

Traffic Operations Committee

May 31, 2024

Lead by Peter Corelis
City Engineer, Public Works Dept.
City of Bainbridge Island

Agenda

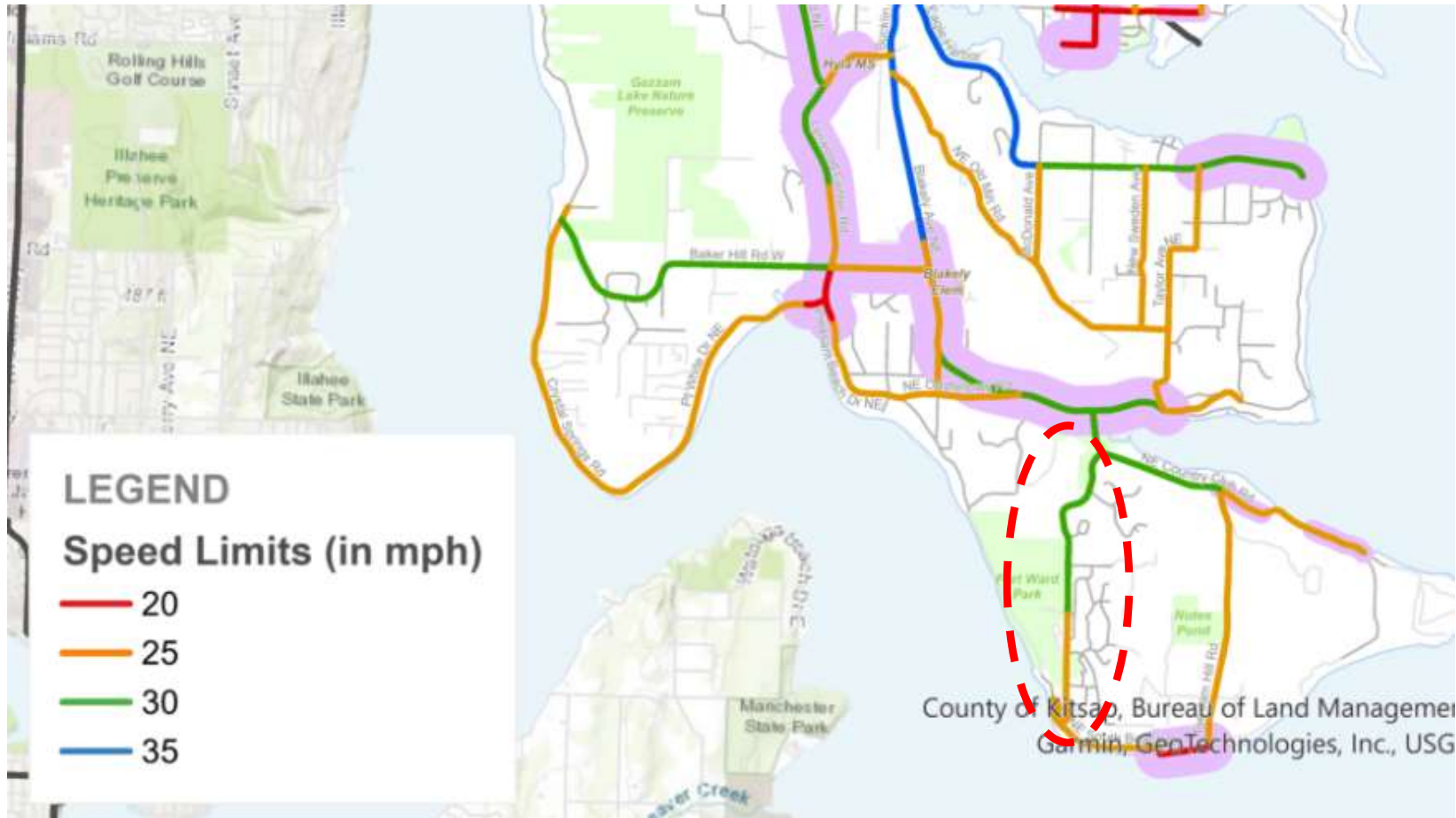
1. FORT WARD HILL SPEEDING – 15 MINUTES
2. KOURA ROAD SPEEDING – 10 MINUTES
3. TRAFFIC CONTROL ENFORCEMENT VIA ORDINANCE – 10 MINUTES

