

# 2015

## Quality/Level of Service Training

Planning Level Analysis

Solution Set

March 2015



# Data Sources Example Problem

## Answers

- Area Type = Urbanized
- AADT = 183,500
- K-Factor = 8.0
- D-Factor = 52.3
- Peak Direction = EB
- % Heavy Vehicles = 4.0

# Data Sources Workshop Problem

## Answers

- Area Type = Other Urbanized
- AADT = 16,647
- K-Factor = 9.0
- D-Factor = 52.3
- Peak Direction = NB
- % Heavy Vehicles = 1.0

# GSVT Example 1.A

Determine the max. service volume for LOS E:

- In terms of AADT
- In a core urbanized area
- For a 8-lane freeway

FREEWAYS					
Core Urbanized					
Lanes	B	C	D	E	
4	47,400	64,000	77,900	84,600	
6	69,900	95,200	116,600	130,600	
8	92,500	126,400	154,300	176,600	
10	115,100	159,700	194,500	222,700	
12	162,400	216,700	256,600	268,900	

LOS E → 176,600

Generalized Annual Average Daily Volumes for Florida's Urbanized Areas

TABLE 1

INTERMITTENT FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	16,800	17,700	17,700	**	4	47,400	64,000	77,900	84,600	
4	Divided	37,900	39,800	**	**	6	69,900	95,200	116,600	130,600	
6	Divided	58,400	59,900	**	**	8	92,500	126,400	154,300	176,600	
8	Divided	78,800	80,100	**	**	10	115,100	159,700	194,500	222,700	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	7,300	14,800	15,600		4	45,800	61,500	74,400	79,900	
4	Divided	14,500	32,400	33,800		6	68,100	93,000	111,800	123,300	
6	Divided	23,300	50,000	50,900		8	91,500	123,500	148,700	166,800	
8	Divided	32,000	67,500	68,100		10	114,800	156,000	187,100	210,300	
Non-State Signalized Roadway Adjustments: (After corresponding non-volume to the indicated percent)						Freeway Adjustments: Present in Both Directions = -5%					
Non-State Signalized Roadways = -10%						UNINTERRUPTED FLOW HIGHWAYS					
Median & Turn Lane Adjustments:						Lanes	Median	B	C	D	E
Lanes	Median	Enclosure	Enclosure	Adjustment		2	Undivided	8,600	17,000	24,200	33,300
2	Divided	Yes	No	-5%		4	Divided	36,700	51,800	65,600	72,800
4	Undivided	No	No	-20%		6	Divided	55,000	77,700	98,300	108,800
Multi	Undivided	Yes	No	-5%		Uninterrupted Flow Highway Adjustments:					
Multi	Undivided	No	Yes	-25%		Lanes	Median	Enclosure	Adj. Factor	Adjustment Factor	
Multi	Undivided	No	Yes	-5%		2	Divided	Yes	-5%	-5%	
Multi	Undivided	No	Yes	-25%		Multi	Undivided	Yes	-5%	-5%	
Multi	Undivided	No	Yes	-25%		Multi	Undivided	No	-25%	-25%	
One-Way Facility Adjustment: Multiply the corresponding two-direction volumes in this table by 0.6						BICYCLE MODE <sup>1</sup> Obtains unadjusted vehicle volumes (shown below by number of direction) roadway lanes to determine the way services service volumes.)					
Paved Shoulder/Bicycle Lane Coverage						PEDESTRIAN MODE <sup>2</sup> Obtains unadjusted vehicle volumes (shown below by number of direction) roadway lanes to determine the way services service volumes.)					
0-49% = 2,900 7,600 19,700						Sidewalk Coverage					
50-84% = 2,100 6,700 19,700 -19,700						0-49% = 4 2,800 8,500					
85-100% = 9,100 19,700 -19,700						50-84% = 1,600 8,700 15,800					
						85-100% = 3,800 10,700 17,400 -19,700					
						BUS MODE (Scheduled Fixed Route) <sup>3</sup> Shown in peak hour by peak direction					
						Sidewalk Coverage					
						0-84% = -5 -2 4 -2 3 -2 2					
						85-100% = -4 -2 3 -2 2 1					

Source: Florida Department of Transportation  
Source: Planning Cells  
[www.dot.state.fl.us/traffic/transportation/tables/tables.htm](http://www.dot.state.fl.us/traffic/transportation/tables/tables.htm)

2012 FOOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES

# GSVT Example 1.B

Determine the max. service volume for LOS E:

- In terms of AADT
- In a core urbanized area
- For a 8-lane freeway
- Auxiliary Lanes in both directions

FREEWAYS					
Core Urbanized					
Lanes	B	C	D	E	
4	47,400	64,000	77,900	84,600	
6	69,900	95,200	116,600	130,600	
8	92,500	126,400	154,300	176,600	
10	115,100	159,700	194,500	222,700	
12	162,400	216,700	256,600	268,900	

Freeway Adjustments			
Auxiliary Lanes Present in Both Directions			Ramp Metering
+ 20,000			+ 5%

$$176,600 + 20,000 = 196,600$$

Generalized Annual Average Daily Volumes for Florida's Urbanized Areas

TABLE 1

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	16,800	17,700	**	4	47,400	64,000	77,900	84,600	
4	Divided	*	37,900	39,800	**	6	69,900	95,200	116,600	130,600	
6	Divided	*	58,400	59,900	**	8	92,500	126,400	154,300	176,600	
8	Divided	*	78,800	80,100	**	10	115,100	159,700	194,500	222,700	
						12	162,400	216,700	256,600	268,900	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	7,300	14,800	15,600	4	45,800	61,500	74,400	79,900	
4	Divided	*	14,500	32,400	33,800	6	68,100	93,000	111,800	123,300	
6	Divided	*	23,300	50,000	50,900	8	91,500	123,500	148,700	166,800	
8	Divided	*	32,000	67,300	68,100	10	114,800	156,000	187,100	210,300	
<b>Non-State Signalized Roadway Adjustments</b>						<b>Freeway Adjustments</b>					
(Alter corresponding site volumes by the indicated percent.)						Auxiliary Lanes Ramp Metering					
Non-State Signalized Roadways -10%						Present in Both Directions +20,000					
<b>Median &amp; Turn Lane Adjustments</b>						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Left Lanes	Right Lanes	Exclusive	Adjustment Factors	Lanes	Median	B	C	D	E
2	Divided	Yes	No	+	+5%	2	Undivided	8,600	17,000	24,200	33,300
2	Undivided	No	No	-	-20%	4	Divided	36,700	51,800	65,600	72,600
Multi	Undivided	Yes	No	-	-5%	6	Divided	55,000	77,700	98,300	108,800
Multi	Undivided	No	No	-	-25%						
			Yes	+	+5%	<b>Uninterrupted Flow Highway Adjustments</b>					
<b>One-Way Facility Adjustment</b>						Median Exclusive left lanes Adjustment factors					
Multiply the corresponding two-directional volumes in this table by 0.6						2 Divided Yes +5%					
						Multi Undivided Yes -5%					
						Multi Undivided No -25%					
<b>BICYCLE MODE<sup>2</sup></b>						<sup>1</sup> Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning application. The computer models from which this table is derived should be used for more specific planning applications. The table and data computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.					
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)						<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicycles or pedestrians using the facility.					
<b>Paved Shoulder/Bicycle Lane Coverage</b>						<sup>3</sup> Bus per hour shown are only for peak hour in the single direction of the higher traffic flow.					
Lane Coverage	B	C	D	E		* Cannot be achieved using table input value defaults.					
0-49%	*	2,900	7,600	19,700		** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become P because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including P) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.					
50-84%	2,100	6,700	19,700	>19,700		Source: Florida Department of Transportation System Planning Office <a href="http://www.dot.state.fl.us/Planning/Systems/lan/lan_defnlt.htm">www.dot.state.fl.us/Planning/Systems/lan/lan_defnlt.htm</a>					
85-100%	9,300	19,700	>19,700	**		2012 FDOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES					
<b>PEDESTRIAN MODE<sup>2</sup></b>											
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)											
<b>Sidewalk Coverage</b>											
Lane Coverage	B	C	D	E							
0-49%	*	*	2,800	9,500							
50-84%	*	1,600	8,700	15,800							
85-100%	3,800	10,700	17,400	>19,700							
<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b>											
(Buses in peak hour in peak direction)											
Sidewalk Coverage	B	C	D	E							
0-84%	> 5	≥ 4	≥ 3	≥ 2							
85-100%	> 4	≥ 3	≥ 2	≥ 1							

LOS E



196,600

# GSVT Example 2.A

Determine the auto LOS:

- In terms of peak hour directional volumes
- In an undeveloped rural area
- For an uninterrupted flow highway with
  - 2 lanes (one in each direction)
  - No median/undivided
  - No passing lanes
  - Peak hour directional volume is **440**

Answer  LOS D

Generalized Peak Hour Directional Volumes for Florida's Rural Undeveloped Areas and Developed Areas Less Than 5,000 Population<sup>1</sup> 12/10/12

TABLE 9

INTERRUPTED FLOW FACILITIES					UNINTERRUPTED FLOW FACILITIES						
<b>STATE SIGNALIZED ARTERIALS</b>					<b>FREEWAYS</b>						
Lanes	Median	B	C	D	Lanes	B	C	D	E		
1	Undivided	*	670	740	**	2	1,680	2,500	3,040	3,500	
2	Divided	**	1,530	1,930	**	3	2,500	3,720	4,540	5,400	
3	Divided	**	2,360	2,400	**	4	3,360	4,980	6,080	7,200	
Non-State Signalized Roadway Adjustments (After corresponding row volumes by the indicated percent)					Freeway Adjustments Auxiliary Lanes Present in Both Directions = 1.00						
Non-State Signalized Roadways -10%											
<b>Median &amp; Turn Lane Adjustments</b>					<b>UNINTERRUPTED FLOW HIGHWAYS</b>						
Lanes	Median	Left Lanes	Right Lanes	Adjustment Factor	<b>Rural Undeveloped</b>						
1	Divided	Yes	No	+5%	Lanes	Median	B	C	D	E	
1	Undivided	No	No	-20%	1	Undivided	240	430	740	1,490	
Multi	Undivided	Yes	No	-5%	2	Divided	1,340	2,100	2,660	3,020	
Multi	Undivided	No	Yes	-25%	3	Divided	2,020	3,150	4,000	4,530	
-	-	-	Yes	+5%	<b>Developed Areas</b>						
One-Way Facility Adjustment Multiply the corresponding directional volumes in this table by 1.2					Lanes	Median	B	C	D	E	
					1	Undivided	450	850	1,200	1,640	
					2	Divided	1,550	2,120	2,730	3,110	
					3	Divided	2,020	3,180	4,090	4,670	
<b>BICYCLE MODE<sup>1</sup></b> Multiply unadjusted vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					Passing Lane Adjustments Allow LOS B-D volumes in proportion to the passing lane length to the highway segment length.						
<b>Rural Undeveloped</b>					<b>Uninterrupted Flow Highway Adjustments</b>						
Paved Shoulder/Bicycle Lane Coverage	B	C	D	E	Lanes	Median	End/turnoff lanes	Adjustment factor			
0-49%	*	70	110	170	1	Divided	Yes	+5%			
50-84%	*	60	120	180	1	Undivided	Yes	-5%			
85-100%	*	140	210	1,000	-1,000	Multi	Undivided	Yes	-5%		
					Multi	Undivided	No	-25%			
					* Values shown are presented as peak hour directional volumes for levels of service and are for the maximum truck traffic volume specifically stated. The table does not consider a median and should be used only for general planning applications. The complete analysis for which this table is derived should be used for more specific planning applications. For table use during design, the table should also be used for counties or jurisdictions that have more refined techniques used. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.						
<b>Developed Areas</b>					† Level of service for the bicycle and pedestrian modes in this table is based on number of unadjusted vehicles, not number of bicycles or pedestrians, in the facility.						
Paved Shoulder/Bicycle Lane Coverage	B	C	D	E	* Counts be achieved using table input value deficits.						
0-49%	*	120	240	840	** This applies to the level of service lower grade. For the maximum truck traffic volume given that level of service if service lower grade has been reached. For the bicycle mode, the level of service lower grade (including F) is not achievable because there is no maximum vehicle volume specified using table input value deficits.						
50-84%	*	100	240	720	Source:						
85-100%	*	320	1,000	-1,000	Florida Department of Transportation System Planning Office <a href="http://www.dot.state.fl.us/transportation/qualityofservice/">www.dot.state.fl.us/transportation/qualityofservice/</a>						
<b>PEDESTRIAN MODE<sup>1</sup></b> Multiply unadjusted vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)					2012 FDOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES						
Sidewalk Coverage	B	C	D	E							
0-49%	*	80	130	460							
50-84%	*	80	430	770							
85-100%	*	180	520	860							

