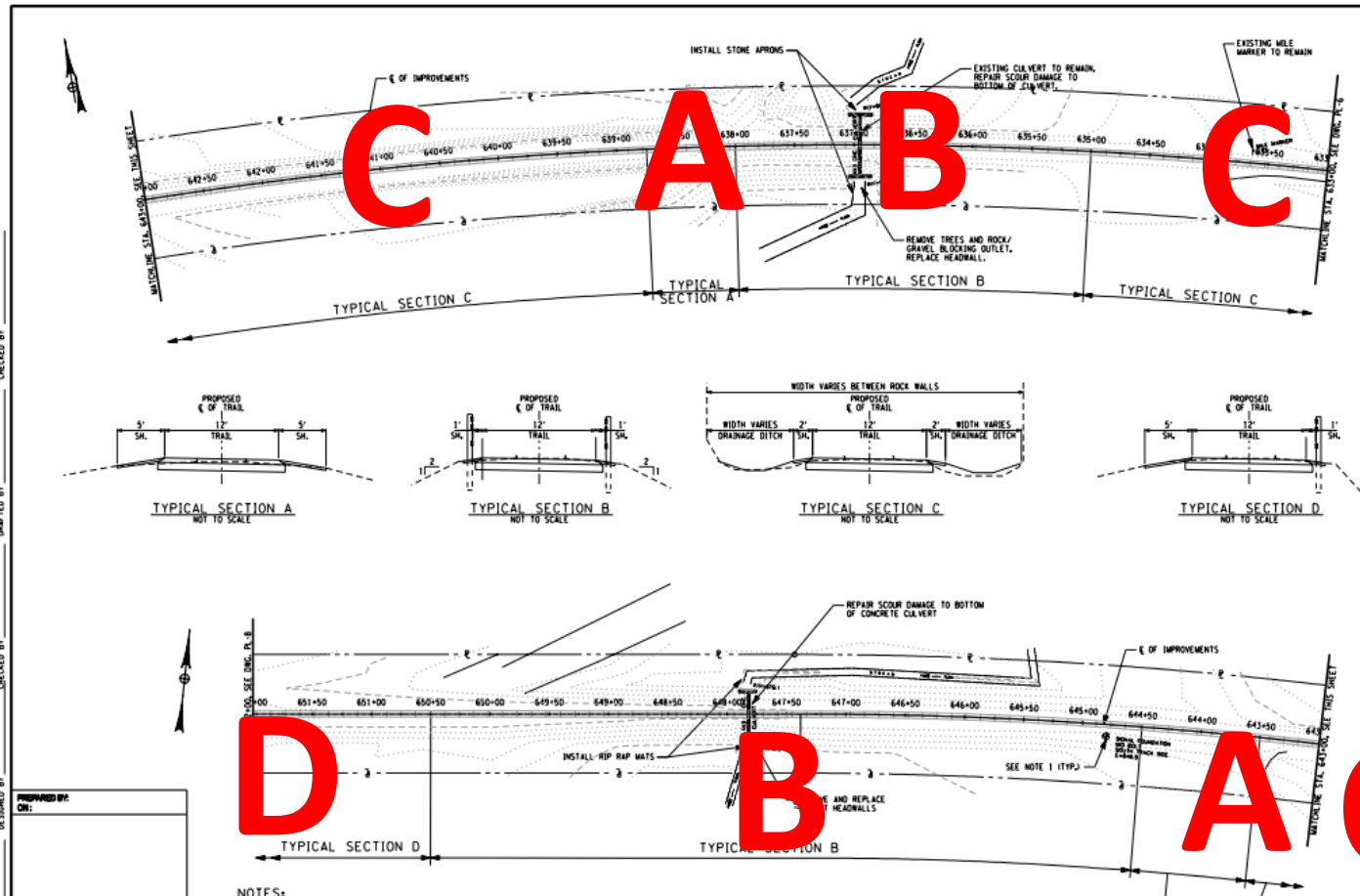
Ashokan Rail Trail Project

Documentation of Existing Conditions





Ashokan Rail Trail Project Mapping Trail Segments



7 Changes in 1900' or Just Over 5 Football Fields

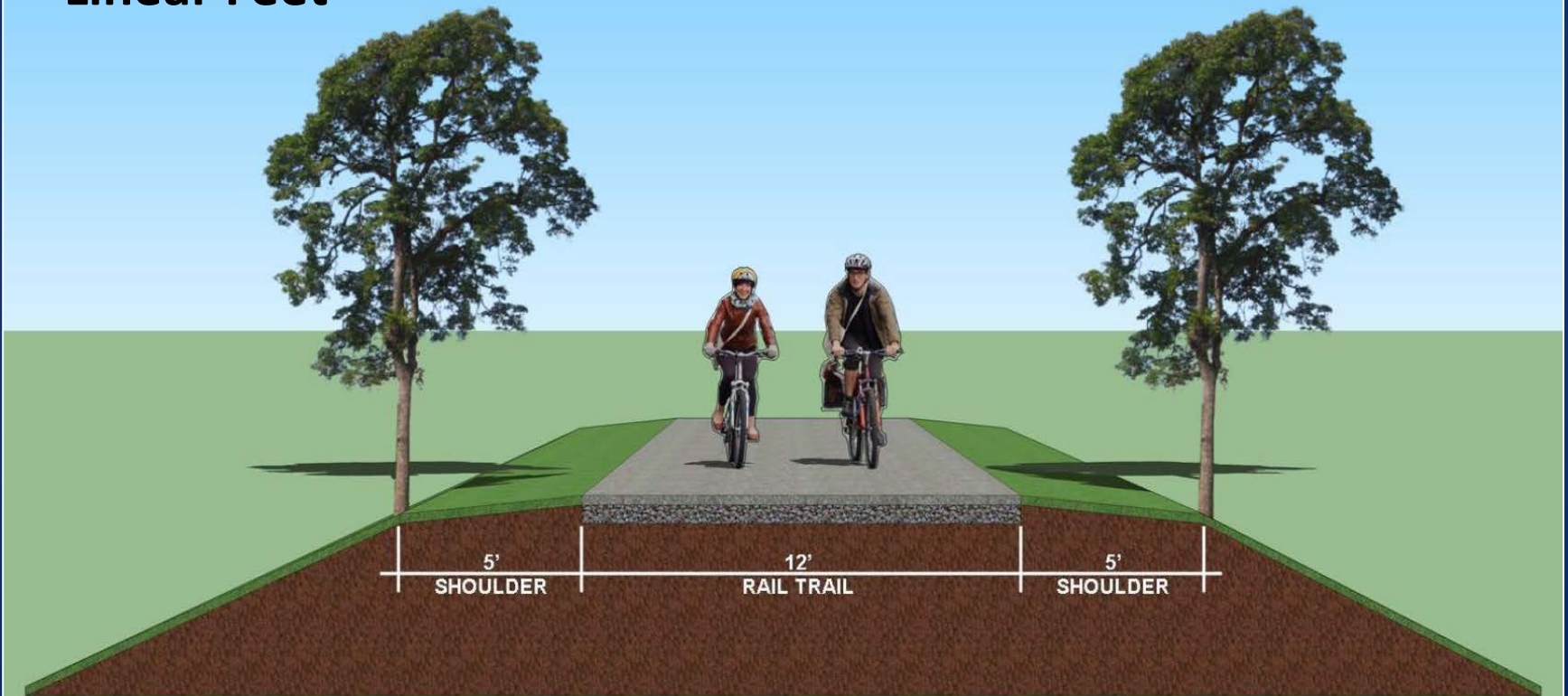
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ALL MOUNTAIN RAIL TRAIL ASHOKAN SECTION	OPEN SPACE INSTITUTE
ULSTER COUNTY	ALTERNATIVE 1A
GENERAL PLAN 7	SCALE: 1"=80' DATE PLOTTED: 08/08/14 DRAWING PL.-7



