

Summary of Problems Associated with Traffic Calming Devices in the United States

EMERGENCY RESPONSE CONCERNS

Delay to emergency response vehicles by traffic calming devices has resulted in moratoriums as well as removal of devices in cities around the country. Fire Departments warn of the increased risk caused by the rapid proliferation of devices once a calming project has begun. A video-taped discussion filmed by the City of Portland Fire Department states the department was denied participation in the implementation of Portland's calming program and in fact, was prevented by its Transportation Division from voicing their concerns publicly. An analysis by Ray Bowman of Boulder, CO, shows that the population is at far greater risk from delayed emergency response than they are from speeding vehicles. His analysis, verified by a professional mathematician can be viewed online at:

<http://members.aol.com/raybowman/risk97/eval1.html>.

Humps on a street in Gaithersberg, Maryland attributed to the death of a child in a burning home. A firefighter descended to the basement of the home to rescue the child when "flashover" occurred, forcing his exit from the building. The delay of the humps on the street could have provided the precious seconds needed to rescue the child. A resident of Houston, Texas is brain dead because of a gate installed as part of Houston's project. Paramedics, unable to open the gate, were forced to take another route. Gates on some of Houston's public streets have been ordered opened because of concerns for emergency response.

There are documented injuries of firefighters who have suffered compressed vertebrae from hitting the roofs of their cabs, after encountering speed humps unexpectedly. One such incident has placed a Bethesda, Maryland firefighter on permanent disability.

CIVIL RIGHTS VIOLATIONS

Citizens in Houston, Texas filed a complaint with HUD that gates installed as part of a calming project were used to segregate communities along racial and socio-economic lines. HUD found the City of Houston in violation of the civil rights of its citizens and ordered the gates removed. Gates were replaced with humps to effectively, though less obviously, achieve the same result - denial of access by minorities and tenants of lesser socio-economic status to the use of adjacent neighborhoods.

VIOLATION OF THE FEDERAL CLEAN AIR ACT

Citizens are threatening to file suit against the City of Portland, Maine to remove experimental mitigation devices. Funds received for the experimental project from the federal CMAQ Program (Congestion Mitigation and Air Quality) were rescinded when it was shown that the humps and raised crossings increased emissions by 48% without taking into considerations the increased emissions from braking and acceleration caused by the devices. The State of Maine has been ordered under the federal Clean Air Act to show evidence of compliance in reducing pollutants. Section 113,

"Federal Enforcement", states fines including imprisonment will be levied against entities responsible for knowingly increasing the release of pollutants into the air. Yet, the experiment remains on the street. An Austrian study of vehicles driving on streets with speed humps measured an increase of emissions 10 times greater than vehicles on streets without humps

The Transport Research Laboratory, a research agency of the Department of Transportation in the United Kingdom conducted emissions tests on roads with speed humps and found the following increase in emissions:

Schemes with a 75 metre hump spacing . . . showed increases in CO and HC of around 70 - 80% and 70 - 100% respectively, and an increase in CO2 of around 50-60%."

To calculate the possible effect of smoother driving after the installation of humps (without braking and acceleration) TRL measured the change in emissions associated with moving from a constant speed of 30 mph to a constant speed of 20 mph and found the following results:

CO and HC increased by 40 - 80%, CO2 by 30 - 40% and NOx by 20 - 30 %.

VIOLATION OF THE ADA

A moratorium is presently in effect on speed humps in Berkeley, California because of emergency response concerns and because of complaints by the disabled community. The pain and injury certain physical devices cause some disabled citizens limits their access to public-rights-of-way. Title II requires all new facilities be made readily accessible and usable by individuals with disabilities. It further states that all alterations to facilities must be accessible and usable to the maximum extent feasible.

The pain and discomfort slowing devices cause some disabled residents, makes roads physically and psychologically less accessible. A letter from the Commission on Disabilities, Berkeley, CA has requested the City of Berkeley write John Wodach, Disability Rights Section, U.S. Department of Justice and Charlene MacKenzie, ADA Coordinator, California Department of Transportation to inform them of the problems humps cause disabled persons and to request they work with the federal DOT to develop standards for compliance for roadway access for the disabled. A lawsuit was filed against the City of Bethesda, MD by a disabled resident for placing speed humps on all streets of access to his home. A website addressing the concerns of the disabled with physical devices can be found at

<http://www.digitalthreads.com/rada>.

LIABILITY AND LAWSUITS

In August 1998, a Florida judge ruled in favor of two residents of Sarasota who filed suit against that city for using devices for traffic control that are not approved traffic control devices in the U.S. DOT, MUTCD (Manual of Uniform Traffic Control Devices). States have adopted the MUTCD as a guideline for the placement and use of traffic control devices. Adherence to the "warrants" established for the approved devices renders cities protection from liability for the placement of the devices.

Calming devices are not listed as approved traffic control devices in the MUTCD, they are defined by the U.S. DOT as "geometric design features of the roadway." Therefore, no warrants have been established for their use. The legal departments of some cities have reasoned that their absence from the MUTCD indicates no authorization for municipalities to place the devices on their streets.

There are no specific requirements for signage for traffic calming devices. They are typically marked with the yellow, diamond shaped sign used to warn of a street hazard. Cities are required to keep their streets free of hazards. Devices can cause injury to drivers in some vehicles, traveling over the devices at posted speed limits. One legal department has expressed concern cities could be liable not only because of injury caused directly by a device, but for injury and damage incurred by actions made by drivers because of a device, such as swerving around them. Legal departments also express concern that cities could be held liable for personal injury or death because of emergency response delays caused by the devices.

CONFLICT

It has been said that "traffic calming" has become "people calming". Even pro-calming data acknowledges the volatility of the debate. Diversion of traffic to less traveled streets always accompanies an installation of devices, resulting in a change in the livability and the desirability of the property on the affected streets. Residents are often irate about the discomfort of the devices, the increased vehicle noise at the devices, the damage to their vehicles and the visual pollution of the signage and pavement markings needed to warn drivers of the devices. Enduring angst and divisiveness often remains in the neighborhoods long after the installation is complete.

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