

Bristol Town Administrator

From: Mike Winslow <mwinslow@acrpc.org>
Sent: Tuesday, September 22, 2020 10:36 AM
To: Bristol Town Administrator
Subject: Traffic Calming
Attachments: Traffic Calming Measures.docx

Hi Valerie,

I've looked over a variety of traffic calming measures and, in the attached document, pulled out ones that might be useful for the neighborhoods in Bristol that were discussed at the last Selectboard meeting. I suspect most of the measures that would reduce the width of the vehicle travel lane would have more impact than changing signs for the speed limit.

Let me know if you have any questions.

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REGIONAL PLANNING COMMISSION



Traffic Calming Measures for consideration in Bristol, VT

Traffic calming uses physical design and other measures to improve safety for motorists, pedestrians and cyclists. It has become a tool to combat speeding and other unsafe behaviours of drivers in the neighbourhoods. It aims to encourage safer, more responsible driving and potentially reduce traffic flow.

The Institute of Traffic Engineers has [a series of fact sheets](#) that provide more detail about some of the specific measures mentioned below, and other traffic calming tools. I tried to highlight the options I felt were most relevant to Bristol neighborhoods.

Two general ideas behind engineered traffic calming are making driving more challenging so that drivers pay closer attention to what they do, and physically slowing vehicles. Some tools to achieve each strategy include:

1. Make driving more challenging - narrow lanes

Bulb-outs - engineered curb extensions that narrow the travel lane

- Bulb outs at pedestrian crossings
- Bulb outs mid-block
- Chicanes - a series of landscaped curb extensions on alternating sides of the road that make a straight road sinuous

Advisory lanes - stripe the road so that there are wide shoulders for pedestrians and bikes and a single narrow lane for vehicles. Vehicles may use the shoulders for passing, but are expected to stay out of them otherwise.

- Appropriate for low volume ($\leq 5,000$ AADT) low speed (≤ 35 mph) roads
- Vehicle travel lane should be from 10-18 feet wide
- A white paper from [Alta Planning and Design](#) reviews their use around the country

2. Physically slow vehicles

Raised roadway - there are various types of raised roadways that can serve to slow traffic

- Speed hump - 3-4" bumps in the road. Can be installed seasonally.
- Speed cushion - side by side raised areas with space between them. Narrow enough that emergency vehicles can straddle them.
- Speed tables - long raised speed hump with a flat top and more gradual ramps that allows plowing so they don't need to be removed in the winter

Rumble strips - strips of painted, ridged, or grooved road surfaces placed perpendicular to traffic.

In addition to engineered traffic calming measures noted above, traffic enforcement - regular presence of law enforcement and a reputation that the area is policed - will likely lead to lower speeds through the neighborhoods.

Another traffic calming measure that was mentioned at the Selectboard was four-way stops at intersections, but evidence suggests this method does little to diminish speeds, except within 150 feet of the intersection. Many motorists increase their speed to make up for the “inconvenience” of stopping or disregard the stop sign. As many as 50% of drivers don't even stop. The link above cites studies out of Colorado, California, and West Virginia that showed speeds were the same or greater in areas with stop signs.

ACRPC can help conduct traffic volume and speed studies if Bristol would like to quantify the extent of the problem. If Bristol does choose to implement engineered traffic calming measures, it may be worthwhile to conduct before and after speed studies to document effectiveness.