Ashokan Rail Trail Project Trail Section A

**33,000
Linear Feet**

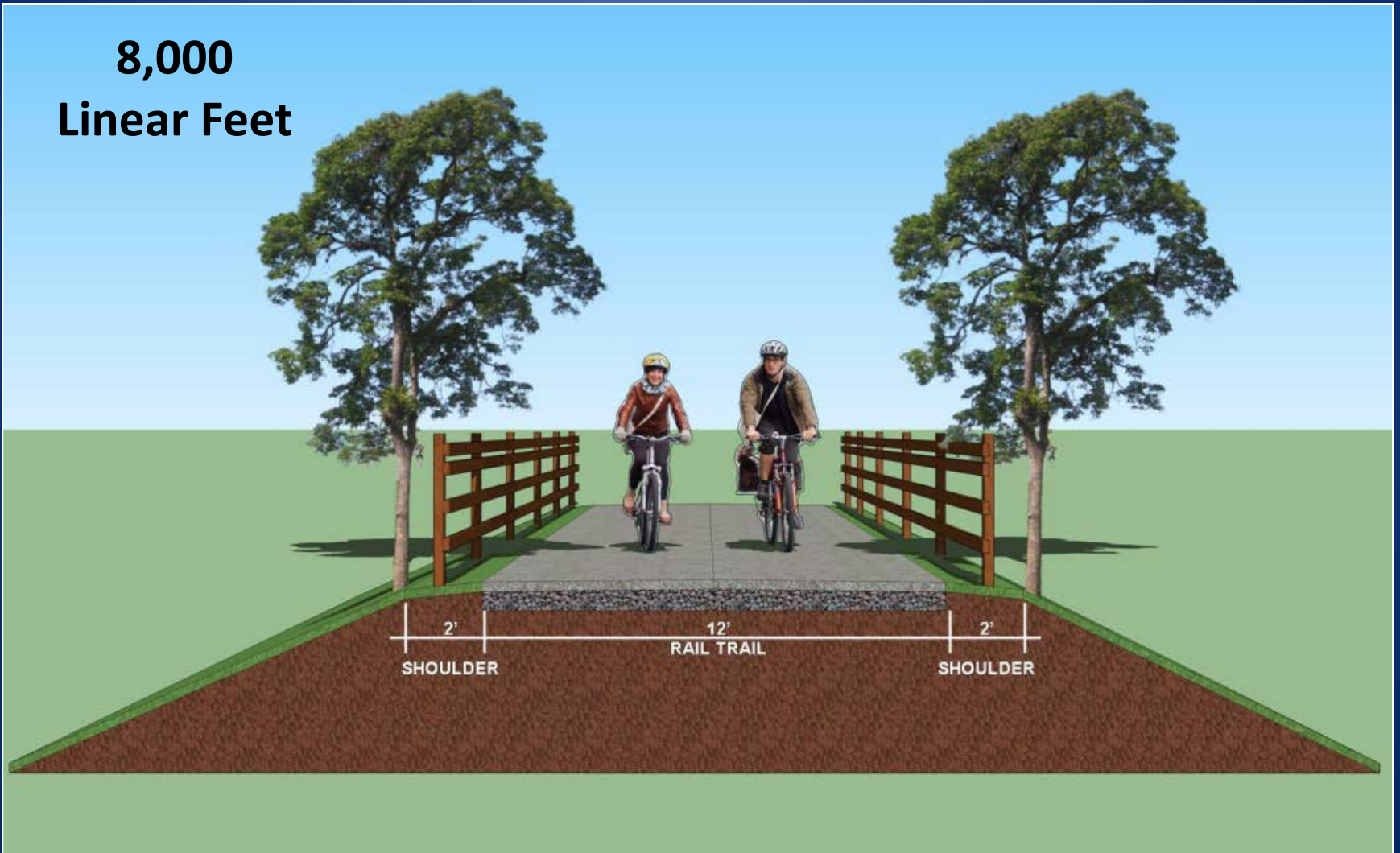




Ashokan Rail Trail Project

Trail Section B (Steep Slopes Both Sides)

**8,000
Linear Feet**

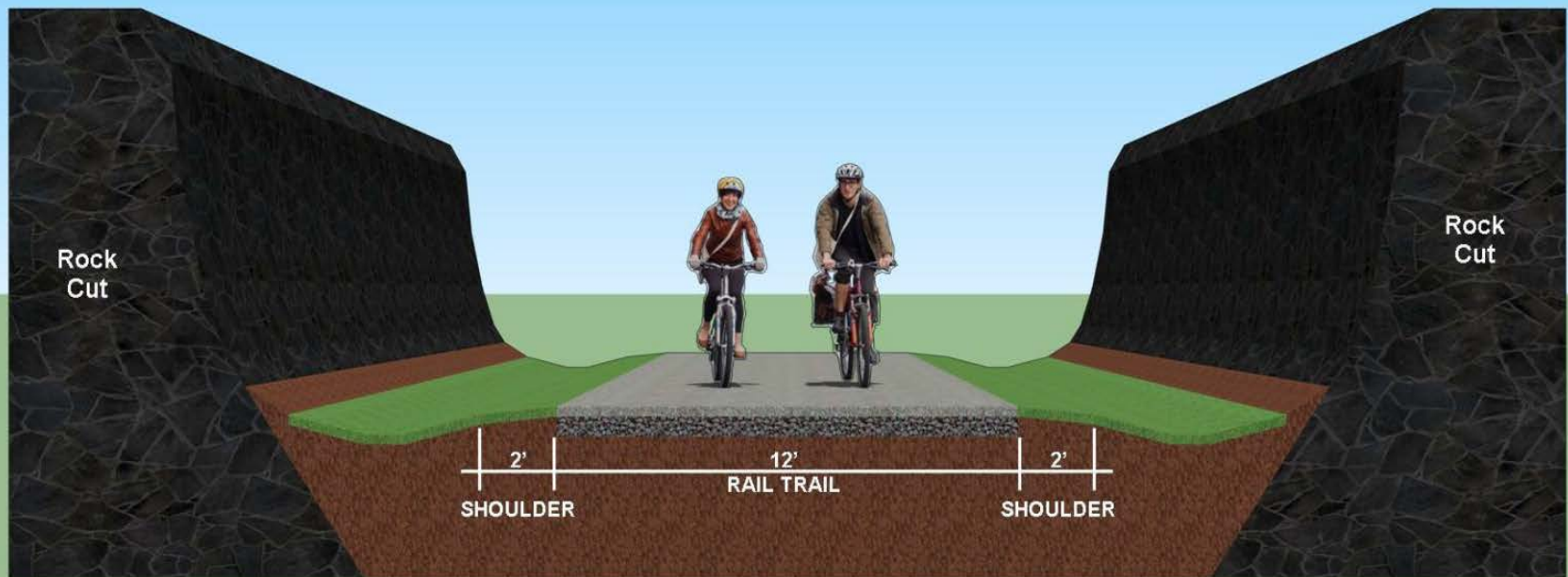




Ashokan Rail Trail Project

Trail Section C (Rock Cut)

