



## Traffic Operations

### Question/Request: Speed Limit Changes? Why Speed Limits?

Generally, traffic laws that reflect the behavior of the majority of motorists are found to be successful, while laws that arbitrarily restrict the majority of motorist encourage violations, lack public support and usually fail to bring about desirable changes in driving behavior. This is especially true for the establishment of speed limits.

Speed limits are based on several fundamental concepts deeply rooted with the American system of government and law:

- A. Driving behavior is an extension of social attitude and the majority of drivers respond in a safe and reasonable manner as demonstrated by consistently favorable driving records;
- B. The normally careful and competent actions of a reasonable person should be considered appropriate;
- C. Laws are established for the protection of the public and the regulation of unreasonable behavior on the part of individuals; and
- D. Laws cannot be effectively enforced without the consent and voluntary compliance of the public majority.



### Common Misconceptions

The public normally accepts the concepts noted above. However, when emotionally aroused in a specific instance, the same public will often reject these fundamentals and rely instead on more comfortable and widely-held misconceptions such as:

- A. Reducing the speed limit will slow the speed of traffic;
- B. Reducing speed limits will decrease the number of crashes and increase safety;
- C. Raising the posted speed limit will cause an increase in the speed of traffic;
- D. Any posted speed limit must be safer than an un-posted speed limit; and
- E. Drivers will always go 5 mph over the posted speed limit.

### Intent of Speed Limits

The most widely accepted method by state and local agencies is to set the limit at or below the speed at which 85 percent of the traffic is moving. The 85<sup>th</sup> percentile speed is how drivers “vote with their feet.” Studies have shown crash rates are lowest at around the 85<sup>th</sup> percentile speed. Drivers traveling significantly faster OR slower than this speed are at a greater risk for being in a crash. It is not high speeds alone that relate to crash risk; it is the variation of speed within the traffic stream.



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## **How Speed Limits are Established**

According to the Federal Highway Administration, all states and most local agencies use the 85<sup>th</sup> percentile speed of free flowing traffic as the basic factor in establishing speed limits. The City of Fort Collins is no exception. However, the City does factor into the equation the number of pedestrians, bicyclists, and adjacent land uses prior to the establishment of a speed limit.

In the final analysis, it is the judgment of the traffic engineer that determines which, if any, of the factors in the speed study warrant an adjustment to the 85<sup>th</sup> percentile speeds. After all variables are considered and a speed limit is established, traffic should flow at a safe and efficient level.