1. Fort Ward Hill Speeding

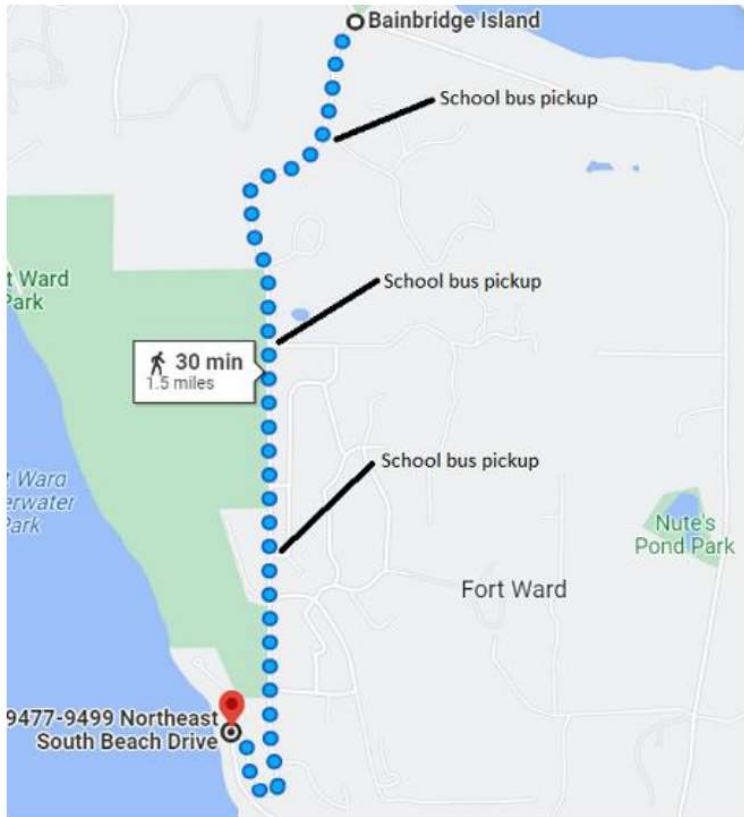
Initiated through resident request to Council concerned with:

- Excessive speeding and reckless driving
- Danger to children waiting at bus stops
- Speeders disregard for pedestrians and cyclists
- Impact of School of Regenerative Design development
- Request for speed bumps and stop signs at Fort Ward Hill at Kitsap Street and Fort Ward Park entrance

Site Vicinity Map and Current Speed Limits



Fort Ward Hill Sites



Fort Ward Hill Sites



School bus pickup area #3 – Olympic Dr

Programmatic Speed Limit Evaluation

transpogroup 
WHAT TRANSPORTATION CAN BE.

PROGRAMMATIC EVALUATION *of Posted Speed Limits*

City of Bainbridge Island
September 2022









Speed Setting Database – Fort Ward Hill

Roadway Context Data Inputs					Multimodal / Safety Index Inputs						
ADT	Roadway Geometry Issues (Vertical or Horizontal Curves)	Neighboring Land Uses	Located in Urban Area	Intersection / Driveway Density	Sidewalk Present	Bicycle Stress Level	Future Off-Street/Full Protected Bike Facility	Collision Rate (per MVM)	Serious or Fatal Collision	On-Street Parking Present	Multimodal/ Safety Index Points
1660	Yes - horizontal curves	Forest, Residential	No	Medium	No	3	No	0.37	0	No	0

Roadway Name	Existing Roadway Characteristics		Scoring Criteria Outputs				Speed Increase? (if yes, -5 MPH)	More than 5 MPH Change? (if yes, +5 MPH)	Final Proposed Speed Limit
	Existing Speed Limit	Segment Length (mi)	Multimodal/Safety Index Score	Roadway Context Score	New Proposed Speed Limit	Speed Change from Existing			
Fort Ward Hill Rd NE (NE South Beach Dr to NE Country Club Rd)	30	1.5	3	B	30	0	No	No	30

PROPOSED PROGRAMMATIC SPEED LIMIT SETTING METHODOLOGY

		Roadway Context		
		A 	B 	C 
Multimodal Safety Index	1 	SPEED 20	SPEED 25	SPEED 25
	2 	SPEED 25	SPEED 25	SPEED 30
	3 	SPEED 25	SPEED 30	SPEED 35