13,400
Linear Feet

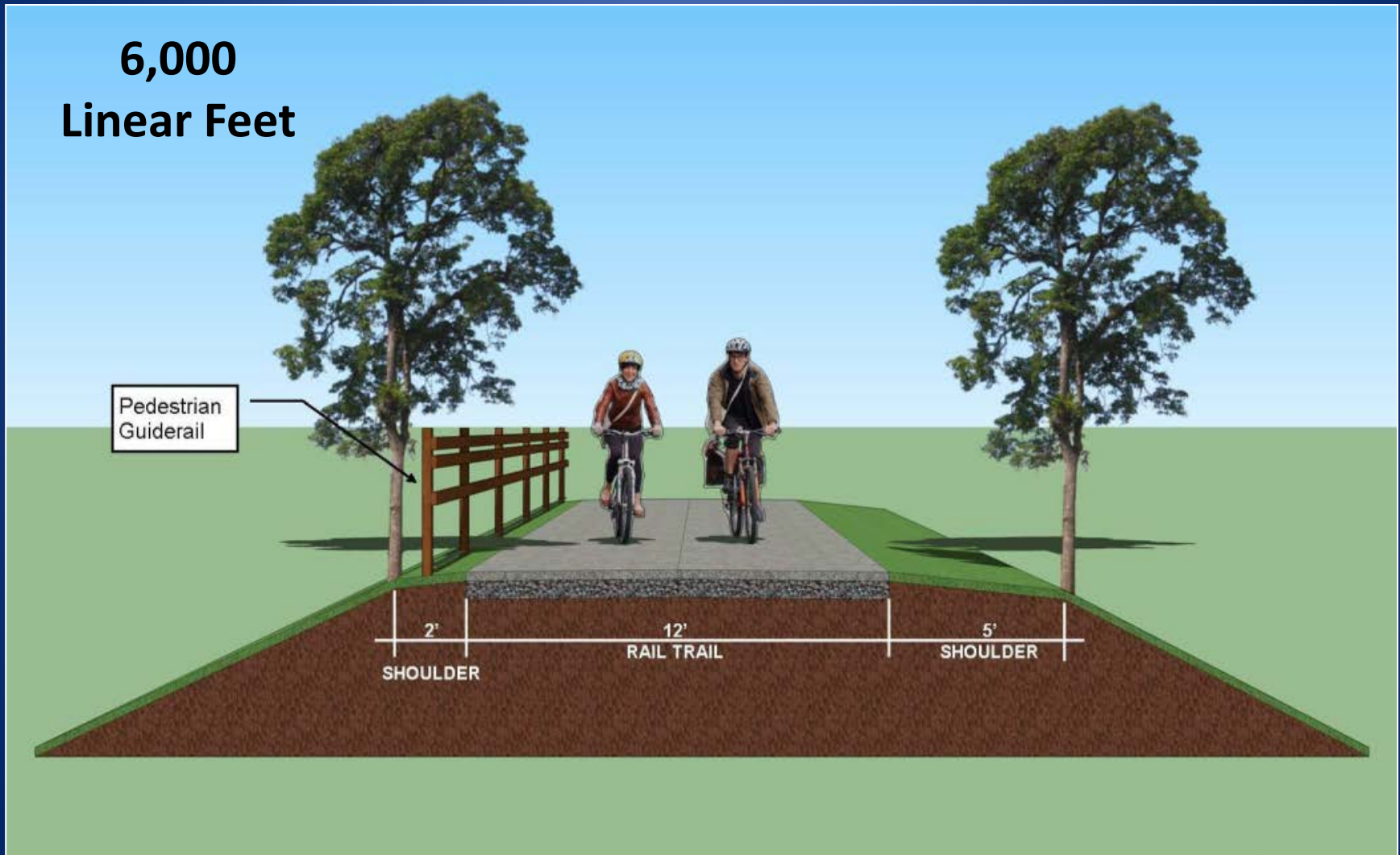




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Trail Section D (Steep Slope One Side)

6,000
Linear Feet





Ashokan Rail Trail Project

Minimize Disturbance

Widen Top Footprint by Lowering Elevation

Little to No Disturbance
to Side Slope Vegetation

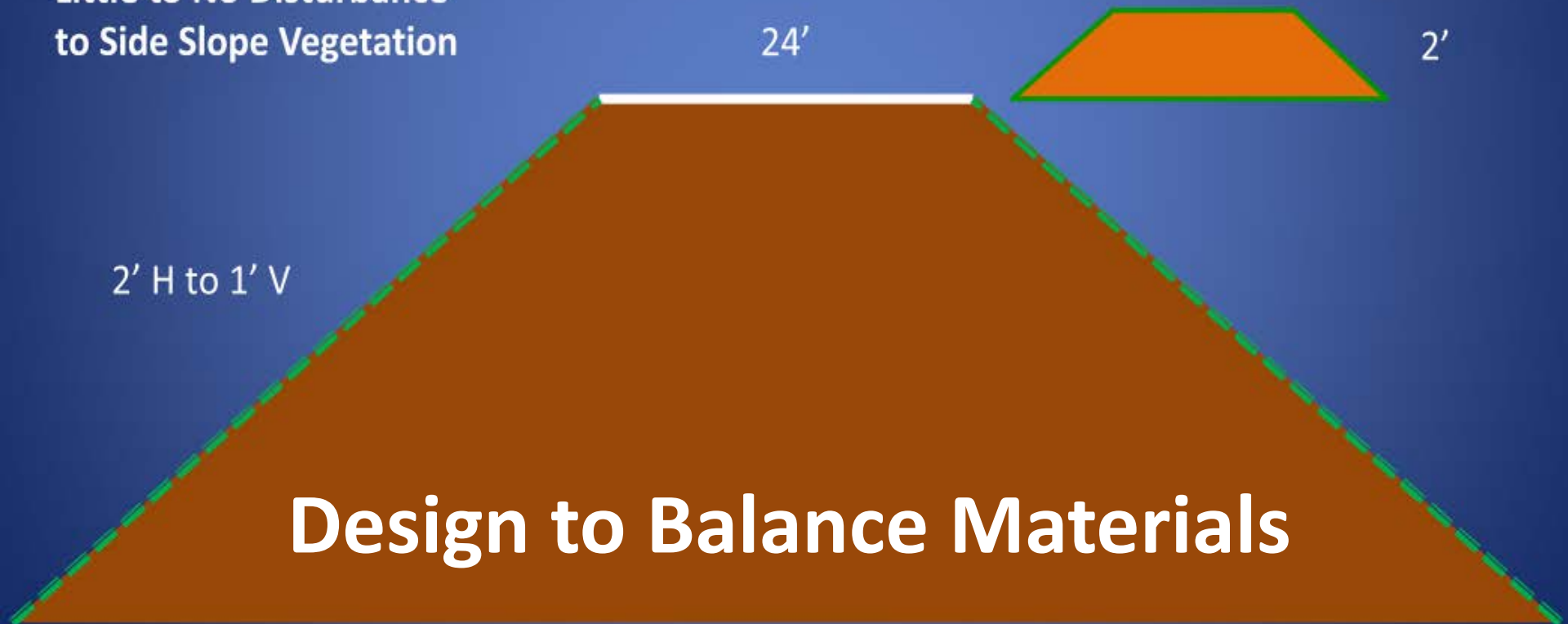
2' H to 1' V

24'

16'

2'

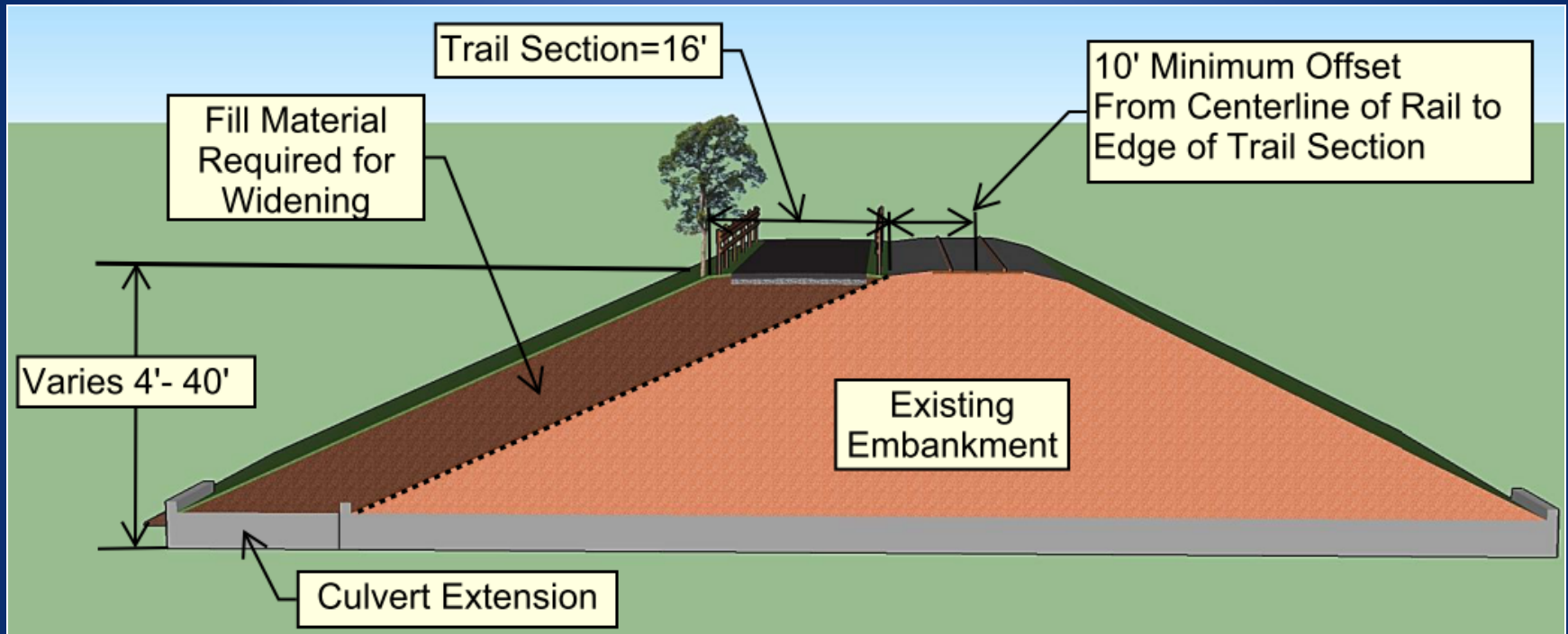
Design to Balance Materials





Ashokan Rail Trail Project

Engineering Constraints to Rail-with-Trail



- “Steep Slope” (Sections B&D) locations would require large volumes of new fill material, culvert extensions, Tree Cutting, and Slope Stabilization
- “Rock Cut” locations (Section C) would require significant rock removal/ blasting
- Restarting railroad use would require extensive renovation/ thousands of new ties
- Likely detrimental impacts to wetlands, forest cover, historic structures, etc.



