

# Reducing Speed Limits:

A Practical Approach to Creating Safer, More Welcoming Roads for Non-motorized Transportation in Kitsap County

# Reducing Speed Limits in Kitsap County

- Low cost
- Relatively Fast to Implement
- Immediate Safety Improvements for All Road Users
- Makes Roads Safer & More Welcoming to Pedestrians, Bicyclists, and Equestrians
- Makes use of road network that *already exists*: no new pavement required to make NM transport more inviting & safer
- Has Already Been Done (Central Valley Road, 2019)
- Can Be Done Comprehensively Throughout County ([as Seattle did in 2019](#))
- [Lowering speed limits alone = fewer crashes & slower speeds](#)

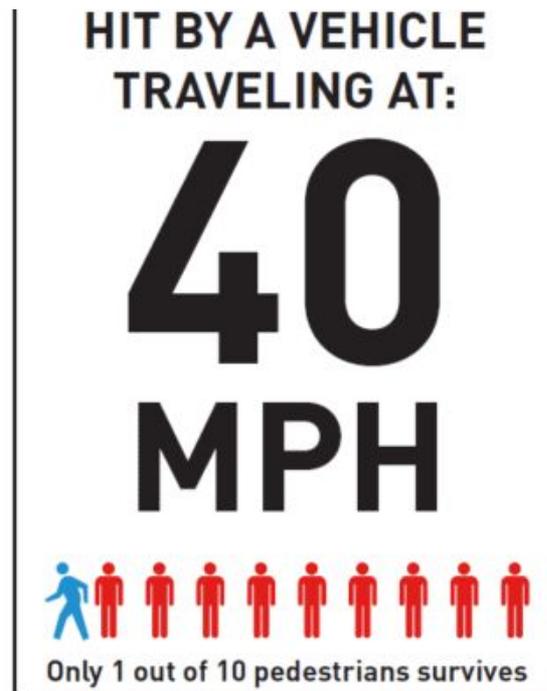
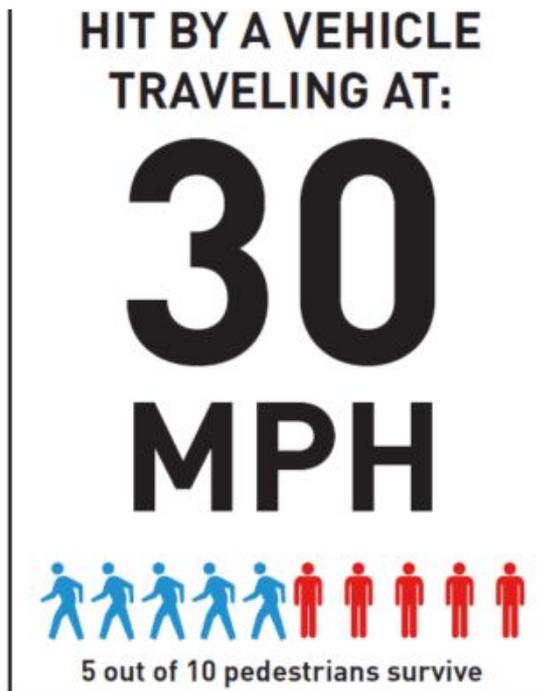
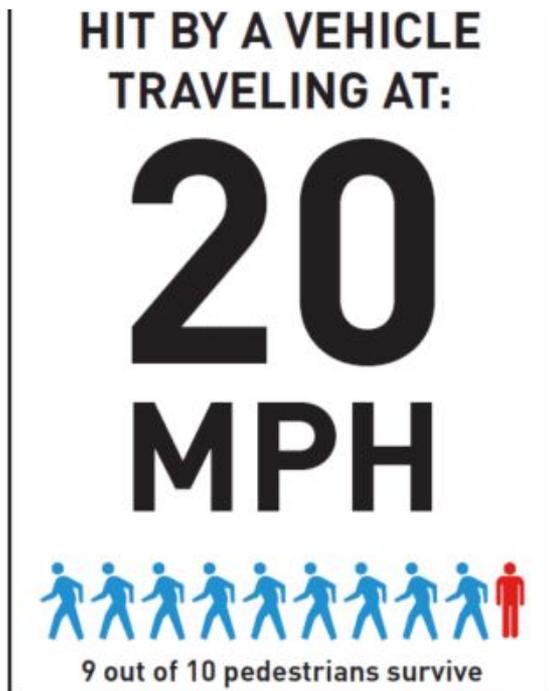
# Going Too Fast = More Crashes, Injuries, & Fatalities

<b>SPEED (MPH)</b>	<b>STOPPING DISTANCE (FT)*</b>	<b>CRASH RISK (%)†</b>	<b>FATALITY RISK (%)†</b>
<b>10–15</b>	<b>25</b>	<b>5</b>	<b>2</b>
<b>20–25</b>	<b>40</b>	<b>15</b>	<b>5</b>
<b>30–35</b>	<b>75</b>	<b>55</b>	<b>45</b>
<b>40+</b>	<b>118</b>	<b>90</b>	<b>85</b>

\* Stopping Distance includes perception, reaction, and braking times.