UNINTERRUPTED FLOW HIGHWAYS					
Rural Undeveloped					
Lanes	Median	B	C	D	E
1	Undivided	240	430	740	1,490
2	Divided	1,340	2,100	2,660	3,020
3	Divided	2,020	3,150	4,000	4,530

# GSVT Example 2.B

## Determine the auto LOS:

- In terms of peak hour directional volumes
- In an undeveloped rural area
- For an uninterrupted flow highway with
  - 2 lanes (one in each direction)
  - 20% passing lane
  - No median/undivided
  - Peak hour directional volume is **440**

$$430 * 1.2 = 516$$

Answer → LOS C

### UNINTERRUPTED FLOW HIGHWAYS

#### Rural Undeveloped

Lanes	Median	B	C	D	E
1	Undivided	240	430	740	1,490
2	Divided	1,340	2,100	2,660	3,020
3	Divided	2,020	3,150	4,000	4,530

TABLE 9 Generalized Peak Hour Directional Volumes for Florida's Rural Undeveloped Areas and Developed Areas Less Than 5,000 Population<sup>1</sup>

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
<b>STATE SIGNALIZED ARTERIALS</b>						<b>FREEWAYS</b>					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
1	Undivided	670	740	**		2	1,680	2,500	3,040	3,500	
2	Divided	1,530	1,580	**		3	2,500	3,720	4,560	5,400	
3	Divided	2,360	2,400	**		4	3,360	4,980	6,080	7,200	
<b>Non-State Signalized Roadway Adjustments</b> (After corresponding peak volumes by the indicated percent)						<b>Freeway Adjustments</b> Auxiliary Lanes Present in Both Directions +1,000					
Non-State Signalized Roadways -10%											
<b>Median &amp; Turn Lane Adjustments</b> (After corresponding peak volumes by the indicated percent)						<b>UNINTERRUPTED FLOW HIGHWAYS</b>					
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factor		<b>Rural Undeveloped</b>					
1	Divided	Yes	No	-5%		Lanes	Median	B	C	D	E
1	Undivided	No	No	-20%		1	Undivided	240	430	740	1,490
Multi	Undivided	Yes	No	-5%		2	Divided	1,340	2,100	2,660	3,020
Multi	Undivided	No	Yes	+5%		3	Divided	2,020	3,150	4,000	4,530
<b>One-Way Facility Adjustment</b> Multiply the corresponding directional volumes in this table by 1.2						<b>Developed Areas</b>					
						Lanes	Median	B	C	D	E
						1	Undivided	450	850	1,200	1,640
						2	Divided	1,350	2,120	2,730	3,110
						3	Divided	2,020	3,180	4,090	4,670
<b>BICYCLE MODE<sup>2</sup></b> (Multiply selected vehicle volume values below by number of directional roadway lanes to determine two-way maximum service volumes)						<b>Passing Lane Adjustments</b> Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length.					
<b>Rural Undeveloped</b>						<b>Uninterrupted Flow Highway Adjustment Factors</b>					
Paved Shoulder/Bicycle	Median	B	C	D	E	1	Divided	Yes	-5%		
Lane Coverage	0-49%	70	110	170		Multi	Undivided	Yes	-5%		
	50-84%	60	120	180	580	Multi	Undivided	No	-25%		
	85-100%	140	210	1,000	>1,000	<b>PEDESTRIAN MODE<sup>3</sup></b> (Multiply selected vehicle volume values shown below by number of directional roadway lanes to determine two-way maximum service volumes)					
<b>Developed Areas</b>						Sidewalk Coverage	B	C	D	E	
Paved Shoulder/Bicycle	0-49%	120	260	840		0-49%	+	120	460		
Lane Coverage	50-84%	100	240	720	1,000	50-84%	+	80	430	770	
	85-100%	320	1,000	>1,000	**	85-100%	180	520	860	>1,000	

2012 FDOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES

### Passing Lane Adjustments

Alter LOS B-D volumes in proportion to the passing lane length to the highway segment length

# GSVT Example 3

Determine the auto LOS:

- In terms of peak hour directional volumes
- In an urban area
- For a non-state signalized roadway with
  - 45 mph speed limit
  - 6 lanes (3 in each direction)
  - Peak hour directional volume of **2,500**

Answer  LOS F

$$2,740 * 0.9 \approx 2,450$$

STATE SIGNALIZED ARTERIALS					
Class I (40 mph or higher posted speed limit)					
Lanes	Median	B	C	D	E
1	Undivided	*	710	800	**
2	Divided	*	1,740	1,820	**
3	Divided	*	2,670	2,740	**

**Non-State Signalized Roadway Adjustments**  
 (Alter corresponding state volumes by the indicated percent.)  
 Non-State Signalized Roadways **- 10%**

Generalized Peak Hour Directional Volumes for Florida's Transitioning <sup>2011</sup> Areas Over 5,000 Not in Urbanized Areas<sup>1</sup> 12/18/12

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Lanes	B	C	D	E	
Lanes	Median	C	D	E		2	2,200	2,880	3,440	3,580	
1	Undivided	*	710	800	**	3	3,260	4,200	5,100	5,540	
2	Divided	*	1,740	1,820	**	4	4,360	5,680	6,760	7,500	
3	Divided	*	2,670	2,740	**	5	5,300	7,080	8,440	9,440	
Class II (35 mph or lower posted speed limit)						Freeway Adjustments					
Lanes	Median	B	C	D	E	Accessory Lane	Ramp Metering				
1	Undivided	*	320	680	720	-1,000	+5%				
2	Divided	*	500	1,460	1,600		-5%				
3	Divided	*	610	2,280	2,420						
Non-State Signalized Roadway Adjustments						UNINTERRUPTED FLOW HIGHWAYS					
(Alter corresponding state volumes by the indicated percent.)						Lanes	Median	B	C	D	E
Non-State Signalized Roadways -10%						1	Undivided	450	850	1,200	1,640
						2	Divided	1,740	2,450	3,110	3,440
						3	Divided	2,610	3,680	4,660	5,120
Median & Turn Lane Adjustments						Uninterrupted Flow Highway Adjustments					
Lanes	Median	Left Lanes	Right Lanes	Exclusive	Adjustment Factors	Lanes	Median	Exclusive	Turn Lanes	Adjustment Factors	
1	Undivided	Yes	No	No	+5%	1	Divided	Yes	Yes	+5%	
2	Undivided	No	No	No	-20%	1	Undivided	Yes	No	-20%	
3	Undivided	Yes	No	No	-5%	2	Divided	Yes	No	-20%	
3	Divided	No	No	Yes	-25%	3	Divided	Yes	No	-20%	
3	Divided	No	Yes	Yes	-5%						
One-Way Facility Adjustment						BICYCLE MODE <sup>3</sup>					
Multiply the corresponding directional volumes in this table by 1.2						Obtainly oriented vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.					
						Shoulder/Bicycle Lane Coverage					
						B	C	D	E		
						0-49%	+	140	320	1,000	
						50-84%	+	100	280	940	-1,000
						85-100%	+	380	1,000	-1,000	**
PEDESTRIAN MODE <sup>4</sup>						BUS MODE (Scheduled Fixed Route) <sup>5</sup>					
Multiply oriented vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.						(Based on peak hour in peak direction)					
						Sidewalk Coverage	B	C	D	E	
						0-84%	+	4	3	2	
						85-100%	+	4	3	2	1

# GSVT Example 4.A

## Determine the bicycle LOS:

- In terms of AADT
- In an urbanized area
- For a state signalized arterial with
  - 2 lanes
  - **AADT=13,000**
  - 3 buses/hour
  - 90% bike lane coverage
  - 40% sidewalk coverage

**BICYCLE MODE<sup>2</sup>**  
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	2,900	7,600	19,700
50-84%	2,100	6,700	19,700	>19,700
<u>85-100%</u>	9,300	19,700	>19,700	**

**TABLE 1**  
Generalized Annual Average Daily Volumes for Florida's Urbanized Areas

INTERRUPTED FLOW FACILITIES					UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS					FREEWAYS					
Class I (40 mph or higher posted speed limit)					Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E
2	Undivided	*	16,800	17,700	**	4	47,400	64,000	77,900	84,600
4	Divided	**	37,900	39,800	**	6	69,900	95,200	116,600	130,600
6	Divided	**	58,400	59,900	**	8	92,500	126,400	154,300	176,600
8	Divided	**	78,800	80,100	**	10	115,100	159,700	194,500	222,700
						12	162,400	216,700	256,600	289,900
Class II (35 mph or slower posted speed limit)					Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E
2	Undivided	*	7,300	14,800	15,600	4	45,800	61,500	74,400	79,900
4	Divided	**	14,500	32,400	33,800	6	68,100	93,000	111,800	123,300
6	Divided	**	23,300	50,000	50,900	8	91,500	123,500	148,700	166,800
8	Divided	**	32,000	67,300	68,100	10	114,800	156,000	187,100	210,300

**Non-State Signalized Roadway Adjustments**  
(After corresponding non-volume by the indicated percent.)  
Non-State Signalized Roadways: -10%

**Median & Turn Lane Adjustments**  
Lanes: 2, 4, 6, 8  
Median: Divided, Undivided  
Left Lanes: Enclosure, No  
Right Lanes: Enclosure, No  
Adjustment Factor: +5%, -20%, -5%, -25%, +5%

**One-Way Facility Adjustment**  
Multiply the corresponding one-directional volumes in this table by 0.6

**BICYCLE MODE<sup>2</sup>**  
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	2,900	7,600	19,700
50-84%	2,100	6,700	19,700	19,700
85-100%	9,300	19,700	19,700	**

**PEDESTRIAN MODE<sup>3</sup>**  
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	2,800	9,700	15,800
50-84%	1,600	8,700	15,800	15,800
85-100%	3,800	10,700	17,400	19,700

