# Analys **1mpact Fraffic**

# Yakima River RV Park

Prepared for: Teanaway Ridge, LLC Cle Elum, WA

February, 2017

**Prepared By:** 

SUNBURST ENGINEERING, P. S. 4310 S. Ball Dr. Veradale, WA 99037



### TRAFFIC IMPACT ANALYSIS

CU - 15 - 00002 Yakima River Campground

Kittitas County, WA

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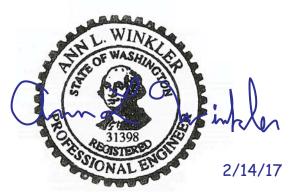
February, 2017

W.O. No. 1701

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This report has been prepared by the undersigned professional engineer whose seal and signature appears hereon.



Ann L. Winkler, P.E.

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Future with Yakima River RV Park (CU-15-00002)

#### **Traffic Impact Analysis** Yakima River RV Park CU-15-00002 Kittitas County, WA

#### I. **Executive Summary**

This executive summary includes the basic information which is presented in more detail in the body of this report. This information is broken out by topic or commonly asked question.

Describe the project and where it is located.

Yakima River RV Park (CU-15-00002) is located approximately 3 miles southeast of Cle Elum along the northern shore of the Yakima River generally southeast of the SR 970 / SR 10 intersection in Kittitas County. It is located on parcel numbers 19-16-04020-0002 (85.98 acres) and 19-16-04050-0401 (0.60 acres). The RV park will have 172 RV spaces, 18 cabins, and amenities including an office / caretakers resident, activity center with dining hall and a rest room / shower facility.

What intersections are included in this study?

Two intersections are included in this study, SR 970 / SR 10 and SR 10 / Site Entrance.

Summarize how much traffic is generated by the project.

Yakima River RV Park (CU-15-00002) is projected to generate 59 trips in the Saturday a.m. peak hour, and 84 trips in the Friday p.m. peak hour. During an average weekday, it is projected to generate 51 trips in the p.m. peak hour.

How well is the surrounding transportation system working now and in the future without traffic from Yakima River RV Park (C(1-15-00002)?

Both intersections in the study area meet agency requirements for level of service under existing traffic volumes and function at LOS B/C, within acceptable levels.

Does Yakima River RV Park (CU-15-0002) have any impacts on the intersections in the study area?

No. The levels of service at the intersections in the study area are not affected by the additional traffic generated by the project, and remain at acceptable levels. The need for left turning and right turning treatments were also analyzed and found to be unnecessary.

What mitigation measures are recommended?

No off-site mitigation measures are necessary and therefore no recommendations for offsite mitigation are made. However, Kittitas County regulations require a second access point for developments larger than 30 single family dwelling units. Depending on criterial and factors outside the scope of this analysis, a second access point may become necessary. If so, that should be come necessary with the development of the 112th RV or camp site, when the traffic exceeds that of 30 single family dwelling units.

#### II. **General Project Description**

Yakima River RV Park (CU-15-00002) consists of redeveloping a smaller RV park. The surrounding area is shown on Figure 1, the vicinity map. The site already has a Conditional Use (CU) permit on it which allows for a smaller RV park than presently being proposed.

Yakima River RV Park (CU-15-00002) is located on the northern shore of the Yakima River, southeast of the SR 970 / SR 10 intersection as shown on Figure 2. The site access point is located approximately 700' south of the intersection on SR 10.

To develop the site as shown, a new conditional use permit will be required, which will allow this seasonal use to replace the previous one. The permit allows the park to be in use March through October each year, and occupants are limited to a two-week visit.

The RV park will include back-in RV spaces, pull-through RV spaces, and tent sites. Fifty RV spaces currently exist and are a mix of back-in and pull-through spaces. These spaces have water and electricity services. The additional proposed spaces, 53 for RVs and 69 tent sites will not have services extended to them. The site presently has 8 cabins on it and foundations in place for 10 more. All 18 of these cabins are also included in this development, and are expected to generate traffic similarly to the RV and tent sites.

The site will have amenities which take advantage of the existing structures on the site. These include an office / caretaker residence (the only year-round occupant of the site) an activity center which includes a dining hall, a community rest room with showers, and an RV dump tank.

Access to the site is limited to SR 10 and an active railroad line must be crossed to get between the site and SR 10. Train traffic is low on this line.

#### **Existing Conditions** III.

The existing transportation system in the study area is summarized in this portion of the report. This includes information about each of the streets at the intersections to be analyzed, characteristics of the study area intersection, a crash summary and other miscellaneous items.

#### **Existing Roadways**

The predominant traffic pattern in this area is east-west as various ridges of the Cascade Mountains exist both to the north and to the south. I-90 is located on the south side of the Yakima River, across from the project site. It provides a high speed link between Seattle, Cle Elum, Ellensburg, and points east.

**SR 970** is a two-lane, two-way, east/west principle arterial and state highway stretching from Cle Elum to the intersection with US Hwy 97, well east of the site. It has a posted speed limit of 55 mph west of the intersection with SR 10, while east of the intersection it is posted at 60 mph. At the intersection with SR 10, there is a dedicated eastbound right turn pocket. Between its connection with I-90 and the intersection with SR 10, a railroad line parallels SR 970 on the south.

**SR 10** is a two-lane, two-way, north/south principle arterial and state highway. It has a posted speed limit of 55 mph and connects Cle Elum and the Teanaway area, including Yakima River RV Park (CU-15-00002), to Ellensburg. It tees into SR 970 from the south. The railroad line which paralleled SR 970 west of SR 10 curves at this location and parallels SR 10 into Ellensburg including along the site frontage.

Site Access is an unpaved private access road which tees into SR 10 by crossing a railroad track. West of the track is another tee, with the site to the left (south) and a few residences to the right (north). It does not have a speed limit on it, but is governed by County regulations.

#### **Project Study Area Intersections and Traffic Control**

The scope of the traffic impact analysis was determined to be a Friday p.m. peak hour analysis, and Saturday a.m. peak hour analysis at two intersections, SR 970 / SR 10, and SR 10 / Site Access, both unsignalized intersections. The site access is required to yield the right-ofway to SR 10 traffic, while SR 10 is required to yield the right-of-way to SR 970.

#### **Project Study Zoning and Land Use**

The existing zoning of the site is predominately Forest and Range (82.68 acres) with a minor amount of Rural-5 ( $\approx$  3.9 acres). A Conditional Use Permit is presently attached to the site and allowed a smaller RV park to operate on it.

The new Conditional Use Permit proposed as a part of developing this site will allow the site to be used as described in this document. The underlying zoning will remain in place.

#### **Crash Summary**

Crash summaries are available from the Washington State Department of Transportation (WSDOT) and were made available for the years 2013 - 2015. Generally, accidents are documented by type of occurrence, such as property damage only (PDO) or injury (INJ). There were no crashes at the intersections in the study area which resulted in fatalities during the study period.

Crashes are measured based on frequency of crashes per million entering vehicles (MEV). This measurement takes into account both the average daily traffic entering the intersection and the annual frequency of crashes. It is generally accepted that a safety problem exists if the crash rate is more than 1.0 crashes per MEV. Table 1 summarizes the numbers and types of crashes along with the crash rate at the study area intersections.

Table 1 - Crash Summary at Study Area Intersections

Accident Statistics							
Intersection	n 2013 2014 2015 Per					Per	
	PDO	INJ	PDO	lИЛ	PDO	INJ	MEV
SR 970 / SR 10	0	0	2	0	1	0	0.33
SR oo) / Site Access	0	0	0	0	0	0	0.00

The intersections in the study area have crash rates below 1.0 indicating that these are random occurrences and there are no safety issues.

#### <u>Pedestrian, Bicycle, and Public Transit Characteristics</u>

Due to the rural nature of the study area, there are no specific pedestrian or bicycle facilities on the surrounding public roads.

School bus service is available for students within this school district, but no other bus service is available. Within Ellensburg, a bus route is in operation and serves traffic in both directions along its route. In both Ellensburg and Cle Elum, a shuttle service is available to take people to the Sea-Tac airport. There are also car pooling opportunities for commuters traveling into the Puget Sound area on weekdays.

#### **Traffic Counts**

The traffic counts used for this analysis were collected using tube counters placed by WSDOT personnel in November 2015. These counts are included in the technical appendix. One counter was placed on SR 10 south of SR 970 and the other was placed on SR 970 east of SR 10. The tubes collected both number of vehicles and their classifications. This information was gathered between Monday afternoon and Friday morning and broken into hourly segments.

Due to the need to finalize this report during the winter, these counts had both seasonal and day-of-week adjustments made to them. As is typical of daily traffic volumes, the afternoon volumes were higher than the morning volumes. The peak volumes occurred either between 3 p.m. and 4 p.m. or between 4 p.m. and 5 p.m. Traffic volumes after 5 p.m. were noticeably lower. These volumes were used to estimate the volumes during Friday p.m. peak hour and Saturday a.m. peak hour. The adjustments were made using the continuous counter on SR 970 east of SR 10 known by WSDOT as Ro57. The Seasonal Adjustment is 1.19 for November traffic volumes. The raw counts and seasonally adjusted counts, including counts by directions, are shown on Table 2.

Table 2 - Raw and Seasonally Adjusted PM Peak Hour Traffic Counts

Highway	Raw Count	Seasonally Adjusted		
SR 970 (W/E)	339 (185 / 154)	403 (220 / 183)		
SR 10 (S/N)	89 (54 / 35)	106 (64 / 42)		

Ro57 collect average volumes during a variety of time frames. The volumes collected during an average weekday, Friday and Saturday are shown on Table 3 along with the resultant adjustment factors.

Table 3 - Raw and Weekday Adjustment Factors

Time Period Daily Traffic Volume		Adjustment Factor
Weekday	3650	1.0
Friday	5937	1.6364
Saturday	5430	1.4877

Combining the adjustment factors on Tables 2 and 3, the average traffic volumes during the Friday p.m. peak hour and Saturday a.m. peak hour are displaced on Table 4.

Table 4 - 2015 Seasonally Adjusted Friday PM and Saturday AM Traffic Volumes

Highway	Friday	Saturday
SR 970 (W/E)	659 (360 / 299)	600 (327 / 273)
SR 10 (S/N)	174 (105 / 69)	158 (96 / 62)

These volumes are shown pictorially on Figure 3 in the technical appendix.

The WSDOT initially scoped this analysis to include train interference at the site entrance. However, after collecting data regarding the number of trains on this rout that criteria was withdrawn.

The adjustments in the section were made in lieu of collecting field counts, given the lack of recreational traffic at this time of year. Field counts are likely to reveal different volumes, directional distributions or other factors. However, every effort has been made to ensure the volumes used in the report are as conservative as possible, so that the results will allow the appropriate mitigation to be attached to this land use action.

Based on the scoping discussion, if at some time in the future actual field counts were collected, the scope states that they be collected between 3 p.m. and 6 p.m. on Friday afternoon, and on Saturday morning between 7 a.m. and 11 a.m.

#### **Ambient Growth Rate**

The ambient growth rate used for this study is 2%, compounded per year per WSDOT requirements. Therefore, the 2015 volumes have already experienced a 4% increase in traffic. The turning movement counts anticipated for 2017 are shown on Figure 4. Note that these traffic volumes are estimates only.

Based on the known traffic characteristics, there is a measurable amount of eastbound right turning traffic on SR 970, since a right turn pocket is already in place for this movement. The lack of a westbound left turn pocket on SR 970 at SR 10 indicates this turning movement is small. The directional distribution of traffic approaching SR 970 on SR 10 is harder to estimate, but it is assumed that there are few reasons for this traffic to turn right (east) on SR 970, so most of it is assumed to turn left (west).

The RV park is expected to be complete within five years, so the growth rate for the future adds 10.4% to the 2017 traffic volumes.

No other sources of traffic are known in the surrounding area.

#### IV. **Trip Generation**

The trip generation characteristics of the RV park are expected to be represented by the characteristics found in the Institute of Transportation Engineers, Trip Generation Manual, 9th Edition for Campground / RV Park, Land Use Category 416. The data for this land use category is very limited, and does not include average daily traffic volumes, Friday p.m. peak hour or Saturday a.m. peak hour traffic volumes. Therefore some assumptions had to be made to estimate the traffic volumes during these time periods.

Given that the differences in daily traffic volumes in this area is continuously documented using Ro57, and the area already has significant recreational characteristics, the Friday and Saturday volumes for the RV park are assumed to increase the amounts documented previously in this report and summarized on Table 3. Using these adjustments, the trip making characteristics for the site are summarized on Table 5.

Table 5 - Trip Generation Characteristics for Yakima River RV Park

Saturday A.M. Peak Hour			Friday P.M. Peak Hour			
ocs	Vol @ 0.31 Trips per	Directional Distribution		Vol @ 0.44 Trips per	Directional Distribution	
	OCS	OCS 36% In 64% Out OCS	65% In	35% Out		
189	59	21	38	84	55	29

OCS - occupied camp sites

Weekday a.m. peak hour rate = 0.21 trips per ocs

Weekday p.m. peak hour rate = 0.27 trips per ocs

While there are locations where the occupied campsites would reasonably be expected to be less than full occupancy, this location is expected to reach full capacity on a regular basis due to its proximity both to I-90 and the greater Seattle area.

County regulations require a second access for developments with more than 30 single family residences. Therefore a supplemental trip generation analysis was conducted to address this situation.

A typical single family residence generates 1 trip during the weekday p.m. peak hour. During an average weekday, this RV park site is anticipated to generate (189\*0.27) or 51 p.m. peak hour trips. Therefore this site will generate traffic approximately similarly to 51 single family residences. Note that this is a seasonal use and therefore, during some portions of the year, traffic volumes will be much reduced.

Kittitas County requires a second access for developments which generate more traffic than 30 single family dwelling units. This level is reached with the development of 111 RV / camp sites (111\*0.27 = 29.97 trips).

#### V. Trip Distribution

The trip distribution characteristics of traffic entering this site is expected to be substantially different than that exiting the site.

Most of the entering traffic (80%) is expected to use I-90 to the Cle Elum exits and approach the site from the northwest. Half of the remaining traffic (10%) is expected to approach the site on SR970 from the northeast, and other half of the remaining traffic (10%) is expected to us SR 10 from the south.

Traffic exiting the site is expected to be a mix of traffic headed to hiking / hunting or other recreational opportunities, or into Cle Elum or Ellensburg for incidental purchases. Therefore the traffic is expected to be distributed 35% northwest towards Cle Elum, 30% northeast on SR 970 and 30% south on SR 10.

The overall distribution is shown pictorially on Figure 5 and the anticipated traffic volumes generated by the site are shown on Figure 6. The total traffic volumes anticipated at completion of Yakima River RV Park (CU-15-00002) is shown on Figure 7, and was arrived at by adding the volumes on Figure 6 to the volumes on Figure 4. Note that the volumes on Figure 4 are subject to the ambient increase in traffic for the surrounding area, and are 10.4% higher by 2022, the latest date anticipated for completion of this project.

#### VI. **Level of Service Analysis**

Intersection levels of service are expressed by using letter designations from A to F, whereby LOS A represents the best operating conditions and LOS F the worst (saturated flow or over-capacity) conditions. The levels are designed to determine how well an intersection is functioning with respect to variables such as traffic flow and delay. The level of service analysis was conducted according to the procedures outlined in the Transportation Research Board's Highway Capacity Manual, 6th Edition as implemented in the Highway Capacity Software version 7.1. The WSDOT requires the intersections in the study area to function at LOS C or better.

