WA Traffic Safety Summit

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Developing Policies for Setting Posted Speed Limits

WASHINGTON STATE APPLICATIONS

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WHERE WE'VE COME FROM AND WHERE WE ARE GOING

Washington State RCW Guidelines

RCW 46.61.400 – Basic Rules

(a) Twenty-five miles per hour on city and town streets;

(b) Fifty miles per hour on county roads;

RCW 46.61.415 – Local Authorities

" …jurisdictions shall determine by an engineering and traffic investigation the proper maximum speed…"

(a) Decreases the limit at intersections; or

(b) Increases the limit but not to more than 60 miles per hour; or

(c) Decreases the limit but not to less than 20 miles per hour.

Upcoming additions/changes:

Shared Streets legislation allowing for 10 mph speed limits on shared streets effective as of July 27, 2025

Developing a Policy to fit the needs

Establish the approach:

- ***Engineering:*** Design Speed, Prevailing Speed, 85th Percentile
- ***Expert Approach:*** Adds Contextually Sensitive Factors
- ***Safe System:*** Target Speeds, Focus on Vulnerable Road Users

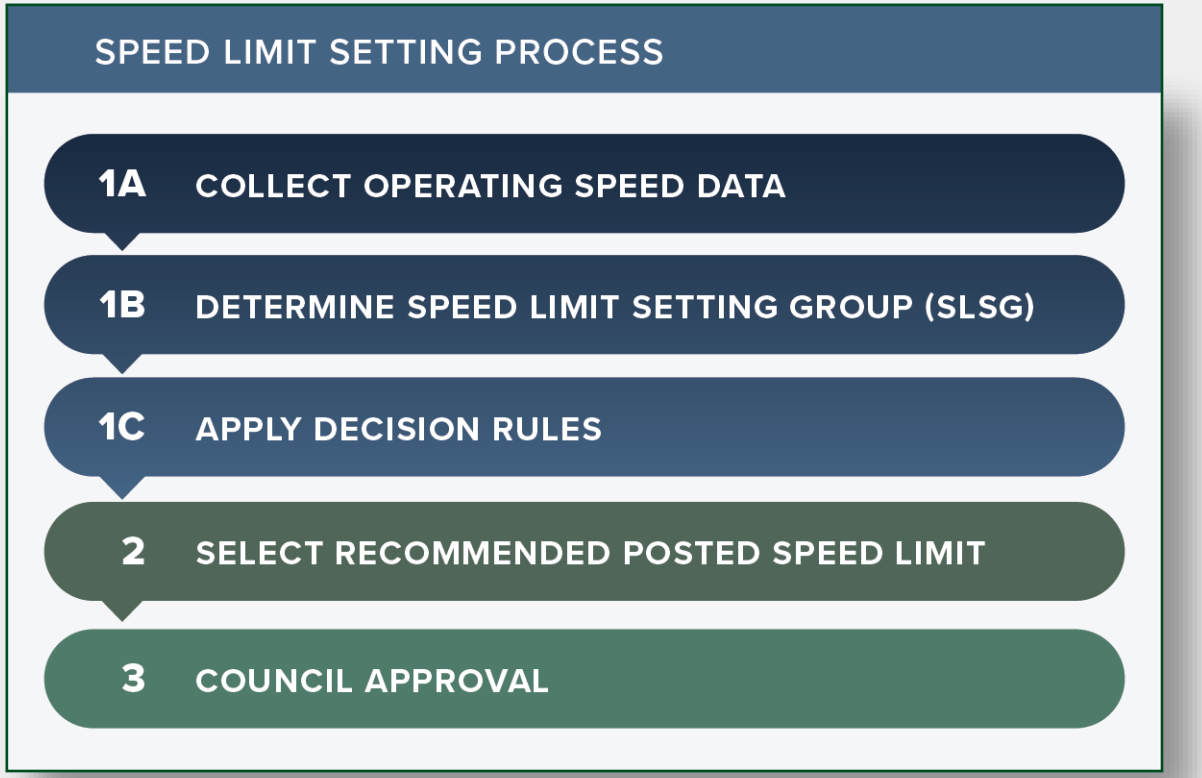
Establish the process:

- A decision-rule process for speed limit setting to promote **consistent, appropriate** and safer driving speeds citywide.

