WELLS + ASSOCIATES

MEMORANDUM

TO: Arthur J. Smith
George R. Phillips, AICP
Loudoun County Office of Transportation Services

CC: Roy Barnett
Van Metre Companies

Jeff Nein
Cooley Godward LLP

FROM: Michael J. Workosky, PTP
Joseph A. Winterer

DATE: January 26, 2009

SUBJECT: Stone Ridge Commercial
Traffic Impact Study Update;
Loudoun County, Virginia

INTRODUCTION

This memorandum presents an update to the Stone Ridge Commercial Traffic Impact Study (TIS), prepared by Wells + Associates, Inc., and dated July 19, 2006. The subject land parcels are contained within the existing Stone Ridge community, which is located south of U.S. Route 50 (John Mosby Highway) and west of Route 659 (Gum Spring Road), as shown on Figure 1.

Stone Ridge Community Development IV, LLC, proposes to rezone and/or modify land parcels within the site that would result in a net nominal increase of 2,424 S.F. of commercial space. This would be achieved by increasing general office space by 115,508 S.F. and reducing light industrial space by 113,084 S.F. The total number of approved residential units (3,265 D.U.) would remain as currently approved. A summary of the proposed land use changes is provided in Table 1.

The 2006 traffic report considered a significant increase in general office space converted from light industrial use and the addition of 307 residential condominiums. This study was the subject of referral comments provided by both the Loudoun County Office of Transportation Services (OTS) dated October 10, 2006 and the Virginia Department of Transportation (VDOT) dated February 16, 2007. Copies of these comments are contained in Appendix A.

Since the proposed development program has been significantly modified and reduced from the previous submission and background data in the area has changed, this updated traffic report serves as a response

to these comments. Further, since this report represents a continuation of the rezoning case submitted in 2006, it is not subject to the recently approved VDOT Chapter 527 requirements.

Access to the property would generally remain as currently provided by the existing and planned road system currently serving the Stone Ridge Community. South Point Drive (formerly Canary Grass Court) is proposed to be extended from Millstream Drive to Gum Spring Road (VA Route 659) south of U.S. Route 50 and would connect to the future West Spine Road. A concept plan for the project is shown in Figures 2A and 2B.

Consistent with the previously submitted traffic report, the site was assumed to be constructed in a single phase and complete by 2015. As specified in the traffic analysis scoping meeting, the most recent 2030 modeled traffic volumes from the current Loudoun County model have been included.

This updated traffic report includes the following items:

1. Collection of updated traffic counts at nine adjacent intersections.

2. Estimation of the number of weekday AM peak hour, and PM peak hour trips that would be generated by both the approved and proposed Stone Ridge development programs based on standard Institute of Transportation Engineers (ITE) trip generation rates.

3. Preparation of future traffic volumes for 2015 for both the currently approved and proposed development programs for Stone Ridge based on the updated existing traffic counts, traffic generated by other approved but incomplete development projects, and background traffic growth.

4. Calculation of total future levels of service at key intersections based on total future traffic forecasts, proposed traffic controls, and proposed intersection geometrics.

5. A review of the 2030 model traffic volumes provided by Loudoun County.

6. Review of the existing and proposed proffers.

7. Review and evaluation of the 2030 traffic model forecasts and land use assumptions provided by Loudoun County.

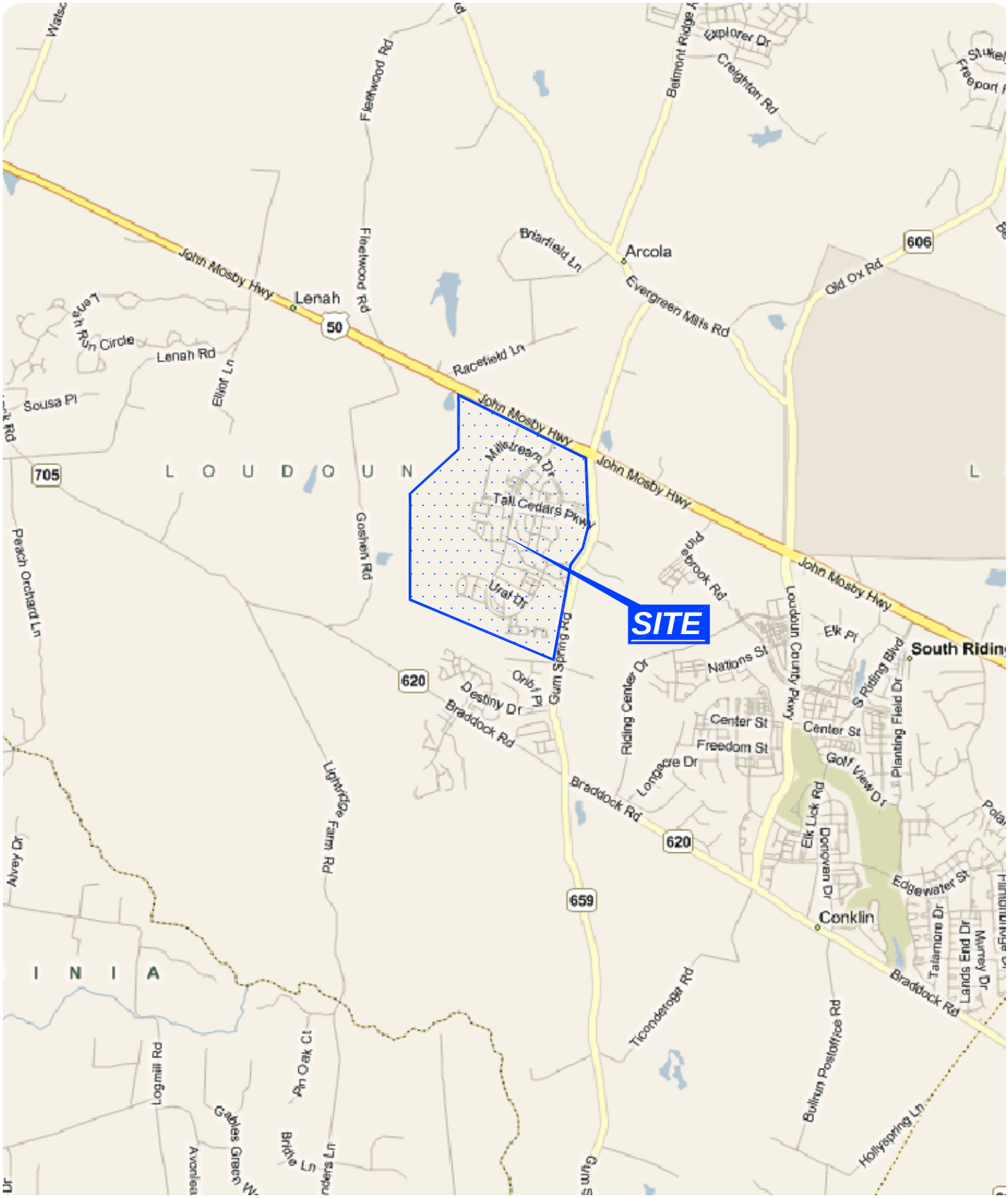


Figure 1
Site Location

North

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

O:\PROJECTS\3001-3500\3088 STONE RIDGE COMMERCIAL\GRAPHICS\3088 - RPT GRAPHICS.DWG

JCP

ACTIVE RECREATION SPACE : LANDBAY 5R

(R-8 ZONING DISTRICT, PER Z.O. SECTION 7-803(E))

TOTAL UNITS = 63
PROPOSED ADU'S @ 12.5% = 8
PROPOSED MARKET UNITS = 55

LANDBAY 5R: 55 SFA UNITS

REQUIRED ACTIVE RECREATION SPACE
10 UNITS @ 5000 SF
55 SFA UNITS @ 200 SF/UNIT = 11000 SF

REQUIRED ACTIVE REC. SPACE = 16000 SF = 0.37 Ac.***

*** THE ACTIVE RECREATION SPACE REQUIREMENT WILL BE MET BY PROPOSED HOA ACTIVE RECREATION FACILITY.

ACTIVE RECREATION SPACE : LANDBAY 6

(R-16 ZONING DISTRICT, PER Z.O. SECTION 7-1003(E))

TOTAL UNITS = 163
PROPOSED ADU'S @ 6.25% = 11
PROPOSED MARKET UNITS = 152

LANDBAY 6: 152 MARKET RATE MF UNITS

REQUIRED ACTIVE RECREATION SPACE
10 UNITS @ 5000 SF
142 MF UNITS @ 200 SF/UNIT = 28400 SF

REQUIRED ACTIVE REC. SPACE = 33400 SF = 0.77 Ac.***

*** THE ACTIVE RECREATION SPACE REQUIREMENT WILL BE MET BY THE PROPOSED HOA ACTIVE RECREATION FACILITY IN LANDBAY 5R.

MINIMUM LOT REQUIREMENTS (PD-H4 ADMINISTERED AS R-8)

SINGLE FAMILY ATTACHED - LAND BAY 5R
(AS ADU PER Z.O. SECTION 7-800)
LOT SIZE .... NO MINIMUM
WIDTH .... 14 FEET FOR INTERIOR UNITS; 22 FEET FOR END UNITS.
FRONT YARD .... 15 FEET
SIDE YARD .... 8 FEET; 0 FEET FOR INTERIOR UNITS
REAR YARD .... 16 FEET
LOT COVERAGE .... 60% MAXIMUM
BUILDING HEIGHT .... 35 FEET

MINIMUM LOT REQUIREMENTS (R-16) - LAND BAY 6

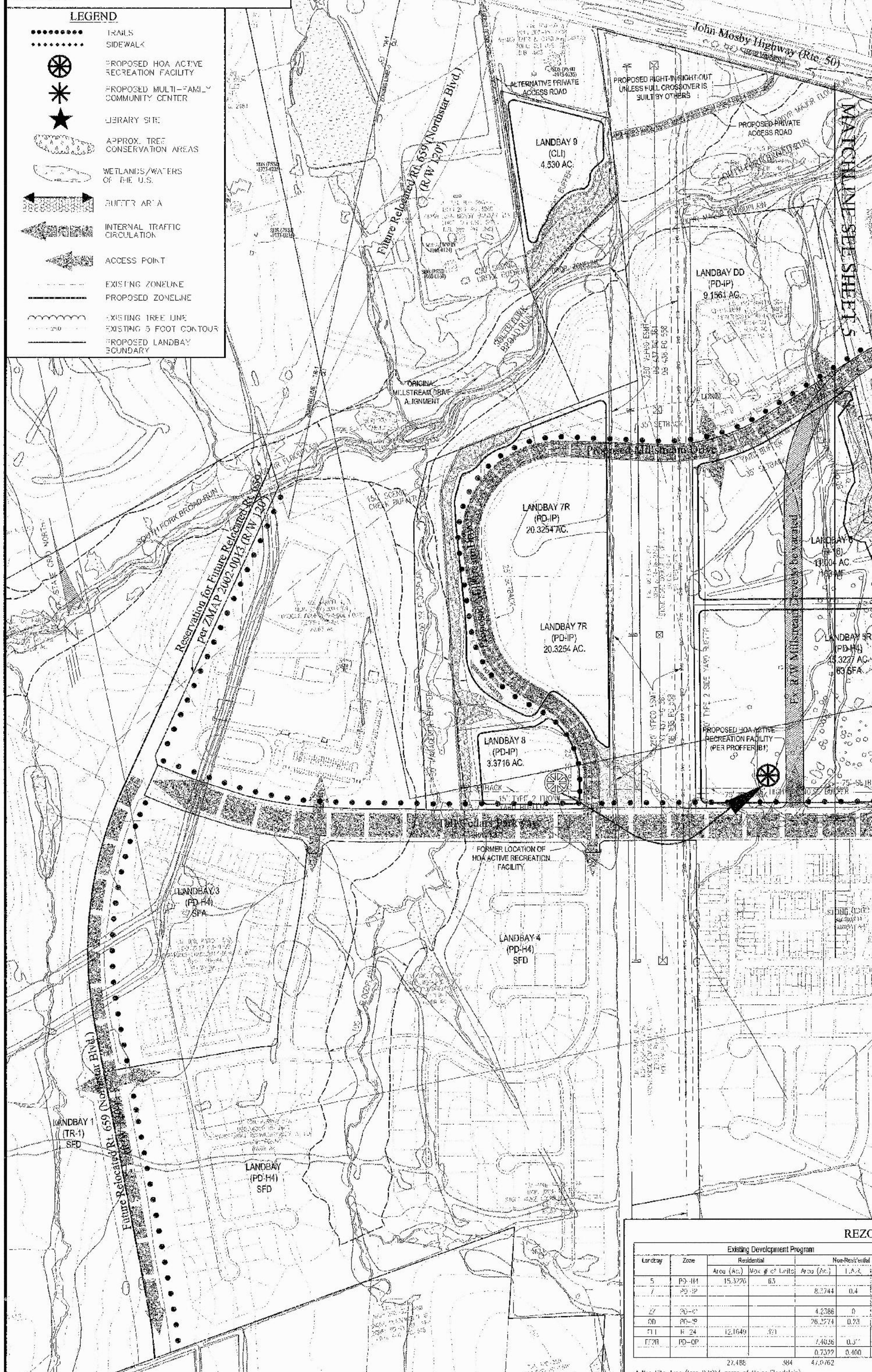
MUTLI-FAMILY
(AS ADU PER Z.O. SECTION 7-900)
LOT SIZE .... NO MINIMUM
WIDTH .... 60 FEET
FRONT YARD .... 25 FEET
SIDE YARD .... 10 FEET; 25 FEET ON CORNER LOTS
REAR YARD .... 25 FEET
LOT COVERAGE .... 60% MAXIMUM
BUILDING HEIGHT .... 35 FEET + 2(H):1(V) UP TO 55 FEET MAXIMUM

SINGLE FAMILY ATTACHED
TOWNHOMES (AS ADU PER Z.O. SECTION 7-800)
LOT SIZE .... NO MINIMUM
WIDTH .... 14 FEET FOR INTERIOR UNITS; 22 FEET FOR END UNITS.
FRONT YARD .... 15 FEET
SIDE YARD .... 8 FEET; 0 FEET FOR INTERIOR UNITS
REAR YARD .... 16 FEET
LOT COVERAGE .... 60% MAXIMUM
BUILDING HEIGHT .... 35 FEET
LOT WIDTH .... 60 FEET MINIMUM
LOT WIDTH .... 60 FEET MINIMUM
MAX. DENSITY .... 19.2 DWELLING UNITS PER ACRE
LENGTH WIDTH RATIO .... 7:1 MAXIMUM

COMPLIANCE WITH ALL APPLICABLE ZONING REGULATIONS WILL BE DEMONSTRATED AT THE TIME OF SITE PLAN REVIEW.

NOTES

1. AFFORDABLE DWELLING UNITS WILL BE PROVIDED IN LANDBAYS FF1A, 5R AND 6 AS REQUIRED BY THE ZONING ORDINANCE.
2. PERMITS WILL BE OBTAINED FOR THE DISTURBANCES WITHIN THE JURISDICTIONAL WETLANDS ON SITE (SEE NOTE 15, SHEET 1).
3. SOILS MAP FOR THE SITE CAN BE SEEN ON SHEETS 8 & 9.
4. PRIVATE OPEN SPACE AREAS WILL BE OWNED AND MAINTAINED BY A HOMEOWNERS ASSOCIATION (HOA). THE HOA WILL BE ESTABLISHED PRIOR TO APPROVAL OF THE FIRST RECORD PLAT, IN A FORM APPROVED BY THE COUNTY.
5. ALL SUBDIVISION STREETS AND RIGHT-OF-WAYS WILL BE SIZED TO MEET COUNTY AND VDOT CRITERIA.



MINIMUM LOT REQUIREMENTS FOR PD-IP

(PD-IP PLANNED DEVELOPMENT - INDUSTRIAL PARK SECTION 4-500)

LAND BAYS 7R & 8
LOT REQUIREMENTS (SECTION 4-505)

4-505 Lot Requirements.

(A) **Size.** One (1) acre minimum, exclusive of major floodplain.

(B) **Yards.**

(1) **Adjacent to roads.** Except where a greater setback is required by Section 5-900, no building shall be permitted closer than thirty five (35) feet to the right-of-way from any road and no parking shall be permitted closer than twenty-five (25) feet to the right-of-way from any road. No outdoor storage, areas for collection of refuse, or loading space shall be permitted in such setbacks.

(2) **Adjacent to Agricultural and Residential Districts and Land Bays Allowing Residential Uses.** No building, outdoor storage, areas for collection of refuse, or loading area shall be permitted closer than seventy five (75) feet to any agricultural district, any existing or zoned residential district, or land bay allowing residential uses. No parking shall be permitted closer than sixty (60) feet to any such districts and uses. No parking, outdoor storage, areas for collection of refuse, or loading space shall be permitted in areas between buildings and such agricultural districts, existing or planned residential districts, or land bays allowing residential uses where such uses are visible from the said agricultural and residential areas. When a PD-IP lot, parcel and/or landbay is developed adjacent to an agricultural district, an existing or zoned residential district, or land bay allowing residential uses, which was zoned for agricultural or residential uses subsequent to the adoption of this zoning ordinance and subsequent to zoning of the subject property as PD-IP, the setback required in (B)(3) below shall apply.

(3) **Adjacent to Other Nonresidential Districts.** Fifteen (15) feet for buildings, parking, outdoor storage, and loading areas, except where a greater area is required by Section 5-1400. In the event that a single parcel is zoned for more than one non-residential zoning district, the applicable yard requirement shall be applied only at the property line and not at the zoning district line.

(4) **Yards Between Buildings.**

(a) Where individual lots or building sites are provided, the minimum required yards between buildings on adjacent lots or building sites shall be thirty (30) feet. Driveways, parking, and covered entrances may be within such yards. Covered walkways connecting buildings, or connecting buildings with parking areas, shall be permitted in such yards.

(b) Where there is more than one building on an individual lot or building site, spacing between such buildings shall be as required for fire protection, but if space is left between buildings, it shall be at least 25 feet in minimum dimension. Covered walkways connecting buildings, or connecting buildings with parking areas are permitted in such yards and may traverse such space.

MINIMUM LOT REQUIREMENTS FOR CLI

(CLI COMMERCIAL LIGHT INDUSTRY SECTION 3-900)

LAND BAY 9 & A PORTION OF FF2B
LOT REQUIREMENTS (SECTION 3-905)

3-905 Lot Requirements.

(D) **Yards.**

(1) **Adjacent to Roads.** Except where a greater setback is required by Section 5-900, thirty five (35) feet for building; twenty five (25) feet for parking.

(2) **Adjacent to Parcel Boundaries.**

(a) **With Other Nonresidential Districts.** 25 feet minimum, buildings; 10 feet minimum, parking lot, loading unloading areas, and areas for the collection or storage of refuse. The Zoning Administrator may waive the parking lot yard requirement when necessary to permit shared parking and access arrangements between uses on individual parcels.

(b) **With Residential Districts.** 25 feet minimum. No building, parking lots, loading/unloading areas, outdoor storage, or areas for the collection or storage of refuse shall be permitted in any required yard adjacent to a residential zoning district.

LAND USE MIX TABULATIONS (For Suburban Policy Area)

SITE AREA = 873 Ac. - 95.84 Ac.(TR-1) = 773.16 Ac

TOTAL AREA OF RESIDENTIAL =	455.9 Ac.	(59.0%)
TOTAL AREA OF OFFICE / INDUSTRIAL =	47.3 Ac.	(6.1%)
TOTAL AREA OF RETAIL / SERVICES =	31.0 Ac.	(4.0%)
TOTAL AREA OF PUBLIC / CIVIC =	61.0 Ac.	(7.9%)
TOTAL AREA OF PARKS AND OPEN SPACE * =	177.96 Ac.	(23.0%)
TOTAL =	773.16 Ac.	

* AREA OF PARKS AND OPEN SPACE DOES NOT INCLUDE INTERNAL OPEN SPACE WITHIN THE LAND BAYS

REZONING AREA TABULATIONS

Existing Development Program							Proposed Development Program							
Landbay	Zone	Residential		Non-Residential			Landbay	Zone	Residential			Non-Residential		
		Area (Ac.)	Max # of Units	Area (Ac.)	F.A.R.	Max GSF			Area (Ac.)	Max # of Units	Density	Area (Ac.)	F.A.R.	Max GSF
5	PD-H4	15.3226	63				5R	PDH-4	15.3227	63	4.2 Units/Ac.			
7	PD-IP			8.2744	0.4	145,915	7R	PD-IP				20.3254	0.35	309,881
							8	PD-IP				3.3716	0.3	44,060
27	[illegible]			4.2386	0		9	CLI				4.2386*	0.3	55,390
DD	PD-IP			26.2574	0.73	321,110	6	R-24	11.0047	163	14.8 Units/Ac.			
FF1	R-24	12.1649	321				FF1A	R-24	10.0623	158	15.8 Units/Ac.			
FF2B	PD-OP			7.4036	0.3	00,297	FF2B	PD-OP				9.0398	0.4	157,509
				0.7322	0.400	12,757						1.1986	0.3	15,663
		27.488	384	47.0762		580,079			36.3897	384		38.174		582,503

* Net Site Area (less 0.2914 acres of Major Floodplain)

FILE No. REZ-12395

SHEET 4 OF 17

Concept Development Plan-Exhibit A

STONE RIDGE COMMERCIAL
ZMAP 2006-0011

DULLES ELECTION DISTRICT
LOUDOUN COUNTY, VIRGINIA

SCALE: 1"=200' C.I. =5' DATE: APRIL 2006

urban
Planners-Engineers-Landscape Architects-Land Surveyors
Urban, Ltd.
4200 D Technology Court
Chantilly, Virginia 20151
Tel. 703.642.2306
Fax 703.378.7888
www.urban-ltd.com

PLAN DATE
4/7/06
12/8/06

REVISIONS

Figure 2A
Conceptual Site Plan

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

LEGEND

- TRAILS
- SIDEWALK
- PROPOSED HOA ACTIVE RECREATION FACILITY
- PROPOSED MULTI-FAMILY COMMUNITY CENTER
- LIBRARY SITE
- APPROX. TREE CONSERVATION AREAS
- WETLANDS/WATERS OF THE U.S.
- BUFFER AREA
- INTERNAL TRAFFIC CIRCULATION
- ACCESS POINT
- EXISTING ZONELINE
- PROPOSED ZONELINE
- EXISTING TREE LINE
- EXISTING 5 FOOT CONTOUR
- PROPOSED LANDBAY BOUNDARY

ZONING MODIFICATIONS

1. PD-OP District Yard Modification, Section 4-305(B)(2). Buildings and parking areas in PD-OP Land Bay FF2B may be located no closer than twenty-five (25) feet to the adjacent R-24 zoning district lines adjacent to Land bay FF1A. A permanent open space buffer twenty-five (25) feet in width with a Type 1 Buffer Yard shall be maintained within Land Bay FF2B adjacent to Land Bay FF1A.

ACTIVE RECREATION SPACE : LANDBAY FF1A

(R-24 ZONING DISTRICT, PER Z.O. SECTION 7-1003(E))

TOTAL UNITS = 158
PROPOSED ADU'S @ 6.25% = 10
PROPOSED MARKET UNITS = 148

LANDBAY FF1A: 148 MARKET RATE MF UNITS

REQUIRED ACTIVE RECREATION SPACE
10 UNITS @ 500 SF = 5000 SF
138 MF UNITS @ 200 SF/UNIT = 27600 SF
REQUIRED ACTIVE REC. SPACE = 32600 SF = 0.75 Ac.***

*** THE ACTIVE RECREATION SPACE REQUIREMENT WILL BE MET BY THE PROPOSED MULTI-FAMILY COMMUNITY CENTER IN LANDBAY FF1A.

MINIMUM LOT REQUIREMENTS (R-24)

MULTI-FAMILY - LAND BAY FF1A
(AS ADU PER Z.O. SECTION 7-1000)

LOT SIZE	NO MINIMUM
WIDTH	60 FEET
FRONT YARD	25 FEET
SIDE YARD	10 FEET 25 FEET ON CORNER LOTS
REAR YARD	25 FEET
LOT COVERAGE	70% MAXIMUM
BUILDING HEIGHT	35 FEET + 2(D)(C/V) UP TO 55 FEET MAXIMUM
LOT WIDTH	60 FEET MINIMUM
MAX. DENSITY	28.8 DWELLING UNITS PER ACRE
LENGTH WIDTH RATIO	6:1 MAXIMUM
MAX. UNITS PER BUILDING	64 DWELLING UNITS

COMPLIANCE WITH ALL APPLICABLE ZONING REGULATIONS WILL BE DEMONSTRATED AT THE TIME OF SITE PLAN REVIEW.

MINIMUM LOT REQUIREMENTS FOR PD-OP

(PD-OP PLANNED DEVELOPMENT – OFFICE PARK SECTION 4-300)
LAND BAY FF2B

4-305 Lot Requirements.

(A) **Size.** One (1) acre minimum, exclusive of major floodplain.

(B) **Yards.**

(1) **Adjacent to roads.** Except where a greater setback is required by Section 5-900, no building shall be permitted closer than (35) feet to the right-of-way from any road and no parking shall be permitted closer than twenty-five (25) feet to the right-of-way from any road. No outdoor storage, areas for collection of refuse, or loading space shall be permitted in such setbacks.

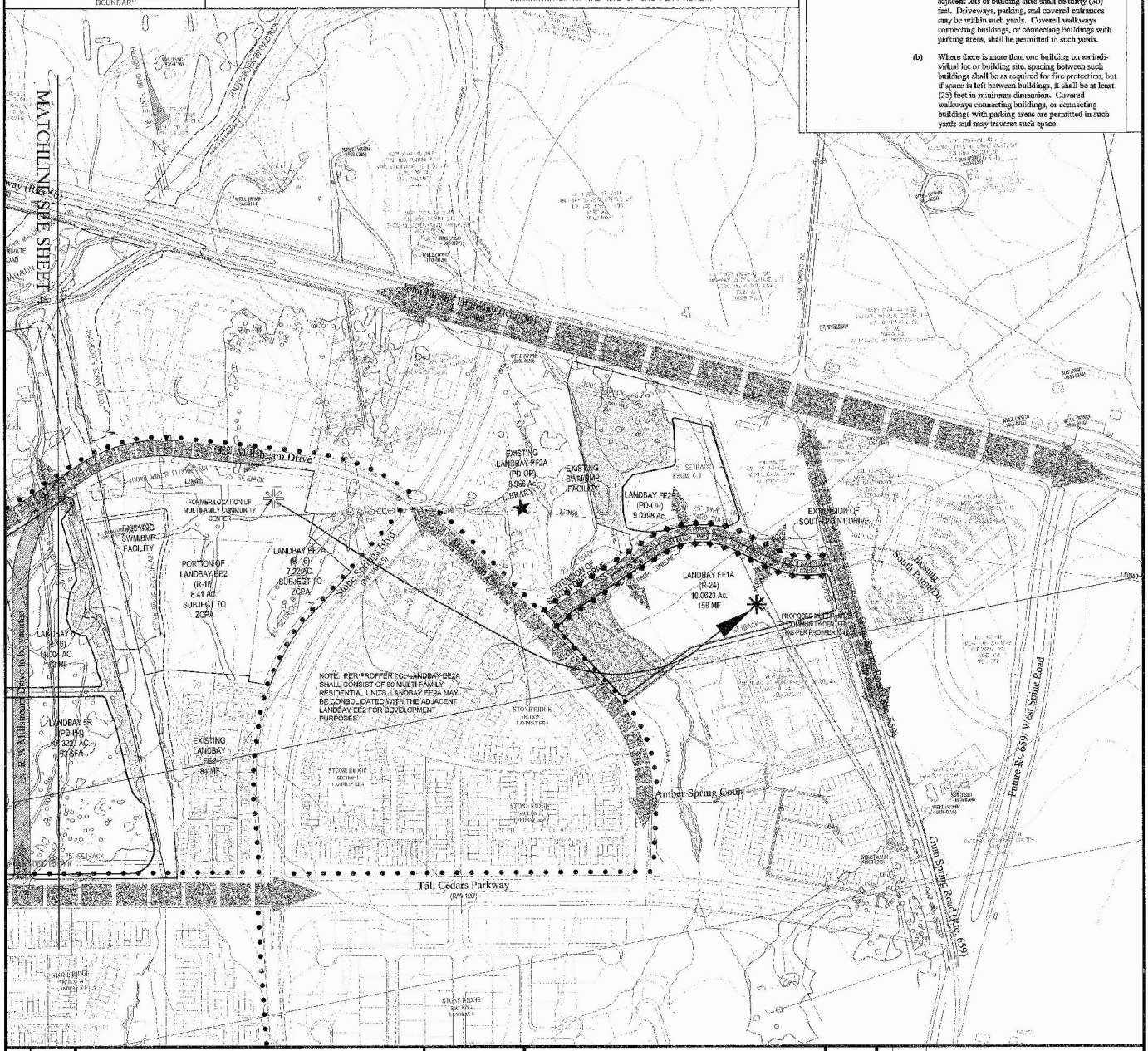
(2) **Adjacent to Agricultural and Residential Districts and Land Bays Allowing Residential Uses.** No building, outdoor storage, areas for collection of refuse, or loading area shall be permitted closer than (100) feet to any agricultural district, any existing or zoned residential district, or land bay allowing residential uses. No parking shall be permitted closer than fifty (50) feet to any such area. No parking, outdoor storage, areas for collection of refuse, or loading space shall be permitted in areas between buildings and such agricultural districts, existing or planned residential districts, or land bays allowing residential uses where such uses are visible from said agricultural and residential areas. When a PD-OP lot, parcel and/or landbay is developed adjacent to an agricultural district, an existing or zoned residential district, or land bay allowing residential uses, which was zoned for agricultural or residential uses subsequent to the adoption of this zoning ordinance and subsequent to zoning of the subject property as PD-OP, the setback required in (B)(3) below shall apply.

(3) **Adjacent to Other Nonresidential Districts.** Fifteen (15) feet for buildings, parking, outdoor storage, and loading areas except where a greater area is required by Section 5-1400. In the event that a single parcel is zoned for more than one non-residential zoning district, the applicable yard requirement shall be applied only at the property line and not at the zoning district line.

(4) **Yards Between Buildings.**

(a) Where individual lots or building sites are provided, the minimum required yards between buildings on adjacent lots or building sites shall be thirty (30) feet. Driveways, parking, and covered entrances may be within such yards. Covered walkways connecting buildings, or connecting buildings with parking areas, shall be permitted in such yards.

(b) Where there is more than one building on an individual lot or building site, spacing between such buildings shall be as required for fire protection, but if space is left between buildings, it shall be at least (25) feet in minimum dimension. Covered walkways connecting buildings, or connecting buildings with parking areas are permitted in such yards and may traverse such space.



Concept Development Plan-Exhibit A

STONE RIDGE COMMERCIAL
ZCPA 2006-0003/ZMAP 2006-0011

DULLES ELECTION DISTRICT
LOUDOUN COUNTY, VIRGINIA

SCALE: 1"=200' C.I. =5' DATE: APRIL 2006

urban
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PLAN DATE
6/2/06
12/8/08

Figure 2B
Conceptual Site Plan

Stone Ridge Commercial
Loudoun County, Virginia

Walls + Associates, Inc.

REVISIONS

FILE NO. REZ-12595

SHEET 5 OF 17

Table 1
Stone Ridge Commercial
Land Use Summary (1)(2)(3)

Land Use	Existing Totals	Units	Proposed Totals	Units	Total Change	Units
Single-Family Detached	853	D.U.	853	D.U.	-	D.U.
Townhouse/Condominium	1,741	D.U.	1,741	D.U.	-	D.U.
Multi-Family	671	D.U.	671	D.U.	-	D.U.
Total Residential	3,265	D.U.	3,265	D.U.	-	D.U.
Retail	316,378	S.F.	316,378	S.F.	-	S.F.
Office (PD-OP/CLI)	282,557	S.F.	398,065	S.F.	115,508	S.F.
Light Industrial (PD-IP)	570,250	S.F.	457,166	S.F.	(113,084)	S.F.
Total Commercial/Employment	1,169,185	S.F.	1,171,609	S.F.	2,424	S.F

Notes: (1) Total Change based on Concept Development Plan prepared by Urban Engineering, dated December 8, 2008.

(2) Proposed and Exisitng Totals based on the overall Approved Stone Ridge Development

(3) CLI was assumed as office for purpose of comparison and trip generation analysis.

Existing Traffic Counts and Levels of Service

Updated AM and PM peak hour traffic turning movement counts were conducted by Wells + Associates in 2008 from 6:00 to 9:00 AM and from 4:00 PM to 7:00 PM at the following intersections:

1. U.S. Route 50/Goshen Road.
2. U.S. Route 50/Stone Springs Boulevard.
3. U.S. Route 50/Gum Spring Road (VA Route 659).
4. U.S. Route 50/VA Route 606.
5. Millstream Drive (west)/Tall Cedars Parkway.
6. Stone Springs Boulevard/Tall Cedars Parkway.
7. Gum Spring Road/Tall Cedars Parkway.
8. Stone Springs Boulevard/Millstream Drive.
9. Tall Cedars Parkway/Sandbar Terrace.

The peak hour and Average Daily Traffic volumes are summarized on Figure 3 and presented in Appendix B. The existing lane use and traffic control in the site vicinity is shown on Figure 4.

Existing Levels of Service

Existing intersection levels of service for 2008 were calculated based on: (1) the existing traffic volumes shown on Figure 3, (2) the existing lane use and traffic control shown on Figure 4 and (3) the Highway Capacity Manual methodology. It is noted that separate turn lanes exist at some locations but are not currently in use. The results are summarized in Table 2 and presented in Appendix C, and indicate the following:

1. The side-street turning movements from southbound Goshen Road (Route 616) onto Route 50 currently operate at LOS "E" or "F" during both the AM and PM peak hours.

2. The Route 50/Stone Springs Boulevard signalized intersection operates at LOS "E" during the AM peak hour and LOS "C" during the PM peak hour.

3. The U.S. Route 50/Route 659 signalized intersection currently operate at LOS "E" during the AM peak hour and LOS "D" during the PM peak hour.

4. The U.S. Route 50/Route 606 (Loudoun County Parkway) intersection currently operates at LOS "F" during the AM peak hour and LOS "E" during the PM peak hour.

5. All of the turning movements at the stop controlled Stone Springs Boulevard/Millstream Drive intersection currently operate at acceptable levels of service during both the AM and PM peak hours.

6. The remaining unsignalized intersections on Tall Cedars Parkway at Route 659, Stone Springs Boulevard, and Millstream Drive currently operate at acceptable levels of service.

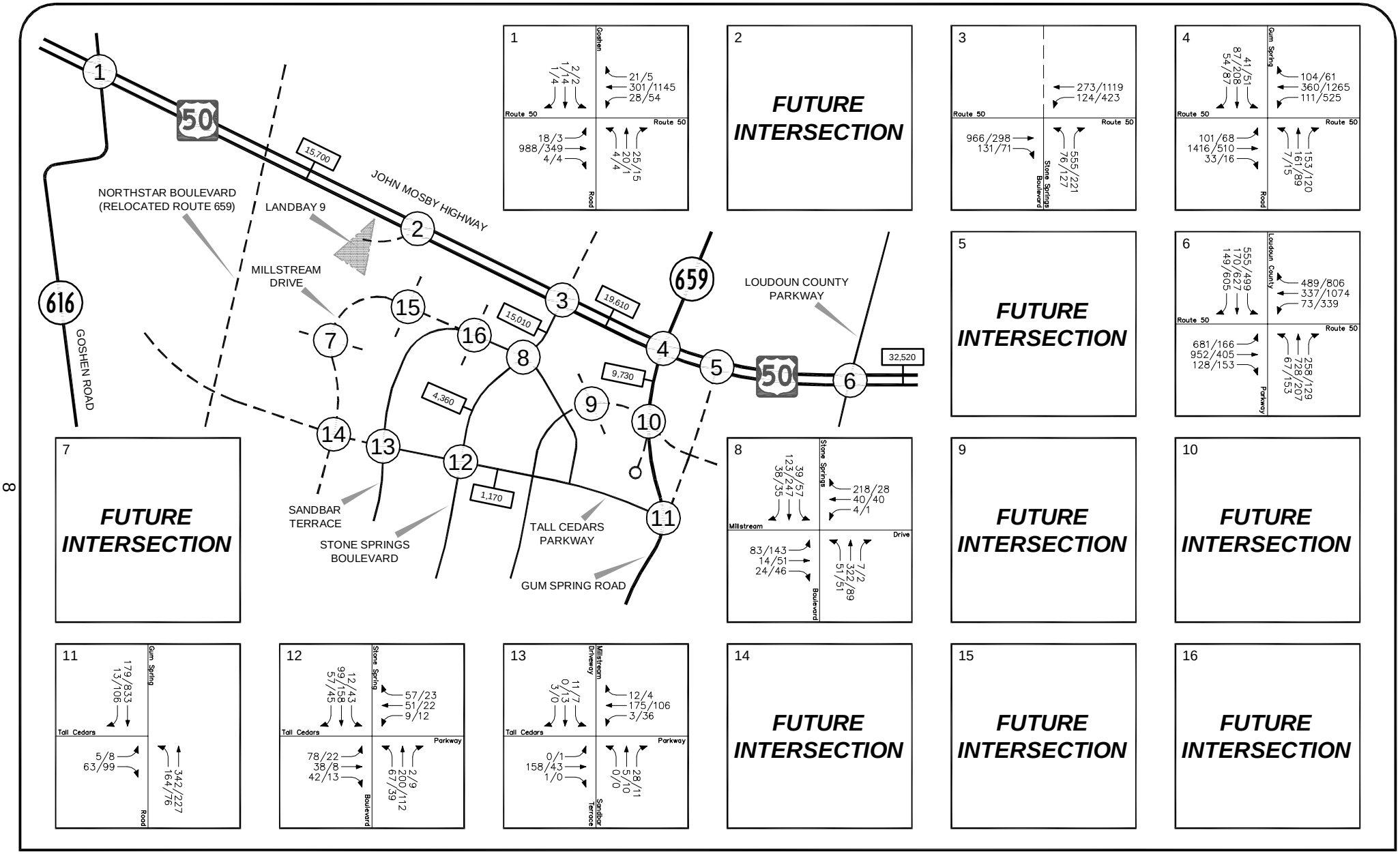

Figure 3
Existing Peak Hour Traffic Volumes

ADT Average Daily Trips

AM PEAK HOUR
PM PEAK HOUR
000/000

North

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

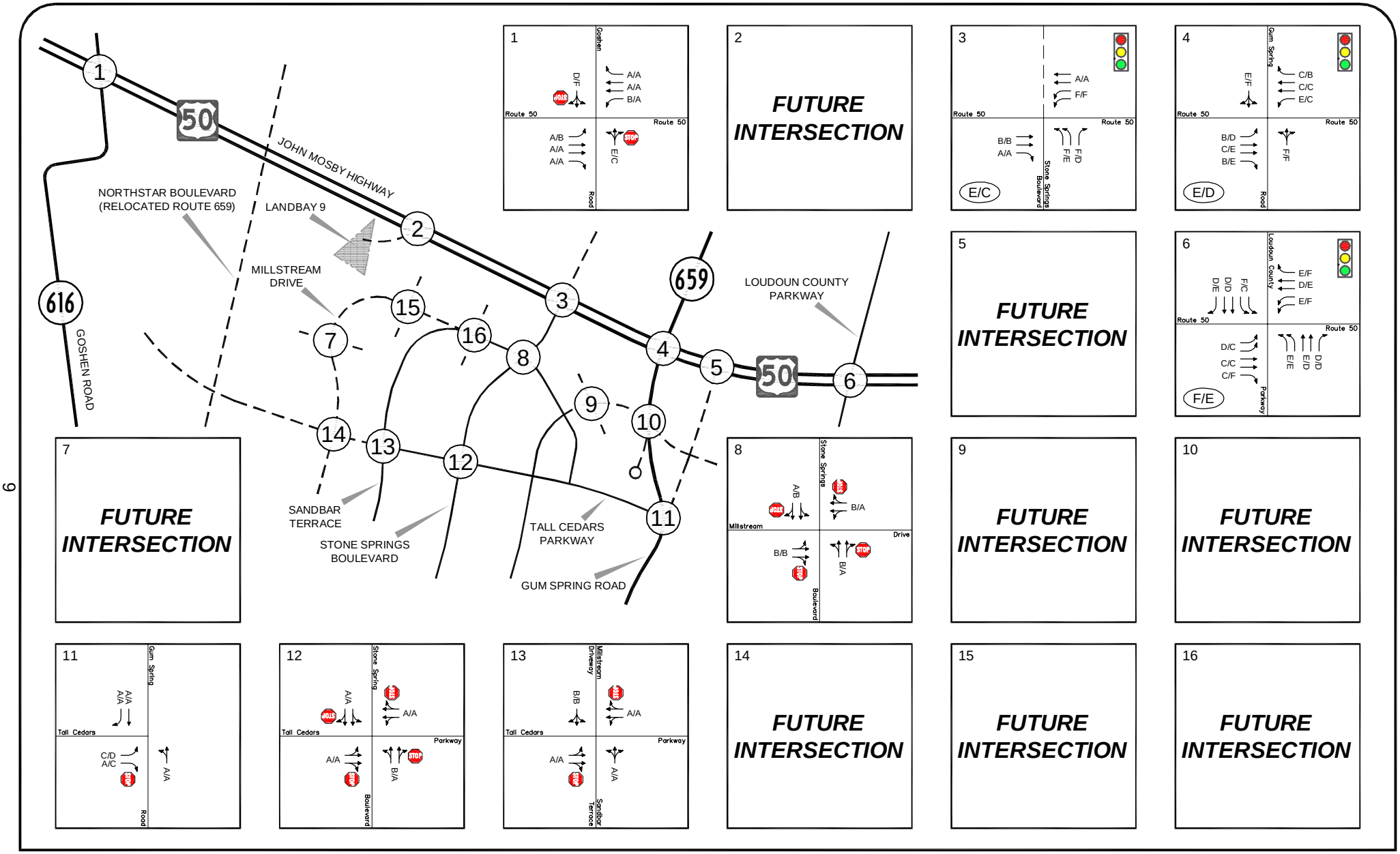

Figure 4
Existing Lane Use and Traffic Control and Peak Hour Levels of Service

x/x Levels of Service
(x/x) Overall Levels of Service
Represents One Travel Lane
Signalized Intersection
Stop Sign
North