Level of service (LOS) analyses were conducted at the study area intersections for existing conditions using the traffic volumes shown on Figure 4, and for the future year conditions including the additional traffic from Yakima River RV Park (CU-15-00002) using the traffic volumes shown on Figure 7.

A summary of the LOS analysis results for the intersection under these conditions is shown on the following series of tables.

Table 6 - Existing Level of Service Summary

	SATURDAY A	.M.	FRIDAY P.M.		
INTERSECTION	DELAY	LOS	DELAY	LOS	
SR 970 / SR 10	14.5 seconds	В	15.7 seconds	С	

The existing intersection meets WSDOT standards using the existing traffic volumes.

Table 7 - Future Level of Service Summary Including Yakima River RV Park

	SATURDAY A	\.M.	FRIDAY P.M.		
INTERSECTION	DELAY	LOS	DELAY	LOS	
SR 970 / SR 10	16.2 seconds	C	18.2 seconds	C	
SR 10 / Site Access	9.7 seconds	Α	9.9 seconds	Α	

The intersections meet WSDOT standards using the future traffic volumes, including the traffic volumes generated by the Yakima River RV park.

#### VII. **Turn Lane Analyses**

#### **Right Turn Lane Analysis**

The two intersections in this study are both under the WSDOT jurisdiction. The criteria for establishing the need for right turning treatment on WSDOT facilities is outlined in the WSDOT Design Manual, Section 1310 using Exhibit 1310-11 Right-Turn Lane Guidelines. A copy of this exhibit is included in the technical appendix.

There are two locations where a right turn lane could be required; Northbound SR 10 at SR 970, and Southbound SR 10 at the site entrance. Eastbound SR 970 already has a right turn pocket. Using the traffic volumes shown on Figures 4 and 7, Table 8 displays the traffic volumes which can be applied to Exhibit 1310-11 to determine the need for right turning treatment. For this analysis, the Friday peak hour volumes were used, since they exceed the Saturday morning volumes in all scenarios analyzed.

Table 8 - Right Turn Analysis Friday P.M. Peak Hour Traffic Volumes

Location	Peak Hour Approach Volume	Peak Hour Right-Turn Volume
Northbound SR 10 at SR 970 (Existing)	71	7
Northbound SR 10 at SR 970 (Future)	106	21
Southbound SR 10 at Site Entrance	170	50

Each of these three scenarios result in the need for a right turn radius only.

#### **Left Turn Lane Analysis**

As stated previously, the two intersections in this study are both under the WSDOT jurisdiction. The criteria for establishing the need for left turning treatment on WSDOT facilities is outlined in the Design Manual, Section 1310, as follows.

"At unsignalized intersections, use the following as a guide to determine whether or not to provide one-way left-turn lanes:

- A traffic analysis indicates congestion reduction with a left-turn lane. On two-lane highways, use Exhibit 1310-7a, based on total traffic volume (DHV) for both directions and percent left- turn traffic, to determine whether further investigation is needed.
- A study indicates crash reduction with a left-turn lane.
- Restrictive geometrics require left-turning vehicles to slow greatly below the speed of the through traffic.
- There is less than decision sight distance for traffic approaching a vehicle stopped at the intersection to make a left turn.

A traffic analysis based on the Highway Capacity Manual (HCM) may also be used to determine whether left-turn lanes are needed to maintain the desired level of service."

The information in this report demonstrate the intersections in the study do not meet any of these criteria, with the possible exception of the first bullet point which will be addressed here using Exhibit 1310-7a "Left-Turn Lane Guidelines: Two-Lane, Unsignalized." A copy of this exhibit is included in the technical appendix.

There are two locations where a left turn lane could be required; Westbound SR 970 at SR 10, and Northbound SR 10 at the site entrance. Northbound SR 10 already fails to meet the need for right turning treatment, and as a tee intersection this left turn analysis is unnecessary.

Using the traffic volumes shown on Figures 4 and 7, Table 9 displays the traffic volumes which can be applied to Exhibit 7a to determine the need for left turning treatment. For this analysis, the Friday peak hour volumes were used, since they exceed the Saturday morning volumes in all scenarios analyzed.

Table 9 - Left Turn Analysis Friday P.M. Peak Hour Traffic Volumes and Percent

Location	Peak Hour Volumes (both directions)	Peak Hour Left-Turn Volume and Percent
Westbound SR 970 at SR 10 (Existing)	654	5 (0.7%)
Westbound SR 970 at SR 10(Future)	728	12 (1.6%)
Northbound SR 10 at Site Entrance	199	5 (4.0%)

These traffic volumes, when applied to Exhibit 7a, also demonstrate that left turning treatment is unnecessary.

#### VIII. **Impact Conclusions and Recommendations**

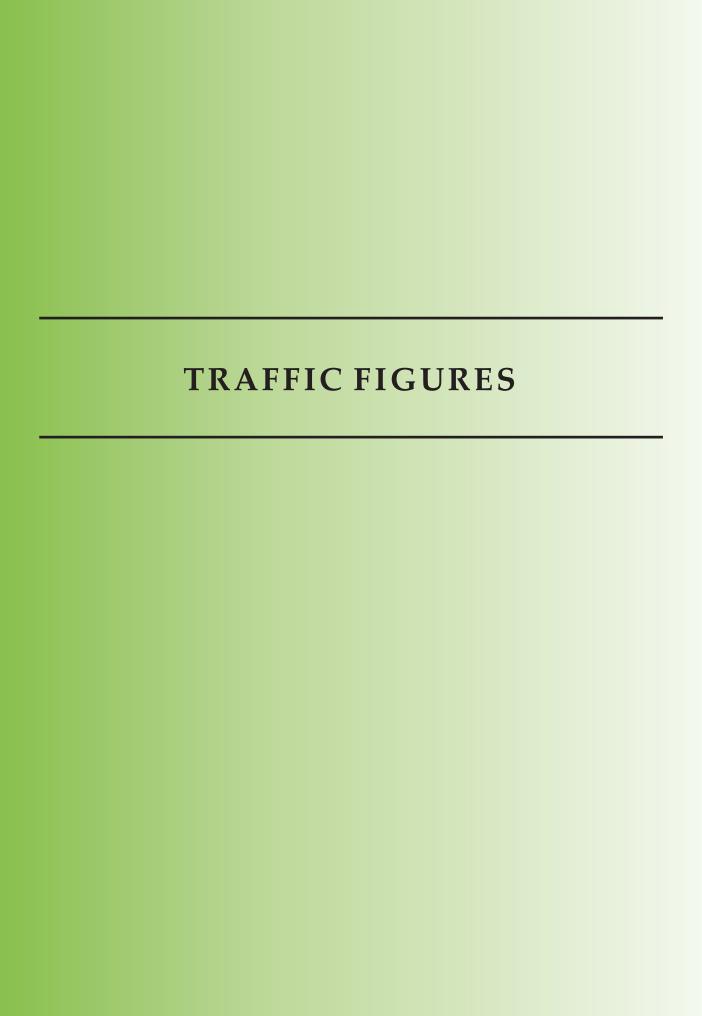
The intersections in the study area meet Kittitas County and WSDOT standards. Therefore, no off-site mitigation is necessary.

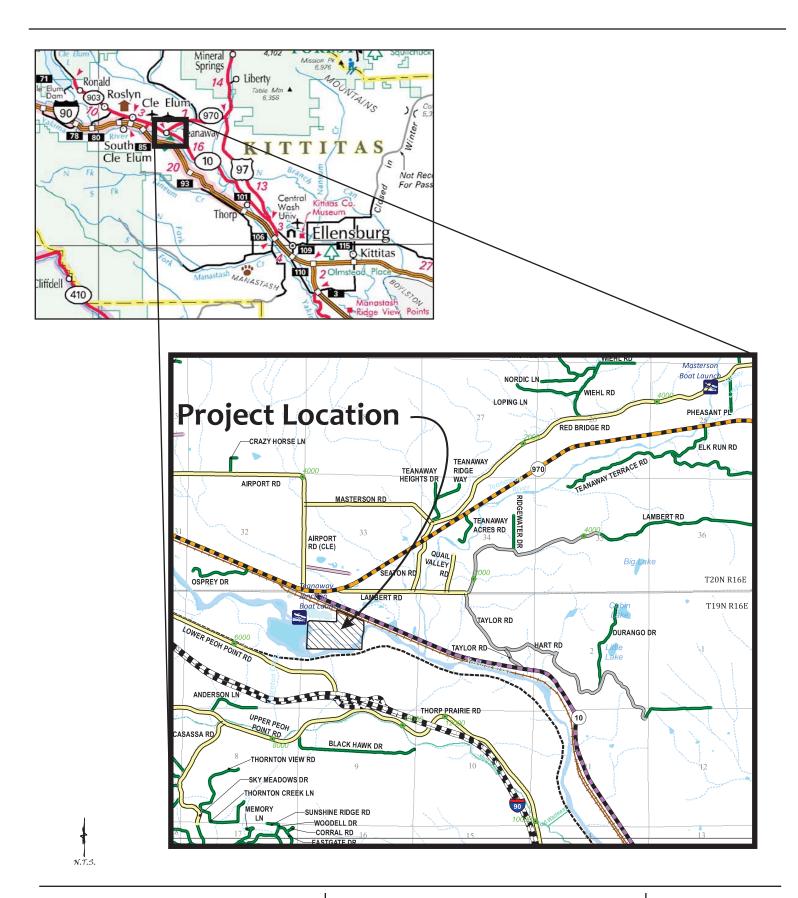
The turn lane analyses demonstrate that the existing geometric configurations can adequately accommodate the additional traffic generated by the project.

The level of service analyses at the study area demonstrate the intersections meet WSDOT criteria. There would need to be significant increases in the traffic volumes for the intersections to fall below acceptable standards, and it is highly unlikely actual field counts would be that high.

As a separate criteria apart from this report, Kittitas County requires a second access point for a development with more than 30 single family dwelling units. The equivalent to that amount is reached at 111 camp sites, and a second access point could be required at that time.









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#### CU-15-00002 Yakima River Campground

Traffic Impact Analysis

Figure 1 Vicinity Map







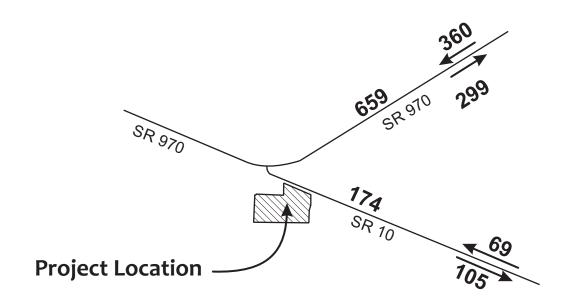
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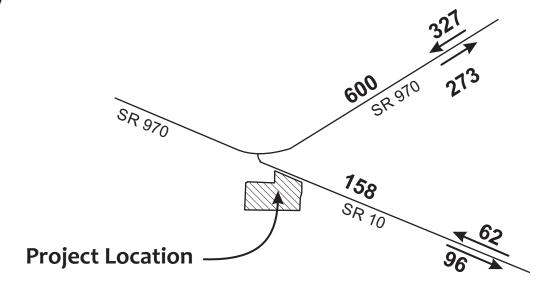
Traffic Impact Analysis

Figure 2 Site Plan



#### **Friday**

#### **Saturday**







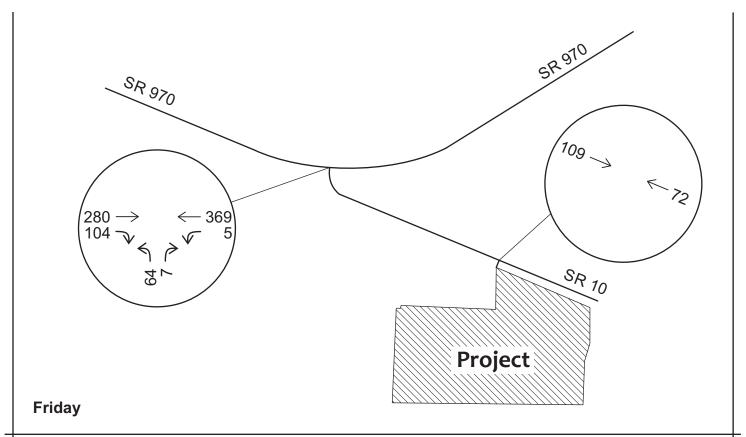
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#### CU-15-00002 Yakima River Campground

Traffic Impact Analysis

Figure 3
2015 Adjusted
Traffic Volumes



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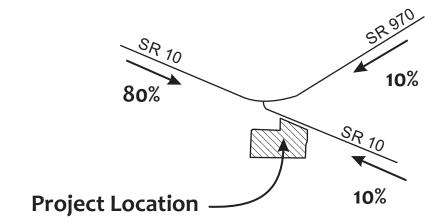
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#### CU-15-00002 Yakima River Campground

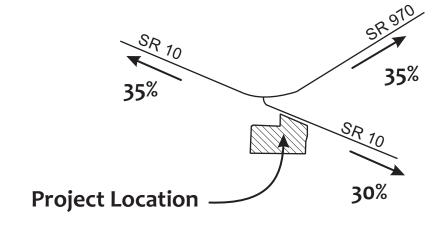
Traffic Impact Analysis

Figure 4
Estimated
2017 Peak Hour
Traffic Volumes



#### **Entering**

#### **Exiting**







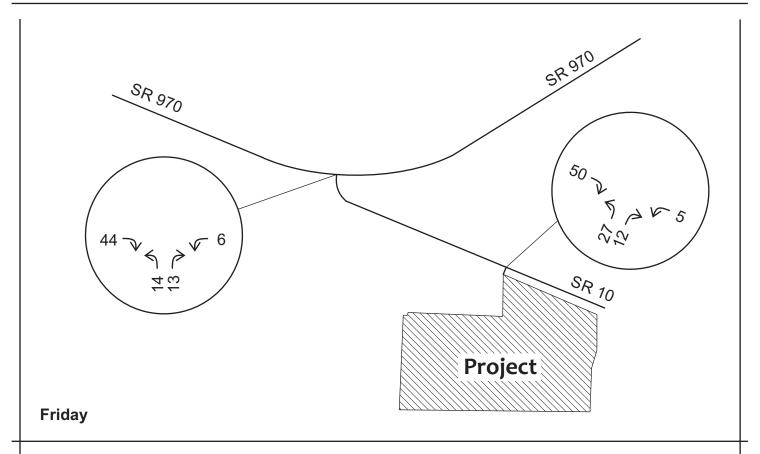
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#### CU-15-00002 Yakima River Campground

Traffic Impact Analysis

Figure 5 Distribution Map



# SR 970 SR 970 17 V 2 TEN SR 70 Project N.T.S.



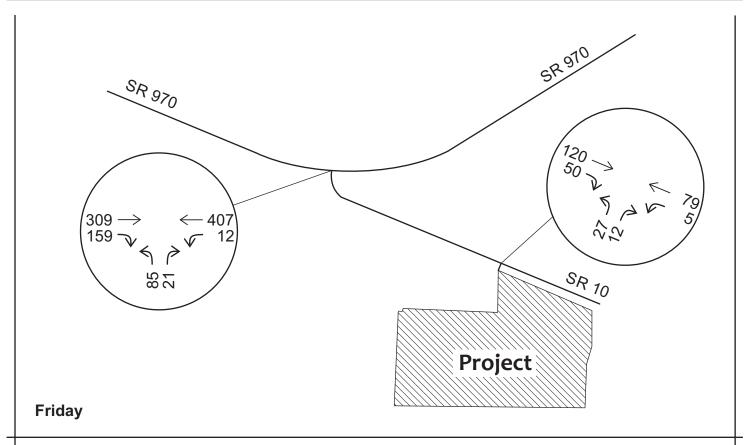
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#### CU-15-00002 Yakima River Campground

