6th/5th Street Road Diet Assessment

Campbell Ave to Wilmot Road

Meeting Agenda

1. Project Background
2. Safety Data
3. Traffic Operations
4. Proposed Road Diet
5. Road Diet Analysis
6. Considerations and Recommendations

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Background

- The 6th/5th Street Road Diet Assessment involves 15 study intersections extending for approximately 5 miles from Campbell Avenue to Wilmot Road
- Funded through:
  - Proposition 101 – Tucson Delivers Better Streets
    - New Pavement between Country Club and Wilmot Road
  - Proposition 407 – Tucson Delivers Strong Connections
    - Pedestrian Improvements between Campbell and Alvernon

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Crash Summary
Campbell Ave to Wilmot Rd

2017-2021 Crashes from ADOT Database

	Signalized Intersection	6th / 5th Segments between Campbell & Wilmot	Total
Vehicle	286	68	354
Pedestrian	10	2	12
Bicycle	3	2	5

- 81% of Vehicular crashes occurred at signalized intersections
- 83% of Pedestrian crashes occurred at signalized intersections including a fatal pedestrian crash
- 60% of Bicycle crashes occurred at signalized intersections

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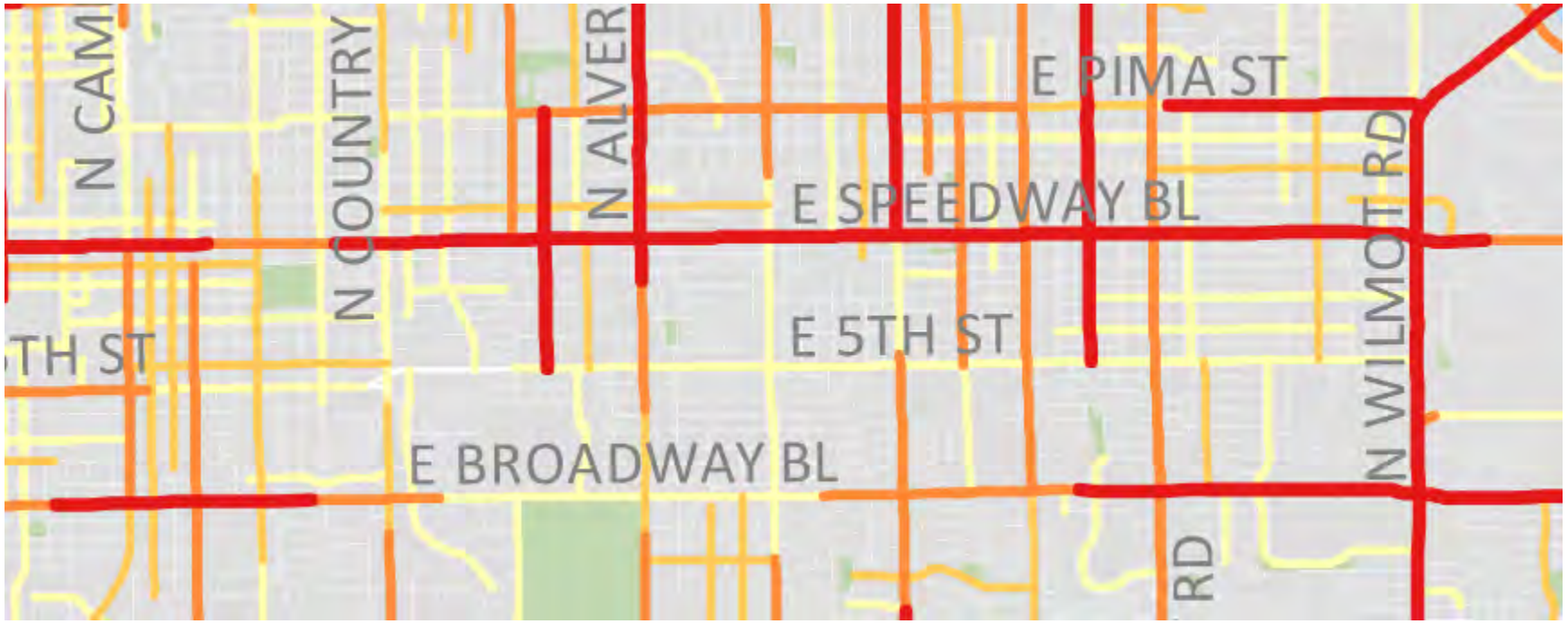
Pedestrian High Injury Network



