

**I-5 Exits 40 and 43 (Gold Hill)  
Interchange Area Management Plans**

**DRAFT Technical Memorandum #5  
Future Baseline Traffic Conditions**

**Prepared for**

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## 5. FUTURE BASELINE TRAFFIC CONDITIONS

This technical memorandum presents the future baseline traffic conditions at the I-5 Exits 40 and 43 interchange management study areas (IMSAs) for the Year 2038. The analysis examines conditions where the transportation system has been improved by projects with programmed funding sources and where traffic volumes continue to grow based on current trends and land use assumptions in Jackson County and the nearby city of Gold Hill community. The analysis identifies anticipated operational deficiencies and serves as the basis for later evaluation to compare project alternatives that address deficiencies.

### 5.1. Future Land Use

The long-range population forecasts presented in the Jackson County Comprehensive Plan are based on the 2005 estimates of population prepared by Portland State University (PSU) for Jackson County. Future land use is not anticipated to be significantly different from the existing land use. The population projections associated with the current land use is presented in Table 5-1. The population growth forecasts assume an annual growth rate of 1.63 percent within the city of Gold Hill and 1.31 percent outside the city.

**Table 5-1. Population and % Population Change, 2005-2040**

Geography	2005 Population	2026 Population	2040 Pop.	2005-2026 % Change (AAGR)	2005-2040 % Change (AAGR)
Jackson County	194,515	264,419	306,421	36% (1.47%)	58% (1.31%)
Gold Hill	1,080	1,476	1,901	37% (1.50%)	76% (1.63%)

Source: David Evans and Associates, Inc. Excerpt from Jackson County Comprehensive Plan, Table 6. (Amended on 7-18-2007)

There are no approved and/or pending developments within the study areas at this time; however, recurring discussions regarding the potential development of a truck stop at one of the two study interchanges has prompted the evaluation of an alternative land use scenario (ALUS). Development assumptions and volume development methods for this land use alternative are discussed further in Section 5.2.2 Alternative Land Use Scenario (ALUS).

### 5.2. Future Traffic Volume Development

Two future traffic volume scenarios were developed for each interchange. The baseline scenario is derived from current growth trends on the existing transportation system. The ALUS is a land use alternative that considers how a truck stop developed at one of the two interchanges would affect future traffic conditions.

#### 5.2.1. Baseline Traffic Forecasts

Future baseline traffic volume forecasts for the year 2038 were developed using historical traffic trends. The trend-based forecasting process is generally used for small urban areas that are growing at a fairly uniform rate or for areas where only minor changes are expected to take place.

Traffic forecasts for the 2038 future baseline scenario at the study area intersections were developed from growth rates calculated from the 2031 Future Volume Tables for I-5 and OR 99 and OR 234 as well as Jackson County historic traffic volumes (along Blackwell Road). These growth rates were applied to the 2012 existing traffic data. The process followed the procedures from ODOT's Analysis Procedures Manual (APM)<sup>1</sup>. There are no approved and/or pending developments within the study areas at this time; therefore, no additional development traffic was included in the baseline forecasts.

Traffic volumes for the year 2038 future baseline scenario are presented in Figure 5-1. The detailed volume development worksheets are presented in Appendix A.

### **5.2.2. Alternative Land Use Scenario (ALUS)**

Traffic forecasts for the ALUS are based on volumes developed for the future baseline scenario as well as trip generation for a potential truck stop development. Although forecasts were developed for a truck stop at each interchange, it is unlikely that development of such closely situated truck stops would occur in these relatively rural areas.

From data collected about nearby truck stops, it was assumed that the potential truck stop would include 8 auto fuel pumps, 8 truck fueling stations, a 6,000 square foot high turnover sit-down restaurant, 100 truck parking spaces, and a minimum lot size of 8 acres. With these assumptions, trip generation methods based on ITE Trip Generation Manual, 9<sup>th</sup> Edition Land Use Categories were applied to determine the additional traffic volumes to be applied to the future baseline network. As part of the proposed truck stop, one unsignalized driveway is assumed along Old Stage Road for Exit 40 and along Rogue River Highway east of Main Street for Exit 43.

The ALUS volumes are shown in Figure 5-2. For further information regarding the methodology used for development of the land use alternative see Appendix A.

## **5.3. Future Transportation Network**

The future network used in the forecasts for Exits 40 and 43 should include roadway projects that are expected to occur by year 2038. In the next 25 years, there are no new projects with known funding or with a reasonable expectation of being funded within either of the IMSAs. Other planned projects that do not have identified funding sources are addressed in the alternatives analysis portion of this project.

## **5.4. Future Baseline Traffic Operations**

Traffic analysis for the 2038 future baseline scenario was performed for all of the study area intersections and for the merge-diverge sections of the freeway.

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<sup>1</sup> Analysis Procedures Manual, Oregon Department of Transportation, Transportation Development Division Planning Section, Transportation Planning and Analysis Unit, Salem, Oregon, April, 2006, Section 4.3.

### 5.4.1. Intersection Analysis

Table 5-2 summarizes the results of the traffic operations analysis for I-5 Exits 40 and 43 with respect to the 2038 future baseline scenario. Figure 5-3 presents the v/c ratios and LOS performance by lane group for the area intersections and compares them to the Oregon Highway Plan (OHP) mobility targets. While all lane groups are shown in the figures, only the controlling movement<sup>2</sup> is shown in the table. All Synchro and SimTraffic output worksheets are provided in Appendix B.

**Table 5-2. Future (2038) Baseline Intersection Operations**

Intersection	Controlling Movement <sup>1</sup>	V/C Ratio <sup>2</sup>	LOS <sup>2</sup>	Operational Targets <sup>3</sup>
<b>I-5 Exit 40</b>				
Access Rd at Blackwell Rd (OR 99)	NB L/R	0.76	D	V/C <= 0.95
Access Rd at Lampman Rd	EB L/R	0.06	B	V/C <= 0.95
Access Rd at I-5 NB Ramps	WB L/T/R	0.41	B	V/C <= 0.85
Access Rd at I-5 SB Ramps	EB L/T/R	0.24	C	V/C <= 0.85
Access Rd at Old Stage Rd	EB L/R	0.07	B	V/C <= 0.95
<b>I-5 Exit 43</b>				
OR 99/OR 234 at N. River Rd <sup>4</sup>	EB T/R	0.06	A	V/C <= 0.95
OR 99/OR 234 at Lampman Rd	SB L/R	0.03	A	V/C <= 0.95
OR 99/OR 234 at Main St <sup>4,5</sup>	NB L/R	0.09	A	V/C <= 0.95
Main St at I-5 NB Ramps	WB L/T/R	0.04	A	V/C <= 0.85
Main St at I-5 SB Ramps	EB L/T/R	0.07	A	V/C <= 0.85
Main St at Profetta Ln	EB L/T	0.01	A	V/C <= 0.95

Acronyms: EB = eastbound; WB = westbound; NB = northbound; and SB = southbound. L = left; T = through; and R = right.

Notes:

1. At unsignalized intersections the results are reported for the movement with the worst v/c ratio.
2. The v/c ratios and LOS are based on the results of the macrosimulation analysis using Synchro, which cannot account for the influence of adjacent intersection operations.
3. The Jackson County Transportation System Plan (TSP) designates the traffic operations standard as the more restrictive of County and ODOT targets for intersections with one or more approaches maintained by ODOT. 1999 Oregon Highway Plan (OHP), Policy 1F applies to existing and no-build conditions through the planning horizon.
4. Intersection operations analyzed with alternative geometric configurations to meet HCM methodology.
5. Intersection operations based on HCM 2000 methodology.

