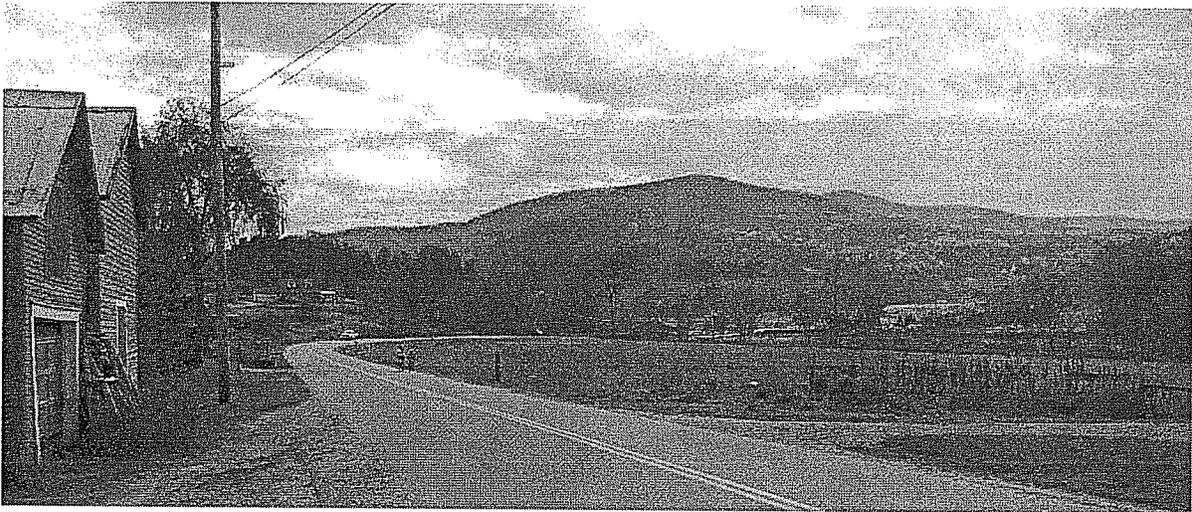




HUNTINGTON TRAFFIC CALMING PLAN

Final Report



Prepared for:
Chittenden County Metropolitan Planning Organization
Town of Huntington, Vermont

Prepared by:
Smart Mobility, Inc.

With
ORW Landscape Architects and Planners

27 June 2008

INTRODUCTION

The Town of Huntington is concerned about the high speeds of traffic through the village centers of Lower Village and Huntington Center, and has approached the Chittenden County Metropolitan Organization (CCMPO) for technical assistance on this issue.

This report describes a plan of traffic calming strategies that can be implemented over time to achieve the desired reductions in travel speeds. "Traffic Calming" is a set of traffic engineering strategies that through a variety of mechanisms result in lower traffic speeds. A brief introduction to traffic calming is attached to this report.

Traffic calming should result in a safer and more pleasant village environment. Slower traffic speeds greatly increase safety for both vehicles and pedestrians, as through drivers are more likely to be able to detect and avoid potential conflicts with other road users. In addition, it can help to create a quieter and more pleasant environment for the Huntington's village centers.

BACKGROUND

The Town of Huntington has experienced gradually increasing traffic volumes over the past twenty years, with traffic speeds high enough to create an unsafe and uncomfortable environment for pedestrians in Lower Village and Huntington Center. CCMPO has provided technical assistance to the Town of Huntington to explore traffic calming concepts as a response to this situation. Smart Mobility, Inc. is under contract to the CCMPO to provide technical assistance to CCMPO communities, and has prepared this draft report on possible approaches to traffic calming in Huntington's villages.