High Injury Network

- 91-100th Percentile
- 76-90th Percentile
- 51-75th Percentile
- 0-50th Percentile

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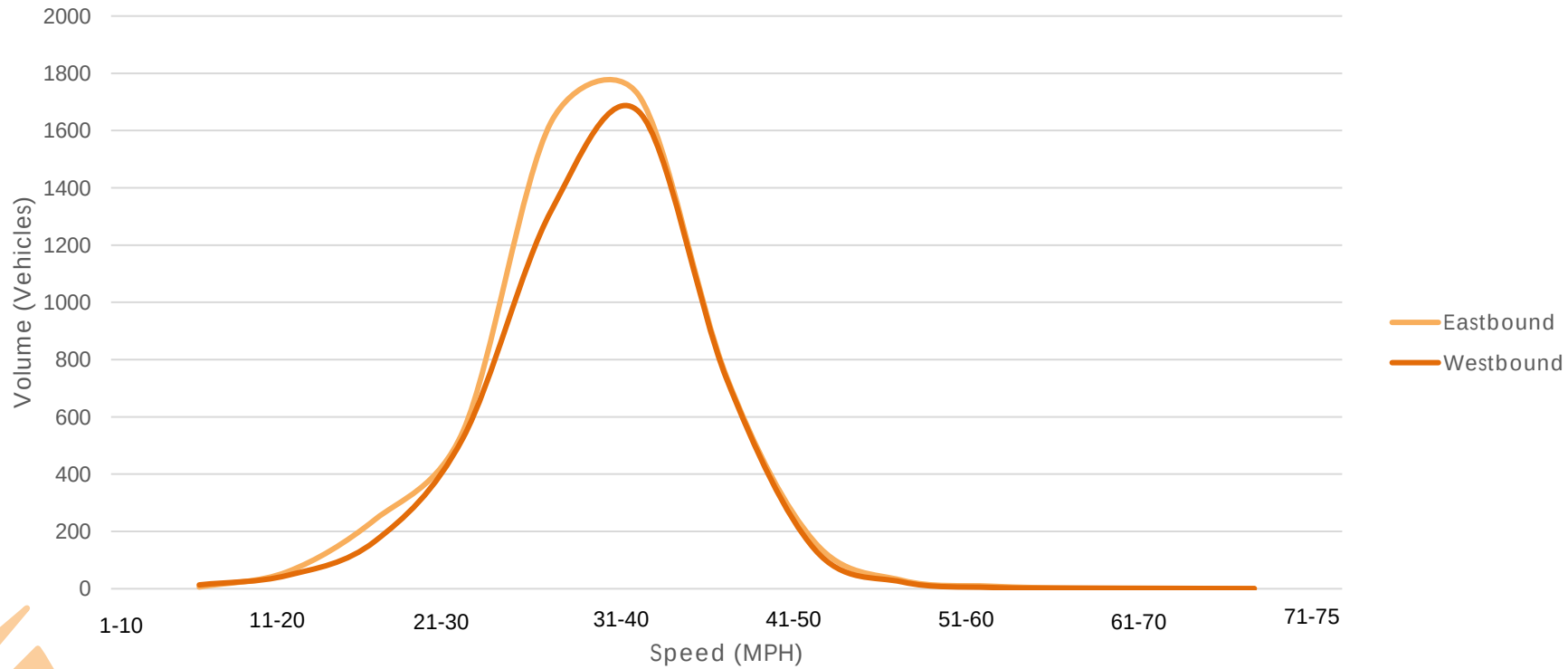
Speed Profile

Sahara to Wilmot

- Posted Speed: 30 MPH
- Average Speed: 35 MPH (EB), 35 MPH (WB)
- 85th Percentile Speed: 41 MPH (EB), 41 MPH (WB)