Multimodal / Safety Index

- History of safety issues
- Ped/bike activity

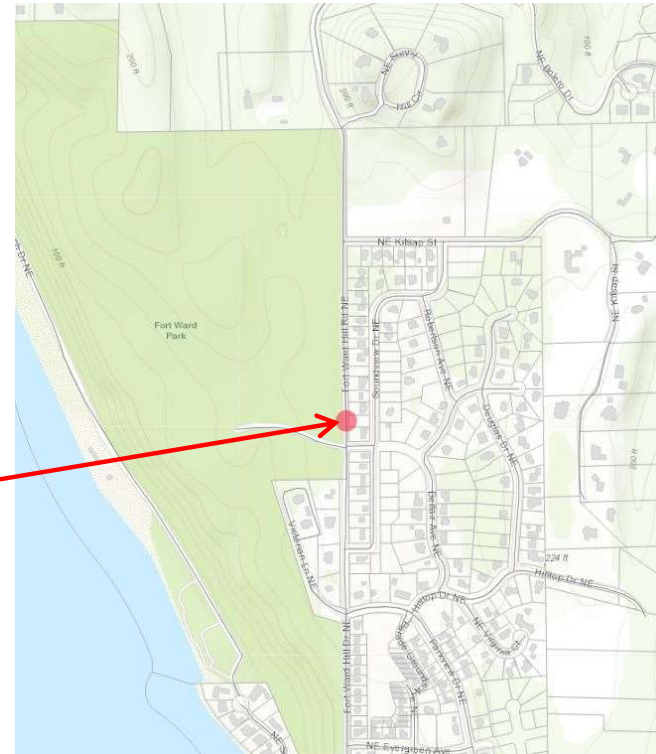
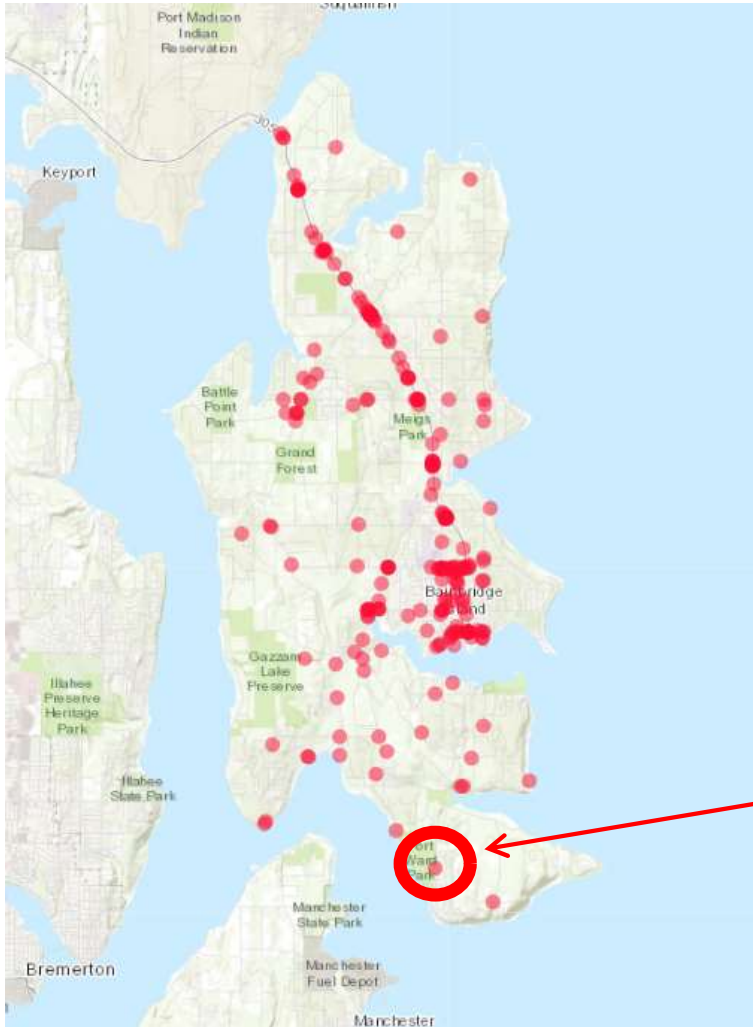
Roadway Context*

- Adjoining land uses, urban/rural character
- Roadway geometrics and topography
- Driveway density and intersection spacing

**Arterials & Collectors Only*

Accident Data

- 1 reported crash since 2019
- Crash rate = 0.37 collisions per MVM
- Single-vehicle crash at Fort Ward Park entrance



Traffic Counts/BIPD Speed Trailer (2023)

- Count location: Fort Ward Hill at **Evergreen**
- Speed limit: 25 MPH
- Data collection date: 2/6/2023
- Average Daily Trips (ADT) : 281
- 85th Percentile Speed: 29 MPH
- Maximum Speed: 35 MPH

Traffic Counts – Independent Consultant (2021)

- Count location: Fort Ward Hill (3 locations)
- Average Daily Trips (ADT) : 1660/1532 ADT
- 85th Percentile Speed: 35 MPH in 30 Zones