Traffic Impact Analysis

Figure 6
Site Generated
Traffic Volumes



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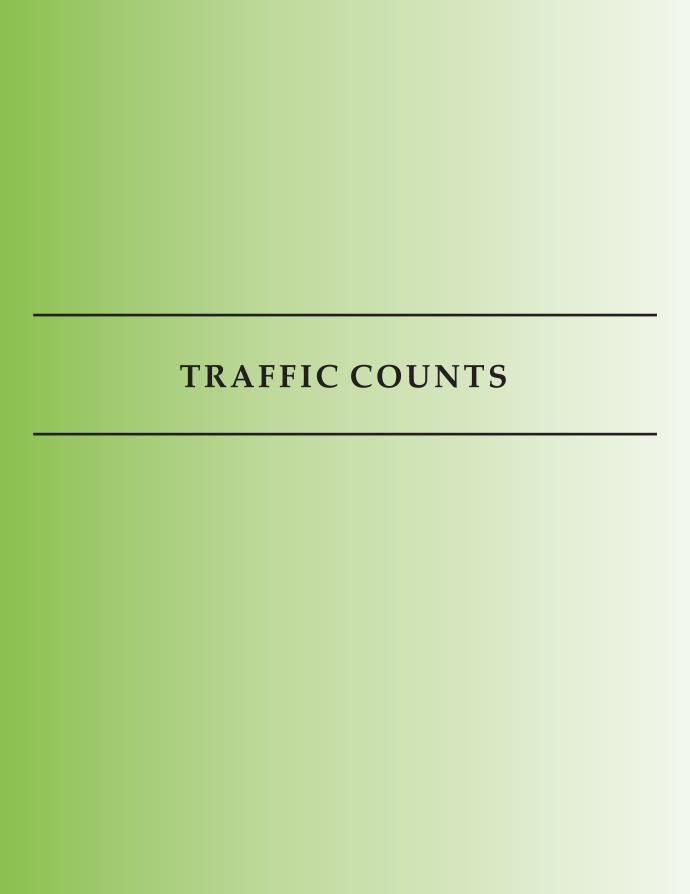
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#### CU-15-00002 Yakima River Campground

Traffic Impact Analysis

Figure 7
Future
Traffic Volumes



#### Weshington State Department of Transportation

# **Diamond Traffic Counter**

Interval 🛛 60 min.	☐ 15 min.				
☑ Binned(CL/SP)	☐ Count(volume)				
Lane No 1 2	·				
Direction Channel 1					
Direction Channel 2					
Unique ID#					

Counter No.	4470	54	Count ID	HP	MS
SR 10	RRT/RRQ	,		_MP	88.29
Leg	2t	Direction	SB		OSID

Station Description\_ON SR 10 S/O SR 970

Date	Day	Time		Comments	
10-26-15	2	1416	Manual (1) 2 (2) Counter (1) 2 (2)	SET O.K. JM	6.4
10-27-15	3	0842	Manual (1) 1 (2) Counter (1) 1 (2)	3 SNMIS #2 DUE TO ON COMING CROSSING CENTER LINE WHILE CHECK O.K. JM	
10-28-15	4	0916	Manual (1) 2 (2) Counter (1) 2 (2)	CHECK O.K. JM	6.5
10-29-15	5	0903	Manual (1) 1 (2) Counter (1) 1 (2)	CHECK O.K. JM	6.6
10-30-15	6	0744	Manual (1) / (2) Counter (1) / (2)	P/U O.K. JM	6.4

5/2970 a

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# **Diamond Traffic Counter**

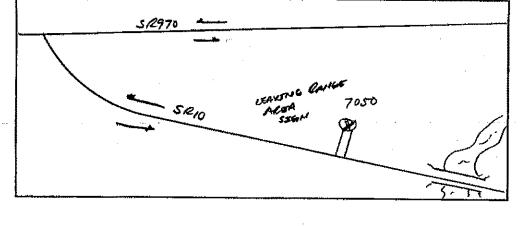


Interval ⊠ 60 min. ☐ 15 min. ☐ Binned(CL/SP) ☐ Count(volume)	Counter No. 447050 Count ID HPMS
Lane No 1 12	SR 10 RRT/RRQ MP 88.29
Direction Channel 1	Leg 2 Direction NB OSID
Direction Channel 2 Unique ID#	

Station Description ON SR 10 S/O SR 970

Date	Day	Time	Comments	
10-26-15	2	1414	Manual (1) 2 (2). Counter (1) 2 (2) SET O.K. JM	6.5
10-27-15	3	0830	Manual (1) 2 (2) Counter (1) 2 (2) CHECK O.K. JM	6.5
10-28-15	. 4	0916	Manual (1) 1 (2) CHECK O.K. JM Counter (1) 1 (2)	6.6
10-29-15	5	0904	Manual (1) 3 (2) CHECK O.K. JM Counter (1) 3 (2)	6.6
10-30-15	6	0743	Manual (1) / (2) Counter (1) / (2) P/U O.K. JM	6.5

Skotch





5M Field Pargen

131

DAY TOTAL

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SHMMARY

DOT-RNB505	A-B			RIP	SSY	ENT OF TRANSP S T E M CATION SUMMAR				11/03/15 09:52:53 1
SR 010	MP OF	38.29 OF	F SYSTEM ID.		LEG 2	DIRECTION	OF TRAFFIC S	DUTHBOUND	LANE ALL	OF
COUNT IDEN	ITIFIER HP	is co	UNTER NUMBER 44705	54	DESCRIPTI	ON: ON SR 10	s/o sr 970			
10-26-15 MONDAY AM HOURS 12 - 1	CARS PICKUPS	SINGLE L BUS MED H	NITS   SINGLE	D O U B 4 -	SLE UNITS 5 6+	DOUBLE	TRAINS 5- 6 7+	TRAIN TRUC	K CLASS UNKNOWN	TOTAL VEHICLES
2 - 3 4 - 5					-		·			
5 - 6 6 - 7 7 - 8 8 - 9						-	•			
9 - 10 10 - 11 11 - 12										
PM HOURS 12 - 1 1 - 2 2 - 3										
3 - 4 4 - 5 5 - 6 6 - 7	43 31 32 13	3 4	8.3 10.8	e que	1	4.4 2.8 2.7		4., 11. 13.	1 1	45 36 37 15
7 - 8 8 - 9 9 - 10	6	<b>‡</b>	100.0		1	20.0	and the second	20. 100.	0 _	5 6 1
10 - 11 11 - 12	1 1 1	******				·	~~~~~~~~~~~~~			1
AM TOTAL PM TOTAL	131	8	5.4	2	. 3	3.4		8.	8 3	147

5.4

2

3

3.4

8.8

2-AXLE EQUIVALENT

147

154

DOT~RNB505A-B

SR 010

DAY TOTAL

390

14

3

3.9

#### STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

DIRECTION OF TRAFFIC SOUTHBOUND LANE ALL OF MP 088.29 LEG 2 OFF SYSTEM ID.

COUNT IDENTIFIER HPMS COUNTER NUMBER 447054 DESCRIPTION: ON SR 10 S/O SR 970 10-27-15 CARS SINGLE UNITS SINGLE PICKUPS BUS MED HVY 4+ UNIT % DOUBLE UNITS 4- 5 6+ DOUBLE UNIT % TRAINS 5- 6 7+ TRAIN TRUCK TUESDAY CLASS % % UNKNOWN VEHICLES AM HOURS 12 - 1 1 - 2 2 23 15 15 34 32 34 7.7 15.4 1 7.7 15 27 29 29 31 8 - 9 7 9 - 10 2 9.4 9.4 10 - 11 2.9 5.9 11 - 12 2.9 PM HOURS 28 34 39 48 3.6 12 - 1 3.6 26 33 34 42 34 36 18 2.9 7.7 2.9 2.6 10.3 1 2.1 8.3 2 41 39 18 17.1 9.8 1 7.3 5.1 10 8 - 9 9 - 10 10 - 11 2 11 - 12 1 4.2 7.1 3.0 10 165 - 148 3 .6 AM TOTAL 2.6 11 4.5 2 267 PM TOTAL 242 6

3

1

1.9

1

16

432

447 .

DATE 11/03/15

TIME 09:52:53

PAGE

.2

6.0

S-AXLE EQUIVALENT

DOT-RNB505A-B

SR 010

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

LEG Z

DATE 11/03/15 TIME 09:52:53 PAGE

MP 088.29

OFF SYSTEM ID.

DIRECTION OF TRAFFIC SOUTHBOUND

LANE ALL OF

COUNT IDEN	TIFIER HP	MS	•	COUNTE	ล พก	MBER 447054		ESCRI	PTION	ON SR 10 S	s/0 s	R 970			•	
10-28-15 Wednesday Am Hours 12 - 1	CARS PICKUPS 2		NGLE MED	UNITS	4+	SINGLE UNIT %	DOUBL 4-	.E UN I	TS 6+	DOUBLE UNIT %		TRAINS 6 7+	TRAIN %	TRUCK	CLASS UNKNOWN	TOTAL VEHICLES 2
1 - 2 2 - 3 3 - 4	1 1 1				`.		,									1
4 - 5 5 - 6 6 - 7	3 7									:					2	3 9 10
8 - 9 9 - 10	20 36		2	1		13.0								13.0	•	23 34
10 - 11 11 - 12	20 34 30 22	•	1			3.0		1		3.0				6.1	1	33 22
РМ HOURS 12 - 1 1 - 2	27 26		1 1			3.3 3.7			1	3.3	1		3.3	10.0 3.7		30 27
2 * 3	37 52 45		7	1		7 7	2			द प्र		1	1.9	1.9 11.5	1	37 54 52

] - 2	26	1		5.1								3.7		27
· 3 - 4 · 4 - 5 · 5 - 6	57 52 45 24	3 2	1	7.7 7.7	2			3.8			1.9	1.9 11.5 7.7	1	54 52 26
6 - 7 7 - 8 8 - 9 9 - 10 10 - 11 11 - 12	14 7 6 3									.•			1	8 6 3
AM TOTAL PM TOTAL	130 241	3 7	1	2. <del>9</del> 3.1	2	1	1	1.2	1	1	.8	3.6 5.1	4 3	139 257
DAY TOTAL	371	10	2	3.0	2	1	1	1.0	1	1	.5 2	4.5 -AXLE EQUI	7 VALENT	396 407

DOT-RNB505A-B

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

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	-				ICONC! IN	A1 ( 1 W	CLAGE		· · · · · · · · · · · · · · · · · · ·	• •			17.00	•
SR 010	80 9M	88.29	OFF SY	STEM ID.		L	EG 2		DIRECTION	N OF TRAFFIC	SOUTHBOUND		LANE ALL	OF ·
COUNT IDEN	TIFIER HPM	ıs	COUNTE	R NUMBE	447054	D	ESCRI	PTION	: ON SR 10	S/O SR 970				
10-29-15 THURSDAY AM HOURS 12 - 1	CARS   PICKUPS	SING Bus Mei	LE UNITS D HVY	4+   1	SINGLE	DOUBL 4-	.E UN1	11S 6+	DOUBLE UNIT %	TRAINS 5- 6	7+ TRAIN	TRUCK	CLASS UNKNOWN	TOTAL VEHICLES 1
1 - 2 2 - 3 3 - 4	1 1						•					•		1
5 - 6 6 - 7 7 - 8 8 - 9 9 • 10	3 5 17 34 21 32	;	2 3 1 2		5.1 16.0 5.9	1	1	1	7.7			12.8 16.0 5.9	3	4 8 17 39 25 34 37
11 - 12 PM HOURS 12 - 1 1 - 2	32 33 50 46	:	4 3 5		10.8 5.6 9.6	1	•		1.9			10.8 5.6 11.5	1	54 52
2 - 3 3 - 4 5 - 6 6 - 7	31 45 44 36 15		3 3 1 2 1 1 2		8.6 8.0 6.3 2.7 11.1	1		1	2.9 2.1 5.6	·		11.4 8.0 8.3 2.7 16.7	. 1	35 50 48 37 18
7 - 8 8 - 9 9 - 10 10 - 11 11 - 12	1 9 3	•	1		50.0	_						50.0		2 9 3
AM TOTAL PM TOTAL	148 280	1 2	1 1 0 2	****	7.2 7.1	1 3	1	1	1.8 1.3	*********		9.0 8.4	4 2	167 308
DAY TOTAL	428	3	1 3		7.2	4	1	2	1.5			8.6 Z-AXLE E	6 QUIVALENT	475 486

DOT-RNB505A-8

AVG WEEKDAY VOL

#### STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S $\,$ S Y S T E M $\,$

DATE 11/03/15

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- PAGE

HOURLY TRAFFIC CLASSIFICATION SUMMARY

DIRECTION OF TRAFFIC SOUTHBOUND LANE ALL OF LEG 2 MP 088.29 OFF SYSTEM ID. SR 010 DESCRIPTION: ON SR 10 S/0 SR 970 COUNTER NUMBER 447054 COUNT IDENTIFIER KPMS 10-30-15 DOUBLE UNIT % TOTAL I TRAIN | TRUCK | CLASS DOUBLE UNITS TRAINS SINGLE UNITS | SINGLE | FRIDAY CARS 5- 6 7+ UNKNOWN VEHICLES BUS MED HVY 4+ UNIT % 4- 5 6+ PICKUPS AM HOURS 1 12 - 1 3 3 2 10 8 - 9 9 - 1010 - 11 11 - 12 PM HOURS 9 - 10 10 - 11 15 13 AM TOTAL PM TOTAL 15 DAY TOTAL 13 2-AXLE EQUIVALENT 15 10-26-15 THRU 10-30-15 AVERAGE WEEKDAY CLASSIFICATION VOLUMES \* TRAIN | TRUCK | CLASS DOUBLE UNITS DOUBLE | TRAINS TOTAL SINGLE UNITS | SINGLE | CARS UNIT % 5- 6 7+ % 2 UNKNOWN VEHICLES 4- 5 6+ UNIT % BUS MED HVY 4+ PICKUPS AVG WEEKDAY 434 . 2 6.5 3 2 1.4 396 18 4.8 VOLUME AWD 2-AXLE EQUIVALENT 446 TOTAL HOURS FOR COUNT 88 FACTOR GROUP R057 3 DAYS