Speed data collected August 23,2022

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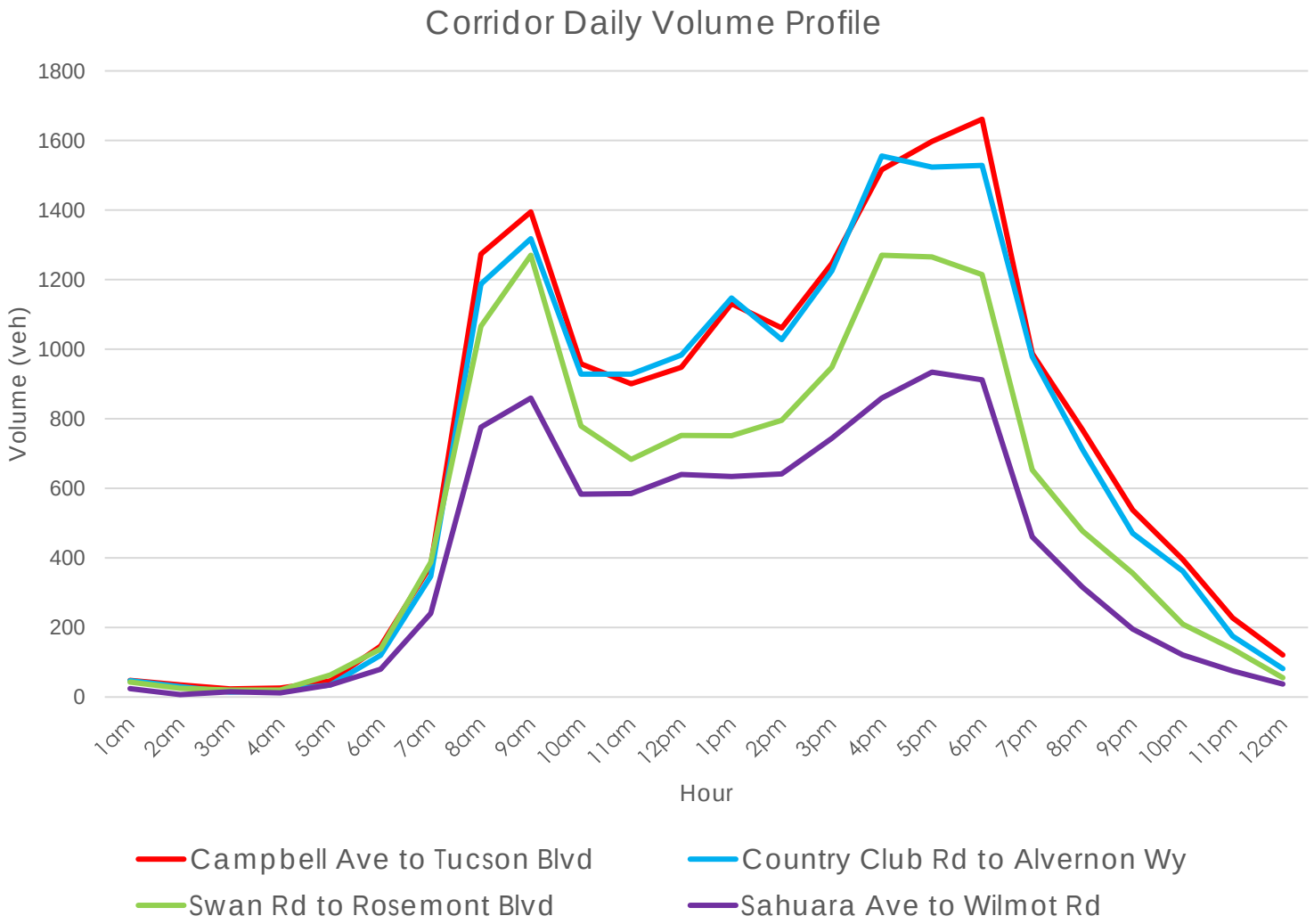
Daily Volume Summary