Source: David Evans and Associates, Inc.

### I-5 Exit 40

The analysis results show that under the 2038 future baseline conditions, all five of the IMSA intersections would meet operational targets during the PM peak period. The intersection with the worst operations is Access Road at Blackwell Road (OR 99), though the controlling movement still meets operational targets with a v/c ratio of 0.76.

<sup>2</sup> Controlling movements at unsignalized intersections are typically the minor-street left turns or, in the case of single-lane approaches, the minor street approaches.

Based on the SimTraffic simulation, none of the 95<sup>th</sup> percentile queues for the future baseline condition are expected to exceed available storage or extend beyond the nearest public access. The lane group with the longest queue is the northbound left-right movement on Access Road at Blackwell Road. The queues for this lane are approximately 175 feet compared with 300 feet to the public access point. The existing storage on the northbound and southbound ramps provides adequate stopping sight distance for the forecast queues.

### I-5 Exit 43

Similar to the Exit 40 results under the 2038 future baseline conditions; all study area intersections (6) would meet operational targets during the PM peak period. The intersection with the worst operations is OR 99/OR 234 at Main Street, though the controlling movement (v/c ratio of 0.09) still operates well below operational targets.

Based on the SimTraffic simulation, none of the 95<sup>th</sup> percentile queues for the future baseline condition are expected to exceed available storage or extend beyond the nearest public access. The lane group with the most severe queuing is the eastbound through movement at the intersection of OR 99/OR 234 and North River Road. The 95<sup>th</sup> percentile queue for this lane is approximately 50 feet compared with 250 feet to the next public access point. The existing storage on the northbound and southbound ramps provides adequate stopping sight distance for the forecast 95<sup>th</sup> percentile queues.

### Preliminary Signal Warrants

None of the unsignalized intersections at would meet ODOT's preliminary signal warrants. Preliminary signal warrants are based on traffic volumes and were only investigated at Exit 40 where traffic volumes are highest. Therefore, intersections were assumed to remain STOP-controlled through the study planning horizon. See Appendix C for details.

### **5.4.2. Freeway Analysis**

The 2038 operations of the interchange ramp merge and diverge interactions with the mainline highway traffic were also evaluated. These analyses were conducted in accordance with the methodology prescribed in ODOT's APM to determine v/c ratio performance for the design hour between 3:30 to 4:30 PM. The results of the future freeway operations analysis are summarized in Table 5-3.

The merge and diverge analyses for the future baseline show that the freeway and the merge and diverge points for both freeway exits are expected to continue operating well below the mobility target of 0.85 through the planning horizon.

**Table 5-3. Future (Year 2038) Baseline Freeway Operations**

I-5 Northbound		I-5 Southbound	
Direction/Location	V/C Ratio <sup>1,2</sup>	Direction/Location	V/C Ratio <sup>1,2</sup>
<b>I-5 Exit 40</b>			
Mainline: South of Exit 40	0.49	Mainline: North of Exit 40	0.40
Diverge: Exit 40 Northbound Off Ramp	0.14	Diverge: Exit 40 Southbound Off Ramp	0.05
Mainline: Between Exit 40 Ramps	0.43	Mainline: Between Exit 40 Ramps	0.38
Merge: Exit 40 Northbound On Ramp	0.47	Merge: Exit 40 Southbound On Ramp	0.44
Mainline : North of Exit 40	0.46	Mainline: South of Exit 40	0.43
<b>I-5 Exit 43</b>			
Mainline : South of Exit 43	0.46	Mainline: North of Exit 43	0.41
Diverge: Exit 43 Northbound Off Ramp	0.02	Diverge: Exit 43 Southbound Off Ramp	0.03
Mainline: Between Exit 43 Ramps	0.45	Mainline: Between Exit 43 Ramps	0.39
Merge: Exit 40 Northbound On Ramp	0.47	Merge: Exit 43 Southbound On Ramp	0.41
Mainline: North of Exit 43	0.46	Mainline: South of Exit 43	0.40

## Notes:

1. The v/c ratios for the merge/diverge analysis are calculated based on the methodologies outlined in ODOT's Analysis Procedures Manual.
2. The design hour is the hour between 3:30 and 4:30 PM, which coincides with non-freeway system peaking.

Source: David Evans and Associates, Inc.

## 5.5. Future Baseline ALUS Traffic Operations

Traffic analysis for the 2038 future baseline ALUS was performed for all of the study area intersections and for the merge-diverge sections of the freeway.

### 5.5.1. Intersection Analysis

Table 5-4 summarizes the results of the traffic operations analysis for I-5 Exit 40 and Exit 43 with respect to the 2038 future baseline ALUS. Figure 5-4 presents the v/c ratios and LOS performance by lane group for the area intersections and compares them to the Oregon Highway Plan (OHP) mobility targets. While all lane groups are shown in the figures, only the controlling movement<sup>3</sup> is shown in the table. All Synchro and SimTraffic output worksheets are provided in Appendix B.

#### I-5 Exit 40

The truck stop in the ALUS would have the greatest impact on the unsignalized freeway ramp intersections but all IMSA intersections would meet operational targets during the PM peak period. The driveway to the potential truck stop would also be well below the v/c ratio threshold. The intersection with the worst operations would still be the Access Road at

<sup>3</sup> Controlling movements at unsignalized intersections are typically the minor-street left turns or, in the case of single-lane approaches, the minor street approaches.

Blackwell Road (OR 99), though the controlling movement still meets operational targets with a V/C of 0.78.

The SimTraffic simulations with the truck stop show minimal impacts on future baseline queuing, most likely because of the relatively low v/c ratios in the IMSA. No queuing issues are anticipated on the freeway ramps or at any of the other IMSA intersections.

**Table 5-4. Future (2038) Baseline ALUS Intersection Operations**

Intersection	Controlling Movement <sup>1</sup>	V/C Ratio <sup>2</sup>	LOS <sup>2</sup>	Operational Targets <sup>3</sup>
<b>I-5 Exit 40</b>				
Access Rd at Blackwell Rd (OR 99)	NB L/R	0.78	D	V/C ≤ 0.95
Access Rd at Lampman Rd	EB L/R	0.06	B	V/C ≤ 0.95
Access Rd at I-5 NB Ramps	WB L/T/R	0.60	C	V/C ≤ 0.85
Access Rd at I-5 SB Ramps	EB L/T/R	0.47	C	V/C ≤ 0.85
Access Rd at Old Stage Rd	EB L/R	0.12	B	V/C ≤ 0.95
Access Rd at Potential Truck Stop	EB L	0.36	B	V/C ≤ 0.95
<b>I-5 Exit 43</b>				
OR 99/OR 234 at N. River Rd <sup>4</sup>	EB T/R	0.06	A	V/C ≤ 0.95
OR 99/OR 234 at Lampman Rd	SB L/R	0.03	A	V/C ≤ 0.95
OR 99/OR 234 at Main St <sup>4,5</sup>	NB L/R	0.30	B	V/C ≤ 0.95
Main St at I-5 NB Ramps	WB L/T/R	0.09	A	V/C ≤ 0.85
Main St at I-5 SB Ramps	EB L/T/R	0.26	B	V/C ≤ 0.85
Main St at Profetta Ln	EB L/T	0.01	A	V/C ≤ 0.95
Potential Truck Stop at Rogue River Hwy	NB R	0.18	A	V/C ≤ 0.95

Acronyms: EB = eastbound; WB = westbound; NB = northbound; and SB = southbound. L = left; T = through; and R = right.

