

PROJECT REPORT

TRAVER HOLLOW CREEK/BRADKIN ROAD CULVERT - UPDATE 12/10/2010

Project Number: AWSMP_1005T2



Ulster County Soil and Water Conservation District

December 13, 2010

Traver Hollow Creek/Bradkin Road Culvert Project

1.0 Project Description

The Traver Hollow Creek/Bradkin Road culvert crossing project is a Tier II project to replace a failed culvert. The heavy rains and flooding that occurred on October 1st and 2nd caused the failure of the existing 7 ft metal culvert. Traver Hollow Creek completely washed out the culvert causing the rock headwalls to fall into the creek and a ten foot section of the culvert to be broken off and crushed. The existing culvert was completely rusted through on the bottom and was a hydraulic constriction to the channel. The Town of Olive was willing to install a larger culvert that would be sized to pass the 25 year storm event if funding was available. A 25'4" x 9'5" aluminum box culvert was sized to pass the 25 year storm event. The Town required that the crossing be 40 feet to allow for winter maintenance. Aluminum headwalls and toe walls will be installed. A plunge pool will be installed to dissipate energy. The bottom 1-2 feet of the culvert will be filled with stream bed material for improved fish passage.

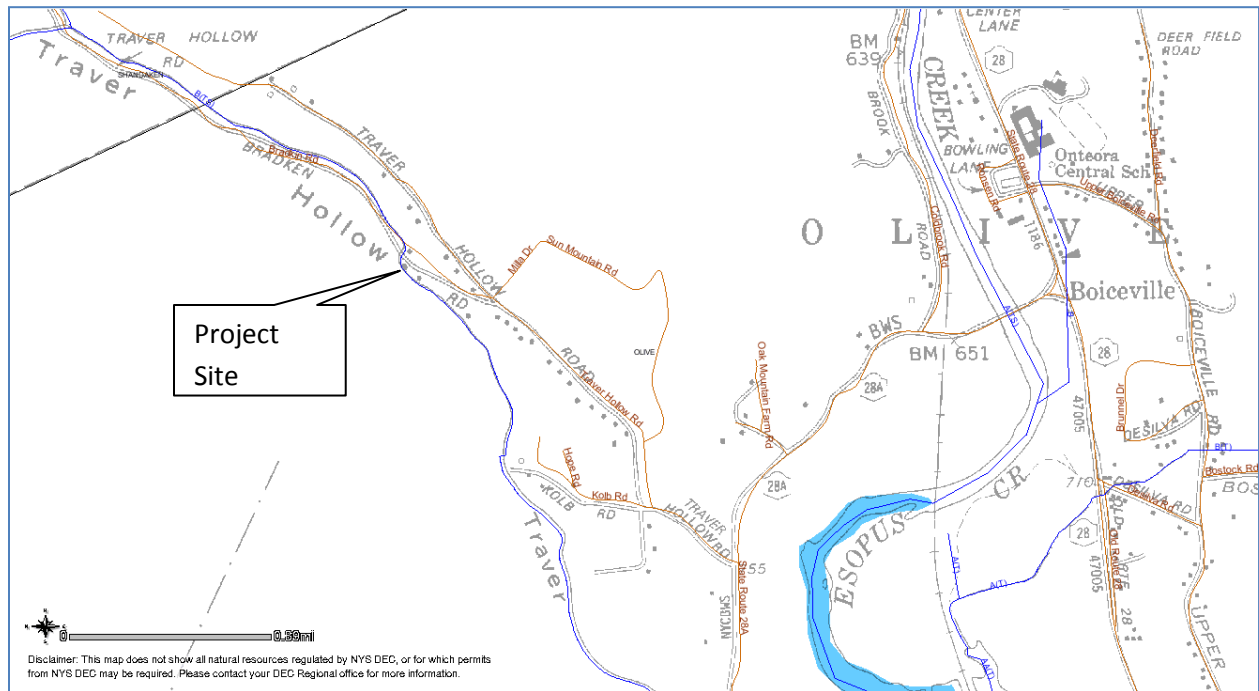


Figure 1 Map illustrating location of Traver Hollow and Bradkin Road. Culvert replacement is crossing Traver Hollow creek off Bradkin Road.



Figure 2 Map of displaying location of Bradkin Road and Traver Hollow stream crossing. Yellow box denotes Traver Hollow Culvert Project area. Gray lines indicate property boundaries.

