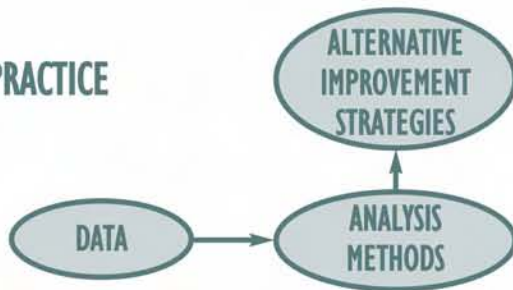


BEST PRACTICE



BALANCING PEDESTRIAN AND VEHICULAR SAFETY: ROUTE 9 PEDESTRIAN SAFETY STUDY

NEW YORK STATE DEPARTMENT OF TRANSPORTATION

Objective

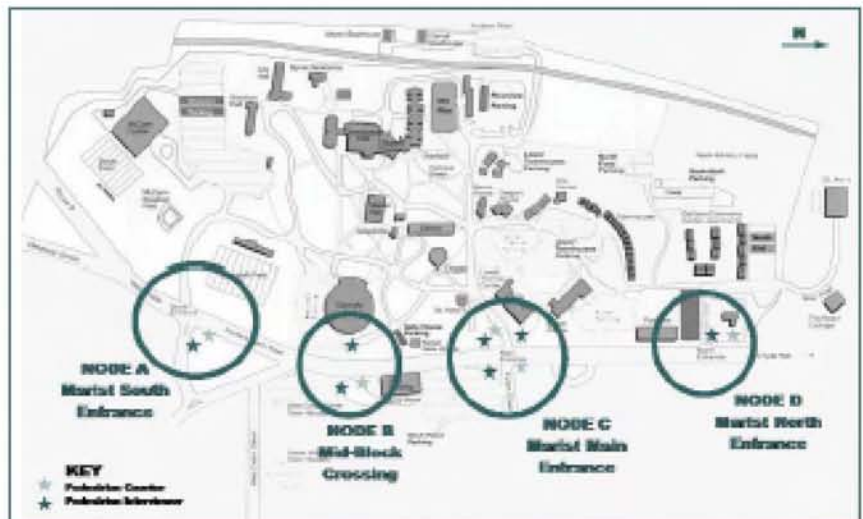
Route 9 is a state-owned and state-maintained roadway that runs south to north, paralleling the Hudson River from New York City to Albany and beyond, passing through the Town of Poughkeepsie and Marist College. Both the town and the college have experienced rapid growth. As Marist College expanded eastward across Route 9, pedestrian traffic in the corridor increased. At the same time, traffic volumes were increasing in the corridor due to the expansion of St. Francis Hospital; commercial development of The Home Depot, Staples, and Eckerd's Drugstore; as well as additional commuter traffic stemming from the search for more affordable housing within the New York metropolitan area. The New York State Department of Transportation (NYSDOT), Town of Poughkeepsie, Marist College, and Dutchess County recognized the need to provide a transportation corridor that was safe for all modes of transportation.



Approach

In the fall of 2003, NYSDOT initiated a study to assess pedestrian safety and access in the corridor. The study, in a region that is characterized as highly automobile-dependent, aimed to develop recommendations that would provide pedestrians, cyclists, and transit users with the same quality of service and safety as motorists. As the first of its kind study by NYSDOT, the Route 9 Pedestrian Safety Study recognized that pedestrian safety and the long-term sustainability of the corridor and surrounding community were directly linked to the land use development impacts on the transportation system.

NYSDOT surveyed and interviewed more than 2,600 pedestrians in the study area, used automated equipment for vehicular counts, performed crash analyses, built and used a traffic simulation model to analyze various traffic operation scenarios, and performed a speed study. The pedestrian origin and destination survey involved strategically positioning NYSDOT personnel to interview pedestrians. The information yielded maps showing the major pedestrian traffic patterns in the corridor. This strategy was extremely helpful in comparing the effectiveness of alternative solutions and revealed some of the problems caused by inadequate land use planning. The results of the questionnaire



were useful in understanding the pedestrians' perceptions and behavior. For example, 70 percent of the participants base their decision on where to cross Route 9 on convenience, with only 19 percent basing that decision on safety. The pedestrian count information found that pedestrian morning and evening peak volumes coincided with traffic peak volumes. The vehicle count found that approximately 39,000 vehicles travel through the corridor daily; this is a 70 percent increase during the past 20 years; and the corridor has already exceeded

the 2015 traffic projections by 14 percent. The data also revealed that 63 percent of pedestrian crossings occur at the Route 9 intersection with Fulton Street/Marist Main Entrance (Node C in diagram). This is the same location where a pedestrian was struck by a motorist making a left turn onto Route 9 from Fulton Street in February 1999. The vehicle speed study found that 65 percent of all vehicles studied within the 30 mph speed limit zone were exceeding the speed limit by at least 5 mph.

Partnerships among NYSDOT, the Town, the College, and the County proved crucial to the success of the study. As an example, Marist College offered monetary prizes as incentives to encourage participation in the survey. These prizes were considered instrumental in attaining a high participation rate and improving the integrity of the agency's survey results.



Outcome

The Route 9 Pedestrian Safety Study resulted in recommendations for how traffic safety and traffic congestion should be treated in the study area. For traffic safety, a number of pedestrian safety techniques were identified relating to engineering, education, and enforcement. Marist College developed a Pedestrian Safety Education Program and worked with the Town of Poughkeepsie Police Department to develop the Pedestrian Safety Supplemental Enforcement Program. Study recommendations include partnering with the regional metropolitan planning organization, the Poughkeepsie-Dutchess County Transportation Council (PDCTC), to develop a regional pedestrian safety education campaign to educate both pedestrians and motorists. Engineering recommendations included providing countdown signal heads at each intersection, improving nighttime lighting and sidewalk connectivity to activity centers, and signalizing the Donnelly Hall mid-block crossing. Since the study's completion in December 2003, an implementation plan was devised. NYSDOT and Marist College have worked collaboratively to implement some of the recommendations, including signalizing the mid-block crossing, providing a consistent 30 mph speed limit throughout the corridor, and upgrading all pedestrian signal heads to countdown signal heads. In terms of traffic congestion, the study indicated that pedestrian movements are not the main contributing factor to congestion in the area.

The Route 9 Pedestrian Safety Study achieved more than its goal of identifying ways to ensure that all users of the corridor receive the same quality of safety. NYSDOT's innovative approach resulted in analytical techniques and a basic format that can be easily applied to other safety and access corridor studies. The study also helped build partnerships and offered policy-makers numerous recommendations that considered mode choice, equity, and sustainability.