Notes:

1. At unsignalized intersections the results are reported for the movement with the worst v/c ratio.
2. The v/c ratios and LOS are based on the results of the macrosimulation analysis using Synchro, which cannot account for the influence of adjacent intersection operations.
3. The Jackson County Transportation System Plan (TSP) designates the traffic operations standard as the more restrictive of County and ODOT targets for intersections with one or more approaches maintained by ODOT. 1999 Oregon Highway Plan (OHP), Policy 1F applies to existing and no-build conditions through the planning horizon.
4. Intersection operations analyzed with alternative geometric configurations to meet HCM methodology.
5. Intersection operations based on HCM 2000 methodology.

Source: David Evans and Associates, Inc.

### I-5 Exit 43

Similar to the Exit 40 results under the 2038 future baseline ALUS, all study area intersections and the driveway to the potential truck stop would meet operational targets during the PM peak period. The truck stop in the ALUS would have the greatest impact on Main Street at the intersections with OR 99/OR 234 and with the freeway. The driveway to the potential truck stop would also be well below the v/c ratio threshold. The intersection with the worst operations is Main Street at OR 99/OR 234, though the controlling movement (v/c ratio of 0.30) still operates well below operational targets.

The SimTraffic simulations with the truck stop show minimal impacts on future baseline queuing, most likely because of the relatively low v/c ratios in the IMSA. No queuing issues are anticipated on the freeway ramps or at any of the other IMSA intersections.

### Preliminary Signal Warrants

None of the unsignalized intersections at would meet ODOT's preliminary signal warrants with the ALUS traffic volume forecasts. See Appendix C for details.

### **5.5.2. Freeway Analysis**

The 2038 operations of the interchange ramp merge and diverge interactions with the mainline highway traffic were also evaluated for the land use alternative scenario. These analyses were conducted in accordance with the methodology prescribed in ODOT's APM to determine v/c ratio performance for the design hour between 3:30 to 4:30 PM. The results of the future freeway operations analysis are summarized in Table 5-5.

**Table 5-5. Future (2038) Baseline ALUS Freeway Operations**

I-5 Northbound		I-5 Southbound	
Direction/Location	V/C Ratio <sup>1,2</sup>	Direction/Location	V/C Ratio <sup>1,2</sup>
<b><i>I-5 Exit 40</i></b>			
Mainline: South of Exit 40	0.49	Mainline: North of Exit 40	0.40
Diverge: Exit 40 Northbound Off Ramp	0.16	Diverge: Exit 40 Southbound Off Ramp	0.10
Mainline: Between Exit 40 Ramps	0.42	Mainline: Between Exit 40 Ramps	0.36
Merge: Exit 40 Northbound On Ramp	0.47	Merge: Exit 40 Southbound On Ramp	0.44
Mainline : North of Exit 40	0.46	Mainline: South of Exit 40	0.43
<b><i>I-5 Exit 43</i></b>			
Mainline : South of Exit 43	0.46	Mainline: North of Exit 43	0.41
Diverge: Exit 43 Northbound Off Ramp	0.04	Diverge: Exit 43 Southbound Off Ramp	0.07
Mainline: Between Exit 43 Ramps	0.44	Mainline: Between Exit 43 Ramps	0.38
Merge: Exit 40 Northbound On Ramp	0.48	Merge: Exit 43 Southbound On Ramp	0.41
Mainline: North of Exit 43	0.47	Mainline: South of Exit 43	0.40

Notes:

1. The v/c ratios for the merge/diverge analysis are calculated based on the methodologies outlined in ODOT's Analysis Procedures Manual.
2. The design hour is the hour between 3:30 and 4:30 PM, which coincides with non-freeway system peaking.

Source: David Evans and Associates, Inc.

The merge and diverge analyses for the future baseline show that the freeway and the merge and diverge points for both freeway exits are expected to continue operating well below the mobility target of 0.85 under future baseline with the ALUS. Although the truck stops would add some traffic to the freeway ramps, the mainline traffic volumes are not expected to change significantly as most traffic destined to use one of the potential truck stops would already be on the freeway.

## 5.6. Summary of Future Deficiencies

No significant operational deficiencies are anticipated under future (year 2038) baseline conditions, even with the potential trucks stops considered with the ALUS. None of the intersections within either of the IMSAs would exceed current mobility targets. Only one intersection is expected to approach the operational threshold of a v/c of 0.95, and that is Access Road at Blackwell Road (OR 99) with an anticipated LOS D and v/c of 0.76 for the future baseline scenario, and LOS D and v/c of 0.78 with the alternative land use.

## 5.7. Conclusions

All of the study area intersections are expected to operate within operational targets and with minimal queues for future baseline conditions. Future conditions are summarized below:

### I-5 Exit 40

- Access Road at Blackwell Road (OR 99) is expected to meet operational targets for future baseline conditions. Although volumes approach the threshold for 70% volumes for signal warrant analysis, preliminary signal warrants are not met.
- Although the I-5 northbound ramp terminal approach to Access Road has volumes that approach 70% signal warrant levels, preliminary signal warrants are not met for future baseline conditions, and the intersection is expected to operate well below mobility targets with the current STOP control.
- 95<sup>th</sup> percentile queues are not expected to exceed available storage or block public access points for any intersection approaches.

### I-5 Exit 43

- Operations at all study area intersections are expected to operate well below mobility targets.
- Future baseline volumes would not meet preliminary signal warrants for any of the unsignalized intersections. Study area intersections are expected to operate below mobility targets with existing STOP control.
- 95<sup>th</sup> percentile queues are not expected to exceed available storage or block public access points for any intersection approaches.