**BUS MODE (Scheduled Fixed Route)<sup>3</sup>**  
(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-49%	> 4	-	-	-
50-84%	4	3	2	2
85-100%	4	3	2	2

**UNINTERRUPTED FLOW HIGHWAYS**  
Lanes: 2, 4, 6, 8  
Median: Undivided, Multi  
Adjustment Factor: +5%, -5%, -25%

**Freeway Adjustments**  
Auxiliary Lane: Present in Both Directions  
Ramp Metering: +5%

**Uninterrupted Flow Highway Adjustments**  
Lanes: 2, 4, 6, 8  
Median: Exclusive left lane, Multi  
Adjustment Factor: +5%, -5%, -25%

**Notes:**  
\* Values shown are presented as two-way annual average daily volumes for Florida's urbanized areas and are for the most-motorized traffic volume specifically noted. This table is for use in planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and data are for general guidance only and should not be used for detailed or sensitive design. Values may vary based on local conditions and level of planning sophistication of the highway, degree of transit and transit mode, and quality of service provided.  
\*\* Level of service for the bicycle and pedestrian modes in this table is based on number of uninterrupted vehicles, not number of vehicles or pedestrians, in the table.  
\*\*\* These peak hours are only for the peak hour in the single direction of the highest traffic flow.  
\*\*\*\* Values are scheduled peak hour values.  
\*\*\*\*\* Not applicable for the level of service grade. For the network mode.  
\*\*\*\*\* Values greater than level of service 2 indicate that the network mode is not applicable. For the network mode, the level of service grade (as defined in the table) is not applicable to the network mode in an urbanized vehicle volume threshold using the upper value shown.

Source: Florida Department of Transportation  
Division of Planning & Design  
www.dot.state.fl.us/transportation/transportation\_data/default.asp

2012 FOOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES

# GSVT Example 4.B

## Determine the pedestrian LOS:

- In terms of AADT
- In an urbanized area
- For a state signalized arterial with
  - 2 lanes
  - **AADT=13,000**
  - 3 buses/hour
  - 90% bike lane coverage
  - 40% sidewalk coverage

PEDESTRIAN MODE <sup>2</sup>				
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)				
Sidewalk Coverage	B	C	D	E
0-49%	*	*	2,800	9,500
50-84%	*	1,600	8,700	15,800
85-100%	3,800	10,700	17,400	>19,700

Generalized Annual Average Daily Volumes for Florida's Urbanized Areas

TABLE 1

INTERRUPTED FLOW FACILITIES					UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS					FREEWAYS					
Class I (40 mph or higher posted speed limit)					Cove Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E
2	Undivided	*	16,800	17,700	**	4	47,400	64,000	77,900	84,600
4	Divided	**	37,900	39,800	**	6	69,900	95,200	116,600	130,600
6	Divided	**	58,400	59,900	**	8	92,500	126,400	154,300	176,600
8	Divided	**	78,800	80,100	**	10	115,100	159,700	194,500	222,700
						12	162,400	216,700	256,600	288,900
Class II (35 mph or slower posted speed limit)					Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E
2	Undivided	*	7,300	14,800	15,600	4	45,800	61,500	74,400	79,900
4	Divided	**	14,500	32,400	33,800	6	68,100	93,000	111,800	123,300
6	Divided	**	23,300	50,000	50,900	8	91,500	123,500	148,700	166,800
8	Divided	**	32,000	67,300	68,100	10	114,800	156,000	187,100	210,300

Non-State Signalized Roadway Adjustments (After corresponding main volume by the indicated percent.)  
 Non-State Signalized Roadways: -10%

Median & Turn Lane Adjustments (After corresponding main volume by the indicated percent.)  
 Enclosure: Enclosure Adjustment Factors  
 2 Divided: Yes/No: -5%  
 2 Undivided: No/No: -20%  
 Multi Undivided: Yes/No: -5%  
 Multi Undivided: No/No: -25%  
 - Yes: +5%

One-Way Facility Adjustment (Multiply the corresponding one-directional volumes in this table by 0.6)

BIKEWAY MODE<sup>2</sup>  
 (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)  
 Paved Shoulder/Bicycle Lane Coverage: B, C, D, E  
 0-49%: \* 2,900 7,600 19,700  
 50-84%: \* 2,100 6,700 19,700 19,700  
 85-100%: 9,300 19,700 -19,700 \*\*

PEDESTRIAN MODE<sup>2</sup>  
 (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)  
 Sidewalk Coverage: B, C, D, E  
 0-49%: \* \* 2,800 9,500  
 50-84%: \* 1,600 8,700 15,800  
 85-100%: 3,800 10,700 17,400 -19,700

BUS MODE (Scheduled Fixed Routes)<sup>2</sup>  
 (Buses in peak hour in peak direction)  
 Sidewalk Coverage: B, C, D, E  
 0-49%: > -1 -2 -3 -1  
 50-84%: > -4 -3 -2 -1  
 85-100%: > -4 -3 -2 -1

Freeway Adjustments: Auxiliary Lane Ramp Metering Present in Both Directions: -20,000 +5%

UNINTERRUPTED FLOW HIGHWAYS  
 Lanes: Median B C D E  
 2 Undivided: 8,600 17,000 24,200 33,300  
 4 Divided: 36,700 51,800 65,600 72,600  
 6 Divided: 55,000 77,700 98,300 108,800

Uninterrupted Flow Highway Adjustments (Multiply the corresponding one-directional volumes in this table by the indicated factor):  
 Lanes: Median Exclusive left lane: Adjustment factor:  
 2 Divided: Yes -5%  
 Multi Undivided: Yes -5%  
 Multi Undivided: No -25%

<sup>1</sup>Values shown are presented as two-way annual average daily volumes for levels of service and are for the amount of truck, medium, and heavy-duty trucks. This table does not consider a modified and should be used only for general planning applications. The computer models from which this table is derived should be used for more exact planning applications. The table and data the computer models should be used for computer simulation models, where more refined techniques are available and based on planning applications of the highway agency based on the traffic quality and quality of service issues.

<sup>2</sup>Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicycles or pedestrians, in the table.

<sup>3</sup>Buses per hour shown are only for the peak hour in the single direction of the highest traffic flow.

<sup>4</sup>Values are rounded to the nearest whole number.

<sup>5</sup>Not applicable for the level of service lower grade. For the network in use, the values shown in this table are based on the level of service 2. For the network in use, the values shown in this table are based on the level of service 2. For the network in use, the values shown in this table are based on the level of service 2.

Source: Florida Department of Transportation, Division of Planning Office, [www.dot.state.fl.us/planning/transportation/tables/tables.html](http://www.dot.state.fl.us/planning/transportation/tables/tables.html)

2012 FDOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES

# GSVT Example 4.C

## Determine the bus LOS:

- In terms of AADT
- In an urbanized area
- For a state signalized arterial with
  - 2 lanes
  - AADT=13,000
  - 3 buses/hour
  - 90% bike lane coverage
  - 40% sidewalk coverage

<b>BUS MODE (Scheduled Fixed Route)<sup>3</sup></b>				
(Buses in peak hour in peak direction)				
Sidewalk Coverage	B	C	D	E
<u>0-84%</u>	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

**TABLE 1** Generalized Annual Average Daily Volumes for Florida's Urbanized Areas 12/18/12

INTERRUPTED FLOW FACILITIES					UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS					FREEWAYS					
Class I (40 mph or higher posted speed limit)					Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E
2	Undivided	16,800	17,700	**	**	4	47,400	64,000	77,900	84,600
4	Divided	37,900	39,800	**	**	6	69,900	95,200	116,600	130,600
6	Divided	58,400	59,900	**	**	8	92,500	126,400	154,300	176,600
8	Divided	78,800	80,100	**	**	10	115,100	159,700	194,500	222,700
						12	162,400	216,700	256,600	288,900
Class II (35 mph or slower posted speed limit)					Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E
2	Undivided	7,300	14,800	15,600		4	45,800	61,500	74,400	79,900
4	Divided	14,500	32,400	33,800		6	68,100	93,000	111,800	123,300
6	Divided	23,300	50,000	50,900		8	91,500	123,500	148,700	166,800
8	Divided	32,000	67,300	68,100		10	114,800	156,000	187,100	210,300

  

Non-State Signalized Roadway Adjustments		Freeway Adjustments	
*After corresponding main volume by the indicated percent		*Range Metering	
Non-State Signalized Roadways	-10%	Present in Both Directions	+5%
		20,000	-5%

  

UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	B	C	D	E
2	Undivided	8,600	17,000	24,200	33,300
4	Divided	36,700	51,800	65,600	72,600
6	Divided	55,000	77,700	98,300	108,800

  

Uninterrupted Flow Highway Adjustments			
Lanes	Median	Exclusive left lane	Adjustment factor:
2	Divided	Yes	+5%
4	Undivided	Yes	-5%
6	Undivided	No	-25%

  

BIKE MODE <sup>2</sup>				
*Multiply selected vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.				
Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	2,900	7,600	19,700	
50-84%	2,100	6,700	19,700	19,700
85-100%	9,300	19,700	-19,700	**

  

PEDESTRIAN MODE <sup>2</sup>				
*Multiply selected vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.				
Sidewalk Coverage	B	C	D	E
0-49%	2,800	8,700	15,800	
50-84%	1,600	8,700	15,800	15,800
85-100%	3,800	10,700	17,400	-19,700

  

BUS MODE (Scheduled Fixed Route) <sup>3</sup>				
*Buses in peak hour in peak direction				
Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

# GSVT Example 5

Answer  LOS D

Determine the auto LOS:

$$6,500 * 0.80 = 5,200$$

- In terms of AADT
- In an urban area (pop. 12,000)
- For an undivided state arterial with
  - 30 mph speed limit
  - 2 lanes
  - 6,000 AADT

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
-	-	-	Yes	+5%

STATE SIGNALIZED ARTERIALS					
Lanes	Class I (60 mph or higher posted speed limit)	B	C	D	E
2	Undivided	* 14,400	16,200	**	
4	Divided	* 34,000	35,500	**	
6	Divided	* 57,100	53,500	**	
Lanes	B	C	D	E	
4	44,100	57,600	69,900	71,700	
6	85,100	85,600	102,300	111,000	
8	85,100	113,700	135,200	150,000	
10	106,200	141,700	168,800	189,000	
Class II (35 mph or slower posted speed limit)		Freeway Adjustments			
Lanes	Median	B	C	D	E
2	Undivided	* 6,500	13,300	14,200	
4	Divided	* 9,900	28,800	31,600	
6	Divided	* 16,000	44,900	47,600	
Non-State Signalized Roadway Adjustments		UNINTERRUPTED FLOW HIGHWAYS			
Lanes	Median	B	C	D	E
2	Undivided	9,200	17,300	24,400	33,300
4	Divided	35,300	49,600	62,900	69,600
6	Divided	52,800	74,500	94,300	104,500
Median & Turn Lane Adjustments		Uninterrupted Flow Highway Adjustments			
Lanes	Median	Exclusive Left Lane	Adjustment Factor		
2	Divided	Yes	+5%		
2	Undivided	No	-20%		
Multi	Undivided	Yes	-5%		
Multi	Undivided	No	-25%		
One-Way Facility Adjustment					
Lanes	Adjustment Factor				
2	Divided	Yes	+5%		
2	Divided	No	-5%		
Multi	Undivided	Yes	-5%		
Multi	Undivided	No	-25%		
BICYCLE MODE <sup>2</sup>					
Shoulder/Bicycle Lane Coverage	Adjustment Factor				
0-49%	B: 2,600; C: 6,100; D: 19,500				
50-84%	B: 1,900; C: 5,500; D: 18,400; E: 19,500				
85-100%	B: 7,500; C: 19,500; D: 19,500; E: 19,500				
PEDESTRIAN MODE <sup>3</sup>					
Sidewalk Coverage	Adjustment Factor				
0-49%	B: 2,800; C: 9,400				
50-84%	B: 1,600; C: 8,600; D: 15,600				
85-100%	B: 3,800; C: 16,500; D: 17,100; E: 19,500				
BUS MODE (Scheduled Fixed Route) <sup>3</sup>					
Sidewalk Coverage	Adjustment Factor				
0-49%	B: -2; C: -2; D: -2; E: -1				
50-84%	B: -4; C: -3; D: -2; E: -1				

