

## APPENDIX K – RECOMMENDED IMPROVEMENT MEASURES OF EFFECTIVENESS

This appendix includes, for each recommended improvement:

- Tables comparing delay, average queues, and max queues by movement, approach, and overall intersection
- Summary of changes to travel time along the localized segment as well as the overall FCP corridor

# 1. FCP at Huntsman Boulevard

**Table 1-A. Intersection MOEs, FCP at Huntsman Boulevard**

Recommended Improvement: Displaced Left Turn at Huntsman Blvd														
Intersection	Approach	Movement	Existing			Recommended			Changes					
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)			
<b>AM Peak Hour</b>														
Fairfax County Parkway and Huntsman Boulevard	NB	LT	40.2	13.7	80	864	0.0	14.5	85	830	-40.2	+0.8	+5	-34
		TH	13.9				15.0				+1.1			
		RT	7.0				6.8				-0.2			
	SB	LT	43.0	16.7	157	1171	48.2	6.2	13	417	+5.2	-10.5	-144	-754
		TH	15.9				4.8				-11.1			
		RT	7.8				6.6				-1.2			
	EB	LT	105.5	95.4	56	228	119.9	91.6	64	229	+14.4	-3.8	+8	+1
		TH	111.0				86.0				-25.0			
		RT	60.8				40.1				-20.7			
	WB	LT	95.8	60.9	72	219	0.0	38.5	38	158	-95.8	-22.4	-34	-61
		TH	96.9				100.2				+3.3			
		RT	19.0				34.4				+15.4			
	<b>Intersection</b>		<b>21.2</b>				<b>13.8</b>				<b>-7.4</b>			
<b>PM Peak Hour</b>														
Fairfax County Parkway and Huntsman Boulevard	NB	LT	31.4	28.7	3171	5952	0.0	24.5	1365	3482	-31.4	-4.2	-1,806	-2,470
		TH	29.3				24.8				-4.5			
		RT	14.6				15.2				+0.6			
	SB	LT	146.8	31.3	124	815	115.8	13.7	92	395	-31.0	-17.6	-32	-420
		TH	19.2				4.1				-15.1			
		RT	5.6				4.3				-1.3			
	EB	LT	133.0	112.6	61	214	127.4	111.4	58	207	-5.6	-1.2	-3	-7
		TH	111.8				114.8				+3.0			
		RT	50.1				56.7				+6.6			
	WB	LT	106.3	87.0	111	532	0.0	81.7	107	421	-106.3	-5.3	-4	-111
		TH	109.0				110.0				+1.0			
		RT	67.1				79.5				+12.4			
	<b>Intersection</b>		<b>37.8</b>				<b>28.1</b>							

Recommended Improvement: Displaced Left Turn at Huntsman Blvd													
Intersection	Approach	Movement	Existing			Recommended			Changes				
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)		
<b>AM Peak Hour</b>													
Fairfax County Parkway and Huntsman Boulevard U-Turn/Michigan Left	NB	LT				86.9	8.6	110	411				
		TH				0.8							
	SB	TH				1.3	1.3	25	496				
	Intersection					4.5							
Fairfax County Parkway and Huntsman Boulevard U-Turn/Michigan Left	NB	LT				42.5	4.0	63	557				
		TH				0.8							
	SB	TH				1.9	1.9	15	277				
	Intersection					3.2							

**Table 1-B. Travel Time MOEs, FCP at Huntsman Boulevard**

Recommended Improvement: Displaced Left Turn at Huntsman Blvd					
Segment	From	To	AM/AM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	Franconia-Springfield Pkwy	Roberts Pkwy	8.5/11.3	8.5/9.8	0.0/-1.5
Southbound Segment	Roberts Pkwy	Franconia-Springfield Pkwy	10.0/9.2	9.6/8.7	-0.4/-0.5
Northbound Corridor	Route 1	Route 7	54.3/57.1	54.6/55.8	0.3/-1.3
Southbound Corridor	Route 7	Route 1	51.0/57.1	50.4/56.7	-0.6/-0.4