#### *Attachments:*

*Figure 5-1. Future Baseline (2038) Conditions – PM Hour Traffic Volumes*

*Figure 5-2. Future Baseline (2038) ALUS Conditions – PM Hour Traffic Volumes*

*Figure 5-3. Future Baseline (2038) Conditions – PM Peak Hour Operations*

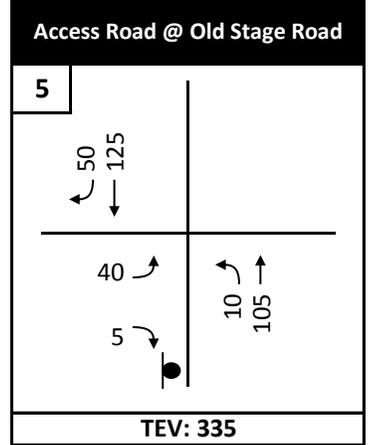
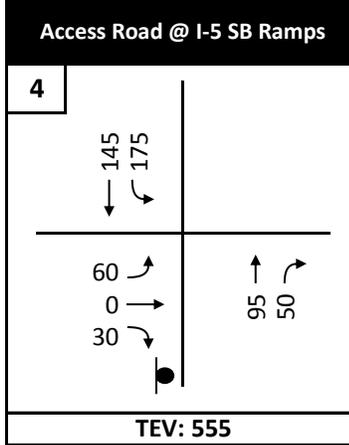
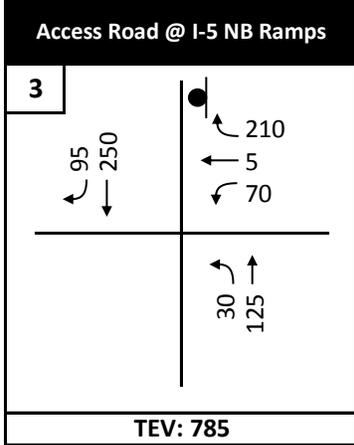
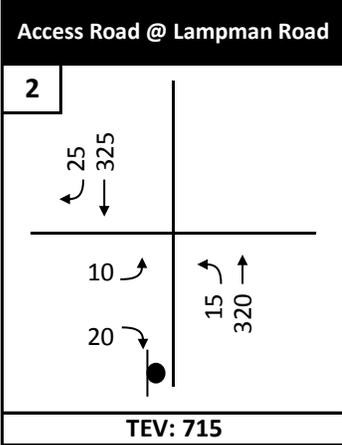
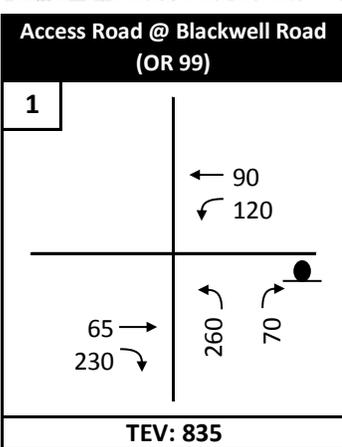
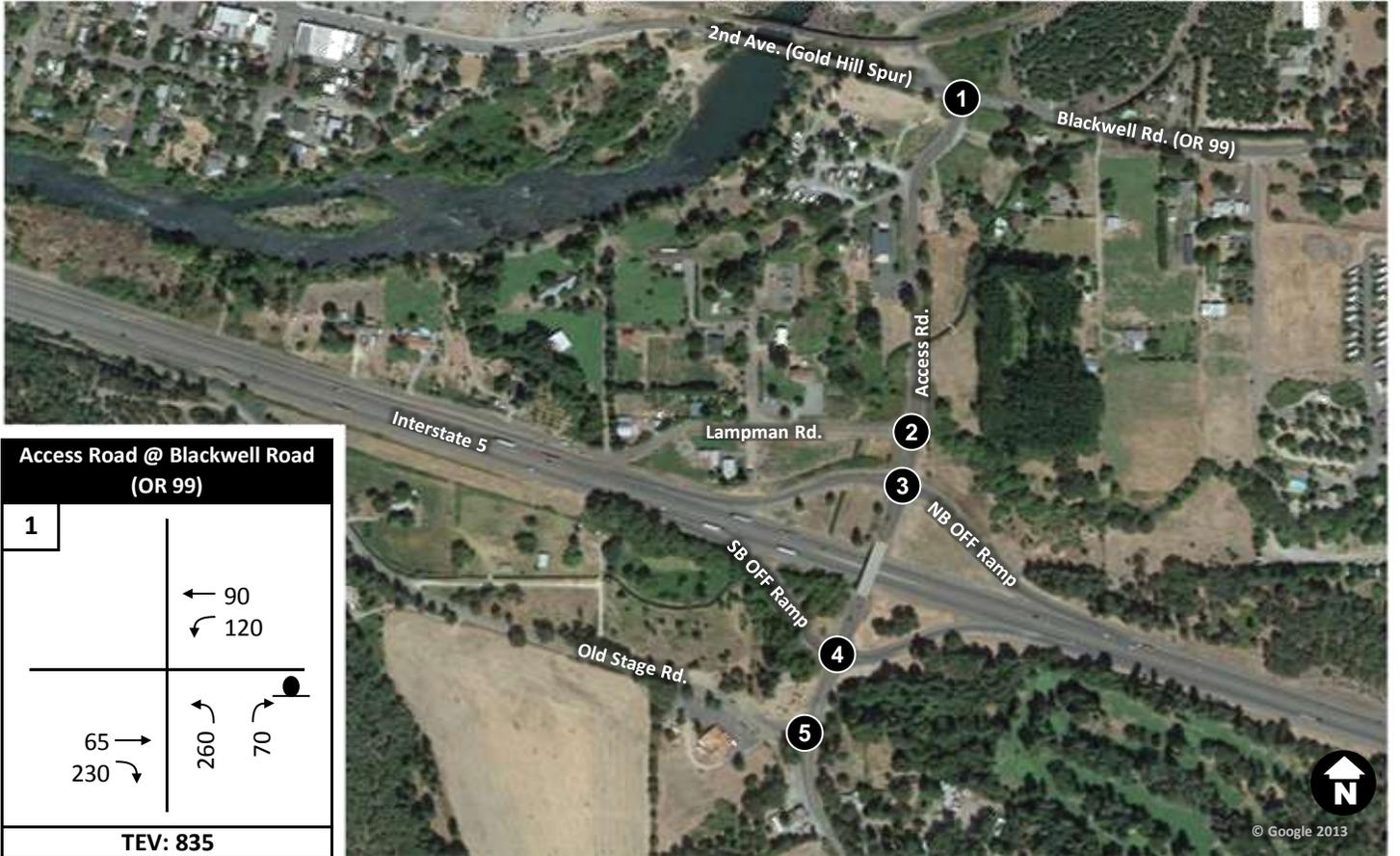
*Figure 5-4. Future Baseline (2038) ALUS Conditions – PM Peak Hour Operations*

*Appendix A. Future Traffic Volume Development\**

*Appendix B. Synchro Output Worksheets\**

*Appendix C. ODOT's Preliminary Traffic Signal Warrants\**

*\*Available upon request*



**I-5 Exits 40 and 43 Interchange Area Management Plans**

**Legend**

↘ Allowable Movement

● STOP Controlled Approach

TEV: Total Entering Volume

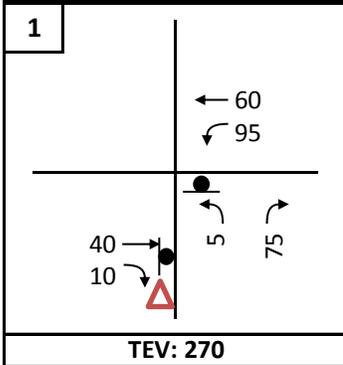
△ Yield Controlled Movement

### PM Peak Hour Turning Movement Volume

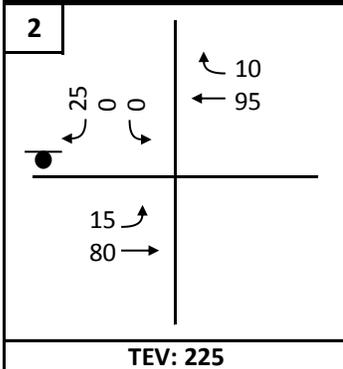
**DRAFT Figure 5-1a**  
*Future (2038) Baseline*  
*PM Peak Hour Volumes*  
*I-5 Exit 40*