Class II (35 mph or slower posted speed limit)					
Lanes	Median	B	C	D	E
2	Undivided	*	6,500	13,300	14,200
4	Divided	*	9,900	28,800	31,600
6	Divided	*	16,000	44,900	47,600

# GSVT Example 6

Answer  LOS E

$$28,800 * 0.95 = 27,360$$

Determine the auto LOS:

- In terms of AADT
- In a transitioning area
- For a state signalized arterial with
  - 4 lanes
  - No median
  - 35 mph speed limit
  - Exclusive left turn lanes
  - AADT of 28,000

TABLE 2 Generalized Annual Average Daily Volumes for Florida's Transitioning Areas and Areas Over 5,000 Not in Urbanized Areas<sup>1</sup> 12/18/12

INTERRUPTED FLOW FACILITIES					UNINTERRUPTED FLOW FACILITIES				
<b>STATE SIGNALIZED ARTERIALS</b>					<b>FREWAYS</b>				
Class I (40 mph or higher posted speed limit)					Lanes B C D E				
Lanes	Median	B	C	D	4	44,100	57,600	68,900	71,700
2	Undivided	*	14,400	16,200	**	6	65,100	85,600	102,200
4	Divided	*	34,000	35,500	**	8	85,100	113,700	135,200
6	Divided	*	43,600	45,600	**	10	106,200	141,700	168,800
Class II (35 mph or slower posted speed limit)					Freeway Adjustments				
Lanes	Median	B	C	D	E	Auxiliary Lanes		Ramp	
2	Undivided	*	6,500	13,300	14,200	Present in Both Directions		Merging	
4	Divided	*	9,900	28,800	31,600	-20,000		+5%	
6	Divided	*	16,000	44,900	47,600				
Non-State Signalized Roadway Adjustments					UNINTERRUPTED FLOW HIGHWAYS				
(After corresponding raw volumes by the indicated percent)					Lanes Median B C D E				
Non-State Signalized Roadways -10%					2 Undivided 9,200 17,300 24,400 33,300				
					4 Divided 35,300 49,600 62,900 69,600				
					6 Divided 52,800 74,500 94,300 104,500				
<b>Median &amp; Turn Lane Adjustments</b>					Uninterrupted Flow Highway Adjustments				
Lanes	Median	Left Lanes	Right Lanes	Adjustment Factors	Lanes	Median	Exclusive Left Lanes	Adjustment Factors	
2	Divided	Yes	No	+5%	2	Divided	Yes	-5%	
2	Undivided	No	No	-20%	Multi	Undivided	Yes	-5%	
Multi	Undivided	Yes	No	-5%	Multi	Undivided	No	-25%	
Multi	Undivided	No	No	-25%					
-	-	-	Yes	+5%					

**Median & Turn Lane Adjustments**

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
-	-	-	Yes	+5%

**Class II (35 mph or slower posted speed limit)**

Lanes	Median	B	C	D	E
2	Undivided	*	6,500	13,300	14,200
4	Divided	*	9,900	<u>28,800</u>	31,600
6	Divided	*	16,000	44,900	47,600

# GSVT Example 7

Determine the max. service volume for LOS E:

- In terms of AADT
- In an urbanized area
- For a state signalized arterial with
  - One-way
  - 2 lanes in travel direction
  - 30 mph speed limit

$$33,800 * 0.6 = 20,280$$

**One-Way Facility Adjustment**  
Multiply the corresponding two-directional volumes in this table by **0.6**

TABLE 1 Generalized Annual Average Daily Volumes for Florida's Urbanized Areas 12/15/12

INTERRUPTED FLOW FACILITIES						UNINTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS						FREEWAYS					
Class I (40 mph or higher posted speed limit)						Core Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	16,800	17,700	**	4	47,400	64,000	77,900	84,600	
4	Divided	*	37,900	39,800	**	6	69,900	95,200	116,600	130,600	
6	Divided	*	58,400	59,900	**	8	97,500	134,400	154,500	176,600	
8	Divided	*	78,800	80,100	**	10	115,100	159,700	184,500	222,700	
						12	162,400	216,700	256,600	288,900	
Class II (35 mph or slower posted speed limit)						Urbanized					
Lanes	Median	B	C	D	E	Lanes	B	C	D	E	
2	Undivided	*	7,300	14,800	15,600	4	43,800	61,500	74,400	79,900	
4	Divided	*	14,500	32,400	33,800	6	68,100	93,000	111,800	123,500	
6	Divided	*	23,300	50,000	50,900	8	91,500	123,500	148,700	166,800	
8	Divided	*	32,000	67,300	68,100	10	114,800	156,000	187,100	210,300	

**Non-State Signalized Roadway Adjustment**  
(After corresponding state volumes by the indicated factor)  
Non-State Signalized Roadways -10%

**Median & Turn Lane Adjustments**  
Exclusive Exclusion Adjustment Factors

**One-Way Facility Adjustment**  
Multiply the corresponding two-directional volumes in this table by 0.6

**BICYCLE MODE<sup>1</sup>**  
(Multiply reported vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes)

**PEDESTRIAN MODE<sup>2</sup>**  
(Multiply reported vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes)

**BUS MODE (Scheduled Fixed Route)<sup>3</sup>**  
(Shown as peak hour in peak direction)

**Freeway Adjustments**  
Present on Both Directions = 20,000  
Ramp Metering = 5%

**UNINTERRUPTED FLOW HIGHWAYS**

**Uninterrupted Flow Highway Adjustments**

Source: Florida Department of Transportation, Florida Planning Office, [www.flDOT.com/transportation/cross-sections/default.asp](http://www.flDOT.com/transportation/cross-sections/default.asp)

2012 FOOT QUALITY/LEVEL OF SERVICE HANDBOOK TABLES

LOS E → 20,280

**Class II (35 mph or slower posted speed limit)**

Lanes	Median	B	C	D	E
2	Undivided	*	7,300	14,800	15,600
4	Divided	*	14,500	32,400	33,800
6	Divided	*	23,300	50,000	50,900
8	Divided	*	32,000	67,300	68,100

# HIGHPLAN

## Example #1: Model Inputs

Roadway Information

Highway Name:

From:  To:

Area Type:

Peak Direction:

Off Peak Direction:

Study Period:

Type of Analysis:

File View Help

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Roadway Variables

Num. of Lanes (both dir.):

Terrain:

Posted Speed:

Free-Flow Speed:

Segment Length:

Left Turn/Blockage Impact:

Median:

Passing Lanes:

Passing Lane Length:

% No Passing Zones:

Traffic Variables

AADT:  Peak Dir. Hr. Vol.:  Base Capacity:

K factor (%):  Off-peak Dir. Hr. Vol.:  Local Adj. Factor:

D factor (%):  % Heavy Vehicles:  Adj. Capacity:

PHF:

# HIGHPLAN

## Example #1: Model Results

LOS Results	
v/c Ratio	0.05
% Time Spent Following	16.7
Average Speed (mi/h)	48.7
% Free Flow Speed	97.4
Free-Flow Delay (sec/veh)	21.7
LOS Threshold Delay (sec/veh)	21.7
LOS	C

# HIGHPLAN

## Workshop #1: Model Inputs

Roadway Information

Highway Name: SR 62

From: Saffold Rd To: SR 37

Area Type: Rural Undeveloped

Peak Direction: Eastbound

Off Peak Direction: Westbound

Study Period: Standard K

Type of Analysis: Two-Lane Segment

Roadway Variables

Num. of Lanes (both dir.): 2

Terrain: Level

Posted Speed: 60

Free-Flow Speed: 65

Segment Length: 10.9

Left Turn/Blockage Impact:

Median:

Passing Lanes:

Passing Lane Length: 0.0

% No Passing Zones: 11

Traffic Variables

AADT: 3500

K factor (%): 9.5

D factor (%): 55.8

PHF: 1.000

Peak Dir. Hr. Vol.: 186

Off-peak Dir. Hr. Vol.: 147

% Heavy Vehicles: 5.0

Base Capacity: 1700

Local Adj. Factor: 0.84

Adj. Capacity: 1428

# HIGHPLAN

## Workshop #1: Model Results

LOS Results	
v/c Ratio	0.13
% Time Spent Following	42.2
Average Speed (mi/h)	59.9
% Free Flow Speed	92.1
Free-Flow Delay (sec/veh)	51.8
LOS Threshold Delay (sec/veh)	0.0
LOS	B

# HIGHPLAN

## Workshop #2: Model Inputs

**Roadway Information**

Highway Name: SR 20/Blountstown Hwy

From: Bloxham Cutoff To: CR 1585/Geddie

Area Type: Transitioning/Urban

Peak Direction: Westbound

Off Peak Direction: Eastbound

Study Period: Standard K

Type of Analysis: Two-Lane Segment

**Roadway Variables**

Num. of Lanes (both dir.): 2

Terrain: Level

Posted Speed: 55

Free-Flow Speed: 60

Segment Length: 14.5

Left Turn/Blockage Impact:

Median:

Passing Lanes:

Passing Lane Length: 0.0

% No Passing Zones: 62

**Traffic Variables**

AADT: 5931

Peak Dir. Hr. Vol.: 420

Base Capacity: 1700

K factor (%): 9.0

Off-peak Dir. Hr. Vol.: 114

Local Adj. Factor: 0.91

D factor (%): 78.7

% Heavy Vehicles: 4.0

Adj. Capacity: 1547

PHF: 1.000

# HIGHPLAN

## Workshop #2: Model Results

LOS Results	
v/c Ratio	0.27
% Time Spent Following	73.0
Average Speed (mi/h)	52.5
% Free Flow Speed	87.5
Free-Flow Delay (sec/veh)	124.3
LOS Threshold Delay (sec/veh)	0.0
LOS	B