434 X SEASONAL ADJ. FACTOR 1.2100 = ESTIMATED AVG DAILY TRAFFIC

525

DOT-RN8505A-B

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

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SR 010 COUNT IDEN			OFF SYSTEM	IO. MBER 447050	LEG Des			OF TRAFFIC S/O SR 970	NORTHBOUND	LANE ALL	OF
1G-26-15 Monday Am Hours 12 - 1	CARS PICKUPS		UNITS HVY 4+	SINGLE UNIT %	DOUBLE 4- 5	UNITS 6+	DOUBLE UNIT %	TRAINS 5- 6	7+ TRAIN	TRUCK CLASS UNKNOWN	TOTAL VEHICLES
1 - 23 45 6 7 8 9 0 10 11 12 S 10 - 11 12 S 10 - 12 S	•						,	•			
12 - 1 1 - 23 4 - 5 5 - 6 7 - 8 9 - 10 10 - 11	33 36 43 26 9 5 42	1		5.6 2.6 3.7 10.0	1	. 1	2.8 2.6			8.3 5.3 3.7 10.0	36 38 43 27 10 5 4 2
AM TOTAL PH TOTAL	158	. 5		3.0	1	1	1.2			4.2	165
DAY TOTAL	158	5		3.0	1	1	1.2		;	4.2 2-AXLE EQUIVALENT	165 1 <del>6</del> 8

DOT-RNB505A-B

SR 010

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R 1 P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 09:52:53 PAGE

COUNT IDENTIFIER HPMS

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC NORTHBOUND

LANE ALL OF

COUNTER NUMBER 447050

DESCRIPTION: ON SR 10 S/O SR 970

10-27-15 TUESDAY AM HOURS 12 - 1 1 - 2	CARS PICKUPS	SINGLE		SINGLE		.E UNI 5	TS 6+	DOUBLE UNIT %	TRAINS 5- 6	7+ TRAIN TRUCK	CLASS UNKNOWN	TOTAL VEHICLES
2 - 3 3 - 4 5 - 6 6 - 7 7 - 8 9 - 10 10 - 11 11 - 12	2 3 20 24 20 24 20 26	1 4 2 2 2 2 2	1 1 1	4.5 13.8 12.5 10.0 13.0	1	1	1	25.0 4.5 3.4 6.7		25.0 9.1 17.2 12.5 16.7 13.0	1 1	2 4 22 29 24 30 23 26
PM HOURS 12 - 1 1 - 2 2 - 3 3 - 4 4 - 5 5 - 6	30 36 38 32 41 29	3 1 2		8.8 2.7 4.7	7		1	2.9 2.6 3.0		11.8 2.7 2.6 3.0 4.7		34 37 39 33 43 29 16
7 - 8 8 - 9 9 - 10 10 - 11 11 - 12	11 6 1 2			8.3						8.3	1	12 7 1 2
AM TOTAL PM TOTAL	139 242	11 7	3	8.8 2.8	5 5	1	2	3.1 1.2		11.9 4.0	· 2 1	160 253
DAY TOTAL	381	18	3	5.1	4	1	3	1.9		7.0 2-AXLE E	3 QUIVALENT	413 426

DOT-RNB505A-B

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 09:52:53 PAGE 8

SR 010	MP 088.2		OFF SYST			G 2		OF TRAFFIC	NORTHBOUND		LANE ALL	OF
COUNT IDEN	TIFIER HPMS		COUNTER	IUMBER 44705	) DE	SCRIPTION	N: ON:SR 10	S/O SR 970				
10-28-15 Wednesday Am Hours 12 - 1	CARS PICKUPS   BU	SINGLE S MED	UNITS HVY 4	SINGLE UNIT %	DOUBLE 4-	EUNITS 5 6+	DOUBLE UNIT %	TRAINS 5- 6	7+ TRAIN	TRUCK	CLASS	TOTAL VEHICLES
1 - 23 45 - 67 8 - 7 8 - 10 10 - 12	1 1 18 18 24 124 23	. 1 1 1 1 2	1	5.0 5.3 7.4 5.9 8.0	1 1	1	50.0 5.0 3.7 3.8		. ·	50.0 10.0 5.3 11.1 5.9 3.8 8.0	1 1	1 2 5 20 19 27 17 26 25
PM HOURS 12 - 1 2 - 3 3 - 4 4 - 5 6 - 7 7 - 8 9 - 10 10 - 11 11 - 12	29 34 38 34 337 25 12 8 4 13	1 1 2 1		3.3 2.9 2.9 5.1 3.8			2.9	<i>:</i>		3.3 2.9 2.9 2.9 5.1 3.8	1 1	30 35 35 35 35 35 36 28 4 1 3
AM TOTAL PM TOTAL	130 258	6 6	1	4.9 2.2	3	1	2.8			7.7 2.6	2	143 267
DAY TOTAL	388	12	1	3.2	3	1 1	1.2		;	4.4 2-AXLE EQ	4 IUIVALENT	410 417

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 09:52:53 PAGE 9

	•			tı.	OOKL, IK	A1114	OLABO	T. LOW.	100 0000000	••			. ,	•
SR 010	MP 088	.29 (	OFF \$YS	TEM ID.		Ĺ	EG 2		DIRECTION	OF TRAFFIC	NORTHBOUND		LANE ALL	OF
COUNT IDEN	NTIFIER HPMS		COUNTER	NUMBER	447050	D	ESCRI	PTION:	ON SR 10	s/o sr 970				
10-29-15 THURSDAY AM HOURS 12 - 1	CARS PICKUPS	SINGLE BUS MED	UNITS	4+   s	INGLE	DOUBL 4-	E UNI	TS 6+	DOUBLE UNIT %	TRAINS 5- 6	7+-   TRAIN	TRUCK	CLASS	TOTAL
1 - 2 3 4 5 6 7 8 9 9 11 12 11 11 11 11 11 11 11 11 11 11 11	1 1 2 5 18 10 15 23 34 29	3 2 1 2 7	1 1 1		13.6 15.4 15.0 8.0 7.7 19.4	1	1	1 1	4.5 7.7 10.0 2.6			18.2 23.1 25.0 8.0 10.3	1	1 1 2 5 22 13 20 25 39 36
PM HOURS 12 - 1 1 - 23 3 - 4 4 - 5 5 - 6 6 - 7 7 - 8 8 - 9 9 - 10 10 - 11 11 - 12	39 41 32 38 35 40 17 11 5 6 3	3 1 1 1 1 1 1 1	1		9.3 2.3 2.9 2.6 2.8 2.4	1			2.9		·	9.3 2.3 5.6 2.8 2.4	1	43 43 33 33 42 17 11 57 3
AM TOTAL PM TOTAL	138 268	17	3 1		12.2	2	1	2	3.0 .4			15.2 3.9	1 2	164 281
DAY TOTAL	406	26	4 .		6.7	3	1	2	1.3		2	8.1 -AXLE E	3 QUIVALENT	445 456

## STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

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SR 010	MP 088.29	OFF SYSTEM ID.	LEG 2	DIRECTION OF TRAFFIC	NORTHBOUND LANE ALL	OF
COUNT IDEN	TIFIER HPMS	COUNTER NUMBER 44705	O DESCRIPTION:	ON SR 10 S/O SR 970	1	
10-38-15 FRIDAY AM HOURS 12 - 1		IGLE UNITS   SINGLE   MED HVY 4+   UNIT %	DOUBLE UNITS 4- 5 6+	DOUBLE TRAINS UNIT % 5- 6 7-	TRAIN TRUCK CLASS UNKNOWN	TOTAL VEHICLES
1 - 2 2 - 3 3 - 4 4 - 5	† <b>1</b>		1	100.0	100.0	1
5 - 6 6 - 7 7 - 8	7 16	1 . 5.6	1	5.6	11.1	18
8 - 9 9 - 10 10 - 11 11 - 12 PM HOURS 12 - 1	:			t see see see see see see see see see se	• .	
11 - 3 4 5 4 5 4 5 4 5 4						•
6 - 7 7 - 8 8 - 9 9 - 10 10 - 11 11 - 12				:		
AM TOTAL PM TOTAL	25	1 3.6	1 1	7.1	10.7	28
DAY TOTAL	25	1 3.6	1 1	7.1	10.7 2-AXLE EQUIVALENT	28 32
10-26-15 T	HRU 10-30-15			•		
	PICKUPS   BUS M	ON VOLUMES ************************************	**************************************	DOUBLE   TRAINS   UNIT %   5 - 6 7 -	TRAIN TRUCK CLASS	********* TOTAL VERICLES
AVG WEEKDA Volume		19 3 5.2	3 1 2	1.4	6.6 3	423
TOTAL HOUR 3 days avg weekda		TOR GROUP ROST ASONAL ADJ. FACTOR 1.2100	= ESTIMATED AVE E	PAILY TRAFFIC 512	AND 2-AXLE EQUIVALENT	433

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 09:52:53 PAGE 11

	+						R	JUKLT IK	KLLIC	. L£#	1331	TIUNI	TON SOMMER	. 1					FAGE	
SR 010	M	P 08	8.29		OFF SY	STEM	ID.			LEG	2		DIRECTION	QF	TRAFFIC	BO.	TH WAYS		LANE ALL	OF
COUNT IDEN	TIFIER	HPM:	s		COUNTE	R NU	MBER	447050		DESC	RIP	TION:	ON SR 10	s/0	SR 970					
10-26-15 MONDAY AM HOURS 12 - 1	CARS PICKUP	s	BUS BUS	INGLE MED	UNITS HVY	4+	S	INGLE   NIT %	D O U E	BLE U 5	ITI NU	s 6+	DOUBLE UNIT %	5	TRAINS - 6	7+	TRAIN	TRUCK %	CLASS	TOTAL VEHICLES
2 - 4 - 5 - 67													:							
7 - 8 8 - 9 9 - 10 10 - 11													:				:			
11 - 12 PM HOURS 12 - 1 1 - 2															. •					
2 - 3 3 - 4 4 - 5 5 - 6 6 - 7 7 - 8	76 67 75 39 13	• • •		2 4 1 1				2.5 5.4 5.0 2.4 6.7	1 2	1	1 1	1	3.7 2.7 1.3					6.2 8.1 6.3 2.4 13.3	^1 2	81 74 80 42 15
8 - 9 9 - 10 10 - 11 11 - 12	11 4 3 1	;		1				20.0										20.0		11 5 3 1
AM TOTAL PM TOTAL	289	,		13				4.2	3		3	1	2.2					6.4	3	312
DAY TOTAL	289	)		13				4.2	3	3	3	1	2.2					6.4 2-AXLE E	3 EQUIVALENT	312 322

SR 010

### STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 09:52:53 PAGE 12

MP 088.29

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC BOTH WAYS

LANE ALL OF

COUNT IDENTIFIER HPMS

COUNTER NUMBER 447050

DESCRIPTION: ON SR 10 S/O SR 970

10-27-15 TUESDAY AM HOURS 12 - 1 1 - 2	CARS PICKUPS 2	SINGLE BUS MED	UNITS HVY 44	SINGLE UNIT %	DOUBL 4-	E UNI 5	T\$ 6+	DOUBLE UNIT %	TRAINS 5- 6 7-	TR	AIN	ruck	CLASS UNKNOWN	TOTAL VEHICLES 2 1
2 - 3 3 - 5 5 - 7 7 - 8 9 - 10 10 - 11	1 1 3 31 39 47 59 49 57	2 4 2 4 2	1 2 1	5.7 9.1 5.2 9.7 5.8 1.7	1	1	1	16.7 5.7 2.3		,	1.7	16.7 11.4 11.4 5.2 12.9 5.8 3.3	2 8 1	1 1 3 3 3 4 5 5 6 5 6 5 6 5 6 6 6 7 6 7 6 7 6 7 6 7
PM HOURS 12 - 2 2 - 4 5 - 7 7 - 8 8 - 7 7 - 8 9 - 10 10 - 11 11 - 12	56 69 72 74 75 65 34 21 11 2	. 4 2 2 1 6 2 1	1	6.5 2.8 3.8 1.2 7.1 2.9	1 32	1 1	1	1.6 2.6 4.9 3.6				8.1 2.8 6.4 6.2 10.7 2.9	1 2 1	62 71 78 81 84 68 34 22 13 2
AM TOTAL PM TOTAL	287 484	14 18	5	5.8 3.7	2 6	2	2 2	1.8 1.9			.3	8.0 5.6	12 7	325 520
DAY TOTAL	771	32	6	4.5	8	4	4	1.9			.1 2-,	6.5 AXLE EG	19 UIVALENT	845 873

499

759

PM TOTAL

DAY TOTAL

13

22

### STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM

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PAGE

3.8

4.5

2-AXLE EQUIVALENT

11

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HOURLY TRAFFIC CLASSIFICATION SUMMARY

OFF SYSTEM ID. LEG 2 DIRECTION OF TRAFFIC BOTH WAYS LANE ALL OF MP 088.29 SR 010

COUNTER NUMBER 447050 DESCRIPTION: ON SR 10 S/O SR 970 COUNT IDENTIFIER HPMS 10-28-15 CARS | SINGLE UNITS | SINGLE | PICKUPS | BUS MED HVY 4+ UNIT % | TRAIN | TRUCK | CLASS TOTAL DOUBLE ! WEDNESDAY DOUBLE UNITS TRAINS 4- 5 UNIT % 5- 6 UNKNOWN VEHICLES 6+ AM HOURS 12 - 1 50.0 8 50.0 5 29 29 50 25 27 44 3.4 6.9 3.4 1 3.4 3.4 12.0 9 2 10.0 2.0 1 51 49 54 45 2.0 9 - 10 5.1 2 59 3.4 10 - 11 1.7 4.3 47 11 - 12 4.3 PM HOURS 1.7 1.7 6.7 60 56 3.3 1 3.2 62 60 1.6 1.6 76 2 - 3 75 89 1.1 2.2 3 -86 1 1.1 78 61 39 2.3 8.0 87 2 4 - 5 1 5.7 65 40 20 14 7 6.2 6.2 6 2.5 19 8 Q 9 - 10 1 10 - 11 1 3 11 - 12 . 3 3.9 2.7 5.7 282 260 9 3 1.8 6 AM TOTAL 5

5

3.1

.8

1.1

MP 088.29

SR 010

## STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 09:52:53 PAGE

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC BOTH WAYS

LANE ALL OF

Z-AXLE EQUIVALENT

COUNT IDEN	TIFIER HP	MS C	COUNTER N	UMBER 447050	ם ' ו	ESCRI	PTION	: ON SR 10	s/o sr 970				
10-29-15 THURSDAY AM HOURS 12 - 1	CARS   PICKUPS	SINGLE BUS MED	UNITS HVY 4+	SINGLE UNIT %	DOUBL 4-	E UN 1	T\$ 6+	DOUBLE UNIT %	TRAINS 5- 6 7+	TRAIN TR		LASS NKNOWN	TOTAL VEHICLES 1
1 - 2 3 - 4 5 5 - 6 7 - 8 9 - 10 10 - 12	2 2 8 23 27 49 44 66 62	3 2 4 4 11	1 2 1	10.0 6.7 8.5 12.0 6.8 15.1	2 1	2	4. 4.	3.3 3.3 8.5	·	. 1 1 1	3.3 0.0 6.9 2.0 8.2 5.1	1 3	2 2 9 30 30 59 73 73
PM HOURS 12 - 1 1 - 2 3 - 4 4 - 5 6 - 7 7 - 8 9 - 10 10 - 11 11 - 12	89 87 63 83 79 76 32 11 6 15 6	6 4 4 3 2 2 7 1	1 1 1	7.2 6.8 5.6 4.5 5.7 14.3 6.3	1 2 1		1	1.1 2.9 1.2		1	7.2 7.4 8.7 5.6 6.0 2.5 8.6 4.3	1 1 1	97 95 69 89 84 79 35 11 7 16 6
AM TOTAL PM TOTAL	286 548	28 29	4 3	9.7 5.4	. 3 4	2	3 1	2.4 .8		1	2.1 6.3	5 4	331 589
DAY TOTAL	834	57	7	7.0	7	2	4	1.4		7.17	8.4	9	920