The following sources and information were reviewed in developing this report:

- April 2, 2007 Memorandum from David Roberts, CCMPO to Ed Wildman, Town of Huntington with results of traffic speed monitoring in Lower Village and Huntington Center.
- October 16, 2007 Memorandum from David Roberts, CCMPO to Ed Wildman, Town of Huntington with additional results of traffic speed monitoring in Lower Village.
- Public Meeting on Wednesday, November 7, 2007, facilitated by the selectboard, which included a presentation by Smart Mobility on traffic calming concepts and discussion and reaction by the community.
- Site Visit with CCMPO and Town Officials on December 4, 2007.
- Review of Huntington Town Plan, dated June 18, 2007.
- Input and discussion at meeting with Traffic Calming Committee, February 27, 2008.
- Public Meeting in Huntington to present draft report, May 14, 2008.

Huntington Town Plan Guidance

The town plan frequently references goals to strengthen the role of the village centers, and to encourage growth that follows the historic settlement patterns emphasizing village center growth. In particular, the following passages suggest the importance of a safe and attractive pedestrian and residential environment in the village.

“reinforcing historic settlement patterns, to the extent that is feasible, by focusing growth in the village centers” . . .

“In an effort to reduce the stress on agricultural and forestland, the Huntington Town Plan provides for greater development densities in the areas designated as Village Districts I and II— which include the Lower Village, Huntington Center, and Hanksville.” . . .

“The purpose of the Village District is to: 1) encourage a concentrated mix of higher density residential, commercial, and civic development that is compatible with traditional patterns of subdivision and development in the district; and 2) protect agricultural land and open space areas that functionally and visually define village boundaries. Efforts should continue to revitalize the village neighborhoods, especially in Huntington Center, the Lower Village, and Hanksville.

Overall goals for this district are to:

- Encourage the social, cultural, and historic aspects of the village communities
- Provide community services efficiently
- Preserve the viability of Prime Agricultural Soils in the district
- Promote safe and efficient transportation and pedestrian patterns
- Protect open space”

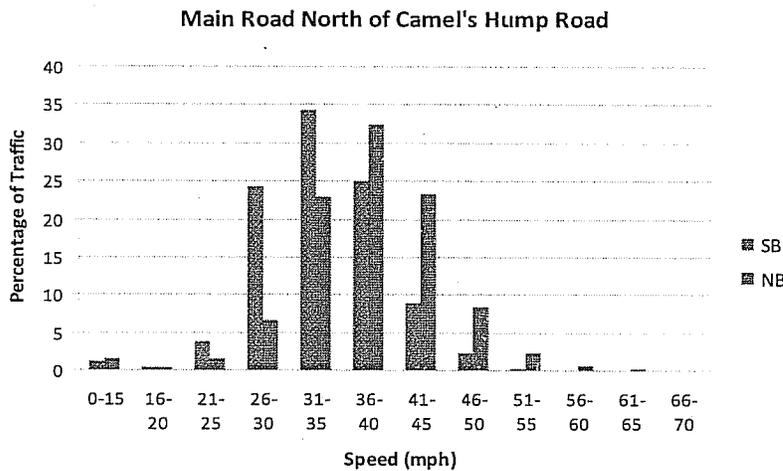
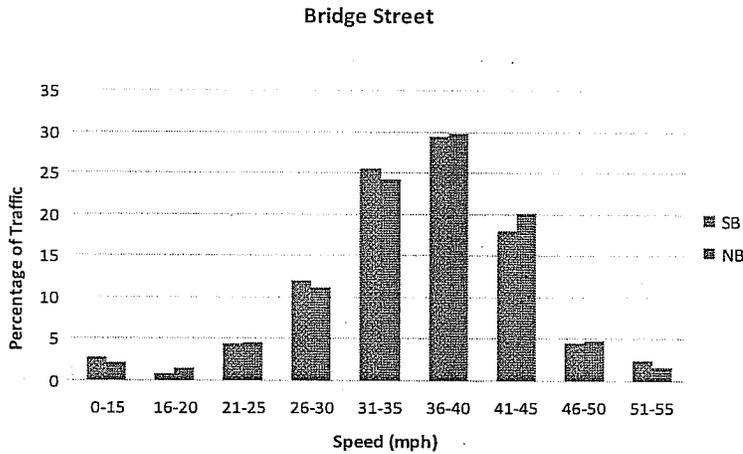
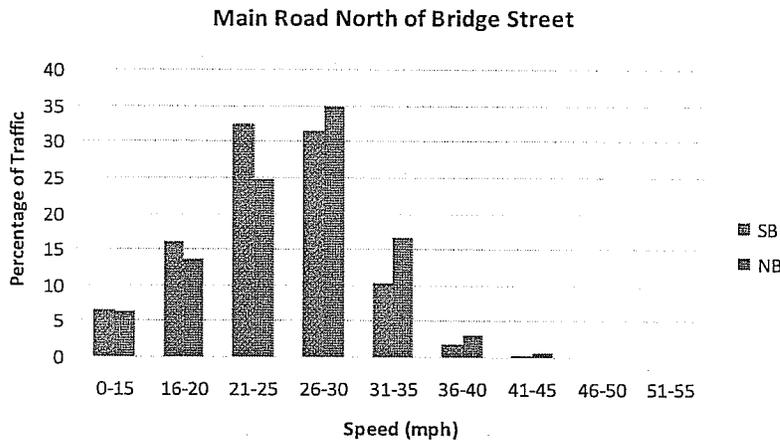
Traffic Speed Data