- Aimed at better protecting transportation network users and improving traffic safety.

Expert Approach: NCHRP 966

- **Identify Factors / Data Needs**
  - Operating Speeds
  - Roadway Context
    - Lanes, Access Points, Ped/Bike Activity, Crash History
  - Roadway Classification
- **Guide Informed Decisions**
  - Decision Matrix
- **Result: Suggested Speed Limit**
  - Support Engineering Process



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POLICY DEVELOPMENTS IN WASHINGTON

1. Island County
2. City of Kirkland
3. City of Everett

Developing Roadway Context Groups

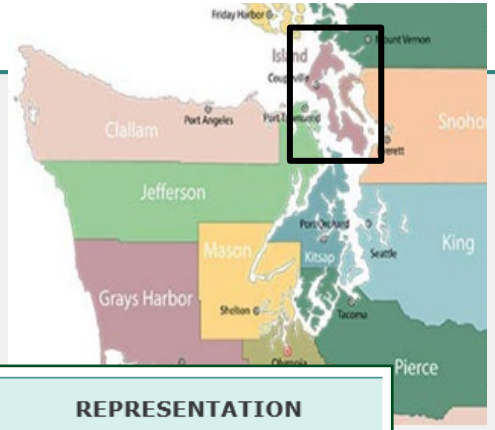
Using the framework developed in the NCHRP 966 Report

Ensuring the context fits the needs of the Agency

Roadway Context	Example	Density	Land Use	Setback
Rural:		Lowest (few houses or other structures)	Agricultural, natural resource preservation, and outdoor recreation uses with some isolated residential and commercial uses	Usually large setbacks
Rural Town:		Low to medium (single family houses and other single-purpose structures)	Primarily commercial uses along a main street (some adjacent single-family residential uses)	On-street parking and sidewalks with predominantly small setbacks
Suburban:		Low to medium (single and multifamily structures and multistory commercial)	Mixed residential neighborhood and commercial clusters (including town centers, commercial corridors, big-box commercial, and light industrial uses)	Varied setbacks with some sidewalks and mostly off-street parking
Urban:		High (multistory, low-rise structures with designated off-street parking)	Mixed residential and commercial uses, with some intuitional and industrial uses, and prominent destinations	On-street parking and sidewalks with mixed setbacks
Urban Core:		Highest (multistory and high-rise structures)	Mixed commercial, residential, and institutional uses within and among predominantly high-rise structures	Small setbacks with sidewalks and pedestrian plazas