Traffic Counts – Independent Consultant (2019)

- Count location: Fort Ward Hill between Kitsap and Sunny Hill Circle
- Average Daily Trips (ADT) : 1691 ADT
- 85th Percentile Speed: 35.4 MPH in 30 Zone

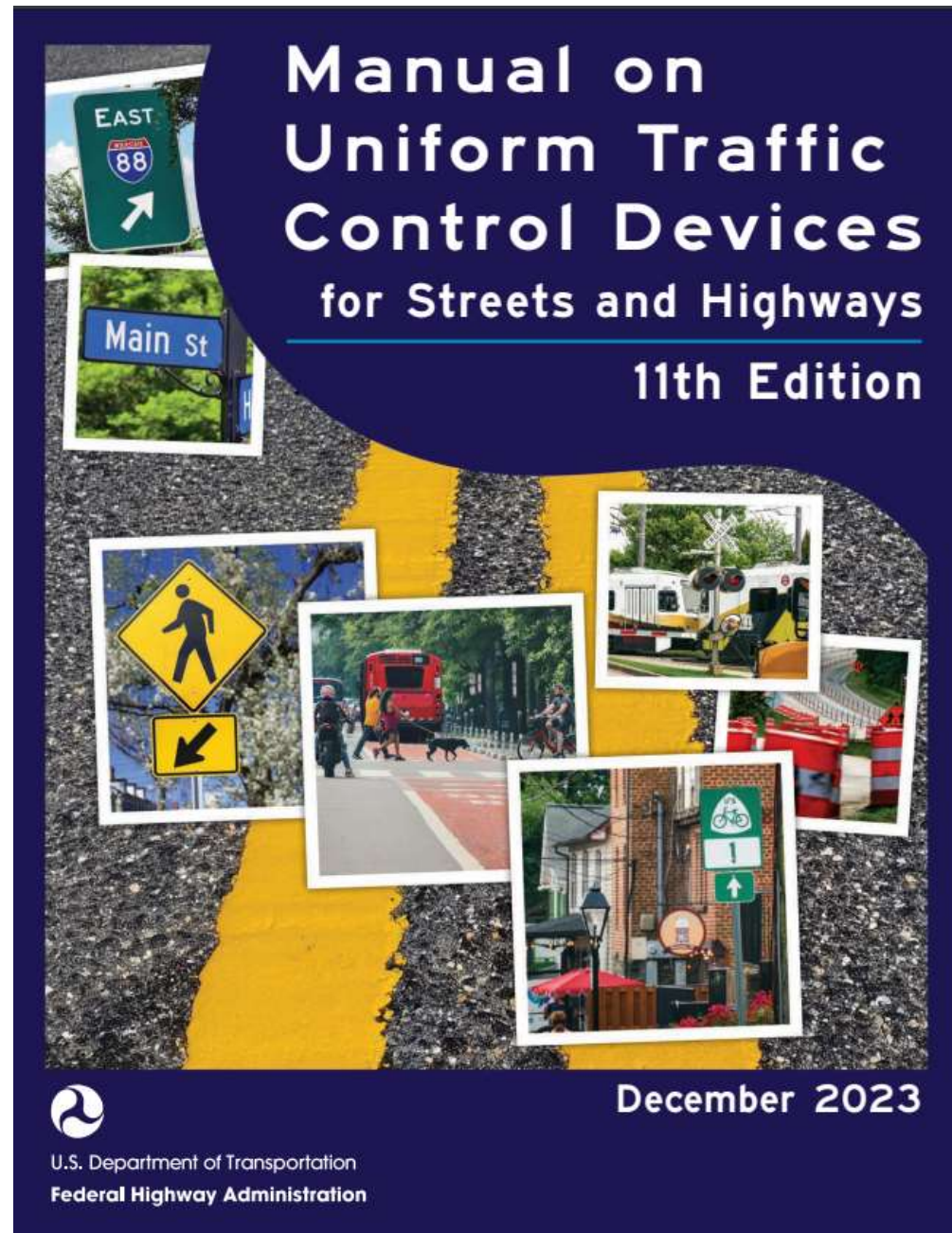


STOP Sign Use

MUTCD, 11th edition, Section 2B.06 (page 75) states:

*“Standard:
YIELD or STOP signs shall not be
used for speed control.”*

STOP sign purpose is for
intersection right-of-way control.