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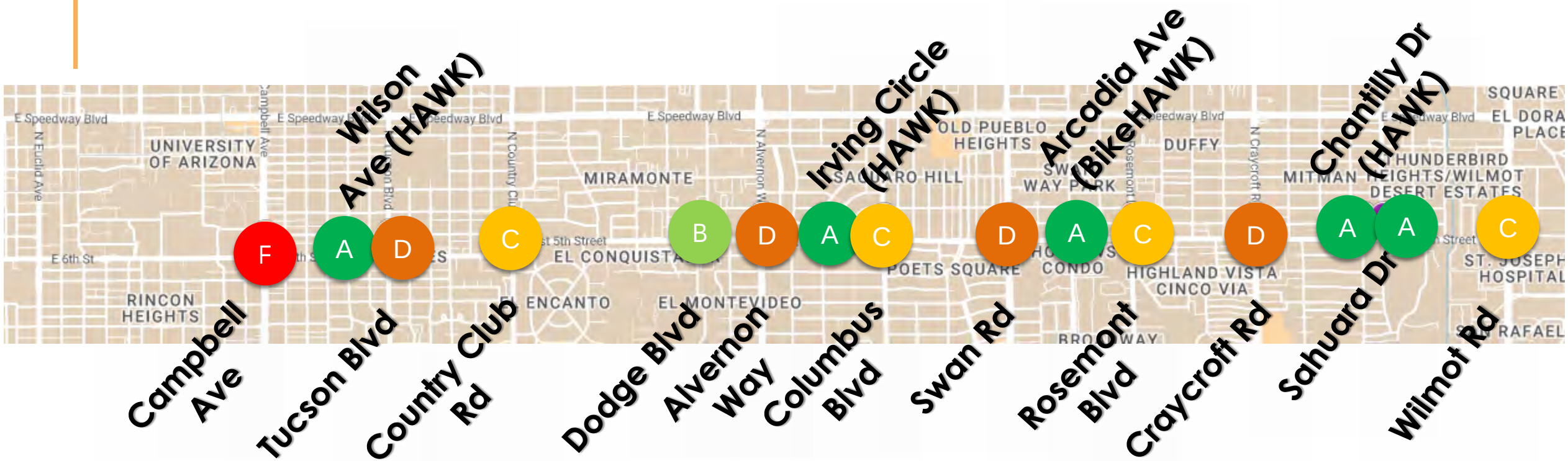
Intersection Operations: 4-Lane (High Volumes)

Pre-COVID volumes collected in 2019



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Intersection Operations: 4-Lane (Low Volumes)

Post-COVID volumes collected in 2022

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Proposed Cross-Section (Campbell to Country Club)

- 2 travel lanes, TWLTL
- Bike lanes
- No bus pullouts
- Sidewalk continuous along corridor

