

Traffic Calming in the Suburbs

Non-urban areas present unique situations.

By William R. Moore,
Andrew Brassard, and
Kevin G. Gagne

For many years traffic-calming programs were primarily focused in urban areas, where traffic patterns and vehicle flow volumes change rapidly. However, an ever-growing mobile culture and economy has resulted in an increase in traffic density in our country's small towns, bringing traffic management and pedestrian safety to the forefront of the issues facing rural communities.

Transportation planners, whose job it is to deal with these types of issues, have been presented with a whole new set of challenges, as traffic patterns are markedly different in rural settings when compared to urban ones. Also, there is the unique situation of the "small town Main Street." The "small town Main Street," or town center, has always been the primary location of a community's shops, schools, town offices, and meeting places. For this reason, it's also the primary destination for travelers and truckers to access the resources of a particular region. As businesses grow and the number of travelers multiplies, often the shortest routes connecting small town centers have become large thoroughfares, modified to accommodate for the increasing size and number of vehicles passing through.

Unfortunately, in addition to becoming regional connections for trucks and travelers, these Main Streets and town centers remain the only access that local residents and visitors have to goods and services. On-street parking, pedestrian accommodations, and many other features characteristic of a rural community's downtown setting present a unique set of traffic enforcement and pedestrian safety challenges. With effective traffic-calming programs, small communities can better achieve a balance between the preservation of the quality of local everyday life and the ever-increasing demand for regional mobility.

The town of Dublin, NH, is a small community currently experiencing the positive benefits of a successful traffic-calming program. Like many small communities, the town center of Dublin is in a precarious location, as State Highway Route 101, which carries an average daily traffic count of 8,000 vehicles per day, passes directly through the center of town. This major east-to-west corridor brings with it not only a large volume of cars and trucks (whose operators often neglect the posted reduced speed of 30 miles per hour), but also heightened levels of noise and air pollution, and generally unsafe conditions for pedestrians and local users.

The historic town oval and flagpole—situated in the middle



The historic town oval was restored to its original dimensions, returning its aesthetics and calming traffic by requiring drivers to pay closer attention as they navigate the channeled lanes.

of Route 101, and a source of pride and culture for the townspeople—was reduced over the years to a dusty island strip, allowing larger trucks a straighter route around it. The town center also comprises the historic Dublin Town Hall, library, church, police and fire stations, and is the home of the famous Yankee Publishing Company, which for 75 years has been the work place of myriad writers and publishers responsible for *Yankee Magazine* and *Old Farmer's Almanac*.

Although Dublin is still a small town of only 2,000 people, many local residents and tourists alike frequent the town center to work or experience the historical and cultural significance it has to the state of New Hampshire.

As mentioned before, transportation planners are faced with unique challenges when they develop traffic-calming programs in rural settings; Dublin was certainly no different. The topography of the community was one such challenge, as the town center sits at the top of a steep hill when approached from the east and at the bottom of a steep hill when approached from the west. Drivers coming from the east and cresting the hill at highway speeds are often unaware of the approaching town center until they are passing through it. Meanwhile, drivers (especially those of large trucks) descending from the west are often disinclined to reduce their momentum if they don't have to.

One of the major elements of Dublin's traffic-calming program was a narrowing of Route 101 to a width of 28 feet, as well as installing signs, granite curbing, and concrete sidewalks along both sides of the street. This narrowing still allows the



The historic oval and flagpole, situated in the middle of Route 101, was a source of pride and culture for the townspeople.

passage of large vehicles, but the design provides a corralling effect for approaching vehicles, encouraging them to slow down. The curbing and sidewalks not only prompt passing vehicles to take caution, but also provide safe walking routes for pedestrians to access the buildings, parking area, and other services of the town.

Another Unique Challenge

Along with topography, another unique challenge in Dublin was the preservation of the historical and cultural integrity of the town. Even though the addition of more granite and concrete had a desirable effect on calming traffic, it did not help to maintain the aesthetic and historical appearance of the community. To maintain this visual integrity, transportation planners focus on incorporating green spaces wherever possible. In Dublin, one green space in particular was the historical town oval and flagpole. The town oval has always been the centerpiece of the town and part of the challenge was enhancing the presence of the oval while also incorporating it into the overall goal of slowing down traffic.

Both of these challenges were accomplished by expanding the dimensions of the oval back to its historical proportions. The historical oval dimensions restored the aesthetic integrity of the town center, while the traffic lanes pushed out around the oval to accommodate for its increased size requires drivers to pay closer attention as they navigate the channeled lanes. Flowers and hedges were also planted in patterns in the oval; green spaces were created around it to propagate a natural aesthetic to the overall appearance of the town center. To provide for safe travel at night, ornamental lighting will be placed on either side of the road surrounding the oval area.

Well before any design decisions can be made, it is crucial—particularly in small towns such as Dublin—to get the perspectives of the residents and workers of the town itself. Residents of small towns take great pride in the history their community preserves and often do not take well to the notion of drastic changes to the landscape.

During the planning phase of the Dublin traffic-calming

project, residents were asked which locations they felt needed immediate attention, as well as which locations should be considered for the future. At planning meetings, special graphics and handouts were featured during public presentations to ensure proper communication and understanding of potential options.

To show the public how a proposed feature—such as a road shift, sidewalk, or landscape strip—might look in front of their houses, life-sized color plans (some measuring over 40 feet long) were displayed, displaying sidewalks, landscape strips, and lane and shoulder widths in true to life size. Props such as baby strollers and bicycles were used to give residents a feel for how new

traffic features would accommodate the needs of pedestrians.

A positive and constant working relationship based on open communication between planners and residents will provide creative ideas and encourage forward progress in traffic-calming projects in rural communities. Such a process ensures any design decisions will be made on behalf of the people that will be effected by the project's results for years to come.

It is no secret that as years pass and progress endures, there will always be an increasing need for the country's roadways to keep up with the times. And when these roadways arrive at an impasse—caught between the past and the future, caught between rural communities and main streets such as they were in Dublin—transportation planners and community members play an integral role in finding solutions that benefit the whole. Traffic-calming projects like the one in Dublin, are important in maintaining the safety, integrity, and history of America's main streets as we move into the future.

Mr. Moore, P.E., Mr. Gagne, P.E., and Mr. Brassard, EIT, work in the Bedford, NH, office of the engineering firm of Fay, Spofford & Thorndike (www.fstinc.com).

GE



Historical locations like this Dublin church present unique problems to traffic planners who must consider pedestrian safety.