2.0 Problem Assessment

The failure of the culvert cut off two residences and access to another landowner’s out buildings and equipment. The old culvert that washed out was undersized for the existing channel. It could not pass large storm events and was becoming a barrier to fish passage. It was obvious during the initial site investigation after the storm that the existing culvert pipe could not be salvaged for re-use. Approximately ten feet of the existing culvert was broken off and crushed under the weight of the water and the rock from the failed headwall.

Primary Objectives:

- Assist the Town of Olive by restoring access for multiple residents to their property.
- Eliminate the hydraulic constriction at this crossing.

Secondary Objectives:

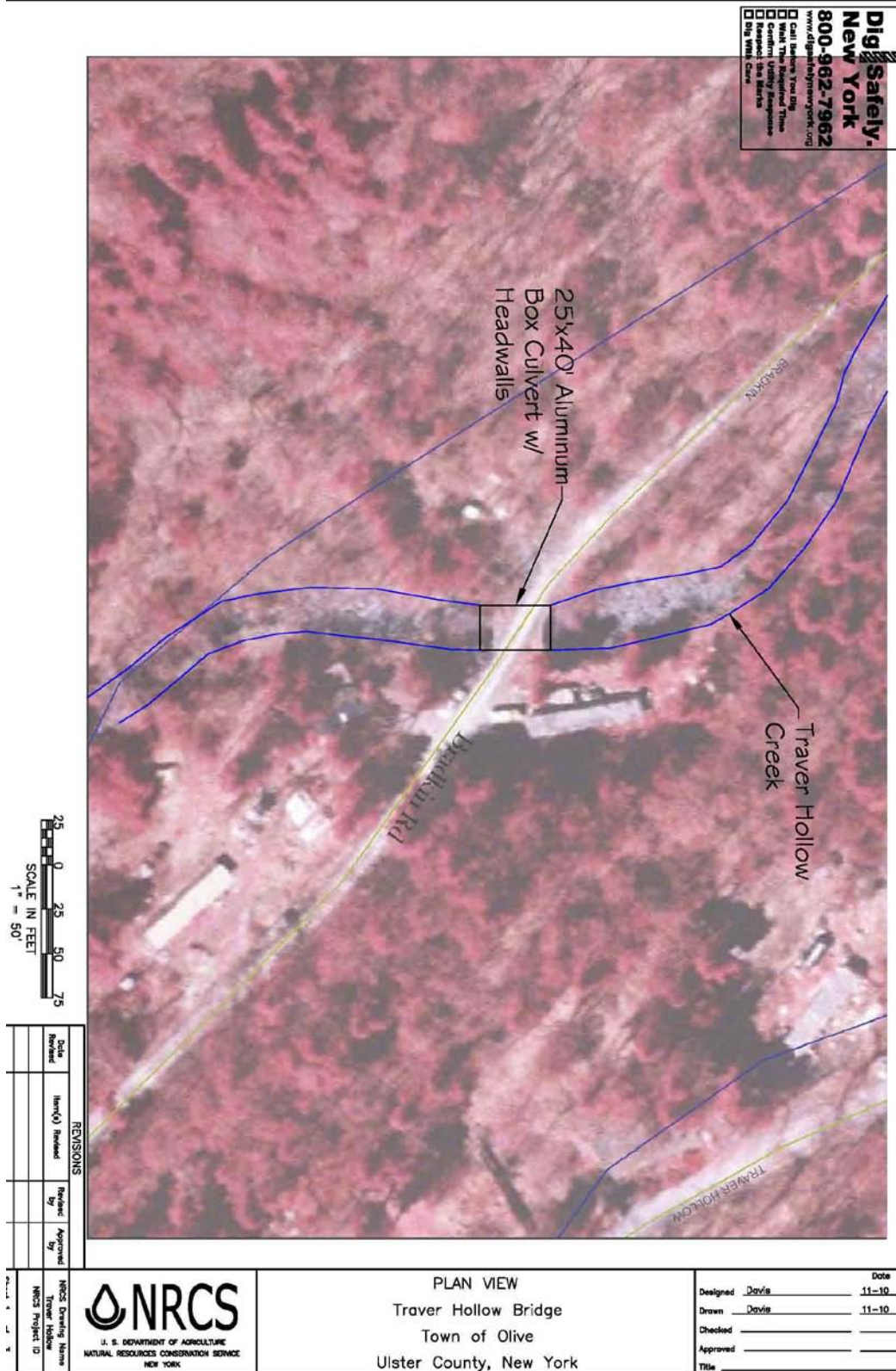
- Install a stable crossing that can be better and more easily maintained by the Town Highway Department.