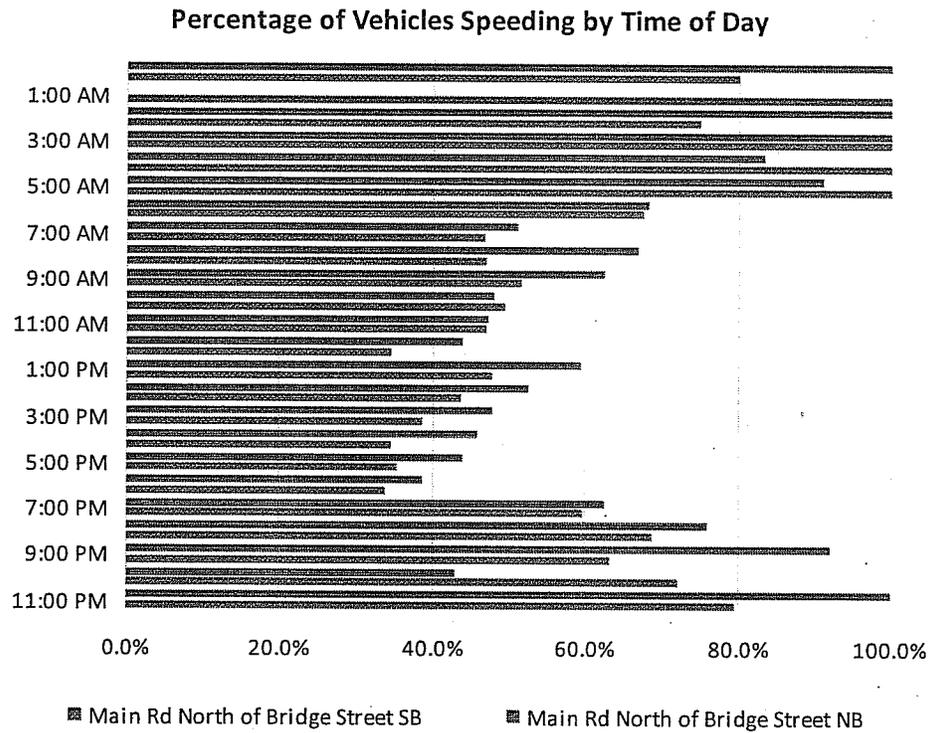
The CCMPO staff collected traffic volume and speed data in April and October, 2007, which provides detailed information about the traffic speed profiles in several locations in Huntington’s two villages. The two memorandums summarizing the data are attached. The following charts show more information about when and where speeding is more prevalent. In all three locations shown below, the speed limit is posted at 25 mph. However, actual travel speeds are substantially higher, shown in the table below: The 85th percentile speed is the speed at which 15% of drivers are exceeding. Speed limits are generally set with a goal of the 85th percentile speed equaling the speed limit, i.e. on average, 15% of drivers are “speeding”.

