

New FLT Bridges Completed in Schuyler County

by Kurt Seitz

The Cornell University student chapter of the American Society of Civil Engineers (ASCE) and the Cayuga Trails Club have completed construction of two pedestrian bridges on the Finger Lakes Trail in the Town of Catharine in Schuyler County (FLT map M-16; see photo on page 1). The bridges were finished by Cornell students on Sunday, December 3, 2000, after a cold and snowy final weekend of work.

The bridges were first conceived about three years ago as part of a plan to relocate a three-mile section of the FLT to go through the scenic and wild Cayuta Gulf, a gorge at the southwestern edge of the 12,000-acre Connecticut Hill State Wildlife Management Area. The bridges now provide year-round access on the nearly 6-mile-long loop trail created by combining the new and former sections of the Finger Lakes Trail.

Planning began in October 1999 when the Cayuga Trails Club approached ASCE students for assistance in designing and constructing the two bridges, 53 and 40 feet long. Dan Mullins and Mike Tavoraro, two civil engineering students in their fourth year at Cornell, designed the bridges in accordance with National Design Specification for Wood Construction standards. A truss design was chosen due to the length of the bridges and limit of the budget. The cost of materials totaled just over \$5,000 and was paid for by the Cayuga Trails Club.

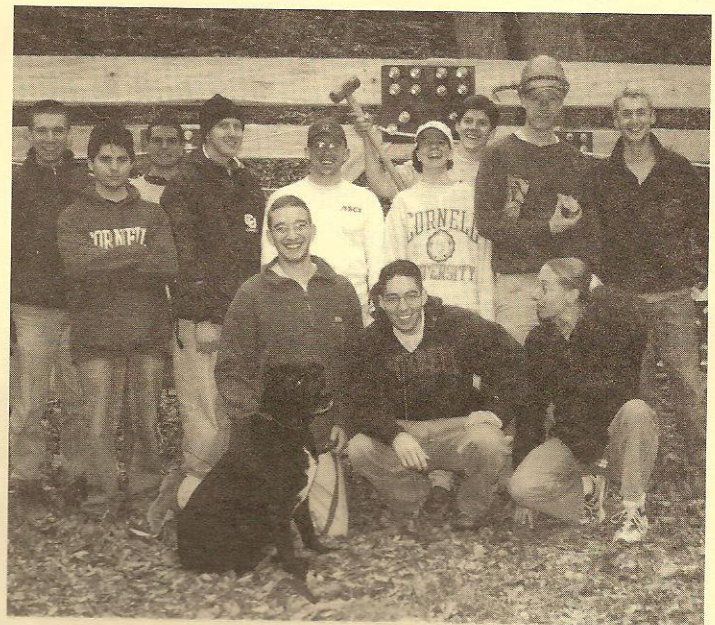
Black locust was chosen as the construction material for two reasons. It is naturally resistant to decay and extremely strong, therefore an excellent alternative to toxic chemically-treated wood. Also it could be sawn to exact custom specifications by the Black Locust Initiative, Inc., a local nonprofit organization that promotes sustainable forestry headed by Dave Gell, a local forester and woodworker. Black Locust Initiative (BLI) worked with Cornell University's Arnot Forest to provide a local supply of black locust lumber. In addition, BLI worked with local horse-logger and farmer Sara Brown to skid the logs.

As many as 25 student volunteers and over a dozen Cayuga Trails Club volunteers spent much of their free time over a three-month period drilling hundreds of holes in steel plates and hard black locust timbers, transporting construction materials and supplies to the isolated bridge sites, and helping to build the abutments and bridge structures. Challenges included digging through rock to prepare for the abutments, assembling the trusses on uneven surfaces, moving all four nearly one-ton trusses across the stream beds, and lifting the trusses onto the abutments.

To get to the bridge site, take NY Route 79 to Mecklenburg from either Ithaca or Watkins Glen and then Schuyler County Route 6 south from Mecklenburg. Continue 3½ miles beyond Cayutaville to Gulf Road on the left. Park at the FLT trailhead a few hundred feet down Gulf Road on the right side. The first bridge is a mile and a half down the white-blazed FLT. The second bridge is a few hundred feet farther down the trail. To hike the loop trail, continue following the white blazes another mile and a half to the junction with the orange-blazed Van Lone Hill section of the loop. Follow the orange blazes less than three miles back to Gulf Road.

For more information on the project, go to the following Web sites:

- Cornell ASCE
www.cee.cornell.edu/asce/bridgepage.htm,
- Black Locust Initiative
www.blacklocust.org,
- Cornell Chronicle article
www.news.cornell.edu/Chronicles/11.9.00/bridges.html,
- Cornell Daily Sun article
www.cornellsun.com/perl/getArticle.pl?id=1255,
- Ithaca Journal editorial
www.theithacajournal.com/news/stories/20001220/opinion/122477.html.



Some of the 25 Cornell civil engineering students who built the two new foot bridges on the Finger Lakes Trail in the Cayuta Gulf. Bridge designers Dan Mullins and Mike Tavoraro are on left. Photo by Doris Abbott.