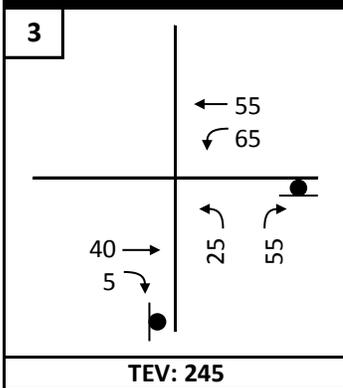
**OR 99/OR 234 @ N. River Road**



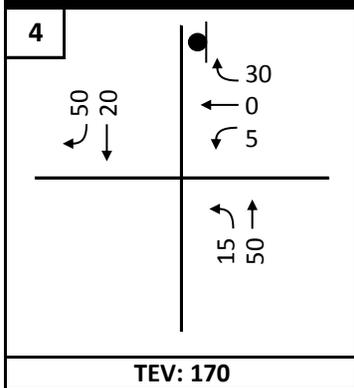
**OR 99/OR 234 @ Lampman Road**



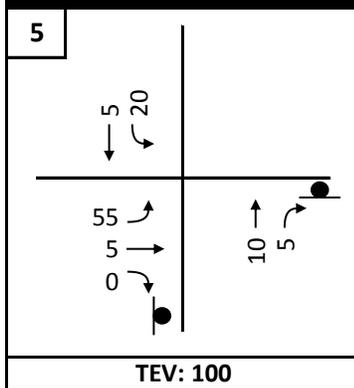
**Main Street @ OR 99/OR 234**



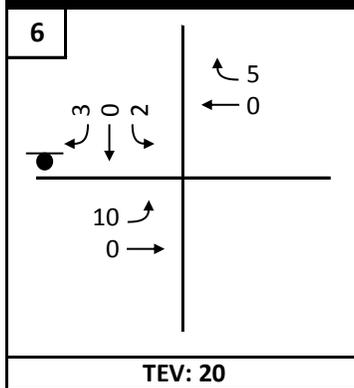
**Main Street @ I-5 NB Ramps**



**Main Street @ I-5 SB Ramps**



**Main Street @ Profetta Lane**



**I-5 Exits 40 and 43 Interchange Area Management Plans**

**Legend**

→ Allowable Movement

● STOP Controlled Approach

TEV: Total Entering Volume

△ Yield Controlled Movement

### PM Peak Hour Turning Movement Volume

**DRAFT Figure 5-1b**  
*Future (2038) Baseline*  
 PM Peak Hour Volumes  
 I-5 Exit 43



**Access Road @ Blackwell Road (OR 99)**

<b>1</b>		
	← 90 ↙ 125	
65 → 230 ↘	↗ 260 ↘ 75	●
<b>TEV: 845</b>		

**Access Road @ Lampman Road**

<b>2</b>		
	↙ 25 ← 330	
10 ↘ 20 ↘	↗ 15 ↘ 325	●
<b>TEV: 725</b>		



**Access Road @ I-5 NB Ramps**

<b>3</b>		
	↙ 95 ← 255	↗ 210 ↑ 5 ↘ 115
		↗ 90 ↘ 130
<b>TEV: 900</b>		

**Access Road @ I-5 SB Ramps**

<b>4</b>		
	↘ 195 ↘ 175	
60 ↘ 140 ↘	↗ 160 ↘ 150	●
<b>TEV: 880</b>		

**Access Road @ Old Stage Road**

<b>5</b>		
	↙ 50 ← 285	
35 ↘ 15 ↘	↗ 15 ↘ 275	●
<b>TEV: 675</b>		

**Potential Truck Stop @ Access Road**

<b>6</b>		
	↙ 170 ← 130	
180 ↘ 2 ↘	↗ 10 ↘ 110	●
<b>TEV: 602</b>		

**I-5 Exits 40 and 43 Interchange Area Management Plans**

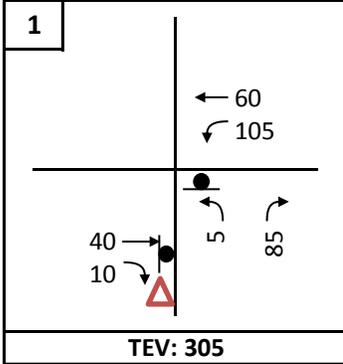
**Legend**

- ↘ Allowable Movement
- STOP Controlled Approach
- TEV: Total Entering Volume
- △ Yield Controlled Movement
- ### PM Peak Hour Turning Movement Volume

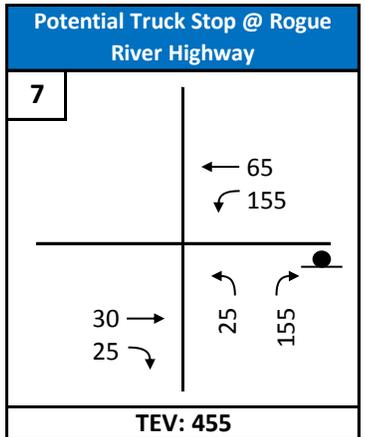
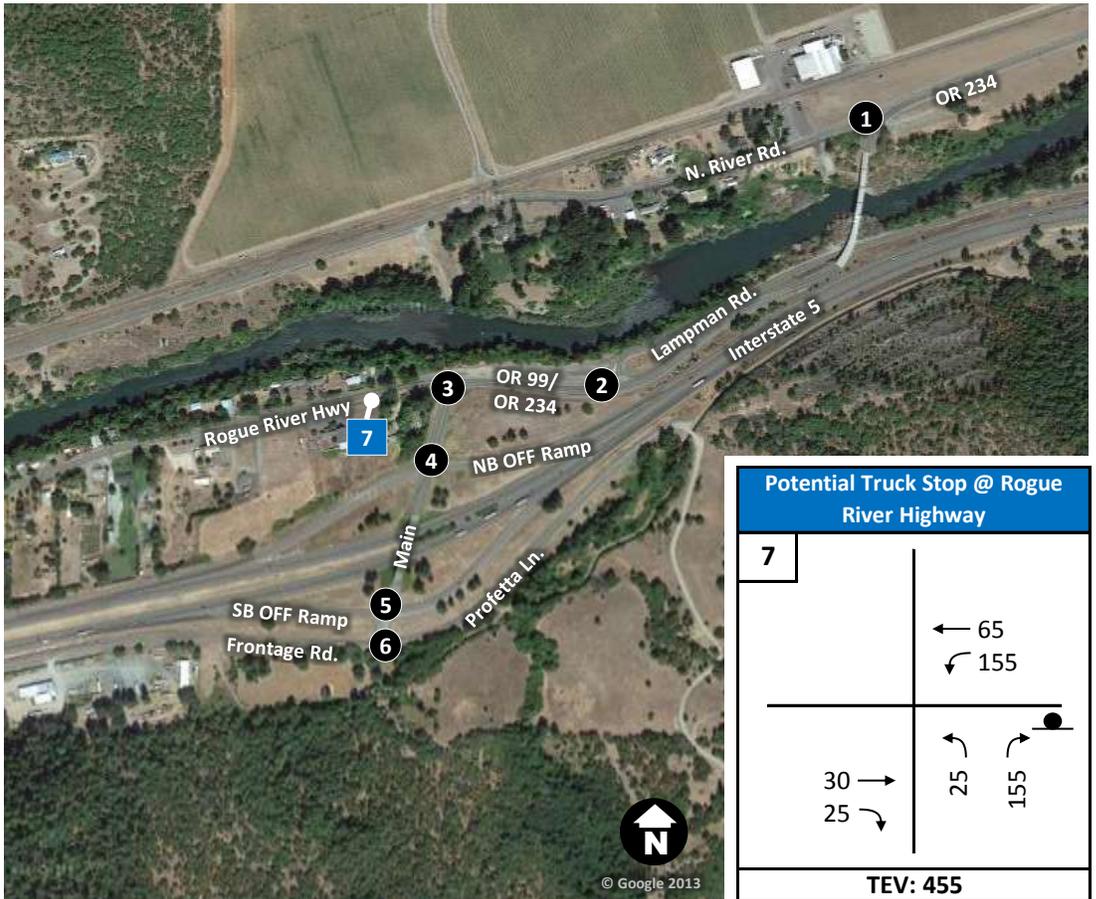
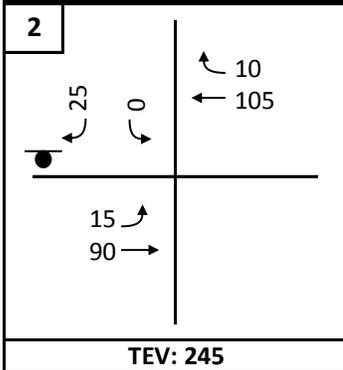
**DRAFT Figure 5-2a**  
*Future (2038) Baseline ALUS*  
*PM Peak Hour Volumes*  
*I-5 Exit 40*



