

Targhee Pass Level of Service

Ben Burke, Idaho Transportation Department



Level of Service

- Level of Service(LOS) is a qualitative measure used to relate the quality of the traffic service.
 - Used in all modes of transportation:
 - Roads
 - Round-a-bouts
 - Intersections
 - Bike Lanes
 - Sidewalks
 - Transit



LOS A



LOS A

LOS B



LOS B

LOS C



LOS C

LOS D



LOS D

LOS E



LOS E

LOS F



LOS F

LOS for Two Lane Roadway

LOS	Class I Highways		Class II Highways	Class III Highways
	ATS (mi/h)	PTSF (%)	PTSF (%)	PFFS (%)
A	>55	≤35	≤40	>91.7
B	>50–55	>35–50	>40–55	>83.3–91.7
C	>45–50	>50–65	>55–70	>75.0–83.3
D	>40–45	>65–80	>70–85	>66.7–75.0
E	≤40	>80	>85	≤66.7
F	Demand exceeds capacity			

Note: For Class I highways, LOS is determined by the worse of ATS-based LOS and PTSF-based LOS.



US 20 LOS

Inputs	Scenario #1	Scenario #2	Scenario #3	Scenario #4
Year	2022	2022	2042	2042
Shoulder Width (ft)	5	5	5	5
Lane Width(ft)	12	12	12	12
Segment Length (mi.)	4.8	4.8	4.8	4.8
Class	I	II	I	II
Analysis Direction Vol. (vph)	502	502	671	671
Opposing Direction Vol. (vph)	334	334	447	447
Grade (%)	3.5	3.5	3.5	3.5
Length of Grade(mi.)	2.5	2.5	2.5	2.5
Peak Hour Factor	0.88	0.88	0.88	0.88
Percent Trucks	5	5	5	5
Percent Recreational Vehicles	12	12	12	12



US 20 LOS

Annual Average	Scenario #1	Scenario #2	Scenario #3	Scenario #4
ATS (mph)	46.0	--	44.1	--
PTSF (%)	73.8	73.8	81.8	81.8
LOS	D	D	E	D

Low DHV (February)	Scenario #1	Scenario #2	Scenario #3	Scenario #4
ATS (mph)	48.4	--	47.2	--
PTSF (%)	63.0	63.0	67.0	67.0
LOS	C	C	D	C

High DHV (July)	Scenario #1	Scenario #2	Scenario #3	Scenario #4
ATS (mph)	40.2	--	34.5	--
PTSF (%)	89.5	89.5	94.1	94.1
LOS	E	E	F	F



Climbing Lane Warrants

- Criteria 1: Upgrade traffic flow rate in excess of 200 vehicles per hour.
- Criteria 2: Upgrade truck flow rate in excess of 20 vehicles per hour.
- Criteria 3: One of the following conditions exists:
 - a. A 10 mph or greater speed reduction is expected for a typical heavy truck.
 - b. Level of service E or F exists on the grade.
 - c. A reduction of two or more levels of service is experienced when moving from the approach segment to the grade.



US 20 LOS

Annual Average	Scenario #1	Scenario #2	Scenario #3	Scenario #4
ATS (mph)	48.7	--	49.1	--
PTSF (%)	25.2	25.2	29.3	29.3
LOS	C	A	C	A

Low DHV (February)	Scenario #1	Scenario #2	Scenario #3	Scenario #4
ATS (mph)	49.2	--	49.9	--
PTSF (%)	21.0	21.0	27.9	27.9
LOS	C	A	C	A

High DHV (July)	Scenario #1	Scenario #2	Scenario #3	Scenario #4
ATS (mph)	44.8	--	38.4	--
PTSF (%)	32.1	32.1	31.3	31.3
LOS	D	A	E	A