## 2. FCP at Burke Lake Road

**Table 2-A. Intersection MOEs, FCP at Burke Lake Road**

Recommended Improvement: Displaced Left Turn at Burke Lake Road														
Intersection	Approach	Movement	Existing			Recommended			Changes					
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)			
<b>AM Peak Hour</b>														
Fairfax County Parkway and Burke Lake Road	NB	LT	119.4	13.1	47	851	105.0	6.4	29	208	-14.4	-6.7	-18	-643
		TH	10.6				4.6				-6.0			
		RT	2.8				2.4				-0.4			
	SB	LT	95.2	28.8	233	1576	0.0	12.8	71	871	-95.2	-16.0	-162	-706
		TH	25.6				13.0				-12.6			
		RT	10.3				3.4				-6.9			
	EB	LT	78.4	74.2	94	317	0.0	66.4	101	322	-78.4	-7.8	+7	+5
		TH	88.1				95.0				+6.9			
		RT	26.1				23.6				-2.5			
	WB	LT	68.8	48.3	31	151	104.8	49.4	29	140	+36.0	+1.1	-2	-11
		TH	91.1				84.9				-6.2			
		RT	18.8				16.4				-2.4			
	<b>Intersection</b>		<b>28.0</b>				<b>16.7</b>				<b>-11.3</b>			
<b>PM Peak Hour</b>														
Fairfax County Parkway and Burke Lake Road	NB	LT	112.0	18.0	110	1260	100.4	10.6	71	838	-11.6	-7.4	-39	-422
		TH	13.4				6.8				-6.6			
		RT	4.6				2.1				-2.5			
	SB	LT	118.2	27.0	125	1269	0.0	13.4	59	540	-118.2	-13.6	-66	-729
		TH	19.1				13.9				-5.2			
		RT	12.6				2.6				-10.0			
	EB	LT	86.8	81.6	42	145	0.0	66.4	45	148	-86.8	-15.2	+3	+3
		TH	100.0				106.5				+6.5			
		RT	14.2				13.2				-1.0			
	WB	LT	87.4	94.8	122	382	107.7	81.3	117	333	+20.3	-13.5	-5	-49
		TH	105.1				101.4				-3.7			
		RT	79.2				37.2				-42.0			
	<b>Intersection</b>		<b>32.5</b>				<b>21.4</b>				<b>-11.1</b>			

Recommended Improvement: Displaced Left Turn at Burke Lake Road													
Intersection	Approach	Movement	Existing			Recommended			Changes				
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)		
<b>AM Peak Hour</b>													
Fairfax County Parkway and Burke Lake Road U-Turn / Michigan Left	NB	TH				1.4	1.4	6	112				
	SB	LT				124.6	18.5	167	558				
		TH				8.8							
	Intersection					11.1							
<b>PM Peak Hour</b>													
Fairfax County Parkway and Burke Lake Road U-Turn / Michigan Left	NB	TH				6.5	6.5	128	1097				
	SB	LT				112.9	16.9	144	505				
		TH				6.2							
	Intersection					11.3							

**Table 2-B. Travel Time MOEs, FCP at Burke Lake Road**

Recommended Improvement: Displaced Left Turn at Burke Lake Road					
Segment	From	To	AM/AM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	Huntsman Blvd	Roberts Pkwy	4.3/4.1	4.3/4.5	0.0/0.3
Southbound Segment	Roberts Pkwy	Huntsman Blvd	5.3/4.8	4.9/4.6	-0.4/-0.3
Northbound Corridor	Route 1	Route 7	54.3/57.1	54.1/58.5	-0.2/1.4
Southbound Corridor	Route 7	Route 1	51.0/57.1	50.2/56.8	-0.8/-0.3

### 3. FCP at Route 50 Westbound Ramps

**Table 3-A. Intersection MOEs, FCP at Route 50 Westbound Ramps**

Recommended Improvement: Modifications at US 50 Westbound Off-Ramp to FCP														
Intersection	Approach	Movement	Existing			Recommended			Changes					
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)			
<b>AM Peak Hour</b>														
Fairfax County Parkway and US 50 Westbound Ramp	NB	TH	4.8	4.8	15	295	9.4	9.4	47	421	+4.6	+4.6	+32	+126
	SB	TH	5.8	5.8	25	462	3.0	3.0	10	240	-2.8	-2.8	-15	-222
	WB	LT	53.6	10.0	15	73	58.0	37.6	52	322	+4.4	+27.6	+37	+249
		RT	4.1				35.0				+30.9			
Intersection			5.7				9.6				+3.9			
<b>PM Peak Hour</b>														
Fairfax County Parkway and US 50 Westbound Ramp	NB	TH	3.8	3.8	10	212	13.7	13.7	47	347	+9.9	+9.9	+37	+135
	SB	TH	5.6	5.6	37	627	6.8	6.8	48	754	+1.2	+1.2	+11	+127
	WB	LT	51.6	18.0	34	143	54.5	34.5	52	272	+2.9	+16.5	+18	+129
		RT	3.9				26.2				+22.3			
Intersection			6.4				11.9				+5.5			