Ashokan Rail Trail Project Feasibility Study Recommendations





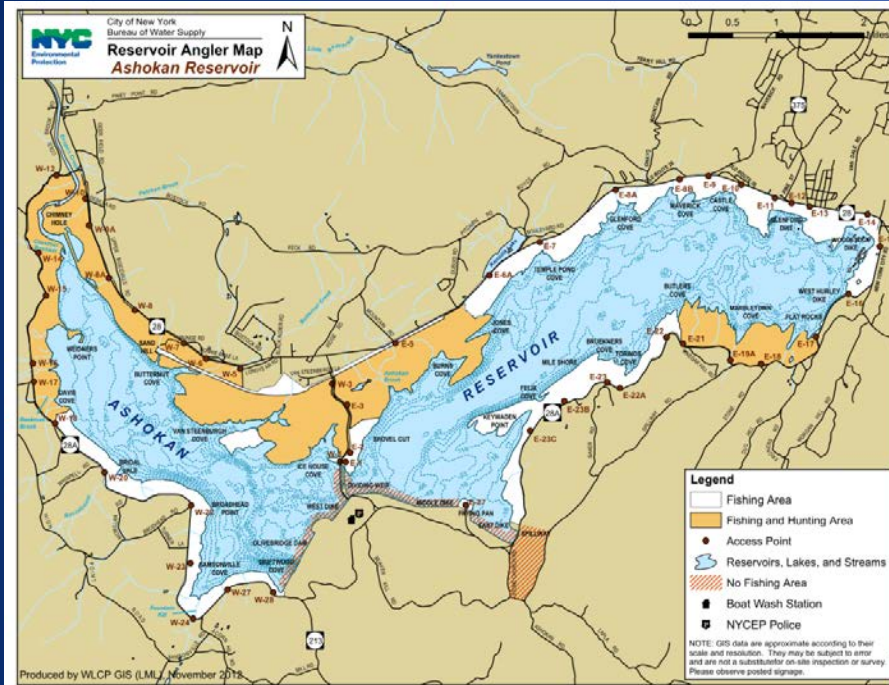
Ashokan Rail Trail Project Feasibility Study Recommendations

- ✓ Utilize existing alignment to reduce impacts
 - ✓ Construct to AASHTO standards/
maximum slope is less than 1%
- ✓ Proposed width of 12 feet for most of trail
 - ✓ Surface should be crushed stone and
re-use existing ballast materials as sub-base
 - ✓ Consider alternatives for Butternut
Creek Culvert and Boiceville Bridge
- ✓ Locate trailheads at or near Woodstock Dike,
Ashokan Station (“Jones Cove”), and
Route 28A in Boiceville



Ashokan Rail Trail Project

Preliminary Design Considerations

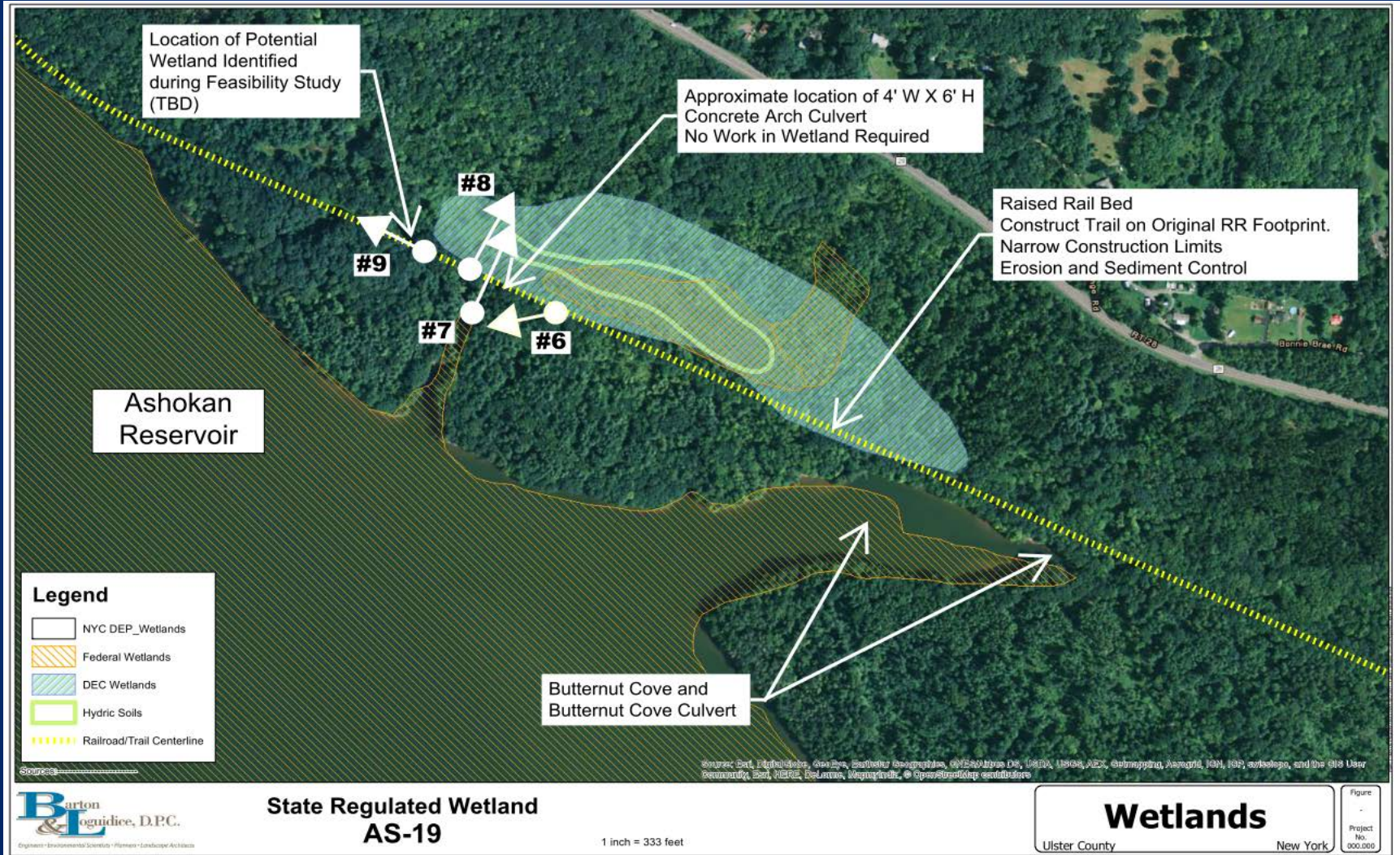


- ❖ Fishing/ hunting access
- ❖ Emergency access & response
- ❖ Security & maintenance
- ❖ Construction staging and temporary access
- ❖ Historical interpretation/ art
- ❖ Protection of users and water supply/ signage
- ❖ Connections to community facilities and nearby businesses
- ❖ Accessibility for persons with disabilities & limited mobility
- ❖ Project cost and timeline