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

Table 2-1
Stone Ridge Commercial
Intersection Level of Service Summary (1) (2) (3)

Intersection	Intersection Control	Critical Movement	2008 Existing AM	2008 Existing PM	2015 Currently Approved Program AM	2015 Currently Approved Program PM	2015 Proposed Program AM	2015 Proposed Program PM
(1) U.S. Route 50/	Stop Sign	EBL	A [8.1]	B [11.7]				
Goshen Road		WBL	B [11.0]	A [8.3]	N/A		N/A	
		NBLTR	E [35.2]	C [17.6]				
		SBLTR	D [27.8]	F [58.9]				
Background Improvement: Install Signal,	Signal	EBL			B (11.2)	B (16.7)	B (11.3)	B (16.8)
Add NBR, Optimize Timngs		EBT			C (24.6)	B (14.3)	C (25.0)	B (14.2)
(by others)		EBR			B (12.3)	B (11.1)	B (12.4)	B (11.0)
		WBL			C (21.2)	A (7.9)	C (21.7)	A (7.9)
		WBT	N/A		B (11.3)	B (19.2)	B (11.4)	B (19.2)
		WBR			A (9.2)	A (6.9)	A (9.3)	A (6.8)
		NBLT			D (50.0)	D (42.9)	D (50.0)	D (43.0)
		NBR			C (30.1)	C (27.3)	C (30.4)	C (27.4)
		SBLTR			D (36.4)	D (39.3)	D (36.6)	D (39.4)
		Overall			**C (23.6)**	**B (19.0)**	**C (23.9)**	**B (19.0)**
(2) U.S. Route 50/ Racefield Ln/	Signal	EBL			A (6.6)	B (18.9)	A (6.6)	C (22.2)
Land Bay 9/INOVA Driveway		EBT			B (17.5)	B (15.1)	B (18.0)	B (17.8)
		EBR			A (7.9)	B (10.9)	A (8.0)	B (12.8)
Background Improvement: Install Signal		WBL			B (18.5)	B (12.2)	B (18.4)	B (14.3)
Add North and South Legs.		WBT			A (8.7)	C (23.4)	A (8.8)	C (28.1)
Close Racefield Lane Median Break		WBR	N/A		A (8.1)	B (12.9)	A (8.2)	B (15.0)
(by others)		NBLTR			D (51.0)	D (47.8)	D (51.1)	D (45.6)
		SBL			D (49.5)	D (50.3)	D (49.5)	D (53.4)
		SBLT			D (49.6)	D (50.5)	D (49.6)	D (53.6)
		SBR			D (40.8)	D (36.6)	D (40.6)	D (38.8)
		Overall			**B (15.8)**	**C (24.3)**	**B (16.1)**	**C (27.9)**
(3) U.S. Route 50/	Signal	EBT	B (11.7)	B (10.1)				
Stone Spings Blvd		EBR	A (8.5)	A (9.4)				
		WBL	F (93.3)	F (92.7)				
		WBT	A (0.2)	A (0.5)	N/A		N/A	N/A
		NBL	F (80.5)	E (64.7)				
		NBR	F (210.1)	D (42.1)				
		Overall	**E (69.1)**	**C (27.0)**				
Background Improvement: Add SB Leg	Signal	EBL			C (21.9)	E (74.5)	C (20.5)	E (75.4)
Optimize Timngs, Add NB Lanes		EBT			C (32.5)	D (46.5)	C (30.5)	D (45.7)
Add Through Lanes On Rt. 50.		EBR			C (25.4)	D (39.2)	C (24.1)	D (38.6)
		WBL			E (63.2)	E (59.6)	E (62.6)	E (59.2)
		WBT			C (20.6)	D (48.6)	C (20.5)	D (48.6)
		WBR			B (18.8)	C (26.7)	B (18.6)	C (28.7)
		NBL	N/A		D (45.4)	E (62.7)	D (47.5)	E (65.9)
		NBT			E (55.2)	E (56.4)	E (55.7)	E (57.1)
		NBR			E (63.7)	D (47.2)	E (61.2)	D (46.8)
		SBL			E (77.3)	E (70.1)	E (77.3)	E (70.1)
		SBT			E (71.0)	E (79.1)	E (77.6)	E (79.8)
		SBR			D (54.3)	D (51.5)	D (54.6)	D (51.5)
		Overall			**D (42.6)**	**D (53.6)**	**D (41.5)**	**D (53.7)**
(4) U.S. Route 50/	Signal	EBL	B (12.0)	D (42.8)				
Gum Spring Rd (VA 659)/		EBT	C (29.8)	E (74.8)				
		EBR	B (13.3)	E (71.7)				
		WBL	E (57.0)	C (24.5)				
		WBT	C (22.6)	C (31.4)	N/A		N/A	
		WBR	C (20.8)	B (11.2)				
		NBLTR	F (247.4)	F (130.1)				
		SBLTR	E (78.2)	F (108.5)				
		Overall	**E (58.7)**	**D (54.0)**				
Background Improvement: Rmove Signal	Stop Sign	SBR	N/A		B (10.2)	A [9.8]	B [10.4]	A [9.7]
Remove NB Leg, RIRO Only								
(by others)								
(5) U.S. Route 50/	Signal	EBT			E (56.6)	E (72.0)	E (62.2)	E (59.8)
West Spine Road		EBR			A (9.1)	C (22.8)	A (9.9)	C (22.9)
		WBL			D (52.3)	D (52.3)	E (55.7)	E (57.3)
		WBT	N/A		A (8.5)	A (9.6)	A (8.3)	A (9.4)
		NBL			D (54.1)	E (64.9)	D (54.1)	E (64.9)
		NBR			D (38.4)	C (20.9)	D (39.0)	C (26.9)
		Overall			**D (40.6)**	**D (37.1)**	**D (44.0)**	**D (35.7)**
(6) U.S. Route 50/ Loudoun County	Signal	EBL	D (54.4)	C (30.0)	F (181.5)	F (342.9)	F (181.9)	F (346.4)
Pkwy (Old Ox Road)		EBT	C (32.8)	C (25.8)	D (38.1)	D (41.9)	D (38.2)	D (42.1)
		EBR	C (22.9)	F (103.0)	C (27.0)	C (32.1)	C (27.0)	C (32.1)
		WBL	E (65.8)	F (80.7)	F (85.9)	E (68.5)	F(85.9)	E (68.5)
		WBT	D (46.9)	E (58.7)	E (68.8)	E (61.8)	E (69.6)	E (61.9)
Background Improvement: Add Through		WBR	F (98.6)	F (87.3)	F (296.8)	F (284.2)	F (296.8)	F (284.2)
Lane on Rt. 50, Optimize Timings		NBL	E (65.8)	E (64.1)	F (87.4)	E (66.2)	F (87.4)	E (66.2)
(by others)		NBT	E (62.3)	D (41.7)	F (279.1)	E (78.6)	F (279.1)	E (78.6)
		NBR	D (45.6)	D (40.0)	F (82.9)	D (54.2)	F (82.9)	D (54.2)
		SBL	F (528.2)	C (30.9)	F (342.7)	F (86.4)	F (342.7)	F (86.4)
		SBT	D (41.9)	D (47.6)	D (46.2)	F (209.8)	D (46.2)	F (209.8)
		SBR	D (40.8)	E (74.8)	D (49.9)	F (954.6)	D (50.3)	F (955.8)
		Overall	**F (110.7)**	**E (59.3)**	**F (152.9)**	**F (243.3)**	**F (153.8)**	**F (243.6)**
(7) Millstream Dr/	Stop Sign	EBLR			B [10.3]	B [11.5]	N/A	N/A
Land Bay 7 Driveway		WBLR	N/A		N/A	N/A	A [9.9]	B [10.4]
		NBLT			A [7.2]	A [4.6]	N/A	N/A
		SBLT			N/A	N/A	A [7.5]	A [6.3]

Notes: (1) Analyses based on Synchro 7.
(2) Numbers in parentheses indicate average delay in seconds per vehicle for signalized intersections.
(3) Numbers in brackets indicate average delay in seconds per vehicle for stop sign controlled intersections.

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Table 2-2
Stone Ridge Commercial
Intersection Level of Service Summary (1) (2) (3)

Intersection	Intersection Control	Critical Movement	2008 Existing AM	2008 Existing PM	2015 Currently Approved Program AM	2015 Currently Approved Program PM	2015 Proposed Program AM	2015 Proposed Program PM
(8) Stone Springs Blvd/	Stop Sign	EBTL	B [10.7]	B [11.5]				
Millstream Drive	4-way	EBTR	A [8.3]	A [8.2]				
		WBTL	A [8.7]	A [8.4]				
		WBTR	B [11.9]	A [8.3]	N/A		N/A	
		NBTL	B [12.2]	A [9.5]				
		NBTR	B [10.6]	A [8.3]				
		SBTL	A [10.0]	B [10.6]				
		SBTR	A [9.3]	A [9.5]				
Background Improvement:	Stop Sign	EBTLR			F [*]	F [*]	F [*]	F [*]
Open existing turn lanes	2-way	WBTLR	N/A		F [456.6]	F [*]	F [*]	F [*]
on Stone Springs, convert		NBL			A [8.9]	B [10.3]	A [8.7]	B [10.3]
to two-way stop		SBL			B [10.8]	A [8.5]	B [10.9]	A [8.4]
(9) South Point Dr/	Stop Sign	EBLTR			B [10.7]	A [9.7]	A [6.4]	A [3.1]
Site Office/Residential		WBLTR	N/A		N/A	N/A	A [0.2]	A [2.0]
		NBLTR			A [7.9]	A [6.7]	B [15.0]	B [13.9]
		SBTR			A [0.0]	A [0.0]	A [9.8]	B [10.4]
(10) Gum Spring Rd/	Stop Sign	EBT	N/A		N/A		A [0.0]	A [0.0]
South Point Dr.		WBT					A [0.0]	A [0.0]
(11) Gum Spring Rd/West Spine Road/	Stop Sign	EBL	C [19.6]	D [31.3]				
Tall Cedars Pkwy		EBR	A [9.7]	C [21.6]	N/A		N/A	N/A
		NBTL	A [3.6]	A [4.1]				
Background Improvement: Install Signal	Signal	EBL			C (20.5)	C (26.2)	C (20.8)	C (25.8)
Realign with West Spine Road		EBR			B (19.0)	F (92.0)	B (19.7)	F (95.5)
Add NB/SB Through Lane		NBLT	N/A		B (14.0)	C (34.1)	B (13.5)	C (34.6)
		SBT			A (4.9)	B (17.9)	A (4.7)	B (18.0)
		SBR			A (1.4)	A (1.4)	A (1.4)	A (1.4)
		Overall			**B (12.8)**	**C (32.9)**	**B (12.4)**	**C (33.8)**
(12) Stone Springs Blvd/	Stop Sign	EBLT	A [9.6]	A [8.2]				
Tall Cedars Pkwy	4-way	EBTR	A [7.9]	A [7.1]				
		WBLT	A [8.4]	A [8.0]				
		WBTR	A [8.2]	A [7.3]	N/A		N/A	
		NBLT	B [10.1]	A [8.0]				
		NBTR	A [8.6]	A [7.3]				
		SBLT	A [8.4]	A [8.2]				
		SBTR	A [8.3]	A [7.6]				
Background Improvement:	Stop Sign	EBL			A [8.4]	A [7.8]	A [8.4]	A [7.8]
Open existing turn lanes	2-way	WBL	N/A		A [7.9]	A [7.8]	A [7.9]	A [7.8]
on Tall Cedars, convert to		NBLTR			F [421.0]	F [*]	F [370.9]	F [*]
two-way stop		SBLTR			F [*]	F [*]	F [*]	F [*]
(13) Tall Cedars Pkwy/	Stop Sign	EBL	A [0.0]	A [0.3]	A [0.9]	A [7.7]	A [8.2]	A [7.7]
Millstream Drive/Sandbar Terrace		WBL	A [0.3]	A [3.1]	A [0.5]	A [7.5]	A [7.9]	A [7.7]
		NBLTR	A [9.4]	A [9.6]	C [16.2]	B [10.7]	C [15.7]	B [10.8]
		SBLTR	B [10.9]	B [10.8]	C [18.7]	C [15.0]	C [17.8]	B [13.8]
(14) Tall Cedars Pkwy/	Stop Sign	WBL					A [7.6]	A [7.3]
Millstream Extended		NBLTR	N/A		N/A		B [10.1]	A [9.2]
		SBLTR					B [12.1]	B [10.9]
(15) Millstream Extended/	Stop Sign	EBLTR					A [0.5]	A [0.4]
Industrial Drive A		WBLTR	N/A		N/A		A [0.1]	A [1.4]
		NBLTR					A [8.4]	A [9.0]
		SBLTR					A [9.5]	A [9.8]
(16) Millstream Extended/	Stop Sign	EBLTR					A [0.0]	A [0.0]
Industrial Drive B		WBLTR	N/A		N/A		A [0.1]	A [1.8]
		NBLTR					A [8.5]	A [8.9]
		SBLTR					A [9.8]	B [10.4]

Notes: (1) Analyses based on Synchro 7.
(2) Numbers in parentheses indicate average delay in seconds per vehicle for signalized intersections.
(3) Numbers in brackets indicate average delay in seconds per vehicle for stop sign controlled intersections.

Other Approved Developments

Overview. This traffic study includes traffic generated by 19 other approved development projects in the region, exclusive of the currently approved development program for the site. The following projects were considered in this traffic study:

1. Brambleton.
2. Kirkpatrick Farms.
3. South Riding.
4. Hutchinson Farm (Arcola Center).
5. South Village.
6. Pinebrook Village.
7. Braddock Corner.
8. Providence Glen.
9. Gum Spring Village Center.
10. South Riding Station.
11. Kirkpatrick Farms West.
12. CD Smith.
13. Glascock Field at Stone Ridge.
14. Marrwood Property.
15. Westport By-Right Property.
16. West Spine Plaza (proposed zoning).
17. Winsbury Homes.
18. Arcola School.
19. INOVA Property.

The level of development within each of the other approved projects listed above was estimated based on the ultimate approved development program, the projected pace of development in the study area as estimated in previous studies and updated information researched by Wells + Associates. The location of these other developments is shown on Figure 5. Trip generation estimates for background developments are contained in Appendix D.

Trip Assignments

The traffic anticipated to be generated by the other developments including both the approved and proposed Stone Ridge development programs were assigned to the study network according to distributions from previous studies, existing travel patterns and traffic counts, and local knowledge. These assignments are contained in Appendices E and F.

Growth Rate

Based on recent conversations with VDOT, a regional growth rate of 2.0 percent per year, compounded annually, was applied to all turning movements at the surrounding intersections for 2015 conditions.

Proposed Modifications to Regional Roads

Modifications to the regional road network were assumed as part of the Stone Ridge Commercial project development. These include:

1. Extension of South Point Drive (formerly Canary Grass Court) from Millstream Drive to existing Gum Spring Road (VA Route 659) and the future West Spine Road (by Stone Ridge Commercial).

2. Realign Millstream Drive west of Stone Springs Boulevard to access Land Bay 7 and connect to Tall Cedars Parkway west of the residential areas.

3. Intersection improvements to include a new traffic signal and turn lanes at the West Spine Road/U.S. Route 50 intersection through existing Stone Ridge proffers.

4. Access to Land Bay 9 from U.S. Route 50 opposite the future entrance to the Inova property.

Additional modifications to the internal road network are also contemplated as discussed later in this report.

The lane use and traffic control at the study area intersections for approved and proposed conditions are shown on Figures 6 and 7.

2030 Road Network

The 2030 road network associated with the Loudoun County long-range travel demand model assumes that the majority of roadways depicted in the Countywide Transportation Plan (CTP) are constructed.

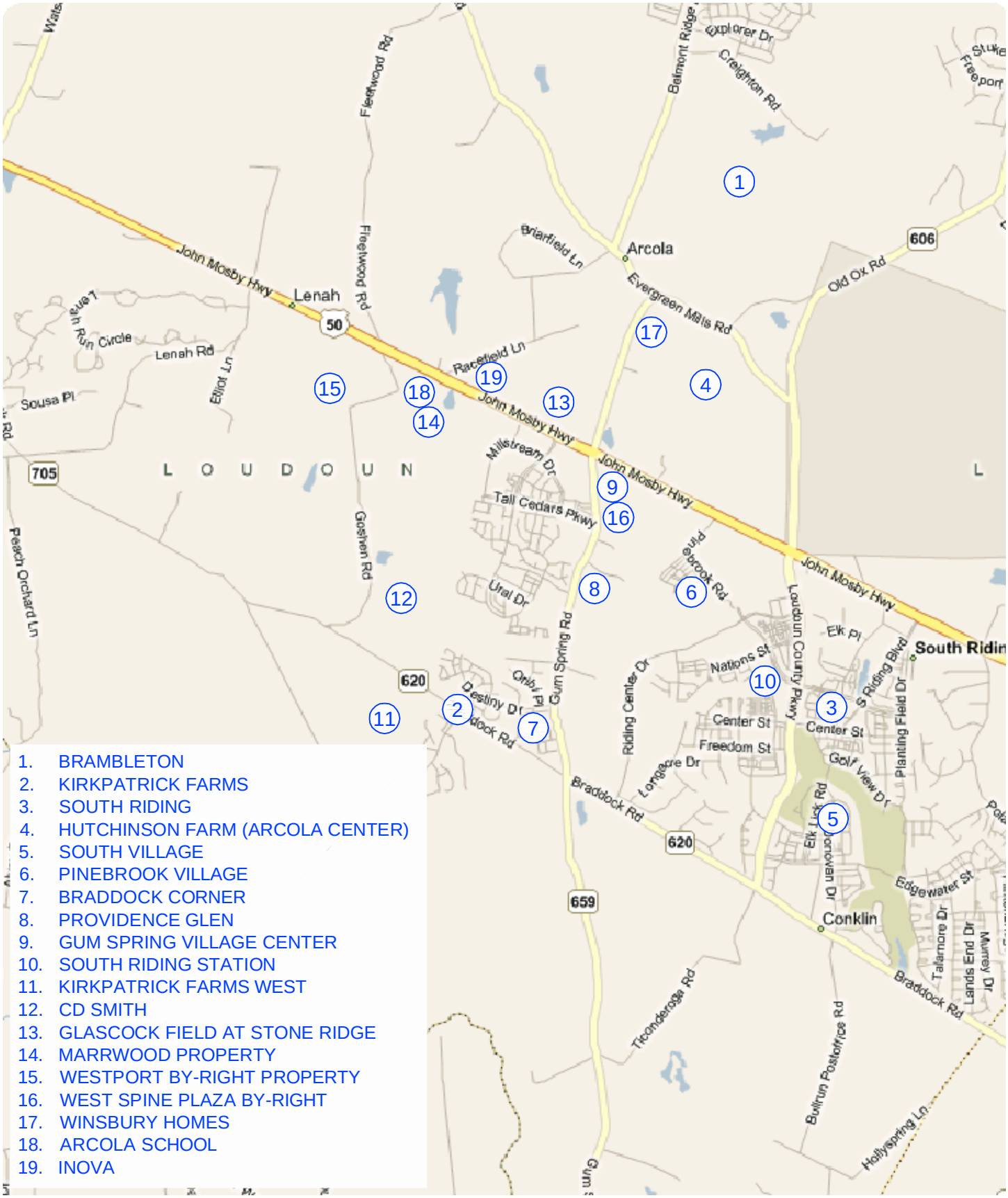

Figure 5
Location of Other Developments

North

Stone Ridge Commercial
Loudoun County, Virginia

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JCP

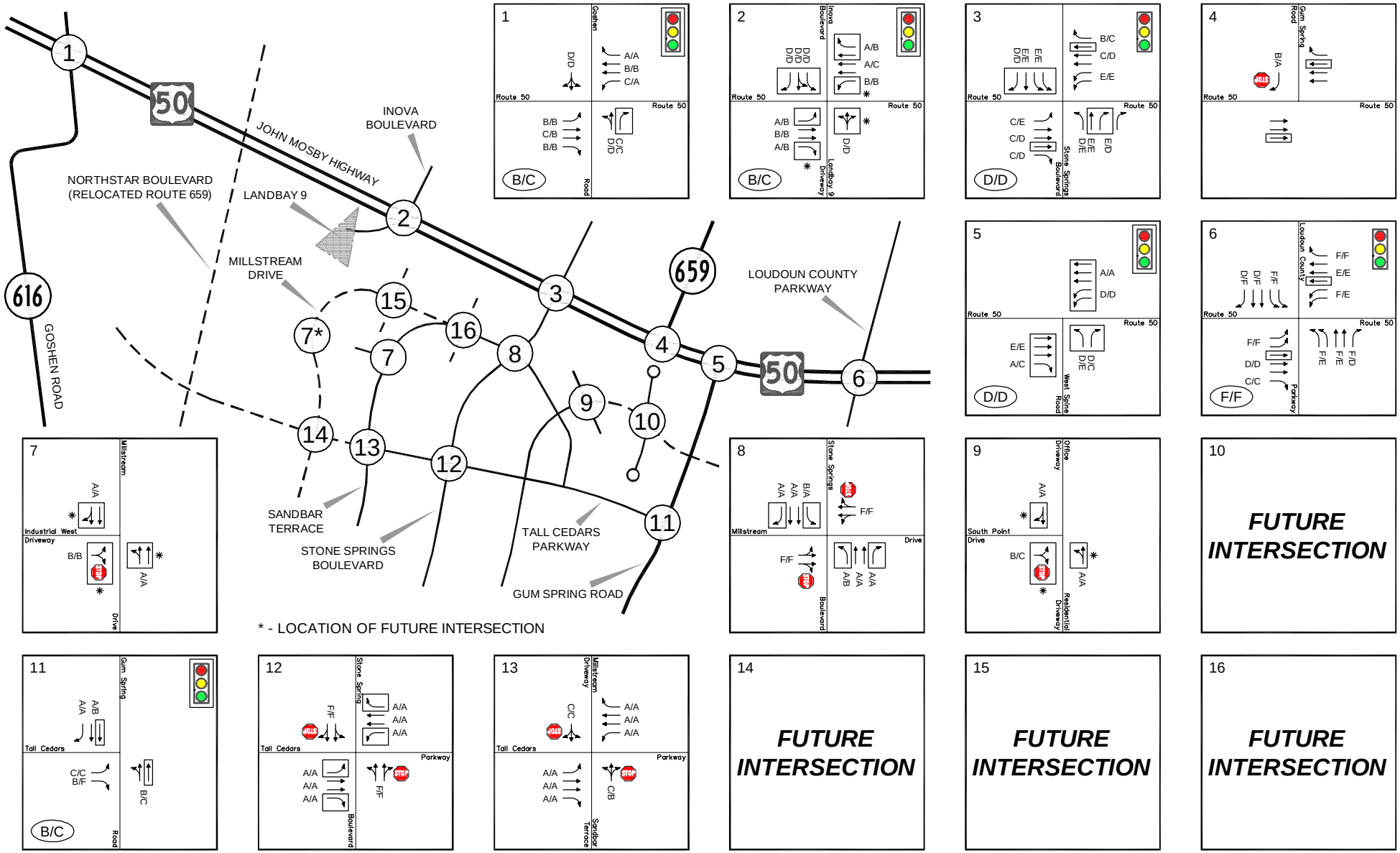


Figure 6
Future Approved Lane Use and Traffic Control and Peak Hour Levels of Service

X/X Levels of Service
(X/X) Overall Levels of Service
Proffered Improvement
* Site Improvement
Represents One Travel Lane
Signalized Intersection
Stop Sign
North

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

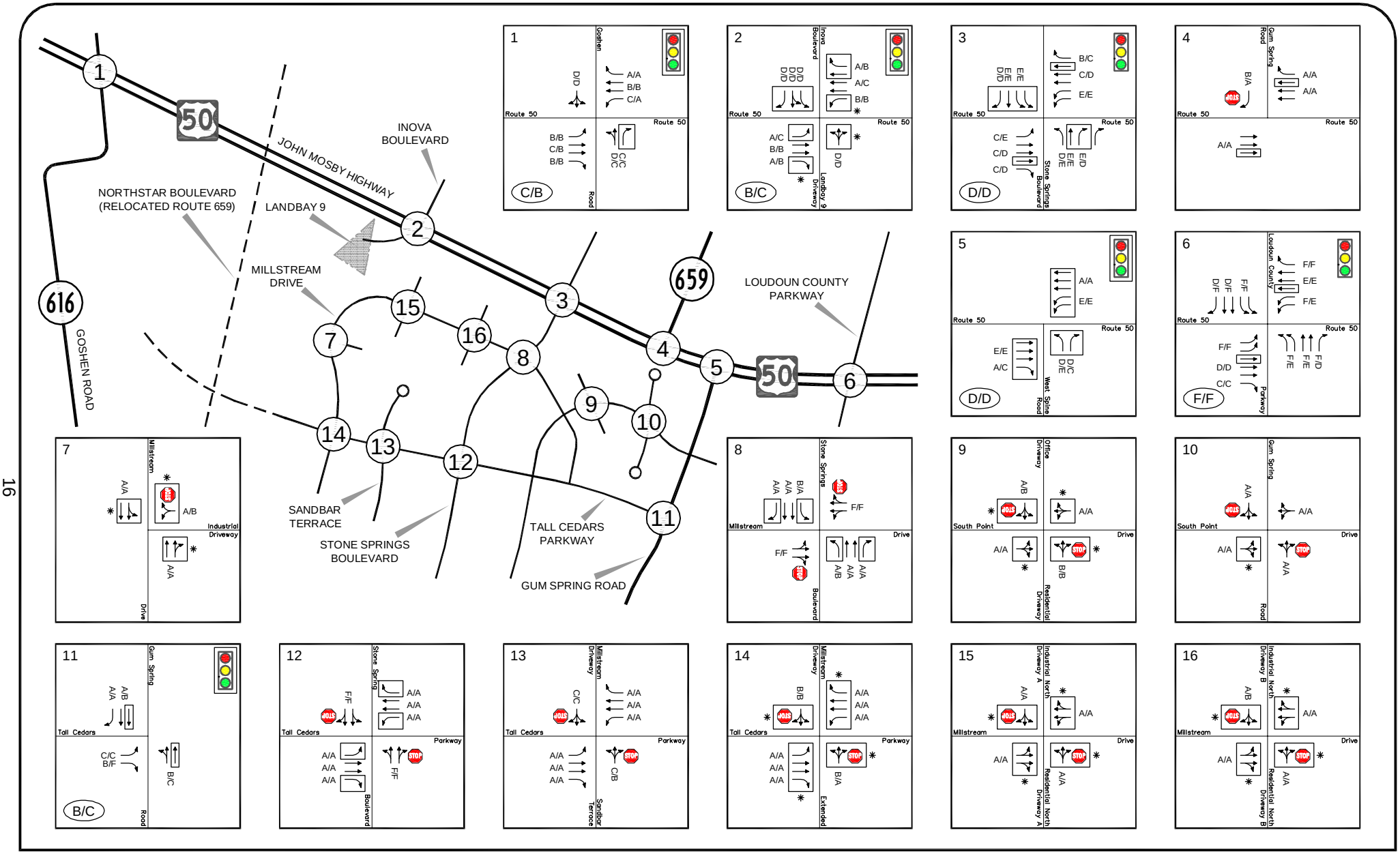


Figure 7
Future Proposed Lane Use and Traffic Control and Peak Hour Levels of Service

X/X Levels of Service
(X/X) Overall Levels of Service
Proffered Improvement
Site Improvement
Represents One Travel Lane
Signalized Intersection
Stop Sign
North

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

Site Trip Generation Analysis and Comparison

Stone Ridge Commercial would modify, rezone, or expand land parcels within the property that would result in a net nominal increase of 2,424 S.F. of commercial space. This would be achieved by increasing general office space by 115,508 S.F. and reducing light industrial space by 113,084 S.F. The total number of approved residential units (3,265) would remain as currently approved.

The number of net new vehicle trips that would be generated by the proposed development program changes was calculated by comparing the existing and proposed programs for Stone Ridge using the standard rates and equations published by the Institute of Transportation Engineers (ITE) Seventh Edition Manual.

Adjustments were made internal trips, transportation demand management measures, and passby trips, based on previously approved studies for Stone Ridge.

As shown in Table 3, the approved development program for Stone Ridge uses would generate 2,530 trips (1,231 in and 1,299 out) during the AM peak hour, 2,896 trips, (1,404 in and 1,492 out) during the PM peak hour, and 39,327 daily (24-trips).

The proposed development program would generate 2,601 trips (1,296 in and 1,305 out) during the AM peak hour, 2,934 trips, (1,408 in and 1,526 out) during the PM peak hour, and 39,658 daily (24-trips), as shown on Table 4. The proposed program has minimal impact on peak hour, peak direction trips since the shift in development density is proposed to be employment uses. The proposed development program would add only six (6) more outbound vehicle trips during the morning peak hour and only four (4) more inbound vehicle trips during the evening peak hour. The largest increase in peak hour vehicles (66 vehicles) would be realized for inbound traffic during the morning peak and outbound vehicles (34 vehicles) during the evening peak that is counter to peak commuter traffic flows.

A comparison of the approved and proposed development programs is summarized on Table 5 and the attached chart, and indicate that the proposed program would generate 71 (or 3.0 percent) *more* trips during the AM peak hour, and 38 (or 1.0 percent *more* trips during the PM peak hour. A total of 331 (or 1.0 percent) *more* trips would be generated on a 24-hour basis.

Table 3
Stone Ridge Commercial
Stone Ridge Trip Generation Summary-Approved Program **(1, 2)**

Land Use	ITE Land Use Code		Amount	Units	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour TOTAL	PM Peak Hour IN	PM Peak Hour OUT	PM Peak Hour TOTAL	Average Daily Traffic **(3)**
Residential											
Single-Family Detached	210		853	DU	152	455	607	465	273	738	8,530
Townhouse/Condominium	230		1,741	DU	86	422	508	419	207	626	15,147
Multi-Family	220		671	DU	67	266	333	251	135	387	4,183
Residential Subtotal			3,265	DU	305	1,142	1,447	1,135	615	1,750	27,860
Reduction for TDM (AM/PM) **(4)**	10%	10%			-	114	114	114	-	114	228
Internal to Office (AM/PM)	4%	8%			12	46	58	91	49	140	2,229
Internal to Retail (AM/PM)	1%	11%			6	10	16	104	96	201	2,154
Internal to Middle School	12%	3%			81	99	180	22	24	45	486
Internal to Elementary School	9%	0%			58	70	128	-	-	-	452
Internal to Library	0.2%	1%			1	2	2	6	6	12	95
Internal to Rec Center (North)	1%	1%			5	8	13	9	4	13	183
Internal to Rec Center (South)	0%	0%			1	2	3	2	1	3	46
Internal to Church	0%	0%			1	1	2	1	1	2	23
Internal to Day Care	3%	2%			18	20	38	21	19	40	238
Net New Residential Trips					122	771	893	766	416	1,182	21,728
Employment											
General Office (inside Stone Ridge)	710		227,167	S.F.	318	43	362	57	277	333	2,509
General Office (added Land Bay 9)	710		55,390	S.F.	103	14	117	24	117	141	846
Total Office			282,557	S.F.	421	57	479	81	393	474	3,355
General Industrial (Industrial Park)	130		109,250	S.F.							
General Industrial (Industrial Park)	130		461,000	S.F.							
General Industrial (Industrial Park) Total			570,250	S.F.	323	71	394	101	380	481	3,576
Employment Subtotal (excludes Land Bay 9)			797,417	S.F.	641	114	756	158	657	814	6,085
Reduction for TDM (AM/PM) **(4)**	10%	10%			64	-	64	-	66	66	130
Internal to Residential (AM/PM)	8%	17%			46	12	58	49	91	140	1,046
Internal to Retail (AM/PM)	1%	6%			6	10	16	70	64	134	365
Internal to Day Care (AM/PM)	5%	5%			18	20	38	21	19	40	238
Net New Employment Trips					507	72	580	18	417	435	4,306
Retail											
Retail	820		316,378	G.S.F.	191	122	312	643	696	1,339	14,357
New Trips	80%	75%			143	91	234	386	418	803	8,614
Pass-by (AM/PM) **(5)**	15%	15%			29	18	47	96	104	201	2,154
Internal to Residential (AM/PM) **(6)**	5%	15%			10	6	16	96	104	201	2,154
Internal to Office (AM/PM) **(6)**	5%	10%			10	6	16	64	70	134	1,436
School											
Middle School	522		1,200	Students	396	324	720	94	86	180	1,944
Internal from Residential (AM/PM) **(7)**	25%	25%			99	81	180	24	22	45	486
Net New Middle School Trips					297	243	540	71	65	135	1,458
Elementary School	520		700	Students	140	115	255	-	-	-	903
Internal from Residential (AM/PM)	50%	50%			70	58	128	-	-	-	452
Net New Elementary School Trips					70	58	128	-	-	-	452
Ancellary Uses											
Library	590		40,000	S.F.	34	13	47	115	125	240	1,898
Internal from Residential (AM/PM)	5%	5%			2	1	2	6	6	12	95
Net New Library Trips					32	12	45	109	119	228	1,803
Recreation Center (North)	495		8,000	S.F.	8	5	13	4	9	13	183
Internal from Residential (AM/PM) **(8)**	100%	100%			8	5	13	4	9	13	183
Net New Rec Center Trips					-	-	-	-	-	-	-
Recreation Center (South)	495		2,000	S.F.	2	1	3	1	2	3	46
Internal from Residential (AM/PM) **(8)**	100%	100%			2	1	3	1	2	3	46
Net New Rec Center Trips					-	-	-	-	-	-	-
Church	560		50,000	S.F.	19	17	36	17	16	33	456
Internal from Residential (AM/PM) **(8)**	5%	5%			1	1	2	1	1	2	23
Net New Church Trips					18	16	34	16	15	31	433
Day Care	565		12,000	S.F.	81	72	153	74	84	158	951
Internal from Residential (AM/PM) **(8)**	25%	25%			20	18	38	19	21	40	238
Internal from Office (AM/PM) **(8)**	25%	25%			20	18	38	19	21	40	238
Net New Day Care Trips					41	36	77	37	42	79	476
County Park	412		25	Acres	-	0	0	1	1	2	58
Internal from Residential (AM/PM) **(8)**	0%	0%			-	-	-	-	-	-	-
Net New Rec Center Trips					-	0	0	1	1	2	58
Total Approved Site Trip Generation					**1,231**	**1,299**	**2,530**	**1,404**	**1,492**	**2,896**	**39,327**

Notes: (1) Trip generation based on Institute of Transportation Engineers Trip Generation, 7th Edition, consistent with previous studies.
(2) Development densities based on site plans provided by Urban Engineering and include Land Bay 9.
(3) Average Daily Traffic for SFDU 10/D.U. and SFA of 8.7/D.U. based on County rate.
(4) Transportation Systems Management (TSM) reduction applied to peak hour, peak direction trips as assumed in original 1995 and August 2005 traffic studies.
(5) Pass-by rate utilized by VDOT and assumed in original 1995 and August 2005 traffic studies.
(6) Rate based on original June 1995 traffic study.
(7) Rate based on information provided by Loudoun County Public Schools.
(8) Rate based on information provided by Van Metre Companies.

Table 4
Stone Ridge Commercial
Stone Ridge Trip Generation Summary-Proposed Program **(1, 2)**

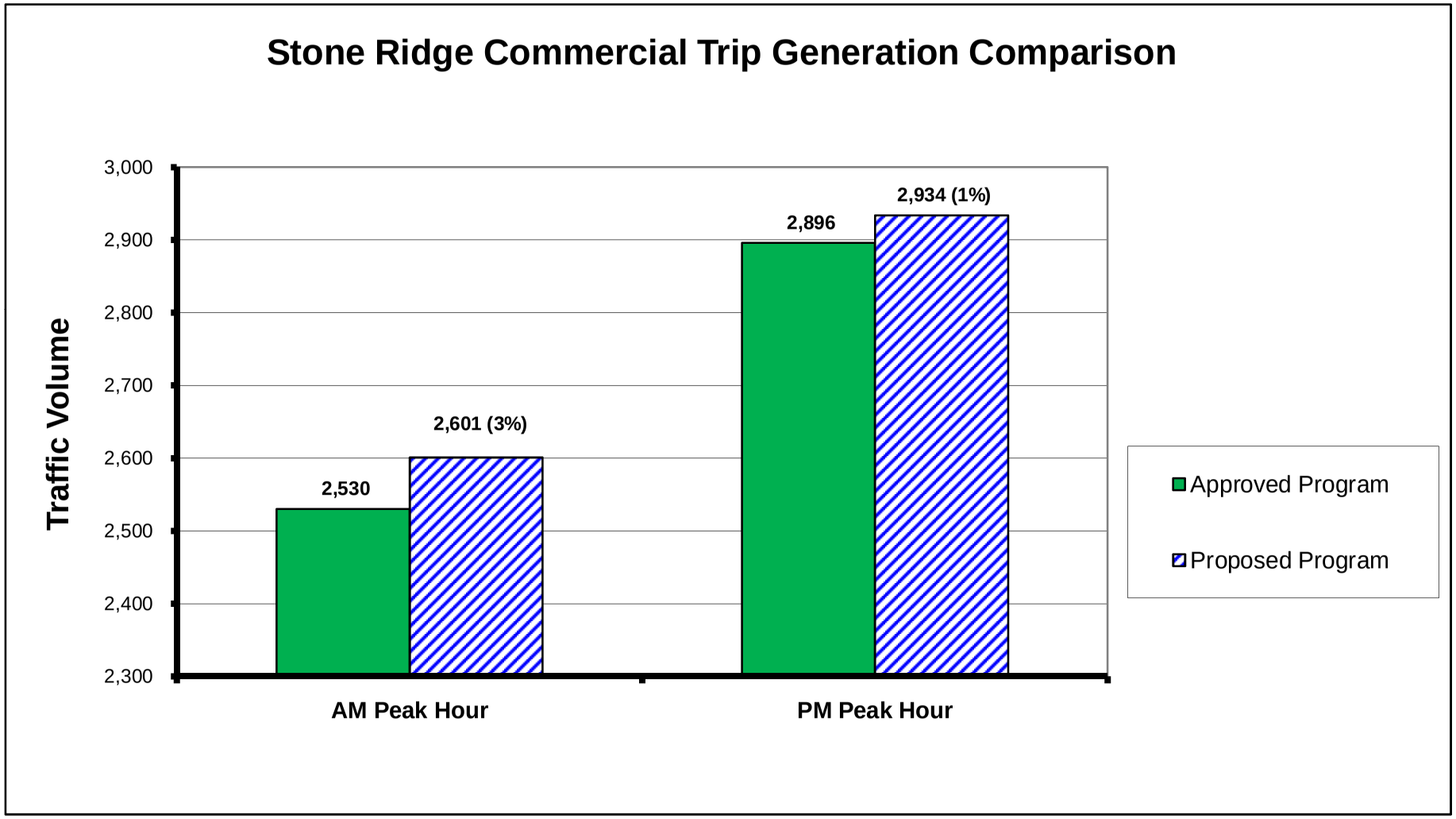
Land Use	ITE Land Use Code		Amount	Units	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour TOTAL	PM Peak Hour IN	PM Peak Hour OUT	PM Peak Hour TOTAL	Average Daily Traffic **(3)**
Residential											
Single-Family Detached	210		853	DU	152	455	607	465	273	738	8,530
Townhouse/Condominium	230		1,741	DU	86	422	508	419	207	626	15,147
Multi-Family	220		671	DU	67	266	333	251	135	387	4,183
Residential Subtotal			3,572	DU	305	1,142	1,447	1,135	615	1,750	27,860
Reduction for TDM (AM/PM) **(4)**	10%	10%			-	114	114	114	-	114	228
Internal to Office (AM/PM)	4%	8%			12	46	58	91	49	140	2,229
Internal to Retail (AM/PM)	1%	11%			6	10	16	104	96	201	2,154
Internal to Middle School	12%	3%			81	99	180	22	24	45	486
Internal to Elementary School	9%	0%			58	70	128	-	-	-	452
Internal to Library	0.2%	1%			1	2	2	6	6	12	95
Internal to Rec Center (North)	1%	1%			5	8	13	9	4	13	183
Internal to Rec Center (South)	0%	0%			1	2	3	2	1	3	46
Internal to Church	0%	0%			1	1	2	1	1	2	23
Internal to Day Care	3%	2%			18	20	38	21	19	40	238
Net New Residential Trips					122	771	893	766	416	1,182	21,728
Employment											
General Office (inside Stone Ridge)	710		342,675	S.F.	442	60	502	79	384	463	3,444
General Office (added Land Bay 9)	710		55,390	S.F.	103	14	117	24	117	141	846
Total Office			398,065	S.F.	545	74	619	103	501	603	4,290
General Industrial (Industrial Park)	130		111,675	S.F.							
General Industrial (Industrial Park)	130		345,491	S.F.							
General Industrial (Industrial Park) Total			457,166	S.F.	272	60	332	83	311	394	3,015
Employment Subtotal (excludes Land Bay 9)			799,841	S.F.	714	120	834	162	695	857	6,459
Reduction for TDM (AM/PM) **(4)**	10%	10%			71	-	71	-	70	70	141
Internal to Residential (AM/PM)	7%	16%			46	12	58	49	91	140	1,056
Internal to Retail (AM/PM)	1%	6%			6	10	16	70	64	134	388
Internal to Day Care (AM/PM)	5%	5%			18	20	38	21	19	40	238
Net New Employment Trips					573	78	651	22	452	474	4,637
Retail											
Retail	820		316,378	G.S.F.	191	122	312	643	696	1,339	14,357
New Trips	80%	75%			143	91	234	386	418	803	8,614
Pass-by (AM/PM) **(5)**	15%	15%			29	18	47	96	104	201	2,154
Internal to Residential (AM/PM) **(6)**	5%	15%			10	6	16	96	104	201	2,154
Internal to Office (AM/PM) **(6)**	5%	10%			10	6	16	64	70	134	1,436
School											
Middle School	522		1,200	Students	396	324	720	94	86	180	1,944
Internal from Residential (AM/PM) **(7)**	25%	25%			99	81	180	24	22	45	486
Net New Middle School Trips					297	243	540	71	65	135	1,458
Elementary School	520		700	Students	140	115	255	-	-	-	903
Internal from Residential (AM/PM)	50%	50%			70	58	128	-	-	-	452
Net New Elementary School Trips					70	58	128	-	-	-	452
Ancellary Uses											
Library	590		40,000	S.F.	34	13	47	115	125	240	1,898
Internal from Residential (AM/PM)	5%	5%			2	1	2	6	6	12	95
Net New Library Trips					32	12	45	109	119	228	1,803
Recreation Center (North)	495		8,000	S.F.	8	5	13	4	9	13	183
Internal from Residential (AM/PM) **(8)**	100%	100%			8	5	13	4	9	13	183
Net New Rec Center Trips					-	-	-	-	-	-	-
Recreation Center (South)	495		2,000	S.F.	2	1	3	1	2	3	46
Internal from Residential (AM/PM) **(8)**	100%	100%			2	1	3	1	2	3	46
Net New Rec Center Trips					-	-	-	-	-	-	-
Church	560		50,000	S.F.	19	17	36	17	16	33	456
Internal from Residential (AM/PM) **(8)**	5%	5%			1	1	2	1	1	2	23
Net New Church Trips					18	16	34	16	15	31	433
Day Care	565		12,000	S.F.	81	72	153	74	84	158	951
Internal from Residential (AM/PM) **(8)**	25%	25%			20	18	38	19	21	40	238
Internal from Office (AM/PM) **(8)**	25%	25%			20	18	38	19	21	40	238
Net New Day Care Trips					41	36	77	37	42	79	476
County Park	412		25	Acres	-	0	0	1	1	2	58
Internal from Residential (AM/PM) **(8)**	0%	0%			-	-	-	-	-	-	-
Net New Rec Center Trips					-	0	0	1	1	2	58
Total Approved Site Trip Generation					**1,296**	**1,305**	**2,601**	**1,408**	**1,526**	**2,934**	**39,658**

Notes: (1) Trip generation based on Institute of Transportation Engineers Trip Generation, 7th Edition.
(2) Development densities based on site plans provided by Urban Engineering and include Land Bay 9.
(3) Average Daily Traffic for SFDU 10/D.U. and SFA of 8.7/D.U. based on County rate.
(4) Transportation Systems Management (TSM) reduction applied to peak hour, peak direction trips as assumed in original 1995 and August 2005 traffic studies.
(5) Pass-by rate utilized by VDOT and assumed in original 1995 and August 2005 traffic studies.
(6) Rate based on original June 1995 traffic study.
(7) Rate based on information provided by Loudoun County Public Schools.
(8) Rate based on information provided by Van Metre Companies.