**Table 3-B. Travel Time MOEs, FCP at Route 50 Westbound Ramps**

Recommended Improvement: Modifications at US 50 Westbound Off-Ramp to FCP					
Segment	From	To	AM/PM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	I-66	Fox Mill Rd	12.5/11.3	12.6/10.5	0.1/-0.8
Southbound Segment	Fox Mill Rd	I-66	10.2/11.1	10.1/12.2	-0.1/1.1
Northbound Corridor	Route 1	Route 7	54.3/57.1	54.1/56.8	-0.2/-0.3
Southbound Corridor	Route 7	Route 1	51.0/57.1	51.1/54.4	0.1/-2.7

## 4. FCP at Franklin Farm Road

**Table 4-A. Intersection MOEs, FCP at Franklin Farm Road**

Recommended Improvement: Geometric Improvements at Franklin Farm Road														
Intersection	Approach	Movement	Existing			Recommended			Changes					
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)			
<b>AM Peak Hour</b>														
Fairfax County Parkway and Franklin Farm Road	NB	LT	170.6	60.5	504	1702	117.2	45.6	334	1254	-53.4	-14.9	-170	-448
		TH	45.6				35.6				-10.0			
		RT	27.0				24.9				+2.1			
	SB	LT	149.4	14.4	33	747	142.5	12.7	31	219	-6.9	-1.7	-2	-528
		TH	13.9				12.0				-1.9			
		RT	8.0				7.4				-0.6			
	EB	LT	96.3	63.5	149	583	100.5	54.5	65	265	+4.2	-9.1	-84	-318
		TH	96.3				85.7				-10.6			
		RT	26.8				11.9				-14.9			
	WB	LT	78.6	89.5	99	348	78.6	88.7	98	330	+0.0	-0.9	-1	-18
		TH	94.8				93.4				-1.4			
		RT	70.8				72.7				+1.9			
<b>Intersection</b>			<b>49.8</b>			<b>40.4</b>				<b>-9.4</b>				
<b>PM Peak Hour</b>														
Fairfax County Parkway and Franklin Farm Road	NB	LT	105.1	47.4	253	1308	85.7	33.0	129	991	-19.4	-14.4	-124	-317
		TH	37.4				23.5				-13.9			
		RT	13.6				8.6				-5.0			
	SB	LT	144.7	38.6	443	2404	134.2	20.1	149	2014	-10.5	-18.5	-294	-390
		TH	38.8				19.8				-20.0			
		RT	25.8				10.6				-15.2			
	EB	LT	626.7	505.9	4317	5067	107.9	86.6	321	1381	-518.8	-419.3	-3,996	-3,686
		TH	629.9				108.4				-521.5			
		RT	422.5				71.6				-350.9			
	WB	LT	96.1	95.6	122	378	113.8	102.2	126	395	+17.7	+6.6	+4	+17
		TH	97.5				100.7				+3.2			
		RT	73.5				76.0				+2.5			
<b>Intersection</b>			<b>115.8</b>			<b>40.9</b>				<b>-74.9</b>				

**Table 4-B. Travel Time MOEs, FCP at Franklin Farm Road**

Recommended Improvement: Geometric Improvements at Franklin Farm Road					
Segment	From	To	AM/AM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	US 50	Fox Mill Rd	10.1/8.9	9.8/8.2	-0.3/-0.7
Southbound Segment	Fox Mill Rd	US 50	8.0/8.8	7.9/8.5	-0.1/-0.3
Northbound Corridor	Route 1	Route 7	54.3/57.1	54.1/56.9	-0.2/-0.2
Southbound Corridor	Route 7	Route 1	51.0/57.1	50.7/53.2	-0.3/-3.9