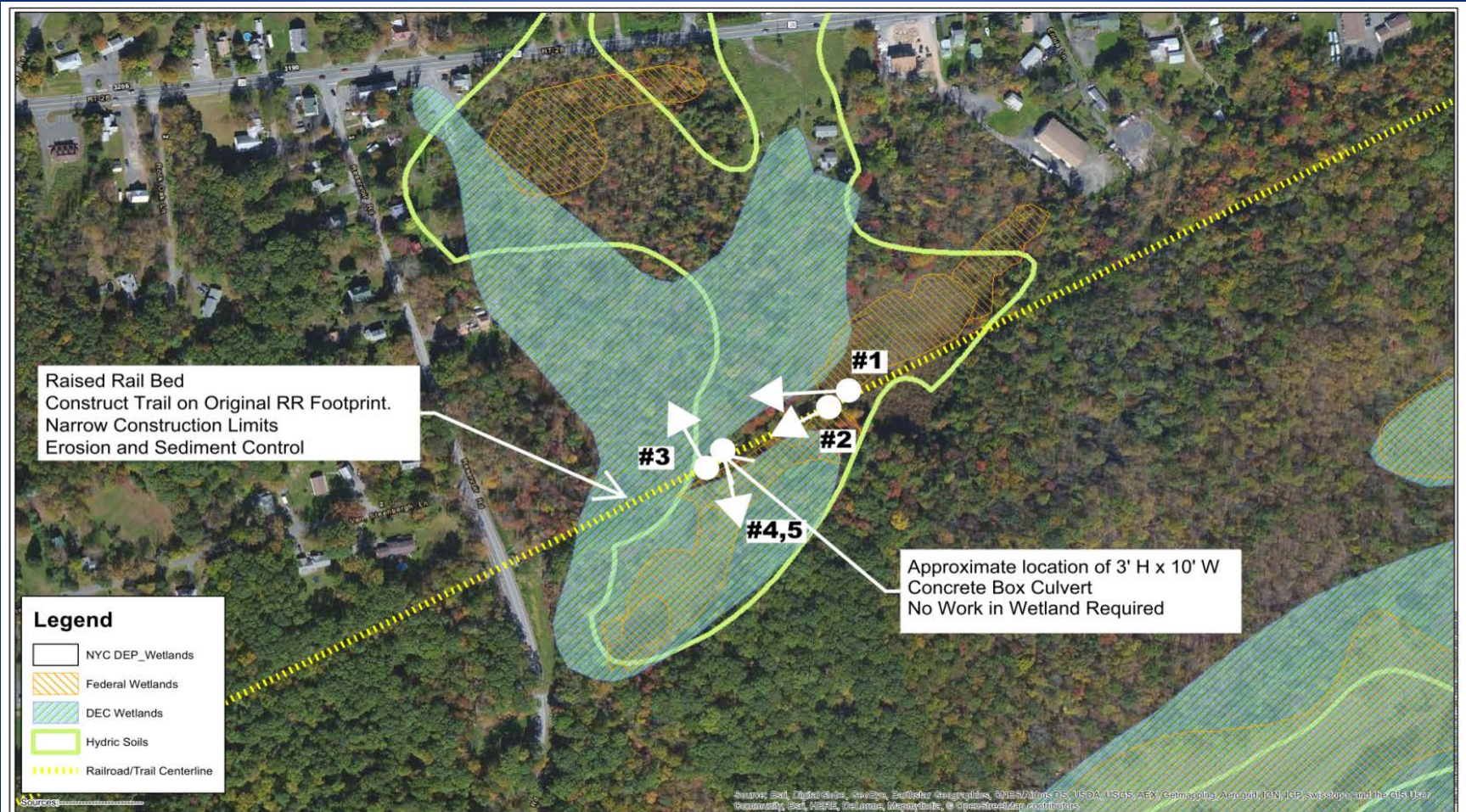
Ashokan Rail Trail Project

Wetland Avoidance and Protection





Ashokan Rail Trail Project Wetland Avoidance and Protection





Ashokan Rail Trail Project

Butternut Creek Culvert





Ashokan Rail Trail Project

Butternut Creek Culvert





Ashokan Rail Trail Project

Butternut Creek Culvert Alternatives

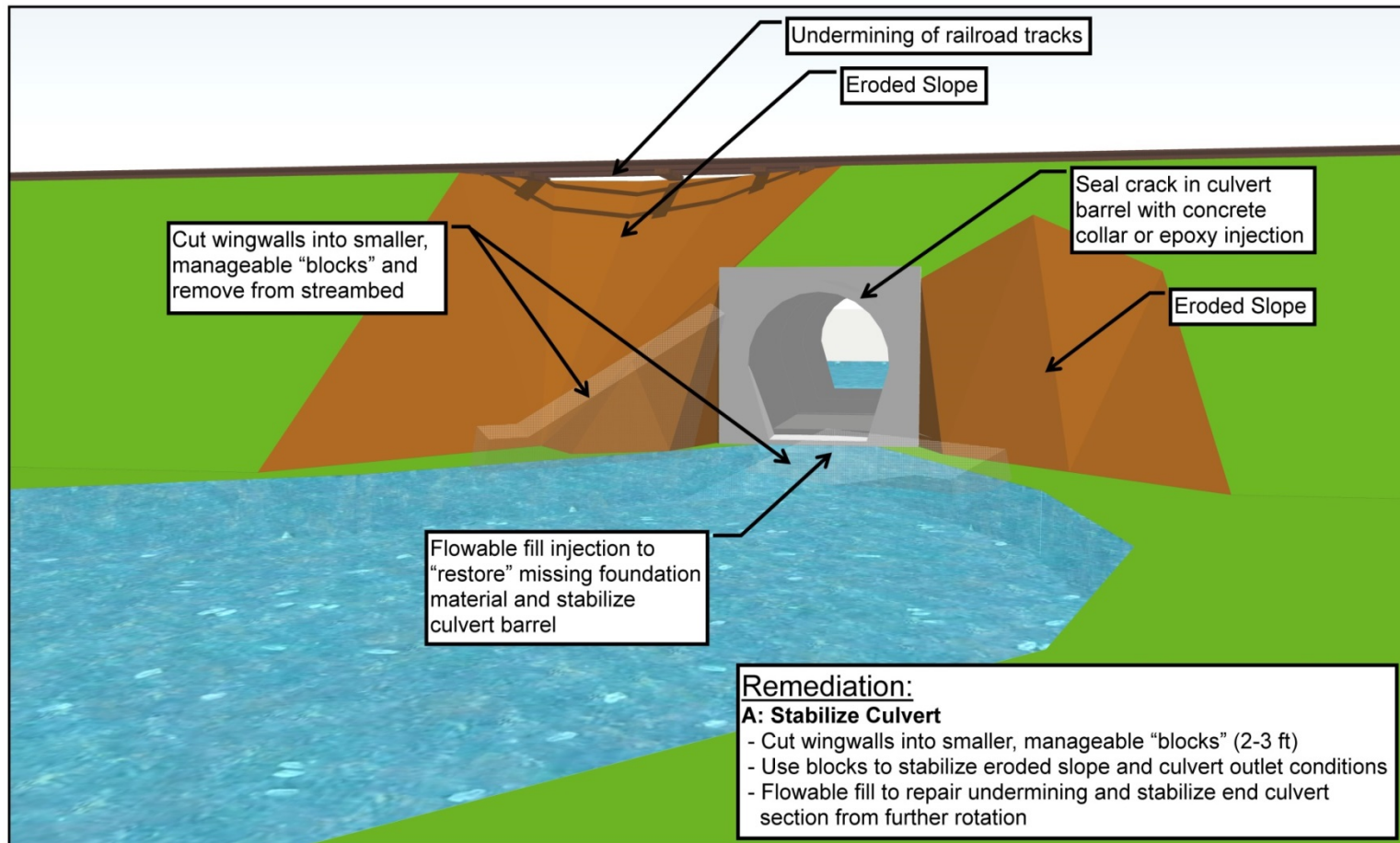
- ❖ Rehabilitation of Existing Culvert
- ❖ Replacement with New Culvert of Similar Type
- ❖ **Daylight Butternut Creek- Truss Bridge Structure**
- ❖ Daylight Butternut Creek- Girder Span Structure