Table 5
Stone Ridge Commercial
Trip Generation Comparison

Program	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Traffic
Approved Program	1,231	1,299	2,530	1,404	1,492	2,896	39,327
Proposed Program	1,296	1,305	2,601	1,408	1,526	2,934	39,658
Difference	66	6	71	4	34	38	331
Percentage	**5%**	**0%**	**3%**	**0%**	**2%**	**1%**	**1%**

Notes: (1) Trip generation based on Institute of Transportation Engineers Trip Generation, 7th Edition.



Wells + Associates, Inc.
McLean, Virginia

Trip Distribution Analysis

The distribution of external peak hour trips generated by Stone Ridge Commercial was determined based on previous traffic studies. Separate distributions were developed for the residential, employment, retail, and civic uses, consistent with previously approved studies. These distributions were used to apply the site-generated trips to the planned road network. The external and internal trip assignments between the various land bays within Stone Ridge were is contained in Appendices E and F.

Future Traffic Forecasts

Overview. Future forecasts for 2015 were developed to reflect the currently approved and proposed development programs for Stone Ridge. These volumes are based on a composite of existing volumes; traffic generated by the 19 other area developments and regional growth factors. The resultant traffic volume forecasts and daily traffic volume estimates are shown on Figures 8 and 9.

Future Levels of Service

Overview. Future peak hour levels of service with the approved and proposed development programs of Stone Ridge were estimated at the key intersections in the study area for 2015 buildout conditions. The calculations were based on the future lane usage and traffic controls shown on Figures 6 and 7 that include planned improvements and current and proposed proffers and the Highway Capacity Manual methodology, in accordance with the FSM guidelines. The results are summarized on Table 2 and presented in Appendices G and H.

The results indicate the following:

Approved Program

1. Assuming the improvements currently planned by others are installed, that include a new traffic signal and turn lanes, the U.S. Route 50/Goshen Road intersection would operate acceptable levels of service in 2015 during both the AM and PM peak hour.

2. The proposed driveway on U.S. Route 50 serving Land Bay 9 would require separate left and right turn lanes in accordance with the CTP and VDOT requirements. Assuming improvements planned by others, this intersection would operate at acceptable levels of service during both the AM and PM peak hours.

3. Based on the planned improvements, the U.S. Route 50/Stone Springs Boulevard intersection is projected to operate at overall acceptable levels of service (at LOS "D")

during both the AM and PM peak hours, with some individual movements operating at LOS "E". This assumes the extension of Stone Springs Boulevard to the north and the modification of the northbound approach.

4. The right turning movements at the converted U.S. Route 50/Route 659 intersection to right-in/right-out only are forecasted to operate at acceptable levels of service during both the AM and PM peak hours.

5. The relocated signalized U.S. Route 50/West Spine Road intersection would operate at acceptable levels of service during the AM and PM peak hours.

6. The U.S. Route 50/Loudoun County Parkway (Route 606) intersection would operate beyond capacity during both peak periods.

7. The anticipated traffic signal at the Route 659 (West Spine Road)/Tall Cedars Parkway intersection would operate at acceptable levels of service during both the AM and PM peak hours.

8. All of the turning movements at the access to Land Bay 7 on Millstream Drive would operate at acceptable levels of service under stop sign control.

9. All of the turning movements at the South Point Drive access to the office and residential Land Bays FF1A and FF2B would operate at acceptable levels of service under stop sign control.

10. All of the turning movements at the Millstream Drive/Sandbar Terrace/Tall Cedars Parkway intersection would operate at acceptable levels of service under stop sign control.

Proposed Program

Future peak hour intersection levels of service with the proposed Stone Ridge Commercial development program were estimated at the key intersections in the study area based on the future lane usage and traffic control shown on Figure 7 and the Highway Capacity Manual methodology. The results are presented in Appendix J and summarized in Table 2.

The results for future conditions, with the Stone Ridge Commercial program, are consistent with those realized under approved conditions since the number of additional peak hour trips that would be added to the road network is minimal. The proposed development program would result in minor decreases in delay at some intersections, primarily due to the extension of South Point Drive (formerly Canary Grass Court). Other intersections would realize minimal increases in peak hour delay with the proposed program. It is noted that the fluctuations in delay at these signalized intersections are within approximately three (3.0) seconds that is not perceivable by motorists.

The internal intersections identified for future traffic signals under approved conditions would continue to apply with the Stone Ridge Commercial program. All of the minor intersections would operate adequately under stop sign control.

The proposed internal road network changes within Stone Ridge, including the extension of South Point Drive and Millstream Drive would better serve the planned employment uses, reduce commercial and heavy vehicle traffic along Tall Cedars Parkway, provide a future connection to the West Spine Road and allow residents of the community to access commercial uses without traveling on U.S. Route 50.

Stone Ridge has made a number of roadway improvements in order to accommodate the currently approved development program that includes new traffic signals, lane improvements, and Transportation Demand Management (TDM) measures to mitigate the impacts of the development and improve mobility in the Dulles South area. The additional transportation proffers associated with this change in development program would more than adequately offset the minimal increase in peak hour trips associated with the zoning change.

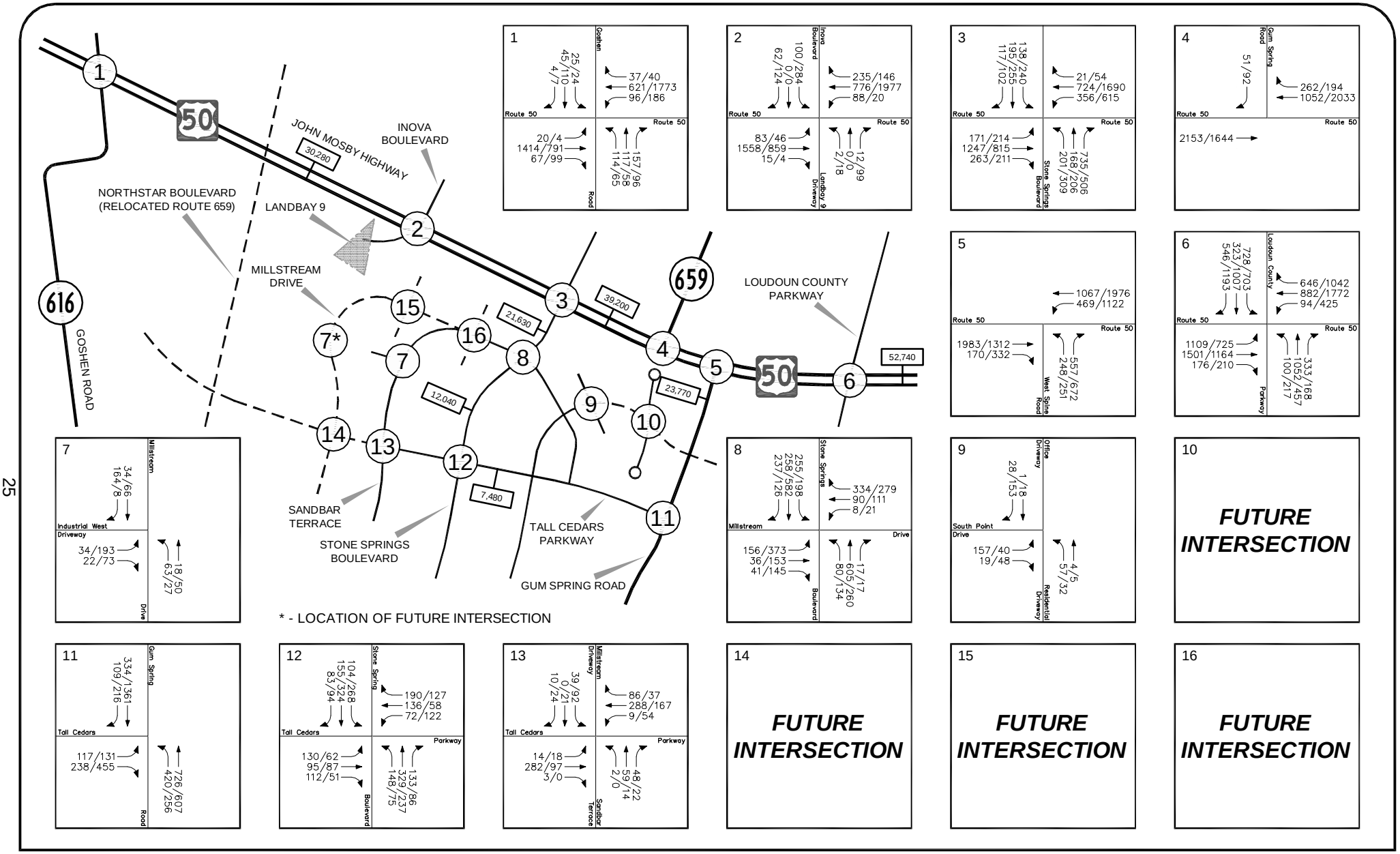


Figure 8
2015 Future Approved Traffic Forecasts

ADT Average Daily Trips

AM PEAK HOUR
PM PEAK HOUR
000/000

North

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

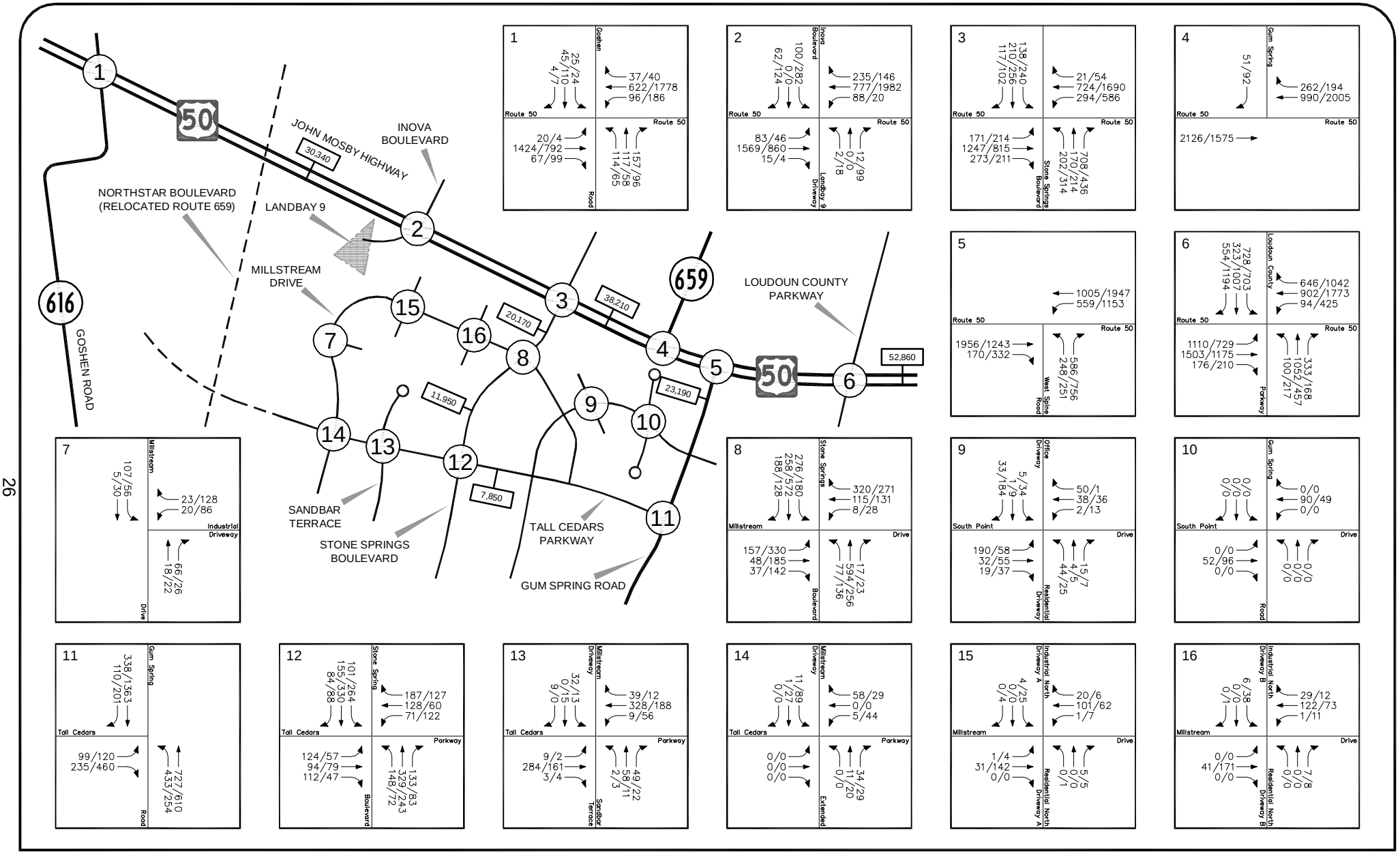


Figure 9
2015 Future Proposed Traffic Forecasts

ADT Average Daily Trips

AM PEAK HOUR
PM PEAK HOUR
000/000

North

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

2030 Loudoun County Model Analysis

As recently adopted by Loudoun County, a review of the traffic forecasts contained in the 2030 traffic volume model was prepared as part of the long-range analysis procedure to assess buildout plus 10-year conditions. The Viper model information was provided by OTS staff for the roadway links adjacent to Stone Ridge and reflect the 2030 average daily (24-hour) volume forecasts for these facilities. The model volumes reflect the Round 7.0 Land Use data and the currently adopted Countywide Transportation Plan (CTP). A summary of the volumes is shown on Figure 10.

The traffic model is being used on a macro basis to update and evaluate the current CTP and as a tool to assess development proposals under long-range conditions. The traffic model includes several planned roadway connections, and compares the volume forecasts to general roadway cross sections for capacity purposes. The modification and refinement of this model is on-going.

Figure 10
2030 Average Daily Traffic Forecasts
From Loudoun County Model

North

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JGP

Stone Ridge Commercial
Loudoun County, Virginia

Wells + Associates, Inc.

Conclusions

The purpose of this traffic study has been to identify the roadway impacts of the Stone Ridge Commercial project. The conclusions are summarized below.

1. Several of the signalized intersections on U.S. Route 50 at Stone Springs Boulevard, Route 659, and Route 606 currently operate near or at capacity during the AM and PM peak hours. The turning movements at unsignalized locations within Stone Ridge operate at acceptable levels of service.

2. Stone Ridge proposes to rezone and/or modify land parcels within the site that would result in a net nominal increase of 2,424 S.F. of commercial space. This would be achieved by increasing general office space by 115,508 S.F. and reducing light industrial space by 113,084 S.F. The total number of approved residential units (3,265 D.U.) would remain as currently approved.

3. The proposed development program changes for Stone Ridge Commercial would have minimal effect on peak hour trips. The proposed development program would generate 71 (or 3.0 percent) *more* trips during the AM peak hour, and 38 (or 1.0 percent *more* trips during the PM peak hour. A total of 331 (or 1.0 percent) *more* trips would be generated on a 24-hour basis. In addition, the proposed program would have less impact on the peak hour, peak direction trips since the shift in development density is proposed to be employment uses. The majority of additional trips generated by the site would be added in the reverse direction of the peak commuter traffic flow, minimizing its impact to the road network.

4. The future capacity analyses indicate that the majority of major intersections on U.S. Route 50 would operate at acceptable levels of service with or without the development program changes proposed within Stone Ridge. The net increase in vehicle trips would have minimal impact to the overall levels of service and delays at regional intersections. Adequate levels of service would be provided at all of the intersections internal to the site under both approved and proposed buildout conditions.

5. The road network changes proposed in conjunction with the Stone Ridge Commercial development program include:

    - The extension of South Point Drive from Millstream Drive to existing Gum Spring Road (VA Route 659) and the future West Spine Road.

    - Intersection improvements to include a new traffic signal and turn lanes at the West Spine Road/U.S. Route 50 intersection through existing Stone Ridge proffers.

    - A new site driveway to Land Bay 9 from U.S. Route 50 opposite the planned access to the Inova property.

- Realignment of Millstream Drive west of Stone Springs Boulevard to access Land Bay 7 and connect to Tall Cedars Parkway west of the residential areas.

- Construction of the two eastern lanes of North Star Boulevard (Relocated Route 659) within the Stone Ridge property from Tall Cedars Parkway to the south site boundary. Reservation of adequate right-of-way for the ultimate six-lane section.

6. The roadway network changes and transportation proffers associated with the Stone Ridge Commercial program would mitigate site traffic impacts and benefit residents of Stone Ridge and the public by:

    - Providing enhanced access to the existing retail and planned employment uses.

    - Reducing the amount commercial and heavy vehicle traffic along Tall Cedars Parkway.

    - Allowing residents of the community to access commercial uses within Stone Ridge and adjacent development parcels without traveling on U.S. Route 50.

    - Providing alternative access to the West Spine Road.

Questions regarding this document should be directed to Wells + Associates.

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APPENDIX A

SUMMARY OF OTS AND VDOT COMMENTS

County of Loudoun

Office of Transportation Services

MEMORANDUM

RECEIVED
OCT 11 2006
PLANNING DEPARTMENT

DATE: October 10, 2006

TO: Stephen Gardner, Project Manager
Department of Planning

FROM: Lou Mosurak, AICP, Senior Transportation Planner *Lm*

THROUGH: Art Smith, Senior Coordinator

SUBJECT: **ZMAP 2006-0011, ZCPA 2006-0003—Stone Ridge Commercial**
First Referral

Background

This rezoning application proposes changes to the approved Stone Ridge development that would result in a net increase of 307 multi-family residential dwelling units and roughly 4,000 additional sq ft of non residential uses (i.e., an increase of approximately 428,000 sq ft of office uses (PD-OP) and elimination of approximately 424,000 sq ft of light industrial uses (PD-IP) from currently approved plans (ZMAP 2002-0013 & ZCPA 2002-0004)). A summary of these proposed land use changes is provided as *Attachment 1*. Areas included in the subject application are located at two locations within the northern portion of Stone Ridge: (1) in the southwest quadrant of the intersection of Gum Spring Road (Existing Route 659) and John Mosby Highway (U.S. Route 50) and (2) west of Stone Springs Boulevard and north of Tall Cedars Parkway. A vicinity map is provided as *Attachment 2*. Changes to the existing intersection of Existing Route 659 and U.S. Route 50 as well as a significant realignment of Millstream Drive are proposed as part of this rezoning. In its consideration of this application, OTS reviewed materials received from the Department of Planning on August 7, 2006, including (1) a traffic impact study prepared by Wells & Associates, LLC, dated July 19, 2006; (2) a rezoning plan set (including a concept development plan (CDP)) prepared by Urban Engineering & Associates, Inc., dated April 7, 2006; and (3) approved Stone Ridge proffers and plan sets from ZMAP 1994-0017 and ZMAP 2002-0013.

Existing, Planned and Programmed Roads

U.S. Route 50 is currently a four- to six-lane median divided minor arterial with controlled access. The Revised Countywide Transportation Plan (Revised CTP) designates the ultimate condition of this segment of Route 50 (from Tall Cedars Parkway west to Route 659 Relocated) as a six-lane, median divided principal arterial limited access facility (R6M) in a 200-foot right-of-way. Grade-separated interchanges are planned at a number of locations, including the West Spine Road (east of this site) and Route 659 Relocated (west of this site). All at-grade access is planned to be terminated. A third eastbound lane of Route 50 from the

West Spine Road east to Loudoun County Parkway was proffered as part of a previous Stone Ridge rezoning (ZMAP 2002-0013), and construction plans and profiles for this improvement are currently under review (CPAP 2006-0061). As currently proffered, construction of this improvement is scheduled to commence prior to issuance of the first zoning permit for residential units in Stone Ridge that are located west of the power lines (approved as part of ZMAP 2002-0013). Construction of a third westbound lane is being considered as part of other pending rezoning applications along the north side of Route 50.

Tall Cedars Parkway (the Route 50 South Collector Road) is currently a four-lane divided (U4M) major collector. In the vicinity of this site, it is currently constructed from its intersection with Gum Spring Road (Existing Route 659) west to the intersection with Millstream Drive (west of Tall Cedars Parkway). Tall Cedars is also constructed as a four-lane divided section within South Riding. Additional construction of Tall Cedars Parkway has been proffered to the east of South Riding as part of the approved East Gate rezoning, and to the west of South Riding as part of the approved Pinebrook Village (Avonlea) and Avonlea Plaza rezonings. The ultimate condition of Tall Cedars Parkway is a six-lane divided (U6M) major collector. Currently, there are no proffers to build the segment of Tall Cedars to the east of Stone Ridge (between Gum Spring Road and Pinebrook Road).

Gum Spring Road (Existing Route 659) is currently a two-lane undivided major collector road (R2). Ultimately, the Revised CTP envisions the segment of Gum Spring Road between Tall Cedars Parkway and Arcola to become a local road once the West Spine Road is constructed along a separate alignment. The Revised CTP calls for Gum Spring Road to be closed (and cul-de-sacs installed) both north and south of Route 50 once the West Spine Road is in place. The existing Gum Spring Road/Route 50 intersection is signalized and, according to the Applicant's traffic study, operates at an unacceptable level of service (LOS E) during the AM peak hour. Other recent traffic studies (e.g., Arcola Center), however, show that this intersection operates at LOS F during both the AM and PM peak hours.

West Spine Road will eventually replace existing Gum Spring Road (Existing Route 659) to the north of Tall Cedars Parkway. South of Tall Cedars Parkway, the West Spine Road generally follows the alignment of existing Route 659 and will be expanded to a four-lane (and ultimately a six-lane) divided major collector. North of Tall Cedars Parkway, the West Spine Road is planned to follow a new alignment slightly to the east of existing Gum Spring Road and will intersect Route 50 at a point approximately 1,000 feet east of the existing Gum Spring Road/Route 50 intersection. The Revised CTP depicts an interchange at this new intersection. To the north of Route 50, the West Spine Road is planned to continue north and join existing Route 606 at a near the existing location of the Route 606/Route 842 intersection. There are approved construction plans for the new West Spine Road alignment between Tall Cedars Parkway and Route 50, but right-of-way has not yet been acquired. Constructions plans have also been approved for a four-lane section of this road (i.e., the West Spine Road/Existing Gum Spring Road) between Braddock Road and Tall Cedars Parkway.

Stone Springs Boulevard is a four-lane divided local road which functions as the main north-south road through Stone Ridge. It is a four-lane divided facility with a signalized intersection

at Route 50. This intersection functions at an acceptable LOS (LOS D) during both the AM and PM peak hours.

Millstream Drive is a four-lane undivided local road within Stone Ridge, located between Tall Cedars Parkway and Route 50. It currently forms a partial loop within Stone Ridge, intersecting with Tall Cedars Parkway both east and west of Stone Springs Boulevard. The subject application proposes to realign the western segment of Millstream Drive to run east-west between Stone Springs Boulevard and Route 659 Relocated. The segment of Millstream Drive that currently runs north-south to Tall Cedars Parkway (west of Stone Springs Boulevard) would be abandoned.

Trip Generation by Proposed Application

The proposed rezoning would generate approximately 3,246 additional weekday average daily trips (an 8% increase) beyond those generated by the currently approved Stone Ridge development program. This figure includes 255 additional AM peak hour trips (10% increase) and 204 additional PM peak hour trips (7% increase). These figures are illustrated on the trip generation comparison included as *Attachment 3*. The traffic study notes that "the proposed development program would have less impact on the peak hour, peak direction trips since the largest shift in development density is proposed to be to employment uses" (part of Conclusion #2, Page 7). This is evidenced by the figures in *Attachment 3*, which show that a majority of the increased peak hour trips would flow into Stone Ridge in the AM peak and leave Stone Ridge in the PM peak.

Existing Traffic Volumes, Road Network Configuration and Levels of Service

Attachment 4 illustrates existing daily and peak hour traffic volumes and levels of service (LOS) in the vicinity of the subject site. *Attachment 5* shows existing lane use and traffic controls in the vicinity of the subject site. The study notes several unacceptable or failing peak hour LOS conditions for a number of locations included in the study area including the Route 50/Loudoun County Parkway intersection (signalized) as well as certain movements at the Gum Spring Road/Route 50 intersection (signalized). *Attachment 6* (Column 1) summarizes peak hour LOS at all intersections included in the study for existing the existing road network as well as for the currently approved and proposed road network (discussed further below).

Road Network Configuration and Levels of Service for Currently Approved Stone Ridge Development Program (2010)

Attachment 7 illustrates planned lane use and traffic controls in the vicinity of the subject site. This diagram reflects the road network as anticipated under the current Stone Ridge approvals (which are consistent with the adopted Revised CTP) and does not include road network changes proposed as part of the subject application (discussed further below). *Attachment 6* (Column 2) summarizes peak hour LOS at all intersections in the study area as anticipated under current approvals. *Attachment 8* depicts forecasted traffic (2010) on the currently-approved road network (i.e., Gum Spring Road is terminated and cul-de-sacs installed both north and south of Route 50).

Road Network Configuration and Levels of Service for Proposed Stone Ridge Development Program (2010)

Attachment 9 illustrates proposed lane use and traffic controls in the vicinity of the subject site. This diagram reflects modifications to the road network as proposed by the subject application, namely a right-in, right-out only lane configuration at Gum Spring Road and Route 50, and the re-alignment of Millstream Drive to remove its western segment connecting to Tall Cedars Parkway. *Attachment 6* (Column 3) summarizes peak hour LOS at all intersections in the study area as anticipated with the proposed development. *Attachment 10* depicts forecasted traffic (2010) on the proposed road network (i.e., existing Gum Spring Road realigned with Canary Grass Drive and maintains right-in, right-out only movements from eastbound Route 50). Please see the issues below for further discussion of the proposed realignment/reconfiguration of the existing Gum Spring Road/Route 50 intersection.

Transportation Issues

1. The application proposes to realign existing Gum Spring Road to create a T-intersection with a local road (Canary Grass Drive) approximately 300 feet south of the existing Gum Spring Road/Route 50 intersection, and proposes to remove the existing traffic signal and median crossover at the intersection of existing Gum Spring Road and Route 50, creating a right-in, right-out scenario to/from eastbound Route 50. This proposed right-in, right-out configuration is not acceptable as it is inconsistent with the adopted Revised Countywide Transportation Plan (Revised CTP), which calls for the ultimate condition of this segment of Route 50 to be limited access with grade separated interchanges at various locations, including the West Spine Road (approximately 1,000 feet to the east of the proposed right-in, right-out movement). The proposed right-in, right-out movement is not only inconsistent with the limited access policy but would also result in weave/merge conflicts with the future Route 50/West Spine Road interchange. A more acceptable configuration would be to extend Canary Grass Drive to tie into the east-west road (Southpoint Boulevard) approved as part of the adjacent Gum Spring Village Center development, with future access to the West Spine Road south of Route 50. The Applicant should coordinate this connection with Gum Spring Village Center.

2. Issues with right-of-way acquisition and construction of the proposed West Spine Road between Tall Cedars Parkway and Route 50 add additional complications and uncertainty to the interim and ultimate roadway configuration in this area. Although construction plans for a two-lane (northbound) section of the West Spine Road between Tall Cedars Parkway and Route 50 were approved by the County in 2002 (CPAP 2001-0184), no construction has commenced to date. No plans are currently on file for the remaining two (southbound) lanes of the West Spine Road between Route 50 and Tall Cedars Parkway. (Construction plans (CPAP-2002-0189) were approved by the County in 2004 for a four-lane section of Gum Spring Road from Tall Cedars Parkway south to Braddock Road, but no construction has commenced to date). It has been anticipated that existing Gum Spring Road and the West Spine Road would operate as a one-way pair of roads until all four lanes of the West Spine Road are completed between Tall Cedars and Route 50, but such a configuration has not been approved by VDOT. All approved construction plans

show cul-de-sacs at both ends of the segment of existing Gum Spring Road between Tall Cedars Parkway and Route 50 (as envisioned by the currently-approved Stone Ridge development program and the approved Gum Spring Village Center special exception (SPEX 2003-0033, approved in 2004). Based on the anticipated cul-de-sacs at each end of this segment of Gum Spring Road, Gum Spring Village Center (as required by its SPEX condition of approval) has prepared and submitted to the County a traffic signal warrant study for its Southpoint Boulevard entrance onto Gum Spring Road, approximately 600 feet south of Route 50. The study finds that a traffic signal is not warranted at the proposed intersection. Given the situation with the West Spine Road and the likelihood that existing Gum Spring Road will remain open in its current condition for the foreseeable future, OTS strongly disagrees with this conclusion. Additional discussion and coordination on this matter and the overall status of the West Spine Road are necessary.

3. While the Applicant's traffic study indicates that the existing Gum Spring Road/Route 50 signalized intersection operates at LOS E during the AM peak hour, other traffic studies recently submitted to the County (e.g., Arcola Center) indicate that the intersection operates at LOS F during both the AM and PM peak hours. An explanation/clarification of this discrepancy needs to be provided.

4. Proffered improvements to Route 50 committed to as part of the previous Stone Ridge rezoning (ZMAP 2002-0013) should also be included with this proposal as "up front" improvements as the current application is also part of Stone Ridge and would add trips to the Route 50 corridor. These proffers include "up front" construction of the third eastbound lane of Route 50, roughly from Stone Ridge to Loudoun County Parkway (as described in ZMAP 2002-0013, Proffer II.B.3., November 30, 2005 Letter of Clarification), and improvements to the West Spine Road/Route 50 intersection (as described in ZMAP 2002-0013, Proffer II.B.4.(c), October 5, 2005 Proffer Statement).

5. Given existing and forecasted traffic volumes, grade-separated interchanges are an integral part to long-term transportation solutions in the Route 50 Corridor. Currently, a diamond interchange is envisioned at intersection of the West Spine Road and Route 50. The Applicant should provide a fair-share contribution towards this future improvement.

6. Staff has no issues with proposed re-alignment of Millstream Drive, provided that the future east-west segment intersects with Route 659 Relocated at a point sufficiently south of the planned interchange of Route 659 Relocated and Route 50.

7. The inclusion of 307 additional residential units as part of this application appears to be a reversal of Board action taken with the previous Stone Ridge rezoning (ZMAP 2002-0013), in which 216 residential units were eliminated and approximately 200,000 sq ft of non-residential uses were instead retained.

8. An appropriate transit contribution should be provided for the 307 residential units proposed on site.

Conclusion

OTS will offer a recommendation once it has reviewed the Applicant's responses to our comments.

ATTACHMENTS

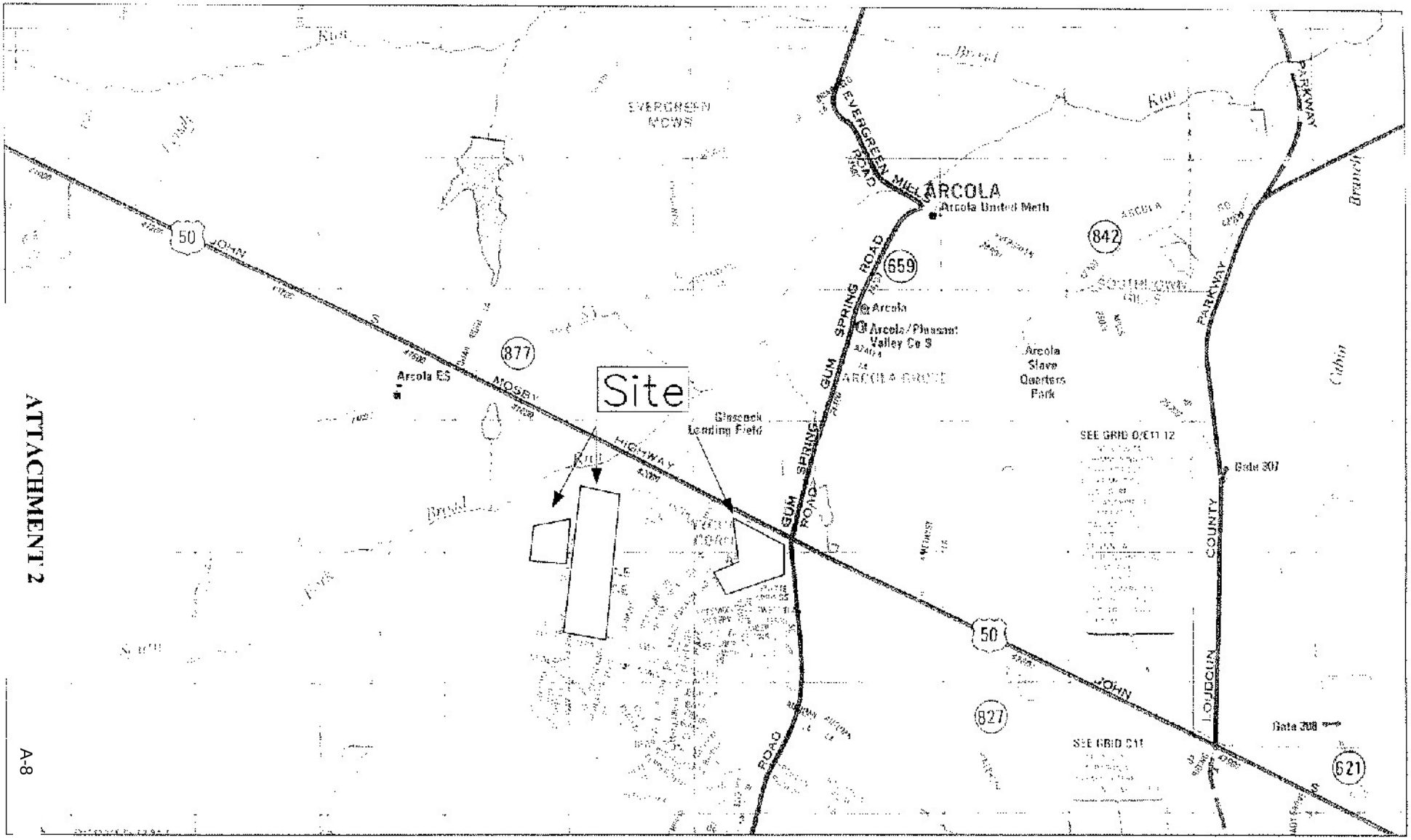
1. Stone Ridge Land Use Summary (Existing and Proposed Totals) (Traffic Study Table 1)
2. Vicinity Map (Traffic Study Figure 1)
3. Trip Generation Comparison (Traffic Study Table 5)
4. Existing Traffic Volumes (Traffic Study Figure 3)
5. Existing Lane Use and Traffic Control (Traffic Study Figure 4)
6. Intersection LOS Summary (Existing, Currently-Approved Program, and Proposed Program Scenarios) (Traffic Study Table 2)
7. Currently-Approved Program Lane Use and Traffic Control (Traffic Study Figure 6)
8. Currently-Approved Program Traffic Forecasts (Traffic Study Figure 8)
9. Proposed Program Lane Use and Traffic Control (Traffic Study Figure 7)
10. Proposed Program Traffic Forecasts (Traffic Study Figure 9)

cc: Dale Castellow, Director, OTS
Charles Yudd, Assistant to the County Administrator, County Administration

Table 1
Stone Ridge Commercial
Land Use Summary

Land Use	Existing Totals	Units	Proposed Totals	Units	Total Change	Units
Single-Family Detached	853	D.U.	853	D.U.	0	D.U.
Townhouse/Condominium	1,741	D.U.	2,048	D.U.	+307	D.U.
Multi-Family	671	D.U.	671	D.U.	0	D.U.
Total Residential	3,265	D.U.	3,572	D.U.	+307	D.U.
Office (PD-OP)	269,800	S.F.	697,671	S.F.	+427,871	S.F.
Light Industrial (PD-IP)	570,250	S.F.	146,187	S.F.	-424,063	S.F.

Based on Concept Development Plan prepared by Urban Engineering, dated April 2006.



ATTACHMENT 2

A-8

Figure 1
Site Location

North

Table 5
Stone Ridge Commercial
Trip Generation Comparison

Program	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Traffic
Approved Program	1,273	1,306	2,579	1,377	1,492	2,869	38,834
Proposed Program	1,467	1,366	2,834	1,434	1,639	3,073	42,080
Difference	194	60	255	58	146	204	3,246
Percentage	**15%**	**5%**	**10%**	**4%**	**10%**	**7%**	**8%**

Notes: (1) Trip generation based on Institute of Transportation Engineers Trip Generation, 7th Edition.

