

Building Roads & Bridges in a Park



Construction – setting of the precast concrete arch bridge sections

Over 6,300 trees and shrubs planted within the reservation

Previous pedestrian bridge over stream in the reservation that was demolished

New precast concrete arch pedestrian bridge with stone veneer over stream in the reservation

Previous pedestrian bridge over South Orange Avenue that was demolished

New precast concrete arch pedestrian bridge with stone veneer over South Orange Avenue

ACEC New Jersey
AMERICAN COUNCIL OF ENGINEERING COMPANIES

The firm provided Construction Engineering and Inspection Services to the County of Essex, NJ for the South Orange Avenue Traffic Operations and Roadway Improvements, CR 510 in the Townships of Maplewood, Millburn, and Village of South Orange, NJ Project, funded by the New Jersey Department of Transportation (NJDOT) and Federal Highway Administration (FHWA). South Orange Avenue through the South Mountain Reservation was one of the most dangerous roads in Essex County. The goals of the project were to improve traffic safety, reduce flooding, and construct the project with features befitting the South Mountain Reservation and its facilities and system of trails.

Improvements include roadway realignment for safer travel; construction of three new precast concrete arch pedestrian/equestrian bridges for trail access, including replacement of one bridge; construction of roadside bio-retention swales to minimize the potential for localized flooding, improve water quality, and reduce water runoff during major rain events; modernization of traffic signals; construction of concrete retaining walls along the right-of-way line to reduce the amount of clearing; and installation of powder-coated guide rail and ornamental highway lighting to enhance safety. The project also included the planting of more than 6,300 trees and shrubs, including replacement of 430 trees which were removed to accommodate construction. The firm provided services to actively manage the construction while maintaining travel through the reservation and into the surrounding towns, and maintaining the natural setting of the South Mountain Reservation. The firm worked directly with Park officials, the NJDEP, and Essex County to coordinate all construction activities and monitor compliance with the contract. A partnering atmosphere with Essex County, Owner; New Prince Concrete Construction, Contractor; and French and Parrello, Assoc., Designer was the key to getting the project completed to everyone's satisfaction.

Construction Engineering Inspection Services
for South Orange Avenue-Traffic Operations and
Roadway Improvements, Millburn and South
Orange, Essex County, New Jersey

Client: Essex County, New Jersey

Entrant: **KSE**
KS Engineers, P.C.
Newark, NJ

