

Keystone Traffic Analysis

TRAFFIC ANALYSIS

Assumptions

- Traffic data was collected on weekday and weekends and compared with WSDOT traffic data.
- Average weekday p.m. peak was determined from 4 to 5 p.m. and from noon to 1 p.m. on summer weekends
- Traffic data was collected at the following intersections and highway segments:
 - Highway 20/Main Street
 - South Engle Road/Fort Casey Road
 - Highway 20 Spur/Keystone Ferry Terminal
 - Highway 20 Spur/Wanamaker Road
 - SR 525/Wanamaker Road
 - Highway 20, south of Deception Pass Bridge
 - SR 525, north of the Clinton Ferry Terminal
- Level of Service – Intersections are rated as level A through F. A through D are generally considered acceptable levels of service, covering a range from free-flowing traffic (Level A) through many vehicle stops (Level D)
- A signal will be installed at the terminal intersection in all scenarios

Key Findings

- Away from the ferry terminal, ferry traffic is a small percentage of total traffic
- Level of service at the studied intersections and segments remains largely unchanged with addition of ferry traffic through 2030
- Levels of service do not vary significantly based on different sizes of vessels under consideration

- By 2030, a signal will be needed at the intersection of Highway 20 and SR 525 with or without ferry traffic
- By 2030, intersection channelization improvements will be needed at the intersection of SR 20 and Main street (Coupeville) with or without ferry traffic

HOLDING AND QUEUING

Assumptions

- WSF always uses the 30th highest (92nd percentile) day of the year of vehicle volume as their design day.
- To compare all options equally, WSF assumes two and one half hours average wait time will trigger additional service.

Key Findings

- Size of the holding area is dependent on the traffic demand and throughput, therefore a 200- car holding area is applicable for all vessel options
- A 200 car holding area meets our planning threshold of no more than 80 cars queued outside the holding area 92% of the time for all vessel options.