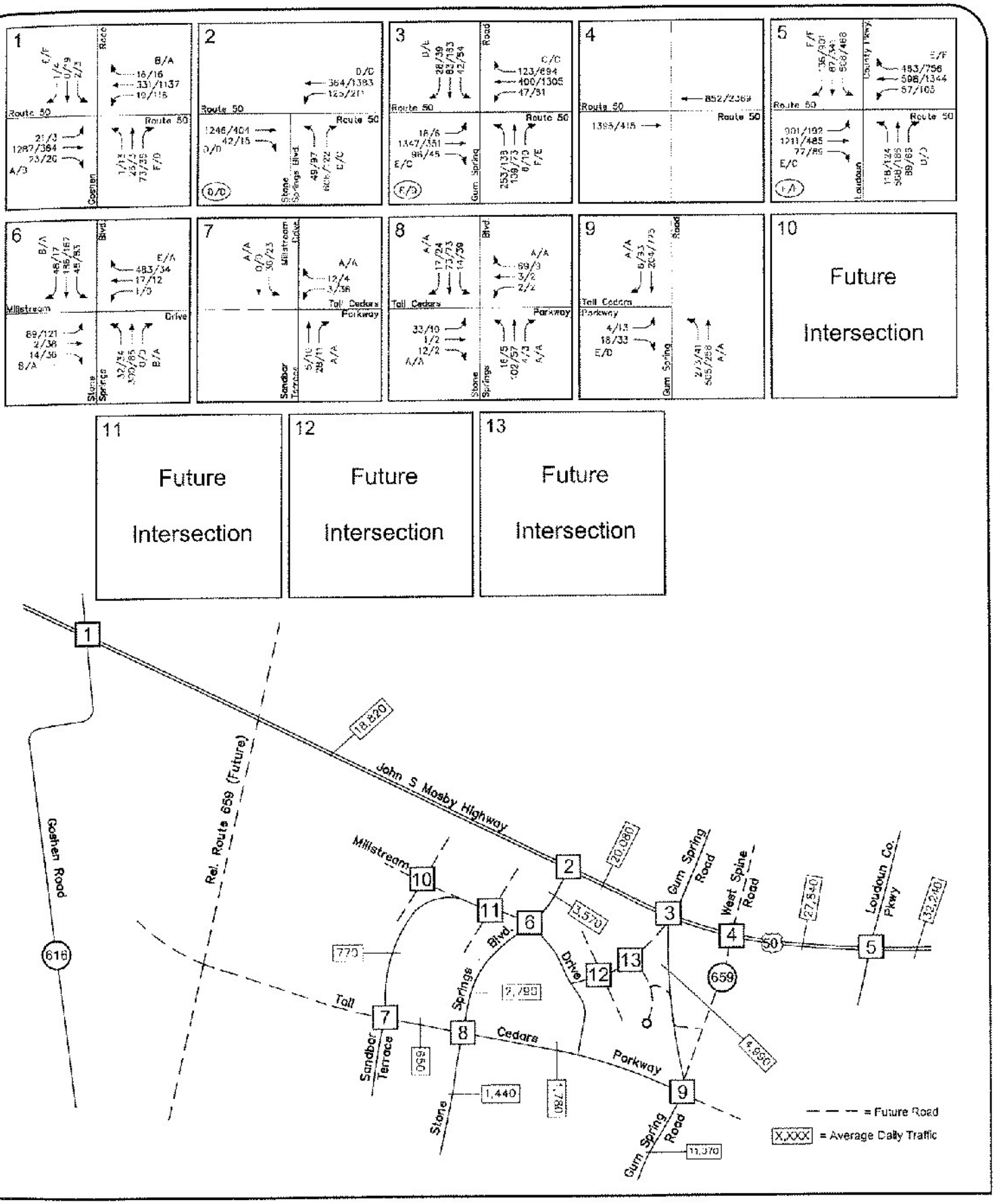


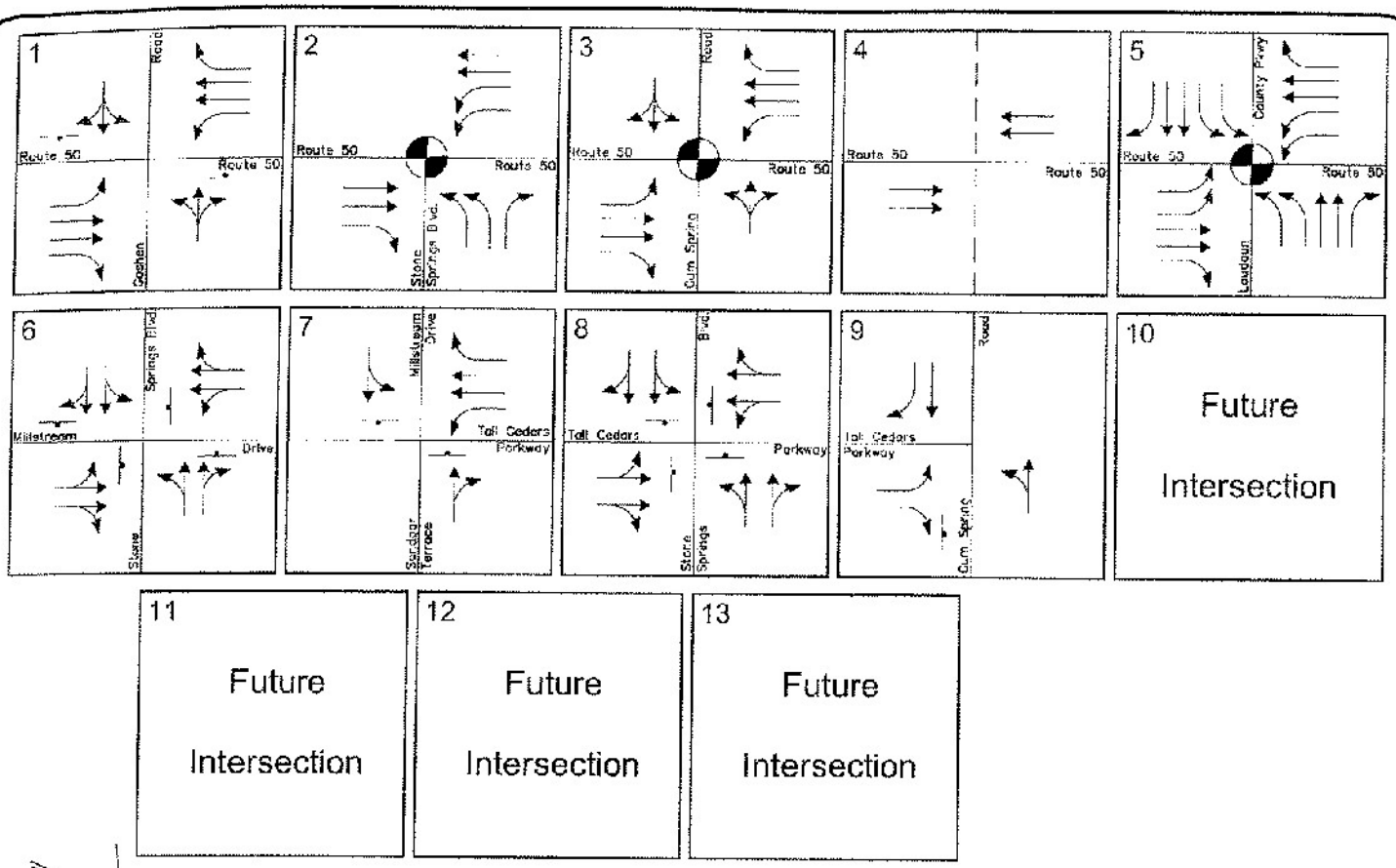
Figure 3
Existing Traffic Volumes

AM PEAK HOUR
PM PEAK HOUR
000/000

ATTACHMENT 4

Stone Ridge Commercial
Loudoun County, Virginia

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS



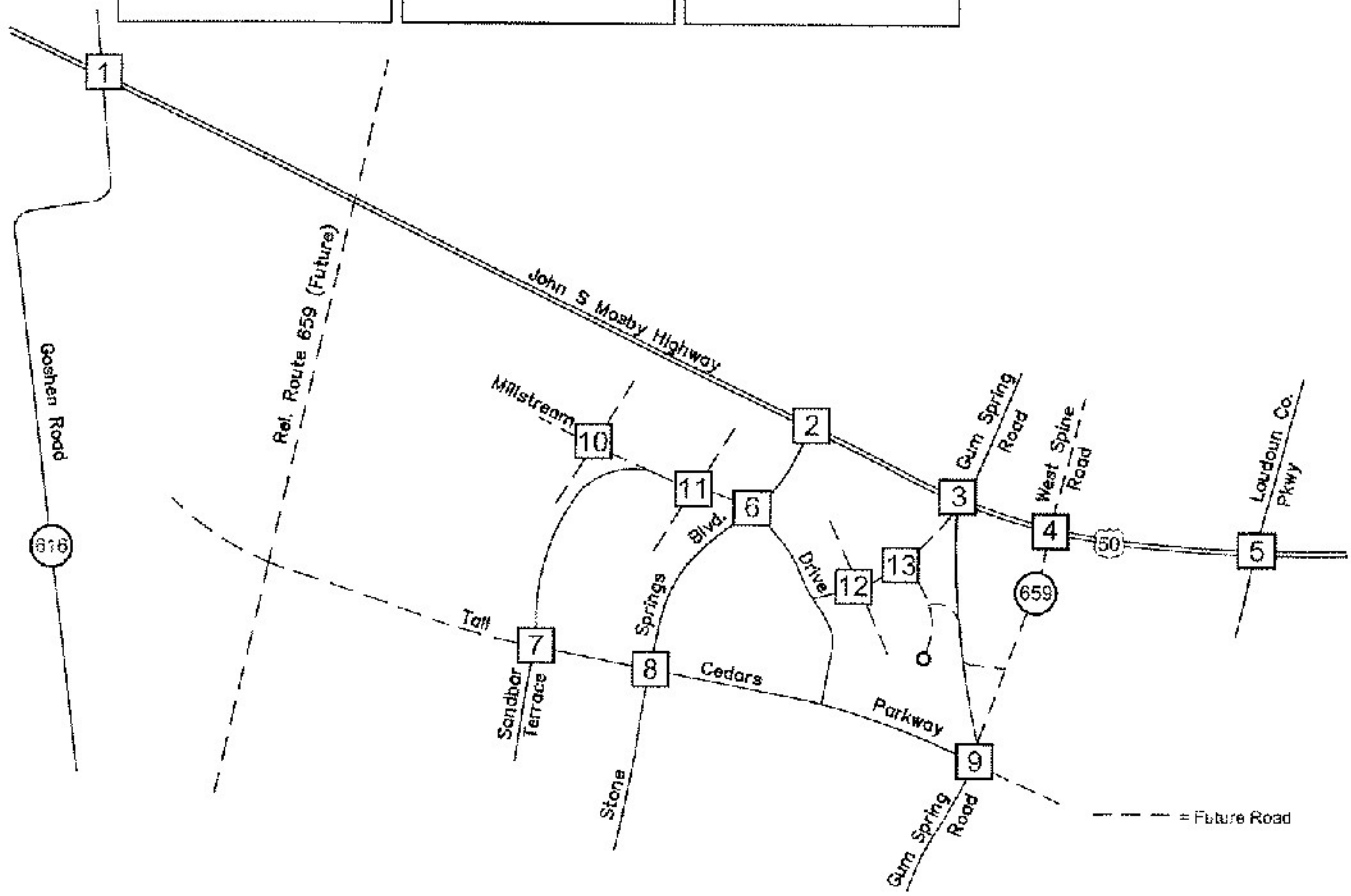


Figure 4
Existing Lane Use and Traffic Control

AM PEAK HOUR
PM PEAK HOUR
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North

ATTACHMENT 5

Stone Ridge Commercial
Loudoun County, Virginia

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

Table 2
Stone Ridge Commercial
Intersection Level of Service Summary (1) (2) (3)

(COLUMN 1) (COLUMN 2) (COLUMN 3)

Intersection	Intersection Control	Critical Movement	2010 Existing AM	2010 Existing PM	2010 Currently Approved Program AM	2010 Currently Approved Program PM	2010 Proposed Program AM	2010 Proposed Program PM
(1) U.S. Route 50/ Goshen Road	Stop Sign	EB	A[8.1]	B[11.7]	A[9.7]	C[19.5]	N/A	N/A
		WB	B[13.2]	A[8.6]	C[16.4]	B[10.3]		
		NB	F[66.6]	D[32.5]	F[*]	F[*]		
		SB	E[47.8]	F[106.1]	F[*]	F[*]		
Mitigated	Signal	EB	N/A		A[8.1]	A(4.5)	A(8.9)	A(9.1)
		WB			A(8.4)	C(24.5)	A(8.4)	C(23.7)
		NB			D(52.2)	D(51.6)	D(52.2)	D(51.0)
		SB			D(45.7)	D(52.5)	D(48.7)	D(52.5)
		Overall			B(15.9)	B(16.9)	B(11.0)	C(20.7)
(2) U.S. Route 50/ Stone Springs Blvd	Signal	EB	D(53.1)	D(39.9)	E(60.8)	E(65.9)	N/A	N/A
		WB	D(37.1)	D(40.0)	D(52.2)	E(56.7)		
		NB	D(45.3)	C(26.1)	F(118.2)	C(26.6)		
		Overall	D(47.2)	D(45.2)	E(74.2)	D(52.6)		
Mitigated	Signal	EB	N/A		C(28.6)	D(43.9)	C(27.8)	D(40.8)
		WB			C(22.7)	D(35.2)	C(23.3)	C(35.0)
		NB			A(9.6)	A(8.5)	A(9.6)	A(9.7)
		Overall			C(23.1)	C(30.3)	C(21.6)	C(33.0)
(3) U.S. Route 50/ Gum Spring Rd (VA 659)/ Canary Grass Drive	Signal	EB	E(59.7)	C(23.4)	N/A	N/A	A(0.0)	A(0.0)
		WB	C(25.5)	C(32.6)			A(0.0)	A(0.0)
		NB	F(142.1)	E(59.9)			A(0.0)	B(10.1)
		SB	D(49.9)	E(64.1)			A(0.0)	A(0.0)
		Overall	E(63.4)	D(25.8)			N/A	N/A
(4) U.S. Route 50/ West Spine Road	Signal	EB	N/A		B(14.7)	F(556.4)	C(36.7)	D(30.8)
		WB			F(146.4)	F(313.6)	C(30.1)	F(158.6)
		NB			F(157.0)	C(32.9)	D(40.5)	C(34.2)
		SB			D(32.6)	F(127.9)	C(29.7)	F(145.8)
		Overall			E(67.8)	F(265.9)	C(34.4)	F(119.6)
Mitigated	Signal	EB	N/A		D(36.2)	F(61.4)	D(39.0)	F(96.2)
		WB			D(29.7)	F(115.3)	C(32.4)	F(127.3)
		NB			D(39.2)	D(40.6)	D(44.6)	D(41.6)
		SB			D(25.5)	F(63.8)	C(30.1)	F(64.2)
		Overall			D(33.9)	F(93.5)	D(37.3)	F(100.7)
(5) U.S. Route 50/ Loudoun County Pkwy (Old Ox Road)	Signal	EB	E(61.4)	C(25.0)	F(83.7)	D(34.6)	N/A	N/A
		WB	E(57.9)	F(122.3)	F(189.3)	F(189.2)		
		NB	D(40.4)	D(38.8)	F(164.7)	F(170.6)		
		SB	F(306.4)	E(147.3)	F(282.0)	F(410.8)		
		Overall	F(94.4)	F(106.7)	F(159.2)	F(226.4)		
NB, SB, and WB Free Flow Right Turns	Signal	EB	N/A		F(80.7)	D(38.5)	F(80.7)	D(39.1)
		WB			D(40.2)	F(95.9)	D(42.2)	F(100.3)
		NB			F(159.7)	F(131.0)	F(159.7)	F(131.8)
		SB			F(168.9)	F(165.5)	F(168.9)	F(165.5)
		Overall			F(96.0)	F(112.0)	F(96.9)	F(112.9)
(6) Stone Springs Blvd/ Millstream Drive	Stop Sign	EB	B[11.7]	A(9.4)	D[24.1]	F[246.4]	N/A	N/A
		WB	B[13.7]	A(7.5)	F[313.0]	D(26.7)		
		NB	B[13.3]	A(5.3)	F[60.0]	D(25.0)		
		SB	B[12.3]	A(9.2)	F[197.4]	F[53.1]		
Mitigated	Signal	EB	N/A		C(26.5)	B(18.5)	C(22.8)	C(23.5)
		WB			C(23.3)	A(9.1)	C(25.0)	A(9.5)
		NB			A(8.9)	B(18.1)	A(8.0)	C(22.5)
		SB			B(14.3)	C(21.7)	B(15.5)	C(26.8)
		Overall			B(15.3)	B(18.1)	B(16.4)	C(24.4)
(7) Tall Cedars Pkwy/ Millstream Drive/ Sanoban Terrace	Stop Sign	EB	N/A	N/A	A(9.0)	A(7.5)	A(8.8)	A(9.0)
		WB	A(7.2)	A(7.3)	A(7.7)	A(7.4)	A(7.5)	A(7.7)
		NB	A(8.8)	A(9.0)	A(9.7)	A(8.7)	A(9.1)	B(14.4)
		SB	A(9.0)	A(8.4)	B(12.1)	B(10.8)	D(28.3)	F(61.5)
Future	Signal	EB	N/A		N/A	N/A	N/A	N/A
		WB						
		NB						
(8) Tall Cedars Pkwy/ Stone Springs Blvd	Stop Sign	EB	A[7.5]	A[7.2]	A[5.4]	A[5.8]	N/A	N/A
		WB	A[6.6]	A[6.5]	A[7.3]	A[7.1]		
		NB	A[7.3]	A[6.8]	F[*]	F[117.5]		
		SB	A[7.1]	A[7.0]	F[*]	F[268.7]		
Mitigated	Signal	EB	N/A		A(8.7)	A(9.4)	A(8.9)	A(9.0)
		WB			A(8.8)	B(10.4)	B(10.0)	B(10.1)
		NB			A(9.0)	A(5.3)	A(9.0)	A(6.0)
		SB			A(7.6)	A(5.7)	A(7.6)	A(6.6)
		Overall			A(8.9)	A(7.0)	A(8.9)	A(7.5)
(9) Gum Spring Rd/ Tall Cedars Pkwy	Stop Sign	EB	B[14.4]	C[18.2]	F[*]	F[*]	N/A	N/A
		WB	N/A	N/A	F[*]	F[*]		
		NB	A[4.6]	A[7.1]	C[20.9]	E[41.6]		
		SB	A[8.0]	A[0.0]	A[0.0]	A[0.0]		
Mitigated	Signal	EB	N/A		D(37.5)	D(49.1)	D(37.5)	D(42.8)
		WB			D(43.3)	D(52.8)	D(43.3)	D(47.3)
		NB			B(15.5)	B(14.5)	B(15.2)	B(16.2)
		SB			D(35.2)	C(27.9)	D(30.2)	C(24.3)
		Overall			C(25.6)	C(28.5)	C(25.4)	C(24.8)
(10) Millstream Dr/ Site Industrial/Office	Stop Sign	EB	N/A		A(0.0)	A(0.0)	A(0.0)	A(0.0)
		WB			A(7.8)	A(7.4)	A(3.5)	A(4.7)
		NB			A(9.0)	B(11.5)	A(9.1)	B(14.5)
(11) Millstream Dr/ Site Retail/Library	Stop Sign	EB	N/A		A(7.8)	C(18.3)	N/A	N/A
		WB			A(9.2)	C(13.4)		
		NB			A(7.8)	B(13.2)		
		SB			A(9.1)	D(25.7)		
Mitigated	Signal	EB	N/A		A(5.3)	B(11.1)	A(4.7)	B(11.0)
		WB			A(6.0)	B(10.8)	A(8.0)	A(9.7)
		NB			A(6.9)	A(6.8)	A(8.8)	A(8.1)
		SB			A(7.3)	B(11.3)	A(9.2)	B(13.0)
		Overall			A(6.8)	B(10.6)	A(8.9)	B(10.8)
(12) Canary Grass Dr/ Site Office/Residential	Stop Sign	EB	N/A		B(11.0)	A(8.2)	B(10.1)	A(4.0)
		WB			N/A	N/A	A(7.1)	A(4.9)
		NB			A(9.4)	A(7.7)	A(8.0)	B(10.2)
		SB			A(7.6)	A(8.3)	A(8.0)	B(11.6)
Mitigated	Stop Sign	EB	N/A		N/A	N/A	A(6.8)	A(4.0)
		WB					A(0.0)	A(4.9)
		NB					B(14.2)	B(10.2)
		SB					B(13.6)	B(11.6)
(13) Canary Grass Drive/ Gum Spring Rd	Stop Sign	EB	N/A		N/A	N/A	A(8.9)	A(7.2)
		WB					A(0.0)	A(0.0)
		NB					A(7.6)	A(7.4)

Notes: (1) Analysis done using Synchro 6.0
(2) Numbers in parentheses indicate average delay in seconds per vehicle for signalized intersections
(3) Numbers in brackets indicate average delay in seconds per vehicle for stop sign controlled intersections

ATTACHMENT 6

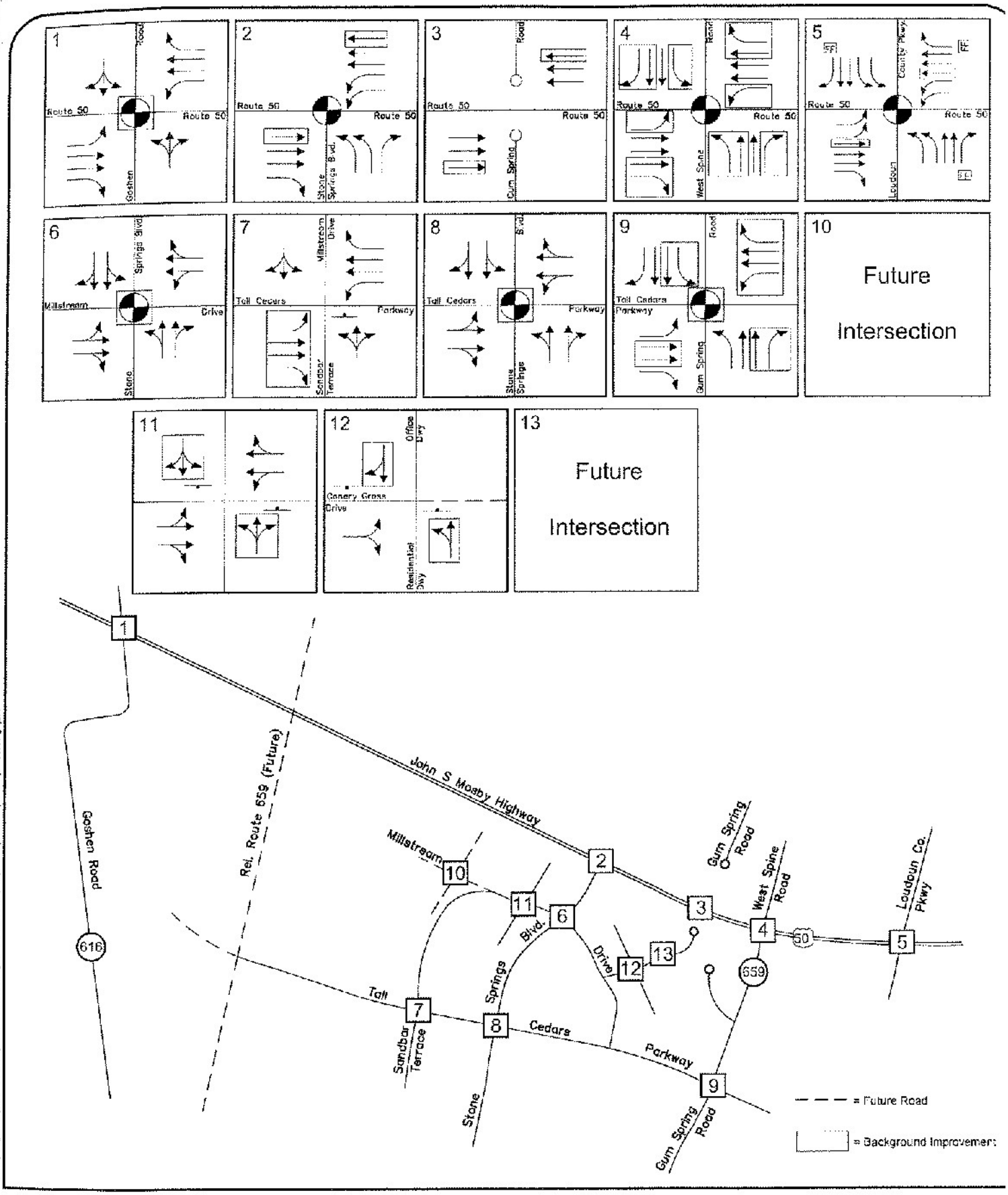

Figure 6
Approved Program Lane Use and Traffic Control

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PM PEAK HOUR
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North

Stone Ridge Commercial
Loudoun County, Virginia

ATTACHMENT 7

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

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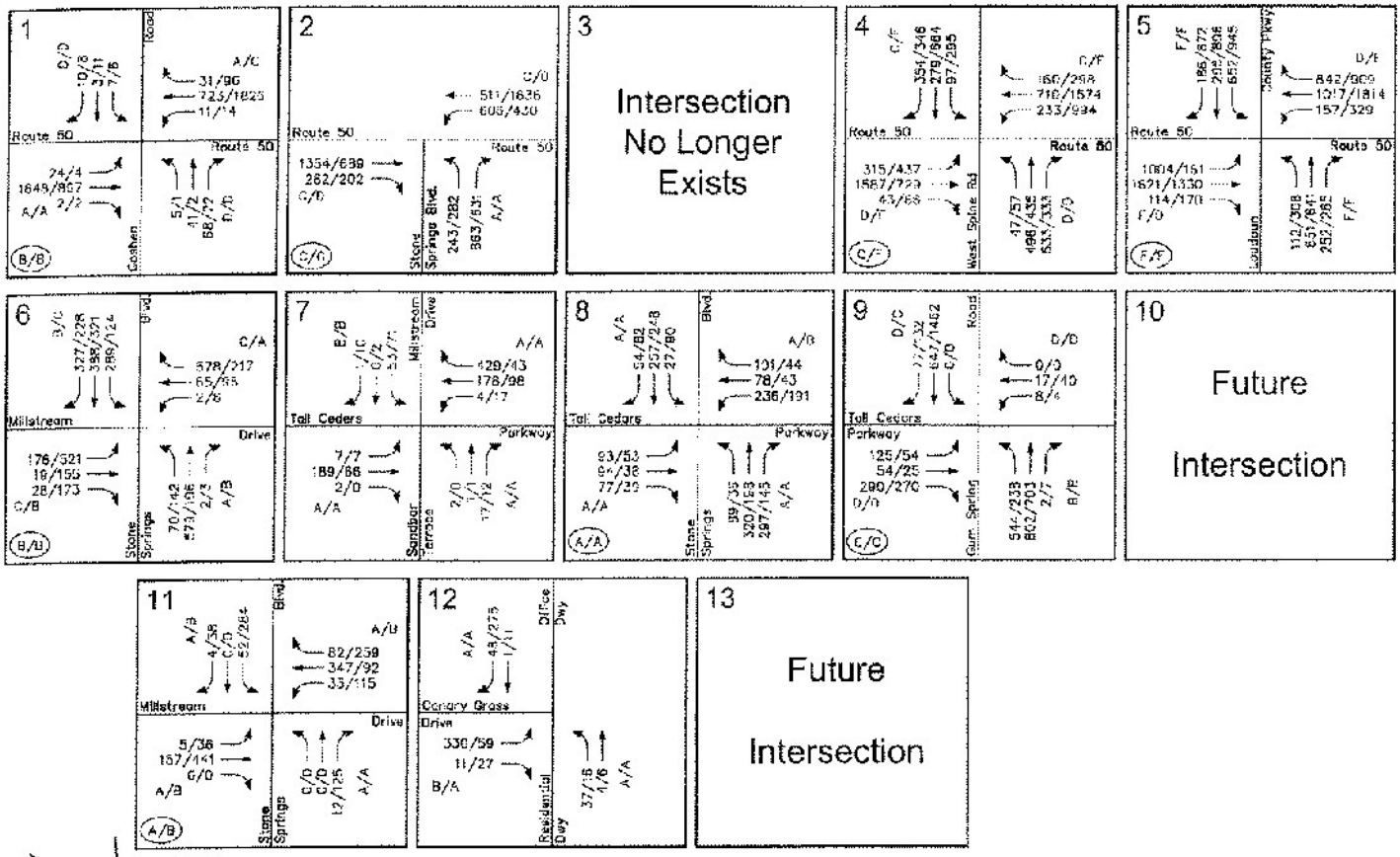

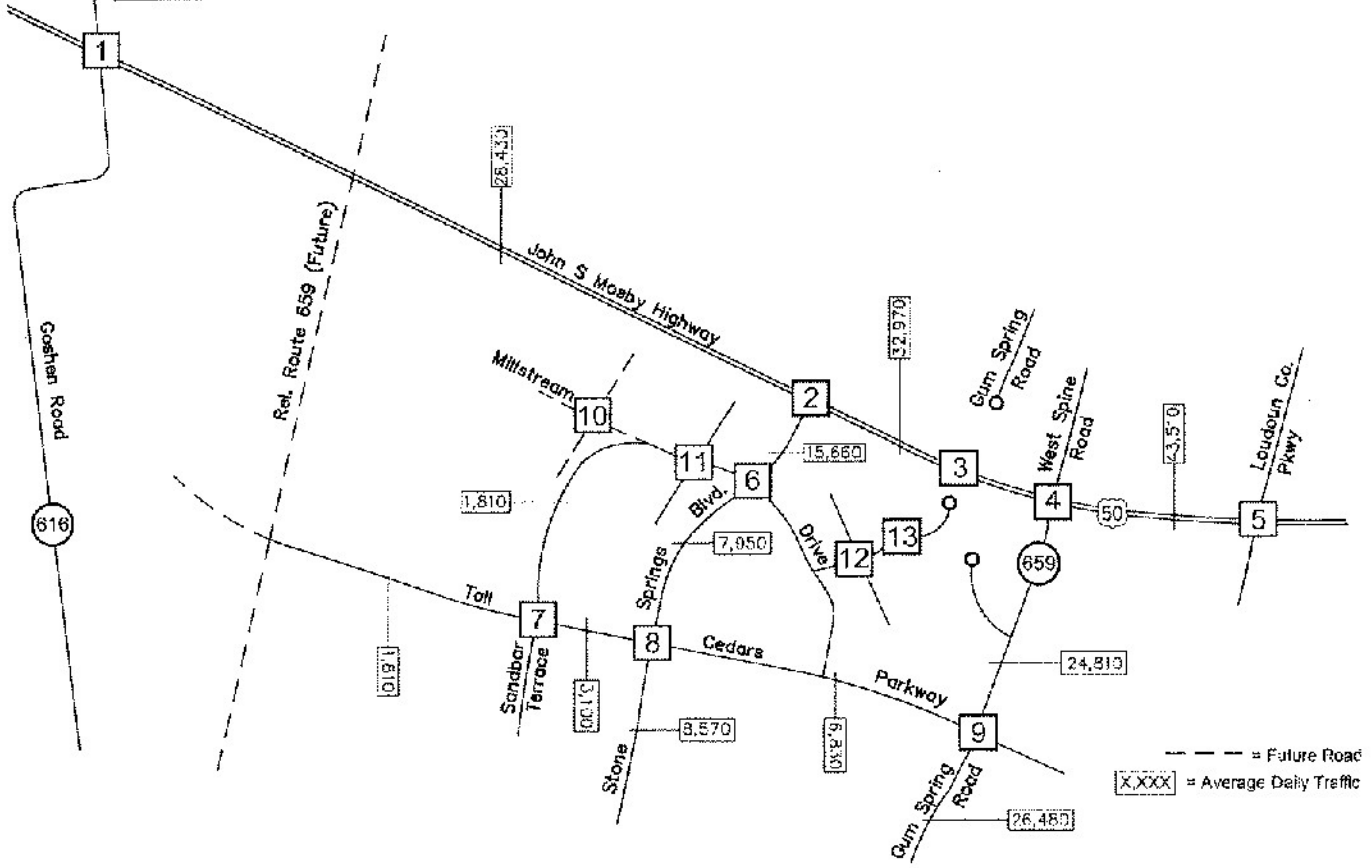

Figure 8
Approved Program Traffic Forecasts

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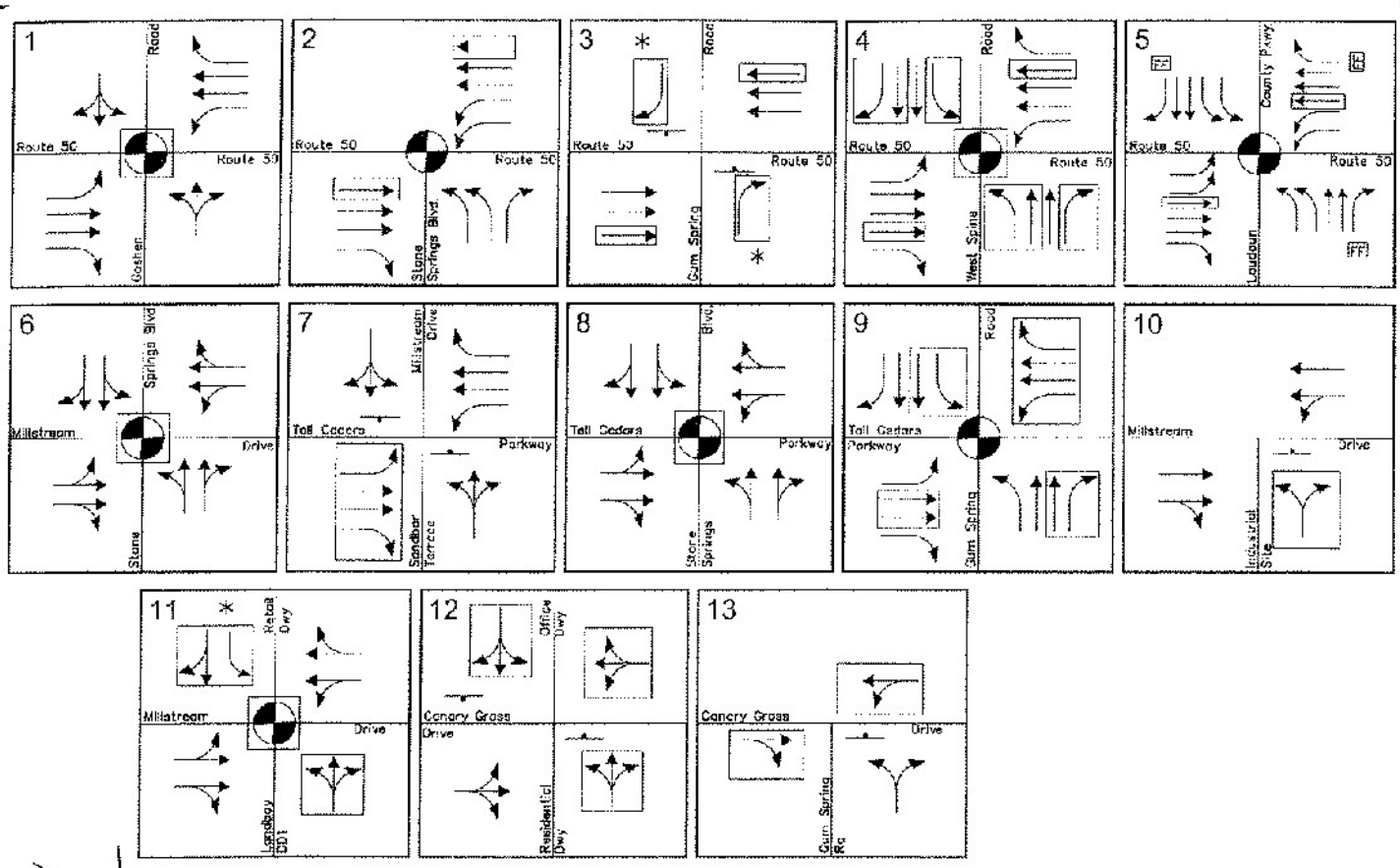
Stone Ridge Commercial
Loudoun County, Virginia

ATTACHMENT 8

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS



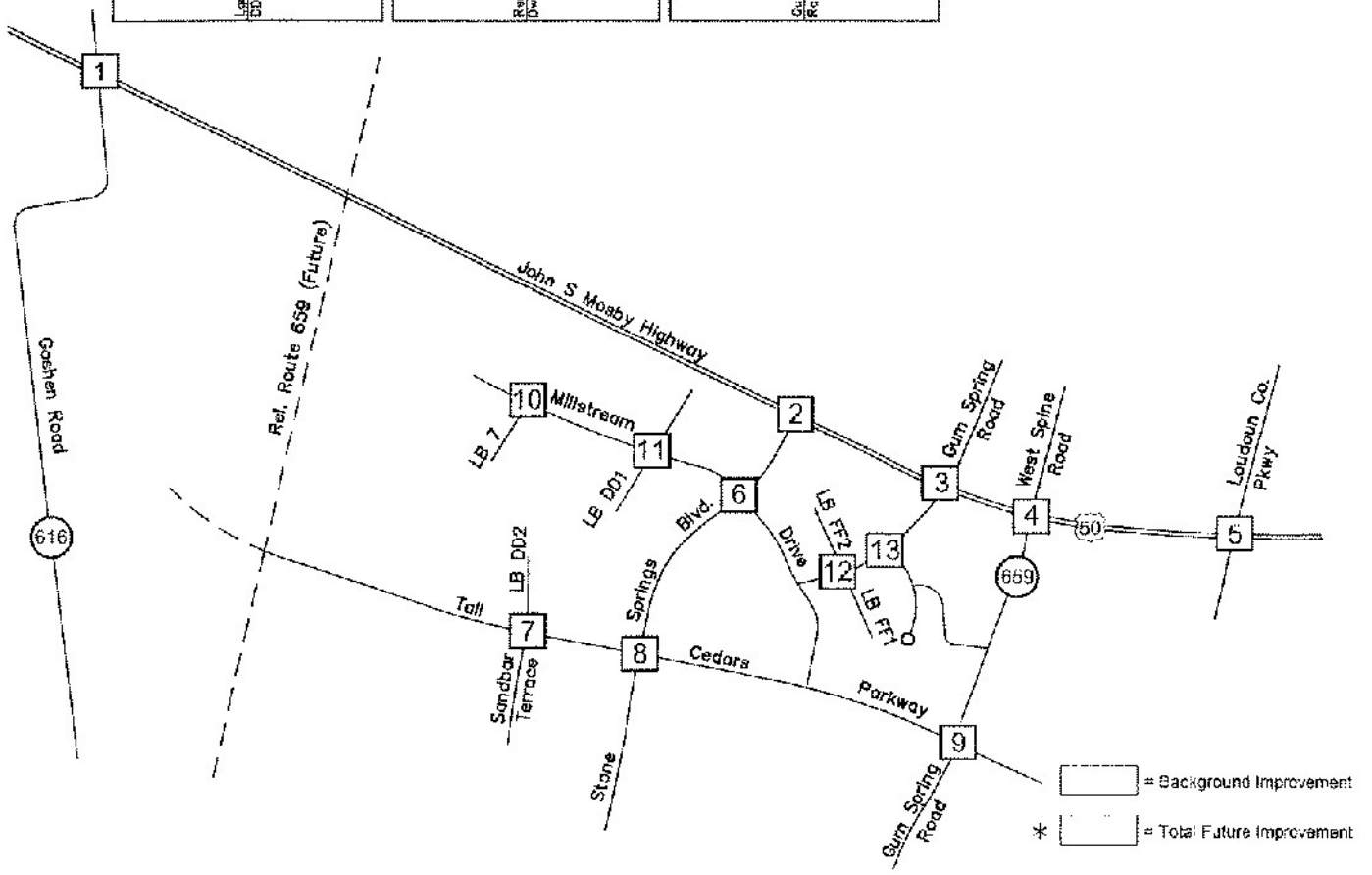


Figure 7
2010 Proposed Program Lane Use
and Traffic Control

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ATTACHMENT 9

A-15

Stone Ridge Commercial
Loudoun County, Virginia

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

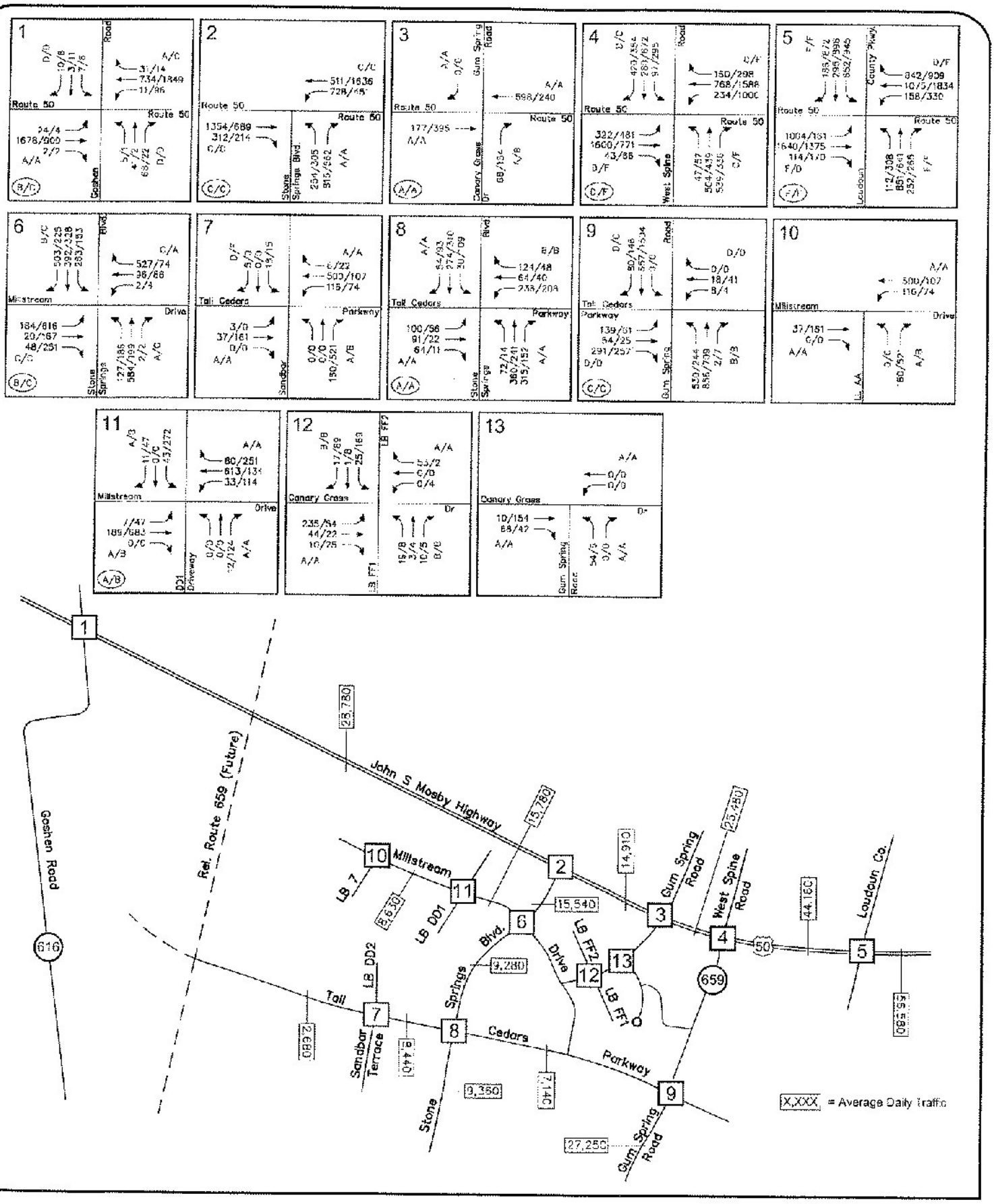

Figure 9
Proposed Program Traffic Forecasts

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North

Stone Ridge Commercial
Loudoun County, Virginia

ATTACHMENT 10

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PLANNING CONSULTANTS

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COMMONWEALTH of VIRGINIA

DAVID S. EKERN, P.E.
COMMISSIONER

DEPARTMENT OF TRANSPORTATION
14685 Avion Parkway
Chantilly, VA 20151
(703) 383-VDOT (8368)

RECEIVED
FEB 23 2007
PLANNING DEPARTMENT

February 16, 2007

Mr. John Merrithew
County of Loudoun
Department of Planning
1 Harrison Street, S.E.
P.O. Box 7000
Leesburg, Virginia 20177-7000

Re: Stone Ridge Commercial
(1st Submission)
Loudoun County Application Number ZMAP 2006-0011 and ZCPA 2006-0003

Dear Mr. Merrithew:

We have reviewed the above noted application as requested in your August 4, 2006 transmittal. We offer the following comments:

1. Please provide draft proffers for review.

2. Applicant should dedicate right of way and construct Route 50 improvements consistent with one-half of the ultimate typical section (R6M) as specified in the Loudoun *Countywide Transportation Plan (CTP)* to a point to where they tie-in with other compatible, proffered improvements (either by this developer or by others).