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

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SR 010	MP 088.29	OFF SYSTEM	10.	LEG 2	DIRECTION OF	TRAFFIC BOTH WAYS	LANE ALL	OF
COUNT TOER	NTIFIER HPMS	COUNTER NUM	BER 447050	DESCRIPTION:	ON SR 10 S/0	SR 970		
10-30-15 FRIDAY AM HOURS 12 - 1 1 - 2		SINGLE UNITS MED HVY 4+	SINGLE D	OUBLE UNITS   4- 5 6+	DOUBLE UNIT % 5-	TRAINS TRAINS 6 7+ %	TRUCK   CLASS   WINKNOWN	TOTAL VEHICLES 1
2 - 3	: 1			1	100.0		100.0	1
5 - 6	10 24	1	3.6	. 1	3,6		7.1 2	10 28
7 - 8 8 - 9	- Prof. T.	•					•	
9 - 10 10 - 11								
11 - 12 PM HOURS	<u>:</u>		1					
12 - 1	•							
2 - 3					-			
5 ~ 6 6 ~ 7				,				
7 - 8 8 - 9								
9 - 10 10 - 11				,		•		
11 - 12								************************************
AM TOTAL PM TOTAL	38	1	2.3	1 1	4.7		7.0 2	. 43
DAY TOTAL	38	1 .	2.3	1 1	4.7		7.0 2 2-AXLE EQUIVALENT	43 47
10-26-15	THRU 10-30-15					;		
	PICKUPS   BUS	SINGLE UNITS		**************************************	DOUSLE UNIT % 5-	**************************************	**************************************	********* TOTAL VEHICLES
AVG WEEKDA VOLUME	AY 788	37 5	4.9	7 3 3	1.5	1	1 6.5 13 D 2-AXLE EQUIVALENT	857 880
		88 FACTOR GROUP R057	•			AWI	N S.WYFE EROTANCEN!	400
3 DAYS AVG WEEKD	AY VOL 857 X	SEASONAL ADJ. FAC	TOR 1.2100 =	ESTIMATED AVE D	AILY TRAFFIC	1037	0.9739	
PEAK HOUR PEAK HOUR	PERCENTAGES: LOCATION : V		= 55.67 ATE: 10/29/15	T = 7.22 TIME: 12:00 A	И		· •	

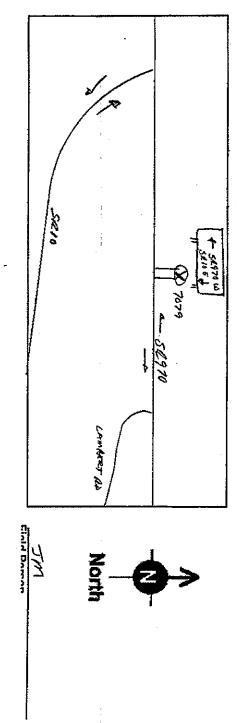


# Diamond Traffic Counter

3	7	
Interval 🗵 60 min.   📙 15 min.	☐ 15 min.	447070 C
⊠ Binned(CL/SP) ☐ Count(volume)	☐ Count(volume)	Country No. 1777078 Country FIF MIC
Lane No 1 1 2		SR 970 RRTIRRQ MP 2.69
Direction Channel 1	·	Leg 2 Direction WB OSID
Direction Channel 1		
Direction Channel 2		
Unique ID#		

# Station Description \_ON SR 970 E/O SR 10

_		à	<b>=</b>	<u> </u>	
10-30-15	10-29-15	10-28-15	10-27-15	10-26-15	Date
6	Ot .	4	ယ	2	Day
4560	0912	0921	0856	1437	Тіте
Manual (1) / (2) P/U O.K. JM	Manual (1) 7 (2) CHECK O.K. JM Counter (1) 7 (2)	Manual (1) 10 (2) CHECK O.K. JM Counter (1) 10 (2)	Manual (1) 16 (2) Counter (1) 16 (2) CHECK O.K. JM	Manual (1) 2 (2) Counter (1) 2 (2) SET O.K. JM	Comments
60	6.6	6.5	6.5	თ თ	



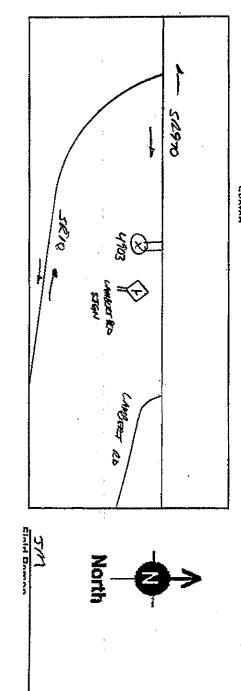


# Diamond Traffic Counter

Interval 🛛 60 min. 🔲 15 min.	☐ 15 min.		, ,	
⊠ Binned(CL/SP) ☐ Count(volume)	☐ Count(volume)	Counter No. 444903 Count ID HFWS	Count ID	HPMS
Lane No		sr 970 rriirro		MP 2.69
Direction Charmel 1		Leg 2 Direction	EB	OSID
Direction Channel 1				
Direction Channel 2				
Unique ID#				

# Station Description \_ON SR 970 E/O SR 10

Date         Day         Time         Comments           10-26-15         2         1428         Manual (1) 2 (2) (2) (2) (2) (2) (2) (2) (2) (2)	,		. 1			· · · · · · · · · · · · · · · · · · ·	<b> </b>
1428	:	10-30-15	10-29-15	10-28-15	10-27-15	10-26-15	Date
Manual (4) 2 (2)  Counter (1) 2 (2)  Manual (1) 9 (2)  Counter (1) 9 (2)  Counter (1) 3 (2)  Counter (1) 3 (2)  Counter (1) 6 (2)  Counter (1) 6 (2)  Counter (1) 6 (2)  Manual (1) (2)  Counter (1) / (2)  P/U O.K. JM		6	ζī	4	ω	12	Day
Comments  (2) SET O.K. JM  (2) CHECK O.K. JM  (2) CHECK O.K. JM  (3) (2) CHECK O.K. JM  (2) P/U O.K. JM	カゲハナット	•	0917	0925	0850	1428	Time
8.4 8.4		(2) (2) P/U O.K. JM	CHECK O.K. JM	CHECK O.K. JM	CHECK O.K. JM	SET O.K. JM	Comments
		Ž	6.4	6.4	<b>5</b> . <b>4</b> .	4.0	



SR 970

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 106

MP 002.69

OFF SYSTEM ID.

DIRECTION OF TRAFFIC WESTBOUND

LANE ALL OF

COUNT IDEN	TIFIER	HPM	S		COUNTER	NUMBE	R 447079	<b>)</b>	DESCR	IPTION	: ON SR 97	,0 E\0	SR 10				
10-26-15 MONDAY AM HOURS 12 - 1	CARS PICKUPS	5	S Sus	INGLE MED	UNITS HVY	4+	SINGLE   Unit %	D QUB 4-	LE UN 5	ITS 6+	DOUBLE	5~	TRAINS	7+	TRAIN %	TRUCK   CLASS UNKNOWN	TOTAL VEHICLES
2 - 2 3 - 4 4 - 5 5 - 6																	•
6 - 7 7 - 8 8 - 9 9 - 10																	
10 - 11 11 - 12 PM KOURS 12 - 1																	
234567	155 144 120		1	4 8 4	1		3.3 4.8 3.7 5.9	6 1 2	6	7 12 4	10.5 7.7 5.9 8.9	2	1	1 3	1.8 1.5 3.0	14-4 14.3 11.1 17.8	181 168 135 101
7 - 8 8 - 9 9 - 10 10 - 11 11 - 12	120 83 62 50 23 13		•	1 2 2 1			1.4 1.8 6.9 12.5 12.5	1	5 1 2	5 1 1	14.9 7.1 13.8 6.3 12.5		1	•	1.8	16.2 10.7 20.7 18.8 37.5	74 56 29 16 8
AM TOTAL PM TOTAL	655		1	29	2		4.2	11	21	38	9.1	2	3	6	1.4	14.7	768
DAY TOTAL	655		1	29	2		4.2	11	21	38.	9.1	2	3	6	1.4	14.7 2-AXLE EQUIVALENT	768 912

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 107

SR 970

MP 002.69

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC WESTBOUND

LANE ALL OF

COUNT IDENTIFIER HPMS

COUNTER NUMBER 447079

DESCRIPTION: ON SR 970 E/0 SR 10

COOM! IDEM	IIFIER HE	Pi O		COORTE	IX HUE	IDER THIOTY					-, -	• • • • • •				-	
10-27-15 Tuesday Am Hours	CARS PICKUPS	BUS	SINGLE MED	UNITS	4+	SINGLE UNIT %	DOUB1	.E UN 5	115 6+	DOUBLE UNIT %	5-	TRAINS	7+	TRAIN %	TRUCK	CLASS	TOTAL VEHICLES
12	4 10 17 36 62 106 95 128 105 141	1	1285545	3 1 3 3 2		9.5 2.6 7.7 6.9 4.3 4.3	2 2222	1 1 1 5 4 5 3 4	1 1 5 9 5 8 10 13	20.0 33.3 16.7 10.5 15.8 10.0 10.3 8.7 12.6		1	2 1 2 3 2	4.8 .8 .9 1.3 21.3	20.0 33.7 10.3 14.4 18.5 18.1 14.8 15.6	1	129 42 76 130 116 151 167
PM HOURS 12 - 1 1 - 2 2 - 3 4 - 5 6 - 7 7 - 8 9 - 10 10 - 11 11 - 12	118 135 152 147 162 123 79 79 34 17 22 6	1 2 2 1	559983 1341211	1 1		4.7.2 6.9 9.5 8.3 9.3 1.3 9.7	2622312	8 2 4 3 6 1 2 1	708549842122	11.8 11.0 7.9 5.7 7.0 6.8 10.4 7.7 7.3 10.0 11.1 30.0	1 2 1 4 1	1 1	2 3 2 1	2.1 3.0 3.4 5 1.9 1.3 4.9 3.7	18.1 17.6 14.0 12.4 16.3 16.3 15.0 18.5 40.0		144 164 178 175 185 147 106 78 41 20 27
AM TOTAL PM TOTAL	708 1075	1	31 58	12 3		5.2 5.3	10 19	25 29	53 62	10.3 8.6	10	2 3	10 10	1.4 1.8	16.9 15.7	1	853 1275
DAY TOTAL	1783	7	89	15		5.2	29	54	115	9.3	10	5	20	1.6	16.2 2-AXLE E	1 QUIVALENT	2128 2551

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

SR 970

MP 802.69

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC WESTBOUND

LANE ALL OF

DATE 11/03/15 TIME 10:00:13 PAGE 108

COUNT IDENTIFIER HPMS

COUNTER NUMBER 447079

DESCRIPTION: ON SR 970 E/O SR 10

COURT INEM	TETER DEV	,,,		000M.L		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-				•						
10-28-15 WEDNESDAY AM HOURS 12 - 1 1 - 2 2 - 3	CARS PICKUPS 4 4 4	S BUS	INGLE MED	UNITS	4+	SINGLE UNIT %	00U81 4-	LE UN 5 1 1 2 2	ITS 6+ 1	DOUBLE UNIT % 33.3 20.0 25.0 35.7	5-	TRAIN 6	\$ 7+	TRAIN %   12.5	% 33.3 20.0 50.0	CLASS UNKNOWN	TOTAL VEHICLES 6 5 8 14
3 - 4 5 - 7 7 - 8 9 - 10 10 - 11	16 38 56 80 104 108 127 130	1	2434724	1 2 1 2		4.3 5.7 5.0 5.0 6.0 2.5	1 1 3 3 7	3525364	1 2 13 4 8 11	10.6 11.4 14.9 7.4 10.4 12.7		1 3	2 2 2 6 3	4.3 2.9 1.0 1.7 2.2 3.8 2.5	19.1 20.8 20.8 14.0 18.7	1	16 47 70 101 121 134 157 159
PM HOURS 12 - 1 1 - 2 3 - 4 - 6 6 - 7 7 - 8 9 9 - 10 10 - 11 11 - 12	142 119 149 125 135 95 30 175 16	1 3 1	61 60 1533 12	1 3		4.2 2.7 4.5 8.1 .7 4.4 5.6 4.7	32313	3 8 10 6 4 4 3 2 3 1 1	9 7 3 11 3 11 4 2 3	8.9 11.6 19.1 11.2 6.8 13.5 6.3 16.3 15.3 14.3	2522	1	211221	2.4 4.1 1.7 2.5 1.4 .9 3.1 2.7	15.5 18.5 15.3 21.7 8.8 18.4 18.1 14.1	·	168 146 176 161 148 114 72 64 37 19
AM TOTAL PM TOTAL	678 946	2 6	26 38	7 4	· <del>-</del>	4,2 4.2	15 14	34 45	52 54	12-1 10-0	11	5 2	18 11	2.7 2.1	19.0 16.4	1	838 1131
DAY TOTAL	1624	8	64	11		4.2	29	79	106	10.9	11	7	29	2.4		1 QUIVALENT	1969 2437

AM TOTAL

PM TOTAL

DAY TOTAL

730

1000

1730

25

46

71

5

6 ž

8

### STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM

DATE 11/03/15 TIME 10:00:13 PAGE 109

1172

2050

2476

HOURLY TRAFFIC CLASSIFICATION SUMMARY

LEG 2 DIRECTION OF TRAFFIC WESTBOUND LANE ALL OF MP 002.69 SR 970 OFF SYSTEM ID. COUNTER NUMBER 447079 DESCRIPTION: ON SR 970 E/O SR 10 COUNT IDENTIFIER HPMS 10-29-15 DOUBLE UNIT % TRUCK | CLASS TOTAL TRAINS TRAIN DOUBLE UNITS THURSDAY SINGLE UNITS SINGLE CARS % 14.3 7+ % UNKNOWN VEHICLES BUS MED HVY 4+ 5 6 PICKUPS UNIT % 6+ AM HOURS 14.3 12 - 1 6 60.0 60.0 1 -33.3 33.3 3 29.4 5.9 17 2 2 23.5 1 12 16.7 16.7 18 15 5 20.5 39 10.3 10.3 31 \_ 1.6 10.9 64 3 9.4 57 123 4.9. 8 10.6 1 1 1.6 17.1 102 8 119 5.9 12 13.4 19.3 8 - 9 96 6 1.3 155 ż 3.9 8 8 11.0 16.1 9 - 10 130 4 ş 2.5 160 ž 3.1 10.6 3 16.3 - 11 134 3 1 10 3 9 2 . 1.2 14.2 162 139 2.5 10.5 11 - 12 PM HOURS 2.7 14.3 147 5 7.5 1 1 126 12 - 1 6 15.8 165 5.5 3 8 7.3 3.0 1 - 2 139 6 6.4 8.9 1.9 17.2 157 2 - 3 130 144 ē 2 3 7 2 4.9 11.1 128 150 16.0 9 6.0 8 10.0 126 137 3 3 2.2 17.5 223 1.5 13.9 113 6 10 121 63 37 9.1 1.7 12.4 6 - 7 106 1.7 1 12.7 17.5 52 34 7 - 8 4.8 5.4 2.7 8.1 8 - 9 27 27 9 - 10 7.1 14.3 14 7.1 10 - 11 12 30.0 7 20.0 10 . 10.0 1 1 11 - 12 878 3 9 7 1.4 16.9