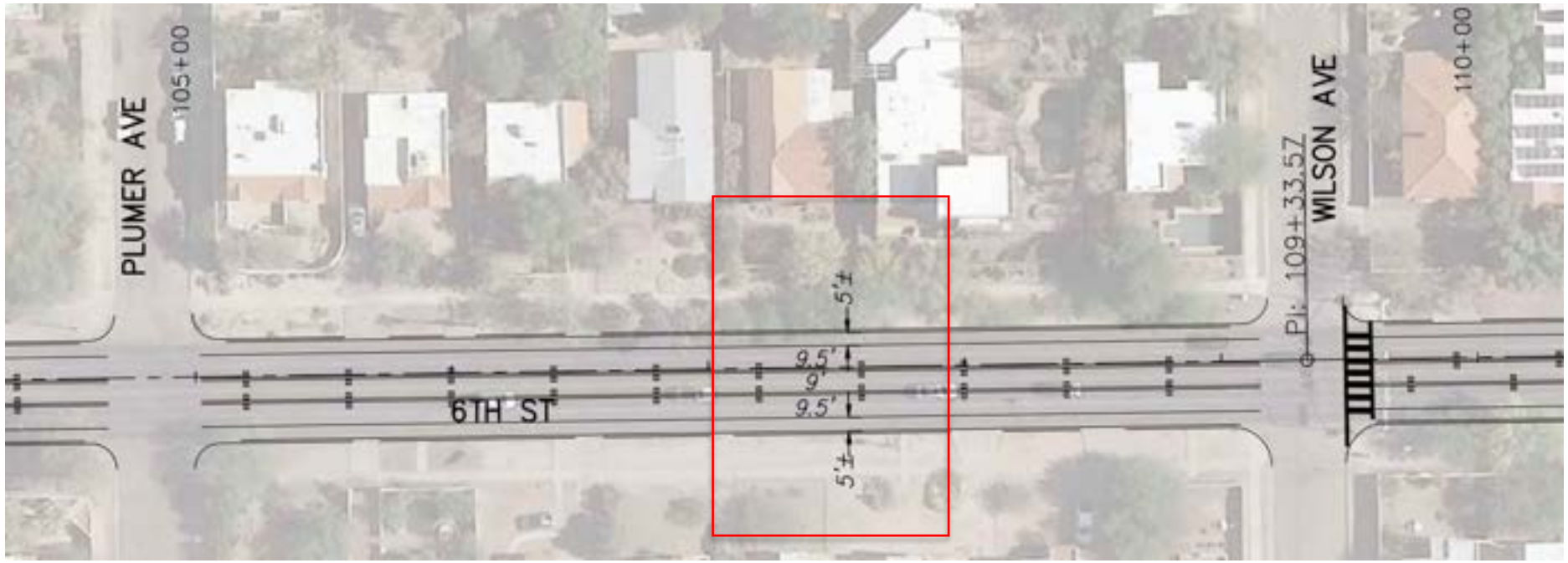

Figure from PSOMAS 6th Street Road Reconfiguration Study

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Proposed Cross-Section (Country Club to Wilmot)

- 2 travel lanes, TWLTL
- Bike lanes
- Bus pullouts at major intersections
- No continuous sidewalk along corridor

Figure from Kimley Horn 5th Street Conceptual Layout

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Trash Collection and Mail Services

- Campbell to Country Club
  - Bike lane and travel lane blockage
  - Through vehicles may encroach on TWLTL
  - Alleyway present on both north and south of corridor
- Country Club to Wilmot
  - Bike Lane Blockage

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Intersection Operations: 2-Lane (High Volumes)

Pre-COVID volumes collected in 2019

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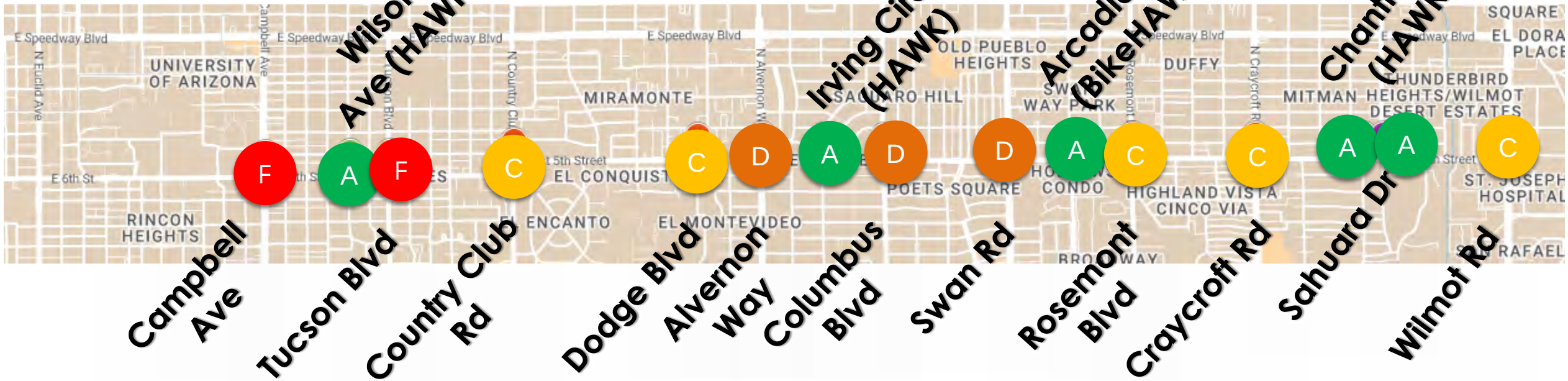
Intersection Operations: 2-Lane (Low Volumes)