# ARTPLAN

## Example #1: Model Inputs

Roadway Information

Road Name: Mahan Dr

Peak Direction: Eastbound

Off Peak Direction: Westbound

Area Type: Other Urbanized

Class: 1

Analysis Information

Modal Analysis: Auto Only

Type of Analysis: Peak Direction

Study Period: Standard K

Facility-wide Values

Control Type: Fully Actuated

Base Saturation Flow Rate (pc/h/ln): 1950

Peak Direction: Off-Peak Direction

	Cross Street Name	Cycle Length	Thru g/C	Arrival Type	# Thru Lanes	% Left Turns	% Right Turns	Excl. Left Turn Lane	LT Phasing	Number LT Lanes	Total Left Turn Storage	Left g/C	Excl. Right Turn Lane
▶ 1	Start							<input type="checkbox"/>					<input type="checkbox"/>
2	Buck Lake Rd	150	0.45	3	2	5	12	<input checked="" type="checkbox"/>	Prot.	1	185	0.15	<input checked="" type="checkbox"/>
3	Dempsey Mayo Rd	150	0.45	3	2	5	12	<input checked="" type="checkbox"/>	Prot.	1	135	0.15	<input type="checkbox"/>

Facility-wide Values

Arterial Length (mi): 0.532

K Factor (%): 9.0

D Factor (%): 71.3

Peak Hour Factor: 1.000

% Heavy Vehicles: 1.0

Peak Direction: Off-Peak Direction

	Segment	Length	AADT	Adj. Dir. Hourly Volume	# of Thru Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
▶ 1	Start-Buck Lake Rd	1040	18100	1161	2	45	50	Restrictive	<input type="checkbox"/>	
2	Buck Lake Rd-Dempsey Mayo Rd	1650	18100	1161	2	45	50	Restrictive	<input type="checkbox"/>	

# ARTPLAN

## Example #1: Model Results

Peak Direction		Off-Peak Direction							
	Segment	Thru Mvmt Flow Rate (veh/h)	Adj. Sat. Flow Rate (veh/h)	v/c	Control Delay (s/veh)	Thru Mvmt Intersection LOS	Queue Storage Ratio	Average Speed (mi/h)	Segment LOS
▶ 1	Start-Buck Lake Rd	964	3338	0.641	32.4	C	0.30	15.2	E
2	Buck Lake Rd-Dempsey Mayo Rd	1103	3616	0.678	33.3	C	0.41	19.9	D

Facility Length (mi) 0.532

Free Flow Delay (sec/veh) 71.3    LOS Threshold Delay (sec/veh) 1.5    Wtd. g/C 0.45    Avg. Speed (mi/h) 17.8    LOS E

# ARTPLAN

## Workshop #1: Model Inputs

**Roadway Information**

Road Name:

Peak Direction:

Off Peak Direction:

Area Type:

Class:

---

**Analysis Information**

Modal Analysis:

Type of Analysis:

Study Period:

**Facility-wide Values**

Control Type:  Base Saturation Flow Rate (pc/h/ln):

Peak Direction:

	Cross Street Name	Cycle Length	Thru g/C	Arrival Type	# Thru Lanes	% Left Turns	% Right Turns	Excl. Left Turn Lane	LT Phasing	Number LT Lanes	Total Left Turn Storage	Left g/C	Excl. Right Turn Lane
▶ 1	Start							<input type="checkbox"/>					<input type="checkbox"/>
2	Transmitter Rd	120	0.44	3	1	12	12	<input checked="" type="checkbox"/>	Prot.	1	325	0.15	<input type="checkbox"/>
3	Bob Little Rd	120	0.44	3	1	12	12	<input checked="" type="checkbox"/>	Prot.	1	125	0.15	<input type="checkbox"/>

**Facility-wide Values**

Arterial Length (mi):  K Factor (%):  D Factor (%):  Peak Hour Factor:  % Heavy Vehicles:

Peak Direction:

	Segment	Length	AADT	Adj. Dir. Hourly Volume	# of Thru Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
▶ 1	Start-Transmitter Rd	2735	10500	539	1	45	50	None	<input type="checkbox"/>	
2	Transmitter Rd-Bob Little Rd	2620	11300	580	1	45	50	None	<input type="checkbox"/>	

# ARTPLAN

## Workshop #1: Model Results

Peak Direction		Off-Peak Direction							
	Segment	Thru Mvmt Flow Rate (veh/h)	Adj. Sat. Flow Rate (veh/h)	v/c	Control Delay (s/veh)	Thru Mvmt Intersection LOS	Queue Storage Ratio	Average Speed (mi/h)	Segment LOS
▶ 1	Start-Transmitter Rd	474	1539	0.700	29.0	C	0.15	27.6	C
2	Transmitter Rd-Bob Little Rd	510	1545	0.751	30.8	C	0.43	26.3	C

Facility Length (mi) 1.028

Free Flow Delay (sec/veh) 64.3    LOS Threshold Delay (sec/veh) 0.0    Wtd. g/C 0.44    Avg. Speed (mi/h) 26.9    LOS C

# ARTPLAN

## Workshop #2: Model Inputs

**Roadway Information**

Road Name: SR 222

Peak Direction: Eastbound

Off Peak Direction: Westbound

Area Type: Other Urbanized

Class: 1

**Analysis Information**

Modal Analysis: Auto Only

Type of Analysis: Peak Direction

Study Period: Standard K

Facility-wide Values

Control Type: Coordinated Actuated

Base Saturation Flow Rate (pc/h/ln): 1950

Peak Direction: Off-Peak Direction

	Cross Street Name	Cycle Length	Thru g/C	Arrival Type	# Thru Lanes	% Left Turns	% Right Turns	Excl. Left Turn Lane	LT Phasing	Number LT Lanes	Total Left Turn Storage	Left g/C	Excl. Right Turn Lane
▶ 1	Start							<input type="checkbox"/>					<input type="checkbox"/>
2	SR 121	150	0.45	3	2	12	12	<input checked="" type="checkbox"/>	Prot.	1	510	0.15	<input type="checkbox"/>
3	29th Terr	150	0.45	3	2	5	5	<input checked="" type="checkbox"/>	Prot.	1	150	0.15	<input type="checkbox"/>
4	24th Blvd	150	0.45	3	2	5	5	<input checked="" type="checkbox"/>	Prot.	1	175	0.15	<input type="checkbox"/>
5	19th St	150	0.45	3	2	5	5	<input checked="" type="checkbox"/>	Prot.	1	150	0.15	<input type="checkbox"/>
6	US 441	150	0.45	3	2	10	12	<input checked="" type="checkbox"/>	Prot.	1	135	0.15	<input checked="" type="checkbox"/>

# ARTPLAN

## Workshop #2: Model Inputs

Facility-wide Values

Arterial Length (mi)  K Factor (%)  D Factor (%)  Peak Hour Factor  % Heavy Vehicles

Peak Direction  Off-Peak Direction

	Segment	Length	AADT	Adj. Dir. Hourly Volume	# of Thru Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
▶ 1	Start-SR 121	5270	27000	1373	2 ▼	45 ▼	50 ▼	Non-Restrictive ▼	<input type="checkbox"/>	▼
2	SR 121-29th Terr	2020	27000	1373	2 ▼	45 ▼	50 ▼	Non-Restrictive ▼	<input type="checkbox"/>	▼
3	29th Terr-24th Blvd	2415	25000	1271	2 ▼	45 ▼	50 ▼	Non-Restrictive ▼	<input type="checkbox"/>	▼
4	24th Blvd-19th St	3500	25000	1271	2 ▼	45 ▼	50 ▼	Non-Restrictive ▼	<input type="checkbox"/>	▼
5	19th St-US 441	2625	25500	1297	2 ▼	45 ▼	50 ▼	Non-Restrictive ▼	<input type="checkbox"/>	▼

# ARTPLAN

## Workshop #2: Model Results

Peak Direction		Off-Peak Direction							
	Segment	Thru Mvmt Flow Rate (veh/h)	Adj. Sat. Flow Rate (veh/h)	v/c	Control Delay (s/veh)	Thru Mvmt Intersection LOS	Queue Storage Ratio	Average Speed (mi/h)	Segment LOS
▶ 1	Start-SR 121	1208	3596	0.747	36.1	D	0.34	32.3	B
2	SR 121-29th Terr	1304	3637	0.797	37.8	D	0.44	20.8	D
3	29th Terr-24th Blvd	1207	3613	0.743	35.7	D	0.34	23.6	C
4	24th Blvd-19th St	1207	3613	0.743	35.9	D	0.40	27.9	C
5	19th St-US 441	1012	3306	0.680	34.2	C	0.98	25.1	C

Facility Length (mi) 3.055

Free Flow Delay (sec/veh) 196.4    LOS Threshold Delay (sec/veh) 0.0    Wtd. g/C 0.45    Avg. Speed (mi/h) 26.7    LOS C

# ARTPLAN

## Workshop #3: Model Inputs

**Roadway Information**

Road Name:

Peak Direction:

Off Peak Direction:

Area Type:

Class:

**Analysis Information**

Modal Analysis:

Type of Analysis:

Study Period:

Facility-wide Values

Control Type:  Base Saturation Flow Rate (pc/h/ln):

Peak Direction:  Off-Peak Direction:

	Cross Street Name	Cycle Length	Thru g/C	Arrival Type	# Thru Lanes	% Left Turns	% Right Turns	Excl. Left Turn Lane	LT Phasing	Number LT Lanes	Total Left Turn Storage	Left g/C	Excl. Right Turn Lane
▶ 1	Start							<input type="checkbox"/>					<input type="checkbox"/>
2	NW 27th Ave	150	0.45	3	3	8	12	<input checked="" type="checkbox"/>	Prot.	1	195	0.15	<input checked="" type="checkbox"/>
3	Westview CC	150	0.45	3	3	5	0	<input checked="" type="checkbox"/>	Prot.	1	155	0.15	<input type="checkbox"/>
4	NW 22nd Ave	150	0.45	3	3	5	12	<input checked="" type="checkbox"/>	Prot.	1	185	0.15	<input type="checkbox"/>
5	NW 17th Ave	150	0.45	3	3	12	12	<input checked="" type="checkbox"/>	Prot.	1	450	0.15	<input type="checkbox"/>

# ARTPLAN

## Workshop #3: Model Inputs

Facility-wide Values

Arterial Length (mi)  K Factor (%)  D Factor (%)  Peak Hour Factor  % Heavy Vehicles

Peak Direction  Off-Peak Direction

	Segment	Length	AADT	Adj. Dir. Hourly Volume	# of Thru Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
▶ 1	Start-NW 27th Ave	540	41500	2110	3	40	45	Non-Restrictive	<input type="checkbox"/>	
2	NW 27th Ave-Westview CC	1050	41500	2110	3	40	45	Restrictive	<input type="checkbox"/>	
3	Westview CC-NW 22nd Ave	1685	41500	2110	3	40	45	Restrictive	<input type="checkbox"/>	
4	NW 22nd Ave-NW 17th Ave	2635	41500	2110	3	40	45	Restrictive	<input type="checkbox"/>	

# ARTPLAN

## Workshop #3: Model Results

Peak Direction		Off-Peak Direction							
	Segment	Thru Mvmt Flow Rate (veh/h)	Adj. Sat. Flow Rate (veh/h)	v/c	Control Delay (s/veh)	Thru Mvmt Intersection LOS	Queue Storage Ratio	Average Speed (mi/h)	Segment LOS
▶ 1	Start-NW 27th Ave	1688	4984	0.753	35.1	D	0.93	8.7	F
2	NW 27th Ave-Westview CC	2005	5472	0.814	37.0	D	0.67	13.5	F
3	Westview CC-NW 22nd Ave	2005	5426	0.821	37.0	D	0.56	18.1	D
4	NW 22nd Ave-NW 17th Ave	1857	5390	0.766	35.2	D	0.71	23.3	C