7

13

20

3.6

4.4

4.1

36

68

61

55

116

11.8

8.5

10.0 -

9

7

16

1.7

1.6

14.7

15.6

2-AXLE EQUIVALENT

## STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 110

AWD 2-AXLE EQUIVALENT

2487

DIRECTION OF TRAFFIC WESTBOUND LANE ALL OF OFF SYSTEM ID. LEG 2 MP 002.69 SR 970 COUNTER NUMBER 447079 DESCRIPTION: ON SR 970 E/O SR 10 COUNT IDENTIFIER RPMS 10-30-15 SINGLE | DOUBLE UNITS DOUBLE TRAINS TRAIN TRUCK | CLASS TOTAL SINGLE UNITS FRIDAY CARS UNIT % 7+ % % 37.5 UNKNOWN VEHICLES 5 6 BUS MED RVY 4+ UNIT % 4-6+ AM HOURS PICKUPS 12.5 25.0 8 12 - 1 30.0 10.0 10 20.0 1 - 2 33.3 41.7 3 12 2 -6 1 8.3 3 7 18 5.6 5.6 5.6 16.7 5 15 10.0 1 2 10.0 20.0 30 1 24 3.9 9.8 15.7 51 1 43 8 8 - 9 9 - 10 10 - 11 11 - 12 PM HOURS 12 - 1 2 9 9 - 10 10 - 11 11 - 12 2 5 5.1 20.6 AM TOTAL 107 2.9 5 10 12.5 136 PM TOTAL 2.9 2 5 10 12.5 2 5 5.1 20.6 136 DAY TOTAL 107 2-AXLE EQUIVALENT 182 10-26-15 THRU 10-30-15 AVERAGE WEEKDAY CLASSIFICATION VOLUMES \* | SINGLE | DOUBLE UNITS DOUBLE | TRAIN TRUCK | CLASS CARS SINGLE UNITS UNIT % % UNKNOWN VEHICLES PICKUPS BUS MED HVY 4+ UNIT % 4- 5 6+ 5 --6 7+ % AVG WEEKDAY 4.5 26 67 112 10.0 10 6 22 1.9 16.4 2049 VOLUME 1712 7 75 11

TOTAL HOURS FOR COUNT 88

3 DAYS FACTOR GROUP R057

AVG WEEKDAY VOL 2049 X SEASONAL ADJ. FACTOR 1.2100 = ESTIMATED AVG DAILY TRAFFIC 2479

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

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	·			••			027.04			•						
\$R 970	MP G	02.69	OFF SY	STEM ID.		1.	EG 2		DIRECTION	OF	TRAFFIC	EAST	BOUND		LANE ALL	OF
OUNT IDEN	TIFIER HP	MS	COUNTE	R NUMBER	444903	0	ESCRI	PTION:	ON SR 970	E/0	SR 10					
0-26-15 IONDAY M HOURS 2 - 1 1 - 2 2 - 3 3 - 4 4 - 5	CARS PICKUPS	SINGI BUS MED	E UNITS	4+   5	SINGLE INIT %	DOUBL 4-	.E UN 1 5	1T\$   6+	DOUBLE	5-	TRAINS 6	7.+ ************************************	TRAIN %	TRUCK	CLASS UNKNOWN	TOTAL VEHICLES
5 - 6 6 - 7 7 - 8 9 - 10 10 - 11 10 - 12 10 - 12 10 - 12 11 - 2 12 - 1															•	
234567890112	167 168 136 88 48 43 28 23	1			7.1 3.7 4.7 5.9 3.6	1	782231113	8725211	7.6 7.9 3.4 6.7 6.5 6.2 15.0		-	<b>2</b> ·	1.0	15.7 11.6 8.1 12.9 14.3 6.7 4.2 20.0	• .	198 190 148 101 56 46 30 24 20
AM TOTAL PM TOTAL	717	33	5 ·4		4.6	3	28	26	7.0			2	.2	11.8	*******	813
DAY TOTAL	717	3:			4.6	3	28	26	7.0			2	. 2	11.8	QUIVALENT	813 917

SR 970

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

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MP 002.69 OFF SYSTEM ID. LEG 2

DIRECTION OF TRAFFIC EASTBOUND

LANE ALL OF

COUNT IDENTIFIER HPMS

COUNTER NUMBER 444903

DESCRIPTION: ON SR 970 E/O SR 10

COUM! IDEM	TIFIER DEP	13		CODATE	IX DIOI	MUCK 444705		U L U U I		A. DI DI 710	_, _	0.0					
10-27-15 TUESDAY AM HOURS 12 - 1 1 - 2 3 - 4 5 - 6 7 - 8 9 9 - 10 11 - 12	CARS PICKUPS 14 7 3 7 10 21 39 43 60 96 84 116	\$ BUS 2	INGLE MED 1 3848856	UNITS HVY 121113345133	4+	SINGLE UNIT % 10.00 122.22 8.33 13.33 12.3 16.1 7.87 6.0	DOUB 4-	LE UN 5 3 311 1355411 168	1178 6+ 21 12 4 11 11 35 55 55 13	DOUBLE UNIT % 25.0 10.0 125.0 26.3 31.1 22.5 13.8 12.6 13.7 15.4	5- 1 1	TRAINS 6 1 3	7+ 213516	TRAIN 10.0 8.3 15.8 8.92 7.7 1.1 4.7 .7	TRUCK 30.0 366.7 41.7 47.43 535.1 33.8 29.6 25.6 28.1	CLASS UNKNOWN 1	TOTAL VEHICLES 20 10 9 12 19 45 71 65 87 129 117 149
PM HOURS 12 - 1 1 - 2 2 - 3 4 - 5 5 - 6 7 7 - 8 9 - 10 10 - 11 11 - 12	120 126 115 140 138 99 82 61 46 30 28	1	965577242111	3252		7.8 7.0 4.5 4.5 4.3 7.0 6 3.1 9 3.1 9	1 2 1 2 2	13 9 10 3 1 2 2 4 1	8346721232NQ	13.6 14.9 7.0 5.8 3.6 5.5 5.7 8.8 6.3 23.5		1	1 3	.6 2.1 1.4 3.1	22.1 20.3 19.4 10.4 10.0 8.8 14.1 11.8 12.5 29.4	1	154 1582 1582 1591 110 91 71 55 32 17
AM TOTAL PM TOTAL	500 997	5 2	43 50	27 13		10.2 5.5	8 8	60 47	63 52	17.9 9.1	3	_ 4 _ 1	19 5	3.5 -5	31.7 15.1	1	733 1176
DAY TOTAL	1497	7	93	40		7.3	16	107,	115	12.5	3	<b>Š</b>	24	-1-7	21.5 2-AXLE E	2 QUIVALENT	1909 2410

SR 970

DAY TOTAL

1501

80

37

MP 002.69

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S I E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 113

1930

2472

OFF SYSTEM ID.

LEG Z

DIRECTION OF TRAFFIC EASTBOUND

21

1.6

22.2

2-AXLE EQUIVALENT

LANE ALL OF

	i																
COUNT IDEN	TIFIER HP	MS		COUNT	ER NU	MBER 444903	ı	DESCR	IPTIO	N: ON SR 970	E/0	SR 10					
10-28-15 WED NESDAY AM HOURS 12 - 1 1 - 2 3 - 4 4 - 5 6 - 7 7 - 8 9 9 - 10 10 - 12	CARS PICKUPS 8 8 6 6 11 31 37 65 61 106	5 BUS 4 2 1		UNIT: HVY 1 23.1 35.534.3	\$ 4+	SINGLE UNIT % 10.0 15.4 21.4 6.7 6.1 15.8 11.0 10.1 6.3	DOUB 4-	LE UN 1 2 6 7 2 0 1 1 8 1 6	115 6+211132906010490	DOUBLE 15.0 15.7 23.1 28.6 26.7 48.5 22.0 18.0 19.0 18.0	5-1111111111111111111111111111111111111	TRAINS 6	7+ 1 322322 3	TRAIN   16.7 7.1 26.7 12.1 6.3 5.3 2.0 3.4 2.0	TRUCK 253.55.10 660.7 835.10 5	CLASS UNKNOWN	TOTAL VEHICLES 20 12 13 14 15 33 63 57 100 89 142
PM HOURS 12 - 2 3 4 5 6 7 8 9 9 10 - 11 11 11 2	110 111 145 135 129 129 84 57 555 227	1 4	1355564315	1 1 2 1 1	·	9.1 5.8 4.5 2.2 2.7	2 3 1 1 1 1	18 15 5 5 6 1 2 6 1 2	10 6 7 4 4 7 3 2 3 1	19.5 15.1 9.0 6.0 7.0 5.7 6.4 13.7 13.8 3.3	1		2 1	1.8	28 - 6 20 - 7 15 - 7 11 - 5 10 - 6 16 - 2 15 - 4 13 - 8 3 - 9		154 136 150 157 141 94 68 65 29 30
AM TOTAL PM TOTAL	460 1041	9 2	33. 47	30 7		10.2 4.6	6 11	77 62	67 48	21.2 9.9	4	4	18 3	3.7 .3	35.0 14.8		708 1222

17 139 115

14.0

6.6

SR 970

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

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MP 002.69

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC EASTBOUND

LANE ALL OF

COUNT IDENTIFIER HPMS

COUNTER NUMBER 444903

DESCRIPTION: ON SR 970 E/O SR 10

COOM! INEM	IILIEK BE	n 5		COONI	EK NU	MPEK 444702		DESGR	1110	M. OH SK FIG	C/O	31 10					
10-29-15 THURSDAY AM HOURS 12 - 2 2 - 3 3 - 4 4 - 6 6 - 7 7 - 8 9 - 10 10 - 11	CARS PICKUPS 14 2 3 4 6 13 31 54 63 91	Bus	SINGLI S MED 1	E UNIT HVY 2 1 3 3 1	S 4+	SINGLE UNIT % 12.5 25.0 8.8 10.3 9.3 9.3 4.3 3.5 6.3	DOUB 4- 1 2 2 1 2 2 1	LE UN 5 1 2 2 2 2 7 13 10 9 143 12	6+22 36626357	DOUBLE 17.6 62.5 25.6 44.1 39.7 19.8 17.9 14.9	5 - 1	TRAINS 6	7+ 12371	12.5 17.6 8.8 4.4 8.1 1.2	TRUCK % 17.60 75.00 62.5 55.6 64.78 54.4 37.2 26.7 22.19.1	บทหมอนท	TOTAL VEHICLES 17 8 8 9 17 34 68 86 117
11 - 12 PM HOURS	115		1 6	, 3		6.3		12	18	19.0	1	1	,	1.9	27.2		158
12 - 23 12 - 3 12 - 3 14 - 5 15 - 6 16 - 7 10 - 11 11 - 12	127 143 122 148 158 128 95 69 71 50 31		2 10 1 5 8 6 9 2 4 1	5 1 3 2	2	6.7 7.0 6.3 6.9 3.4 6.1 1.9 4.5	5 4 1 1 1	11 147 77 105 48 4215	883624182	14.6 14.1 7.7 8.8 6.8 5.8 18.0 7.8 3.1 17.9			3	1.2	22.6 22.7 14.1 14.9 12.9 7.8 22.5 5.7 3.1 28.6		164 185 142 174 176 147 103 89 77 53 32
AM TOTAL	509 1162		28 5 5 4	15 11	1 2	6.5 5.1	11 13	87 78	70 42	22.4 9.7	3	3	16 5	2.9 .4	31.9 15.2	1	749 1370
DAY TOTAL	1671	8	82	26	3	5.6.	24	165	112	14.2	3	3	21	1.3		1 EQUIVALENT	2119 2694

## STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13

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PAGE

SR 970	MP 00	12.69	•	OFF SY	STEM :	1D.	1	LEG 2	,a-	DIRECTIO	N OF	TRAFFIC	ΕA	STBOUND.	LANE ALL	OF
COUNT IDENT	IFIER HPM	ls.	1	COUNTE	R NUMI	BER 444903	. 1	DESCR	IPTIO	N: ON SR 97	70 E/O	SR 10				
10-30-15 FRIDAY AM HOURS 12 - 1 1 - 2 2 - 3 3 - 4 4 - 5 5 - 6 6 - 7 7 - 8 8 - 9 9 - 10	CARS PICKUPS 8 7 2 6 3 33	si Bus 2		UNITS HVY 2	<b>4</b> ÷	13.3 22.2 2.9 16.7	DOUB 4- 1 1 4 3	LE UN 5 2 1 1 2 3 13 12	1TS 6+ 2 3 2 1 8	DOUBLE 20.0 27.3 26.7 55.5 73.5 34.7	5- 1	TRAINS 6 1	7+ 2 2 2	13.3 15.4 14.7 2.8	TRUCK CLASS 20.0 27.3 53.3 77.8 53.8 91.2 54.2	TOTAL VEHICLES 10 11 15 9 . 13 34 72
10 - 11 11 - 12 PM HOURS 12 - 1 1 - 2 2 - 3 3 - 4 4 - 5 6 - 7 7 - 8 8 - 10 10 - 11						-										
AM TOTAL PM TOTAL	67	5	11	4		10.4	9	34	26	42.1	2	3	6	6.7	59.1	164
DAY TOTAL	67	2	11	4		10.4	9	34	26	42.1	. 2	3	5	6.7	59.1 2-AXLE EQUIVALENT	164 302
10-26-15 TH	RU 10-30-1	15													•	
AVERAGE WEE	KDAY CLASS CARS PICKUPS		ENGLE	VOLUME UNITS HVY		***********   SINGLE     UNIT %	DOUB 4-	***** LE UN 5	***** IT\$ 6+	**********   DOUBLE   UNIT %	* ****     5-	****** TRAINS 6	**** 7+	TRAIN	TRUCK CLASS UNKNOWN	********* TOTAL VEKICLES
AAC MEEKDAA AOC MEEKDAA	1556	9	85	34	1	6.5	19	137	114	13.6	4	4	22	1.5 AWD	21.6 1 2-AXLE EQUIVALENT	1986 2526
TOTAL HOURS 3 Days AVG WEEKDAY		F#	CTOR	GROUP AL ADJ		TOR 1.2100	= EST	IMATE	D AVG	DAILY TRAS	FIC	2403				

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S · S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 116

DIRECTION OF TRAFFIC BOTH WAYS LANE ALL OF OFF SYSTEM ID. LEG 2 SR 970 MP 002.69 COUNT IDENTIFIER HPMS COUNTER NUMBER 444903 DESCRIPTION: ON SR 970 E/O SR 10