STOP Sign Warrants

Stop sign use must be substantiated with an engineering study demonstrating one of several warrants are met, including, but not limited to:

- 300 vehicles per hour for each of 8 hours
 - (average of ~200 vph observed)
- Crash experience
- Inability of vehicles to make turns safely due to sight distance

2. Koura Road Speeding



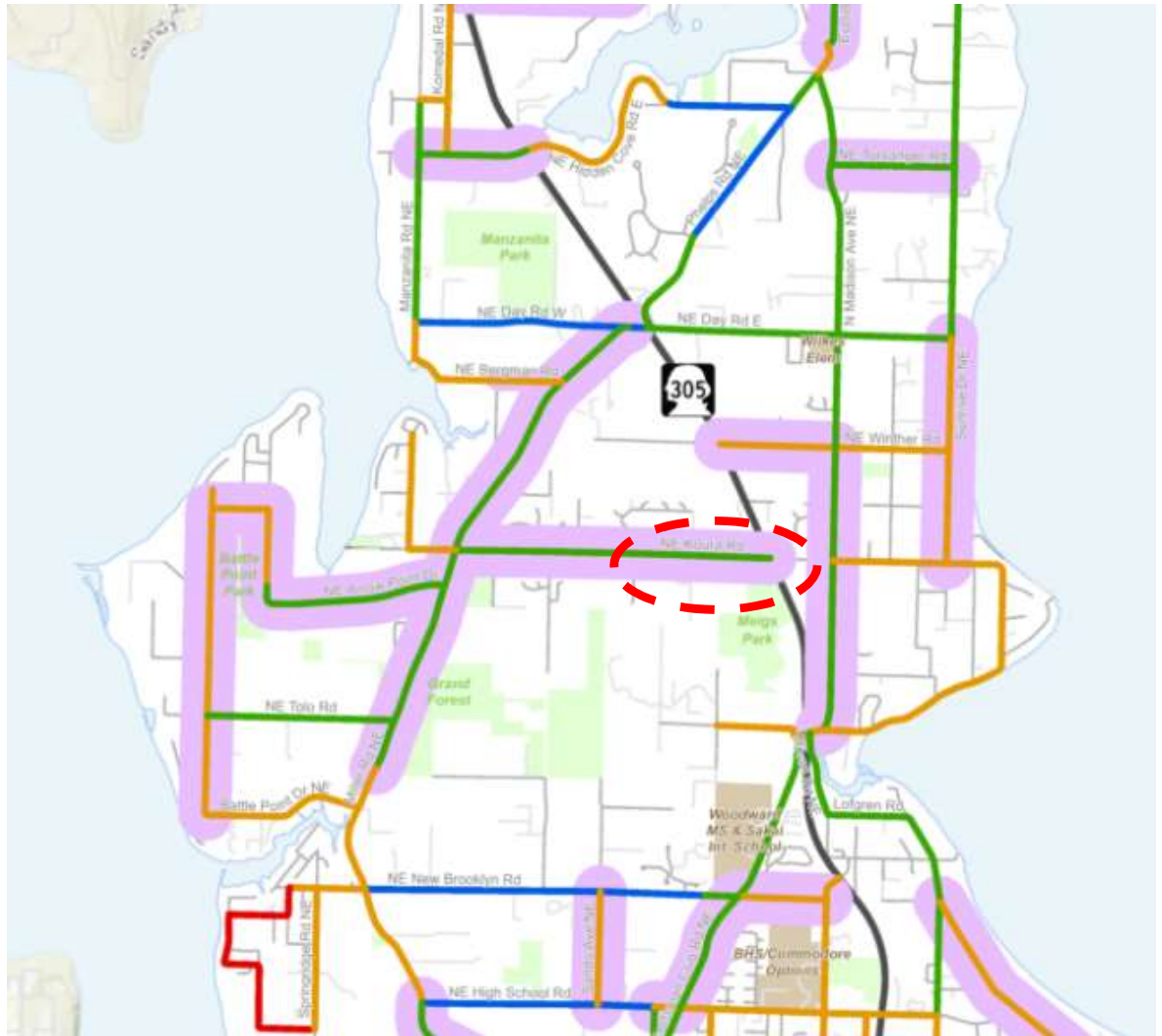
Vicinity Map and Current Speed Limits

Speed limit lowered on Koura Road in 2023 to 30 MPH

LEGEND

Speed Limits (in mph)

