

Maintenance of Traffic

Schenectady NY 7; Troy-Schenectady Road Crosstown Connection

Schenectady County, New York

Project Overview

This four-lane highway carries 40,000 vehicles per day through the heart of New York's capital region, connecting I-90 and I-890. The reconstruction of the at-grade, signalized intersection with Watt Street was part of the full-depth complete reconstruction of several miles of the highway. The majority of the project was conventional slipformed concrete paving. Because the intersection was the first intersection off the Interstate, and provided access to two major commercial areas, traffic had to be maintained through the intersection in all directions at all hours. In order to accomplish this, precast concrete pavement was installed in the critical traffic areas, and cast-in-place concrete was used for shoulders and turning lanes.

MOT Variables

- At least one lane of traffic through the intersection was required to be maintained in all directions at all times.
- The Contractor had a 13-hour night work window where he was allowed to take one lane out of service.
- Filter fabric and 12" of new granular base was installed beneath the 9" of new precast pavement.
- Vinton Construction had to work with separate contracts for sanitary sewer and water main, as well as the gas work.
- Traffic control was removed and traffic was placed on the precast pavement each day.

Other Traffic Considerations

- Due to the complexity and confusing nature of the traffic detour layouts, traffic occasionally had to be individually escorted through the cones and barrels



Fast Facts

Owner

New York State Department of Transportation

Contractor

Callanan Construction

Facility

Four-lane urban arterial

Project Type

Full-depth reconstruction

Paving Completion

July, 2006

Construction Factors

- Contractor had to excavate existing pavement and base, install filter fabric and 12" of new granular base, and 9" of new precast pavement each night and be open to traffic for morning rush hour.
- Typical Installation rate was 10 slabs per night, nominally 12' wide by 10' long.



Equipment and Materials Factors

- Overhead signal wires limited the use of conventional cranes for setting some slabs; low-height tow truck booms were used to set some slabs.
- The intersection was in a horizontal and vertical curve, and a mainline superelevation transition began in the intersection. This required the use of 3-dimensional "warped" precast slabs. Specially developed grading equipment was used to create the same geometry in the granular subgrade as in the top surface, to ensure full support of the slabs.



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