Table 1: 85th Percentile Speeds

Street	Direction	85 th Percentile Speed
Main Road 0.2 mi North of Bridge St	NB	46 mph
	SB	44 mph
Main Rd immediately north of Bridge St	NB	32 mph
	SB	30 mph
Bridge St 0.8 mi north of bridge	NB	32 mph
	SB	32 mph
Bridge St 0.1 mi north of bridge	NB	44 mph
	SB	43 mph
Main Road 0.5 miles north of Camels Hump Rd	NB	44 mph
	SB	40 mph

The following charts show the traffic speed data in more detail.





The above chart shows that there are relatively fewer speeders during the mid-day hours on Main Road near Lower Village, but during the evening hours, speeds are substantially higher. The patterns for the other two locations (Bridge Street, Main Road near Camels Hump Road) show high levels of speeding throughout the day.

A few things can be determined from the above data. Speeds in the central portion of Lower Village, both on Bridge Street and Main Road, are well above the posted speed limit of 25 mph. Just north of both Huntington Center and Lower Village, speeds are very high for a village location, well above the speed limit. These speeds are high enough to cause concern for the safety of pedestrians, bicyclists, and other drivers for this village area. The following general conclusions can be drawn from this data:

- The traffic speeds in both villages are too high to provide a safe environment for pedestrians, especially as there are no sidewalks and pedestrians share the right-of-way with vehicular traffic.
- The prevailing speeds also pose safety concerns given the level of on-street parking activity in Lower Village.
- Traffic speeds seem to be lower during the middle of the day, and higher during commuting hours and nighttime.

Public Meeting Input

A public meeting was held November 4, 2007, as part of a selectboard meeting to discuss concerns related to traffic speeds in the village areas and to introduce the concepts of Traffic Calming as part of a solution. A number of issues were discussed at the meeting, with the following items to be considered in this project:

- Effectiveness of Speed Enforcement by Vermont State Police should be reviewed, and possibly increased
- Need for a cross walk on Main Road by the Post Office
- Main Road at the curve by Jaques' (particularly coming down the hill and directly in front of the store)
- Bridge Street – particularly between the Bridge and Mayo Road
- Intersection of Main Road and Camels Hump Road in Center
- Need to look at a more gradual speed transition – currently, the speed change is very abrupt in some places, like at the cemetery in the Lower Village

Site Visit

A site meeting was held on December 7, 2007 with MPO staff and Town Officials. This included observations of traffic patterns, field measurements of road widths, and identifying locations with restricted sight distance. The following photographs (taken in October, 2007) illustrate some of the observations and locations of concern. The photos below were generally taken while traveling in a southbound direction, starting at the north end of Lower Village, and then continuing through Huntington Center.

Main Road new Library: Road width is 25 feet, which would allow for re-allocation of the right of way to allow more space for pedestrians.