- 20
- 25
- 30
- 35

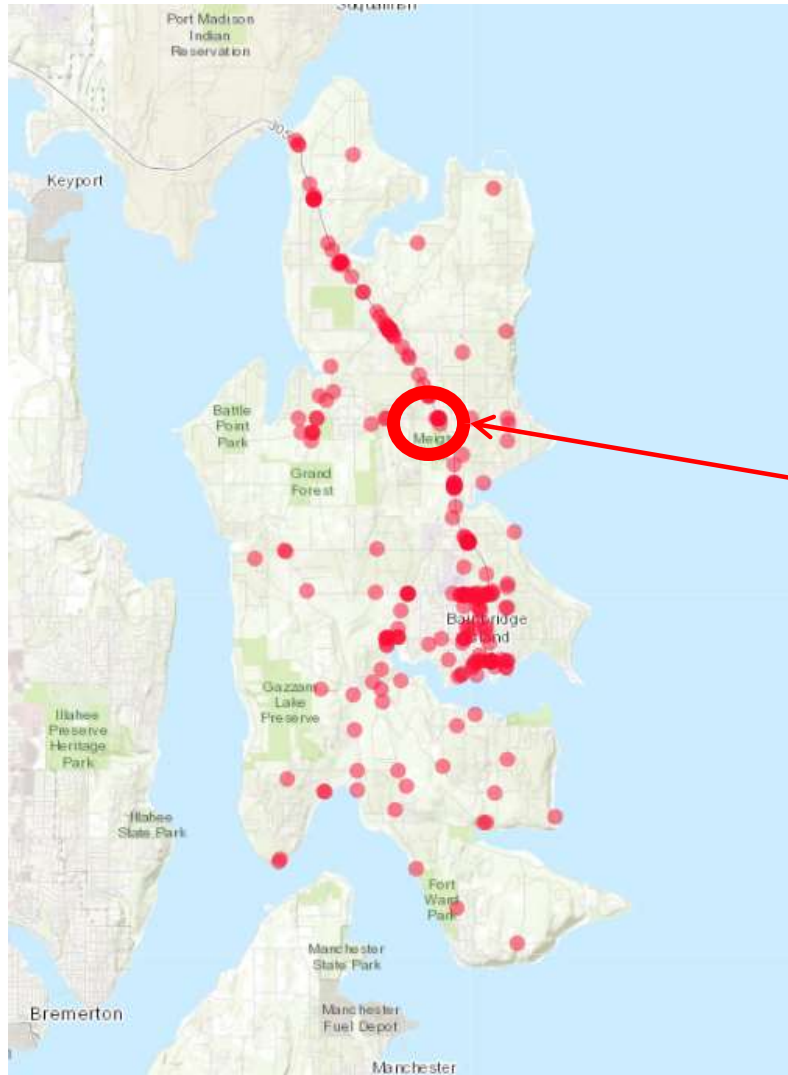


Speed Setting Database – Koura Road

Roadway Context Data Inputs					Multimodal / Safety Index Inputs						
ADT	Roadway Geometry Issues (Vertical or Horizontal Curves)	Neighboring Land Uses	Located in Urban Area	Intersection / Driveway Density	Sidewalk Present	Bicycle Stress Level	Future Off-Street/Full Protected Bike Facility	Collision Rate (per MVM)	Serious or Fatal Collision	On-Street Parking Present	Multimodal/Safety Index Points
1860	No - minor horizontal	Residential, Golf Course	No	Low	No	2	No	3.00	1	No	5

Roadway Name	Existing Roadway Characteristics		Scoring Criteria Outputs				Speed Increase? (if yes, -5 MPH)	More than 5 MPH Change? (if yes, +5 MPH)	Final Proposed Speed Limit
	Existing Speed Limit	Segment Length (mi)	Multimodal/Safety Index Score	Roadway Context Score	New Proposed Speed Limit	Speed Change from Existing			
NE Koura Rd (SR 305 to Miller Rd NE)	35	1.39	2	C	30	-5	No	No	30

Accident Data



- 1 reported injury crash in late 2022
- Crash rate = 3.00 collisions per MVM
- 1 Non-traffic related fatality crash at BI Athletic Club



Traffic Counts/BIPD Speed Trailer (2022)