3. Applicant should dedicate right of way and construct Relocated Route 659 and the West Spine Road and Tall Cedars Parkway per the ultimate conditions as specified in the *CTP* through at least the limits of Stone Ridge property and preferably to a point to where they tie-in with other compatible, proffered improvements (either by this developer or by others).

4. The applicant should provide a pro-rata monetary contribution to be applied towards area transportation improvements.

5. Please clearly label Relocated Route 659 as such on the plan sheets.

6. Dimension distance from Realigned Millstream Drive/Relocated Route 659 intersection to the closest intersections to the north and south. Ensure adequate crossover spacing on Relocated Route 659 as identified in the *CTP*.

7. **The Traffic Impact study (TIA) needs to be revised to include a "Recommendations" Section. A complete and thorough review cannot be conducted until this aspect of the TIA is completed. Receipt of this information may generate additional comments.**

8. All traffic signals and signal modifications costs associated with this application are to be borne by the applicant. Verbiage to this effect should be included in the proffers.

9. Have designs been submitted/approved for the ultimate planned interchanges at Route 50/West Spine Road and at Route 50/659 Relocated?

10. Related to comment # 9: This applicant should dedicate any necessary right of way and provide monetary contribution towards design/construction of the cited interchanges.

11. The north-south traffic volume on Gum Springs Road, Route 659 is significant. This roadway should not be abandoned or terminated or realigned until an adequate replacement facility is in place. There is a note on sheet 8 of 10 that we recommend be directly incorporated into the proffers for this application.

12. We recommend Transportation Demand Management (TDM) measures be incorporated into the proffers for the office portion of this application.

13. Provide typical sections for Millstream Drive and Canary Grass Drive.

14. Please see the attached e-mail dated Friday, September 29, 2006 form Ms. Tina Ho of VDOT's Traffic Engineering Section.

15. Please see the attached e-mail dated Friday, September 15, 2006 from Mr. Cina Dabestani of VDOT's Transportation Planning Section.

16. Please see the attached e-mail dated Monday, August 28, 2006 from Robert McDonald, P. E. of VDOT's Transportation Planning Section

If you have any questions, please call me at (703) 383-2061.

Sincerely,

John Bassett, P.E.
Transportation Engineer

Attachments

cc: Mr. Sam Allaire

From: **Ho, Tien-Jung (Tina), P.E.**
Sent: Friday, September 29, 2006 3:07 PM
To: Bassett, John
Cc: Suliman, Kamal S.; VanPoole, Thomas B., P.E.
Subject: Stone Ridge Commercial, Rte 50/Gum Spring Rd, Plan#ZMAP 2006-001/ZCPA 2006-0003, TE#6492

Dear Mr. Bassett:
TE has received the TIA for the subject location. TE provides the following comments:
1. Be specific on transportation improvements proffered by whom and the year.
2. Transportation improvements can not be included unless those improvements have been programmed.
3. Provide LOS and delay summary tables for each lane group
4. Provide build-out years, trip distribution, and traffic assignment in summary tables for each other developments
5. Need to show how traffic volumes redistributed due to roadway connections.
6. 1% of growth rate seems too low.
7. Internal trip and pass-by trip reductions need to follow the guidelines in VDOT's Land Development Manual.
8. Need to show the impacts of proposed modifications to regional roads
9. Show the distance in-between intersections
10. Show site trip distribution and site trip assignment in figures
11. The developer is responsible for the improvements at site entrances, surrounding intersections and roadways due to the impacts from site traffic.
12. Provide queuing analyses. Queuing analyses need to show if the queues will exceed the existing or the proposed turn lane and also needs to address blocking situation.
13. For signalized intersection analysis, the minimum acceptable level of service criteria shall be applied to each lane group.
14. If the analysis indicates that unsatisfactory levels of service will occur on study area roadways, improvements must be recommended to remedy deficiencies.
15. Provide a response letter

Let me know if you have any questions.

Tien-Jung "Tina" Ho, P.E.
Senior Transportation Engineer
VDOT-Northern Operations Region
Traffic Engineering Section
14685 Avion Parkway, Suite 210
Chantilly, VA 20151-1104
Phone: 703-383-2416
Fax: 703-383-2410
Email: Tien-Jung.Ho@VDOT.Virginia.gov

From: Dabestani, Cina
Sent: Friday, September 15, 2006 9:57 PM
To: Bassett, John
Cc: Llana, Claudia, P.E.
Subject: Stone Ridge Commercial TIA - comments

John:

Thank you providing TP with the opportunity to comment on this study.

After reviewing the study, TP recommends that methodology exercised to be modified by utilizing regionally accepted transportation model specially given the magnitude of this development (rezoning). In this case, Loudoun County Model is recommended to be the starting point.

The advantages of this recommendation is that it would reduce the support/document needed for many factors assumed in this study. This study has assumed many factors with hardly any support or documentation such as, through trip growth factor and internal trip reduction factor.

Please feel free to contact me directly should you have any questions on the above comments.

Thank you,
Cina S. Dabestani
Senior Transportation Engineer
Transportation Planning
Northern Virginia Department of Transportation
703 . 383 . 2215
Cina.Dabestani@VDOT.Virginia.Gov

Bassett, John
From: McDonald, Robert, P.E.
Sent: Monday, August 28, 2006 4:52 PM
To: Llana, Claudia, P.E.
Cc: Bassett, John
Subject: FW: Stone Ridge Commercial Development - Rezoning Application and TIA; Loudoun County

Will forward to you in case Cina can review. Some of my concerns (I admit that I have not gone thru the material in detail) to consider as he reviews:

- Is the proposed development generally in the COG Cooperative Forecast?
- Does the traffic analysis make reasonable assumptions as to the origins and destinations of traffic (or does it assume all new residents work within the development and the problems vanish)?
- Does the analysis consider the impact on Fairfax County (improvements to US 50 in Loudoun are fine, but if traffic comes to a halt at the county line, what have we accomplished)?
- Is the analysis reasonable from a technical viewpoint?

No deadline for comments has been given, but Cina should work this project in fairly quickly and give his comments directly to John Bassett. I doubt that Land Development's WAS codes will work for us – he can probably charge time to TP603 (document / study review) since there is no UPC for this work.

From: Bassett, John
Sent: Monday, August 28, 2006 11:06 AM
To: Suliman, Kamal S.; McDonald, Robert, P.E.
Cc: Spriggs, Sylvia A.
Subject: Stone Ridge Commercial Development - Rezoning Application and TIA; Loudoun County

RE: Stone Ridge Commercial
Traffic Impact Analysis (TIA)
(1st Submission)
ZMAP 2006-0011 and ZCPA 2006-0003

We are forwarding to you for review and comment the above noted TIA. We have also included a copy of the rezoning application plan and Statement of Justification as well as some other pertinent correspondence.

Please return any written comments and/or stamped/marked-up plan copies to the Land Development Sections for dissemination.

If you have any questions or need additional information, please advise.

Time Charge: WAS Activity # 00042

Thank You,

John Bassett
X-32061

APPENDIX B

UPDATED EXISTING TRAFFIC COUNTS

Wells & Associates, INC

McLean, Virginia

Existing Traffic Count

PROJECT:	Stone Ridge Commercial	DATE:	3/27/2008	SOUTHBOUND ROAD:	Millstream Drive
W & A JOB NO.:	3088	DAY:	Thursday	NORTHBOUND ROAD:	
INTERSECTION:	Tall Cedar Pkwy.& Millstream Dr.	WEATHER:	Clear	WESTBOUND ROAD:	Toll Cedar Parkway
LOCATION:	Loudoun County,VA	COUNTED BY:	Belmo	EASTBOUND ROAD:	Toll Cedar Parkway
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Millstream Drive				Westbound Toll Cedar Parkway				Northbound 0				Eastbound Toll Cedar Parkway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	4	4	9	0	0	9	0	0	0	0	0	0	0	0	4	9	13		6:00-6:15
6:15-6:30	1	0	3	4	14	1	0	15	0	0	0	0	0	1	2	3	4	18	22		6:15-6:30
6:30-6:45	1	0	5	6	36	1	0	37	0	0	0	0	0	2	0	2	6	39	45		6:30-6:45
6:45-7:00	1	0	7	8	50	6	0	56	0	0	0	0	0	4	4	8	8	64	72		6:45-7:00
7:00-7:15	0	0	17	17	37	6	0	43	0	0	0	0	0	3	2	5	17	48	65		7:00-7:15
7:15-7:30	1	0	11	12	29	14	0	43	0	0	0	0	0	5	3	8	12	51	63		7:15-7:30
7:30-7:45	5	0	3	8	28	13	0	41	0	0	0	0	0	7	2	9	8	50	58		7:30-7:45
7:45-8:00	2	0	6	8	24	6	0	30	0	0	0	0	0	12	4	16	8	46	54		7:45-8:00
8:00-8:15	3	0	8	11	16	3	0	19	0	0	0	0	0	7	1	8	11	27	38		8:00-8:15
8:15-8:30	1	0	7	8	18	1	0	19	0	0	0	0	0	5	3	8	8	27	35		8:15-8:30
8:30-8:45	1	0	7	8	28	7	0	35	0	0	0	0	0	9	1	10	8	45	53		8:30-8:45
8:45-9:00	2	0	11	13	14	9	0	23	0	0	0	0	0	6	4	10	13	33	46		8:45-9:00
3 Hour Totals	**18**	**0**	**89**	**107**	**303**	**67**	**0**	**370**	**0**	**0**	**0**	**0**	**0**	**61**	**26**	**87**	**107**	**457**	**564**		
1 Hour Totals																					
6:00-7:00	3	0	19	22	109	8	0	117	0	0	0	0	0	7	6	13	22	130	152	0.53	6:00-7:00
6:15-7:15	3	0	32	35	137	14	0	151	0	0	0	0	0	10	8	18	35	169	204	0.71	6:15-7:15
6:30-7:30	3	0	40	43	152	27	0	179	0	0	0	0	0	14	9	23	43	202	245	0.85	6:30-7:30
6:45-7:45	7	0	38	45	144	39	0	183	0	0	0	0	0	19	11	30	45	213	258	0.90	6:45-7:45
7:00-8:00	8	0	37	45	118	39	0	157	0	0	0	0	0	27	11	38	45	195	240	0.92	7:00-8:00
7:15-8:15	11	0	28	39	97	36	0	133	0	0	0	0	0	31	10	41	39	174	213	0.85	7:15-8:15
7:30-8:30	11	0	24	35	86	23	0	109	0	0	0	0	0	31	10	41	35	150	185	0.80	7:30-8:30
7:45-8:45	7	0	28	35	86	17	0	103	0	0	0	0	0	33	9	42	35	145	180	0.83	7:45-8:45
8:00-9:00	7	0	33	40	76	20	0	96	0	0	0	0	0	27	9	36	40	132	172	0.81	8:00-9:00
AM Peak 6:45-7:45	**7**	**0**	**38**	**45**	**144**	**39**	**0**	**183**	**0**	**0**	**0**	**0**	**0**	**19**	**11**	**30**	**45**	**213**	**258**	**0.90**	**AM Peak 6:45-7:45**
PM																					
4:00-4:15	1	0	13	14	21	8	0	29	0	0	0	0	0	5	1	6	14	35	49		4:00-4:15
4:15-4:30	5	0	17	22	12	9	0	21	0	0	0	0	0	4	1	5	22	26	48		4:15-4:30
4:30-4:45	2	0	13	15	15	22	0	37	0	0	0	0	0	8	2	10	15	47	62		4:30-4:45
4:45-5:00	1	0	15	16	21	15	0	36	0	0	0	0	0	4	0	4	16	40	56		4:45-5:00
5:00-5:15	2	0	9	11	20	20	0	40	0	0	0	0	0	4	1	5	11	45	56		5:00-5:15
5:15-5:30	2	0	16	18	21	20	0	41	0	0	0	0	0	11	1	12	18	53	71		5:15-5:30
5:30-5:45	2	0	16	18	19	13	0	32	0	0	0	0	0	8	1	9	18	41	59		5:30-5:45
5:45-6:00	3	0	16	19	18	17	0	35	0	0	0	0	0	6	4	10	19	45	64		5:45-6:00
6:00-6:15	1	0	20	21	17	22	0	39	0	0	0	0	0	6	2	8	21	47	68		6:00-6:15
6:15-6:30	1	0	19	20	21	27	0	48	0	0	0	0	0	4	2	6	20	54	74		6:15-6:30
6:30-6:45	3	0	19	22	26	15	0	41	0	0	0	0	0	7	1	8	22	49	71		6:30-6:45
6:45-7:00	3	0	17	20	22	13	0	35	0	0	0	0	0	10	0	10	20	45	65		6:45-7:00
3 Hour Totals	**26**	**0**	**190**	**216**	**233**	**201**	**0**	**434**	**0**	**0**	**0**	**0**	**0**	**77**	**16**	**93**	**216**	**527**	**743**		
1 Hour Totals																					
4:00-5:00	9	0	58	67	69	54	0	123	0	0	0	0	0	21	4	25	67	148	215	0.87	4:00-5:00
4:15-5:15	10	0	54	64	68	66	0	134	0	0	0	0	0	20	4	24	64	158	222	0.90	4:15-5:15
4:30-5:30	7	0	53	60	77	77	0	154	0	0	0	0	0	27	4	31	60	185	245	0.86	4:30-5:30
4:45-5:45	7	0	56	63	81	68	0	149	0	0	0	0	0	27	3	30	63	179	242	0.85	4:45-5:45
5:00-6:00	9	0	57	66	78	70	0	148	0	0	0	0	0	29	7	36	66	184	250	0.88	5:00-6:00
5:15-6:15	8	0	68	76	75	72	0	147	0	0	0	0	0	31	8	39	76	186	262	0.92	5:15-6:15
5:30-6:30	7	0	71	78	75	79	0	154	0	0	0	0	0	24	9	33	78	187	265	0.90	5:30-6:30
5:45-6:45	8	0	74	82	82	81	0	163	0	0	0	0	0	23	9	32	82	195	277	0.94	5:45-6:45
6:00-7:00	8	0	75	83	86	77	0	163	0	0	0	0	0	27	5	32	83	195	278	0.94	6:00-7:00
PM Peak 6:00-7:00	**8**	**0**	**75**	**83**	**86**	**77**	**0**	**163**	**0**	**0**	**0**	**0**	**0**	**27**	**5**	**32**	**83**	**195**	**278**	**0.94**	**PM Peak 6:00-7:00**

Wells & Associates, INC

McLean, Virginia

Existing Traffic Count

PROJECT:	Stone Ridge Commercial	DATE:	3/27/2008	SOUTHBOUND ROAD:	Stone Springs Boulevard
W & A JOB NO.:	3088	DAY:	Thursday	NORTHBOUND ROAD:	Stone Springs Boulevard
INTERSECTION:	Stone Springs Blvd.& Tall Cedar Pkwy.	WEATHER:	Clear	WESTBOUND ROAD:	Tall Cedars Parkway
LOCATION:	Loudoun County,VA	COUNTED BY:	Belmo	EASTBOUND ROAD:	Tall Cedars Parkway
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Stone Springs Boulevard				Westbound Tall Cedars Parkway				Northbound Stone Springs Boulevard				Eastbound Tall Cedars Parkway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	1	3	2	6	5	0	0	5	0	12	0	12	0	0	7	7	18	12	30		6:00-6:15
6:15-6:30	1	4	0	5	13	0	1	14	0	25	1	26	0	1	4	5	31	19	50		6:15-6:30
6:30-6:45	0	3	0	3	7	2	0	9	0	32	0	32	1	1	3	5	35	14	49		6:30-6:45
6:45-7:00	4	10	1	15	9	3	3	15	3	33	1	37	0	0	5	5	52	20	72		6:45-7:00
7:00-7:15	3	15	3	21	5	2	1	8	1	36	7	44	0	1	5	6	65	14	79		7:00-7:15
7:15-7:30	20	17	3	40	10	14	1	25	0	47	12	59	4	3	10	17	99	42	141		7:15-7:30
7:30-7:45	32	15	1	48	15	25	4	44	0	51	37	88	14	15	26	55	136	99	235		7:30-7:45
7:45-8:00	5	28	3	36	17	12	0	29	0	47	17	64	22	18	36	76	100	105	205		7:45-8:00
8:00-8:15	0	39	5	44	15	0	4	19	2	55	1	58	2	2	6	10	102	29	131		8:00-8:15
8:15-8:30	5	45	3	53	4	2	1	7	2	60	3	65	0	1	6	7	118	14	132		8:15-8:30
8:30-8:45	0	31	3	34	12	2	5	19	1	85	4	90	3	4	5	12	124	31	155		8:30-8:45
8:45-9:00	1	22	2	25	13	1	3	17	1	42	1	44	2	1	6	9	69	26	95		8:45-9:00
3 Hour Totals	**72**	**232**	**26**	**330**	**125**	**63**	**23**	**211**	**10**	**525**	**84**	**619**	**48**	**47**	**119**	**214**	**949**	**425**	**1,374**		
1 Hour Totals																					
6:00-7:00	6	20	3	29	34	5	4	43	3	102	2	107	1	2	19	22	136	65	201	0.70	6:00-7:00
6:15-7:15	8	32	4	44	34	7	5	46	4	126	9	139	1	3	17	21	183	67	250	0.79	6:15-7:15
6:30-7:30	27	45	7	79	31	21	5	57	4	148	20	172	5	5	23	33	251	90	341	0.60	6:30-7:30
6:45-7:45	59	57	8	124	39	44	9	92	4	167	57	228	18	19	46	83	352	175	527	0.56	6:45-7:45
7:00-8:00	60	75	10	145	47	53	6	106	1	181	73	255	40	37	77	154	400	260	660	0.70	7:00-8:00
7:15-8:15	57	99	12	168	57	51	9	117	2	200	67	269	42	38	78	158	437	275	712	0.76	7:15-8:15
7:30-8:30	42	127	12	181	51	39	9	99	4	213	58	275	38	36	74	148	456	247	703	0.75	7:30-8:30
7:45-8:45	10	143	14	167	48	16	10	74	5	247	25	277	27	25	53	105	444	179	623	0.76	7:45-8:45
8:00-9:00	6	137	13	156	44	5	13	62	6	242	9	257	7	8	23	38	413	100	513	0.83	8:00-9:00
AM Peak 7:15-8:15	**57**	**99**	**12**	**168**	**57**	**51**	**9**	**117**	**2**	**200**	**67**	**269**	**42**	**38**	**78**	**158**	**437**	**275**	**712**	**0.76**	**AM Peak 7:15-8:15**
PM																					
4:00-4:15	4	29	2	35	2	6	1	9	0	25	2	27	0	5	7	12	62	21	83		4:00-4:15
4:15-4:30	3	26	4	33	4	1	4	9	0	34	2	36	2	1	5	8	69	17	86		4:15-4:30
4:30-4:45	4	30	6	40	12	3	5	20	2	36	2	40	4	3	6	13	80	33	113		4:30-4:45
4:45-5:00	4	37	4	45	3	3	6	12	1	24	1	26	1	3	5	9	71	21	92		4:45-5:00
5:00-5:15	3	36	4	43	7	3	7	17	2	21	0	23	2	3	5	10	66	27	93		5:00-5:15
5:15-5:30	2	35	16	53	9	5	3	17	2	33	0	35	6	2	5	13	88	30	118		5:15-5:30
5:30-5:45	2	38	6	46	2	6	8	16	4	22	2	28	1	5	6	12	74	28	102		5:30-5:45
5:45-6:00	5	43	10	58	8	5	1	14	2	30	4	36	4	3	7	14	94	28	122		5:45-6:00
6:00-6:15	5	44	13	62	5	4	5	14	3	31	2	36	1	1	3	5	98	19	117		6:00-6:15
6:15-6:30	17	32	3	52	6	9	2	17	3	28	16	47	4	1	5	10	99	27	126		6:15-6:30
6:30-6:45	18	39	17	74	4	4	4	12	1	23	17	41	4	3	7	14	115	26	141		6:30-6:45
6:45-7:00	6	33	11	50	5	7	1	13	1	22	6	29	5	11	4	20	79	33	112		6:45-7:00
3 Hour Totals	**73**	**422**	**96**	**591**	**67**	**56**	**47**	**170**	**21**	**329**	**54**	**404**	**34**	**41**	**65**	**140**	**995**	**310**	**1,305**		
1 Hour Totals																					
4:00-5:00	15	122	16	153	21	13	16	50	3	119	7	129	7	12	23	42	282	92	374	0.83	4:00-5:00
4:15-5:15	14	129	18	161	26	10	22	58	5	115	5	125	9	10	21	40	286	98	384	0.85	4:15-5:15
4:30-5:30	13	138	30	181	31	14	21	66	7	114	3	124	13	11	21	45	305	111	416	0.88	4:30-5:30
4:45-5:45	11	146	30	187	21	17	24	62	9	100	3	112	10	13	21	44	299	106	405	0.86	4:45-5:45
5:00-6:00	12	152	36	200	26	19	19	64	10	106	6	122	13	13	23	49	322	113	435	0.89	5:00-6:00
5:15-6:15	14	160	45	219	24	20	17	61	11	116	8	135	12	11	21	44	354	105	459	0.94	5:15-6:15
5:30-6:30	29	157	32	218	21	24	16	61	12	111	24	147	10	10	21	41	365	102	467	0.93	5:30-6:30
5:45-6:45	45	158	43	246	23	22	12	57	9	112	39	160	13	8	22	43	406	100	506	0.90	5:45-6:45
6:00-7:00	46	148	44	238	20	24	12	56	8	104	41	153	14	16	19	49	391	105	496	0.88	6:00-7:00
PM Peak 5:45-6:45	**45**	**158**	**43**	**246**	**23**	**22**	**12**	**57**	**9**	**112**	**39**	**160**	**13**	**8**	**22**	**43**	**406**	**100**	**506**	**0.90**	**PM Peak 5:45-6:45**

Wells & Associates, INC

McLean, Virginia

Existing Traffic Count

PROJECT:	Stone Ridge Commercial	DATE:	3/27/2008	SOUTHBOUND ROAD:	Stone Springs Boulevard
W & A JOB NO.:	3088	DAY:	Thursday	NORTHBOUND ROAD:	Stone Springs Boulevard
INTERSECTION:	Stone Springs Blvd. & Millstream Dr.	WEATHER:	Clear	WESTBOUND ROAD:	Millstream Drive
LOCATION:	Loudoun County,VA	COUNTED BY:	Belen	EASTBOUND ROAD:	Millstream Drive
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Stone Springs Boulevard				Westbound Millstream Drive				Northbound Stone Springs Boulevard				Eastbound Millstream Drive				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	3	7	5	15	15	6	0	21	0	30	2	32	0	0	4	4	47	25	72		6:00-6:15
6:15-6:30	5	5	3	13	20	7	0	27	0	43	7	50	1	1	14	16	63	43	106		6:15-6:30
6:30-6:45	4	7	6	17	51	12	0	63	0	53	5	58	0	1	14	15	75	78	153		6:30-6:45
6:45-7:00	8	18	7	33	78	13	0	91	1	50	15	66	0	4	18	22	99	113	212		6:45-7:00
7:00-7:15	11	16	12	39	54	11	1	66	1	76	6	83	5	2	15	22	122	88	210		7:00-7:15
7:15-7:30	14	32	19	65	45	14	2	61	1	63	16	80	7	3	13	23	145	84	229		7:15-7:30
7:30-7:45	8	42	3	53	56	5	1	62	1	93	11	105	3	4	28	35	158	97	255		7:30-7:45
7:45-8:00	5	33	5	43	63	10	0	73	4	90	18	112	9	5	27	41	155	114	269		7:45-8:00
8:00-8:15	2	34	6	42	32	9	0	41	0	77	11	88	4	1	23	28	130	69	199		8:00-8:15
8:15-8:30	2	36	15	53	43	13	1	57	1	87	10	98	4	2	18	24	151	81	232		8:15-8:30
8:30-8:45	0	35	16	51	52	10	0	62	0	92	18	110	2	5	16	23	161	85	246		8:30-8:45
8:45-9:00	1	31	15	47	37	7	0	44	0	60	16	76	4	0	18	22	123	66	189		8:45-9:00
3 Hour Totals	**63**	**296**	**112**	**471**	**546**	**117**	**5**	**668**	**9**	**814**	**135**	**958**	**39**	**28**	**208**	**275**	**1,429**	**943**	**2,372**		
1 Hour Totals																					
6:00-7:00	20	37	21	78	164	38	0	202	1	176	29	206	1	6	50	57	284	259	543	0.64	6:00-7:00
6:15-7:15	28	46	28	102	203	43	1	247	2	222	33	257	6	8	61	75	359	322	681	0.80	6:15-7:15
6:30-7:30	37	73	44	154	228	50	3	281	3	242	42	287	12	10	60	82	441	363	804	0.88	6:30-7:30
6:45-7:45	41	108	41	190	233	43	4	280	4	282	48	334	15	13	74	102	524	382	906	0.89	6:45-7:45
7:00-8:00	38	123	39	200	218	40	4	262	7	322	51	380	24	14	83	121	580	383	963	0.89	7:00-8:00
7:15-8:15	29	141	33	203	196	38	3	237	6	323	56	385	23	13	91	127	588	364	952	0.88	7:15-8:15
7:30-8:30	17	145	29	191	194	37	2	233	6	347	50	403	20	12	96	128	594	361	955	0.89	7:30-8:30
7:45-8:45	9	138	42	189	190	42	1	233	5	346	57	408	19	13	84	116	597	349	946	0.88	7:45-8:45
8:00-9:00	5	136	52	193	164	39	1	204	1	316	55	372	14	8	75	97	565	301	866	0.88	8:00-9:00
AM Peak 7:00-8:00	**38**	**123**	**39**	**200**	**218**	**40**	**4**	**262**	**7**	**322**	**51**	**380**	**24**	**14**	**83**	**121**	**580**	**383**	**963**	**0.89**	**AM Peak 7:00-8:00**
PM																					
4:00-4:15	4	31	14	49	22	12	1	35	0	17	9	26	7	7	15	29	75	64	139		4:00-4:15
4:15-4:30	0	44	20	64	9	11	2	22	1	26	11	38	4	7	33	44	102	66	168		4:15-4:30
4:30-4:45	2	46	9	57	9	9	0	18	1	27	16	44	3	12	20	35	101	53	154		4:30-4:45
4:45-5:00	3	42	13	58	10	17	2	29	1	15	9	25	13	16	32	61	83	90	173		4:45-5:00
5:00-5:15	4	30	27	61	8	12	2	22	0	27	13	40	11	7	41	59	101	81	182		5:00-5:15
5:15-5:30	6	43	17	66	12	12	0	24	0	19	18	37	18	19	22	59	103	83	186		5:15-5:30
5:30-5:45	4	38	19	61	5	8	0	13	2	18	5	25	7	11	24	42	86	55	141		5:30-5:45
5:45-6:00	7	61	14	82	6	5	0	11	1	20	15	36	14	13	48	75	118	86	204		5:45-6:00
6:00-6:15	6	51	20	77	4	10	0	14	0	21	15	36	13	13	23	49	113	63	176		6:00-6:15
6:15-6:30	19	60	10	89	10	11	0	21	0	25	12	37	14	16	33	63	126	84	210		6:15-6:30
6:30-6:45	3	75	13	91	8	14	1	23	1	23	9	33	5	9	30	44	124	67	191		6:30-6:45
6:45-7:00	5	56	17	78	9	11	1	21	1	12	14	27	4	7	15	26	105	47	152		6:45-7:00
3 Hour Totals	**63**	**577**	**193**	**833**	**112**	**132**	**9**	**253**	**8**	**250**	**146**	**404**	**113**	**137**	**336**	**586**	**1,237**	**839**	**2,076**		
1 Hour Totals																					
4:00-5:00	9	163	56	228	50	49	5	104	3	85	45	133	27	42	100	169	361	273	634	0.92	4:00-5:00
4:15-5:15	9	162	69	240	36	49	6	91	3	95	49	147	31	42	126	199	387	290	677	0.93	4:15-5:15
4:30-5:30	15	161	66	242	39	50	4	93	2	88	56	146	45	54	115	214	388	307	695	0.93	4:30-5:30
4:45-5:45	17	153	76	246	35	49	4	88	3	79	45	127	49	53	119	221	373	309	682	0.92	4:45-5:45
5:00-6:00	21	172	77	270	31	37	2	70	3	84	51	138	50	50	135	235	408	305	713	0.87	5:00-6:00
5:15-6:15	23	193	70	286	27	35	0	62	3	78	53	134	52	56	117	225	420	287	707	0.87	5:15-6:15
5:30-6:30	36	210	63	309	25	34	0	59	3	84	47	134	48	53	128	229	443	288	731	0.87	5:30-6:30
5:45-6:45	35	247	57	339	28	40	1	69	2	89	51	142	46	51	134	231	481	300	781	0.93	5:45-6:45
6:00-7:00	33	242	60	335	31	46	2	79	2	81	50	133	36	45	101	182	468	261	729	0.87	6:00-7:00
PM Peak 5:45-6:45	**35**	**247**	**57**	**339**	**28**	**40**	**1**	**69**	**2**	**89**	**51**	**142**	**46**	**51**	**134**	**231**	**481**	**300**	**781**	**0.93**	**PM Peak 5:45-6:45**

Wells & Associates, INC

McLean, Virginia

Existing Traffic Count

PROJECT:	Stone Ridge Commercial	DATE:	3/11/2008	SOUTHBOUND ROAD:	Gum Spring Road
W & A JOB NO.:	3088	DAY:	Tuesday	NORTHBOUND ROAD:	Gum Spring Road
INTERSECTION:	Route 659 & Tall Cedars Pkwy.	WEATHER:	Clear	WESTBOUND ROAD:	x
LOCATION:	Loudoun County,VA	COUNTED BY:	Belen & Kike	EASTBOUND ROAD:	Tall Cedars Parkway
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Gum Spring Road				Westbound x				Northbound Gum Spring Road				Eastbound Tall Cedars Parkway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	18	0	18	0	0	0	0	0	98	9	107	2	0	0	2	125	2	127		6:00-6:15
6:15-6:30	2	21	0	23	0	0	0	0	0	113	19	132	4	0	0	4	155	4	159		6:15-6:30
6:30-6:45	1	32	0	33	0	0	0	0	0	95	36	131	2	0	3	5	164	5	169		6:30-6:45
6:45-7:00	3	40	0	43	0	0	0	0	0	111	38	149	4	0	0	4	192	4	196		6:45-7:00
7:00-7:15	1	44	0	45	0	0	0	0	0	74	37	111	22	0	0	22	156	22	178		7:00-7:15
7:15-7:30	7	44	0	51	0	0	0	0	0	87	53	140	21	0	4	25	191	25	216		7:15-7:30
7:30-7:45	2	51	0	53	0	0	0	0	0	70	36	106	16	0	1	17	159	17	176		7:30-7:45
7:45-8:00	6	42	0	48	0	0	0	0	0	84	38	122	14	0	2	16	170	16	186		7:45-8:00
8:00-8:15	5	50	0	55	0	0	0	0	0	64	31	95	10	0	1	11	150	11	161		8:00-8:15
8:15-8:30	2	47	0	49	0	0	0	0	0	68	20	88	17	0	3	20	137	20	157		8:15-8:30
8:30-8:45	2	56	0	58	0	0	0	0	0	115	22	137	14	0	1	15	195	15	210		8:30-8:45
8:45-9:00	9	42	0	51	0	0	0	0	0	127	14	141	15	0	0	15	192	15	207		8:45-9:00
3 Hour Totals	**40**	**487**	**0**	**527**	**0**	**0**	**0**	**0**	**0**	**1,106**	**353**	**1,459**	**141**	**0**	**15**	**156**	**1,986**	**156**	**2,142**		
1 Hour Totals																					
6:00-7:00	6	111	0	117	0	0	0	0	0	417	102	519	12	0	3	15	636	15	651	0.83	6:00-7:00
6:15-7:15	7	137	0	144	0	0	0	0	0	393	130	523	32	0	3	35	667	35	702	0.90	6:15-7:15
6:30-7:30	12	160	0	172	0	0	0	0	0	367	164	531	49	0	7	56	703	56	759	0.88	6:30-7:30
6:45-7:45	13	179	0	192	0	0	0	0	0	342	164	506	63	0	5	68	698	68	766	0.89	6:45-7:45
7:00-8:00	16	181	0	197	0	0	0	0	0	315	164	479	73	0	7	80	676	80	756	0.88	7:00-8:00
7:15-8:15	20	187	0	207	0	0	0	0	0	305	158	463	61	0	8	69	670	69	739	0.86	7:15-8:15
7:30-8:30	15	190	0	205	0	0	0	0	0	286	125	411	57	0	7	64	616	64	680	0.91	7:30-8:30
7:45-8:45	15	195	0	210	0	0	0	0	0	331	111	442	55	0	7	62	652	62	714	0.85	7:45-8:45
8:00-9:00	18	195	0	213	0	0	0	0	0	374	87	461	56	0	5	61	674	61	735	0.88	8:00-9:00
AM Peak 6:45-7:45	**13**	**179**	**0**	**192**	**0**	**0**	**0**	**0**	**0**	**342**	**164**	**506**	**63**	**0**	**5**	**68**	**698**	**68**	**766**	**0.89**	**AM Peak 6:45-7:45**
PM																					
4:00-4:15	15	113	0	128	0	0	0	0	0	54	16	70	25	0	2	27	198	27	225		4:00-4:15
4:15-4:30	12	137	0	149	0	0	0	0	0	62	28	90	16	0	2	18	239	18	257		4:15-4:30
4:30-4:45	17	217	0	234	0	0	0	0	0	65	11	76	18	0	1	19	310	19	329		4:30-4:45
4:45-5:00	15	177	0	192	0	0	0	0	0	51	15	66	26	0	3	29	258	29	287		4:45-5:00
5:00-5:15	29	180	0	209	0	0	0	0	0	46	13	59	26	0	0	26	268	26	294		5:00-5:15
5:15-5:30	30	197	0	227	0	0	0	0	0	51	16	67	26	0	0	26	294	26	320		5:15-5:30
5:30-5:45	26	176	0	202	0	0	0	0	0	47	18	65	16	0	5	21	267	21	288		5:30-5:45
5:45-6:00	28	233	0	261	0	0	0	0	0	67	13	80	27	0	2	29	341	29	370		5:45-6:00
6:00-6:15	26	194	0	220	0	0	0	0	0	42	24	66	30	0	2	32	286	32	318		6:00-6:15
6:15-6:30	30	217	0	247	0	0	0	0	0	49	8	57	22	0	2	24	304	24	328		6:15-6:30
6:30-6:45	22	189	0	211	0	0	0	0	0	69	31	100	20	0	2	22	311	22	333		6:30-6:45
6:45-7:00	16	93	0	109	0	0	0	0	0	38	25	63	23	0	6	29	172	29	201		6:45-7:00
3 Hour Totals	**266**	**2,123**	**0**	**2,389**	**0**	**0**	**0**	**0**	**0**	**641**	**218**	**859**	**275**	**0**	**27**	**302**	**3,248**	**302**	**3,550**		
1 Hour Totals																					
4:00-5:00	59	644	0	703	0	0	0	0	0	232	70	302	85	0	8	93	1,005	93	1,098	0.83	4:00-5:00
4:15-5:15	73	711	0	784	0	0	0	0	0	224	67	291	86	0	6	92	1,075	92	1,167	0.89	4:15-5:15
4:30-5:30	91	771	0	862	0	0	0	0	0	213	55	268	96	0	4	100	1,130	100	1,230	0.93	4:30-5:30
4:45-5:45	100	730	0	830	0	0	0	0	0	195	62	257	94	0	8	102	1,087	102	1,189	0.93	4:45-5:45
5:00-6:00	113	786	0	899	0	0	0	0	0	211	60	271	95	0	7	102	1,170	102	1,272	0.86	5:00-6:00
5:15-6:15	110	800	0	910	0	0	0	0	0	207	71	278	99	0	9	108	1,188	108	1,296	0.88	5:15-6:15
5:30-6:30	110	820	0	930	0	0	0	0	0	205	63	268	95	0	11	106	1,198	106	1,304	0.88	5:30-6:30
5:45-6:45	106	833	0	939	0	0	0	0	0	227	76	303	99	0	8	107	1,242	107	1,349	0.91	5:45-6:45
6:00-7:00	94	693	0	787	0	0	0	0	0	198	88	286	95	0	12	107	1,073	107	1,180	0.89	6:00-7:00
PM Peak 5:45-6:45	**106**	**833**	**0**	**939**	**0**	**0**	**0**	**0**	**0**	**227**	**76**	**303**	**99**	**0**	**8**	**107**	**1,242**	**107**	**1,349**	**0.91**	**PM Peak 5:45-6:45**

Wells & Associates, INC

McLean, Virginia

Existing Traffic Count

PROJECT:	Stone Ridge Commercial	DATE:	3/11/2008	SOUTHBOUND ROAD:	
W & A JOB NO.:	3088	DAY:	Tuesday	NORTHBOUND ROAD:	Stone Springs Boulevard
INTERSECTION:	Route 50 & Stone Ridge Blvd.	WEATHER:	Clear	WESTBOUND ROAD:	John Mosby Highway
LOCATION:	Loudoun County,VA	COUNTED BY:	Di & Admir	EASTBOUND ROAD:	John Mosby Highway
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound 0				Westbound John Mosby Highway				Northbound Stone Springs Boulevard				Eastbound John Mosby Highway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	0	37	12	49	63	0	5	68	10	214	0	224	68	273	341		6:00-6:15
6:15-6:30	0	0	0	0	0	66	8	74	80	0	5	85	15	273	0	288	85	362	447		6:15-6:30
6:30-6:45	0	0	0	0	0	54	12	66	112	0	7	119	17	270	0	287	119	353	472		6:30-6:45
6:45-7:00	0	0	0	0	0	80	27	107	83	0	11	94	23	260	0	283	94	390	484		6:45-7:00
7:00-7:15	0	0	0	0	0	57	26	83	130	0	8	138	30	225	0	255	138	338	476		7:00-7:15
7:15-7:30	0	0	0	0	0	55	33	88	134	0	11	145	36	264	0	300	145	388	533		7:15-7:30
7:30-7:45	0	0	0	0	0	78	38	116	156	0	22	178	40	246	0	286	178	402	580		7:30-7:45
7:45-8:00	0	0	0	0	0	80	28	108	142	0	23	165	26	225	0	251	165	359	524		7:45-8:00
8:00-8:15	0	0	0	0	0	60	25	85	123	0	20	143	29	231	0	260	143	345	488		8:00-8:15
8:15-8:30	0	0	0	0	0	81	36	117	139	0	20	159	33	216	0	249	159	366	525		8:15-8:30
8:30-8:45	0	0	0	0	0	71	37	108	129	0	22	151	20	226	0	246	151	354	505		8:30-8:45
8:45-9:00	0	0	0	0	0	103	30	133	81	0	20	101	12	217	0	229	101	362	463		8:45-9:00
3 Hour Totals	**0**	**0**	**0**	**0**	**0**	**822**	**312**	**1,134**	**1,372**	**0**	**174**	**1,546**	**291**	**2,867**	**0**	**3,158**	**1,546**	**4,292**	**5,838**		
1 Hour Totals																					
6:00-7:00	0	0	0	0	0	237	59	296	338	0	28	366	65	1,017	0	1,082	366	1,378	1,744	0.90	6:00-7:00
6:15-7:15	0	0	0	0	0	257	73	330	405	0	31	436	85	1,028	0	1,113	436	1,443	1,879	0.97	6:15-7:15
6:30-7:30	0	0	0	0	0	246	98	344	459	0	37	496	106	1,019	0	1,125	496	1,469	1,965	0.92	6:30-7:30
6:45-7:45	0	0	0	0	0	270	124	394	503	0	52	555	129	995	0	1,124	555	1,518	2,073	0.89	6:45-7:45
7:00-8:00	0	0	0	0	0	270	125	395	562	0	64	626	132	960	0	1,092	626	1,487	2,113	0.91	7:00-8:00
7:15-8:15	0	0	0	0	0	273	124	397	555	0	76	631	131	966	0	1,097	631	1,494	2,125	0.92	7:15-8:15
7:30-8:30	0	0	0	0	0	299	127	426	560	0	85	645	128	918	0	1,046	645	1,472	2,117	0.91	7:30-8:30
7:45-8:45	0	0	0	0	0	292	126	418	533	0	85	618	108	898	0	1,006	618	1,424	2,042	0.97	7:45-8:45
8:00-9:00	0	0	0	0	0	315	128	443	472	0	82	554	94	890	0	984	554	1,427	1,981	0.94	8:00-9:00
AM Peak 7:15-8:15	**0**	**0**	**0**	**0**	**0**	**273**	**124**	**397**	**555**	**0**	**76**	**631**	**131**	**966**	**0**	**1,097**	**631**	**1,494**	**2,125**	**0.92**	**AM Peak 7:15-8:15**
PM																					
4:00-4:15	0	0	0	0	0	269	62	331	49	0	31	80	11	80	0	91	80	422	502		4:00-4:15
4:15-4:30	0	0	0	0	0	289	77	366	45	0	33	78	13	76	0	89	78	455	533		4:15-4:30
4:30-4:45	0	0	0	0	0	272	89	361	54	0	29	83	15	78	0	93	83	454	537		4:30-4:45
4:45-5:00	0	0	0	0	0	271	91	362	48	0	33	81	14	62	0	76	81	438	519		4:45-5:00
5:00-5:15	0	0	0	0	0	289	100	389	64	0	28	92	17	71	0	88	92	477	569		5:00-5:15
5:15-5:30	0	0	0	0	0	287	143	430	55	0	37	92	25	87	0	112	92	542	634		5:15-5:30
5:30-5:45	0	0	0	0	0	261	103	364	57	0	28	85	12	75	0	87	85	451	536		5:30-5:45
5:45-6:00	0	0	0	0	0	208	111	319	46	0	29	75	17	82	0	99	75	418	493		5:45-6:00
6:00-6:15	0	0	0	0	0	218	97	315	51	0	33	84	18	85	0	103	84	418	502		6:00-6:15
6:15-6:30	0	0	0	0	0	230	110	340	39	0	27	66	18	70	0	88	66	428	494		6:15-6:30
6:30-6:45	0	0	0	0	0	209	81	290	58	0	27	85	14	71	0	85	85	375	460		6:30-6:45
6:45-7:00	0	0	0	0	0	189	98	287	40	0	23	63	16	72	0	88	63	375	438		6:45-7:00
3 Hour Totals	**0**	**0**	**0**	**0**	**0**	**2,992**	**1,162**	**4,154**	**606**	**0**	**358**	**964**	**190**	**909**	**0**	**1,099**	**964**	**5,253**	**6,217**		
1 Hour Totals																					
4:00-5:00	0	0	0	0	0	1,101	319	1,420	196	0	126	322	53	296	0	349	322	1,769	2,091	0.97	4:00-5:00
4:15-5:15	0	0	0	0	0	1,121	357	1,478	211	0	123	334	59	287	0	346	334	1,824	2,158	0.95	4:15-5:15
4:30-5:30	0	0	0	0	0	1,119	423	1,542	221	0	127	348	71	298	0	369	348	1,911	2,259	0.89	4:30-5:30
4:45-5:45	0	0	0	0	0	1,108	437	1,545	224	0	126	350	68	295	0	363	350	1,908	2,258	0.89	4:45-5:45
5:00-6:00	0	0	0	0	0	1,045	457	1,502	222	0	122	344	71	315	0	386	344	1,888	2,232	0.88	5:00-6:00
5:15-6:15	0	0	0	0	0	974	454	1,428	209	0	127	336	72	329	0	401	336	1,829	2,165	0.85	5:15-6:15
5:30-6:30	0	0	0	0	0	917	421	1,338	193	0	117	310	65	312	0	377	310	1,715	2,025	0.94	5:30-6:30
5:45-6:45	0	0	0	0	0	865	399	1,264	194	0	116	310	67	308	0	375	310	1,639	1,949	0.97	5:45-6:45
6:00-7:00	0	0	0	0	0	846	386	1,232	188	0	110	298	66	298	0	364	298	1,596	1,894	0.94	6:00-7:00
PM Peak 4:30-5:30	**0**	**0**	**0**	**0**	**0**	**1,119**	**423**	**1,542**	**221**	**0**	**127**	**348**	**71**	**298**	**0**	**369**	**348**	**1,911**	**2,259**	**0.89**	**PM Peak 4:30-5:30**