† Source: Traditional Neighborhood Development: Street Design Guidelines (1999), ITE Transportation Planning Council Committee 5P-8.

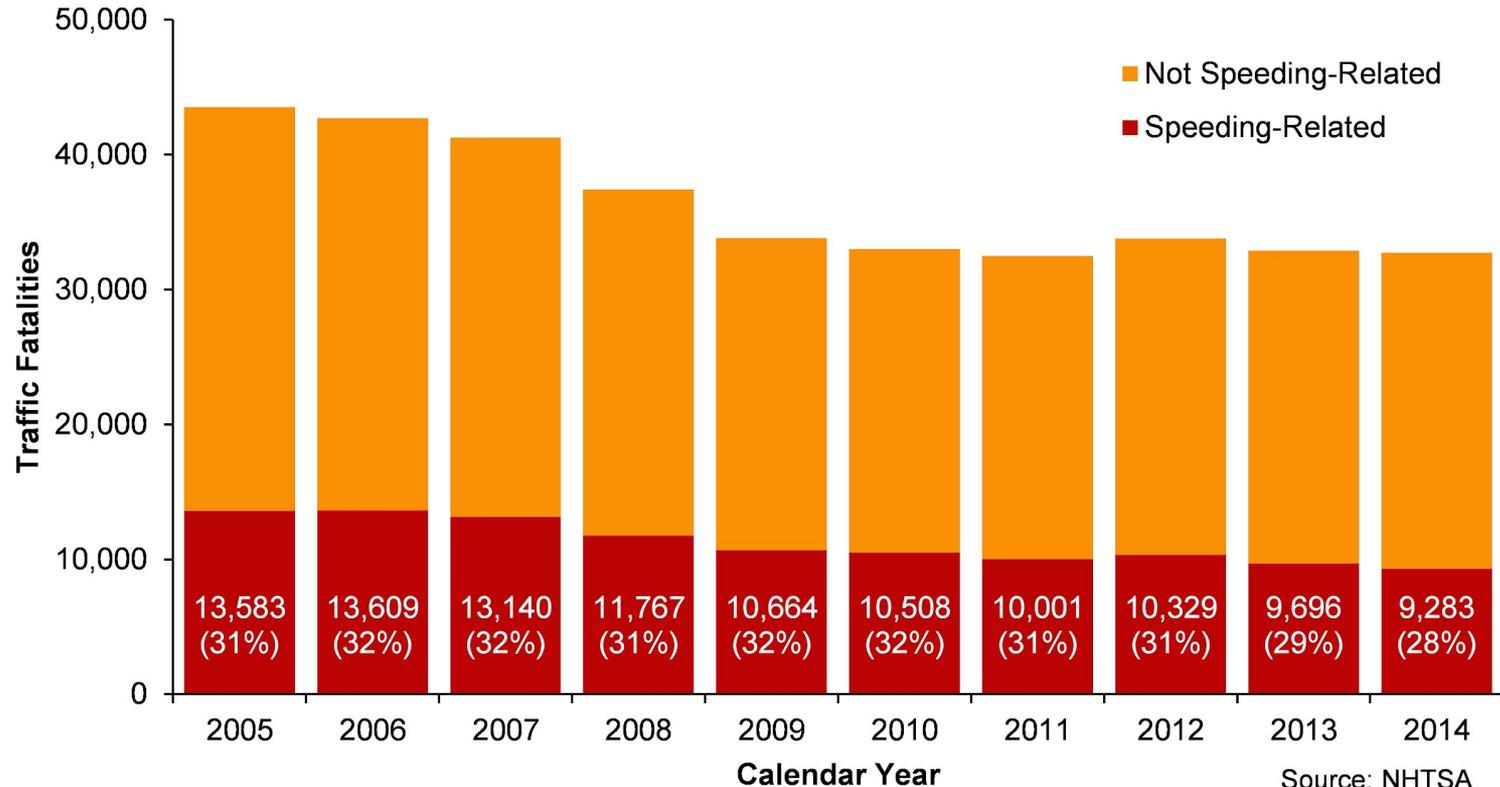
As speed increases, risk of death increases exponentially



--From Seattle Dept. of Transportation,

<https://sdotblog.seattle.gov/2016/11/07/your-new-vision-zero-speed-limits/>

# Speeding accounts for an increasing share of traffic fatalities



Source: NHTSA

<https://www.nts.gov/news/events/Pages/2017-DCA15SS002.aspx>

# Going Too Fast = Unsafe & Unwelcoming Environment

<https://nacto.org/publication/urban-street-design-guide/design-controls/design-speed/>



**Motorist's  
Peripheral  
Vision**



Which speed is  
Safer & more  
Welcoming for  
Pedestrians &  
Bicyclists?