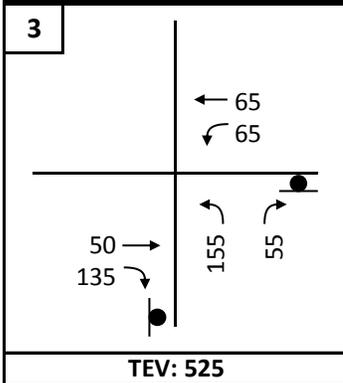
**OR 99/OR 234 @ N. River Road**



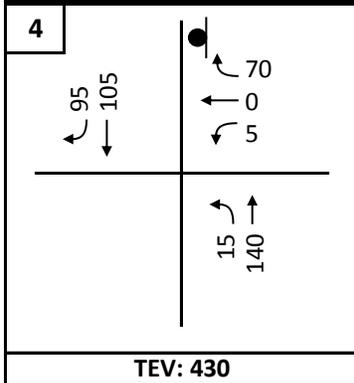
**OR 99/OR 234 @ Lampman Road**



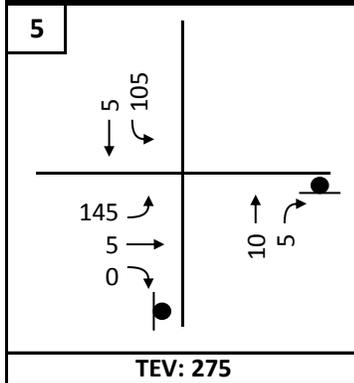
**Main Street @ OR 99/OR 234**



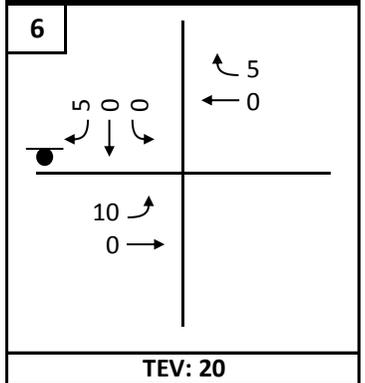
**Main Street @ I-5 NB Ramps**



**Main Street @ I-5 SB Ramps**



**Main Street @ Profetta Lane**



**I-5 Exits 40 and 43 Interchange Area Management Plans**

**Legend**

→ Allowable Movement

● STOP Controlled Approach

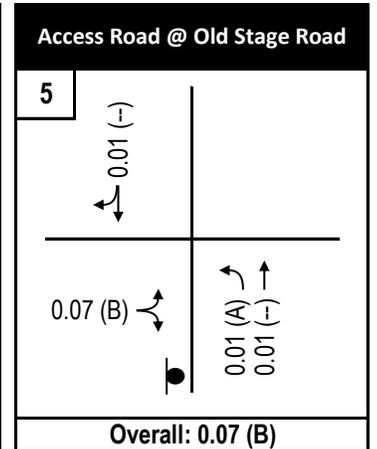
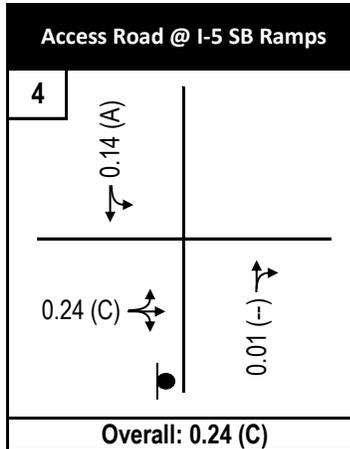
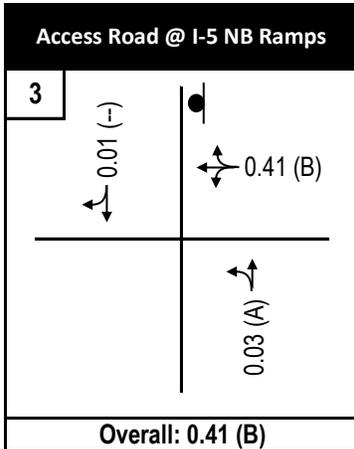
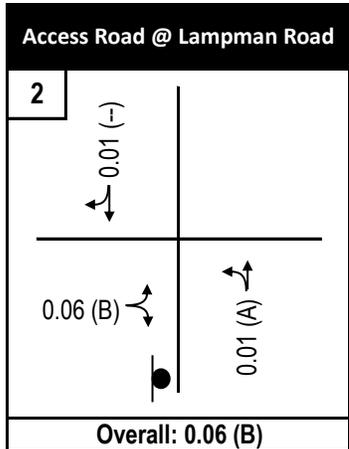
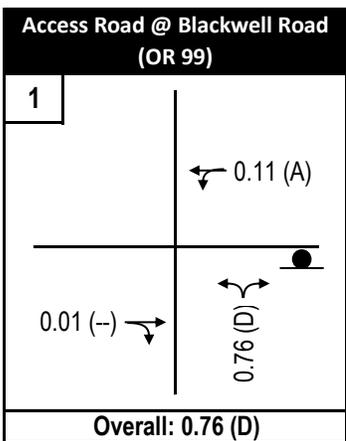
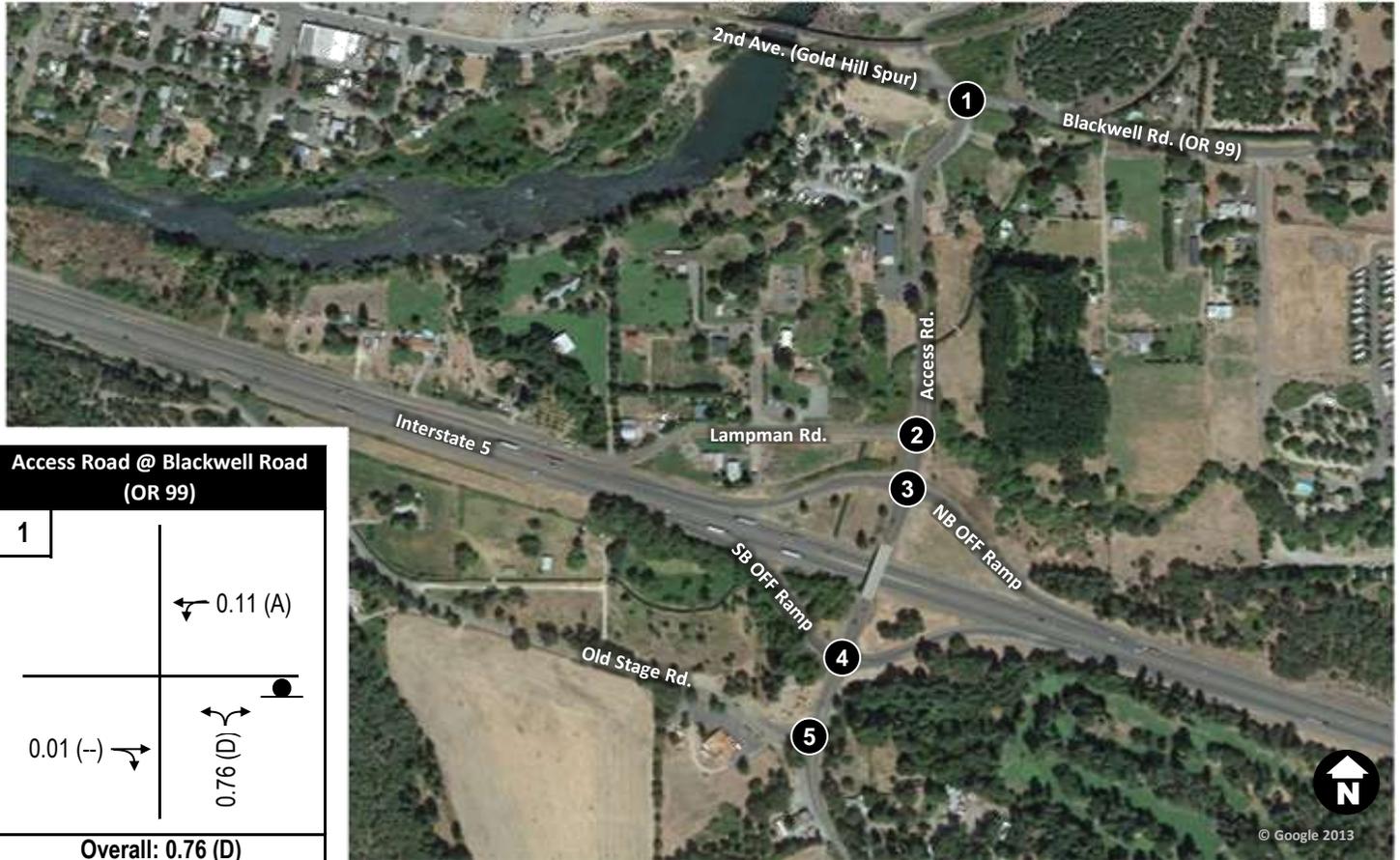
TEV: Total Entering Volume

