

ROCKSIDE RAILROAD BOARDING STATION & PEDESTRIAN BRIDGE Cuyahoga Valley National Park, Cuyahoga County

Date Completed: 2010 - parking area and station improvements; 2013 - bridge and trail construction

Description: The Cuyahoga Valley Scenic Railroad has seen increased ridership over the past decade. This project's goal was to build a new station to meet demand, while also connecting the station to the Lock 39 trailhead across the Cuyahoga River, and improving the area's flood water management and invasive species control.

Project Size: approximately 4.5 acres, along 200 linear feet of the Cuyahoga River.

*Cuyahoga Valley Scenic Railroad Rockside Road Station
(photo: holmmarked on Panoramino)*



Project Experience

Area Improvements

Rockside Railroad Boarding Station & Pedestrian Bridge

Cuyahoga Valley National Park, Brecksville, Ohio

Client:

National Park Service

Robert Bobel, PE
Park Engineer
(440) 546-5972

Cost:

\$0.97 Million (Bridge & Trail Construction Costs)
\$0.96 Million (Parking Area Improvements)

Completion Date:

2009/10 – Design
2010 – Construction (Parking Area Improvements)
2013 – Construction (Bridge & Trail Construction)

Project Highlights:

- Pedestrian Bridge
- Trail Design
- Floodplain Evaluation
- Electrical Services
- Riparian Buffer Restoration
- Vernal Pool Restoration
- Grading & Drainage
- Restroom Facilities
- Railroad Loading Platform
- “Green” Parking Lot

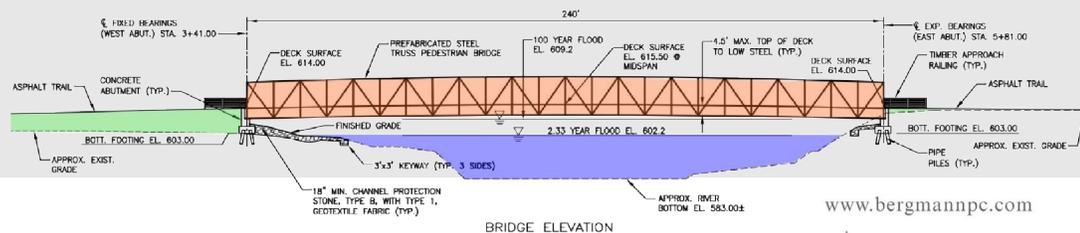


Description:

Bergmann Associates was retained to provide preliminary engineering, environmental evaluations and detailed engineering design for the Rockside Railroad Boarding Station. The existing site lacked sufficient capacity and accommodations for the growing usage of the scenic railroad system. The goals of the project included: improve overall accommodations and mobility at the station; link up the station with the trailhead on the opposite side of the river via a new pedestrian bridge; and provide environmental enhancements throughout.

Bergmann prepared detailed design drawings, specifications and estimates for expansion of the existing parking lot and other area improvements. The multi-faceted project commanded a variety of technical disciplines. The project included construction of a new 240' long by 10' wide single span, steel pedestrian truss bridge over the Cuyahoga River. Extending the boarding platform to accommodate increased demand onto and off of the trains.

Permeable asphalt and stabilized turf were implemented in select areas of the parking lot to reduce post-construction stormwater runoff. In addition, rain gardens were placed in strategic areas to capture and treat stormwater runoff. Special plantings were placed in the riparian buffer area to stabilize the river channel slope and provide shading. Site lighting was accomplished with solar powered parking lot lights. Finally, a former unprotected trash site to the south was exhumed and vernal pools restored to the area.



www.bergmannpc.com

Developer/Owner:

National Park Service, Cuyahoga Valley National Park

www.nps.gov/cuva/index.htm

Designer/Consultant:

Bergmann Associates

4512 Dressler Rd.; NW

Canton, Ohio 44718

www.bergmannpc.com/

Project Cost: \$1 million (bridge & trail construction costs), \$1 million (parking area improvements)

Maintenance Cost: Not available

Funding Sources / Incentives: This project was funded, in part, using Alternative Transportation funds.

Applicable Zoning Regulations: A floodplain development permit was issued by the City of Independence.

Key Features:

A new 240 foot long by 10 foot wide single span, steel pedestrian truss bridge was extended over the Cuyahoga River. The existing 149 vehicle gravel Rockside Road parking area was upgraded with space for 219 cars. This included 103 spaces on a 1.3 acre permeable pavement lot to the north, and 116 spaces on a 1 acre, stabilized turf area to the south. Upgrades to the station also included the installation of 14 solar pole lights, and the extension of the loading platform by 120 feet. Restoration of a vernal pool area involved the removal of 0.25 acres of debris piles and the addition of constructed vernal pool areas. Three acres nearby were enhanced through the treatment of invasive species such as common reed (*Phragmites australis*) and narrowleaf cattail (*Typha angustifolia*). 200 feet of riprap and live stakes were added along the bank of the Cuyahoga River.

Lessons Learned:

The existing site lacked sufficient capacity and accommodations for the growing usage of the scenic railroad system boarding area. The goals of the project included: improve overall accommodations and mobility at the station; link up the station with the Lock 39 trailhead on the opposite side of the river via a new pedestrian bridge; and provide environmental enhancements throughout. Features include a pedestrian bridge, trail design, floodplain evaluation, electrical services in a floodplain, riparian buffer restoration, vernal pool restoration, restroom facilities, railroad loading platform improvements, “green” parking areas (permeable pavement, stabilized turf, rain gardens), treatment of invasive species.

Additional Comments: Through the floodplain analysis and evaluation, the frequency of flooding and associated peak water surface elevations were established.