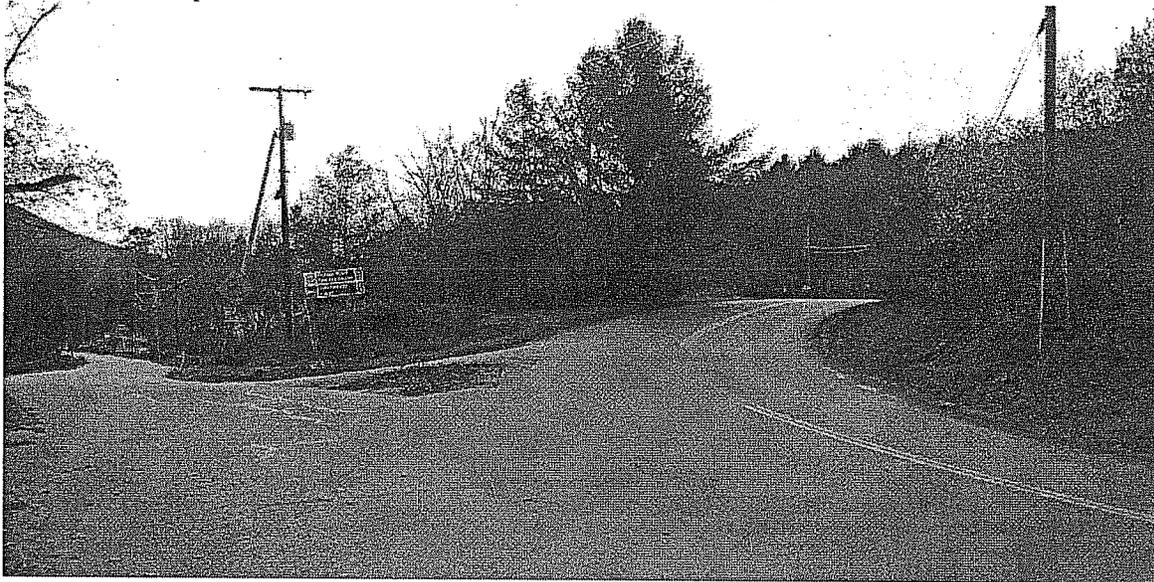
Approaching Store: Undefined edge of roadway/pedestrian area/parking area. Width approximately 27 feet.



Width between Jacques Entrance and Triangle is approximately 39 feet, with little definition of traveled way, parking areas, and pedestrian areas.



Poor sight distance for northbound and southbound (shown below) traffic on Main Road and traffic exiting East Street; wide paved area with undefined and variable traffic behavior



Huntington Center

Entrance to Huntington Center is an abrupt change from 45 mph to 25 mph, with straight road that does not serve to reinforce speed reduction.



Wide area at intersection with Camels Hump Road, school traffic turning. Main Road is very straight through village with no features serving to reduce speed.



Pedestrian Crossing for school use is on a diagonal, which means children are exposed in traffic for longer than necessary.



Leaving Huntington Center traveling south, with rural setting and very straight road provides few features to reduce speeds.



TRAFFIC CALMING TECHNIQUES

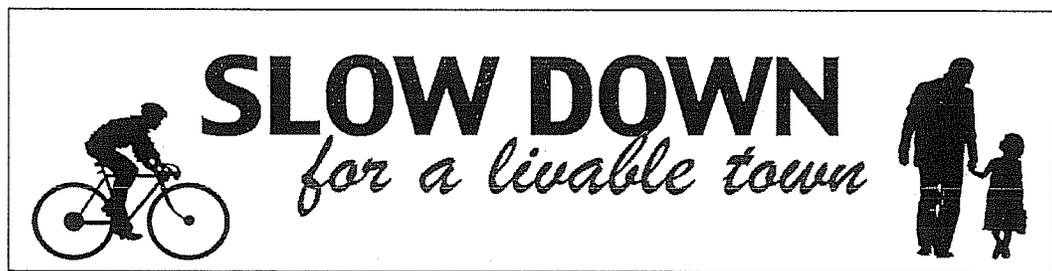
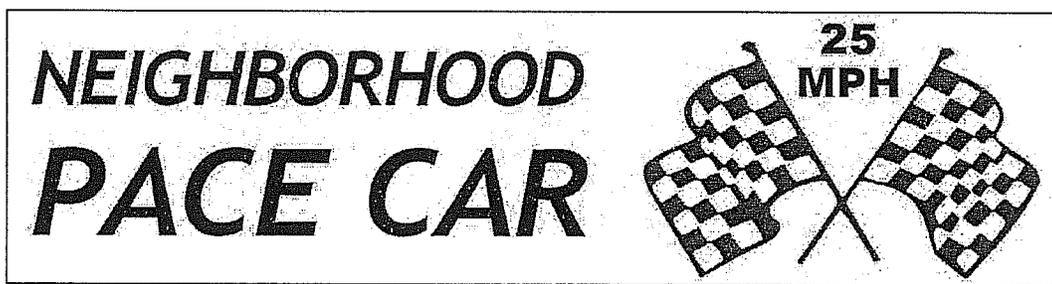
Traffic calming, or reducing speeding, can be accomplished using a variety of different tools. It is important to consider the specific goals of a traffic calming effort. In general, traffic calming is more effective at reducing the number of people who are speeding excessively, such as 10 mph over the speed limit, rather than reducing the average speed. Many monitoring studies of traffic calming programs have found that there is little change in the average speed, and perhaps very little change in the 85th percentile speed, but a noticeable reducing in the number of drivers at very high speeds. The following are proposed as goals for a traffic calming effort in Huntington:

- Reduce the number of drivers with excessive speeds
- Provide more reinforcement to drivers of posted speeds
- Increase safety and comfort for pedestrians
- Support economic and civic life of Lower Village and Huntington Center

These goals will best be accomplished by a combination of “behavioral” and physical traffic calming. Among the behavioral types of activities include speed enforcement, and efforts to increase awareness of speeding.

Enforcement can be conducted through contracting with the Vermont State Police, which is already conducted to some degree in Huntington.

Another type of activity that can help result in a noticeable decrease in speeding is the “pace car” concept, where through an education campaign, local drivers make a commitment to drive the speed limit whenever they pass through town. Many Vermont communities are participating in “Safe Routes to School” activities, supported through CCMPO or VTrans, and are undertaking “Traffic Tamers” education campaigns. This involves working through the schools to encourage parents to consider themselves “pace cars” as they travel through areas with reduced speed limits. The following is an example of bumper stickers that are distributed in these communities.



The attached overview maps show the locations of the major “physical” traffic calming features proposed for each village. The features can generally be described as gateway elements, cross section treatments, and roadway reconfigurations. Below is discussion of the specific features included in the proposed plan.

Gateway Treatments

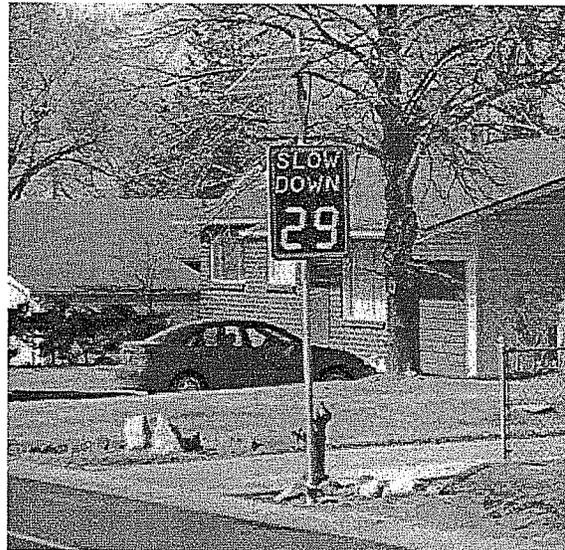
There are several possible elements that can be used to better define the gateways into each village. These will be primarily “information” traffic calming, alerting drivers to the change in conditions and expectations. The following are possible treatments to include in the gateway areas.

Speed Radar Feedback Signs

Radar feedback signs are an element that can be both educational, as drivers often don’t realize how fast they are going, and also can provide information to the town about the success of the traffic calming efforts, as these signs also have data collection options.