▲ Yield Controlled Movement

### PM Peak Hour Turning Movement Volume

**DRAFT Figure 5-2b**  
 Future (2038) Baseline ALUS  
 PM Peak Hour Volumes  
 I-5 Exit 43





**I-5 Exits 40 and 43 Interchange Area Management Plans**

**Legend**

↔ Lane Configuration

● STOP Controlled Approach

0.01 (A) Lane Group V/C (LOS)  
Volume-to-Capacity Ratio (Level of Service)

△ Yield Controlled Movement

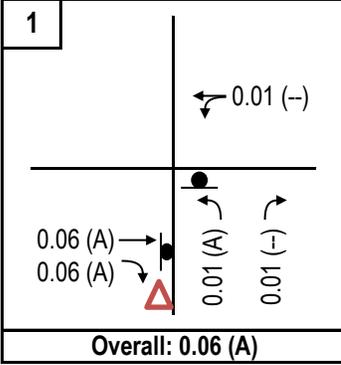
(--) LOS only reported for stopped or yielding movement

\*Intersection operations based on HCM 2000 Methodology

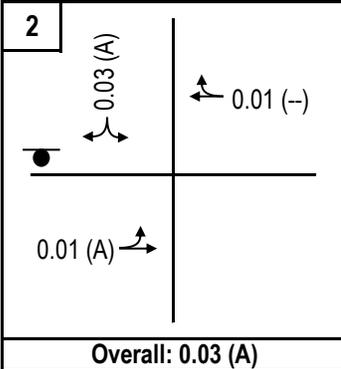
**DRAFT Figure 5-3a**  
Future (2038) Baseline  
PM Peak Hour Operations  
I-5 Exit 40



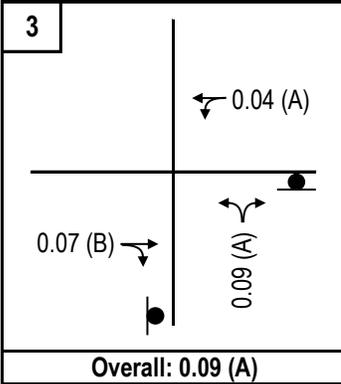
**OR 99 /OR 234 @ N. River Road <sup>1</sup>**



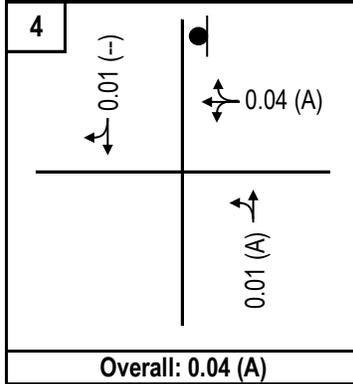
**OR 99/OR 234 @ Lampman Road**



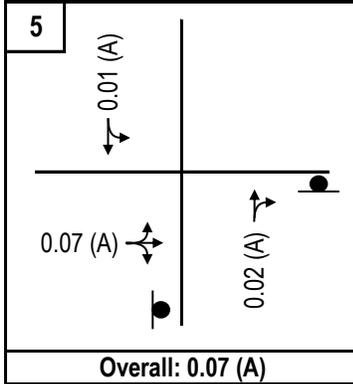
**Main Street @ OR 99/OR 234 <sup>1,2</sup>**



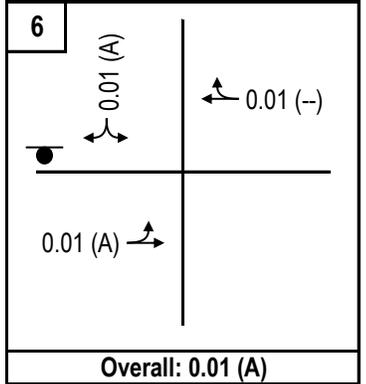
**Main Street @ I-5 NB Ramps**



**Main Street @ I-5 SB Ramps <sup>1</sup>**



**Main Street @ Profetta Lane**



**I-5 Exits 40 and 43 Interchange Area Management Plans**

**Legend**

↔ Lane Configuration

● STOP Controlled Approach

△ Yield Controlled Movement

0.01 (A) Lane Group V/C (LOS)

Volume-to-Capacity Ratio (Level of Service)

