



2012 Skagit County Road Segment & Intersection Concurrency

INTRODUCTION

Skagit County Code 14.28.110 “Annual Concurrency Assessment” requires that the County Engineer annually produce this report to update the status of County road concurrency. The following is produced to meet said requirement.

REQUIREMENTS

The concurrency assessment requires that “*the Skagit County Public Works Department, under the direction of the County Engineer, shall evaluate the High Traffic County Road Segments and High Traffic County Road Intersections using a Highway Capacity Manual type method (as selected by the County Engineer) to determine whether these road segments and intersections comply with the level of service standards adopted in the Comprehensive Plan.*” These Levels of Service (LOS) are described as follows in Skagit County’s Comprehensive Plan.

- 8A-2.1** Level of Service Standards – The Level of Service (LOS) standard for County roads is C. LOS D is acceptable for all road segments that:
- a) Have Annualized Average Daily Traffic (AADT) greater than 7,000 vehicles; and*
 - b) Are NOT federally functionally classified as an 09-Local Access Road; and*
 - c) Are designated as a County Freight and Goods Transportation Systems Route (FGTS).*

The LOS standard for County road intersections is LOS D.

LEVEL OF SERVICE DATA

Road Segments

As outlined in Skagit County’s Transportation Systems Plan (TSP), the methodology used to acquire the LOS of county road segments is outlined in Chapter Six of the TSP.

“The Skagit County Public Works Traffic Engineering Unit has selected an LOS study volume unit threshold of 7,000 AADT. This threshold is an indicator that a road segment may be approaching the LOS C/D threshold and should be studied in depth.”

Table 1 shows the current County roads that meet the criteria for further study and the current LOS as determined using the Transportation Research Board’s Highway Capacity Manual and Highway Capacity Software developed for this use by the University of Florida. Also shown is the projected 5-year LOS. This projected LOS was determined using a 2½ percent yearly growth factor for each road segment. Projects along these roadways that are scheduled to be completed within this 5 year period were not significant enough to include as separate items. As one can see from Table 1, all the criteria for LOS concurrency have been met.

Table 1 – Road Segments

Road #	Road Name	FFC	Truck Route	Beg MP	End MP	Length	2012 AADT	2013 AADT Estimate	2014 AADT Estimate	2015 AADT Estimate	2016 AADT Estimate	2017 AADT Estimate	2012 LOS	2016 LOS
63000	COOK ROAD	07	T2	1.800	1.860	0.0600	14427	14788	15157	15536	15925	16323	These 2 segments are in WSDOT ROW	
63000	COOK ROAD	07	T2	1.750	1.800	0.0500	11979	12278	12585	12900	13223	13553		
63000	COOK ROAD	07	T3	1.860	1.890	0.0300	11221	11502	11789	12084	12386	12696		
63000	COOK ROAD	07	T3	1.890	1.950	0.0600	11221	11502	11789	12084	12386	12696	D	D
63000	COOK ROAD	07	T3	1.950	1.970	0.0200	11221	11502	11789	12084	12386	12696		
63000	COOK ROAD	07	T2	1.970	2.191	0.2210	11189	11469	11755	12049	12351	12659		
63000	COOK ROAD	07	T2	2.191	3.080	0.8890	11189	11469	11755	12049	12351	12659		
63000	COOK ROAD	07	T2	3.080	3.360	0.2800	11189	11469	11755	12049	12351	12659	D	D
63000	COOK ROAD	07	T2	3.360	3.820	0.4600	11189	11469	11755	12049	12351	12659		
63000	COOK ROAD	07	T2	3.820	4.100	0.2800	11189	11469	11755	12049	12351	12659		
63000	COOK ROAD	07	T2	4.100	4.320	0.2200	11189	11469	11755	12049	12351	12659		
63000	COOK ROAD	07	T2	4.320	4.600	0.2800	11189	11469	11755	12049	12351	12659		
63000	COOK ROAD	07	T2	4.600	4.880	0.2800	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	07	T2	4.880	5.000	0.1200	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	07	T2	5.000	5.080	0.0800	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	07	T2	5.080	5.260	0.1800	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	07	T2	5.260	5.320	0.0600	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	07	T2	5.320	5.390	0.0700	10706	10974	11248	11529	11817	12113	D	D
63000	COOK ROAD	16	T2	5.390	5.470	0.0800	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	16	T2	5.470	5.500	0.0300	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	16	T2	5.500	5.510	0.0100	10706	10974	11248	11529	11817	12113		
63000	COOK ROAD	16	T2	5.510	5.620	0.1100	10706	10974	11248	11529	11817	12113		
40200	FIR ISLAND ROAD	07	T3	0.000	0.410	0.4100	9228	9459	9695	9938	10186	10441	C	C
80090	PIONEER HIGHWAY	07	T3	0.000	1.410	1.4100	11527	11815	12111	12413	12724	13042	C	C
80090	PIONEER HIGHWAY	07	T3	1.410	1.740	0.3300	7454	7640	7831	8027	8228	8434	C	C
80090	PIONEER HIGHWAY	07	T3	1.740	3.158	1.4180	7400	7585	7775	7969	8168	8372	C	C