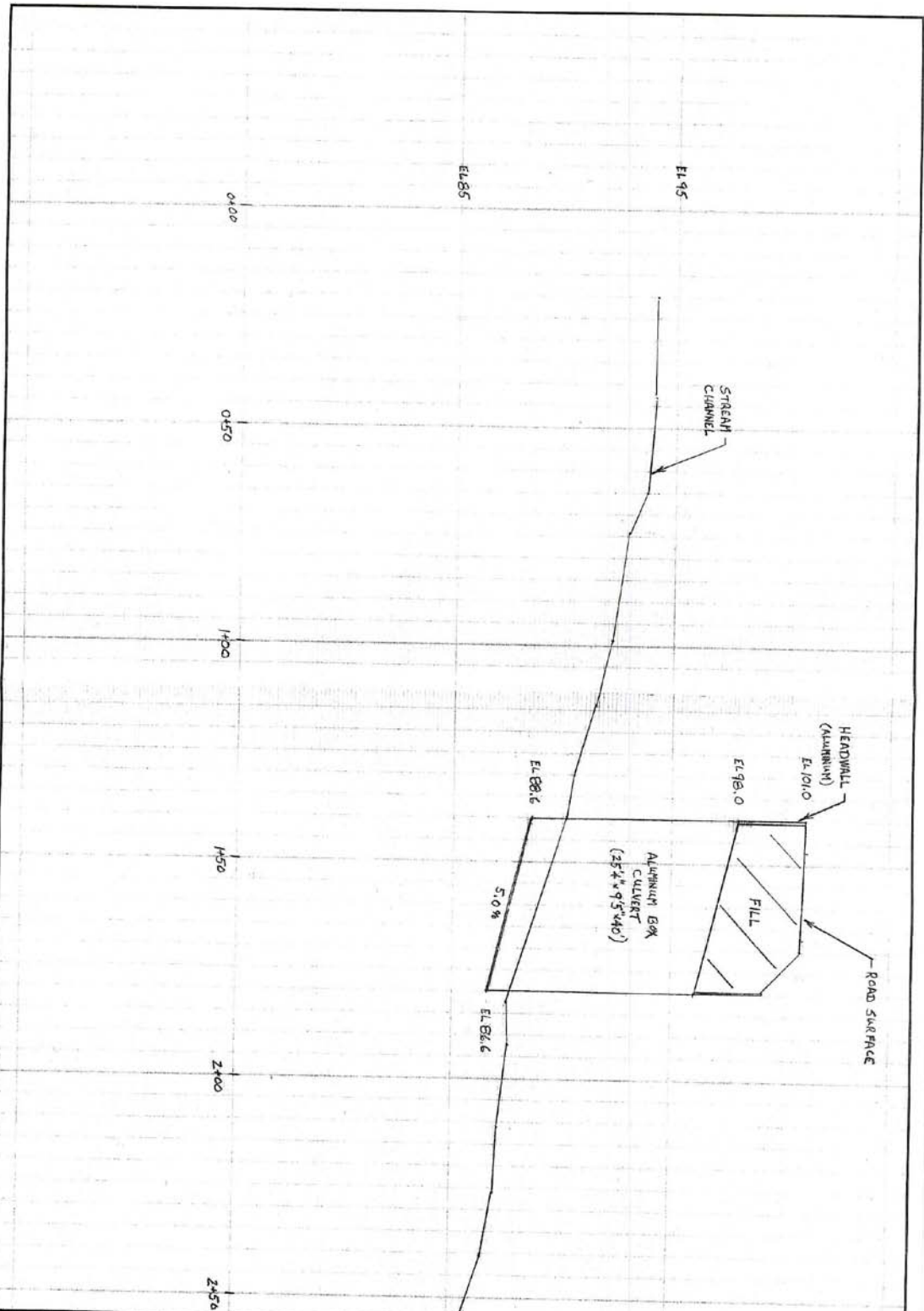
- Habitat restoration through the culvert by installing gravel.
- Property conservation for multiple landowners at the inlet and outlet of the culvert.

Current Status

- Completed a level survey of the site collecting the channel profile and the upstream and downstream channel cross sections.
- Worked with the Town of Olive Highway Superintendent, the Town's culvert supplier and NRCS engineers to identify a culvert that can be installed to meet objectives.
- Developed contracts between CCE, Ulster County SWCD, and the Town of Olive to provide funding for this project.
- Worked with the Town Highway Superintendent and the NY DEC to have a permit approved for the work.
- Completed a design for the culvert crossing.
- Contacted the Greene County SWCD to procure one of their pumps to dewater the site during construction.
- The Town of Olive coordinated the installation of a temporary crossing within the Town of Shandaken to provide access for residents.
- Installation of the new culvert is planned for late spring/summer of 2011.