## 5. FCP at Sunrise Valley Drive

**Table 5-A. Intersection MOEs, FCP at Sunrise Valley Drive**

Recommended Improvement: Geometry and Signal Timing Modifications at Sunrise Valley Drive														
Intersection	Approach	Movement	Existing			Recommended			Changes					
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)			
<b>AM Peak Hour</b>														
Fairfax County Parkway and Sunrise Valley Drive	NB	LT	116.2	78.1	797	2458	107.1	69.2	609	2373	-9.1	-8.9	-188	-85
		TH	80.2				67.1				-13.1			
		RT	60.0				64.6				+4.6			
	SB	LT	178.7	64.5	980	2364	138.8	60.8	770	2355	-39.9	-3.7	-210	-9
		TH	40.9				40.6				-0.3			
		RT	21.6				37.1				+15.5			
	EB	LT	100.4	95.4	220	757	96.6	87.0	191	696	-3.8	-8.4	+29	+61
		TH	96.6				84.2				-12.4			
		RT	27.0				21.0				+6.0			
	WB	LT	99.1	65.0	121	368	98.2	65.3	111	363	-0.9	+0.3	-10	-5
		TH	102.8				99.9				-2.9			
		RT	2.3				8.3				+6.0			
<b>Intersection</b>			<b>74.3</b>			<b>68.3</b>				<b>-6.0</b>				
<b>PM Peak Hour</b>														
Fairfax County Parkway and Sunrise Valley Drive	NB	LT	105.0	37.3	165	663	100.5	39.7	130	558	-4.5	+2.4	-35	-105
		TH	35.7				37.9				+2.2			
		RT	10.5				21.2				+10.7			
	SB	LT	96.8	32.6	314	1507	103.2	36.6	443	1656	+6.4	+4.0	+129	+149
		TH	29.8				33.3				+3.5			
		RT	15.0				19.8				+4.8			
	EB	LT	118.5	94.1	230	760	100.0	81.7	180	668	-18.5	-12.4	-50	-92
		TH	101.0				86.7				-14.3			
		RT	22.4				27.8				+5.4			
	WB	LT	388.4	343.8	2407	3563	122.3	76.6	225	779	-266.1	-267.2	-2,182	-2,784
		TH	382.3				95.0				-207.3			
		RT	277.4				26.6				-250.8			
<b>Intersection</b>			<b>106.2</b>			<b>52.4</b>				<b>-53.8</b>				

**Table 5-B. Travel Time MOEs, FCP at Sunrise Valley Drive**

<b>Recommended Improvement: Geometry and Signal Timing Modifications at Sunrise Valley Drive (Includes Modifications at Dulles Toll Road Eastbound Ramps)</b>					
Segment	From	To	AM/PM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	Fox Mill Rd	New Dominion Pkwy	4.8/4.1	4.8/4.0	0.0/-0.1
Southbound Segment	New Dominion Pkwy	Fox Mill Rd	5.2/8.8	4.8/5.0	-0.4/-3.8
Northbound Corridor	Route 1	Route 7	54.3/57.1	53.9/56.7	-0.4/-0.4
Southbound Corridor	Route 7	Route 1	51.0/57.1	50.1/54.3	-0.9/-2.8

## 6. FCP at Dulles Toll Road Eastbound Ramps

**Table 6-A. Intersection MOEs, FCP at Dulles Toll Road Eastbound Ramps**

Recommended Improvement: Geometry and Signal Timing Modifications at Dulles Toll Road Eastbound Ramps														
Intersection	Approach	Movement	Existing			Recommended			Changes					
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)			
<b>AM Peak Hour</b>														
Fairfax County Parkway and Dulles Toll Road Eastbound Ramps	NB	TH	48.9	42.5	243	882	54.4	50.4	268	902	+5.5	+7.9	+31	+20
		RT	16.1				34.0				+17.9			
	SB	LT	67.4	41.8	197	647	68.3	29.1	181	569	+0.9	-12.7	-16	-78
		TH	32.9				15.5				-17.4			
	EB	LT	75.6	77.8	322	1238	75.4	73.0	325	1317	-0.2	-4.8	+3	+179
		RT	83.0				67.5				-15.5			
<b>Intersection</b>			<b>47.6</b>				<b>43.7</b>			<b>-3.1</b>				
<b>PM Peak Hour</b>														
Fairfax County Parkway and Dulles Toll Road Eastbound Ramps	NB	TH	39.5	35.9	203	775	33.3	30.7	205	746	-6.2	-5.2	+2	-29
		RT	3.5				7.6				+4.1			
	SB	LT	42.1	21.1	79	963	83.4	21.3	184	727	+41.3	+0.2	+105	-236
		TH	18.4				13.4				-5.0			
	EB	LT	47.4	46.8	82	316	50.2	49.5	85	344	+2.8	+2.7	+3	+28
		RT	45.1				47.7				+2.6			
<b>Intersection</b>			<b>29.8</b>				<b>27.9</b>			<b>-1.9</b>				