Post-COVID volumes collected in 2022



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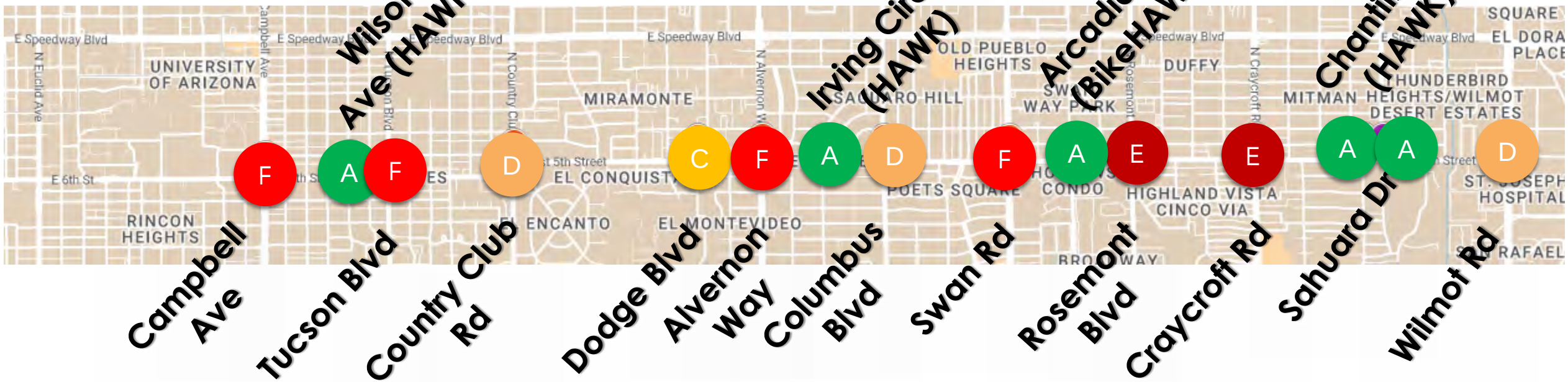
Intersection Operations: 2-Lane (2045 High Volumes)

Regional Travel Demand Model estimates a 0.5%/year traffic increase in the corridor



Corridor Travel Time- Eastbound

4-Lane Travel Time in seconds

Segment	AM				PM			
	Existing	LOS	Future	LOS	Existing	LOS	Future	LOS
Campbell to Country Club	262.5	C	296.2	D	303.6	D	397.8	D
Country Club to Alvernon	148.1	C	147.8	C	161.9	C	200.9	D
Alvernon to Wilmot	514.9	C	527.9	C	521.2	C	564.7	C
Total	925.5	C	971.9	C	986.7	C	1153.4	D

Road Diet Travel Time in seconds

Segment	AM				PM			
	Existing	LOS	Future	LOS	Existing	LOS	Future	LOS
Campbell to Country Club	310.7	D	323.0	D	1020.5	F	1097.9	F
Country Club to Alvernon	178.9	C	282.7	E	197.1	D	222.7	D
Alvernon to Wilmot	549.9	C	1350.8	E	621.4	C	657.5	D
Total	1039.5	D	1956.5	D	1839.0	D	1978.1	D

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Transit Travel Time - Eastbound

Segment	4-Lane	Road Diet
Campbell to Country Club	3 minutes	15 minutes
Country Club to Alvernon	5 minutes	6 minutes
Alvernon to Wilmot	11 minutes	13 minutes

Estimated travel time in minutes based on corridor travel time

6th Street Side Street Circulation

- Assuming 50 vehicles per hour making a left-turn from a side street

6th Street PM Operations	
NBL on 6th	Delay
2-Lane	>600 (sec)
4-Lane	21.4 (sec)

5th Street PM Operations	
SBL on 5th	Delay
2-Lane	45.8 (sec)
4-Lane	14.2 (sec)