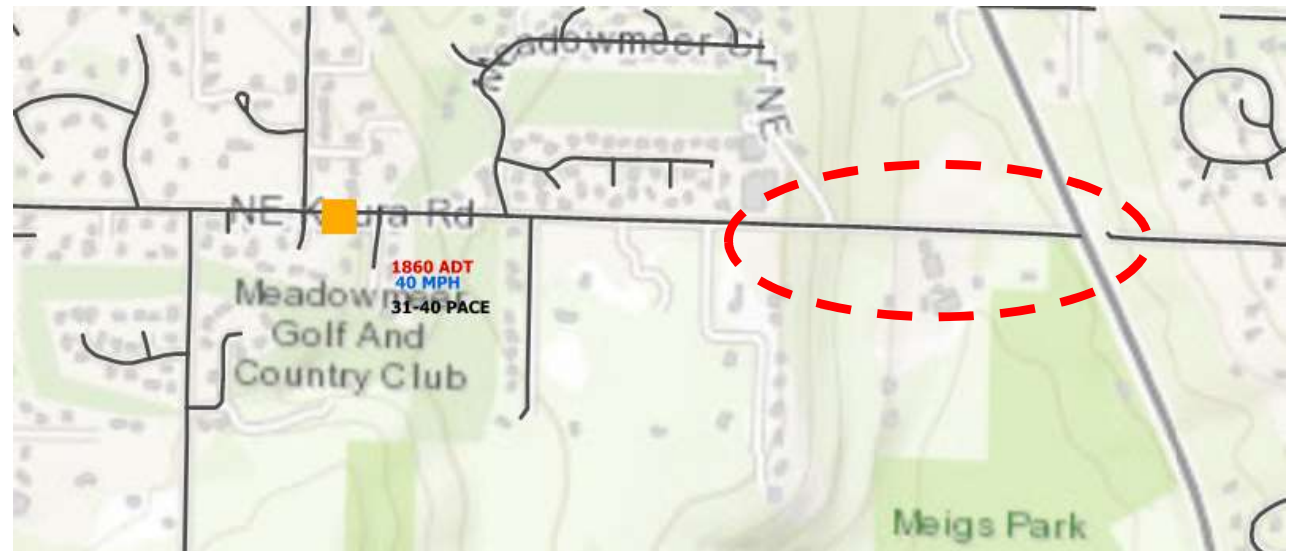
- Count location: Koura Road near Hazel Creek Montessori
- Speed limit (posted during collection): 35 MPH
- Data collection date: 10/24/2022
- Average Daily Trips (ADT) : 1,552
- 85th Percentile Speed: 44 MPH
- Maximum speed observed: 73 MPH

Traffic Counts – Independent Consultant (2021)

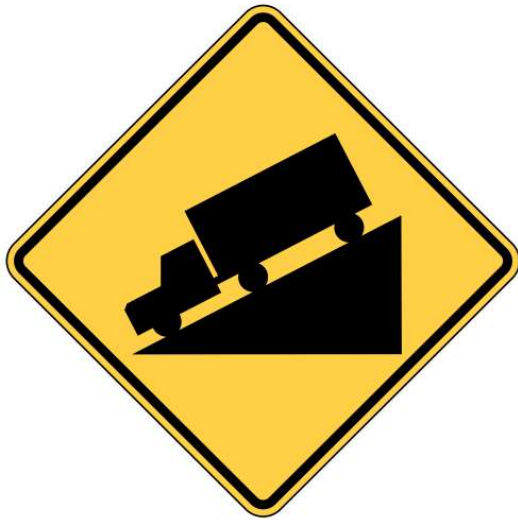
- Count location: Koura Road near Fieldstone
- Average Daily Trips (ADT) : 1,860 ADT
- 85th Percentile Speed: 40 MPH in 35 Zone

Traffic Counts – Independent Consultant (2019)

- Count location:
Koura Road near
Fieldstone
- Average Daily Trips
(ADT) : 2,186 ADT
- 85th Percentile
Speed: 42 MPH in
35 Zone