10-26-15 MONDAY AM HOURS 12 - 1	CARS PICKUPS	BUS	SINGLE MED	UNITS	4+	SINGLE UNIT %	DOUB 4-	LE UN	ITS 6+	DOUBLE UNIT %	5~	RAINS 6	7+	TRAIN %	TRUCK   CLASS UNKNOWN	TOTAL VEHICLES
1 - 2 2 3 4 5 6 7 7 7 7 7 8 9 9 - 10 10 - 11 11 1 1 2 PM HOURS			÷		-											
12 - 1 11 - 2 22 - 3 34 - 5 5 - 7 7 - 8 8 - 10 10 - 11 11 - 12	322 312 256 171 110 93 51 36 21	1	15 15 11 12 3 1 2 2	1		54.22 5.30 4.5.30 1.00 1.00 1.00	6 1 3 2 1 1	13 8 4 7 8 2 3 1 3	15 19 6 9 7 4 2 1	9.0 7.8 4.6 7.9 13.1 6.9 10.2 5.0	2	1 1	3 3 2	.8 .7 1.5 · 1.0	15.0 12.8 9.5 15.3 15.4 8.8 13.6 10.0 25.0	379 358 283 202 130 102 59 40 28
AM TOTAL PM TOTAL	1372	1	62	6	, ,	4.4	14	49	64	8.0	2	3	8	-8	13.2	1581
DAY TOTAL	1372	1	62	6		4.4	14	49	64	8.0	2	3	8	-8	13.2 2-AXLE EQUIVALENT	1581 1829

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION TRIPS SYSTEM HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 117

SR 970

MP 002.69

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC BOTH WAYS

LANE ALL OF

COUNT IDENTIFIER HPMS

COUNTER NUMBER 444903

DESCRIPTION: ON SR 970-E/O SR 10

COOM! IDEN	TIETEK BEI	43		COOMICA	NONDER 44	4102	5200.	,,,,,,								
10-27-15 TUESDAY AM HOURS 12 - 23 44 - 6 56 - 8 9 - 10	CARS PICKUPS 16 11 5 17 27 57 101 149 125 224	\$ BUS 2 1 1		UNITS HVY 1 21 -1 -63 58	SINGI 4+ UNIT 4. 6. 16. 2. 11. 10. 9.	%   4- 57772655228	BLE UN 5 3 4223109914	6+221351 11620 1371 1371	DOUBLE UNIT % 22.7 13.3 41.7 20.8 16.1 19.0 11.3 10.8	51	TRAINS 6 1 3	7+ 233618	TRAIN % 6.7 4.2 7.9 6.9 2.0 3.1 1 1.0 2.9	TRUCK 27.3 26.7 58.3 28.9 34.5 31.3 23.2 29.4	CLASS UHKNOWN 1 1	TOTAL VERICLES 22 15 12 24 38 87 147 195 203 279
10 - 11 11 - 12 PM HOURS	189 257 238	Î	11 14	6 5	6. 5.	5 4 1 4		15 26 15	15.7 12.3 12.8	1,	1	3 3 3	1.6 1.3	23.8 18.7 20.1	•	248 316 298
12 - 1 1 - 2 2 - 3 3 - 4 4 - 5 5 - 6	261 267 287 300 222	2 2 2 1	11 14 14 15 20	2 5 3 1	4. 6. 5. 4. 8.	7 7 6 2 7 4 7 4	11 14 6 7	23 12 11 11	12.7 8.8 6.3 6.5 5.4	1 4 1		3 2	1.6 1.3 1.8 .3	18.9 16.6 13.8 11.5 13.6		322 320 333 339 257
6 - 7 7 - 8 8 - 9 9 - 10 10 - 11 11 - 12	171 131 80 47 50 18	1	654221		3, 4, 3, 3,	0 2 2 7 1 4	3 2 5 1 1 3	9 6 5 3 4 4	8.1 6.7 10.4 9.3 8.5 25.9	1	1 1 1 1	1	1.0 1.3 2.1 3.4 3.7	12.7 12.1 16.7 13.0 15.3 33.3		197 149 96 54 59 27
AM TOTAL PM TOTAL	1208 2072	6 8	74 108	39 16	7. 5.	5 18		116 114	13.8 8.9	3 10	6 4	29 15	2.4 1.2	23.7 15.4	2 1	1586 2451
DAY TOTAL	3280	14	182	55	6.	2 45	161	230	10.8	13	10	44	1.7	18.7 2-AXLE EG	3 TUBLANT	4037 4961

SR 970

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 118

MP 002.69

OFF SYSTEM ID.

LEG 2

DIRECTION OF TRAFFIC BOTH WAYS

LANE ALL OF

COUNT	IDENTIFIER	HPMS

COUNTER NUMBER 444903

DESCRIPTION: ON SR 970 E/O SR 10

COUNT TOEK	rreier nei	13		COORTE		MDEK 444705					_,_						
10-28-15 WEDNESDAY AN HOURS 12 - 1 1 - 2 3 - 4 4 - 5 6 - 7 7 - 8 8 - 9 9 - 10 10 - 11	CARS PICKUPS 19 12 12 13 22 49 87 117 169 169 233 236	8US 431 12	INGLE MED 1 47593614	UNITS HVY 1 3 3 1 3 6 7 4 6 3	4+	SINGLE UNIT % 7.7 14.3 10.7 3.2 5.0 10.5 8.9 7.7 7.6 4.1	DOUB 4- 22 24 38	LE 50 2243291245154420	1TS 6+ 3 1 16 2 10 12 19 14 2 20 19	DOUBLE 19.26 17.6 23.8 32.1 12.9 26.5 14.6 14.0 13.7 15.2	5~ 1 1	TRAINS 6	7 11234434266	TRAIN % 11.8 4.8 10.7 12.9 7.5 2.5 1.8 2.7 0 2.3	TRUCK % 29.4 42.9 53.6 29.8 34.6 25.9 23.5 23.6	CLASS UNKNOWN	TOTAL VEHICLES 26 17 21 28 31 80 133 158 221 229 309
11 - 12 PM ROURS 12 - 2 3 - 4 5 - 7 7 - 8 9 - 10 10 - 11 11 - 12	252 230 289 261 274 222 143 112 85 42 44 33	1 4 2	19 64 11 15 7 9 6 4 5 1 2	1 1 3 4 1		6.597 6.528 4.11 6.528 4.11	· 5261443111	21 23 15 10 55 84 21 2	19 13 10 15 7 18 7 4 6 2	14.0 13.3 9.1 8.7 6.9 9.0 9.0 9.8 10.4 4.1 8.3	2532	1	3 22 1 1 2	1.2 2.1 1.8 1.3 .7 .4 .6 1.5	21.7 19.3 15.5 16.1 10.2 12.9 13.9 15.7 10.5 10.5 8.3		322 285 341 305 255 166 132 48 49 36
AM TOTAL PM TOTAL	1138 1987	11 8	59 85	37 11		6.9 4.4	21 25	111 107	119 102	16.2 9.9	4 12	9 2	36 14	3.2 1.2	26.3 15.6	1	1546 2353
, DAY TOTAL	3125	19	144	48		5.4	46	218	221	12.4	16	11	50	2.0	19.8 2-AXLE E	1 QUIVALENT	3899 4909

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S I E M . HOURLY TRAFFIC CLASSIFICATION SUMMARY

DATE 11/03/15 TIME 10:00:13 PAGE 119

SR 970

MP 002.69

OFF SYSTEM ID.

- 1.56

DIRECTION OF TRAFFIC BOTH WAYS

LANE ALL OF

COUNT IDENTIFIER RPMS

COUNTER NUMBER 444903

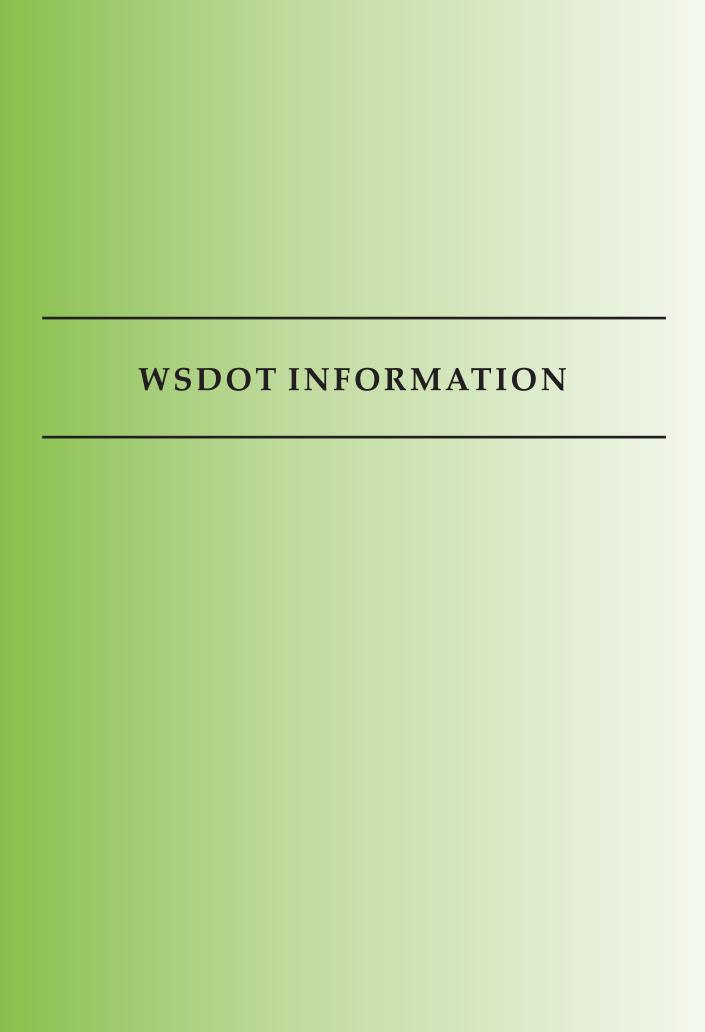
DESCRIPTION: ON SR 970 E/O SR 10

••••																	
10-29-15 Thur\$DAY AM Hours 12 - 1	CARS PICKUPS 20	BUS	SINGLE MED	UNITS HVY	4+	SINGLE UNIT %	4-	LE UN 5 1	ITS 6+ 3	DOUBLE UNIT %	5-	TRAIN:	S 7+	TRAIN	TRUCK % 16.7	CLASS	TOTAL VEHICLES 24 13
1 - 2 2 3 4	4 9 16		1	2		7.7 11.8	1	3 4	4 2 5	61.5 29.4 34.6	1		1	5.9 3.8	69.2 47.1 38.5		17 26
4 - 5 5 - 6	21 44		7			9.6 5.3	2	7	7 10	31.4 26.0	1	1 1	1 2	8.6 4.1 3.0	40.0 39.7		35 73
6 - 7 7 - 8 8 - 9	88 156 159	5	4 9 11	1 3 4		5.3 6.7 7.3	1 2	16 15 13	15 14 15	25.0 14.4 14.6		1	8	4.3 .5	33.3 25.4 22.4		132 209 205
9 - 10 10 - 11 11 - 12	221 247 254	1	8 4 9	3 4 4	1	4.0 3.3 4.4	3 2 5	13 22 20 15	13 16 27	14.0 12.6 14.7	1	1 1 1	1 4 3	.7 1.7 1.6	18.8 17.6 20.6	1	272 301 320
PM HOURS 12 - 1	253 282	4	12 16	5	•	5.5	7 5	15 17	13 16	11.3 10.9	2	1	3	1.9 2.3	18.6 19.4		311 350
2 - 3	252 276	2	13 16	2	2	6.4 6.6	5	11 10 17	9 8 10	8.4 6.6 8.3	. 3		-	1.0	15.7 13.2 12.9	,	299 318 326
4 + 5 5 + <del>6</del> 6 - 7	284 241 201		15 11 4			4.6 3.9 1.8	4 1	11	14 10	10.2 7.6		1	3 1	1.1	15.1 10.3	•	284 224
7 - 8 8 - 9 9 - 10	121 105 77		7			4.6 1.3	1	10 4 2	13 3	15.8 6.1 2.5	1.	1	•	1.8	20.4 7.9 3.8	*	152 11.4 80
10 - 11 11 - 12	43 27		14			2.2 10.5		16	1	2.2 18.4		1		2.2	6.5 28.9		46 38
AM TOTAL PM TOTAL	1239 2162	6 7	53 100	21 13	1 2	5.0 4.8	18 26	123 110	131 97	16.7 9.2	3 9	6	25 12	2.1 1.0	23.8 14.9	1	1627 2542
DAY TOTAL	3401	1⁄3	153	34	3	4.9	44	233	228	. 12.1	12	10	37	1.4	18.4 2-AXLE E	1 QUIVALENT	4169 5169

# STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION T R I P S S Y S T E M HOURLY TRAFFIC CLASSIFICATION SUMMARY

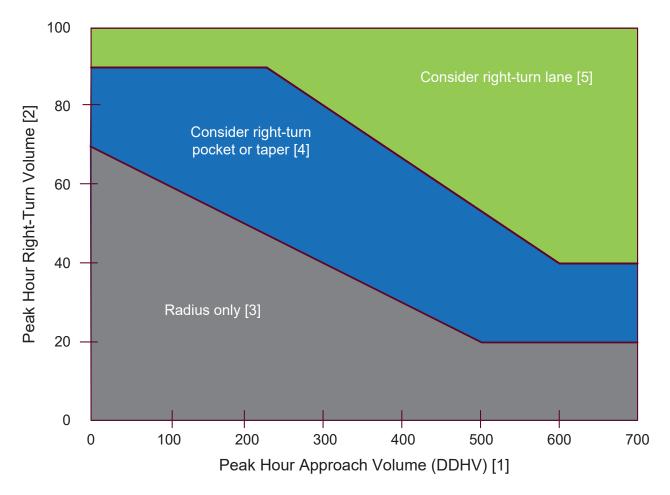
DATE 11/03/15 TIME 10:00:13 PAGE 120

sr 970	MP 007	2.69	(	OFF SYST	EM ID.		LEG 2	خعره	DI	RECTION	OF T	RAFFIC	BOT	E WAYS		LANE ALL	OF
COUNT IDENT	IFIER HPM:	s	i	COUNTER	NUMBER 444903	;	DESCR	1 P T I O I	i: ON	SR 970	E/0	SR 10					
10-30-15 FRIDAY AM HOURS 12 - 1 1 - 2 2 - 3 3 - 4 4 - 5 5 - 6 6 - 7 7 - 8	CARS PICKUPS 13 15 13 9 21 27 76	SI BUS		UNITS HVY 4	+   SINGLE   UNIT %   11.1   12.5   3.2   1.6   11.4	1 1 1 5 4	SE UN 5 2 2 4 2 3 14 12	1TS 6+ 2 3 4 2 2 9	ן טע	UBLE	5 - 1	TRAINS 6 1 1	7+ 1   3 4 3	TRAIN % 64.8 7.4 9.7 12.5 2.4	TRUCK 27.8 28.6 48.1 43.8 32.3 57.8 38.2	CLASS UNKNOWN	TOTAL VEHICLES 18 21 27 16 31 64 123
8 - 9 9 - 10 10 - 11 11 - 12 PM HOURS 12 - 1 2 - 3 3 - 4 5 - 7 7 - 8 9 - 10							٠.										
10 - 11 11 - 12 AM TOTAL PM TOTAL	174	2	15	4	7.0	11	39	36	· · · · · ·	28.7	2	5	11	6.0	41.7		300
DAY TOTAL	174	2	15	4	7.0	11	39	36		28.7	2	5	11	6.0	41.7 -AXLE E	1 QUIVALENT	300 484
10-26-15 TH	RU 10-30-1	5															
	CARS PICKUPS	IFICAT SI BUS	NGLE	UNITS	SINGLE UNIT %	DOUE 4-		***** 1TS 6+		UBLE   IT %	***** 5~	******* TRAINS 6	**** 7+	TRAIN 8	******* TRUCK %	CLASS UNKNOWN	TOTAL VEHICLES
AAC MEEKDAA AOLUME	3269	15	160	46	1 5.5	45	204	226		11.8	14	10	44	1.7 AWD 2	19.0 -AXLE E	2 QUIVALENT	4035 5014
TOTAL HOURS 3 DAYS AVG WEEKDAY		88 FA 5 X SE	CTOR	GROUP R AL ADJ.	057 FACTOR 1.2100	= ES1	IMATE	D AVG	DAIL	: Y TRAFF	ıc	4882			. 80	_	
PEAK HOUR P		: VOL	K .UME				= 1 IME:		PM							1.	