**Table 6-B. Travel Time MOEs, FCP at Dulles Toll Road Eastbound Ramps**

Recommended Improvement: Geometry and Signal Timing Modifications at Dulles Toll Road Eastbound Ramps (Includes Modifications at Sunrise Valley Drive)					
Segment	From	To	AM/PM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	Fox Mill Rd	New Dominion Pkwy	4.8/4.1	4.8/4.0	0.0/-0.1
Southbound Segment	New Dominion Pkwy	Fox Mill Rd	5.2/8.8	4.8/5.0	-0.4/-3.8
Northbound Corridor	Route 1	Route 7	54.3/57.1	53.9/56.7	-0.4/-0.4
Southbound Corridor	Route 7	Route 1	51.0/57.1	50.1/54.3	-0.9/-2.8

## 7. FSP at Bonniemill Lane

**Table 7-A. Intersection MOEs, FSP at Bonniemill Lane**

Recommended Improvement: Median U-Turn Intersection East of FSP/Bonniemill Road													
Intersection	Approach	Movement	Existing			Recommended			Changes				
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)		
<b>AM Peak Hour</b>													
Franconia-Springfield Parkway and Bonniemill Lane/Spring Village Drive	NB	LT	105.7			69.8			-35.9				
		TH	128.8	38.3	51	68.8	28.8	39	179	-60.0	-9.5	-12	-13
		RT	19.2			17.1			-2.1				
	SB	LT	126.5			84.5			-42.0				
		TH	97.3	80.4	65	67.7	55.0	41	199	-29.6	-25.6	-24	-41
		RT	8.6			8.2			-0.4				
	EB	LT	138.6			19.4			-119.2				
		TH	15.6	18.6	66	11.0	11.2	18	635	-4.6	-7.4	-48	-410
		RT	10.3			7.9			-2.4				
	WB	LT	132.2			0.0			-132.2				
		TH	9.1	11.6	29	2.0	2.6	3	187	-7.1	-9.0	-26	-89
		RT	4.6			5.0			+0.4				
	<b>Intersection</b>			<b>20.1</b>			<b>11.3</b>			<b>-8.8</b>			
<b>PM Peak Hour</b>													
Franconia-Springfield Parkway and Bonniemill Lane/Spring Village Drive	NB	LT	89.2			69.3			-19.9				
		TH	0.0	27.1	31	0.0	24.1	25	167	+0.0	-3.0	-6	-5
		RT	7.0			7.5			+0.5				
	SB	LT	103.0			79.7			-23.3				
		TH	90.5	74.2	82	79.6	58.3	61	280	-10.9	-15.9	-21	-31
		RT	29.3			22.7			-6.6				
	EB	LT	107.4			9.1			-98.3				
		TH	19.1	21.0	28	6.2	6.2	6	243	-12.9	-14.8	-22	-185
		RT	6.5			3.2			-3.3				
	WB	LT	84.5			0.0			-84.5				
		TH	23.6	26.7	158	4.2	4.1	46	488	-19.4	-22.6	-112	-1,177
		RT	17.8			1.2			-16.6				
	<b>Intersection</b>			<b>27.1</b>			<b>7.2</b>			<b>-19.9</b>			