Facility Length (mi)

Free Flow Delay (sec/veh) 
 LOS Threshold Delay (sec/veh) 
 Wtd. g/C 
 Avg. Speed (mi/h) 
 LOS

# ARTPLAN

## Bus Example #1: Model Inputs

Roadway Information

Road Name:

Peak Direction:

Off Peak Direction:

Area Type:

Class:

Analysis Information

Modal Analysis:

Type of Analysis:

Study Period:

Facility-wide Values

Control Type:  Base Saturation Flow Rate (pc/h/ln):

Peak Direction:

	Cross Street Name	Cycle Length	Thru g/C	Arrival Type	# Thru Lanes	% Left Turns	% Right Turns	Excl. Left Turn Lane	LT Phasing	Number LT Lanes	Total Left Turn Storage	Left g/C	Excl. Right Turn Lane
▶ 1	Start			<input type="text" value=""/>				<input type="checkbox"/>	<input type="text" value=""/>	<input type="text" value=""/>			<input type="checkbox"/>
2	First	150	0.45	<input type="text" value="3"/>	2	12	12	<input checked="" type="checkbox"/>	Prot.	<input type="text" value="1"/>	235	0.15	<input type="checkbox"/>
3	Second	150	0.45	<input type="text" value="3"/>	2	12	12	<input checked="" type="checkbox"/>	Prot.	<input type="text" value="1"/>	235	0.15	<input type="checkbox"/>
4	Third	150	0.45	<input type="text" value="3"/>	2	12	12	<input checked="" type="checkbox"/>	Prot.	<input type="text" value="1"/>	235	0.15	<input type="checkbox"/>
5	End	150	0.45	<input type="text" value="3"/>	2	12	12	<input checked="" type="checkbox"/>	Prot.	<input type="text" value="1"/>	235	0.15	<input type="checkbox"/>

# ARTPLAN

## Bus Example #1: Model Inputs

Facility-wide Values

Arterial Length (mi)  K Factor (%)  D Factor (%)  Peak Hour Factor  % Heavy Vehicles

Peak Direction  Off-Peak Direction

	Segment	Length	AADT	Adj. Dir. Hourly Volume	# of Thru Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
▶ 1	Start-First	3500	34000	1729	2 ▼	45 ▼	50 ▼	Restrictive ▼	<input type="checkbox"/>	▼
2	First-Second	3500	34000	1729	2 ▼	45 ▼	50 ▼	Restrictive ▼	<input type="checkbox"/>	▼
3	Second-Third	3500	34000	1729	2 ▼	45 ▼	50 ▼	Restrictive ▼	<input type="checkbox"/>	▼
4	Third-End	3500	34000	1729	2 ▼	45 ▼	50 ▼	Restrictive ▼	<input type="checkbox"/>	▼

# ARTPLAN

## Bus Example #1: Model Results

Peak Direction		Off-Peak Direction																		
	Segment	Bike Link Score	Bike Link LOS	Bike Side Path Score	Bike Side Path LOS	Ped SubLink (1) LOS	Ped SubLink (2) LOS	Ped SubLink (3) LOS	Ped Link Score	Ped Link LOS	Bus Mod. Freq.	Bus LOS	Bike Int Score	Bike Int LOS	Bike Seg Score	Bike Seg LOS	Ped Int Score	Ped Int LOS	Ped Seg Score	Ped Seg LOS
▶	1	-	4.64	E	NA	N/A	D		4.23	D	3.29	C	3.90	D	4.41	E	2.95	C	3.60	D
	2	-	4.64	E	NA	N/A	D		4.23	D	3.29	C	3.90	D	4.41	E	2.95	C	3.60	D
	3	-	4.64	E	NA	N/A	D		4.23	D	3.29	C	3.90	D	4.41	E	2.95	C	3.60	D

  

Bike Score	4.64	Pedestrian Score	4.23	Bus Mod. Freq.	3.29
Bike LOS	E	Pedestrian LOS	D	Bus LOS	C

# ARTPLAN

## Bus Workshop #1: Model Inputs

Roadway Information

Road Name:

Peak Direction:

Off Peak Direction:

Area Type:

Class:

Analysis Information

Modal Analysis:

Type of Analysis:

Study Period:

Facility-wide Values

Arterial Length (mi):  K Factor (%):  D Factor (%):  Peak Hour Factor:  % Heavy Vehicles:

Peak Direction:  Off-Peak Direction:

	Segment	Length	AADT	Adj. Dir. Hourly Volume	# of Thru Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
▶ 1	Start-First	3500	34000	1729	2	45	50	Restrictive	<input type="checkbox"/>	
2	First-Second	3500	34000	1729	2	45	50	Restrictive	<input type="checkbox"/>	
3	Second-Third	3500	34000	1729	2	45	50	Restrictive	<input type="checkbox"/>	
4	Third-End	3500	34000	1729	2	45	50	Restrictive	<input type="checkbox"/>	

Facility-wide Values

Control Type:  Base Saturation Flow Rate (pc/h/ln):

Peak Direction:  Off-Peak Direction:

	Cross Street Name	Cycle Length	Thru g/C	Arrival Type	# Thru Lanes	% Left Turns	% Right Turns	Excl. Left Turn Lane	LT Phasing	Number LT Lanes	Total Left Turn Storage	Left g/C	Excl. Right Turn Lane
▶ 1	Start							<input type="checkbox"/>					<input type="checkbox"/>
2	First	150	0.45	3	2	12	12	<input checked="" type="checkbox"/>	Prot.	1	235	0.15	<input type="checkbox"/>
3	Second	150	0.45	3	2	12	12	<input checked="" type="checkbox"/>	Prot.	1	235	0.15	<input type="checkbox"/>
4	Third	150	0.45	3	2	12	12	<input checked="" type="checkbox"/>	Prot.	1	235	0.15	<input type="checkbox"/>
5	End	150	0.45	3	2	12	12	<input checked="" type="checkbox"/>	Prot.	1	235	0.15	<input type="checkbox"/>

# ARTPLAN

## Bus Workshop #1.A: Model Inputs & Results

Peak Direction		Off-Peak Direction																		
	Segment	Auto Outside Lane Width	Specific Lane Width	Bike Pavement Condition	Paved Shoulder / Bike Lane	Side Path	Side Path Separation	Sidewalk	Sidewalk/ Roadway Separation	Sidewalk/ Roadway Barrier	Bus Frequency	Passenger Load Factor	Amenities	Bus Stop						
▶ 1	Start-First	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	3	0.5	Excell... ▼	Typical ▼						
2	First-Second	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	2	0.6	Excell... ▼	Typical ▼						
3	Second-Third	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	2	0.6	Excell... ▼	Typical ▼						
4	Third-End	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	1	0.7	Excell... ▼	Typical ▼						

Peak Direction		Off-Peak Direction																		
	Segment	Bike Link Score	Bike Link LOS	Bike Side Path Score	Bike Side Path LOS	Ped SubLink (1) LOS	Ped SubLink (2) LOS	Ped SubLink (3) LOS	Ped Link Score	Ped Link LOS	Bus Mod. Freq.	Bus LOS	Bike Int Score	Bike Int LOS	Bike Seg Score	Bike Seg LOS	Ped Int Score	Ped Int LOS	Ped Seg Score	Ped Seg LOS
▶ 1	Start-First	4.64	E	NA	N/A	D			4.23	D	3.47	C	3.90	D	4.41	E	2.95	C	3.60	D
2	First-Second	4.64	E	NA	N/A	D			4.23	D	2.31	D	3.90	D	4.41	E	2.95	C	3.60	D
3	Second-Third	4.64	E	NA	N/A	F			5.82	F	1.27	E	3.90	D	4.41	E	2.95	C	4.11	D
4	Third-End	4.64	E	NA	N/A	F			5.82	F	0.60	F	3.90	D	4.41	E	2.95	C	4.11	D
		Bike Score	4.64			Pedestrian Score	5.15			Bus Mod. Freq.	1.91									
		Bike LOS	E			Pedestrian LOS	F			Bus LOS	E									

# ARTPLAN

## Bus Workshop #1.B: Model Inputs & Results

Peak Direction		Off-Peak Direction		Segment	Auto Outside Lane Width	Specific Lane Width	Bike Pavement Condition	Paved Shoulder / Bike Lane	Side Path	Side Path Separation	Sidewalk	Sidewalk/Roadway Separation	Sidewalk/Roadway Barrier	Bus Frequency	Passenger Load Factor	Amenities	Bus Stop			
▶ 1	Start-First	Typi...	▼				Typi...	▼	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Typi...	▼	<input type="checkbox"/>	2	1.1	Exc...	▼	Typical	▼
2	First-Second	Typi...	▼				Typi...	▼	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Typi...	▼	<input type="checkbox"/>	2	0.8	Exc...	▼	Typical	▼
3	Second-Third	Typi...	▼				Typi...	▼	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		▼	<input type="checkbox"/>	2	0.8	Exc...	▼	Typical	▼
4	Third-End	Typi...	▼				Typi...	▼	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		▼	<input type="checkbox"/>	2	1.1	Exc...	▼	Typical	▼

Peak Direction		Off-Peak Direction		Segment	Bike Link Score	Bike Link LOS	Bike Side Path Score	Bike Side Path LOS	Ped SubLink (1) LOS	Ped SubLink (2) LOS	Ped SubLink (3) LOS	Ped Link Score	Ped Link LOS	Bus Mod. Freq.	Bus LOS	Bike Int Score	Bike Int LOS	Bike Seg Score	Bike Seg LOS	Ped Int Score	Ped Int LOS	Ped Seg Score	Ped Seg LOS
▶ 1	Start-First	4.64	E	NA	N/A	D						4.23	D	1.96	E	3.90	D	4.41	E	2.95	C	3.60	D
2	First-Second	4.64	E	NA	N/A	D						4.23	D	2.19	D	3.90	D	4.41	E	2.95	C	3.60	D
3	Second-Third	4.64	E	NA	N/A	F						5.82	F	1.21	E	3.90	D	4.41	E	2.95	C	4.11	D
4	Third-End	4.64	E	NA	N/A	F						5.82	F	1.08	E	3.90	D	4.41	E	2.95	C	4.11	D

  

Bike Score	4.64	Pedestrian Score	5.15	Bus Mod. Freq.	1.61
Bike LOS	E	Pedestrian LOS	F	Bus LOS	E

# ARTPLAN

## Bus Workshop #1.C: Model Inputs & Results

Peak Direction		Off-Peak Direction																		
	Segment	Auto Outside Lane Width	Specific Lane Width	Bike Pavement Condition	Paved Shoulder / Bike Lane	Side Path	Side Path Separation	Sidewalk	Sidewalk/Roadway Separation	Sidewalk/Roadway Barrier	Bus Frequency	Passenger Load Factor	Amenities	Bus Stop						
1	Start-First	Typi... ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	3	0.5	Exce... ▼	Typical ▼						
2	First-Second	Typi... ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	2	0.6	Good ▼	Typical ▼						
3	Second-Third	Typi... ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	2	0.6	Fair ▼	Typical ▼						
▶ 4	Third-End	Typi... ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	1	0.7	Poor ▼	Typical ▼						