2022 FHWA Road Diet Feasibility, 6th St

Existing, Conservative Volumes

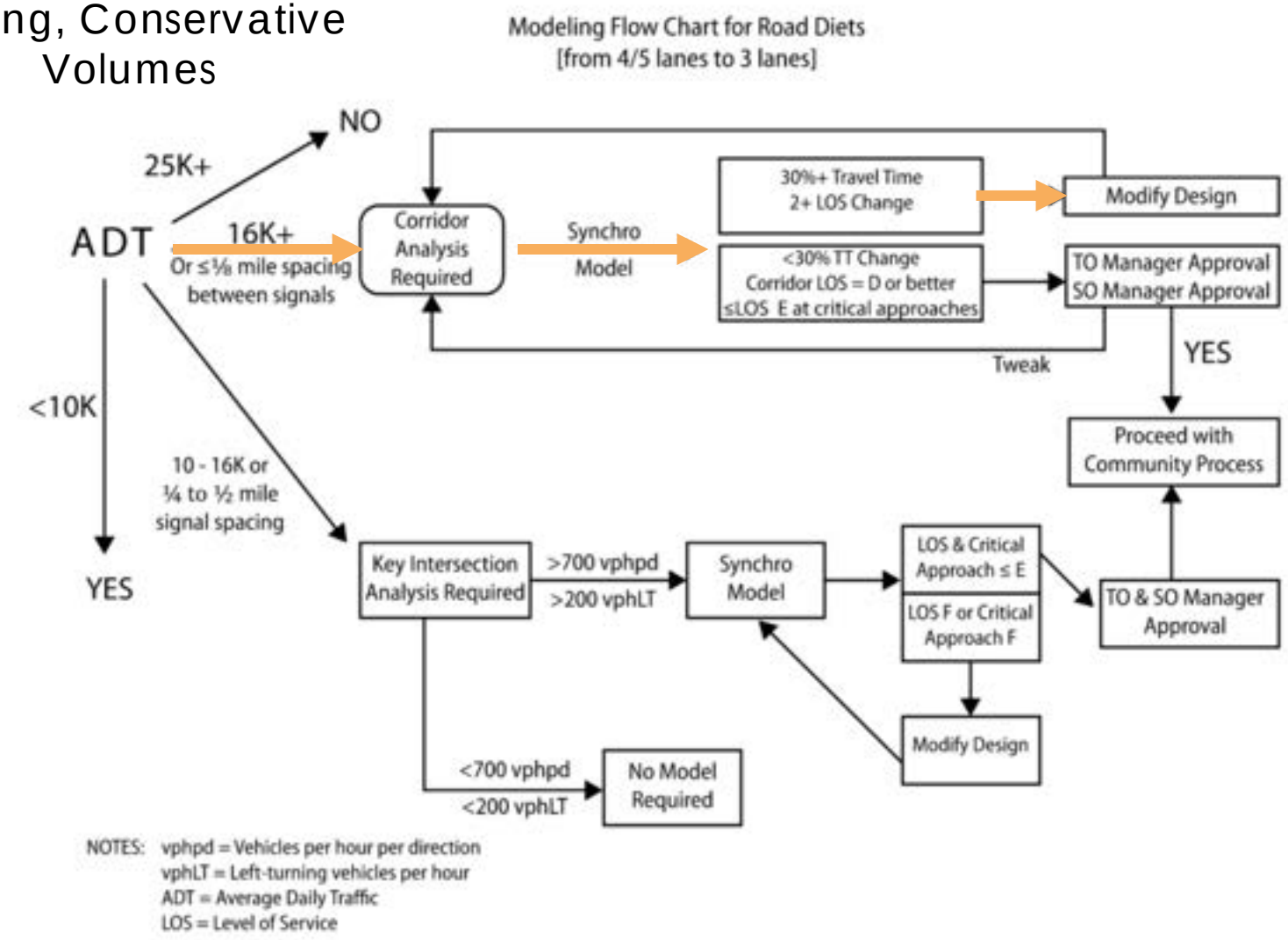

Figure 17. City of Seattle Modeling Flow Chart for Road Diet Feasibility Determination

Segment on 6th St: Campbell Ave to Tucson Blvd (17,424)

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2022 FHWA Road Diet Feasibility, 5th St