Island County

Determining what fit best for the rural nature



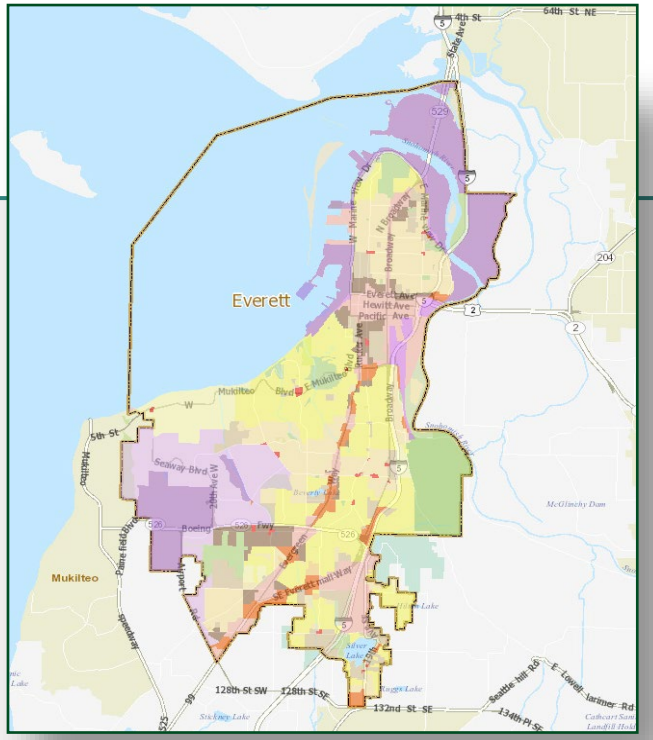
ROADWAY CONTEXT	DENSITY	LAND USE / STRUCTURES	SETBACK FROM ROADWAY	REPRESENTATION
RURAL	Lowest (few houses or other structures) *Fewer than 5 structures per mile*	Agricultural, natural resource preservation, and outdoor recreation uses with some isolated residential and commercial~~Few houses or other structures~~	Usually large setbacks~~Large~~ *Setbacks greater than 80 ft*	
RURAL TOWN	Low to medium (single-family houses and other single-purpose structures)~~Low~~ *Fewer than 30 structures per mile*	Primarily commercial uses along a main street (some adjacent single-family residential)~~Diverse/ Commercial main street~~	On-street parking and sidewalks with predominately small setbacks~~Small; On-street parking; Sidewalks~~ *Setbacks less than 30 ft*	
SUBURBAN	Low to medium (single- and multifamily structures and multistory commercial)~~Medium~~ *Fewer than 30 structures per mile*	Mixed residential neighborhood and commercial clusters (includes town centers, commercial corridors, big box commercial, and light industrial)~~Residential, commercial, mixed~~	Varied setbacks with some sidewalks and mostly off-street parking~~Varied~~ *Setbacks 30-80 ft*	
URBAN	High (multistory, low-rise structures with	Mixed residential and commercial uses, with some institutional and	On-street parking and sidewalks with	

Specific to Island County

ROADWAY CONTEXT	DENSITY	LAND USE / STRUCTURES	SETBACK FROM ROADWAY	REPRESENTATION
RURAL	Zero (0) – One (1) address point per One (1) Acre	Agricultural, natural resource preservation, and outdoor recreation uses with some isolated residential and seasonal/ temporary commercial	Setbacks greater than 80 ft	
DENSE RURAL RESIDENTIAL	Include RAIDS see ICC 17.03.290 Appendix A, or Two (2) or more address points	Residential with some isolated commercial	Varied setbacks	
RURAL TOWN	May include all the above parameters within a designated area	Mixed use with a larger percentage of commercial	On-street parking and sidewalks with mostly small setbacks (less than 30 ft)	

City of Everett Using Land Use Designation

Land Use Designation	Description
Residential, Single Family / Residential, Multifamily	Areas presently developed with predominantly single-family dwellings that the City intends to preserve as primarily single family neighborhoods. Home ownership of single family homes, either attached or detached, is predominant in the area. Areas near public transit facilities or along transit corridors, near employment areas, or between higher intensity uses, such as commercial or industrial development to provide a buffer for single family neighborhoods.
Metropolitan Center	Designated metropolitan center, aka "Metro Everett", which has a subarea plan guiding future development. Expansion of the metropolitan center must include an amendment of the Metro Everett Subarea Plan
Commercial Mixed-Use	Areas that have historically been used for retail, entertainment, office/service use, and business serving food and beverage. The designation may also apply to new areas, provided that the change in land use is market driven and not purely speculative.
Industrial	Large tracts in areas that include manufacturing, warehouse and other industrial activities