Ashokan Rail Trail Project

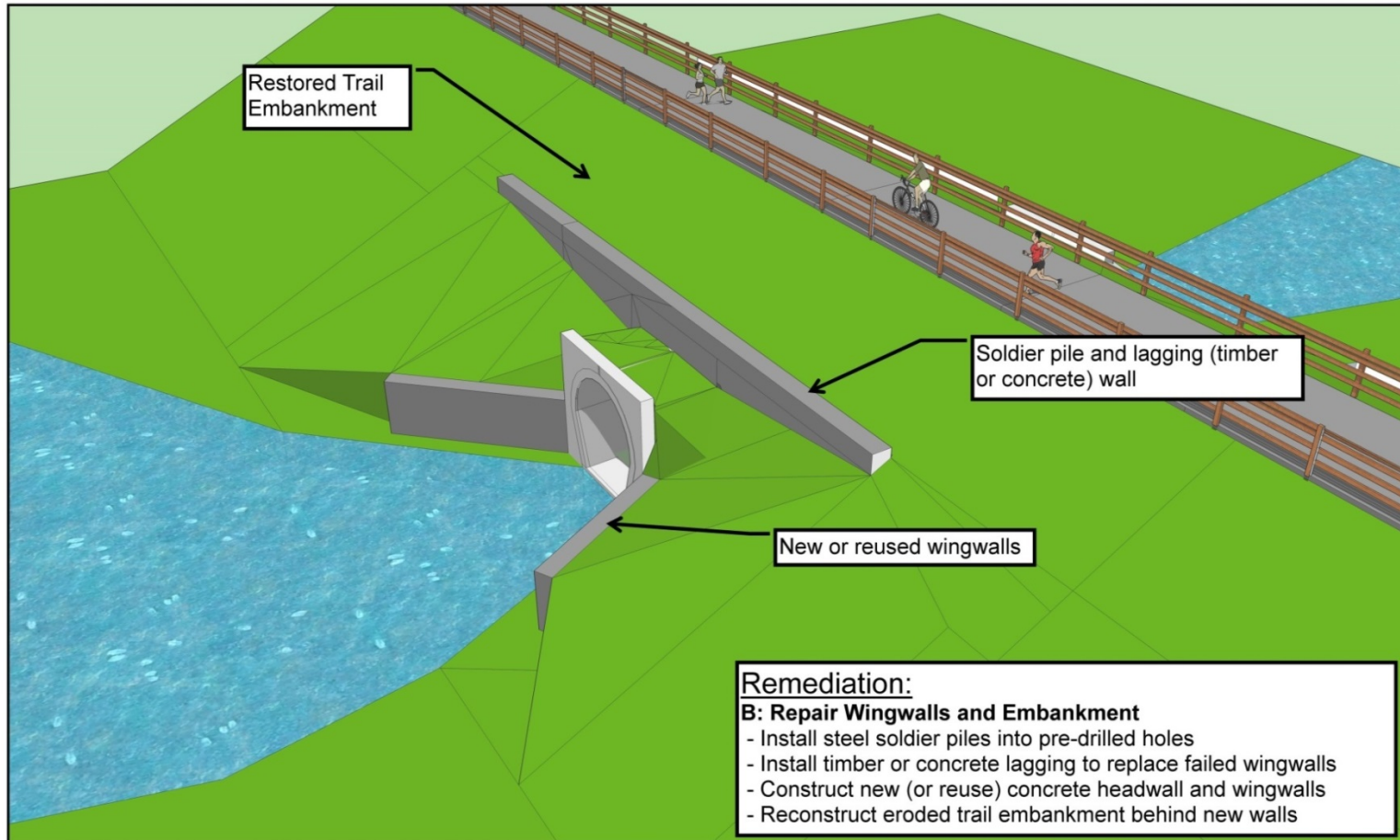
Butternut Creek Culvert Rehabilitation





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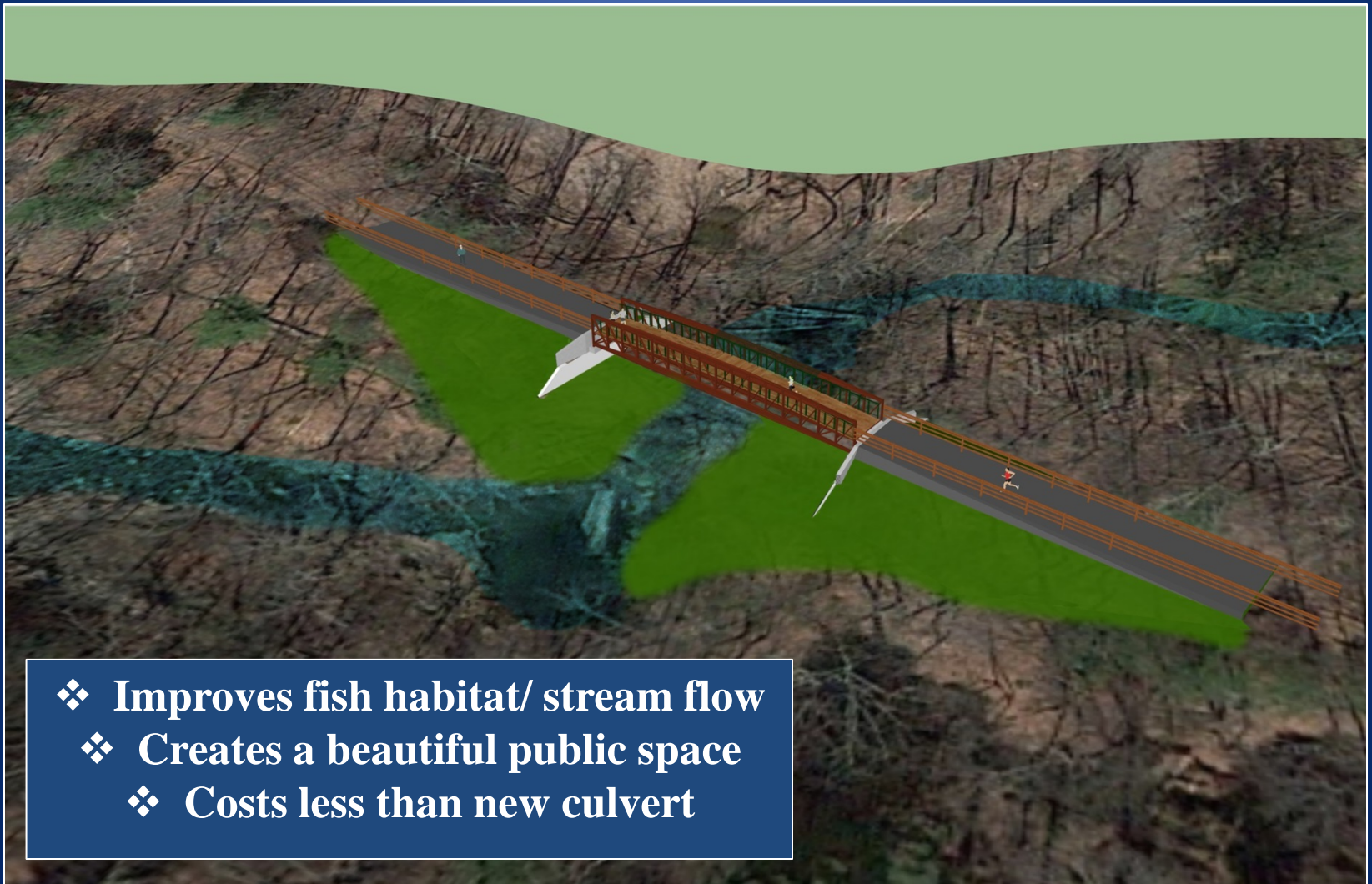
Butternut Creek Culvert Rehabilitation





Ashokan Rail Trail Project

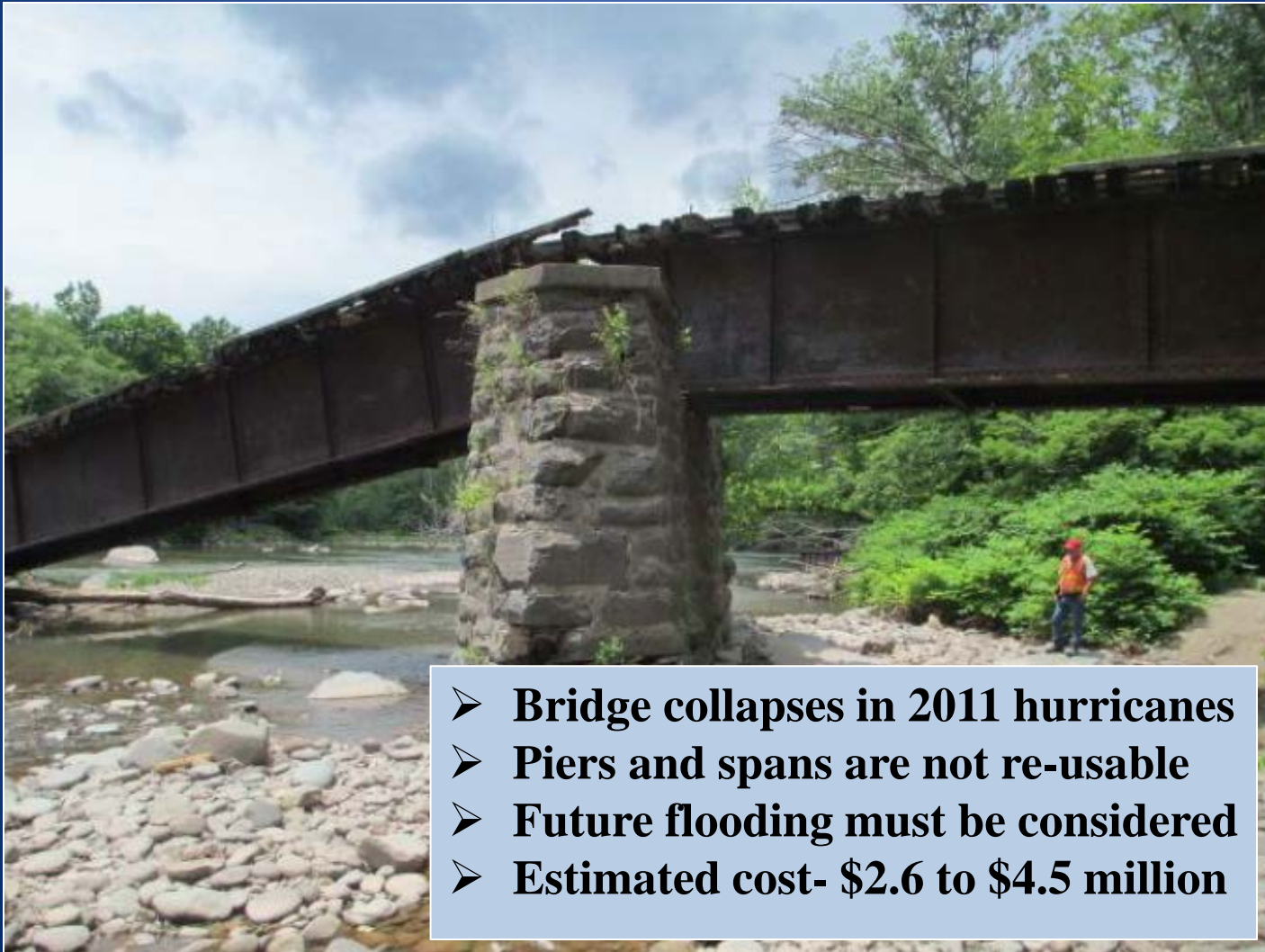
Proposed Daylighting with Truss Bridge



- ❖ Improves fish habitat/ stream flow
- ❖ Creates a beautiful public space
- ❖ Costs less than new culvert