Wells & Associates, INC

McLean, Virginia

Existing Traffic Count

PROJECT:	Stone Ridge Commercial	DATE:	4/29/2008	SOUTHBOUND ROAD:	Loudoun County Parkway
W & A JOB NO.:	3088	DAY:	Tuesday	NORTHBOUND ROAD:	Loudoun County Parkway
INTERSECTION:	US Route 50 & Route 606	WEATHER:	Clear	WESTBOUND ROAD:	John S. Mosby Highway
LOCATION:	Loudoun County,VA	COUNTED BY:	Jim,James & Salih	EASTBOUND ROAD:	John S. Mosby Highway
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Loudoun County Parkway				Westbound John S. Mosby Highway				Northbound Loudoun County Parkway				Eastbound John S. Mosby Highway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	31	11	80	122	73	62	27	162	34	76	8	118	8	184	125	317	240	479	719		6:00-6:15
6:15-6:30	36	21	120	177	73	63	22	158	61	94	6	161	11	189	141	341	338	499	837		6:15-6:30
6:30-6:45	61	28	121	210	106	70	15	191	69	99	8	176	11	243	174	428	386	619	1,005		6:30-6:45
6:45-7:00	39	33	133	205	127	88	15	230	65	81	17	163	14	250	141	405	368	635	1,003		6:45-7:00
7:00-7:15	31	32	120	183	127	68	13	208	65	79	8	152	11	221	178	410	335	618	953		7:00-7:15
7:15-7:30	42	45	104	191	123	93	19	235	56	178	16	250	32	273	157	462	441	697	1,138		7:15-7:30
7:30-7:45	35	38	141	214	126	99	22	247	66	188	13	267	21	244	197	462	481	709	1,190		7:30-7:45
7:45-8:00	34	43	154	231	135	77	19	231	59	194	13	266	36	215	170	421	497	652	1,149		7:45-8:00
8:00-8:15	38	44	156	238	105	68	13	186	77	168	25	270	39	220	157	416	508	602	1,110		8:00-8:15
8:15-8:30	22	40	133	195	117	83	23	223	73	154	30	257	40	197	142	379	452	602	1,054		8:15-8:30
8:30-8:45	23	42	144	209	98	85	24	207	57	148	25	230	66	228	129	423	439	630	1,069		8:30-8:45
8:45-9:00	32	31	122	185	118	87	31	236	74	144	31	249	35	198	112	345	434	581	1,015		8:45-9:00
3 Hour Totals	**424**	**408**	**1,528**	**2,360**	**1,328**	**943**	**243**	**2,514**	**756**	**1,603**	**200**	**2,559**	**324**	**2,662**	**1,823**	**4,809**	**4,919**	**7,323**	**12,242**		
1 Hour Totals																					
6:00-7:00	167	93	454	714	379	283	79	741	229	350	39	618	44	866	581	1,491	1,332	2,232	3,564	0.89	6:00-7:00
6:15-7:15	167	114	494	775	433	289	65	787	260	353	39	652	47	903	634	1,584	1,427	2,371	3,798	0.94	6:15-7:15
6:30-7:30	173	138	478	789	483	319	62	864	255	437	49	741	68	987	650	1,705	1,530	2,569	4,099	0.90	6:30-7:30
6:45-7:45	147	148	498	793	503	348	69	920	252	526	54	832	78	988	673	1,739	1,625	2,659	4,284	0.90	6:45-7:45
7:00-8:00	142	158	519	819	511	337	73	921	246	639	50	935	100	953	702	1,755	1,754	2,676	4,430	0.93	7:00-8:00
7:15-8:15	149	170	555	874	489	337	73	899	258	728	67	1,053	128	952	681	1,761	1,927	2,660	4,587	0.96	7:15-8:15
7:30-8:30	129	165	584	878	483	327	77	887	275	704	81	1,060	136	876	666	1,678	1,938	2,565	4,503	0.95	7:30-8:30
7:45-8:45	117	169	587	873	455	313	79	847	266	664	93	1,023	181	860	598	1,639	1,896	2,486	4,382	0.95	7:45-8:45
8:00-9:00	115	157	555	827	438	323	91	852	281	614	111	1,006	180	843	540	1,563	1,833	2,415	4,248	0.96	8:00-9:00
AM Peak 7:15-8:15	**149**	**170**	**555**	**874**	**489**	**337**	**73**	**899**	**258**	**728**	**67**	**1,053**	**128**	**952**	**681**	**1,761**	**1,927**	**2,660**	**4,587**	**0.96**	**AM Peak 7:15-8:15**
PM																					
4:00-4:15	126	108	126	360	144	251	61	456	47	63	30	140	32	89	37	158	500	614	1,114		4:00-4:15
4:15-4:30	160	120	110	390	167	258	74	499	37	63	31	131	23	120	42	185	521	684	1,205		4:15-4:30
4:30-4:45	138	121	129	388	185	289	71	545	35	64	28	127	29	99	54	182	515	727	1,242		4:30-4:45
4:45-5:00	163	128	107	398	179	263	84	526	35	61	38	134	32	87	39	158	532	684	1,216		4:45-5:00
5:00-5:15	160	150	134	444	222	287	75	584	38	64	42	144	49	106	45	200	588	784	1,372		5:00-5:15
5:15-5:30	123	163	142	428	215	270	93	578	33	33	43	109	28	97	41	166	537	744	1,281		5:15-5:30
5:30-5:45	159	186	116	461	190	254	87	531	23	49	30	102	44	115	41	200	563	731	1,294		5:30-5:45
5:45-6:00	164	180	98	442	178	187	88	453	15	50	29	94	44	62	34	140	536	593	1,129		5:45-6:00
6:00-6:15	155	179	102	436	136	186	97	419	27	56	38	121	30	98	28	156	557	575	1,132		6:00-6:15
6:15-6:30	149	162	105	416	121	183	107	411	21	37	43	101	34	73	30	137	517	548	1,065		6:15-6:30
6:30-6:45	151	130	85	366	125	219	100	444	29	49	36	114	37	79	26	142	480	586	1,066		6:30-6:45
6:45-7:00	130	121	74	325	141	184	86	411	40	38	33	111	32	96	43	171	436	582	1,018		6:45-7:00
3 Hour Totals	**1,778**	**1,748**	**1,328**	**4,854**	**2,003**	**2,831**	**1,023**	**5,857**	**380**	**627**	**421**	**1,428**	**414**	**1,121**	**460**	**1,995**	**6,282**	**7,852**	**14,134**		
1 Hour Totals																					
4:00-5:00	587	477	472	1,536	675	1,061	290	2,026	154	251	127	532	116	395	172	683	2,068	2,709	4,777	0.96	4:00-5:00
4:15-5:15	621	519	480	1,620	753	1,097	304	2,154	145	252	139	536	133	412	180	725	2,156	2,879	5,035	0.92	4:15-5:15
4:30-5:30	584	562	512	1,658	801	1,109	323	2,233	141	222	151	514	138	389	179	706	2,172	2,939	5,111	0.93	4:30-5:30
4:45-5:45	605	627	499	1,731	806	1,074	339	2,219	129	207	153	489	153	405	166	724	2,220	2,943	5,163	0.94	4:45-5:45
5:00-6:00	606	679	490	1,775	805	998	343	2,146	109	196	144	449	165	380	161	706	2,224	2,852	5,076	0.92	5:00-6:00
5:15-6:15	601	708	458	1,767	719	897	365	1,981	98	188	140	426	146	372	144	662	2,193	2,643	4,836	0.93	5:15-6:15
5:30-6:30	627	707	421	1,755	625	810	379	1,814	86	192	140	418	152	348	133	633	2,173	2,447	4,620	0.89	5:30-6:30
5:45-6:45	619	651	390	1,660	560	775	392	1,727	92	192	146	430	145	312	118	575	2,090	2,302	4,392	0.97	5:45-6:45
6:00-7:00	585	592	366	1,543	523	772	390	1,685	117	180	150	447	133	346	127	606	1,990	2,291	4,281	0.95	6:00-7:00
PM Peak 4:45-5:45	**605**	**627**	**499**	**1,731**	**806**	**1,074**	**339**	**2,219**	**129**	**207**	**153**	**489**	**153**	**405**	**166**	**724**	**2,220**	**2,943**	**5,163**	**0.94**	**PM Peak 4:45-5:45**

Wells + Associates, Inc.

McLean, Virginia

Existing Traffic Count

PROJECT:	Holly Brook Montessori School	DATE:	12/4/2008	SOUTHBOUND ROAD:	Gum Spring Road
W & A JOB NO.:	4432	DAY:	Thursday	NORTHBOUND ROAD:	Gum Spring Road
INTERSECTION:	Route 50 & Gum Spring Rd.	WEATHER:	Clear	WESTBOUND ROAD:	John S. Mosby School
LOCATION:	Loudoun County,VA	COUNTED BY:	Admir & Di	EASTBOUND ROAD:	John S. Mosby School
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Gum Spring Road				Westbound John S. Mosby School				Northbound Gum Spring Road				Eastbound John S. Mosby School				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	7	11	9	27	4	36	13	53	60	16	4	80	4	243	10	257	107	310	417		6:00-6:15
6:15-6:30	5	6	3	14	11	40	12	63	67	36	4	107	2	312	14	328	121	391	512		6:15-6:30
6:30-6:45	6	20	9	35	20	61	21	102	47	33	4	84	3	279	12	294	119	396	515		6:30-6:45
6:45-7:00	7	23	12	42	20	67	29	116	40	46	0	86	6	354	25	385	128	501	629		6:45-7:00
7:00-7:15	16	28	11	55	8	74	13	95	38	37	1	76	10	301	24	335	131	430	561		7:00-7:15
7:15-7:30	15	14	16	45	30	79	28	137	34	47	2	83	5	389	18	412	128	549	677		7:15-7:30
7:30-7:45	14	23	9	46	29	91	28	148	40	40	2	82	9	385	27	421	128	569	697		7:30-7:45
7:45-8:00	18	27	9	54	26	92	32	150	41	37	1	79	10	328	30	368	133	518	651		7:45-8:00
8:00-8:15	7	23	7	37	19	98	23	140	38	37	2	77	9	314	26	349	114	489	603		8:00-8:15
8:15-8:30	12	31	10	53	20	107	35	162	45	31	2	78	5	317	24	346	131	508	639		8:15-8:30
8:30-8:45	14	18	9	41	23	74	27	124	45	50	7	102	7	311	21	339	143	463	606		8:30-8:45
8:45-9:00	10	16	9	35	20	79	27	126	60	50	4	114	3	258	28	289	149	415	564		8:45-9:00
3 Hour Totals	**131**	**240**	**113**	**484**	**230**	**898**	**288**	**1,416**	**555**	**460**	**33**	**1,048**	**73**	**3,791**	**259**	**4,123**	**1,532**	**5,539**	**7,071**		
1 Hour Totals																					
6:00-7:00	25	60	33	118	55	204	75	334	214	131	12	357	15	1,188	61	1,264	475	1,598	2,073	0.82	6:00-7:00
6:15-7:15	34	77	35	146	59	242	75	376	192	152	9	353	21	1,246	75	1,342	499	1,718	2,217	0.88	6:15-7:15
6:30-7:30	44	85	48	177	78	281	91	450	159	163	7	329	24	1,323	79	1,426	506	1,876	2,382	0.88	6:30-7:30
6:45-7:45	52	88	48	188	87	311	98	496	152	170	5	327	30	1,429	94	1,553	515	2,049	2,564	0.92	6:45-7:45
7:00-8:00	63	92	45	200	93	336	101	530	153	161	6	320	34	1,403	99	1,536	520	2,066	2,586	0.93	7:00-8:00
7:15-8:15	54	87	41	182	104	360	111	575	153	161	7	321	33	1,416	101	1,550	503	2,125	2,628	0.94	7:15-8:15
7:30-8:30	51	104	35	190	94	388	118	600	164	145	7	316	33	1,344	107	1,484	506	2,084	2,590	0.93	7:30-8:30
7:45-8:45	51	99	35	185	88	371	117	576	169	155	12	336	31	1,270	101	1,402	521	1,978	2,499	0.96	7:45-8:45
8:00-9:00	43	88	35	166	82	358	112	552	188	168	15	371	24	1,200	99	1,323	537	1,875	2,412	0.94	8:00-9:00
AM Peak 7:15-8:15	**54**	**87**	**41**	**182**	**104**	**360**	**111**	**575**	**153**	**161**	**7**	**321**	**33**	**1,416**	**101**	**1,550**	**503**	**2,125**	**2,628**	**0.94**	**AM Peak 7:15-8:15**
PM																					
4:00-4:15	22	49	7	78	11	303	82	396	30	18	7	55	9	90	16	115	133	511	644		4:00-4:15
4:15-4:30	21	45	17	83	20	329	97	446	34	22	7	63	1	108	18	127	146	573	719		4:15-4:30
4:30-4:45	19	50	11	80	17	304	107	428	43	22	1	66	9	113	16	138	146	566	712		4:30-4:45
4:45-5:00	23	45	12	80	12	350	144	506	25	25	4	54	7	120	14	141	134	647	781		4:45-5:00
5:00-5:15	18	50	9	77	20	333	113	466	25	22	3	50	4	127	16	147	127	613	740		5:00-5:15
5:15-5:30	17	59	18	94	14	302	135	451	39	23	5	67	2	132	18	152	161	603	764		5:15-5:30
5:30-5:45	31	54	12	97	15	280	133	428	31	19	3	53	3	131	20	154	150	582	732		5:30-5:45
5:45-6:00	26	66	5	97	12	276	126	414	38	26	6	70	5	127	26	158	167	572	739		5:45-6:00
6:00-6:15	26	42	10	78	14	295	122	431	28	22	9	59	7	119	16	142	137	573	710		6:00-6:15
6:15-6:30	20	32	2	54	8	295	143	446	31	17	7	55	6	102	20	128	109	574	683		6:15-6:30
6:30-6:45	11	28	1	40	8	292	128	428	27	17	5	49	9	77	9	95	89	523	612		6:30-6:45
6:45-7:00	15	29	3	47	10	225	104	339	25	12	3	40	4	76	7	87	87	426	513		6:45-7:00
3 Hour Totals	**249**	**549**	**107**	**905**	**161**	**3,584**	**1,434**	**5,179**	**376**	**245**	**60**	**681**	**66**	**1,322**	**196**	**1,584**	**1,586**	**6,763**	**8,349**		
1 Hour Totals																					
4:00-5:00	85	189	47	321	60	1,286	430	1,776	132	87	19	238	26	431	64	521	559	2,297	2,856	0.91	4:00-5:00
4:15-5:15	81	190	49	320	69	1,316	461	1,846	127	91	15	233	21	468	64	553	553	2,399	2,952	0.94	4:15-5:15
4:30-5:30	77	204	50	331	63	1,289	499	1,851	132	92	13	237	22	492	64	578	568	2,429	2,997	0.96	4:30-5:30
4:45-5:45	89	208	51	348	61	1,265	525	1,851	120	89	15	224	16	510	68	594	572	2,445	3,017	0.97	4:45-5:45
5:00-6:00	92	229	44	365	61	1,191	507	1,759	133	90	17	240	14	517	80	611	605	2,370	2,975	0.97	5:00-6:00
5:15-6:15	100	221	45	366	55	1,153	516	1,724	136	90	23	249	17	509	80	606	615	2,330	2,945	0.96	5:15-6:15
5:30-6:30	103	194	29	326	49	1,146	524	1,719	128	84	25	237	21	479	82	582	563	2,301	2,864	0.97	5:30-6:30
5:45-6:45	83	168	18	269	42	1,158	519	1,719	124	82	27	233	27	425	71	523	502	2,242	2,744	0.93	5:45-6:45
6:00-7:00	72	131	16	219	40	1,107	497	1,644	111	68	24	203	26	374	52	452	422	2,096	2,518	0.89	6:00-7:00
PM Peak 4:45-5:45	**89**	**208**	**51**	**348**	**61**	**1,265**	**525**	**1,851**	**120**	**89**	**15**	**224**	**16**	**510**	**68**	**594**	**572**	**2,445**	**3,017**	**0.97**	**PM Peak 4:45-5:45**

Wells & Associates, LLC

McLean, Virginia

Existing Traffic Count

PROJECT:	Arcola School	DATE:	2/29/2008	SOUTHBOUND ROAD:	Fleetwood Road
W & A JOB NO.:	4052	DAY:	Thursday	NORTHBOUND ROAD:	Goshen Road
INTERSECTION:	Route 50 & Goshen Rd.	WEATHER:	Clear	WESTBOUND ROAD:	John Mosby Highway
LOCATION:	Loudoun County,VA	COUNTED BY:	Jim & James	EASTBOUND ROAD:	John Mosby Highway
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Fleetwood Road				Westbound John Mosby Highway				Northbound Goshen Road				Eastbound John Mosby Highway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	0	14	1	15	1	1	0	2	0	231	0	231	2	246	248		6:00-6:15
6:15-6:30	0	0	1	1	1	32	2	35	1	2	0	3	1	234	1	236	4	271	275		6:15-6:30
6:30-6:45	0	0	1	1	1	32	4	37	0	3	0	3	1	278	1	280	4	317	321		6:30-6:45
6:45-7:00	0	1	0	1	0	51	3	54	10	4	1	15	2	298	1	301	16	355	371		6:45-7:00
7:00-7:15	1	0	3	4	3	65	1	69	10	10	0	20	0	207	5	212	24	281	305		7:00-7:15
7:15-7:30	0	0	1	1	3	61	5	69	3	4	0	7	1	257	6	264	8	333	341		7:15-7:30
7:30-7:45	0	1	0	1	3	67	4	74	5	10	0	15	0	260	5	265	16	339	355		7:30-7:45
7:45-8:00	0	0	1	1	5	89	9	103	7	5	2	14	1	271	3	275	15	378	393		7:45-8:00
8:00-8:15	1	0	0	1	10	84	10	104	10	1	2	13	2	200	4	206	14	310	324		8:00-8:15
8:15-8:30	1	0	3	4	9	59	8	76	3	3	1	7	3	241	3	247	11	323	334		8:15-8:30
8:30-8:45	0	1	2	3	11	65	20	96	9	6	4	19	2	211	2	215	22	311	333		8:30-8:45
8:45-9:00	0	1	1	2	3	95	30	128	7	0	1	8	4	177	3	184	10	312	322		8:45-9:00
3 Hour Totals	**3**	**4**	**13**	**20**	**49**	**714**	**97**	**860**	**66**	**49**	**11**	**126**	**17**	**2,865**	**34**	**2,916**	**146**	**3,776**	**3,922**		
1 Hour Totals																					
6:00-7:00	0	1	2	3	2	129	10	141	12	10	1	23	4	1,041	3	1,048	26	1,189	1,215	0.82	6:00-7:00
6:15-7:15	1	1	5	7	5	180	10	195	21	19	1	41	4	1,017	8	1,029	48	1,224	1,272	0.86	6:15-7:15
6:30-7:30	1	1	5	7	7	209	13	229	23	21	1	45	4	1,040	13	1,057	52	1,286	1,338	0.90	6:30-7:30
6:45-7:45	1	2	4	7	9	244	13	266	28	28	1	57	3	1,022	17	1,042	64	1,308	1,372	0.92	6:45-7:45
7:00-8:00	1	1	5	7	14	282	19	315	25	29	2	56	2	995	19	1,016	63	1,331	1,394	0.89	7:00-8:00
7:15-8:15	1	1	2	4	21	301	28	350	25	20	4	49	4	988	18	1,010	53	1,360	1,413	0.90	7:15-8:15
7:30-8:30	2	1	4	7	27	299	31	357	25	19	5	49	6	972	15	993	56	1,350	1,406	0.89	7:30-8:30
7:45-8:45	2	1	6	9	35	297	47	379	29	15	9	53	8	923	12	943	62	1,322	1,384	0.88	7:45-8:45
8:00-9:00	2	2	6	10	33	303	68	404	29	10	8	47	11	829	12	852	57	1,256	1,313	0.98	8:00-9:00
AM Peak 7:15-8:15	**1**	**1**	**2**	**4**	**21**	**301**	**28**	**350**	**25**	**20**	**4**	**49**	**4**	**988**	**18**	**1,010**	**53**	**1,360**	**1,413**	**0.90**	**AM Peak 7:15-8:15**
PM																					
4:00-4:15	1	1	0	2	5	274	11	290	4	1	1	6	0	75	1	76	8	366	374		4:00-4:15
4:15-4:30	1	3	0	4	1	301	8	310	5	0	1	6	0	81	0	81	10	391	401		4:15-4:30
4:30-4:45	1	5	0	6	1	262	15	278	7	0	1	8	0	93	0	93	14	371	385		4:30-4:45
4:45-5:00	0	3	2	5	0	284	18	302	0	1	2	3	0	81	2	83	8	385	393		4:45-5:00
5:00-5:15	2	2	0	4	4	280	10	294	1	0	0	1	1	72	0	73	5	367	372		5:00-5:15
5:15-5:30	1	4	0	5	0	319	11	330	7	0	1	8	3	103	1	107	13	437	450		5:15-5:30
5:30-5:45	0	4	2	6	0	260	15	275	6	0	2	8	2	88	3	93	14	368	382		5:30-5:45
5:45-6:00	1	1	0	2	4	269	14	287	7	2	0	9	1	93	0	94	11	381	392		5:45-6:00
6:00-6:15	0	2	1	3	1	237	11	249	4	0	0	4	0	74	0	74	7	323	330		6:00-6:15
6:15-6:30	5	1	0	6	1	250	4	255	2	1	0	3	0	77	0	77	9	332	341		6:15-6:30
6:30-6:45	6	2	1	9	2	216	6	224	3	2	1	6	0	72	0	72	15	296	311		6:30-6:45
6:45-7:00	4	2	1	7	0	199	15	214	2	1	2	5	1	75	1	77	12	291	303		6:45-7:00
3 Hour Totals	**22**	**30**	**7**	**59**	**19**	**3,151**	**138**	**3,308**	**48**	**8**	**11**	**67**	**8**	**984**	**8**	**1,000**	**126**	**4,308**	**4,434**		
1 Hour Totals																					
4:00-5:00	3	12	2	17	7	1,121	52	1,180	16	2	5	23	0	330	3	333	40	1,513	1,553	0.97	4:00-5:00
4:15-5:15	4	13	2	19	6	1,127	51	1,184	13	1	4	18	1	327	2	330	37	1,514	1,551	0.97	4:15-5:15
4:30-5:30	4	14	2	20	5	1,145	54	1,204	15	1	4	20	4	349	3	356	40	1,560	1,600	0.89	4:30-5:30
4:45-5:45	3	13	4	20	4	1,143	54	1,201	14	1	5	20	6	344	6	356	40	1,557	1,597	0.89	4:45-5:45
5:00-6:00	4	11	2	17	8	1,128	50	1,186	21	2	3	26	7	356	4	367	43	1,553	1,596	0.89	5:00-6:00
5:15-6:15	2	11	3	16	5	1,085	51	1,141	24	2	3	29	6	358	4	368	45	1,509	1,554	0.86	5:15-6:15
5:30-6:30	6	8	3	17	6	1,016	44	1,066	19	3	2	24	3	332	3	338	41	1,404	1,445	0.92	5:30-6:30
5:45-6:45	12	6	2	20	8	972	35	1,015	16	5	1	22	1	316	0	317	42	1,332	1,374	0.88	5:45-6:45
6:00-7:00	15	7	3	25	4	902	36	942	11	4	3	18	1	298	1	300	43	1,242	1,285	0.94	6:00-7:00
PM Peak 4:30-5:30	**4**	**14**	**2**	**20**	**5**	**1,145**	**54**	**1,204**	**15**	**1**	**4**	**20**	**4**	**349**	**3**	**356**	**40**	**1,560**	**1,600**	**0.89**	**PM Peak 4:30-5:30**

Wells & Associates, LLC

McLean, Virginia

Existing Traffic Count

PROJECT:	Stone Ridge Commercial	DATE:	6/28/2006	SOUTHBOUND ROAD:	Millstream Drive
W & A JOB NO.:	3088	DAY:	Wednesday	NORTHBOUND ROAD:	Sandbar Terrace
INTERSECTION:	Millstream Drive/Tall Cedars Parkway	WEATHER:	Clear	WESTBOUND ROAD:	Tall Cedars Parkway
LOCATION:	Loudoun County,VA	COUNTED BY:	Admir	EASTBOUND ROAD:	Construction Driveway
		INPUTED BY:	JAW		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Millstream Drive				Westbound Tall Cedars Parkway				Northbound Sandbar Terrace				Eastbound Construction Driveway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	1	0	0	1	7	0	0	7	0	0	0	0	7	1	8		6:00-6:15
6:15-6:30	0	0	0	0	3	0	0	3	7	2	0	9	0	0	0	0	9	3	12		6:15-6:30
6:30-6:45	0	0	1	1	2	0	1	3	7	0	0	7	0	0	0	0	8	3	11		6:30-6:45
6:45-7:00	0	0	2	2	2	1	0	3	8	0	0	8	0	1	0	1	10	4	14		6:45-7:00
7:00-7:15	0	1	2	3	1	0	0	1	5	1	0	6	0	1	0	1	9	2	11		7:00-7:15
7:15-7:30	0	0	2	2	3	2	1	6	9	1	0	10	0	1	0	1	12	7	19		7:15-7:30
7:30-7:45	2	0	1	3	3	2	0	5	8	1	0	9	1	0	0	1	12	6	18		7:30-7:45
7:45-8:00	1	0	6	7	4	2	1	7	5	1	0	6	0	7	0	7	13	14	27		7:45-8:00
8:00-8:15	0	0	2	2	2	2	1	5	6	2	0	8	0	0	0	0	10	5	15		8:00-8:15
8:15-8:30	1	0	2	3	2	2	1	5	5	1	0	6	0	3	0	3	9	8	17		8:15-8:30
8:30-8:45	0	0	2	2	2	3	1	6	7	0	0	7	0	3	1	4	9	10	19		8:30-8:45
8:45-9:00	0	0	4	4	1	3	1	5	4	0	0	4	0	2	0	2	8	7	15		8:45-9:00
3 Hour Totals	**4**	**1**	**24**	**29**	**26**	**17**	**7**	**50**	**78**	**9**	**0**	**87**	**1**	**18**	**1**	**20**	**116**	**70**	**186**		
1 Hour Totals																					
6:00-7:00	0	0	3	3	8	1	1	10	29	2	0	31	0	1	0	1	34	11	45	0.80	6:00-7:00
6:15-7:15	0	1	5	6	8	1	1	10	27	3	0	30	0	2	0	2	36	12	48	0.86	6:15-7:15
6:30-7:30	0	1	7	8	8	3	2	13	29	2	0	31	0	3	0	3	39	16	55	0.72	6:30-7:30
6:45-7:45	2	1	7	10	9	5	1	15	30	3	0	33	1	3	0	4	43	19	62	0.82	6:45-7:45
7:00-8:00	3	1	11	15	11	6	2	19	27	4	0	31	1	9	0	10	46	29	75	0.69	7:00-8:00
7:15-8:15	3	0	11	14	12	8	3	23	28	5	0	33	1	8	0	9	47	32	79	0.73	7:15-8:15
7:30-8:30	4	0	11	15	11	8	3	22	24	5	0	29	1	10	0	11	44	33	77	0.71	7:30-8:30
7:45-8:45	2	0	12	14	10	9	4	23	23	4	0	27	0	13	1	14	41	37	78	0.72	7:45-8:45
8:00-9:00	1	0	10	11	7	10	4	21	22	3	0	25	0	8	1	9	36	30	66	0.87	8:00-9:00
AM Peak 7:15-8:15	**3**	**0**	**11**	**14**	**12**	**8**	**3**	**23**	**28**	**5**	**0**	**33**	**1**	**8**	**0**	**9**	**47**	**32**	**79**	**0.73**	**AM Peak 7:15-8:15**
PM																					
4:00-4:15	0	1	1	2	2	0	1	3	1	1	0	2	0	0	0	0	4	3	7		4:00-4:15
4:15-4:30	1	1	5	7	1	1	2	4	2	1	0	3	0	0	0	0	10	4	14		4:15-4:30
4:30-4:45	1	2	1	4	2	0	5	7	1	0	0	1	0	2	0	2	5	9	14		4:30-4:45
4:45-5:00	0	1	1	2	1	0	2	3	1	2	0	3	0	0	0	0	5	3	8		4:45-5:00
5:00-5:15	0	4	2	6	2	0	8	10	2	2	0	4	0	0	0	0	10	10	20		5:00-5:15
5:15-5:30	0	2	2	4	0	0	3	3	0	0	0	0	0	0	0	0	4	3	7		5:15-5:30
5:30-5:45	0	0	2	2	1	0	9	10	3	0	0	3	0	0	0	0	5	10	15		5:30-5:45
5:45-6:00	0	2	0	2	1	0	13	14	2	0	0	2	0	0	0	0	4	14	18		5:45-6:00
6:00-6:15	0	3	3	6	1	0	7	8	2	4	0	6	0	0	0	0	12	8	20		6:00-6:15
6:15-6:30	0	3	3	6	2	0	10	12	3	1	0	4	0	0	0	0	10	12	22		6:15-6:30
6:30-6:45	0	5	1	6	0	0	6	6	4	5	0	9	0	0	1	1	15	7	22		6:30-6:45
6:45-7:00	0	3	0	3	0	0	7	7	5	0	0	5	0	0	0	0	8	7	15		6:45-7:00
3 Hour Totals	**2**	**27**	**21**	**50**	**13**	**1**	**73**	**87**	**26**	**16**	**0**	**42**	**0**	**2**	**1**	**3**	**92**	**90**	**182**		
1 Hour Totals																					
4:00-5:00	2	5	8	15	6	1	10	17	5	4	0	9	0	2	0	2	24	19	43	0.77	4:00-5:00
4:15-5:15	2	8	9	19	6	1	17	24	6	5	0	11	0	2	0	2	30	26	56	0.70	4:15-5:15
4:30-5:30	1	9	6	16	5	0	18	23	4	4	0	8	0	2	0	2	24	25	49	0.61	4:30-5:30
4:45-5:45	0	7	7	14	4	0	22	26	6	4	0	10	0	0	0	0	24	26	50	0.63	4:45-5:45
5:00-6:00	0	8	6	14	4	0	33	37	7	2	0	9	0	0	0	0	23	37	60	0.75	5:00-6:00
5:15-6:15	0	7	7	14	3	0	32	35	7	4	0	11	0	0	0	0	25	35	60	0.75	5:15-6:15
5:30-6:30	0	8	8	16	5	0	39	44	10	5	0	15	0	0	0	0	31	44	75	0.85	5:30-6:30
5:45-6:45	0	13	7	20	4	0	36	40	11	10	0	21	0	0	1	1	41	41	82	0.93	5:45-6:45
6:00-7:00	0	14	7	21	3	0	30	33	14	10	0	24	0	0	1	1	45	34	79	0.90	6:00-7:00
PM Peak 5:45-6:45	**0**	**13**	**7**	**20**	**4**	**0**	**36**	**40**	**11**	**10**	**0**	**21**	**0**	**0**	**1**	**1**	**41**	**41**	**82**	**0.93**	**PM Peak 5:45-6:45**

Wells & Associates, LLC

McLean, Virginia

Existing Traffic Count

PROJECT:	Westport	DATE:	4/29/2008	SOUTHBOUND ROAD:	Racefield Lane
W & A JOB NO.:	2579	DAY:	Tuesday	NORTHBOUND ROAD:	
INTERSECTION:	Route 50 & Racefield La.	WEATHER:	Rain	WESTBOUND ROAD:	John Mosby Highway
LOCATION:	Loudoun County,VA	COUNTED BY:	Jim & James	EASTBOUND ROAD:	John Mosby Highway
		INPUTED BY:	agan		

Time Period	Turning Movements																		Total	PHF	Time Period
	Southbound Racefield Lane				Westbound John Mosby Highway				Northbound 0				Eastbound John Mosby Highway				North & South	East & West			
	1 Right	2 Thru	3 Left	Total	4 Right	5 Thru	6 Left	Total	7 Right	8 Thru	9 Left	Total	10 Right	11 Thru	12 Left	Total					
AM																					
6:00-6:15	0	0	0	0	4	37	9	50	0	0	0	0	0	273	0	273	0	323	323		6:00-6:15
6:15-6:30	3	0	0	3	3	56	4	63	0	0	0	0	0	267	0	267	3	330	333		6:15-6:30
6:30-6:45	1	0	0	1	3	63	6	72	0	0	0	0	0	291	0	291	1	363	364		6:30-6:45
6:45-7:00	3	0	0	3	8	91	3	102	0	0	0	0	0	283	0	283	3	385	388		6:45-7:00
7:00-7:15	2	0	0	2	5	75	1	81	0	0	0	0	0	274	0	274	2	355	357		7:00-7:15
7:15-7:30	5	0	0	5	1	75	6	82	0	0	0	0	0	287	0	287	5	369	374		7:15-7:30
7:30-7:45	14	0	0	14	3	112	13	128	0	0	0	0	0	249	0	249	14	377	391		7:30-7:45
7:45-8:00	3	0	0	3	5	118	2	125	0	0	0	0	0	275	0	275	3	400	403		7:45-8:00
8:00-8:15	2	0	0	2	1	105	2	108	0	0	0	0	0	258	0	258	2	366	368		8:00-8:15
8:15-8:30	5	0	0	5	3	101	6	110	0	0	0	0	0	232	0	232	5	342	347		8:15-8:30
8:30-8:45	2	0	0	2	0	97	4	101	0	0	0	0	0	245	0	245	2	346	348		8:30-8:45
8:45-9:00	3	0	0	3	0	146	1	147	0	0	0	0	0	207	0	207	3	354	357		8:45-9:00
3 Hour Totals	**43**	**0**	**0**	**43**	**36**	**1,076**	**57**	**1,169**	**0**	**0**	**0**	**0**	**0**	**3,141**	**0**	**3,141**	**43**	**4,310**	**4,353**		
1 Hour Totals																					
6:00-7:00	7	0	0	7	18	247	22	287	0	0	0	0	0	1,114	0	1,114	7	1,401	1,408	0.91	6:00-7:00
6:15-7:15	9	0	0	9	19	285	14	318	0	0	0	0	0	1,115	0	1,115	9	1,433	1,442	0.93	6:15-7:15
6:30-7:30	11	0	0	11	17	304	16	337	0	0	0	0	0	1,135	0	1,135	11	1,472	1,483	0.96	6:30-7:30
6:45-7:45	24	0	0	24	17	353	23	393	0	0	0	0	0	1,093	0	1,093	24	1,486	1,510	0.97	6:45-7:45
7:00-8:00	24	0	0	24	14	380	22	416	0	0	0	0	0	1,085	0	1,085	24	1,501	1,525	0.95	7:00-8:00
7:15-8:15	24	0	0	24	10	410	23	443	0	0	0	0	0	1,069	0	1,069	24	1,512	1,536	0.95	7:15-8:15
7:30-8:30	24	0	0	24	12	436	23	471	0	0	0	0	0	1,014	0	1,014	24	1,485	1,509	0.94	7:30-8:30
7:45-8:45	12	0	0	12	9	421	14	444	0	0	0	0	0	1,010	0	1,010	12	1,454	1,466	0.91	7:45-8:45
8:00-9:00	12	0	0	12	4	449	13	466	0	0	0	0	0	942	0	942	12	1,408	1,420	0.96	8:00-9:00
AM Peak 7:15-8:15	**24**	**0**	**0**	**24**	**10**	**410**	**23**	**443**	**0**	**0**	**0**	**0**	**0**	**1,069**	**0**	**1,069**	**24**	**1,512**	**1,536**	**0.95**	**AM Peak 7:15-8:15**
PM																					
4:00-4:15	3	0	0	3	10	312	0	322	0	0	0	0	0	94	0	94	3	416	419		4:00-4:15
4:15-4:30	9	0	0	9	3	339	0	342	0	0	0	0	0	88	0	88	9	430	439		4:15-4:30
4:30-4:45	3	0	0	3	4	334	0	338	0	0	0	0	0	82	0	82	3	420	423		4:30-4:45
4:45-5:00	1	0	0	1	1	315	0	316	0	0	0	0	0	100	0	100	1	416	417		4:45-5:00
5:00-5:15	2	0	0	2	3	298	0	301	0	0	0	0	0	102	0	102	2	403	405		5:00-5:15
5:15-5:30	2	0	0	2	3	308	0	311	0	0	0	0	0	79	0	79	2	390	392		5:15-5:30
5:30-5:45	6	0	0	6	1	272	0	273	0	0	0	0	0	102	0	102	6	375	381		5:30-5:45
5:45-6:00	2	0	0	2	0	256	0	256	0	0	0	0	0	74	0	74	2	330	332		5:45-6:00
6:00-6:15	3	0	0	3	1	256	0	257	0	0	0	0	0	86	0	86	3	343	346		6:00-6:15
6:15-6:30	1	0	0	1	2	271	0	273	0	0	0	0	0	97	0	97	1	370	371		6:15-6:30
6:30-6:45	4	0	0	4	2	249	0	251	0	0	0	0	0	86	0	86	4	337	341		6:30-6:45
6:45-7:00	2	0	0	2	4	205	0	209	0	0	0	0	0	69	0	69	2	278	280		6:45-7:00
3 Hour Totals	**38**	**0**	**0**	**38**	**34**	**3,415**	**0**	**3,449**	**0**	**0**	**0**	**0**	**0**	**1,059**	**0**	**1,059**	**38**	**4,508**	**4,546**		
1 Hour Totals																					
4:00-5:00	16	0	0	16	18	1,300	0	1,318	0	0	0	0	0	364	0	364	16	1,682	1,698	0.97	4:00-5:00
4:15-5:15	15	0	0	15	11	1,286	0	1,297	0	0	0	0	0	372	0	372	15	1,669	1,684	0.96	4:15-5:15
4:30-5:30	8	0	0	8	11	1,255	0	1,266	0	0	0	0	0	363	0	363	8	1,629	1,637	0.97	4:30-5:30
4:45-5:45	11	0	0	11	8	1,193	0	1,201	0	0	0	0	0	383	0	383	11	1,584	1,595	0.96	4:45-5:45
5:00-6:00	12	0	0	12	7	1,134	0	1,141	0	0	0	0	0	357	0	357	12	1,498	1,510	0.93	5:00-6:00
5:15-6:15	13	0	0	13	5	1,092	0	1,097	0	0	0	0	0	341	0	341	13	1,438	1,451	0.93	5:15-6:15
5:30-6:30	12	0	0	12	4	1,055	0	1,059	0	0	0	0	0	359	0	359	12	1,418	1,430	0.94	5:30-6:30
5:45-6:45	10	0	0	10	5	1,032	0	1,037	0	0	0	0	0	343	0	343	10	1,380	1,390	0.94	5:45-6:45
6:00-7:00	10	0	0	10	9	981	0	990	0	0	0	0	0	338	0	338	10	1,328	1,338	0.90	6:00-7:00
PM Peak 4:00-5:00	**16**	**0**	**0**	**16**	**18**	**1,300**	**0**	**1,318**	**0**	**0**	**0**	**0**	**0**	**364**	**0**	**364**	**16**	**1,682**	**1,698**	**0.97**	**PM Peak 4:00-5:00**