Using Land Use Designation

NCHRP Roadway Context	Land Use Designation in Everett Comp Plan		
Rural (Omitted)	Did not fit Everett Development		
Rural Town (Omitted)	Did not fit Everett Development		
Suburban	Residential (Single Family, Multifamily)	Single-family detached residential, medium to low density. Areas near public transit facilities or along transit corridors, near employment areas, or between higher intensity uses, such as commercial or industrial development to provide a buffer for single family neighborhoods	
Urban	Commercial Mixed -Use	Limited -scale retail, personal service businesses, can be accessed by nonmotorized transportation. Allows higher density residential uses.	
Urban Core	Metropolitan Center	Downtown city core, providing local and regional services. Intensive mixed-use development in areas around high -capacity transit stops, pedestrian development friendly. Multiple - family residential use at high densities. Additional neighborhood oriented commercial uses when developed in a mixes use context.	
Consider Adding NEW Industrial	Industrial	Light industrial and manufacturing. Campus style office and industrial park development. Heavy manufacturing. Marine related commerce. Single or multiple tenant business park for non -retail business.	

NCHRP 966 Tailoring Contextual Factors

- Using the framework developed in the NCHRP 966 Report

- Ensuring the factors fit the needs of the Agency

the roadway characteristics and crash potential for the segment are used to identify the speed distribution that should be considered and whether the closest 5-mph increment value or a rounded-down 5-mph increment value should be used.

Variable	Rounded-Down 50th (RD50)	Closest 50th (C50)
Signal density	> 8 signals/mile	≤ 8 signals/mile
Access density	> 60 driveways/unsignalized intersections per mile	≤ 60 driveways/unsignalized intersections per mile
Bicyclist activity – in motor vehicle lane, shoulder, or non-separated bike lane	High	Not high
Bicyclist activity – in separated bike lane	High	Not high
Sidewalk presence/width (none, narrow, adequate, or wide), sidewalk buffer (present or not present), and pedestrian activity (high, some, or negligible)	See Table 10	See Table 10
On-street parking activity	High	Not high
On-street parking type	Angle parking present for 40 percent or more of section	• No parking present • Angle parking present for less than 40 percent of section
KABCO or KABC crash rate	High or Medium	Low

Vulnerable Road User Goals

Provide a safer transportation network for bicycle users

Variable	Rounded Down 50th (RD50)	
Signal Density	>8 signals/mile	
Access Density	>60 driveways and/or unsignalized intersections per mile	
~~**Bicyclist Activity**~~ **Bicycle Level of Traffic Stress** ~~in motor vehicle lane, shoulder, or non-separated bike lane~~	BLTS 2 or 3 or 4	
~~**Bicyclist Activity** in separated bike lane~~	~~BLTS 2~~	
Pedestrian Activity (high, some, or negligible) **Sidewalk P** (none, narrow, sidewalk buffer (present or not present))	See Table 6: Decision Matrix for ce/Width, and Pedestrian tions for SLSG A.	
On-Street Parking Availability	High	
On-street Parking Type	Angle parking present for 40% or more of segment	segment
Crash Rate	High or Medium	Low

Specific to Kirkland

Variable	Rounded Down 50th (RD50)	Closest 50th (C50)
Signal Density	>8 signals/mile	≤8 signals/ mile
Access Density	>60 driveways and/or unsignalized intersections per mile	≤60 driveways and/or unsignalized intersections per mile
Bicycle Level of Traffic Stress	BLTS 2 or 3 or 4	BLTS 1
Pedestrian Activity (high, some, or negligible) and **Sidewalk Presence / Width** (none, narrow, adequate or wide), sidewalk buffer (present or not present))	See Table 6: Decision Matrix for Sidewalk Presence/Width, Sidewalk Buffer, and Pedestrian Activity combinations for SLSG A.	See Table 6: Decision Matrix for Sidewalk Presence/Width, Sidewalk Buffer, and Pedestrian Activity combinations for SLSG A.
On-Street Parking Availability	High	Some or no parking
On-street Parking Type	Angle parking present for 40% or more of segment	• No Parking present • <40% of the segment
Crash Rate	High or Medium	Low