Ashokan Rail Trail Project Boiceville Bridge Replacement



- **Bridge collapses in 2011 hurricanes**
- **Piers and spans are not re-usable**
- **Future flooding must be considered**
- **Estimated cost- \$2.6 to \$4.5 million**



Ashokan Rail Trail Project

Boiceville Bridge Alternatives

Structural Analysis and Preliminary Design

- **Replacement as a Trail Bridge (H-20 Loading)**
- **Replacement as a Railroad Bridge (LRFD Similar to Cooper E-26)**
- **Replacement as a Trail Bridge with Accommodations for Future Railroad Loading**
 - **Replacement with a Prefabricated Truss**
 - **Replacement as 4-span Bridge**
 - **Replacement as RR Bridge (in-kind)**
 - **Replacement as a RR Bridge (Light Rail)**
 - **Simple Spans versus Continuous Spans**
- **Preliminary Most Feasible Design**
 - **Steel Girder two (2) Span Bridge in Simple Span Arrangement**



Ashokan Rail Trail Project Boiceville Bridge Recommendation



**Reconstruct as single pier girder structure
rated for trail use / emergency vehicles /
structure can be adapted if rail use returns**



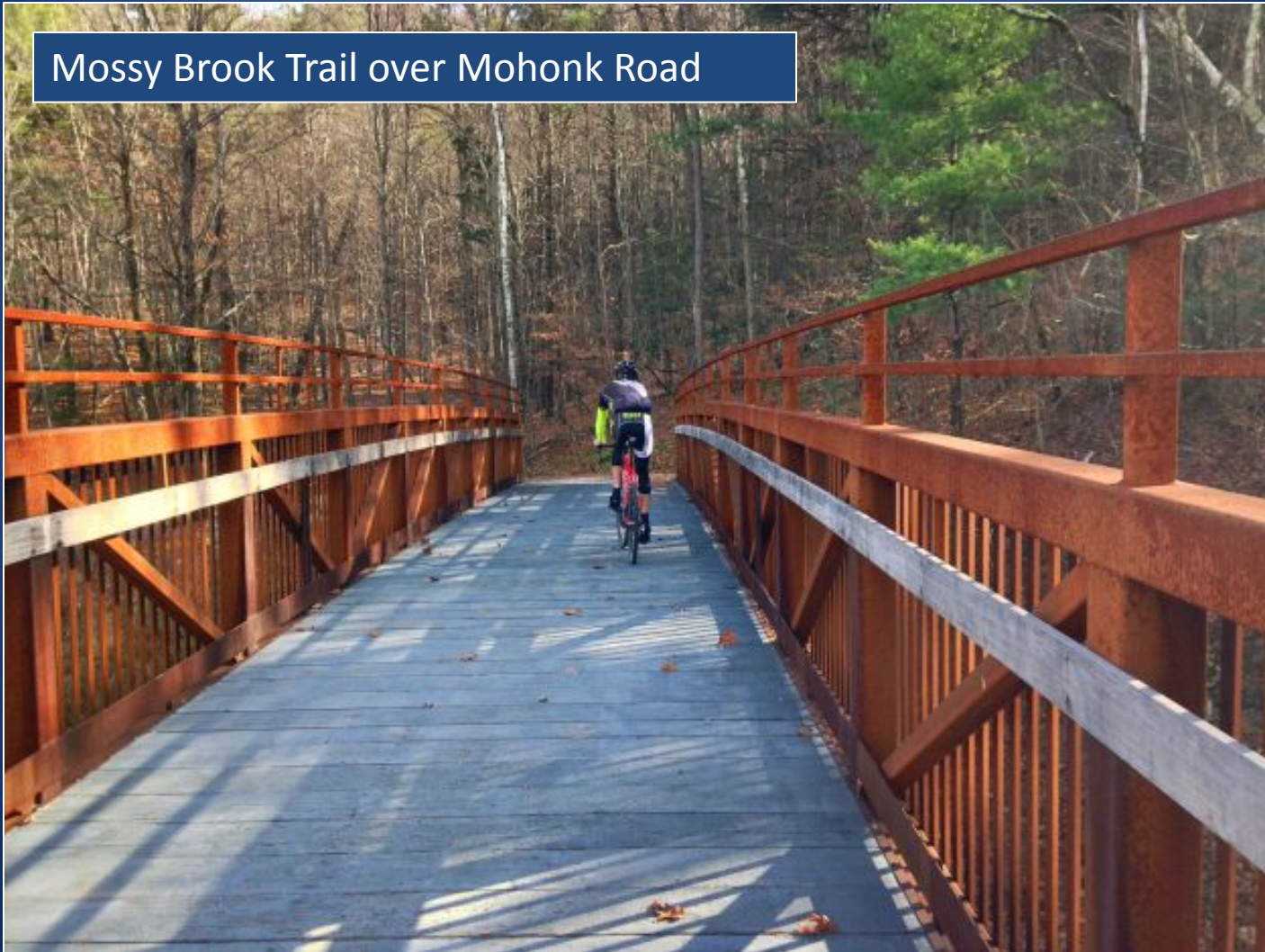
Ashokan Rail Trail Project Boiceville Bridge Recommendation





Ashokan Rail Trail Project Boiceville Bridge Design Options

Mossy Brook Trail over Mohonk Road





Ashokan Rail Trail Project Boiceville Bridge Design Options





Ashokan Rail Trail Project

Boiceville Bridge Design Options

Rosendale Trestle- Wallkill Valley Rail Trail





Ashokan Rail Trail Project

Anticipated Project Timeline

- | | |
|---|-----------------------|
| ✓ Begin Environmental Assessments | June 2016 |
| ✓ Preliminary Structure Design | November 2016 |
| ✓ Public Information Meeting | December 2016 |
| • 90% Complete Plans | February 2017 |
| • Final Permits Obtained | April 2017 |
| • Final Plans, Specifications and Estimate | May 2017 |
| • Bidding and Letting | June-Sept 2017 |
| • Construction Begins | October 2017 |
| • Construction Completion | October 2018 |

