The brick Italianate style, flat-roofed Woolson Block is a three-story commercial, mixed-use building in the center of downtown Springfield. The original building was built circa 1868 during Springfield’s industrial heyday above the falls of the Black River tight against a vertical rock face over 30 feet above the river.

In recent years, the building had fallen into disrepair including the partial loss of structural support due to weathering and degradation of the overhanging rock face. A team of housing developers joined forces to redevelop the historic building and assist in revitalizing the Downtown area. The existing rock face needed to be evaluated and stabilized to provide a stable slope beneath the renovated structure.

CHALLENGES
- Overhanging and back-battered rock face was subject to potential long-term instability
- Difficult access for investigation and tight construction space tolerances
- Consideration of new retaining wall loads
- Incorporation of adaptable stabilization measures to allow for construction-phase field adjustments
- Consideration of hydrostatic pressure and scour protection during peak river flows
- Need to prevent grout from spilling into the river
- Winter work under cold weather conditions
- Consideration of potential aesthetic impacts

BACKGROUND

The improvements stabilize the slope reducing long-term maintenance needs, protecting the renovated Woolson Block, and enhancing public safety. In addition, stabilization of the rock slope will assist in allowing the Woolson Block to return to prominence as a key landmark of Springfield’s historic district.

The client was pleased to achieve project objectives including providing cost effective improvements and meeting budget and schedule requirements.