Recommended Improvement: Median U-Turn Intersection East of FSP/Bonniemill Road												
Intersection	Approach	Movement	Existing			Recommended			Changes			
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	
<b>AM Peak Hour</b>												
Franconia-Springfield Parkway and Manchester Woods	EB	LT				83.9	3.9	45	363			
		TH				2.0						
	WB	LT				82.5	7.1	17	186			
		TH				4.3						
	Intersection					4.6						
Franconia-Springfield Parkway and Manchester Woods	EB	LT				73.5	8.5	24	358			
		TH				6.9						
	WB	LT				30.3	14.3	46	978			
		TH				13.4						
	Intersection					12.6						

**Table 7-B. Travel Time MOEs, FSP at Bonniemill Lane**

Recommended Improvement: Median U-Turn Intersection East of FSP/Bonniemill Road					
Segment	From	To	AM/AM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	Beulah St	Franconia-Springfield Pkwy	5.0/5.4	4.9/5.3	-0.1/-0.1
Southbound Segment	Franconia-Springfield Pkwy	Beulah St	5.3/5.9	5.3/5.7	0.0/-0.2
Northbound Corridor	Route 1	Route 7	54.3/57.1	54.4/56.8	0.1/-0.3
Southbound Corridor	Route 7	Route 1	51.0/57.1	50.7/56.9	-0.3/-0.2

## 8. FSP at Beulah Street

**Table 8-A. Intersection MOEs, FSP at Beulah Street**

Recommended Improvement: Geometry and Signal Modifications at Beulah Street														
Intersection	Approach	Movement	Existing			Recommended			Changes					
			Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)	Average Delay (sec/veh)	Avg. Queue (feet)	Max. Queue (feet)			
<b>AM Peak Hour</b>														
Franconia-Springfield Parkway and Beulah Street	NB	LT	51.3	46.3	163	405	60.5	52.3	125	405	+9.2	+6.0	-38	+0
		TH	48.2				50.9				+2.7			
		RT	2.7				6.1				+3.4			
	SB	LT	71.7	40.9	66	241	71.2	42.7	63	241	-0.5	+1.8	-3	+0
		TH	72.0				69.1				-2.9			
		RT	0.8				8.0				+7.2			
	EB	LT	70.6	40.0	158	605	71.1	39.8	153	589	+0.5	-0.2	-5	-16
		TH	35.0				33.1				-1.9			
		RT	6.7				8.4				+1.7			
	WB	LT	73.0	40.2	137	496	73.9	42.3	104	368	+0.9	+2.1	-33	-128
		TH	43.5				39.6				-3.9			
		RT	7.7				40.4				+32.7			
	<b>Intersection</b>			<b>42.0</b>			<b>44.3</b>				<b>+2.3</b>			
<b>PM Peak Hour</b>														
Franconia-Springfield Parkway and Beulah Street	NB	LT	65.7	54.7	184	405	70.5	57.8	117	362	+4.8	+3.1	-67	-43
		TH	60.1				59.7				-0.4			
		RT	5.2				10.6				+5.4			
	SB	LT	78.5	68.9	344	995	75.5	59.2	180	766	-3.0	-9.7	-164	-229
		TH	92.7				72.2				-20.5			
		RT	4.9				10.9				+6.0			
	EB	LT	79.4	40.5	169	782	80.0	42.9	178	812	+0.6	+2.4	+9	+30
		TH	42.3				44.1				+1.8			
		RT	14.5				18.4				+3.9			
	WB	LT	91.7	46.9	213	733	81.7	45.6	144	525	-10.0	-1.3	-69	-208
		TH	45.6				41.1				-4.5			
		RT	9.0				41.0				+32.0			
	<b>Intersection</b>			<b>50.7</b>			<b>49.9</b>				<b>-0.8</b>			

**Table 8-B. Travel Time MOEs, FSP at Beulah Street**

Recommended Improvement: Geometry and Signal Modifications at Beulah Street					
Segment	From	To	AM/AM Peak Hour Travel Time (minutes)		
			Existing	Recommended	Changes
Northbound Segment	Beulah St	Franconia-Springfield Pkwy	5.0/5.4	5.0/5.4	0.0/0.0
Southbound Segment	Franconia-Springfield Pkwy	Beulah St	5.3/5.9	5.3/5.9	0.0/0.0
Northbound Corridor	Route 1	Route 7	54.3/57.1	54.5/57.8	0.2/0.7
Southbound Corridor	Route 7	Route 1	51.0/57.1	50.7/57.2	-0.3/0.1