Peak Direction		Off-Peak Direction																		
	Segment	Bike Link Score	Bike Link LOS	Bike Side Path Score	Bike Side Path LOS	Ped SubLink (1) LOS	Ped SubLink (2) LOS	Ped SubLink (3) LOS	Ped Link Score	Ped Link LOS	Bus Mod. Freq.	Bus LOS	Bike Int Score	Bike Int LOS	Bike Seg Score	Bike Seg LOS	Ped Int Score	Ped Int LOS	Ped Seg Score	Ped Seg LOS
▶ 1	Start-First	4.64	E	NA	N/A	D			4.23	D	3.47	C	3.90	D	4.41	E	2.95	C	3.60	D
2	First-Second	4.64	E	NA	N/A	D			4.23	D	2.10	D	3.90	D	4.41	E	2.95	C	3.60	D
3	Second-Third	4.64	E	NA	N/A	F			5.82	F	1.16	E	3.90	D	4.41	E	2.95	C	4.11	D
4	Third-End	4.64	E	NA	N/A	F			5.82	F	0.49	F	3.90	D	4.41	E	2.95	C	4.11	D
		Bike Score	4.64			Pedestrian Score	5.15			Bus Mod. Freq.	1.80									
		Bike LOS	E			Pedestrian LOS	F			Bus LOS	E									

# ARTPLAN

## Workshop #4: Model Inputs

**Roadway Information**

Road Name:

Peak Direction:

Off Peak Direction:

Area Type:

Class:

**Analysis Information**

Modal Analysis:

Type of Analysis:

Study Period:

Facility-wide Values

Control Type:  Base Saturation Flow Rate (pc/h/ln):

Peak Direction:  Off-Peak Direction:

	Cross Street Name	Cycle Length	Thru g/C	Arrival Type	# Thru Lanes	% Left Turns	% Right Turns	Excl. Left Turn Lane	LT Phasing	Number LT Lanes	Total Left Turn Storage	Left g/C	Excl. Right Turn Lane
▶ 1	Start							<input type="checkbox"/>					<input type="checkbox"/>
2	NW 27th Ave	150	0.45	3	3	8	12	<input checked="" type="checkbox"/>	Prot.	1	195	0.15	<input checked="" type="checkbox"/>
3	Westview CC	150	0.45	3	3	5	0	<input checked="" type="checkbox"/>	Prot.	1	155	0.15	<input type="checkbox"/>
4	NW 22nd Ave	150	0.45	3	3	5	12	<input checked="" type="checkbox"/>	Prot.	1	185	0.15	<input type="checkbox"/>
5	NW 17th Ave	150	0.45	3	3	12	12	<input checked="" type="checkbox"/>	Prot.	1	450	0.15	<input type="checkbox"/>

# ARTPLAN

## Workshop #4: Model Inputs

### Auto Inputs

Facility-wide Values

Arterial Length (mi)  K Factor (%)  D Factor (%)  Peak Hour Factor  % Heavy Vehicles

Peak Direction  Off-Peak Direction

	Segment	Length	AADT	Adj. Dir. Hourly Volume	# of Thru Lanes	Posted Speed	Free Flow Speed	Median Type	On-Street Parking	Parking Activity
▶ 1	Start-NW 27th Ave	540	41500	2110	3	40	45	Non-Restrictive	<input type="checkbox"/>	
2	NW 27th Ave-Westview CC	1050	41500	2110	3	40	45	Restrictive	<input type="checkbox"/>	
3	Westview CC-NW 22nd Ave	1685	41500	2110	3	40	45	Restrictive	<input type="checkbox"/>	
4	NW 22nd Ave-NW 17th Ave	2635	41500	2110	3	40	45	Restrictive	<input type="checkbox"/>	

# ARTPLAN

## Workshop #4: Model Inputs

### Multimodal Inputs

Peak Direction	Off-Peak Direction	Segment	Auto Outside Lane Width	Specific Lane Width	Bike Pavement Condition	Paved Shoulder / Bike Lane	Side Path	Side Path Separation	Sidewalk	Sidewalk/Roadway Separation	Sidewalk/Roadway Barrier	Bus Frequency	Passenger Load Factor	Amenities	Bus Stop
▶ 1		Start-NW 27th Ave	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	2	0.8	Excel... ▼	Typical ▼
2		NW 27th Ave-Westview CC	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	2	0.8	Excel... ▼	Typical ▼
3		Westview CC-NW 22nd Ave	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	2	0.8	Excel... ▼	Typical ▼
4		NW 22nd Ave-NW 17th Ave	Typical ▼		Typical ▼	<input type="checkbox"/>	<input type="checkbox"/>		<input checked="" type="checkbox"/>	Typical ▼	<input type="checkbox"/>	2	0.8	Excel... ▼	Typical ▼

  

Peak Direction	Off-Peak Direction	Segment	Pct. Sublink Length (1)	Pct. Sublink Length (2)	Pct. Sublink Length (3)	Sidewalk (1)	Sidewalk (2)	Sidewalk (3)	Sidewalk/Roadway Separation (1)	Sidewalk/Roadway Separation (2)	Sidewalk/Roadway Separation (3)	Sidewalk/Roadway Protective Barrier (1)	Sidewalk/Roadway Protective Barrier (2)	Sidewalk/Roadway Protective Barrier (3)
▶ 1		Start-NW 27th Ave	100			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical ▼			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2		NW 27th Ave-Westview CC	100			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical ▼			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		Westview CC-NW 22nd Ave	100			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical ▼			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		NW 22nd Ave-NW 17th Ave	100			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Typical ▼			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# ARTPLAN

## Workshop #4: Model Results

Peak Direction		Off-Peak Direction																		
	Segment	Thru Mvmt Flow Rate (veh/h)	Adj. Sat. Flow Rate (veh/h)	v/c	Control Delay (s/veh)	Thru Mvmt Intersection LOS	Queue Storage Ratio	Average Speed (mi/h)	Segment LOS											
▶ 1	Start-NW 27th Ave	1688	4984	0.753	35.1	D	0.93	8.7	F											
2	NW 27th Ave-Westview CC	2005	5472	0.814	37.0	D	0.67	13.5	F											
3	Westview CC-NW 22nd Ave	2005	5426	0.821	37.0	D	0.56	18.1	D											
4	NW 22nd Ave-NW 17th Ave	1857	5390	0.766	35.2	D	0.71	23.3	C											

Facility Length (mi)

Free Flow Delay (sec/veh) 
 LOS Threshold Delay (sec/veh) 
 Wtd. g/C 
 Avg. Speed (mi/h) 
 LOS

Peak Direction		Off-Peak Direction																		
	Segment	Bike Link Score	Bike Link LOS	Bike Side Path Score	Bike Side Path LOS	Ped SubLink (1) LOS	Ped SubLink (2) LOS	Ped SubLink (3) LOS	Ped Link Score	Ped Link LOS	Bus Mod. Freq.	Bus LOS	Bike Int Score	Bike Int LOS	Bike Seg Score	Bike Seg LOS	Ped Int Score	Ped Int LOS	Ped Seg Score	Ped Seg LOS
▶ 1	Start-NW 27th Ave	4.33	E	NA	N/A	C			3.46	C	1.98	E	3.64	D	3.96	D	3.03	C	3.37	C
2	NW 27th Ave-Westview CC	4.44	E	NA	N/A	D			3.63	D	2.19	D	3.64	D	4.24	D	2.83	C	3.38	C
3	Westview CC-NW 22nd Ave	4.47	E	NA	N/A	D			3.69	D	2.19	D	3.64	D	4.25	E	3.03	C	3.45	C
4	NW 22nd Ave-NW 17th Ave	4.48	E	NA	N/A	D			3.71	D	2.19	D	3.64	D	4.26	E	3.03	C	3.45	C

Bike Score 
 Pedestrian Score 
 Bus Mod. Freq.

Bike LOS 
 Pedestrian LOS 
 Bus LOS

# FREEPLAN

## Example #1: Model Inputs

Roadway Information

Freeway Name: I-4

From: Princeton St To: Lee Rd

Area Type: Large Urbanized

Peak Direction: Northbound

Off Peak Direction: Southbound

Study Period: Kother

Facility-wide Values

ADT: 138250 K Factor (%): 8.0 D Factor (%): 51.8 Peak Hour Factor: 1.000

Local Adj. Factor: 0.98 % Heavy Vehicles: 4.0 Ramp Metering:  Facility Length (mi): 2.160

	From	To	Input Segment Type	Edit Segment	Segment Length (ft)	Hourly Demand Volume (veh/h)	Analysis Flow Rate (pc/h)	Number Thru Lanes	Posted Speed (mi/h)	Free Flow Speed (mi/h)	Terrain
▶ 1	A	B	Basic Segment	Edit	1190	5729	5963	4	50	55	Level
2	B	C	Off-Ramp	Edit	1500	5729	5963	4	50	55	Level
3	C	D	Basic Segment	Edit	3060	5243	5457	4	50	55	Level
4	D	E	Off-Ramp	Edit	1500	5243	5457	4	50	55	Level
5	E	F	Basic Segment	Edit	1620	4523	4707	4	50	55	Level
6	F	G	On-Ramp	Edit	1035	5009	5213	4	50	55	Level
7	G	H	Ramp Overlap	Edit	465	5009	5213	4	50	55	Level
8	H	I	Off-Ramp	Edit	1035	5009	5213	3	50	55	Level

# FREEPLAN

## Example #1: Model Inputs

Roadway Information

Freeway Name: I-4

From: Princeton St To: Lee Rd

Area Type: Large Urbanized

Peak Direction: Northbound

Off Peak Direction: Southbound

Study Period: Kother

Facility-wide Values

AADT: 138

Local Adj. Factor:

Ramp Characteristics

	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	486	4	1	740	40	<input type="checkbox"/>	Edit

Ramp Characteristics

	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	720	4	1	600	40	<input type="checkbox"/>	Edit

Ramp Characteristics

	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	486	4	1	600	40	<input type="checkbox"/>	Edit

Ramp Characteristics

	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	945	4	1	1500	40	<input type="checkbox"/>	Edit

	From
▶ 1	A
2	B
3	C
4	D
5	E
6	F
7	G
8	H

Factor: 1.000

Length (mi): 2.160

Free Flow Speed (mi/h)	Terrain
55	Level



# FREEPLAN

## Example #1: Model Results

	Segment	Input Segment Type	Analysis Segment Type	Analysis Flow Rate (pc/h)	Adj. Capacity (pc/h)	v/c Ratio	Average Speed (mi/h)	Density (pc/mi/ln)	Segment LOS (density)	Additional Off-Ramp/Toll Outputs
▶ 1	A-B	Basic	Basic	5963	9000	0.66	55.0	27.1	D	<a href="#">View</a>
2	B-C	OffRamp	OffRamp	5963	8600	0.69	53.8	24.4	C	<a href="#">View</a>
3	C-D	Basic	Basic	5457	9000	0.61	55.0	24.8	C	<a href="#">View</a>
4	D-E	OffRamp	OffRamp	5457	8600	0.63	53.7	22.7	C	<a href="#">View</a>
5	E-F	Basic	Basic	4707	9000	0.52	54.9	21.4	C	<a href="#">View</a>
6	F-G	OnRamp	OnRamp	5213	8800	0.59	51.3	23.7	C	<a href="#">View</a>
7	G-H	RampOverlap	RampOverlap	5213	7916	0.66	52.5	24.0	C	<a href="#">View</a>
8	H-I	OffRamp	OffRamp	5213	7916	0.66	52.5	24.0	C	<a href="#">View</a>