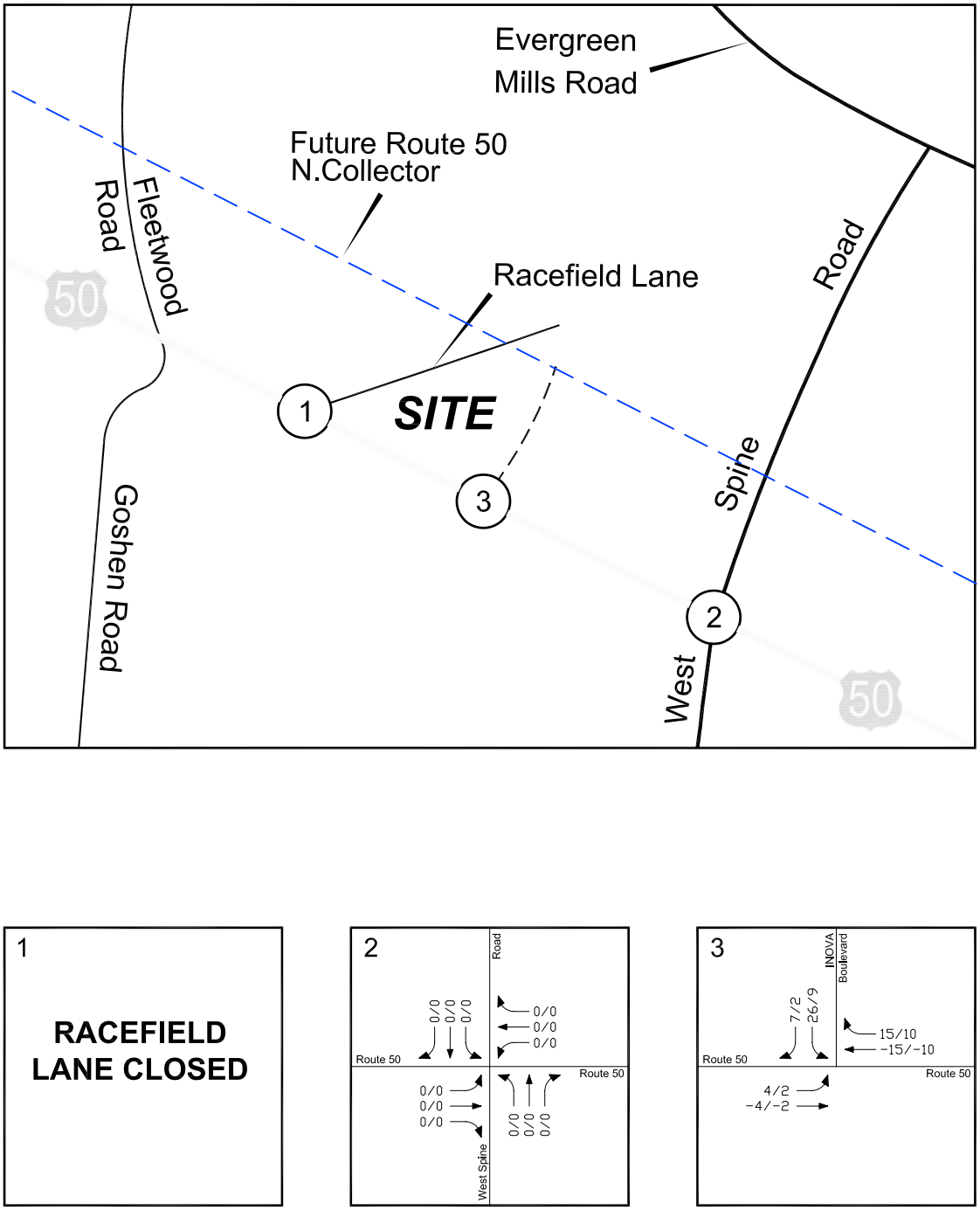

Figure 12
Racefield Lane Redistributions (2013)

— XXXX Average Daily Traffic AM PEAK HOUR PM PEAK HOUR 000/000

North

INOVA/Dulles South Hospital Campus
Loudoun County, Virginia

WELLS & ASSOCIATES, LLC
TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

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APPENDIX C

EXISTING CAPACITY ANALYSES

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	83	14	24	4	40	218	51	322	7	39	123	38
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	92	16	27	4	44	242	57	358	8	43	137	42

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	100	34	27	264	236	187	112	111
Volume Left (vph)	92	0	4	0	57	0	43	0
Volume Right (vph)	0	27	0	242	0	8	0	42
Hadj (s)	0.50	-0.51	0.12	-0.61	0.15	0.00	0.23	-0.23
Departure Headway (s)	7.1	6.1	6.5	5.8	6.2	6.1	6.6	6.1
Degree Utilization, x	0.20	0.06	0.05	0.43	0.41	0.31	0.20	0.19
Capacity (veh/h)	469	539	515	586	547	569	516	553
Control Delay (s)	10.7	8.3	8.7	11.9	12.2	10.6	10.0	9.3
Approach Delay (s)	10.1		11.6		11.5		9.7	
Approach LOS	B		B		B		A	

Intersection Summary			
Delay	11.0		
HCM Level of Service	B		
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	158	1	3	175	12	0	5	28	11	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	176	1	3	194	13	0	6	31	12	0	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	208			177			283	391	88	329	384	104
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	208			177			283	391	88	329	384	104
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	97	98	100	100
cM capacity (veh/h)	1361			1397			643	542	952	575	547	931

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	88	89	101	111	37	16
Volume Left	0	0	3	0	0	12
Volume Right	0	1	0	13	31	3
cSH	1361	1700	1397	1700	854	626
Volume to Capacity	0.00	0.05	0.00	0.07	0.04	0.02
Queue Length 95th (ft)	0	0	0	0	3	2
Control Delay (s)	0.0	0.0	0.3	0.0	9.4	10.9
Lane LOS			A		A	B
Approach Delay (s)	0.0		0.1		9.4	10.9
Approach LOS					A	B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	21.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	988	4	28	301	21	4	20	25	2	1	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	20	1098	4	31	334	23	4	22	28	2	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	358			1102			1369	1558	549	1024	1539	167
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	358			1102			1369	1558	549	1024	1539	167
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			95			96	79	94	98	99	100
cM capacity (veh/h)	1198			629			99	104	480	142	107	848

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	20	549	549	4	31	167	167	23	54	4
Volume Left	20	0	0	0	31	0	0	0	4	2
Volume Right	0	0	0	4	0	0	0	23	28	1
cSH	1198	1700	1700	1700	629	1700	1700	1700	172	163
Volume to Capacity	0.02	0.32	0.32	0.00	0.05	0.10	0.10	0.01	0.32	0.03
Queue Length 95th (ft)	1	0	0	0	4	0	0	0	32	2
Control Delay (s)	8.1	0.0	0.0	0.0	11.0	0.0	0.0	0.0	35.2	27.8
Lane LOS	A				B				E	D
Approach Delay (s)	0.1				0.9				35.2	27.8
Approach LOS									E	D

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	37.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	681	952	128	73	337	489	67	728	258	555	170	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	757	1058	142	81	374	543	74	809	287	617	189	166
RTOR Reduction (vph)	0	0	71	0	0	128	0	0	140	0	0	121
Lane Group Flow (vph)	757	1058	71	81	374	415	74	809	147	617	189	45
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Actuated Green, G (s)	38.9	65.0	65.0	8.8	34.9	34.9	8.6	36.2	36.2	10.5	38.1	38.1
Effective Green, g (s)	41.9	69.5	69.5	11.8	39.4	39.4	11.6	39.2	39.2	13.5	41.1	41.1
Actuated g/C Ratio	0.28	0.46	0.46	0.08	0.26	0.26	0.08	0.26	0.26	0.09	0.27	0.27
Clearance Time (s)	7.0	8.5	8.5	7.0	8.5	8.5	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	959	1640	733	270	930	416	265	925	414	309	970	434
v/s Ratio Prot	c0.22	0.30		0.02	0.11		0.02	c0.23		c0.18	0.05	
v/s Ratio Perm			0.04			c0.26			0.09			0.03
v/c Ratio	0.79	0.65	0.10	0.30	0.40	1.00	0.28	0.87	0.36	2.00	0.19	0.10
Uniform Delay, d1	50.0	30.8	22.6	65.2	45.6	55.2	65.3	53.0	45.1	68.2	41.8	40.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.4	2.0	0.3	0.6	1.3	43.4	0.6	9.2	0.5	459.9	0.1	0.1
Delay (s)	54.4	32.8	22.9	65.8	46.9	98.6	65.8	62.3	45.6	528.2	41.9	40.8
Level of Service	D	C	C	E	D	F	E	E	D	F	D	D
Approach Delay (s)		40.4			76.6			58.4			350.4	
Approach LOS		D			E			E			F	

Intersection Summary			
HCM Average Control Delay	110.7	HCM Level of Service	F
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	63	164	342	179	13
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	70	182	380	199	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	943	199	213			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	943	199	213			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	92	87			
cM capacity (veh/h)	252	842	1357			

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	6	70	562	199	14
Volume Left	6	0	182	0	0
Volume Right	0	70	0	0	14
cSH	252	842	1357	1700	1700
Volume to Capacity	0.02	0.08	0.13	0.12	0.01
Queue Length 95th (ft)	2	7	12	0	0
Control Delay (s)	19.6	9.7	3.6	0.0	0.0
Lane LOS	C	A	A		
Approach Delay (s)	10.4		3.6	0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	49.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	966	131	124	273	76	555
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1073	146	138	303	84	617
RTOR Reduction (vph)	0	43	0	0	0	114
Lane Group Flow (vph)	1073	103	138	303	84	503
Turn Type		Perm	Prot			pm+ov
Protected Phases	2		1	6	4	1
Permitted Phases		2				4
Actuated Green, G (s)	124.0	124.0	25.2	156.2	9.8	35.0
Effective Green, g (s)	127.0	127.0	28.2	159.2	12.8	41.0
Actuated g/C Ratio	0.71	0.71	0.16	0.88	0.07	0.23
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2497	1117	538	3130	244	396
v/s Ratio Prot	c0.30		0.04	0.09	0.02	c0.20
v/s Ratio Perm		0.07				0.12
v/c Ratio	0.43	0.09	0.26	0.10	0.34	1.27
Uniform Delay, d1	11.2	8.3	66.7	1.3	79.6	69.5
Progression Factor	1.00	1.00	1.39	0.14	1.00	1.00
Incremental Delay, d2	0.5	0.2	0.2	0.1	0.8	140.6
Delay (s)	11.7	8.5	93.3	0.2	80.5	210.1
Level of Service	B	A	F	A	F	F
Approach Delay (s)	11.4			29.3	194.6	
Approach LOS	B			C	F	

Intersection Summary			
HCM Average Control Delay	69.1	HCM Level of Service	E
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	78	38	42	9	51	57	67	200	2	12	99	57
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	87	42	47	10	57	63	74	222	2	13	110	63

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	108	68	38	92	186	113	68	118
Volume Left (vph)	87	0	10	0	74	0	13	0
Volume Right (vph)	0	47	0	63	0	2	0	63
Hadj (s)	0.44	-0.45	0.16	-0.45	0.23	0.02	0.13	-0.34
Departure Headway (s)	6.3	5.5	6.1	5.5	5.8	5.6	5.8	5.4
Degree Utilization, x	0.19	0.10	0.07	0.14	0.30	0.18	0.11	0.18
Capacity (veh/h)	534	617	546	605	597	616	583	636
Control Delay (s)	9.6	7.9	8.4	8.2	10.1	8.6	8.4	8.3
Approach Delay (s)	9.0		8.3		9.5		8.3	
Approach LOS	A		A		A		A	

Intersection Summary			
Delay	8.9		
HCM Level of Service	A		
Intersection Capacity Utilization	33.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	1416	33	111	360	104	7	161	153	41	87	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.94			0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			0.99	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1741			1768	
Flt Permitted	0.49	1.00	1.00	0.04	1.00	1.00		1.00			0.99	
Satd. Flow (perm)	910	3539	1583	78	3539	1583		1741			1768	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	112	1573	37	123	400	116	8	179	170	46	97	60
RTOR Reduction (vph)	0	0	7	0	0	54	0	18	0	0	9	0
Lane Group Flow (vph)	112	1573	30	123	400	62	0	339	0	0	194	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	1	6		5	2		4	4		8	8	
Permitted Phases	6		6	2		2						
Actuated Green, G (s)	100.1	89.9	89.9	104.5	92.1	92.1		23.5			25.7	
Effective Green, g (s)	106.1	93.4	93.4	110.5	95.6	95.6		26.5			28.7	
Actuated g/C Ratio	0.59	0.52	0.52	0.61	0.53	0.53		0.15			0.16	
Clearance Time (s)	7.0	7.5	7.5	7.0	7.5	7.5		7.0			7.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	599	1836	821	193	1880	841		256			282	
v/s Ratio Prot	0.01	c0.44		c0.05	0.11			c0.19			c0.11	
v/s Ratio Perm	0.10		0.02	0.34		0.04						
v/c Ratio	0.19	0.86	0.04	0.64	0.21	0.07		1.32			0.69	
Uniform Delay, d1	16.3	37.5	21.2	50.2	22.3	20.6		76.8			71.4	
Progression Factor	0.73	0.69	0.62	1.00	1.00	1.00		1.00			1.00	
Incremental Delay, d2	0.1	3.9	0.1	6.7	0.3	0.2		170.6			6.8	
Delay (s)	12.0	29.8	13.3	57.0	22.6	20.8		247.4			78.2	
Level of Service	B	C	B	E	C	C		F			E	
Approach Delay (s)		28.3			28.9			247.4			78.2	
Approach LOS		C			C			F			E	

Intersection Summary			
HCM Average Control Delay	58.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	87.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	1065	395	25	0	31
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1183	439	28	0	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	467				1044	233
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	467				1044	233
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	96
cM capacity (veh/h)	1091				224	769

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	592	592	293	174	34
Volume Left	0	0	0	0	0
Volume Right	0	0	0	28	34
cSH	1700	1700	1700	1700	769
Volume to Capacity	0.35	0.35	0.17	0.10	0.04
Queue Length 95th (ft)	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	9.9
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.9
Approach LOS					A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	143	51	46	1	40	28	51	89	2	57	247	35
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	159	57	51	1	44	31	57	99	2	63	274	39

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	187	79	23	53	106	52	201	176
Volume Left (vph)	159	0	1	0	57	0	63	0
Volume Right (vph)	0	51	0	31	0	2	0	39
Hadj (s)	0.46	-0.42	0.06	-0.37	0.30	0.00	0.19	-0.12
Departure Headway (s)	6.5	5.6	6.3	5.9	6.3	6.0	5.9	5.6
Degree Utilization, x	0.34	0.12	0.04	0.09	0.18	0.09	0.33	0.27
Capacity (veh/h)	531	609	524	562	546	570	586	619
Control Delay (s)	11.5	8.2	8.4	8.3	9.5	8.3	10.6	9.5
Approach Delay (s)	10.5		8.3		9.1		10.0	
Approach LOS	B		A		A		B	

Intersection Summary			
Delay	9.9		
HCM Level of Service	A		
Intersection Capacity Utilization	38.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	43	0	36	106	4	0	10	11	7	13	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	48	0	40	118	4	0	11	12	8	14	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	122			48			196	252	24	244	250	61
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	122			48			196	252	24	244	250	61
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			100	98	99	99	98	100
cM capacity (veh/h)	1463			1558			718	633	1047	659	634	991

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	25	24	99	63	23	22
Volume Left	1	0	40	0	0	8
Volume Right	0	0	0	4	12	0
cSH	1463	1700	1558	1700	798	643
Volume to Capacity	0.00	0.01	0.03	0.04	0.03	0.03
Queue Length 95th (ft)	0	0	2	0	2	3
Control Delay (s)	0.3	0.0	3.1	0.0	9.6	10.8
Lane LOS	A		A		A	B
Approach Delay (s)	0.2		1.9		9.6	10.8
Approach LOS					A	B

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	22.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	349	4	54	1145	5	4	1	15	2	14	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	388	4	60	1272	6	4	1	17	2	16	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1278			392			1163	1792	194	1610	1791	636
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1278			392			1163	1792	194	1610	1791	636
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			95			96	99	98	97	79	99
cM capacity (veh/h)	539			1163			119	75	815	65	75	421

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	3	194	194	4	60	636	636	6	22	22
Volume Left	3	0	0	0	60	0	0	0	4	2
Volume Right	0	0	0	4	0	0	0	6	17	4
cSH	539	1700	1700	1700	1163	1700	1700	1700	307	88
Volume to Capacity	0.01	0.11	0.11	0.00	0.05	0.37	0.37	0.00	0.07	0.25
Queue Length 95th (ft)	0	0	0	0	4	0	0	0	6	23
Control Delay (s)	11.7	0.0	0.0	0.0	8.3	0.0	0.0	0.0	17.6	58.9
Lane LOS	B				A				C	F
Approach Delay (s)	0.1				0.4				17.6	58.9
Approach LOS									C	F

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	48.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	405	153	339	1074	806	153	207	129	499	627	605
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3539	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.52	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3539	1583	3433	3539	1583	1879	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	184	450	170	377	1193	896	170	230	143	554	697	672
RTOR Reduction (vph)	0	0	108	0	0	316	0	0	103	0	0	236
Lane Group Flow (vph)	184	450	62	377	1193	580	170	230	40	554	697	436
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8	4		4
Actuated Green, G (s)	16.0	50.0	50.0	16.0	50.0	50.0	12.8	39.0	39.0	57.2	41.7	41.7
Effective Green, g (s)	19.0	54.5	54.5	19.0	54.5	54.5	15.8	42.0	42.0	63.2	44.7	44.7
Actuated g/C Ratio	0.13	0.36	0.36	0.13	0.36	0.36	0.11	0.28	0.28	0.42	0.30	0.30
Clearance Time (s)	7.0	8.5	8.5	7.0	8.5	8.5	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	435	1286	575	435	1286	575	362	991	443	983	1055	472
v/s Ratio Prot	0.05	0.13		c0.11	0.34		0.05	0.06		c0.07	0.20	
v/s Ratio Perm			0.04			c0.37			0.03	0.17		c0.28
v/c Ratio	0.42	0.35	0.11	0.87	0.93	1.01	0.47	0.23	0.09	0.56	0.66	0.92
Uniform Delay, d1	60.4	34.8	31.6	64.3	45.9	47.8	63.2	41.6	39.9	30.1	46.0	51.0
Progression Factor	0.49	0.73	3.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.5	0.2	16.4	12.9	39.5	1.0	0.1	0.1	0.7	1.6	23.8
Delay (s)	30.0	25.8	103.0	80.7	58.7	87.3	64.1	41.7	40.0	30.9	47.6	74.8
Level of Service	C	C	F	F	E	F	E	D	D	C	D	E
Approach Delay (s)		43.1			72.4			48.3			52.3	
Approach LOS		D			E			D			D	

Intersection Summary			
HCM Average Control Delay	59.3	HCM Level of Service	E
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	89.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	99	76	227	833	106
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	110	84	252	926	118
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1347	926	1043			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1347	926	1043			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	66	87			
cM capacity (veh/h)	146	326	667			

Direction, Lane #	EB 1	EB 2	NB 1	SB 1	SB 2
Volume Total	9	110	337	926	118
Volume Left	9	0	84	0	0
Volume Right	0	110	0	0	118
cSH	146	326	667	1700	1700
Volume to Capacity	0.06	0.34	0.13	0.54	0.07
Queue Length 95th (ft)	5	36	11	0	0
Control Delay (s)	31.3	21.6	4.1	0.0	0.0
Lane LOS	D	C	A		
Approach Delay (s)	22.3		4.1	0.0	
Approach LOS	C				

Intersection Summary				
Average Delay		2.7		
Intersection Capacity Utilization		73.3%	ICU Level of Service	D
Analysis Period (min)		15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	298	71	423	1119	127	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	0.97	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1583	3433	3539	3433	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1583	3433	3539	3433	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	331	79	470	1243	141	246
RTOR Reduction (vph)	0	27	0	0	0	180
Lane Group Flow (vph)	331	52	470	1243	141	66
Turn Type		Perm	Prot			pm+ov
Protected Phases	2		1	6	8	1
Permitted Phases		2				8
Actuated Green, G (s)	95.0	95.0	22.5	124.5	11.5	34.0
Effective Green, g (s)	98.0	98.0	25.5	127.5	14.5	40.0
Actuated g/C Ratio	0.65	0.65	0.17	0.85	0.10	0.27
Clearance Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	2312	1034	584	3008	332	464
v/s Ratio Prot	0.09		c0.14	c0.35	c0.04	0.02
v/s Ratio Perm		0.03				0.02
v/c Ratio	0.14	0.05	0.80	0.41	0.42	0.14
Uniform Delay, d1	9.9	9.3	59.9	2.6	63.8	41.9
Progression Factor	1.00	1.00	1.46	0.08	1.00	1.00
Incremental Delay, d2	0.1	0.1	5.4	0.3	0.9	0.1
Delay (s)	10.1	9.4	92.7	0.5	64.7	42.1
Level of Service	B	A	F	A	E	D
Approach Delay (s)	9.9			25.8	50.3	
Approach LOS	A			C	D	

Intersection Summary			
HCM Average Control Delay	27.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	8	13	12	22	23	39	112	9	43	158	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	24	9	14	13	24	26	43	124	10	48	176	50

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	29	19	26	38	106	72	136	138
Volume Left (vph)	24	0	13	0	43	0	48	0
Volume Right (vph)	0	14	0	26	0	10	0	50
Hadj (s)	0.46	-0.50	0.29	-0.44	0.24	-0.06	0.21	-0.22
Departure Headway (s)	6.1	5.1	5.9	5.2	5.3	5.0	5.2	4.7
Degree Utilization, x	0.05	0.03	0.04	0.05	0.15	0.10	0.19	0.18
Capacity (veh/h)	552	651	569	648	660	698	673	736
Control Delay (s)	8.2	7.1	8.0	7.3	8.0	7.3	8.2	7.6
Approach Delay (s)	7.7		7.5		7.8		7.9	
Approach LOS	A		A		A		A	

Intersection Summary			
Delay	7.8		
HCM Level of Service	A		
Intersection Capacity Utilization	29.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	510	16	525	1265	61	15	89	120	51	208	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00			1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.93			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		1.00			0.99	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1723			1785	
Flt Permitted	0.12	1.00	1.00	0.17	1.00	1.00		1.00			0.99	
Satd. Flow (perm)	231	3539	1583	321	3539	1583		1723			1785	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	76	567	18	583	1406	68	17	99	133	57	231	99
RTOR Reduction (vph)	0	0	12	0	0	19	0	28	0	0	8	0
Lane Group Flow (vph)	76	567	6	583	1406	49	0	221	0	0	379	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		
Protected Phases	1	6		5	2		8	8		4	4	
Permitted Phases	6		6	2		2						
Actuated Green, G (s)	39.5	31.1	31.1	85.0	69.6	69.6		16.0			28.5	
Effective Green, g (s)	45.5	33.6	33.6	88.0	72.1	72.1		19.0			31.5	
Actuated g/C Ratio	0.30	0.22	0.22	0.59	0.48	0.48		0.13			0.21	
Clearance Time (s)	7.0	6.5	6.5	7.0	6.5	6.5		7.0			7.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	187	793	355	670	1701	761		218			375	
v/s Ratio Prot	0.03	0.16		c0.29	0.40			c0.13			c0.21	
v/s Ratio Perm	0.09		0.00	c0.22		0.03						
v/c Ratio	0.41	0.72	0.02	0.87	0.83	0.06		1.01			1.01	
Uniform Delay, d1	38.6	53.8	45.3	33.9	33.6	20.9		65.5			59.2	
Progression Factor	1.07	1.29	1.58	0.57	0.87	0.53		1.00			1.00	
Incremental Delay, d2	1.4	5.4	0.1	6.1	2.3	0.1		64.6			49.3	
Delay (s)	42.8	74.8	71.7	25.4	31.4	11.2		130.1			108.5	
Level of Service	D	E	E	C	C	B		F			F	
Approach Delay (s)		71.0			29.1			130.1			108.5	
Approach LOS		E			C			F			F	

Intersection Summary			
HCM Average Control Delay	54.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	362	1290	28	0	18
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	402	1433	31	0	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1464				1650	732
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1464				1650	732
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	94
cM capacity (veh/h)	457				90	364

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	201	201	956	509	20
Volume Left	0	0	0	0	0
Volume Right	0	0	0	31	20
cSH	1700	1700	1700	1700	364
Volume to Capacity	0.12	0.12	0.56	0.30	0.06
Queue Length 95th (ft)	0	0	0	0	4
Control Delay (s)	0.0	0.0	0.0	0.0	15.5
Lane LOS					C
Approach Delay (s)	0.0		0.0		15.5
Approach LOS					C

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX D

BACKGROUND DEVELOPMENT TRIP GENERATION

Table 1
Stone Ridge Commercial - Loudoun
Trip Generation of Other Developments, Year 2015

	Development	Land Use	Land Use Code	Size	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Traffic Weekday
1	**Brambleton**	Single Family	210	1,125	DU	197	591	788	531	299	830	11,250
	(See Attachment)	Townhouse	230	825	DU	37	181	218	183	89	272	7,178
		Apartment	220	0	DU	-	-	-	-	-	-	-
		Elderly Apartments	252	0	DU	-	-	-	-	-	-	-
		Residential subtotal		1,950		234	772	1,006	714	388	1,102	18,428
		Conference Center	714	0	S.F.							
		Shopping Center	820	75,000	S.F.	35	22	58	125	136	261	2,775
		General Office	710	100,000	S.F.	165	23	188	32	158	191	1,334
		Industrial	130	100,000	S.F.	84	19	103	25	94	119	1,244
		15% Res. Reduction				35	116	151	107	58	165	2,764
		15% Employee Reduction				37	6	44	9	38	46	387
		50% Retail Reduction				18	11	29	63	68	131	1,387
	Subtotal of trips for Brambleton					**428**	**703**	**1,131**	**718**	**612**	**1,331**	**19,242**
2	**Kirkpatrick Farms**	Single Family	210	648	DU	113	341	454	335	188	523	6,480
	(See Attachment)	Townhouse	230	0	DU	0	0	0	0	0	0	0
		Apartment	220	164	DU	17	67	84	70	38	108	1,136
		Total		812		130	408	538	405	226	631	7,616
	Subtotal of trips for Kirkpatrick Farms					**130**	**408**	**538**	**405**	**226**	**631**	**7,616**
3	**South Riding**	Single Family	210	10	DU	2	5	7	5	2	7	100
	(See Attachment)	Townhouse	230	120	DU	-	-	-	-	-	-	-
		Apartment	220	126	DU	34	134	168	123	66	189	2,061
		Res. subtotal		256		36	139	175	128	68	196	2,161
		General Office	710	75,000	S.F.	103	14	117	14	70	84	808
		Gen. Ind. (Industrial Park)	120	0	S.F.	0	0	0	0	0	0	0
		Light Industrial/Flex	110	0	S.F.	0	0	0	0	0	0	0
		Shopping Center	820	100,000	S.F.	18	11	29	69	75	145	1,513
	Subtotal of trips for South Riding					**156**	**165**	**321**	**211**	**213**	**424**	**4,482**
4	**Arcola Center (Hutchenson Farm)**	Townhouse	230	0	DU	-	-	-	-	-	-	-
		Office	710	-	S.F.	-	-	-	-	-	-	-
		Retail	820	100,000	S.F.	95	61	157	300	326	626	6,791
		Hotel	140	-	Rooms	-	-	-	-	-	-	-
	Subtotal of trips for Arcola Center					**95**	**61**	**157**	**300**	**326**	**626**	**6,791**
5	**South Village**	Exisitng Single Family	210	7	DU	4	10	14	6	4	10	70
		Single Family	210	3	DU	3	9	12	3	2	5	30
		Townhouse	230	30	DU	3	17	20	15	7	22	261
		Net New				6	25	31	18	9	27	291
	Subtotal of trips for South Village			40		**2**	**15**	**17**	**12**	**5**	**17**	**221**
6	**Pinebrook**	Existing Single Family	210	11	DU	4	13	17	9	6	15	110
		Existing Townhouse	230	69	DU	7	31	38	30	14	44	600
		Exisitng Subtotal		80		11	45	56	39	20	59	710
		Single Family	210	54	DU	12	35	47	39	23	62	540
		Townhouse	230	274	DU	20	96	116	92	45	137	2,384
		Net New				32	131	163	131	68	199	2,924
	Subtotal of trips for Pinebrook			328		**21**	**86**	**107**	**92**	**48**	**140**	**2,214**
7	**Braddock Corner**	Existing Single Family	210	20	DU	6	17	23	16	9	25	200
		Existing Townhouse	230	17	DU	2	11	13	9	5	14	148
		Exisitng Subtotal		37		8	28	36	25	14	39	348
		Single Family	210	49	DU	11	33	44	36	20	56	490
		Townhouse	230	73	DU	7	33	40	31	15	46	635
		Net New				18	66	84	67	36	103	1,125
	Subtotal of trips for Braddock Corner			122		**10**	**38**	**48**	**42**	**22**	**64**	**777**
8	**Providence Glen**	Single Family	210	20	DU	6	17	23	16	9	25	200
		Townhouse	230	59	DU	6	28	34	26	13	39	513
	Subtotal of trips for Providence Glen			79		**12**	**45**	**57**	**42**	**22**	**64**	**713**
9	**Gum Spring Village Center**	Bank	912	5,000	S.F.	35	27	62	114	114	229	1,169
		Convenience Market w/gasoline pumps	946	12	FP	65	63	128	80	80	160	1,834
		Shopping Center	820	35,000	S.F.	51	33	83	150	163	313	3,432
		Restaurant	932	6,000	S.F.	36	33	69	40	26	66	763
		Subtotal				186	155	342	385	383	767	7,198
		Pass-by Trips	15%			28	23	51	58	57	115	1,080
	Subtotal for Gum Spring Village Center					**158**	**132**	**291**	**327**	**325**	**652**	**6,118**

Table 1 Continued
Stone Ridge Commercial - Loudoun
Trip Generation of Other Developments, Year 2015

	Development	Land Use	Land Use Code	Size	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Average Daily Traffic Weekday
10	**South Riding Station**	Single Family	210	259	DU	45	136	181	158	88	246	2,590
	(See Attachment)	Townhouse	230	346	DU	24	115	139	111	55	166	3,010
	Subtotal of trips for South Riding Station			605		**69**	**252**	**321**	**269**	**143**	**412**	**5,600**
11	**Kirkpatrick Farms West**	Single Family Detached	210	95	DU	19	57	76	65	37	102	945
		Single Family Attached	230	92	DU	8	40	48	38	18	56	800
		Residential Total		187	DU	27	97	124	103	55	158	1,745
		Convenience Market with Gasoline Pumps	853	-	F.P.	-	-	-	-	-	-	-
		Drive-in Bank	912	-	D.L.	-	-	-	-	-	-	-
		Shopping Center	820	-	S.F.	-	-	-	-	-	-	-
		Commercial Total				-	-	-	-	-	-	-
		Day Care Center	565	-	Students	-	-	-	-	-	-	-
	Subtotal for Kirkpatrick Farms West					**27**	**97**	**124**	**103**	**55**	**158**	**1,745**
12	**C.D. Smith**	Single Family	210	77	DU	16	47	63	54	30	84	765
		Townhouse	230	107	DU	9	46	55	43	21	64	931
		Multi-Family	220	-	DU	-	-	-	-	-	-	-
				184								
	Subtotal of trips for C.D Smith					**25**	**92**	**117**	**97**	**51**	**148**	**1,696**
13	**Glascock Field at Stone Ridge**	Residential	230	138	DU	11	56	67	52	26	78	1,201
		West/North Office	710	25,000	S.F.	55	7	62	18	89	107	459
		South Office	710	0	S.F.	-	-	-	-	-	-	-
		Bank	912	5,000	S.F.	30	23	53	98	97	195	994
	Subtotal of trips for Glascock					**96**	**86**	**182**	**168**	**212**	**380**	**2,653**
14	**Marrwood Property**	Single Family	210	73	DU	15	46	61	52	29	81	730
	Subtotal of trips for Marrwood					**15**	**46**	**61**	**52**	**29**	**81**	**730**
15	**Westport By-Right Property**	Single Family	210	799	DU	142	427	569	445	251	696	7,990
	Subtotal of trips for Westport By-Right					**142**	**427**	**569**	**445**	**251**	**696**	**7,990**
16	**West Spine Plaza Proposed**	Bank	912	4,500	GSF	31	25	56	103	103	206	1,109
		Gas Station (with Market)	945	12	Fueling Pos.	60	61	121	80	81	161	1,953
		Retail	820	13,000	GSF	28	18	46	78	85	163	1,803
		High-Turnover (Sit-Down) Rest.	932	5,000	GSF	30	28	58	33	22	55	636
		Subtotal				149	131	280	294	290	584	5,501
		Pass-By Reduction (2)		15	%	22	20	42	44	43	88	825
		Retail Uses Subtotal				127	111	238	250	246	496	4,676
		Light Industrial	110	15,000	GSF	12	2	14	2	13	15	105
		Office	710	64,800	GSF	117	16	133	26	126	152	955
		Hotel (with Conference Center)	310	100	Rooms	28	20	48	26	27	53	892
	Subtotal of trips for West Spine Plaza					**284**	**149**	**433**	**304**	**412**	**716**	**6,628**
17	**Winsbury Homes**	Single Family	210	40	DU	9	28	37	30	17	47	400
	Subtotal of trips for Winsbury					**9**	**28**	**37**	**30**	**17**	**47**	**400**
18	**Arocla School (SPEX)**	Private School K-8	534	284	Students	137	112	249	44	50	94	941
	Subtotal of trips for Arcola School					**137**	**112**	**249**	**44**	**50**	**94**	**941**
19	**INOVA Property**	Hospital	610	22,600	S.F.	111	55	166	83	167	250	2,436
		Medical Office Building	720	90,400	S.F.	177	47	224	77	210	287	3,481
	Subtotal of trips for INVOA Property					**288**	**102**	**390**	**160**	**377**	**537**	**5,917**
	Total Background Development Trip Generation for 2015					**2,105**	**3,044**	**5,148**	**3,822**	**3,396**	**7,217**	**82,475**

Scenario Report

Scenario:	2015 AM
Command:	2015 Other Developments
Volume:	2015 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2015 AM
Trip Distribution:	2015
Paths:	2015 BG
Routes:	Default Route
Configuration:	AM Peak

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Trip Generation Report

Forecast for 2015 AM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
4	Providence G	1.00	Residential	12.00	45.00	12	45	57	1.1
	Zone 4 Subtotal					12	45	57	1.1
5	Pinebrook	1.00	Residential	21.00	86.00	21	86	107	2.1
	Zone 5 Subtotal					21	86	107	2.1
9	CD Smith Pro	1.00	Residential	25.00	92.00	25	92	117	2.3
	Zone 9 Subtotal					25	92	117	2.3
12	Braddock Cor	1.00	Residential	10.00	38.00	10	38	48	0.9
	Zone 12 Subtotal					10	38	48	0.9
13	Kirkpatrick	1.00	Residential	27.00	97.00	27	97	124	2.4
	Zone 13 Subtotal					27	97	124	2.4
15	Kirkpatrick	1.00	Residential	130.00	408.00	130	408	538	10.5
	Zone 15 Subtotal					130	408	538	10.5
17	Glascock Fie	1.00	Residential	11.00	56.00	11	56	67	1.3
	Zone 17 Subtotal					11	56	67	1.3
18	Glascock Fie	1.00	Employment	85.00	30.00	85	30	115	2.2
	Zone 18 Subtotal					85	30	115	2.2
19	Inova Proper	1.00	Employment	288.00	102.00	288	102	390	7.6
	Zone 19 Subtotal					288	102	390	7.6
20	Gum Spring V	1.00	Commercial	158.00	132.00	158	132	290	5.6
	Zone 20 Subtotal					158	132	290	5.6
21	West Spine P	1.00	By Right Emplo	284.00	149.00	284	149	433	8.4
	Zone 21 Subtotal					284	149	433	8.4
22	Westport By	1.00	Residential	142.00	427.00	142	427	569	11.1
	Zone 22 Subtotal					142	427	569	11.1
23	Marrwood	1.00	Residential	15.00	46.00	15	46	61	1.2
	Zone 23 Subtotal					15	46	61	1.2
27	South Villag	1.00	Residential	2.00	15.00	2	15	17	0.3
	Zone 27 Subtotal					2	15	17	0.3
28	South Riding	1.00	Residential	36.00	139.00	36	139	175	3.4
	Zone 28 Subtotal					36	139	175	3.4
29	South Riding	1.00	Employment	103.00	14.00	103	14	117	2.3

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Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
	Zone 29 Subtotal					103	14	117	2.3
30	South Riding	1.00	Residential	69.00	252.00	69	252	321	6.2
	Zone 30 Subtotal					69	252	321	6.2
31	South Riding	1.00	Commercial	18.00	11.00	18	11	29	0.6
	Zone 31 Subtotal					18	11	29	0.6
35	Arcola Cente	1.00	Commercial	95.00	61.00	95	61	156	3.0
	Zone 35 Subtotal					95	61	156	3.0
36	Brambleton E	1.00	Employment	212.00	35.00	212	35	247	4.8
	Zone 36 Subtotal					212	35	247	4.8
37	Brambleton C	1.00	Commercial	18.00	11.00	18	11	29	0.6
	Zone 37 Subtotal					18	11	29	0.6
38	Brambleton R	1.00	Residential	199.00	656.00	199	656	855	16.6
	Zone 38 Subtotal					199	656	855	16.6
41	Winsbury	1.00	Residential	9.00	28.00	9	28	37	0.7
	Zone 41 Subtotal					9	28	37	0.7
42	Arcola Schoo	1.00	School	137.00	112.00	137	112	249	4.8
	Zone 42 Subtotal					137	112	249	4.8
TOTAL						2106	3042	5148	100.0

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Trip Distribution Report

Percent Of Trips 2015

Zone	To Gates 1	2	3	4	5	6	7	8	9	10
4	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
5	5.0	2.0	45.0	4.0	13.0	0.0	2.0	5.0	10.0	14.0
9	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
12	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
13	5.0	5.0	25.0	4.0	10.0	10.0	9.0	5.0	5.0	22.0
15	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
17	5.0	5.0	25.0	5.0	10.0	5.0	15.0	0.0	5.0	25.0
18	5.0	0.0	25.0	5.0	10.0	5.0	10.0	10.0	10.0	20.0
19	5.0	10.0	40.0	5.0	5.0	5.0	10.0	0.0	5.0	15.0
20	5.0	2.0	20.0	5.0	15.0	5.0	15.0	5.0	5.0	23.0
21	5.0	2.0	20.0	5.0	15.0	5.0	15.0	5.0	5.0	23.0
22	5.0	0.0	20.0	5.0	20.0	5.0	15.0	5.0	0.0	25.0
23	5.0	0.0	15.0	5.0	20.0	5.0	15.0	5.0	5.0	25.0
27	5.0	5.0	40.0	5.0	0.0	5.0	9.0	11.0	5.0	15.0
28	5.0	5.0	40.0	5.0	0.0	5.0	9.0	11.0	5.0	15.0
29	9.0	5.0	25.0	6.0	10.0	5.0	15.0	0.0	3.0	22.0
30	5.0	5.0	35.0	6.0	0.0	5.0	15.0	5.0	5.0	19.0
31	9.0	5.0	25.0	6.0	10.0	5.0	15.0	0.0	3.0	22.0
35	5.0	0.0	25.0	5.0	10.0	5.0	10.0	10.0	10.0	20.0
36	2.0	0.0	15.0	2.0	25.0	10.0	20.0	0.0	15.0	11.0
37	2.0	0.0	15.0	2.0	25.0	10.0	20.0	0.0	15.0	11.0
38	2.0	0.0	15.0	2.0	25.0	10.0	20.0	0.0	15.0	11.0
41	5.0	5.0	25.0	5.0	10.0	5.0	15.0	0.0	5.0	25.0
42	5.0	0.0	30.0	15.0	5.0	10.0	5.0	0.0	5.0	25.0

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Turning Movement By Zone Report
2015 AM

#11 Millstream Drive/Sandbar Terrace/TCP
[Base(LOS=B,Del=2.5,V/C=0.000)][Future(LOS=B,Del=2.5,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	51	28	11	0	3	0	158	1	3	175	12	442
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	0	57	32	12	0	3	0	178	1	3	197	14	498
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 12	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 17	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 18	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 19	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 20	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 21	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 23	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 41	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	57	32	12	0	3	0	178	1	3	197	14	498
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	57	32	12	0	3	0	178	1	3	197	14	498

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#126 Millstream/Stone Springs
[Base(LOS=E,Del=22.4,V/C=0.000)][Future(LOS=F,Del=31.2,V/C=0.000)][+0.000 V/C]

Base	51	386	7	39	176	38	83	14	24	4	40	218	1080
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	57	435	8	44	198	43	93	16	27	5	45	246	1216
Zn 4	0	5	0	0	1	0	0	0	0	0	0	0	6
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	2	0	0	0	0	0	0	0	0	0	0	2
Zn 12	0	2	0	0	0	0	0	0	0	0	0	0	2
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 17	0	2	0	0	11	0	0	0	0	0	0	0	13
Zn 18	0	9	0	0	3	0	0	0	0	0	0	0	12
Zn 19	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 20	0	1	0	1	1	0	0	0	0	0	0	1	4
Zn 21	0	4	0	0	9	0	0	0	0	0	0	0	13
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 23	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 41	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	24	0	1	25	0	0	0	0	0	0	1	51
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	57	459	8	45	223	43	93	16	27	5	45	247	1267
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	57	459	8	45	223	43	93	16	27	5	45	247	1267