Existing, Conservative Volumes

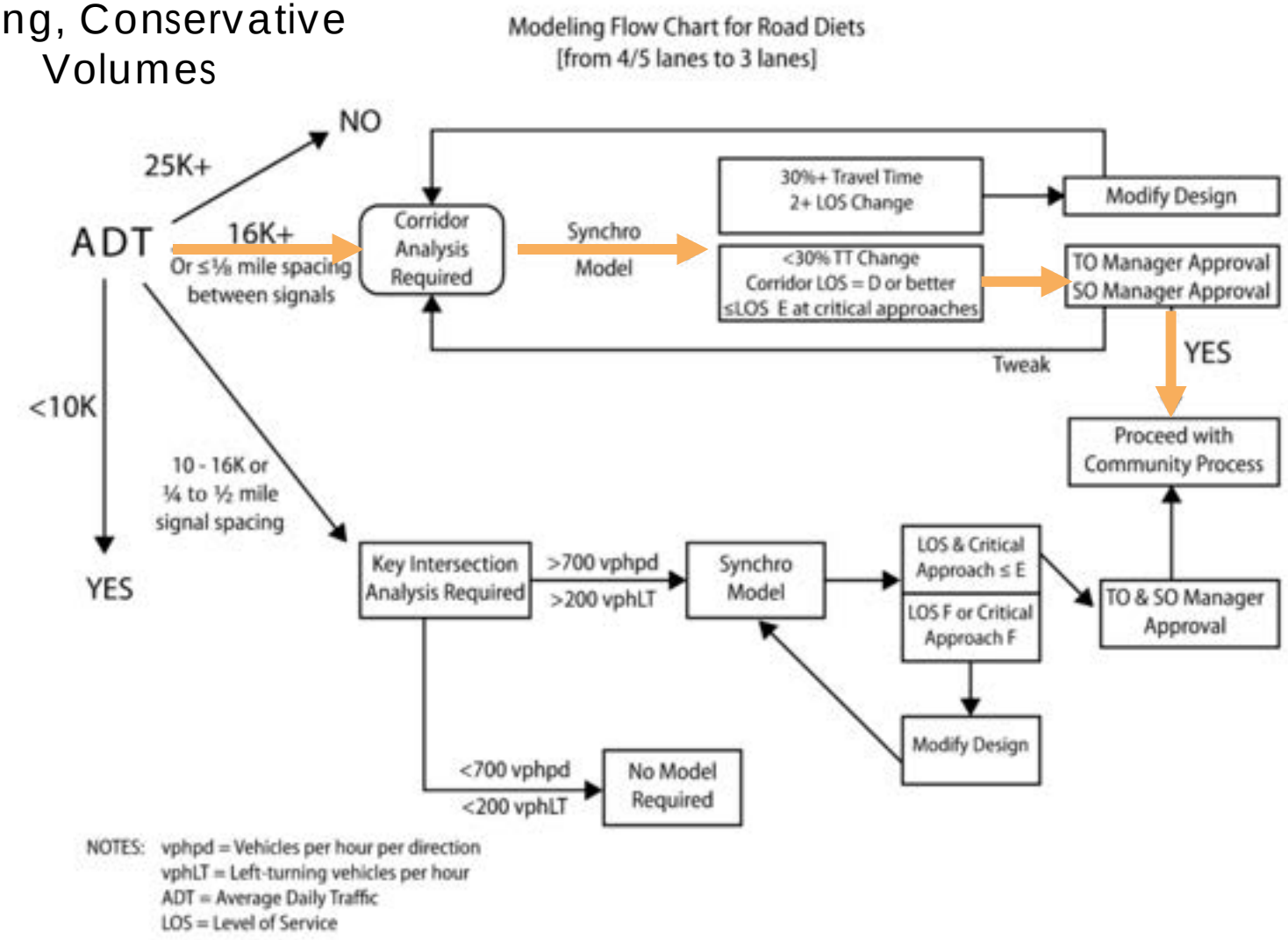

Figure 17. City of Seattle Modeling Flow Chart for Road Diet Feasibility Determination

Segment on 5th St: Country Club Rd to Alvernon Wy (16,739)

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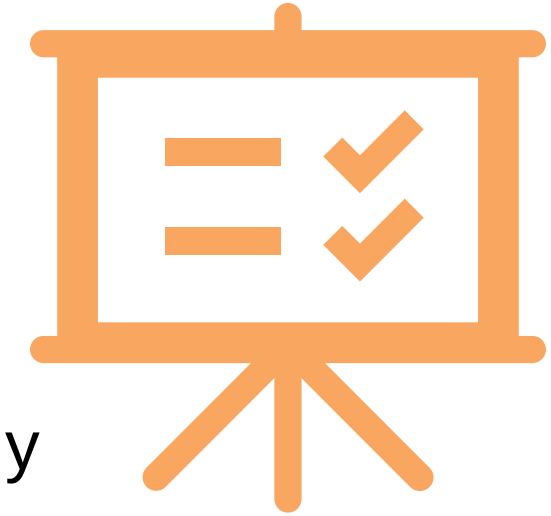
Road Diet Considerations



If a road diet is implemented, mitigation measures may include:

- Modify signal phasing to add permissive + protected left-turn operations
- Provide left and right turn lanes per warrant analysis
- Extend left turn lanes to accommodate queue lengths
- Assess the use of adaptive signal control to efficiently operate the signalized intersections

Road Diet Recommendations

Based on the traffic analysis , input from the community, and programmed improvements (Prop 101 & 407), the following is recommended:

- 6th Street from Campbell Avenue to Country Club Road – Road Diet is not recommended with current volumes
- 5th Street from Country Club Road to Wilmot Road – Road Diet can be implemented with further refinements to the proposed design and enhancements at the traffic signals

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