Road Intersections

Intersection LOS

As with Road Segment LOS, Intersection LOS methodology is outlined in Chapter Six of the TSP. Intersection LOS, according to the Highway Capacity Manual, cannot be determined at stop controlled intersections. The individual stop-controlled leg LOS can be determined, but the overall intersection LOS cannot be determined. With regard to stop-controlled intersections, the TSP states that Skagit County will perform intersection analysis on;

“...intersections that may be approaching traffic signal warrants as described in the Manual on Uniform Traffic Control Devices (MUTCD). Signalization is considered as a possible solution to poor side street LOS; however, there have been many other considerations before concluding a traffic signal is required. Overall intersection safety is a major consideration and often results in alternatives to traffic signals such as route changes, additional lanes or new connections. When signalization occurs at an intersection the LOS can be determined as the average control delay to vehicles approaching the intersection.”

The TSP goes on regarding signalized and unsignalized intersections;

“Public Works staff will evaluate the LOS of all signalized locations on County Roads. They will also monitor traffic volumes on potential signalized locations to evaluate traffic signal warrants. This procedure will identify side street delay so capital projects may be identified and scoped. If signalization occurs, routes will be added to the list of intersections being monitored for LOS.”

And further;

“All existing traffic signalized intersections on County roads are operating at acceptable LOS.”

Table 2 shows the signalized and unsignalized intersections on which Skagit County is collecting LOS data on a regular basis.

Table 2 – Intersections

Intersection Name	Intersection Type	NB Approach LOS	SB Approach LOS	EB Approach LOS	WB Approach LOS	Overall LOS	Meet MUTCD Signal Warrants?
Cook Road / Old Hwy 99 N	Signalized						Signalized
2012		B	B	A	A	B	
2017 Estimate		B	B	B	B	B	
Fir Island Rd / Pioneer Hwy	Stop Control*	LT		EB LT	EB RT	EB Overall	
2012		A	No Delay	D	B	C	No
2017 Estimate		A	No Delay	E	B	D	

* Stop Controlled intersections not subject to overall intersection LOS standards - only individual approaches are subject to study

Though the eastbound left turn of Fir Island Road at Pioneer Highway has an LOS of “E” during the peak hour, the intersection does not meet MUTCD warrants for signalization, in part, because this peak hour LOS is not sustained throughout the day. Also, the intersection is immediately adjacent to Fir Island Road’s intersection with Conway Frontage Road and Main Street (Conway) and sufficient storage for signalization is not possible.

This intersection is included in Skagit County’s Six-year Transportation Improvement Program as outlined the Skagit County Code 14.28.110. More importantly, the Fir Island Road / Pioneer Hwy intersection, along with the neighboring Conway Frontage Road / Main Street intersection, has been awarded a \$2 million Federal “Quick Response” Highway Safety Grant and is scheduled to be reconfigured as a roundabout in 2014. This project will most likely remove said intersection from our study list – as did a similar project for the Best Road / McLean Road intersection.

SUMMARY

As of December 31, 2012 all Skagit County road segments and signalized intersections meet the current LOS standards as adopted in the Transportation Systems Plan and Comprehensive Plan of Skagit County. Therefore, all Skagit County road segments and intersections are concurrent.