3.0 Appendix A – Engineering Drawings





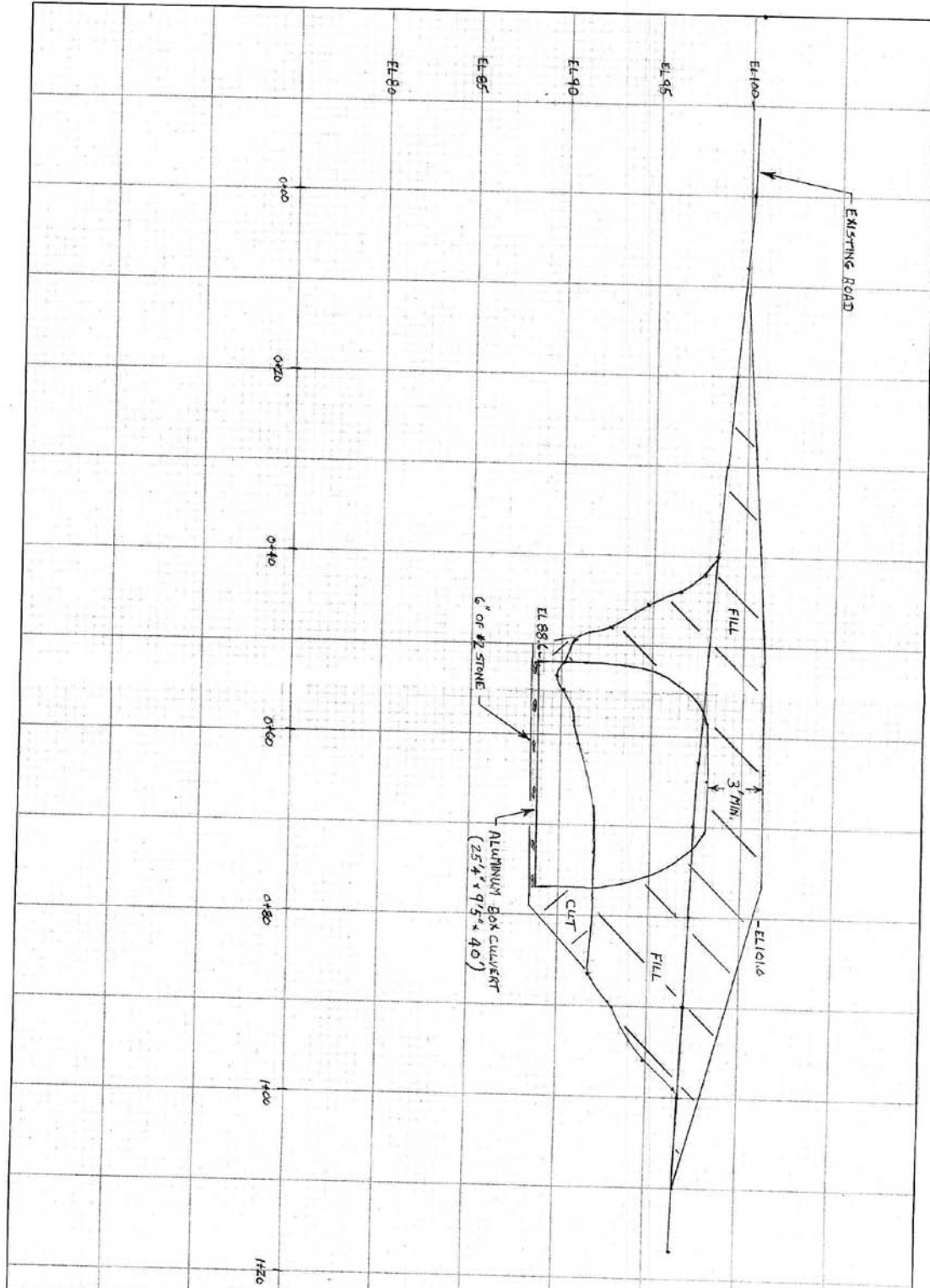
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CULVERT PROFILE
TRAVER HOLLOW
TOWN OF OLIVE
ULSTER COUNTY, NY.

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 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE NEW YORK	CULVERT SECTION VIEW (UPSTREAM) TRAYER HOLLOW TOWN OF OLIVE ULSTER COUNTY, NY		Date 11/10
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