Speed Limit Setting Groups

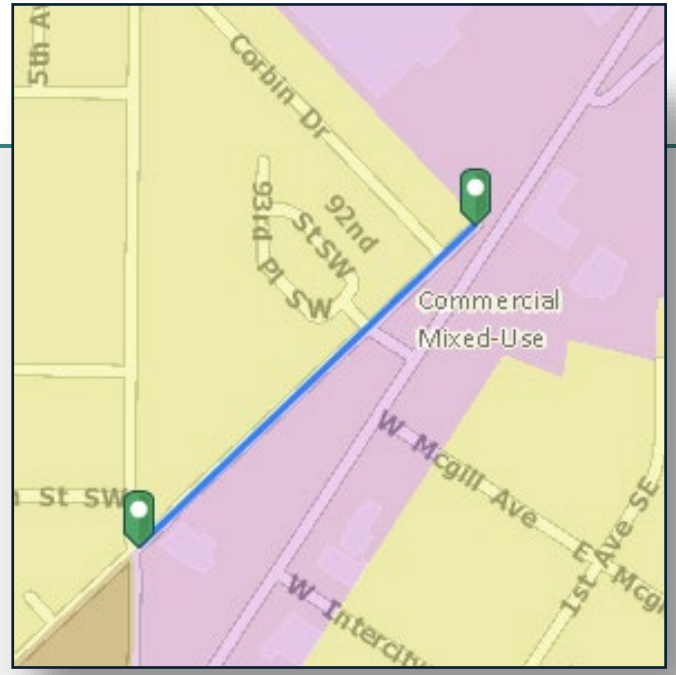
Roadway Context and Type

- **Determine a Speed Limit Setting Group most appropriate.**
  - **Group A:** Vulnerable Road User Focused – Speed limits based on the 50th percentile, high contextual factors like signal density, sidewalks, and crash risks.
  - **Group B:** Mixed Use or transitional areas, balances vulnerable road users and vehicle mobility using both 50th and 85th percentile speeds depending on infrastructure and activity levels.
  - **Group C:** Higher-speed industrial or arterial roadways – limited vulnerable road user interaction. Primarily vehicle operating conditions, roadway width, and crash history.

Roadway type	Metropolitan center	Commercial mixed-use	Residential - single family, multifamily	Industrial
Major arterial	A	B	C	C
Secondary arterial	A	B	C	C
Collector arterial	A	A	B	C
Local street	A	A	B	B

TURNING GUIDELINES INTO ACTION

Application Steps



Roadway Context – Commercial Mixed-Use

Roadway Type – Collector Arterial

Collect Contextual Data

Roadway type	Metropolitan center	Commercial mixed-use	Residential - single family, multifamily	Industrial
Major arterial	A	B	C	C
Secondary arterial	A	B	C	C
Collector arterial	A	A	B	C
Local street	A	A	B	B

Application Steps

Collected operating speed data

- 50th percentile speed = 26.2 miles per hour
- 85th percentile speed = 31.6 miles per hour

Calculate Contextual Factor Densities

- Signal density = 1
- Access density = 29 access points length of segment
- Number of lanes and median type = fewer than four lanes with any median type.
- **Bicycle activity = high presence**
- **Sidewalk presence and width, sidewalk buffer, and pedestrian activity = high, adequate, no buffer**
- On-street parking = negligible
- On-street parking type = none
- **Crash rate (*Societal crash cost per mile) = medium**

Variable	RD50	C50
Signal density	7.01+ signals per mile	0 – 7 signals per mile ✓
Access density	50+ driveways/unsignalized intersections per mile	0 - 50 driveways/ unsignalized intersections per mile ✓
Bicycle activity in motor vehicle lanes, shoulder or non-separated bike lane	High presence or some presence	Negligible ✓
Bicycle activity in separated bike lane	High presence or some presence ✓	Negligible
Sidewalk presence and width, sidewalk, and pedestrian activity	See **Table 7:** Speed limit setting Group A - Decision matrix for sidewalks and pedestrians ✓	See **Table 7:**Speed limit setting Group A - Decision matrix for sidewalks and pedestrians
On-street parking	High or some	Negligible ✓
On-street parking type	Angle parking present for 40 percent or more of the segment	• No parking present. • Angle parking for < 40 percent of segment.
Crash rate (*societal crash cost per mile)	High or medium ✓	Low