Chapter 1310 Intersections





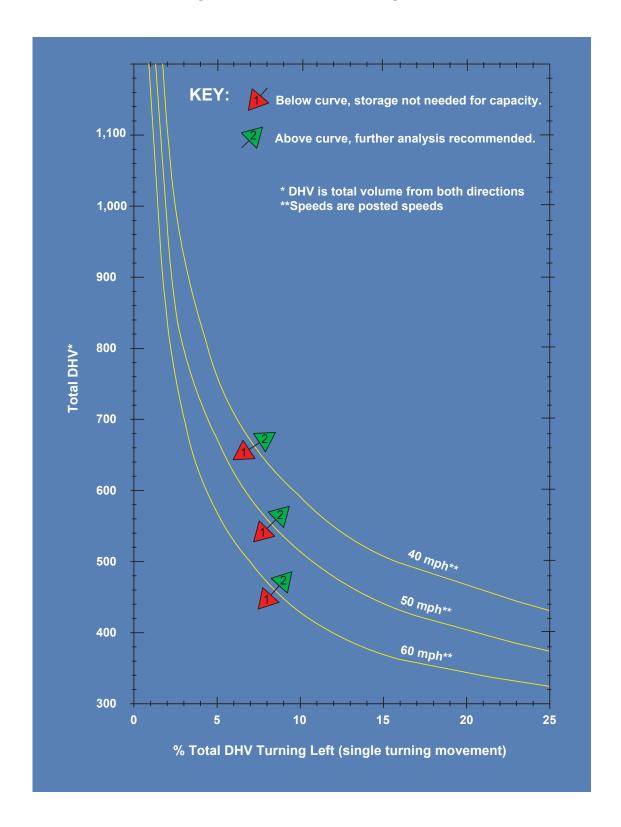
### Notes:

- [1] For two-lane highways, use the peak hour DDHV (through + right-turn).

  For multilane, high-speed highways (posted speed 45 mph or above), use the right-lane peak hour approach volume (through + right-turn).
- [2] When all three of the following conditions are met, reduce the right-turn DDHV by 20:
  - The posted speed is 45 mph or below
  - The right-turn volume is greater than 40 VPH
  - The peak hour approach volume (DDHV) is less than 300 VPH
- [3] For right-turn corner design, see Exhibit 1310-6.
- [4] For right-turn pocket or taper design, see Exhibit 1310-12.
- [5] For right-turn lane design, see Exhibit 1310-13.

Intersections Chapter 1310

Exhibit 1310-7a Left-Turn Storage Guidelines: Two-Lane, Unsignalized



### STATE OF WASHINGTON - DEPARTMENT OF TRANSPORTATION

### TRIPS SYSTEM

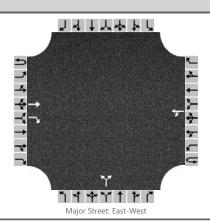
### PERMANENT TRAFFIC RECORDERS - ANNUAL TRAFFIC VOLUME SUMMARY RURAL STATIONS

RECORD	DER NUMBER	AVERAGE SUNDAY	AVERAGE SATURDAY	AVERAGE FRIDAY	AVERAGE WEEKDAY	AVERAGE WEEKEND	ANNUAL AVERAGE
		SUNDAI	BATORDAT	TRIDAT	WEEKE	DAY	DAY
R057	BOTHWAYS	6308	5430	5973	3650	5897	4672
R057	EASTBOUND	2294	2883	3716	1917	2972	2361
R057	WESTBOUND	4014	2547	2258	1733	2926	2311
R058	BOTHWAYS	6422	5354	5582	2984	5789	4282
R058	EASTBOUND	2104	2898	3685	1558	2905	2135
R058	WESTBOUND	4318	2456	1902	1436	2877	2149
R061	BOTHWAYS	*	*	*	14652	*	15152
R061	NORTHBOUND	*	*	*	7379	*	7572
R061	SOUTHBOUND	7901	7347	8650	7259	7971	7590
R063	BOTHWAYS	7534	9004	10141	8747	8910	8772
R063	NORTHBOUND	3510	4602	5279	4394	4477	4394
R063	SOUTHBOUND	4025	4402	4862	4353	4433	4378
R064	BOTHWAYS	*	*	*	2870	*	2917
R064	EASTBOUND	*	*	*	1467	*	1480
R064	WESTBOUND	*	*	*	1401	*	1440
R066	BOTHWAYS	3207	2681	3858	2507	3254	2874
R066	EASTBOUND	1502	1329	1964	1256	1599	1433
R066	WESTBOUND	1705	1352	1894	1251	1656	1442
R067	BOTHWAYS	2129	1968	2425	1808	2178	1954
R067	EASTBOUND	1028	991	1255	909	1094	980
R067	WESTBOUND	1101	978	1169	899	1084	974
R068	BOTHWAYS	4486	5144	6152	5752	5268	5511
R068	NORTHBOUND	2119	2569	3118	2846	2608	2720
R068	SOUTHBOUND	2367	2575	3034	2906	2661	2792
R070	BOTHWAYS	5394	6673	8948	8577	7019	7836
R070	NORTHBOUND	2645	3343	4509	4298	3507	3922
R070	SOUTHBOUND	2749	3330	4439	4279	3512	3914
R073	BOTHWAYS	*	*	*	2644	*	2718
R073	NORTHBOUND	1400	1389	1408	1308	1398	1357
R073	SOUTHBOUND	*	*	*	1334	*	1363
R074	BOTHWAYS	2902	2592	3082	2323	2859	2583
R074	NORTHBOUND	1800	1205	1292	1143	1430	1297
R074	SOUTHBOUND	1102	1386	1789	1180	1428	1286
R075	BOTHWAYS	6020	6653	8004	6995	6901	6939
R075	EASTBOUND	2760	3354	4171	3487	3434	3448
R075	WESTBOUND	3261	3299	3833	3508	3467	3491

# LEVEL OF SERVICE CALCULATIONS

EXISTING

	HCS7 Two-W	ay Stop-Control Report	
General Information		Site Information	
Analyst	ALW	Intersection	SR970 / SR10
Agency/Co.	Sunburst Engineering	Jurisdiction	WSDOT
Date Performed	1/18/2017	East/West Street	SR970
Analysis Year	2017	North/South Street	SR10
Time Analyzed	Friday Evening	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yakima River RV Park		



### **Vehicle Volumes and Adjustments**

Approach		Eastb	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	T	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	0	1	0		0	0	0		0	0	0
Configuration			Т	R		LT					LR					
Volume, V (veh/h)			280	104		5	369			64		7				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										(	)					
Right Turn Channelized	Yes				Ν	lo			N	lo			Ν	lo		
Median Type/Storage				Undi	vided											

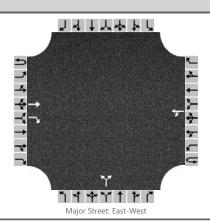
### **Critical and Follow-up Headways**

Base Critical Headway (sec)								
Critical Headway (sec)								
Base Follow-Up Headway (sec)								
Follow-Up Headway (sec)								

### Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					5				78			
Capacity, c (veh/h)					1250				414			
v/c Ratio					0.00				0.19			
95% Queue Length, Q <sub>95</sub> (veh)					0.0				0.7			
Control Delay (s/veh)					7.9				15.7			
Level of Service, LOS					А				С			
Approach Delay (s/veh)					0	.1		15	5.7			
Approach LOS								(	2			

	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	
Analyst	ALW	Intersection	SR970 / SR10
Agency/Co.	Sunburst Engineering	Jurisdiction	WSDOT
Date Performed	2/1/2017	East/West Street	SR970
Analysis Year	2017	North/South Street	SR10
Time Analyzed	Saturday Morning	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yakima River RV Park		



Vehicle Volumes and Adjustments

Approach		Eastb	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	0	1	0		0	0	0		0	0	0
Configuration			Т	R		LT					LR					
Volume, V (veh/h)			253	94		6	335			58		6				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										(	)					
Right Turn Channelized		Yes				N	lo			N	lo			N	lo	
Median Type/Storage				Undi	vided											

### **Critical and Follow-up Headways**

Base Critical Headway (sec)								
Critical Headway (sec)								
Base Follow-Up Headway (sec)								
Follow-Up Headway (sec)								

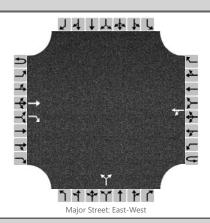
### Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)				7				70			
Capacity, c (veh/h)				1281				447			
v/c Ratio				0.01				0.16			
95% Queue Length, Q <sub>95</sub> (veh)				0.0				0.5			
Control Delay (s/veh)				7.8				14.5			
Level of Service, LOS				А				В			
Approach Delay (s/veh)				0	.2		14	1.5			
Approach LOS							E	3			

# LEVEL OF SERVICE CALCULATIONS

FUTURE WITH PROJECT

	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	
Analyst	ALW	Intersection	SR970 / SR10
Agency/Co.	Sunburst Engineering	Jurisdiction	WSDOT
Date Performed	1/18/2017	East/West Street	SR970
Analysis Year	2017	North/South Street	SR10
Time Analyzed	Friday Evening	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yakima River RV Park - Future w/ Project		



### **Vehicle Volumes and Adjustments**

Approach		Eastb	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	T	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	0	1	0		0	0	0		0	0	0
Configuration			Т	R		LT					LR					
Volume, V (veh/h)			309	159		12	407			85		21				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										(	)					
Right Turn Channelized		Yes				N	lo			N	lo			N	lo	
Median Type/Storage				Undi	vided											

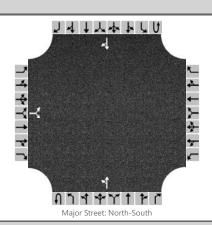
### **Critical and Follow-up Headways**

Base Critical Headway (sec)								
Critical Headway (sec)								
Base Follow-Up Headway (sec)								
Follow-Up Headway (sec)								

### Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					13				115			
Capacity, c (veh/h)					1216				386			
v/c Ratio					0.01				0.30			
95% Queue Length, Q <sub>95</sub> (veh)					0.0				1.2			
Control Delay (s/veh)					8.0				18.2			
Level of Service, LOS					А				С			
Approach Delay (s/veh)					0	.3		18	3.2			
Approach LOS								(				

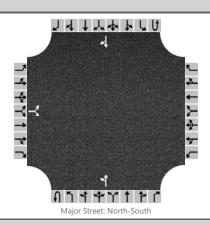
	HCS7 Two-Way Stop-Control Report													
General Information		Site Information												
Analyst	ALW	Intersection	SR 10 / Site Entrance											
Agency/Co.	Sunburst Engineering	Jurisdiction	WSDOT											
Date Performed	1/18/2017	East/West Street	Site Entrance											
Analysis Year	2017	North/South Street	SR 10											
Time Analyzed	Friday Peak	Peak Hour Factor	0.92											
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25											
Project Description	Yakima River RV Park - Future w/ Project													



Vehicle Volumes and Ad	justme	ents														
Approach		Eastk	oound			West	bound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	Т	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		27		12						5	79				120	50
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)			0													
Right Turn Channelized		١	10			١	lo			Ν	lo			N	10	
Median Type/Storage				Undi	vided											
Critical and Follow-up H	leadwa	ays														
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																
Delay, Queue Length, an	d Leve	el of S	ervice	9												
Flow Rate, v (veh/h)			42							5						
Capacity, c (veh/h)			772							1383						
v/c Ratio			0.05							0.00						
95% Queue Length, Q <sub>95</sub> (veh)			0.2							0.0						
Control Delay (s/veh)			9.9							7.6						
Level of Service, LOS			А							А						
Approach Delay (s/veh)		9	).9							0	.4					

Approach LOS

	HCS7 Two-Way Sto	p-Control Report	
General Information		Site Information	
Analyst	ALW	Intersection	SR 10 / Site Entrance
Agency/Co.	Sunburst Engineering	Jurisdiction	WSDOT
Date Performed	1/18/2017	East/West Street	Site Entrance
Analysis Year	2022	North/South Street	SR 10
Time Analyzed	Saturday Morning	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yakima River RV Park - Future w/ Project		



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Approach					Fas

Approach		Eastb	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	T	R	U	L	Т	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	0	0	0	0	1	0	0	0	1	0
Configuration			LR							LT						TR
Volume, V (veh/h)		27		11						2	71				110	19
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No					N	lo			N	lo			١	10	
Median Type/Storage	Undivided															

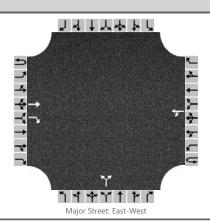
### **Critical and Follow-up Headways**

Base Critical Headway (sec)								
Critical Headway (sec)								
Base Follow-Up Headway (sec)								
Follow-Up Headway (sec)								

### Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		41				2				
Capacity, c (veh/h)		810				1434				
v/c Ratio		0.05				0.00				
95% Queue Length, Q <sub>95</sub> (veh)		0.2				0.0				
Control Delay (s/veh)		9.7				7.5				
Level of Service, LOS		А				А				
Approach Delay (s/veh)	9	.7				0	.2			
Approach LOS	,	4								

	HCS7 Two-Way Stop-Control Report													
General Information		Site Information												
Analyst	ALW	Intersection	SR970 / SR10											
Agency/Co.	Sunburst Engineering	Jurisdiction	WSDOT											
Date Performed	1/18/2017	East/West Street	SR970											
Analysis Year	2022	North/South Street	SR10											
Time Analyzed	Saturday Morning	Peak Hour Factor	0.92											
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25											
Project Description	Yakima River RV Park - Future w/ Project													



### **Vehicle Volumes and Adjustments**

Approach		Eastb	ound			Westl	oound			North	bound			South	bound	
Movement	U	L	Т	R	U	L	Т	R	U	L	T	R	U	L	Т	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	1	0	0	1	0		0	0	0		0	0	0
Configuration			Т	R		LT					LR					
Volume, V (veh/h)			279	121		9	370			78		20				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										(	)					
Right Turn Channelized		Y	es			N	lo			N	lo			N	lo	
Median Type/Storage		Undivided														

### **Critical and Follow-up Headways**

base Critical Headway (sec)								
Critical Headway (sec)								
Base Follow-Up Headway (sec)								
Follow-Up Headway (sec)								

### **Delay, Queue Length, and Level of Service**

Flow Rate, v (veh/h)					10				107			
Capacity, c (veh/h)					1251				429			
v/c Ratio					0.01				0.25			
95% Queue Length, Q <sub>95</sub> (veh)					0.0				1.0			
Control Delay (s/veh)					7.9				16.2			
Level of Service, LOS					Α				С			
Approach Delay (s/veh)				0	.3		16	5.2				
Approach LOS							(	2				