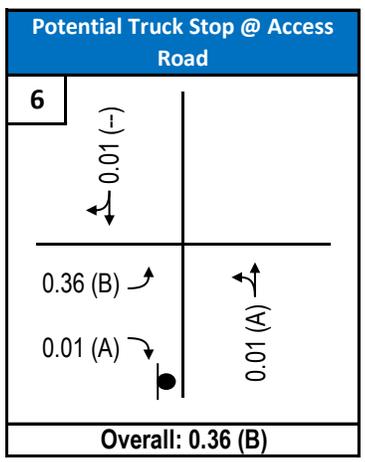
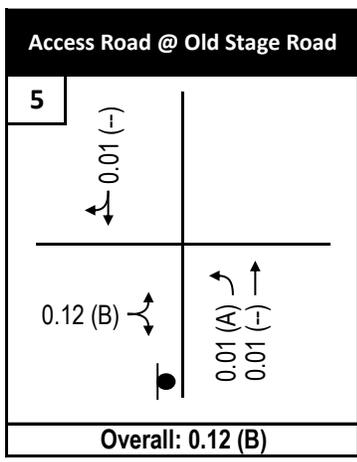
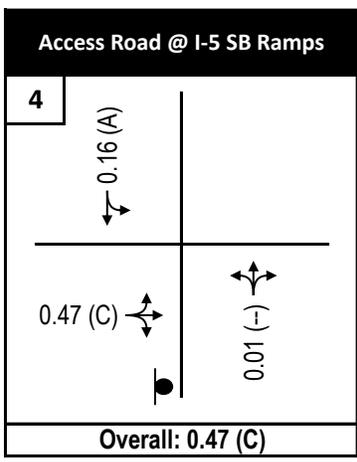
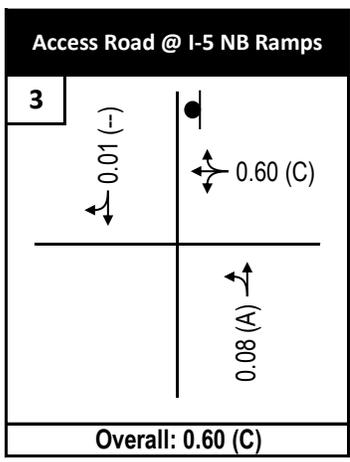
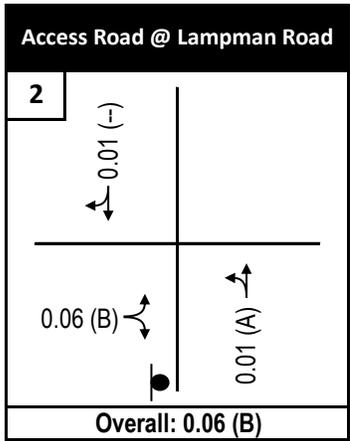
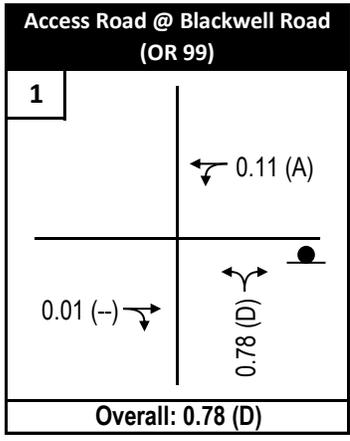
(--) LOS only reported for stopped or yielding movement

<sup>1</sup> Intersection operations analyzed with alternative geometry

<sup>2</sup> Intersection operations based on HCM 2000 Methodology

**DRAFT Figure 5-3b**  
 Future (2038) Baseline  
 PM Peak Hour Operations  
 I-5 Exit 43





**I-5 Exits 40 and 43 Interchange Area Management Plans**

**Legend**

↔ Lane Configuration

● STOP Controlled Approach

△ Yield Controlled Movement

0.01 (A) Lane Group V/C (LOS)

Volume-to-Capacity Ratio (Level of Service)

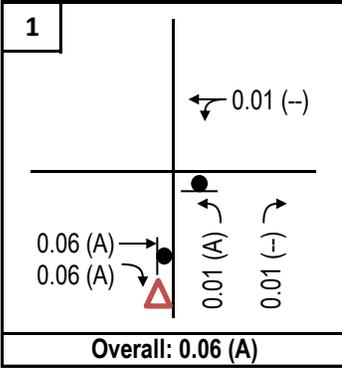
(-) LOS only reported for stopped or yielding movement

\*Intersection operations based on HCM 2000 Methodology

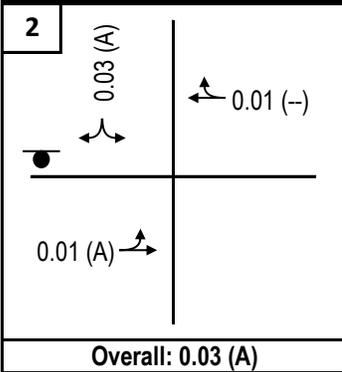
**DRAFT Figure 5-4a**  
 Future (2038) Baseline ALUS  
 PM Peak Hour Operations  
 I-5 Exit 40



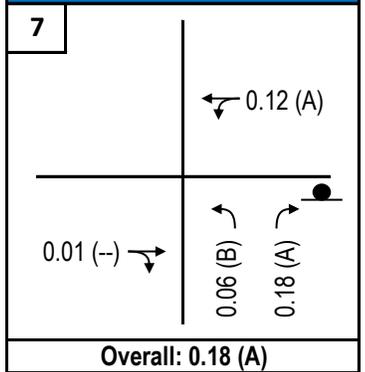
**OR 99/OR 234 @ N. River Road <sup>1</sup>**



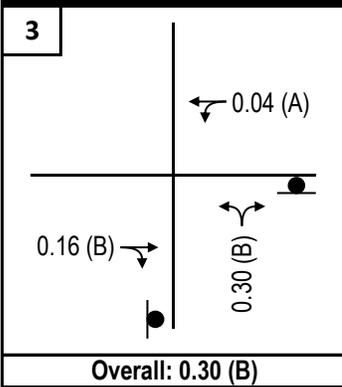
**OR 99/OR 234 @ Lampman Road**



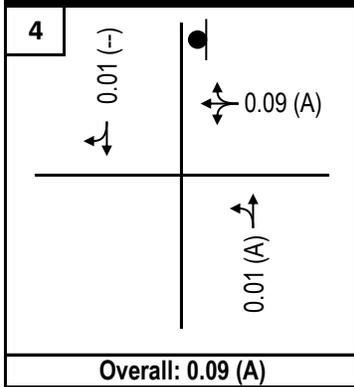
**Potential Truck Stop @ Rogue River Highway**



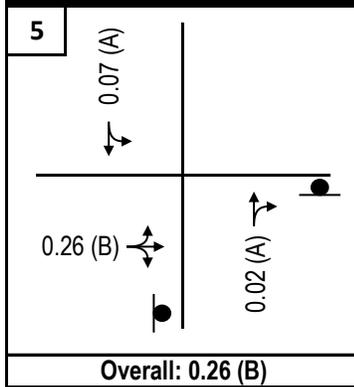
**Main Street @ OR 99/OR 234 <sup>1,2</sup>**



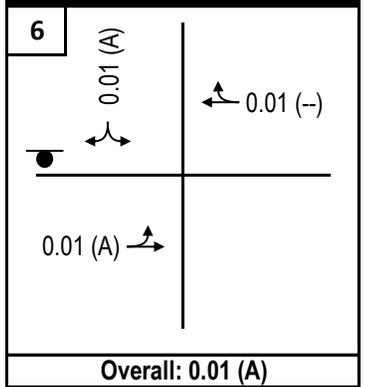
**Main Street @ I-5 NB Ramps**



**Main Street @ I-5 SB Ramps <sup>1</sup>**



**Main Street @ Profetia Lane**



**I-5 Exits 40 and 43 Interchange Area Management Plans**

**Legend**

↔ Lane Configuration

● STOP Controlled Approach

△ Yield Controlled Movement

0.01 (A) Lane Group V/C (LOS)

Volume-to-Capacity Ratio (Level of Service)

(--) LOS only reported for stopped or yielding movement

<sup>1</sup> Intersection operations analyzed with alternative geometry

<sup>2</sup> Intersection operations based on HCM 2000 Methodology

**DRAFT Figure 5-4b**  
 Future (2038) Baseline ALUS  
 PM Peak Hour Operations  
 I-5 Exit 43