>: Greater than | ≥: Greater than or equal to | <: less Than | ≤: Less than or equal to

Process Results

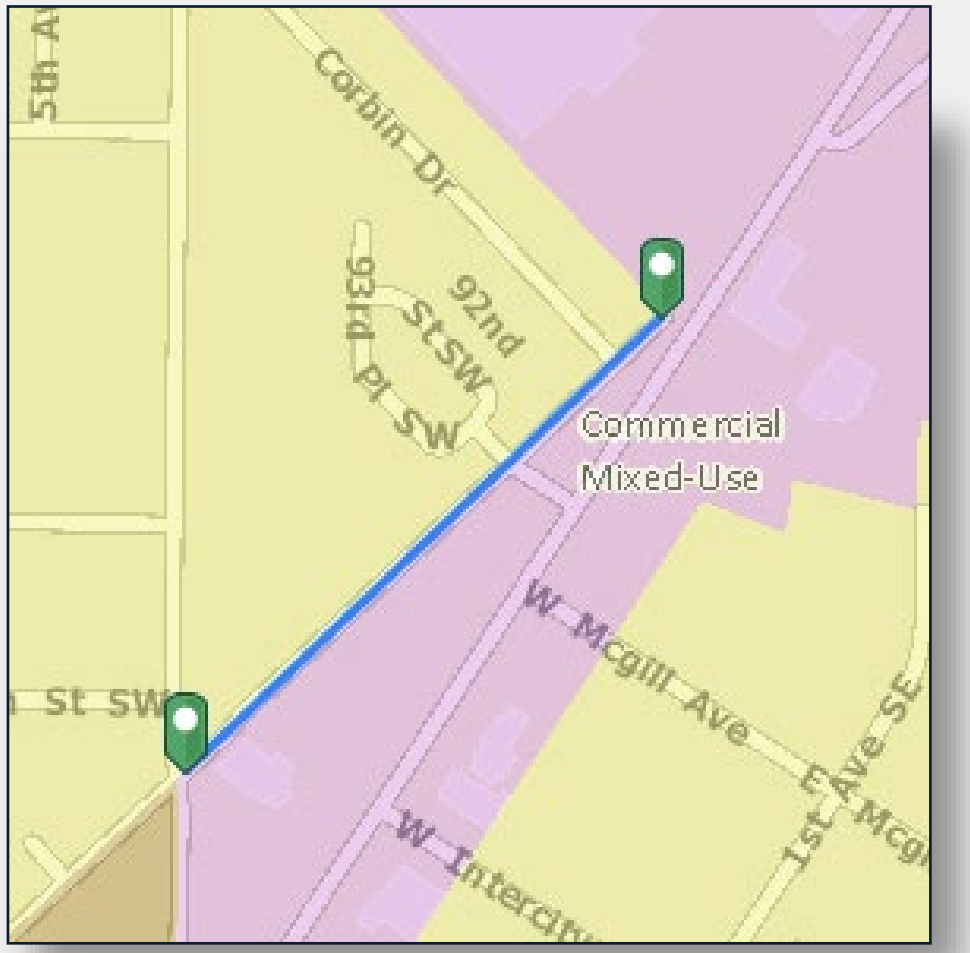
Suggested Posted Speed Limit:

- Rounded Down 50th Percentile

Collected operating speed data

- 50th percentile speed = 26.2 miles per hour

Suggested Posted Speed Limit = 25 miles per hour



Moving to Action

Suggested Speed Limit → Engineering Judgement → Recommended Posted Speed Limit → Collaborate with Leadership, Board → Approved Posted Speed Limit Changes

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What Can You Do?

Conduct Data Gathering

- Inventory existing speed limits

Review existing policy and process

- Develop a Consistent, Data Driven Policy

Perform Speed Study Evaluations

- Prioritize corridors

Provide transparency in the decision -making process

- Present to Elected Bodies
- Provide community input events

Thank you

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