

USLIMITS: Expert Speed Zoning Advisor



www.uslimits.com

The FHWA Speed Management Program is focused on developing and evaluating improved engineering methods for setting rational speed limits, reducing conflicts associated with large differences in travel speeds, and adapting travel speeds to desired levels.

USLIMITS is a web-based expert advisor system designed to assist practitioners in determining appropriate speed limits in speed zones. It turns the subjective decision making process of current speed zoning practice into an user-friendly, logical and objective approach for setting credible, safe and consistent speed limits. The benefits of USLIMITS are:

- Increased likelihood of similar roads zoned with similar speed limits
- Appropriate speed limits for road and traffic characteristics
- Consistent speed limits within states and between states
- Increased acceptance and compliance with speed limits by motorists
- Reduced spread in speeds leading to reduction in accidents
- Tool for educating the public and responding to concerns
- Supports integrity of enforcement
- All users benefit immediately from updates

USLIMITS is based on other expert speed zone Advisors, collectively known as XLIMITS, developed for many of the Australian state road authorities. USLIMITS is the next generation in this series specifically developed to be used over the Internet. The logic used in these past versions has been streamlined and revised to include elements of speed limit setting philosophy used in the United States such as posting in 5 mi/h multiples.

Data Input and Output

USLIMITS calculates the appropriate speed limit for a section of road through the consideration of the following information input by the practitioner:

- density of surrounding development (e.g. high density, low density, hamlet or rural);



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- frequency of roadside access (e.g. number of residential driveways, commercial, industrial, shopping, and special activity properties, and the number and type of intersecting roads);
- road function (e.g. traffic movement vs. access to abutting properties);
- road characteristics (e.g. paved width, divided or undivided, lane width and number of lanes, sight restrictions);
- freeway conditions and important high speed road characteristics (e.g. interchange spacing, AADT, shoulders);
- existing vehicle operating speeds;
- adjoining speed limits; and
- any special conditions that may exist on the road section (e.g. adverse alignment, pedestrian and roadside activities, high crash rates etc).

The output includes a recommended speed and concerns that might require further investigation.

USLIMITS is a web-based application currently in beta testing. The only requirements to run USLIMITS are a computer with a web browser and access to the Internet. To use the full functionality of USLIMITS, including the capability to save and revise projects, a username and password is required. However, anyone can trial USLIMITS by entering guest as the username and password. Guests cannot save projects or view the more detailed speed zoning report.

For More Information

For additional information about this effort or to set up an account to access USLIMITS, contact **Davey Warren, FHWA**, 202-366-4668, or send an Email to davey.warren@fhwa.dot.gov.

USLIMITS is the intellectual property of ARRB Transport Research. For more information about developing computer based expert systems for speed limit setting contact: **Michael Tziotos, ARRB Transport Research**, AUSTRALIA, Ph: 011+61 3 9881 1555, or Email to info@arrb.com.au.



Figure 1. One of the data input screens from the USLIMITS web application.

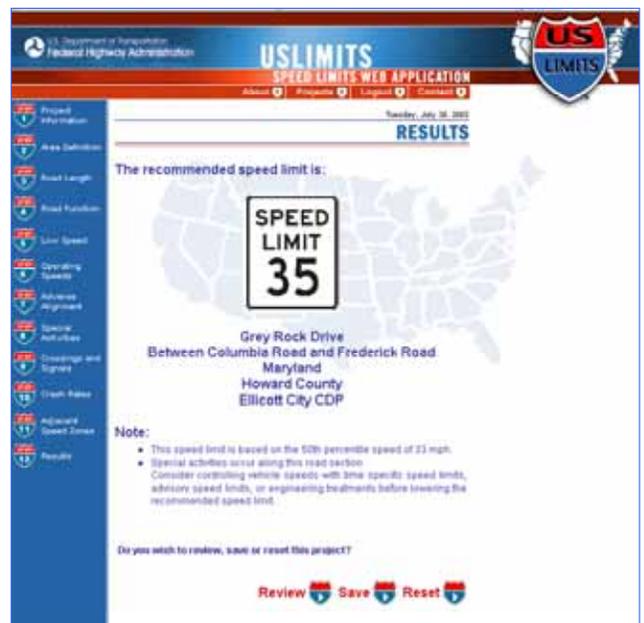


Figure 2. View of screen report produced by USLIMITS. A more detailed print document is also generated.

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