

## Replacement of Bridge R-3 on CR 6/39 (Broadway)

Boroughs of Keyport & Union Beach | Monmouth County, NJ



Van Cleef was contracted by the County of Monmouth to provide design services for the replacement of Bridge R-3 on County Route 6/39 (Broadway) over Chingarora Creek. The structure was a 32' long (span length), single span, concrete encased, rolled steel beam bridge supported on full-height concrete abutments with timber piles. The new structure was designed as a single span three-sided rigid frame with a clear span of 29', consisting of a 12' wide lane, 5' wide shoulder, and 6' wide sidewalk in each direction. The project required staged utility relocations due to extensive coastal wetlands surrounding the site. Intensive coordination with NJDEP was ongoing over the determination of whether the waterway was tidally influenced or tidally controlled at the bridge. The outcome of this determination affected the final structure selection as a greater hydraulic opening with a longer, conventional structure.

The project also involved reconstructing over 600 linear feet and the raising of the County Route 6/39 profile by over 4 feet, to achieve a desired centerline elevation that allows access across the bridge during frequent storm events and eliminate flooding during daily tidal events. The project was designed in accordance with Monmouth County, NJDOT, and AASHTO design standards. Extensive Community Outreach was required, including coordination with local residents, businesses, and local officials.

### CLIENT CONTACT

Monmouth County  
Engineering Department  
Freehold, NJ

### PROJECT HIGHLIGHTS

- ◀ Bridge Replacement
- ◀ Utility Coordination & Relocation
- ◀ Tidal Waterway
- ◀ Hydraulics & Hydrology Design
- ◀ Roadway & Geotechnical Design
- ◀ Staged Construction & Detours
- ◀ Environmental Permitting
- ◀ Public Outreach
- ◀ Cultural Resources