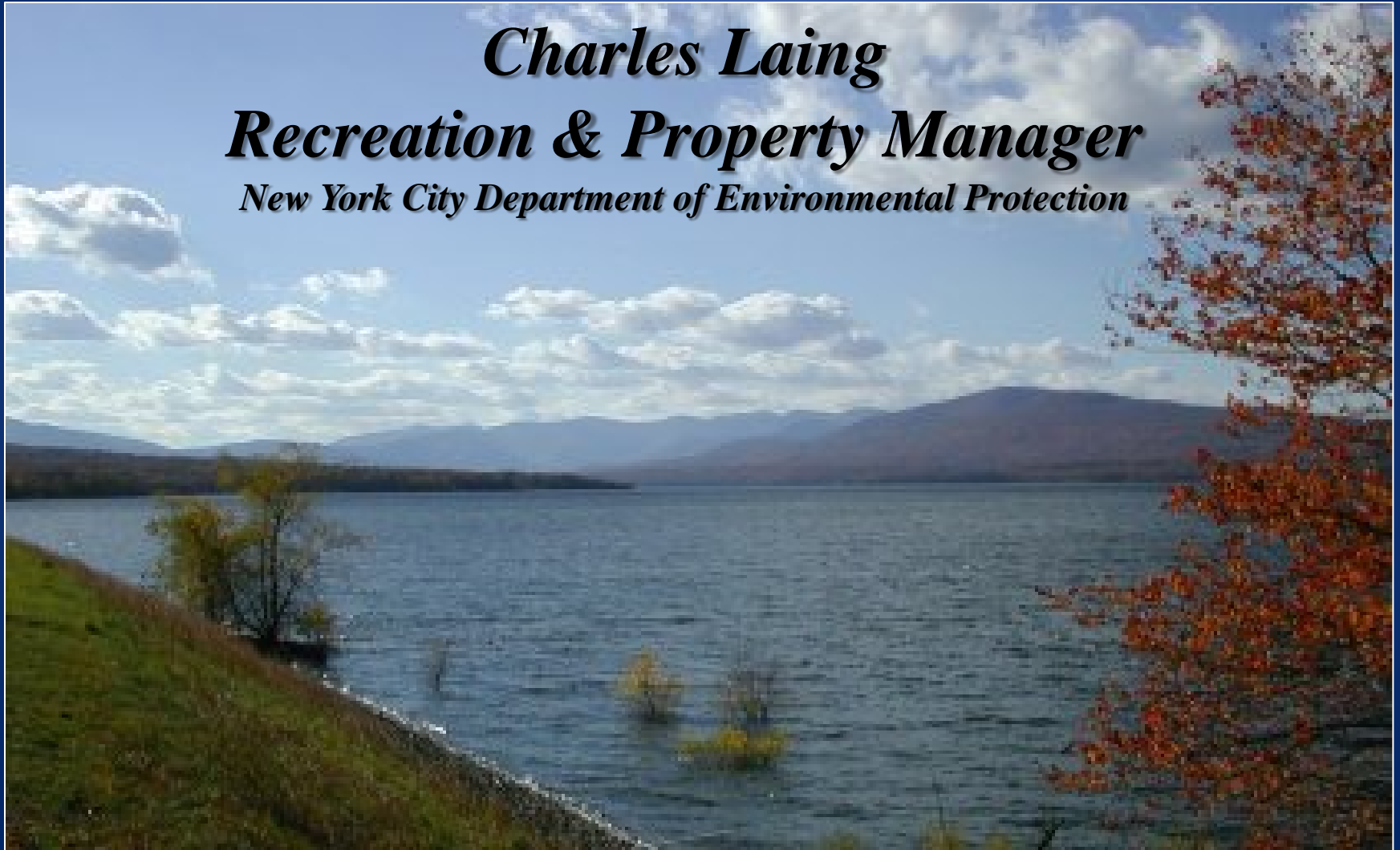


Ashokan Rail Trail Project

Charles Laing

Recreation & Property Manager

New York City Department of Environmental Protection



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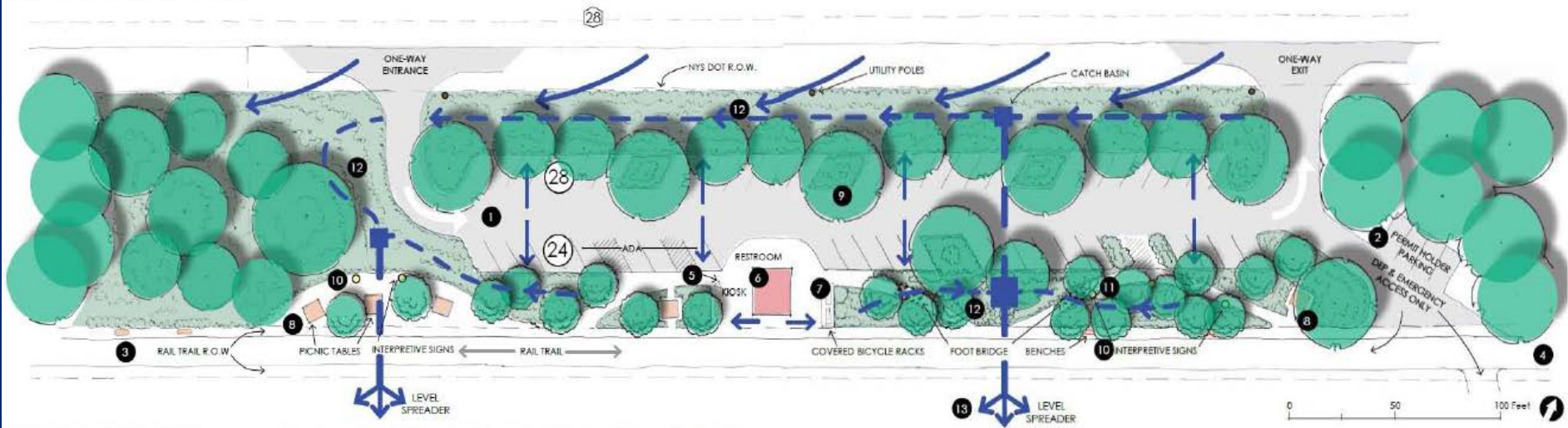
Ashokan Station/ "Jones Cove"



Ashokan Rail Trail Project

Ashokan Station/ "Jones Cove" Trailhead Design

FINAL DESIGN: THE ASHOKAN GATEWAY



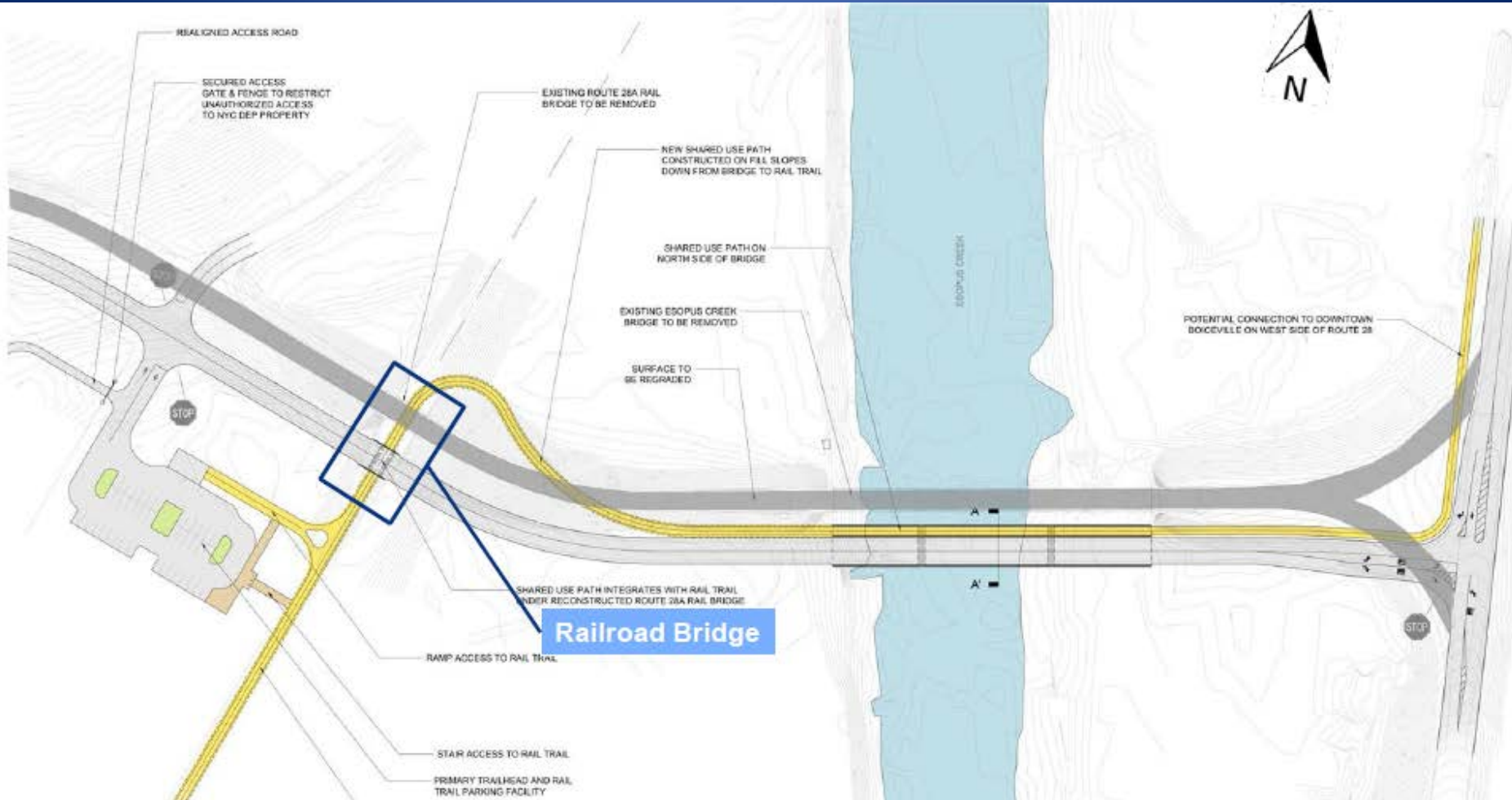
Ashokan Rail Trail Project

Route 28A -- Boiceville



Ashokan Rail Trail Project

Boiceville Trailhead & Connections





Ashokan Rail Trail Project Boiceville Trailhead & Connections



Ulster County Rail Trail Project: *Ashokan Rail Trail*



MICHAEL P. HEIN
ULSTER COUNTY EXECUTIVE

Thank You for Attending

Written comments can be submitted until February 1, 2017 to:

planning@co.ulster.ny.us

Ulster County Planning Department

PO Box 1800

Kingston, NY 12402

Attn: Ashokan Rail Trail Project