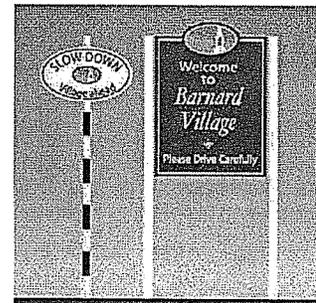
Research compiled by the Transportation Research Board in recent years has indicated that these signs are very effective for reducing speeds in areas where pedestrians are common.

Sign manufacturers are willing to install signs temporarily on a trial basis at no charge, and use universal mounting systems that can attach to any type of pole.



Gateway Signs

Gateway signs can be used to help reinforce the change in character that is still very much present in Huntington between the rural lands and village centers. While signs alone will be unlikely to have a significant, lasting effect in speed reduction, they are an important way to communicate to visitors.



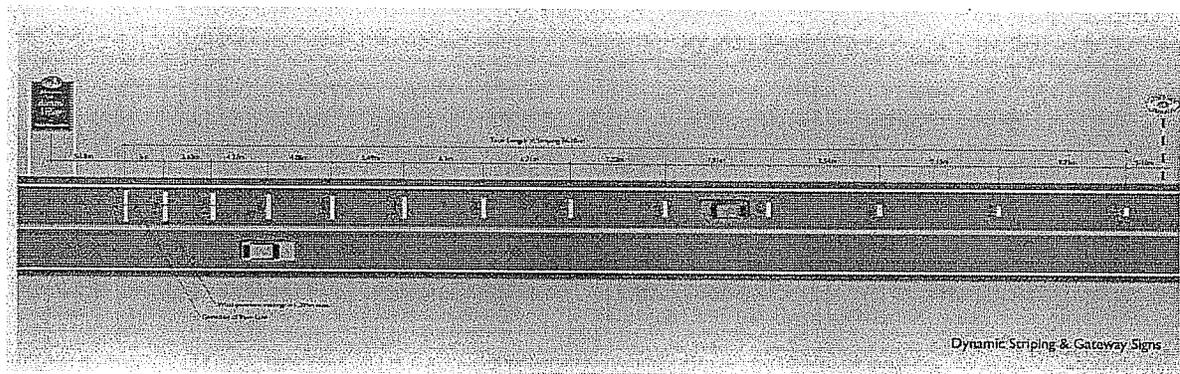
Transition Zones

Reduced speed limits within the village centers of Huntington Center and Lower Village should be established with speed transition zones, where the speed limit lowers to 35 mph in a buffer area around each village, and then to 25 mph within the village core. “Reduced Speed Ahead” signs can also be effective to alert drivers.



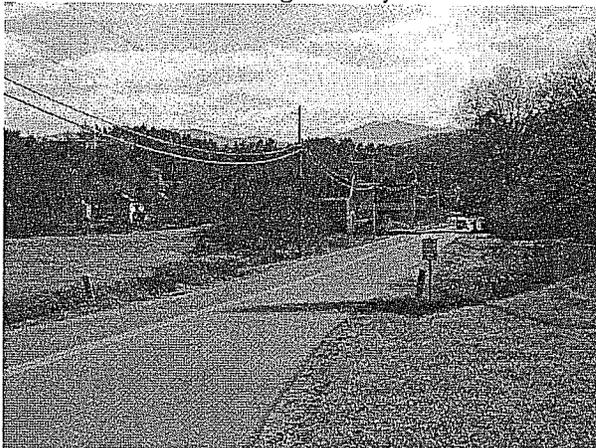
Dynamic Striping

Dynamic striping is a technique to alert motorists to a roadway feature or transition area using a series transverse (i.e. across road) markings that become longer, bolder and more pronounced while approaching the features. The example at right shows dynamic striping in advance of a speed hump. The illustration below shows how it can be used to highlight a gateway sign and speed transition.



The following illustration shows a possible design of a gateway, which would include a splitter island, landscaping, gateway sign, and installation of a radar feedback sign shortly after the gateway elements.

Existing Gateway



Possible Gateway Elements