# You Get What You Design For

Traditional ways of designing roads and setting speed limits encourage higher, unsafe speeds.

--Wide Lanes (12" +)

--Speed Limits made by the 85th% Rule

## Speed Concepts: Informational Guide



Publication No. FHWA-SA-10-001



# The 85th% Rule Results in Speeding

***“Raising speed limits to match the 85th percentile speed can result in unintended consequences. It may lead to higher operating speeds, and thus a higher 85th percentile speed.”***

--Reducing Speeding-Related Crashes Involving Passenger Vehicles,  
NTSB/SS-17/01, July 25, 2017, National Transportation Safety Board, p. X,  
<https://www.nts.gov/safety/safety-studies/Documents/SS1701.pdf>

# The 85th% Rule is Not the Only (or Best) Way to Set Speed Limits

***“...there is not strong evidence that the 85th percentile speed within a given traffic flow equates to the speed with the lowest crash involvement rate for all road types. Alternative approaches and expert systems for setting speed limits are available, which incorporate factors such as crash history and the presence of vulnerable road users such as pedestrians.*”**

--Reducing Speeding-Related Crashes Involving Passenger Vehicles, NTSB/SS-17/01, July 25, 2017, National Transportation Safety Board, p. X, <https://www.nts.gov/safety/safety-studies/Documents/SS1701.pdf>

# What is a “Safe Systems” approach?

*“The Safe System approach differs from conventional safety practice by being human-centered, i.e. seeking safety through a more aggressive use of vehicle or roadway design and operational changes rather than relying primarily on behavioral changes – and by fully integrating the needs of all users (pedestrians, bicyclists, older, younger, disabled, etc.) of the transportation system.”*

--From Institute of Transportation Engineers, “Safe System Explanation,” <https://www.ite.org/technical-resources/topics/safe-systems/>

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*“Wait, what? Just lowering speed limits slows cars and reduces crashes?”*

Yes. This is one of the major findings of a [controlled study by Seattle DOT in July 2020](#).

Simply lowering speed limits and installing more speed limit signs:

- Reduces traffic speed
- Reduces crashes



# Strategy for a Comprehensive Speed Limit Reduction in Kitsap

- Reducing motorists' speed needs to be a high priority for KC PW. Lowering speed limits is an essential part of shaping norms of motorist behavior.
- Need a process for evaluating speed limits on KC roads that uses a “Safe Systems” approach, instead of relying primarily on an 85th %ile approach
- Need a strategy for reducing speed limits throughout KC:
  - Urban Growth Areas
  - Rural Areas
  - “In between” Areas that are neither “Urban” or “Rural”
- Need to learn from professional organizations (ITE, NACTO) and from cities (Seattle) that have done this.

# Other means to reduce motorist speed...

- Lowering speed limits is not the only way to slow traffic.
- KC road design should imply and encourage slower speeds:
  - Narrowing lane widths when resurfacing (or when re-stripping?)
  - Adopting more roundabouts at intersections,
  - Installing more traffic calming features (eg. speed humps, chicanes, etc.)
- KC should install more “Your Speed Is” signs that give feedback to motorists
- KC should study the feasibility of Automated Speed Enforcement, so that enforcement of speed limits is more common and systematic (not random)

# How to Evaluate Current Speed Limits?

## How to Decide If and How Much to Reduce Them?

Process is iterative and mutually responsive between Speed Limit Working Group, NMC, and PW. Speed Limit Working Group:

- Takes input from NMC and PW on these questions
- Comes up with a rubric for evaluating the speed limit on road segments
- Reports back to NMC and PW on the proposed rubric & receives feedback from NMC and PW
- Working Group evaluates speed limits on road segments based on rubric
- Working Group reports recommendations for speed limits to NMC and PW
- NMC makes recommendations to PW and Commissioners

# Possible Rubric Questions...

- What is the road segment? Where does it start and end?
- What is the existing speed limit for the road segment?
- Is the road segment in a UGA? Rural? “In between”?
- What are the Average Daily Trips for the road segment?
- What is the average actual traffic speed on the road segment?
- What is the crash history on the road segment?
- How many and how frequent are driveway and side street intersections?
- What is the character of the neighborhood around the road segment?
- How much do pedestrians, bicyclists, and equestrians use the road segment?
- What is the “NM potential” of a given road if traffic speeds were lower?
- How close to public amenities (schools, shops, transit) is the road segment?
- Is road segment a NM route? ....Other questions????

# The Speed Limits Working Group asks the NMC...

We ask for the NMC to grant the Speed Limits Working Group the task of:

1. Coming up with a rubric for evaluating current speed limits on KC roads,
2. Making proposal to the NMC on reducing speed limits on KC road segments that meet criteria for speed limit reduction.