Vertical grade warning signs

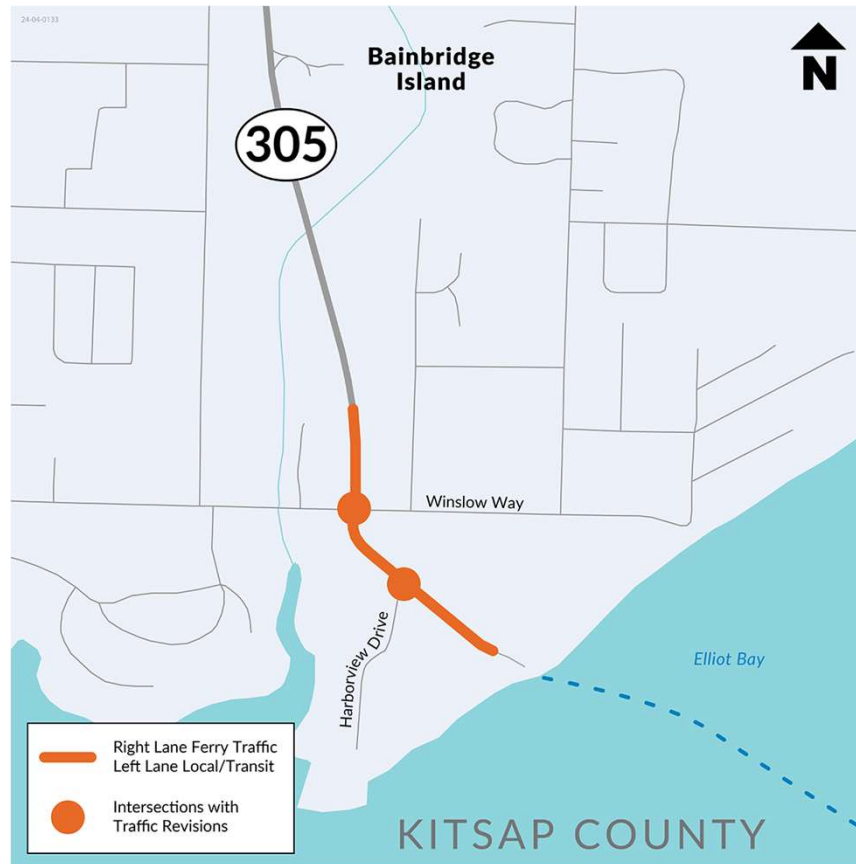


Radar speed sign, flashing beacons

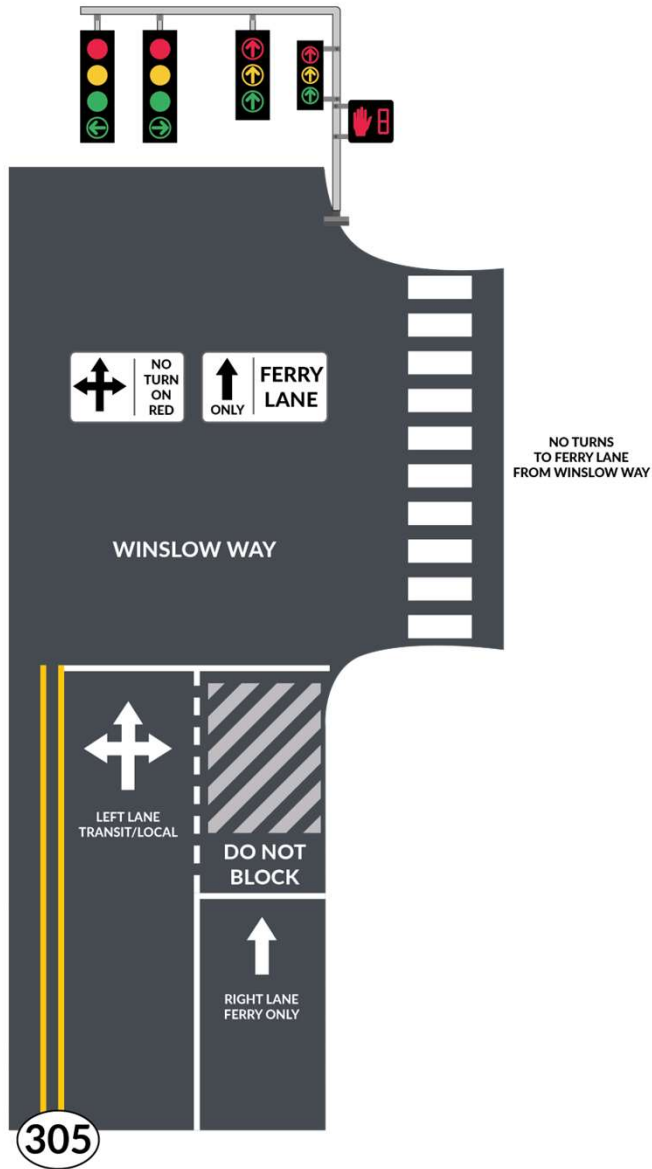


3. Traffic Control Enforcement via Ordinance

Focus: Dedicated ferry lane revisions at SR305 and Winslow



SR 305 & Winslow Way NEW



SR 305 & Harborview Drive NEW



After work is complete

- Travel in the right lane on southbound SR 305 approaching Winslow will be restricted to vehicle ferry traffic.
- Turns from southbound SR 305 on to Winslow Way and Harborview Drive will be restricted to the left lane.
- Right turn on red will be prohibited from SR 305 at both Winslow Way and Harborview Drive.
- Right turns will be prohibited from Winslow Way to the dedicated ferry lane on southbound SR 305.

Assumption:

SR 305 as a City street as part of state highway the turn restrictions require adoption by City ordinance.

Discussion:

Does current adoption of the Model Traffic Ordinance provide for turn restriction enforcement? Are there other mechanisms?