  

Length (mi)	2.1600	Free Flow Delay (sec/veh)	2.8	LOS Threshold Delay (sec/veh)	2.0	Avg. Speed (mi/h)	53.9	Density (pc/mi/ln)	24.0	LOS	D
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# FREEPLAN

## Workshop #1: Model Inputs

Roadway Information

Freeway Name: I-295

From: St. Johns Bluff R To: Town Center Pk

Area Type: Large Urbanized

Peak Direction: Southbound

Off Peak Direction: Northbound

Study Period: Standard K

Facility-wide Values

ADT: 75000 K Factor (%): 9.0 D Factor (%): 57.9 Peak Hour Factor: 1.000

Local Adj. Factor: 0.98 % Heavy Vehicles: 4.0 Ramp Metering:  Facility Length (mi): 2.979

	From	To	Input Segment Type	Edit Segment	Segment Length (ft)	Hourly Demand Volume (veh/h)	Analysis Flow Rate (pc/h)	Number Thru Lanes	Posted Speed (mi/h)	Free Flow Speed (mi/h)	Terrain
▶ 1	A	B	Basic Segment	Edit	4450	3908	4068	2	65	70	Level
2	B	C	Off-Ramp	Edit	1500	3908	4068	2	65	70	Level
3	C	D	Basic Segment	Edit	2900	3287	3421	2	65	70	Level
4	D	E	Weaving	Edit	3310	4088	4254	3	65	70	Level
5	E	F	Basic Segment	Edit	3570	3521	3664	2	65	70	Level

# FREEPLAN

## Workshop #1: Model Inputs

Roadway Information

Freeway Name: I-295

From: St. Johns Bluff R To: Town Center Pk

Area Type: Large Urbanized

Peak Direction: Southbound

Off Peak Direction: Northbound

Study Period: Standard K

Ramp Characteristics

	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
	621	4	1	220	40	<input type="checkbox"/>	Edit

Facility-wide Values

ADT: 75000

Local Adj. Factor: 0.98

Factor: 1.000

Facility Length (mi): 2.979

On-Ramp Roadway					Off-Ramp Roadway				
	Free Flow Speed (mi/h)	% Trucks	Demand (veh/h)	Ramp To Ramp Proportion	Free Flow Speed (mi/h)	% Trucks	Demand (veh/h)	Off-Ramp Analysis	Edit
	40	4.00	801	0.05	40	4.00	567	<input type="checkbox"/>	Edit

Weave Configuration

One-Sided  Two-Sided

Short Length (ft): 2800

# of Weaving Lanes: 2

Min. Lane Changes Freeway-Ramp: 1

Min. Lane Changes Ramp-Freeway: 1

Min. Lane Changes Ramp-Ramp: 0

# FREEPLAN

## Workshop #1: Model Results

	Segment	Input Segment Type	Analysis Segment Type	Analysis Flow Rate (pc/h)	Adj. Capacity (pc/h)	v/c Ratio	Average Speed (mi/h)	Density (pc/mi/ln)	Segment LOS (density)	Additional Off-Ramp/Toll Outputs
▶ 1	A-B	Basic	Basic	4068	4800	0.85	61.9	32.8	D	<a href="#">View</a>
2	B-C	OffRamp	OffRamp	4068	4400	0.92	58.2	37.2	E	<a href="#">View</a>
3	C-D	Basic	Basic	3421	4800	0.71	67.0	25.5	C	<a href="#">View</a>
4	D-E	Weaving	Weaving	4254	6525	0.65	55.2	25.7	C	<a href="#">View</a>
5	E-F	Basic	Basic	3664	4800	0.76	65.4	28.0	D	<a href="#">View</a>

  

Length (mi)	<input type="text" value="2.9792"/>	Free Flow Delay (sec/veh)	<input type="text" value="21.0"/>	LOS Threshold Delay (sec/veh)	<input type="text" value="0.0"/>	Avg. Speed (mi/h)	<input type="text" value="61.6"/>	Density (pc/mi/ln)	<input type="text" value="29.0"/>	LOS	<input type="text" value="D"/>
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# FREEPLAN

## Workshop #2: Model Inputs

Roadway Information

Freeway Name: I-75

From: CR 673 To: CR 470

Area Type: Rural

Peak Direction: Northbound

Off Peak Direction: Southbound

Study Period: Standard K

Facility-wide Values

AADT: 35351      K Factor (%): 10.5      D Factor (%): 56.1      Peak Hour Factor: 1.000

Local Adj. Factor: 0.90      % Heavy Vehicles: 12.0      Ramp Metering:       Facility Length (mi): 11.760

	From	To	Input Segment Type	Edit Segment	Segment Length (ft)	Hourly Demand Volume (veh/h)	Analysis Flow Rate (pc/h)	Number Thru Lanes	Posted Speed (mi/h)	Free Flow Speed (mi/h)	Terrain
▶ 1	A	B	Basic Segment	Edit	26815	2082	2452	2	70	75	Level
2	B	C	Off-Ramp	Edit	1500	2082	2452	2	70	75	Level
3	C	D	Basic Segment	Edit	1930	1938	2282	2	70	75	Level
4	D	E	On-Ramp	Edit	1500	2100	2473	2	70	75	Level
5	E	F	Basic Segment	Edit	30350	2100	2473	2	70	75	Level

# FREEPLAN

## Workshop #2: Model Inputs

Roadway Information

Freeway Name: I-75

From: CR 673 To: CR 470

Area Type: Rural

Peak Direction: Northbound

Off Peak Direction: Southbound

Study Period: Standard K

Ramp Characteristics

	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	144	12	1	610	40	<input type="checkbox"/>	Edit

Facility-wide Values

AAADT: [ ]

Local Adj. Factor: 0.50

% Heavy Vehicles: 12.0

Ramp Metering:

Facility Length (mi): 11.760

Hour Factor: 1.000

	From	To	Input Segment	Edit	Segment	Hourly Demand	Analysis Flow	Number	Posted Speed	Free Flow Speed (mi/h)	Terrain	
▶ 1	A									75	Level	
2	B									75	Level	
3	C									75	Level	
4	D	E	On-Ramp	Edit		1500	2100	2473	2	70	75	Level
5	E	F	Basic Segment	Edit		30350	2100	2473	2	70	75	Level

Ramp Characteristics

	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	162	12	1	630	40	<input type="checkbox"/>	Edit

# FREEPLAN

## Workshop #2: Model Results

	Segment	Input Segment Type	Analysis Segment Type	Analysis Flow Rate (pc/h)	Adj. Capacity (pc/h)	v/c Ratio	Average Speed (mi/h)	Density (pc/mi/ln)	Segment LOS (density)	Additional Off-Ramp/Toll Outputs
▶ 1	A-B	Basic	Basic	2452	4800	0.51	74.4	16.5	C	<a href="#">View</a>
2	B-C	OffRamp	OffRamp	2452	4400	0.56	62.5	19.8	B	<a href="#">View</a>
3	C-D	Basic	Basic	2282	4800	0.48	74.2	15.4	C	<a href="#">View</a>
4	D-E	OnRamp	OnRamp	2473	4600	0.54	64.5	20.7	C	<a href="#">View</a>
5	E-F	Basic	Basic	2473	4800	0.52	74.4	16.6	C	<a href="#">View</a>

  

Length (mi)	11.760	Free Flow Delay (sec/veh)	9.3	LOS Threshold Delay (sec/veh)	0.0	Avg. Speed (mi/h)	73.8	Density (pc/mi/ln)	16.7	LOS	C
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# FREEPLAN

## Workshop #3: Model Inputs

Roadway Information

Freeway Name: I-95

From: FL 104 To: FL 102

Area Type: Large Urbanized

Peak Direction: Northbound

Off Peak Direction: Southbound

Study Period: Standard K

Facility-wide Values

AADT: 72500 K Factor (%): 9.0 D Factor (%): 54.5 Peak Hour Factor: 1.000

Local Adj. Factor: 0.98 % Heavy Vehicles: 4.0 Ramp Metering:  Facility Length (mi): 2.767

	From	To	Input Segment Type	Edit Segment	Segment Length (ft)	Hourly Demand Volume (veh/h)	Analysis Flow Rate (pc/h)	Number Thru Lanes	Posted Speed (mi/h)	Free Flow Speed (mi/h)	Terrain
▶ 1	A	B	Basic Segment	Edit	5100	3556	3702	3	70	75	Level
2	B	C	Off-Ramp	Edit	1500	3556	3702	3	70	75	Level
3	C	D	Basic Segment	Edit	340	3169	3299	3	70	75	Level
4	D	E	Off-Ramp	Edit	1500	3169	3299	3	70	75	Level
5	E	F	Basic Segment	Edit	1670	2935	3055	3	70	75	Level
6	F	G	On-Ramp	Edit	1500	3763	3917	4	70	75	Level
7	G	H	Basic Segment	Edit	3000	3763	3917	4	70	75	Level

# FREEPLAN

## Workshop #3: Model Inputs

Ramp Characteristics							
	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	387	4	1 ▼	260	45	<input type="checkbox"/>	Edit

  

Ramp Characteristics							
	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	234	4	1 ▼	830	45	<input type="checkbox"/>	Edit

  

Ramp Characteristics							
	Demand (veh/h)	% Heavy Vehicles	Number of Lanes	Accel/Decel Length	Free Flow Speed	Off-Ramp Analysis	Edit
▶	828	4	2 ▼	975	45	<input type="checkbox"/>	Edit

# FREEPLAN

## Workshop #3: Model Results

	Segment	Input Segment Type	Analysis Segment Type	Analysis Flow Rate (pc/h)	Adj. Capacity (pc/h)	v/c Ratio	Average Speed (mi/h)	Density (pc/mi/ln)	Segment LOS (density)	Additional Off-Ramp/Toll Outputs
▶ 1	A-B	Basic	Basic	3702	7200	0.51	74.4	16.6	B	<a href="#">View</a>
2	B-C	OffRamp	OffRamp	3702	6800	0.54	68.6	20.6	C	<a href="#">View</a>
3	C-D	Basic	Basic	3299	7200	0.46	73.6	14.9	B	<a href="#">View</a>
4	D-E	OffRamp	OffRamp	3299	6800	0.49	68.3	15.3	B	<a href="#">View</a>
5	E-F	Basic	Basic	3055	7200	0.42	74.5	13.7	B	<a href="#">View</a>
6	F-G	OnRamp	Basic	3917	9600	0.41	75.0	13.1	B	<a href="#">View</a>
7	G-H	Basic	Basic	3917	9600	0.41	75.0	13.1	B	<a href="#">View</a>

  

Length (mi)	<input type="text" value="2.7670"/>	Free Flow Delay (sec/veh)	<input type="text" value="3.2"/>	LOS Threshold Delay (sec/veh)	<input type="text" value="0.0"/>	Avg. Speed (mi/h)	<input type="text" value="73.3"/>	Density (pc/mi/ln)	<input type="text" value="15.2"/>	LOS	<input type="text" value="B"/>
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