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#1197 Route 616 (Fleetwood Road)/Route 50
[Base(LOS=E,Del=2.0,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	4	20	25	2	1	1	18	988	4	28	301	21	1413
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	5	23	28	2	1	1	20	1113	5	32	339	24	1591
Zn 4	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 5	0	0	0	0	0	0	0	2	0	0	9	0	11
Zn 9	0	5	1	0	1	0	0	0	0	0	0	0	7
Zn 12	0	1	0	0	0	0	0	0	0	0	1	0	2
Zn 13	0	4	0	0	1	0	0	0	0	0	0	0	5
Zn 15	3	8	0	0	3	0	0	1	1	0	2	0	18
Zn 17	0	0	0	0	0	0	0	2	0	0	16	0	18
Zn 18	0	0	6	0	0	0	0	13	0	2	6	0	27
Zn 19	0	0	6	17	0	0	0	56	0	2	20	6	107
Zn 20	0	0	0	5	0	0	0	17	0	0	14	4	40
Zn 21	0	0	0	0	0	0	0	29	0	0	15	0	44
Zn 22	68	53	77	0	18	0	0	0	23	26	0	0	265
Zn 23	7	6	14	0	2	0	0	0	2	5	0	0	36
Zn 27	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 28	0	0	0	0	0	0	0	1	0	0	6	0	7
Zn 29	0	0	0	0	0	0	0	11	0	0	1	0	12
Zn 30	0	0	0	1	0	0	0	3	0	0	11	3	18
Zn 31	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 35	0	0	0	0	0	0	0	14	0	0	9	0	23
Zn 36	0	5	0	0	1	0	0	3	0	0	0	0	9
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	2	0	0	7	0	0	15	0	0	49	0	73
Zn 41	0	0	0	0	0	3	0	2	0	0	3	0	8
Zn 42	30	9	24	0	11	0	0	0	36	29	0	0	139
Added	109	94	129	23	44	3	0	171	62	64	167	13	879
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	114	117	157	25	45	4	20	1284	67	96	506	37	2470
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	114	117	157	25	45	4	20	1284	67	96	506	37	2470

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Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1226 West Spine Road/ Route 50													
[Base(LOS=F,Del=272.2,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/C													
Base	104	0	153	0	0	0	0	1457	67	111	464	0	2356
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	117	0	172	0	0	0	0	1641	75	125	523	0	2653
Zn 4	3	0	15	0	0	0	0	0	1	4	0	0	23
Zn 5	0	0	1	0	0	0	0	2	0	4	9	0	16
Zn 9	0	0	13	0	0	0	0	1	0	4	0	0	18
Zn 12	1	0	7	0	0	0	0	0	0	2	0	0	10
Zn 13	0	0	13	0	0	0	0	0	0	3	0	0	16
Zn 15	2	0	62	0	0	0	0	0	1	20	0	0	85
Zn 17	1	0	0	0	0	0	0	8	3	0	3	0	15
Zn 18	7	0	0	0	0	0	0	5	3	0	27	0	42
Zn 19	52	0	0	0	0	0	0	47	18	0	132	0	249
Zn 20	28	0	57	0	0	0	0	0	34	68	0	0	187
Zn 21	17	0	68	0	0	0	0	0	32	129	0	0	246
Zn 22	0	0	56	0	0	0	0	73	0	18	24	0	171
Zn 23	0	0	1	0	0	0	0	11	0	0	4	0	16
Zn 27	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 28	0	0	0	0	0	0	0	1	0	0	6	0	7
Zn 29	0	0	0	0	0	0	0	12	0	0	2	0	14
Zn 30	0	0	0	0	0	0	0	4	0	0	13	0	17
Zn 31	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 35	0	0	1	0	0	0	0	13	0	1	9	0	24
Zn 36	0	0	0	0	0	0	0	2	0	0	0	0	2
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	1	0	0	0	0	25	0	3	22	0	51
Zn 41	0	0	0	0	0	0	0	0	0	0	3	0	3
Zn 42	0	0	0	0	0	0	0	21	0	0	25	0	46
Added	111	0	295	0	0	0	0	226	91	257	282	0	1262
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	228	0	467	0	0	0	0	1867	166	382	805	0	3915
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	228	0	467	0	0	0	0	1867	166	382	805	0	3915

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1262 Route 606 (Loudoun County Pkwy)/Route 50
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	67	728	258	555	170	149	681	952	128	73	337	489	4587
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	75	820	291	625	191	168	767	1072	144	82	380	551	5166
Zn 4	0	3	4	0	1	2	7	8	0	1	2	0	28
Zn 5	6	0	0	0	0	5	20	30	23	0	7	0	91
Zn 9	0	14	11	0	4	2	7	7	0	3	2	0	50
Zn 12	0	6	2	0	2	1	3	4	0	1	1	0	20
Zn 13	0	12	0	0	3	2	8	5	0	0	1	0	31
Zn 15	0	79	22	0	25	13	40	22	0	7	7	0	215
Zn 17	0	0	0	0	0	1	0	7	1	0	1	0	10
Zn 18	2	0	0	0	0	10	0	5	0	0	14	0	31
Zn 19	6	0	0	0	0	20	7	38	2	0	107	0	180
Zn 20	0	0	0	0	0	46	38	19	0	0	23	0	126
Zn 21	0	1	0	0	3	89	47	21	0	0	40	0	201
Zn 22	0	4	0	0	1	24	73	56	0	0	18	0	176
Zn 23	0	2	0	0	1	3	8	4	0	0	1	0	19
Zn 27	0	1	1	0	0	0	0	0	0	0	0	1	3
Zn 28	2	16	0	1	4	0	0	1	1	0	3	5	33
Zn 29	0	2	0	15	12	0	0	10	1	0	1	2	43
Zn 30	6	39	3	6	11	0	0	2	2	1	7	23	100
Zn 31	0	3	0	0	5	0	0	1	0	0	1	0	10
Zn 35	2	14	0	6	9	7	10	9	1	0	14	10	82
Zn 36	0	20	0	5	3	0	2	0	0	0	0	32	62
Zn 37	0	2	0	2	1	0	0	0	0	0	0	3	8
Zn 38	0	13	0	59	41	19	6	20	0	0	6	18	182
Zn 41	0	1	0	8	5	2	0	0	0	0	1	2	19
Zn 42	0	1	0	0	1	9	7	13	0	0	16	0	47
Added	25	232	42	103	132	256	284	281	32	12	275	95	1769
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	100	1052	333	728	323	424	1051	1353	176	94	655	646	6935
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	100	1052	333	728	323	424	1051	1353	176	94	655	646	6935

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1381 Tall Cedars Pkwy./Gum Spring Road
[Base(LOS=C,Del=17.3,V/C=0.000)][Future(LOS=F,Del=198.4,V/C=0.000)][+0.000 V/C]

Base	228	278	0	0	126	13	5	0	116	0	0	0	766
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	257	313	0	0	142	15	6	0	131	0	0	0	863
Zn 4	5	18	0	0	5	0	0	0	1	0	0	0	29
Zn 5	0	1	0	0	4	0	0	0	0	0	0	0	5
Zn 9	2	14	0	0	4	0	0	0	0	0	0	0	20
Zn 12	2	8	0	0	2	0	0	0	0	0	0	0	12
Zn 13	0	13	0	0	3	0	0	0	0	0	0	0	16
Zn 15	0	64	0	0	20	0	0	0	0	0	0	0	84
Zn 17	1	1	0	0	3	0	0	0	4	0	0	0	9
Zn 18	7	7	0	0	3	0	0	0	2	0	0	0	19
Zn 19	0	52	0	0	18	0	0	0	0	0	0	0	70
Zn 20	0	54	0	0	45	1	2	0	0	0	0	0	102
Zn 21	0	114	0	0	60	4	9	0	0	0	0	0	187
Zn 22	0	56	0	0	18	0	0	0	0	0	0	0	74
Zn 23	0	1	0	0	0	0	0	0	0	0	0	0	1
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	1	0	0	0	0	0	0	5	0	0	6
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	1	0	0	1	0	0	0	0	0	0	0	2
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	1	0	0	3	0	0	0	0	0	0	0	4
Zn 41	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	16	405	1	0	190	6	10	0	8	5	0	0	641
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	273	718	1	0	332	21	16	0	139	5	0	0	1504
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	273	718	1	0	332	21	16	0	139	5	0	0	1504

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1405 Stone Springs Blvd./Route 50													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	76	64	555	75	53	21	101	865	131	124	273	0	2338
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	86	72	625	84	60	24	114	974	148	140	307	0	2633
Zn 4	1	4	0	0	1	0	0	1	0	0	3	0	10
Zn 5	0	0	0	0	0	0	0	2	0	0	9	0	11
Zn 9	0	2	0	0	0	0	0	2	0	0	1	0	5
Zn 12	0	2	0	0	0	0	0	0	0	0	1	0	3
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 17	0	2	0	11	11	6	2	0	0	0	10	1	43
Zn 18	0	9	0	7	3	3	19	0	0	0	4	5	50
Zn 19	0	0	0	0	0	24	9	65	0	0	184	0	282
Zn 20	1	1	0	13	1	0	0	21	1	0	18	7	63
Zn 21	0	4	0	3	9	0	0	29	0	0	15	1	61
Zn 22	0	0	0	0	0	1	4	73	0	0	24	0	102
Zn 23	0	0	0	0	0	0	3	11	0	0	4	0	18
Zn 27	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 28	0	0	0	0	0	0	0	1	0	0	6	0	7
Zn 29	0	0	0	1	0	0	0	11	0	0	1	0	13
Zn 30	0	0	0	0	0	0	0	4	0	0	13	0	17
Zn 31	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 35	0	0	0	0	0	0	1	13	0	0	9	0	23
Zn 36	0	0	0	0	0	0	1	2	0	0	0	0	3
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	20	0	33	10	5	0	0	16	6	90
Zn 41	0	0	0	0	0	0	2	0	0	0	2	1	5
Zn 42	0	0	0	0	0	4	3	21	0	0	25	0	53
Added	1	24	0	54	25	72	54	263	1	0	351	21	866
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	87	96	625	138	85	96	168	1237	149	140	658	21	3499
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	87	96	625	138	85	96	168	1237	149	140	658	21	3499

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1407 Tall Cedars / Stone Springs Blvd.
[Base(LOS=C,Del=6.9,V/C=0.000)][Future(LOS=C,Del=7.6,V/C=0.000)][+0.000 V/C]

Base	67	200	2	65	99	57	78	38	42	9	51	121	829
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	75	225	2	73	111	64	88	43	47	10	57	136	934
Zn 4	0	0	0	1	0	0	0	0	0	0	0	5	6
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	0	0	0	0	0	0	2	2
Zn 12	0	0	0	0	0	0	0	0	0	0	0	2	2
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 17	0	1	0	4	6	0	0	0	0	0	0	1	12
Zn 18	0	2	0	2	1	0	0	0	0	0	0	7	12
Zn 19	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 20	0	0	0	1	0	0	0	0	0	0	0	1	2
Zn 21	0	0	0	9	0	0	0	0	0	0	0	4	13
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 23	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 41	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	3	0	18	7	0	0	0	0	0	0	21	49
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	75	228	2	91	118	64	88	43	47	10	57	157	983
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	75	228	2	91	118	64	88	43	47	10	57	157	983

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1433 Route 659 (Gum Spring Road)/Route 50
[Base(LOS=B,Del=0.2,V/C=0.000)][Future(LOS=C,Del=0.3,V/C=0.000)][+0.000 V/C]

Base	0	0	0	0	0	33	0	1524	0	0	367	201	2125
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	0	0	0	0	0	37	0	1716	0	0	413	226	2393
Zn 4	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 5	0	0	0	0	0	0	0	2	0	0	9	0	11
Zn 9	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 12	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 17	0	0	0	0	0	10	0	11	0	0	1	3	25
Zn 18	0	0	0	0	0	4	0	7	0	0	5	28	44
Zn 19	0	0	0	0	0	0	0	65	0	0	184	0	249
Zn 20	0	0	0	0	0	0	0	34	0	0	24	4	62
Zn 21	0	0	0	0	0	0	0	32	0	0	17	0	49
Zn 22	0	0	0	0	0	0	0	73	0	0	24	0	97
Zn 23	0	0	0	0	0	0	0	11	0	0	4	0	15
Zn 27	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 28	0	0	0	0	0	0	0	1	0	0	6	0	7
Zn 29	0	0	0	0	0	0	0	12	0	0	2	0	14
Zn 30	0	0	0	0	0	0	0	4	0	0	13	0	17
Zn 31	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 35	0	0	0	0	0	0	0	13	0	0	9	0	22
Zn 36	0	0	0	0	0	0	0	2	0	0	0	0	2
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	25	0	0	22	0	47
Zn 41	0	0	0	0	0	0	0	0	0	0	3	0	3
Zn 42	0	0	0	0	0	0	0	21	0	0	25	0	46
Added	0	0	0	0	0	14	0	317	0	0	357	36	724
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	51	0	2033	0	0	770	262	3117
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	51	0	2033	0	0	770	262	3117

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1441 Racefield Lane/ Route 50
[Base(LOS=B,Del=0.2,V/C=0.000)][Future(LOS=F,Del=68.5,V/C=0.000)][+0.000 V/C]

Base	0	0	0	0	0	24	0	1069	0	0	410	10	1513
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	0	0	0	0	0	27	0	1204	0	0	462	11	1704
Zn 4	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 5	0	0	0	0	0	0	0	2	0	0	9	0	11
Zn 9	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 12	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 17	0	0	0	0	0	0	0	2	0	0	16	0	18
Zn 18	0	0	0	0	0	0	0	19	0	0	7	0	26
Zn 19	0	0	0	74	0	28	79	0	0	0	0	209	390
Zn 20	0	0	0	0	0	0	0	22	0	0	18	0	40
Zn 21	0	0	0	0	0	0	0	29	0	0	15	0	44
Zn 22	0	0	0	0	0	0	0	77	0	0	26	0	103
Zn 23	0	0	0	0	0	0	0	14	0	0	5	0	19
Zn 27	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 28	0	0	0	0	0	0	0	1	0	0	6	0	7
Zn 29	0	0	0	0	0	0	0	11	0	0	1	0	12
Zn 30	0	0	0	0	0	0	0	4	0	0	13	0	17
Zn 31	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 35	0	0	0	0	0	0	0	14	0	0	9	0	23
Zn 36	0	0	0	0	0	0	0	3	0	0	0	0	3
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	15	0	0	49	0	64
Zn 41	0	0	0	0	0	0	0	2	0	0	3	0	5
Zn 42	0	0	0	0	0	0	0	24	0	0	29	0	53
Added	0	0	0	74	0	28	79	244	0	0	216	209	850
PassBy	0	0	0	26	0	7	4	-4	0	0	-15	15	33
Future	0	0	0	100	0	62	83	1444	0	0	663	235	2587
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	100	0	62	83	1444	0	0	663	235	2587

Scenario Report

Scenario:	2015 PM
Command:	2015 Other Developments
Volume:	2015 PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2015 PM
Trip Distribution:	2015
Paths:	2015 BG
Routes:	Default Route
Configuration:	AM Peak

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Trip Generation Report

Forecast for 2015 PM

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
4	Providence G	1.00	Residential	42.00	22.00	42	22	64	0.9
	Zone 4 Subtotal					42	22	64	0.9
5	Pinebrook	1.00	Residential	92.00	48.00	92	48	140	1.9
	Zone 5 Subtotal					92	48	140	1.9
9	CD Smith Pro	1.00	Residential	97.00	51.00	97	51	148	2.1
	Zone 9 Subtotal					97	51	148	2.1
12	Braddock Cor	1.00	Residential	42.00	22.00	42	22	64	0.9
	Zone 12 Subtotal					42	22	64	0.9
13	Kirkpatrick	1.00	Residential	103.00	55.00	103	55	158	2.2
	Zone 13 Subtotal					103	55	158	2.2
15	Kirkpatrick	1.00	Residential	405.00	226.00	405	226	631	8.7
	Zone 15 Subtotal					405	226	631	8.7
17	Glascock Fie	1.00	Residential	52.00	26.00	52	26	78	1.1
	Zone 17 Subtotal					52	26	78	1.1
18	Glascock Fie	1.00	Employment	116.00	186.00	116	186	302	4.2
	Zone 18 Subtotal					116	186	302	4.2
19	Inova Proper	1.00	Employment	160.00	377.00	160	377	537	7.4
	Zone 19 Subtotal					160	377	537	7.4
20	Gum Spring V	1.00	Commercial	327.00	325.00	327	325	652	9.0
	Zone 20 Subtotal					327	325	652	9.0
21	West Spine P	1.00	By Right Emplo	304.00	412.00	304	412	716	9.9
	Zone 21 Subtotal					304	412	716	9.9
22	Westport By	1.00	Residential	445.00	251.00	445	251	696	9.6
	Zone 22 Subtotal					445	251	696	9.6
23	Marrwood	1.00	Residential	52.00	29.00	52	29	81	1.1
	Zone 23 Subtotal					52	29	81	1.1
27	South Villag	1.00	Residential	12.00	5.00	12	5	17	0.2
	Zone 27 Subtotal					12	5	17	0.2
28	South Riding	1.00	Residential	128.00	68.00	128	68	196	2.7
	Zone 28 Subtotal					128	68	196	2.7
29	South Riding	1.00	Employment	14.00	70.00	14	70	84	1.2

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Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
	Zone 29 Subtotal					14	70	84	1.2
30	South Riding	1.00	Residential	269.00	143.00	269	143	412	5.7
	Zone 30 Subtotal					269	143	412	5.7
31	South Riding	1.00	Commercial	69.00	75.00	69	75	144	2.0
	Zone 31 Subtotal					69	75	144	2.0
35	Arcola Cente	1.00	Commercial	300.00	326.00	300	326	626	8.7
	Zone 35 Subtotal					300	326	626	8.7
36	Brambleton E	1.00	Employment	49.00	215.00	49	215	264	3.7
	Zone 36 Subtotal					49	215	264	3.7
37	Brambleton C	1.00	Commercial	63.00	68.00	63	68	131	1.8
	Zone 37 Subtotal					63	68	131	1.8
38	Brambleton R	1.00	Residential	607.00	330.00	607	330	937	13.0
	Zone 38 Subtotal					607	330	937	13.0
41	Winsbury	1.00	Residential	30.00	17.00	30	17	47	0.7
	Zone 41 Subtotal					30	17	47	0.7
42	Arcola Schoo	1.00	School	44.00	50.00	44	50	94	1.3
	Zone 42 Subtotal					44	50	94	1.3
TOTAL						3822	3397	7219	100.0

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Trip Distribution Report

Percent Of Trips 2015

Zone	To Gates 1	2	3	4	5	6	7	8	9	10
4	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
5	5.0	2.0	45.0	4.0	13.0	0.0	2.0	5.0	10.0	14.0
9	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
12	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
13	5.0	5.0	25.0	4.0	10.0	10.0	9.0	5.0	5.0	22.0
15	5.0	5.0	27.0	4.0	10.0	5.0	14.0	5.0	5.0	20.0
17	5.0	5.0	25.0	5.0	10.0	5.0	15.0	0.0	5.0	25.0
18	5.0	0.0	25.0	5.0	10.0	5.0	10.0	10.0	10.0	20.0
19	5.0	10.0	40.0	5.0	5.0	5.0	10.0	0.0	5.0	15.0
20	5.0	2.0	20.0	5.0	15.0	5.0	15.0	5.0	5.0	23.0
21	5.0	2.0	20.0	5.0	15.0	5.0	15.0	5.0	5.0	23.0
22	5.0	0.0	20.0	5.0	20.0	5.0	15.0	5.0	0.0	25.0
23	5.0	0.0	15.0	5.0	20.0	5.0	15.0	5.0	5.0	25.0
27	5.0	5.0	40.0	5.0	0.0	5.0	9.0	11.0	5.0	15.0
28	5.0	5.0	40.0	5.0	0.0	5.0	9.0	11.0	5.0	15.0
29	9.0	5.0	25.0	6.0	10.0	5.0	15.0	0.0	3.0	22.0
30	5.0	5.0	35.0	6.0	0.0	5.0	15.0	5.0	5.0	19.0
31	9.0	5.0	25.0	6.0	10.0	5.0	15.0	0.0	3.0	22.0
35	5.0	0.0	25.0	5.0	10.0	5.0	10.0	10.0	10.0	20.0
36	2.0	0.0	15.0	2.0	25.0	10.0	20.0	0.0	15.0	11.0
37	2.0	0.0	15.0	2.0	25.0	10.0	20.0	0.0	15.0	11.0
38	2.0	0.0	15.0	2.0	25.0	10.0	20.0	0.0	15.0	11.0
41	5.0	5.0	25.0	5.0	10.0	5.0	15.0	0.0	5.0	25.0
42	5.0	0.0	30.0	15.0	5.0	10.0	5.0	0.0	5.0	25.0

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Turning Movement By Zone Report
2015 PM

#11 Millstream Drive/Sandbar Terrace/TCP
[Base(LOS=B,Del=3.0,V/C=0.000)][Future(LOS=B,Del=3.0,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	10	11	7	13	0	1	43	0	36	106	4	231
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	0	11	12	8	15	0	1	48	0	41	119	5	260
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 12	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 17	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 18	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 19	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 20	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 21	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 23	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 41	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	11	12	8	15	0	1	48	0	41	119	5	260
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	11	12	8	15	0	1	48	0	41	119	5	260

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#126 Millstream/Stone Springs
[Base(LOS=D,Del=17.1,V/C=0.000)][Future(LOS=E,Del=26.6,V/C=0.000)][+0.000 V/C]

Base	51	124	2	57	372	35	134	51	46	1	40	28	941
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	57	140	2	64	419	39	151	57	52	1	45	32	1060
Zn 4	0	2	0	0	3	0	0	0	0	0	0	0	5
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	1	0	0	2	0	0	0	0	0	0	0	3
Zn 12	0	1	0	0	2	0	0	0	0	0	0	0	3
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 17	0	10	0	0	5	0	0	0	0	0	0	0	15
Zn 18	0	12	0	0	20	0	0	0	0	0	0	0	32
Zn 19	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 20	0	2	0	2	2	0	0	0	0	0	0	2	8
Zn 21	0	12	0	0	9	0	0	0	0	0	0	0	21
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 23	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 41	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	40	0	2	42	0	0	0	0	0	0	2	86
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	57	180	2	66	461	39	151	57	52	1	45	34	1146
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	57	180	2	66	461	39	151	57	52	1	45	34	1146

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1197 Route 616 (Fleetwood Road)/Route 50
[Base(LOS=F,Del=1.5,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/C]

Base	4	1	15	2	14	4	3	349	4	54	1145	5	1600
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	5	1	17	2	16	5	3	393	5	61	1289	6	1802
Zn 4	0	0	0	0	0	0	0	3	0	0	2	0	5
Zn 5	0	0	0	0	0	0	0	10	0	0	5	0	15
Zn 9	0	2	1	0	5	0	0	0	0	1	0	0	9
Zn 12	0	1	0	0	1	0	0	1	0	0	1	0	4
Zn 13	0	2	0	0	4	0	0	0	0	0	0	0	6
Zn 15	2	5	0	0	8	0	0	2	3	0	1	0	21
Zn 17	0	0	0	0	0	0	0	11	0	0	7	0	18
Zn 18	0	0	8	0	0	0	0	17	0	9	35	0	69
Zn 19	0	0	3	10	0	0	0	31	0	8	74	23	149
Zn 20	0	0	0	10	0	0	0	35	0	0	35	10	90
Zn 21	0	0	0	0	0	0	0	31	0	0	42	0	73
Zn 22	40	31	45	0	56	0	0	0	71	80	0	0	323
Zn 23	4	4	9	0	8	0	0	0	8	16	0	0	49
Zn 27	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 28	0	0	0	0	0	0	0	5	0	0	3	0	8
Zn 29	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 30	0	0	0	3	0	0	0	11	0	0	6	1	21
Zn 31	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 35	0	0	2	0	0	0	0	44	0	2	47	0	95
Zn 36	0	1	0	0	5	0	0	1	0	0	3	0	10
Zn 37	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 38	0	7	0	0	4	0	0	46	0	0	25	0	82
Zn 41	0	0	0	0	0	2	1	7	0	0	2	0	12
Zn 42	13	4	11	0	4	0	0	0	12	9	0	0	53
Added	60	57	79	22	94	2	1	263	94	125	300	34	1131
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	65	58	96	24	110	7	4	656	99	186	1589	40	2933
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	65	58	96	24	110	7	4	656	99	186	1589	40	2933

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1226 West Spine Road/ Route 50													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	69	0	120	0	0	0	0	561	99	525	1326	0	2700
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	78	0	135	0	0	0	0	632	111	591	1493	0	3041
Zn 4	1	0	7	0	0	0	0	0	3	15	0	0	26
Zn 5	0	0	4	0	0	0	0	10	0	2	5	0	21
Zn 9	0	0	7	0	0	0	0	1	0	14	1	0	23
Zn 12	1	0	4	0	0	0	0	0	1	8	0	0	14
Zn 13	0	0	7	0	0	0	0	0	0	13	0	0	20
Zn 15	1	0	34	0	0	0	0	0	2	62	0	0	99
Zn 17	7	0	0	0	0	0	0	4	1	0	12	0	24
Zn 18	9	0	0	0	0	0	0	28	16	0	37	0	90
Zn 19	29	0	0	0	0	0	0	173	68	0	74	0	344
Zn 20	69	0	141	0	0	0	0	0	70	142	0	0	422
Zn 21	47	0	187	0	0	0	0	0	34	138	0	0	406
Zn 22	0	0	33	0	0	0	0	43	0	58	76	0	210
Zn 23	0	0	1	0	0	0	0	7	0	1	15	0	24
Zn 27	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 28	0	0	0	0	0	0	0	5	0	0	3	0	8
Zn 29	0	0	0	0	0	0	0	2	0	0	8	0	10
Zn 30	0	0	0	0	0	0	0	14	0	0	7	0	21
Zn 31	0	0	0	0	0	0	0	5	0	0	6	0	11
Zn 35	0	0	5	0	0	0	0	42	0	5	49	0	101
Zn 36	0	0	0	0	0	0	0	0	0	0	2	0	2
Zn 37	0	0	1	0	0	0	0	1	0	1	1	0	4
Zn 38	0	0	2	0	0	0	0	25	0	1	26	0	54
Zn 41	2	0	0	0	0	0	0	1	0	0	4	0	7
Zn 42	0	0	0	0	0	0	0	9	0	0	8	0	17
Added	165	0	433	0	0	0	0	371	195	460	333	0	1957
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	243	0	568	0	0	0	0	1003	306	1051	1826	0	4998
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	243	0	568	0	0	0	0	1003	306	1051	1826	0	4998

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1262 Route 606 (Loudoun County Pkwy)/Route 50													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	153	207	129	499	627	605	166	405	153	339	1074	806	5163
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	172	233	145	562	706	681	187	456	172	382	1210	908	5815
Zn 4	0	2	2	0	3	8	4	4	0	3	7	0	33
Zn 5	25	0	0	0	0	22	11	17	13	0	32	0	120
Zn 9	0	8	6	0	15	8	4	4	0	11	8	0	64
Zn 12	0	3	1	0	6	3	2	2	0	2	5	0	24
Zn 13	0	7	0	0	13	8	4	3	0	0	5	0	40
Zn 15	0	44	12	0	78	40	22	12	0	22	22	0	252
Zn 17	1	0	0	0	0	5	0	3	1	0	6	0	16
Zn 18	3	0	0	0	0	14	0	28	0	0	20	0	65
Zn 19	3	0	0	0	0	11	26	139	8	0	59	0	246
Zn 20	0	0	0	0	0	95	94	46	0	0	47	0	282
Zn 21	0	4	0	0	3	96	130	58	0	0	43	0	334
Zn 22	0	3	0	0	4	76	43	33	0	0	58	0	217
Zn 23	0	1	0	0	3	11	5	2	0	0	4	0	26
Zn 27	0	0	0	1	1	0	0	0	0	1	0	0	3
Zn 28	1	8	0	5	15	0	0	3	2	0	2	3	39
Zn 29	1	8	0	2	2	0	0	1	0	0	7	10	31
Zn 30	3	22	1	24	42	0	0	8	6	3	4	13	126
Zn 31	2	19	0	0	17	0	0	4	2	0	4	0	48
Zn 35	6	44	0	33	47	37	32	49	7	0	45	30	330
Zn 36	0	5	0	32	20	2	0	0	0	0	0	7	66
Zn 37	0	6	0	10	7	2	2	0	0	0	0	9	36
Zn 38	0	38	0	30	21	10	18	10	0	0	18	55	200
Zn 41	0	2	0	5	3	1	1	0	0	0	2	6	20
Zn 42	0	0	0	0	0	3	3	6	0	0	5	0	17
Added	45	224	23	141	301	450	401	432	38	43	403	134	2635
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	217	457	168	703	1007	1131	588	888	210	425	1613	1042	8450
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	217	457	168	703	1007	1131	588	888	210	425	1613	1042	8450

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1381 Tall Cedars Pkwy./Gum Spring Road
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	111	192	0	0	708	106	8	0	224	0	0	0	1349
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	125	216	0	0	797	119	9	0	252	0	0	0	1519
Zn 4	2	9	0	0	17	0	0	0	3	0	0	0	31
Zn 5	0	4	0	0	2	0	0	0	0	0	0	0	6
Zn 9	1	8	0	0	15	0	0	0	2	0	0	0	26
Zn 12	1	5	0	0	9	0	0	0	2	0	0	0	17
Zn 13	0	7	0	0	13	0	0	0	0	0	0	0	20
Zn 15	0	35	0	0	63	0	0	0	0	0	0	0	98
Zn 17	4	7	0	0	1	0	0	0	2	0	0	0	14
Zn 18	9	9	0	0	16	0	0	0	15	0	0	0	49
Zn 19	0	29	0	0	68	0	0	0	0	0	0	0	97
Zn 20	0	112	0	0	112	3	3	0	0	0	0	0	230
Zn 21	0	122	0	0	166	12	9	0	0	0	0	0	309
Zn 22	0	33	0	0	58	0	0	0	0	0	0	0	91
Zn 23	0	1	0	0	1	0	0	0	0	0	0	0	2
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	5	0	0	0	0	0	0	3	0	0	8
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	5	0	0	5	0	0	0	0	0	0	0	10
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	1	0	0	1	0	0	0	0	0	0	0	2
Zn 38	0	2	0	0	1	0	0	0	0	0	0	0	3
Zn 41	0	2	0	0	0	0	0	0	0	0	0	0	2
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	17	389	5	0	548	16	12	0	24	3	0	0	1014
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	142	605	5	0	1345	135	21	0	276	3	0	0	2533
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	142	605	5	0	1345	135	21	0	276	3	0	0	2533

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1405 Stone Springs Blvd./Route 50
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	127	35	221	134	125	35	68	230	71	423	1119	0	2588
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	143	39	249	151	141	39	77	259	80	476	1260	0	2915
Zn 4	0	2	0	0	3	0	0	3	1	0	1	0	10
Zn 5	0	0	0	0	0	0	0	10	0	0	5	0	15
Zn 9	0	1	0	0	2	0	0	1	0	0	2	0	6
Zn 12	0	1	0	0	2	0	0	1	0	0	1	0	5
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 17	0	10	0	5	5	3	11	0	0	0	5	5	44
Zn 18	0	12	0	44	20	18	26	0	0	0	27	7	154
Zn 19	0	0	0	0	0	14	32	241	0	0	102	0	389
Zn 20	2	2	0	26	2	0	0	43	2	0	43	16	136
Zn 21	0	12	0	3	9	0	0	31	0	0	42	4	101
Zn 22	0	0	0	0	0	4	3	43	0	0	76	0	126
Zn 23	0	0	0	0	0	1	2	7	0	0	15	0	25
Zn 27	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 28	0	0	0	0	0	0	0	5	0	0	3	0	8
Zn 29	0	0	0	0	0	0	0	1	0	0	7	1	9
Zn 30	0	0	0	0	0	0	0	14	0	0	7	0	21
Zn 31	0	0	0	1	0	0	0	5	0	0	5	1	12
Zn 35	0	0	0	0	0	0	3	42	0	0	49	0	94
Zn 36	0	0	0	0	0	1	0	0	0	0	2	0	3
Zn 37	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 38	0	0	0	10	0	17	30	15	0	0	8	18	98
Zn 41	0	0	0	0	0	0	6	1	0	0	1	2	10
Zn 42	0	0	0	0	0	1	2	9	0	0	8	0	20
Added	2	40	0	89	41	58	114	477	2	0	412	54	1289
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	145	79	249	240	182	97	191	736	82	476	1672	54	4204
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	145	79	249	240	182	97	191	736	82	476	1672	54	4204

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Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1407 Tall Cedars / Stone Springs Blvd.
[Base(LOS=B,Del=6.3,V/C=0.000)][Future(LOS=C,Del=7.4,V/C=0.000)][+0.000 V/C]

Base	39	112	9	168	158	45	22	8	13	12	22	58	666
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	44	126	10	189	178	51	25	9	15	14	25	65	750
Zn 4	0	0	0	3	0	0	0	0	0	0	0	2	5
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	2	0	0	0	0	0	0	0	1	3
Zn 12	0	0	0	2	0	0	0	0	0	0	0	1	3
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 17	0	6	0	2	3	0	0	0	0	0	0	4	15
Zn 18	0	3	0	15	5	0	0	0	0	0	0	9	32
Zn 19	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 20	0	0	0	2	0	0	0	0	0	0	0	2	4
Zn 21	0	0	0	9	0	0	0	0	0	0	0	12	21
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 23	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 27	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 28	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 29	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 30	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 31	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 35	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 36	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 37	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 38	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 41	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 42	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	9	0	34	8	0	0	0	0	0	0	31	82
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	44	135	10	223	186	51	25	9	15	14	25	96	832
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	44	135	10	223	186	51	25	9	15	14	25	96	832

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1433 Route 659 (Gum Spring Road)/Route 50
[Base(LOS=E,Del=1.1,V/C=0.000)][Future(LOS=F,Del=6.5,V/C=0.000)][+0.000 V/C]

Base	0	0	0	0	0	54	0	660	0	0	1280	115	2109
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	0	0	0	0	0	61	0	743	0	0	1442	130	2375
Zn 4	0	0	0	0	0	0	0	3	0	0	1	0	4
Zn 5	0	0	0	0	0	0	0	10	0	0	5	0	15
Zn 9	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 12	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 17	0	0	0	0	0	5	0	5	0	0	5	14	29
Zn 18	0	0	0	0	0	26	0	44	0	0	7	39	116
Zn 19	0	0	0	0	0	0	0	241	0	0	102	0	343
Zn 20	0	0	0	0	0	0	0	70	0	0	59	10	139
Zn 21	0	0	0	0	0	0	0	34	0	0	47	0	81
Zn 22	0	0	0	0	0	0	0	43	0	0	76	0	119
Zn 23	0	0	0	0	0	0	0	7	0	0	15	0	22
Zn 27	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 28	0	0	0	0	0	0	0	5	0	0	3	0	8
Zn 29	0	0	0	0	0	0	0	2	0	0	8	0	10
Zn 30	0	0	0	0	0	0	0	14	0	0	7	0	21
Zn 31	0	0	0	0	0	0	0	5	0	0	6	0	11
Zn 35	0	0	0	0	0	0	0	42	0	0	49	0	91
Zn 36	0	0	0	0	0	0	0	0	0	0	2	0	2
Zn 37	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 38	0	0	0	0	0	0	0	25	0	0	26	0	51
Zn 41	0	0	0	0	0	0	0	1	0	0	4	2	7
Zn 42	0	0	0	0	0	0	0	9	0	0	8	0	17
Added	0	0	0	0	0	31	0	566	0	0	434	64	1095
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	92	0	1309	0	0	1876	194	3470
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	92	0	1309	0	0	1876	194	3470

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Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1441 Racefield Lane/ Route 50													
[Base(LOS=D,Del=0.3,V/C=0.000)][Future(LOS=F,Del=841.2,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	16	0	364	0	0	1300	18	1698
Growth	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
InitBs	0	0	0	0	0	18	0	410	0	0	1464	20	1912
Zn 4	0	0	0	0	0	0	0	3	0	0	2	0	5
Zn 5	0	0	0	0	0	0	0	10	0	0	5	0	15
Zn 9	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 12	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 13	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 15	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 17	0	0	0	0	0	0	0	11	0	0	7	0	18
Zn 18	0	0	0	0	0	0	0	26	0	0	45	0	71
Zn 19	0	0	0	273	0	104	44	0	0	0	0	116	537
Zn 20	0	0	0	0	0	0	0	45	0	0	45	0	90
Zn 21	0	0	0	0	0	0	0	31	0	0	42	0	73
Zn 22	0	0	0	0	0	0	0	45	0	0	80	0	125
Zn 23	0	0	0	0	0	0	0	9	0	0	16	0	25
Zn 27	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 28	0	0	0	0	0	0	0	5	0	0	3	0	8
Zn 29	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 30	0	0	0	0	0	0	0	14	0	0	7	0	21
Zn 31	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 35	0	0	0	0	0	0	0	45	0	0	49	0	94
Zn 36	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 37	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 38	0	0	0	0	0	0	0	46	0	0	25	0	71
Zn 41	0	0	0	0	0	0	0	7	0	0	2	0	9
Zn 42	0	0	0	0	0	0	0	11	0	0	9	0	20
Added	0	0	0	273	0	104	44	320	0	0	356	116	1213
PassBy	0	0	0	9	0	2	2	-2	0	0	-10	10	11
Future	0	0	0	282	0	124	46	728	0	0	1810	146	3136
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	282	0	124	46	728	0	0	1810	146	3136

APPENDIX E

2015 TRAFFIC FORECASTS FOR APPROVED CONDITIONS

2008 TF - TOTAL

Scenario Report

Scenario:	2015 AM Peak TF
Command:	2010 AM Peak TF
Volume:	2010 AM TF
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2010 AM TF
Trip Distribution:	2010
Paths:	2010 TF
Routes:	Default Route
Configuration:	2010 AM Peak TF

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2008 TF - TOTAL

Trip Generation Report

Forecast for 2010 AM TF

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Zone 1 - Res	1.00	Residential	6.00	45.00	6	45	51	4.0
	Zone 1 Subtotal					6	45	51	4.0
2	Zone 2 - Res	1.00	Residential	3.00	19.00	3	19	22	1.7
	Zone 2 Subtotal					3	19	22	1.7
3	Zone 3 - Res	1.00	Residential	4.00	30.00	4	30	34	2.7
	Zone 3 Subtotal					4	30	34	2.7
4	Zone 4 - Res	1.00	Residential	10.00	76.00	10	76	86	6.8
	Zone 4 Subtotal					10	76	86	6.8
5	Zone 5 - Res	1.00	Residential	2.00	12.00	2	12	14	1.1
	Zone 5 Subtotal					2	12	14	1.1
6	Zone 6 - Res	1.00	Residential	1.00	12.00	1	12	13	1.0
	Zone 6 Subtotal					1	12	13	1.0
7	Zone 7 - Res	1.00	Residential	22.00	153.00	22	153	175	13.9
	Zone 7 Subtotal					22	153	175	13.9
8	Zone 8 - Off	1.00	Office	263.00	26.00	263	26	289	22.9
	Zone 8 Subtotal					263	26	289	22.9
9	Zone 9 - Ind	1.00	Industrial	47.00	9.00	47	9	56	4.4
	Zone 9 Subtotal					47	9	56	4.4
10	Zone 10 - In	1.00	Industrial	197.00	37.00	197	37	234	18.5
	Zone 10 Subtotal					197	37	234	18.5
11	Retail	1.00	Retail	57.00	36.00	57	36	93	7.4
	Zone 11 Subtotal					57	36	93	7.4
22	Library	1.00	Library	32.00	12.00	32	12	44	3.5
	Zone 22 Subtotal					32	12	44	3.5
70	Zone 70 - Mi	1.00	Middle School	0.00	0.00	0	0	0	0.0
111	Zone 111 - E	1.00	Elementary Sch	0.00	0.00	0	0	0	0.0
707	Zone 707 Day	1.00	Day Care	0.00	0.00	0	0	0	0.0
777	Zone 777 - C	1.00	Church	18.00	16.00	18	16	34	2.7
	Zone 777 Subtotal					18	16	34	2.7
778	Landbay 9	1.00	Office	103.00	14.00	103	14	117	9.3
	Zone 778 Subtotal					103	14	117	9.3

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2008 TF - TOTAL

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
TOTAL						765	497	1262	100.0

2008 TF - TOTAL

Trip Distribution Report

Percent Of Trips 2010

Zone	To Gates 2	3	4	5	6	7
1	20.0	30.0	0.0	25.0	15.0	10.0
2	20.0	30.0	0.0	25.0	15.0	10.0
3	20.0	30.0	0.0	25.0	15.0	10.0
4	20.0	30.0	0.0	25.0	15.0	10.0
5	20.0	30.0	0.0	25.0	15.0	10.0
6	20.0	30.0	0.0	25.0	15.0	10.0
7	20.0	30.0	0.0	25.0	15.0	10.0
8	20.0	30.0	0.0	15.0	20.0	15.0
9	20.0	30.0	0.0	15.0	15.0	20.0
10	20.0	30.0	0.0	15.0	15.0	20.0
11	20.0	30.0	0.0	20.0	15.0	15.0
22	25.0	25.0	0.0	30.0	10.0	10.0
70	40.0	10.0	0.0	30.0	10.0	10.0
111	40.0	10.0	0.0	30.0	10.0	10.0
707	30.0	35.0	0.0	20.0	5.0	10.0
777	25.0	25.0	0.0	30.0	10.0	10.0
778	20.0	30.0	0.0	15.0	20.0	15.0

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2008 TF - TOTAL

Turning Movement By Zone Report
2010 AM TF

#11 Tall Cedars Pkwy/Sandbar Terrace
[Base(LOS=B,Del=2.5,V/C=0.000)][Future(LOS=C,Del=3.2,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	57	32	12	0	3	0	178	1	3	197	14	497
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	57	32	12	0	3	0	178	1	3	197	14	497
Zn 1	0	0	0	0	0	1	5	40	0	0	5	0	51
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	1	11	0	0	0	0	0	0	2	0	0	14
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	1	0	0	0	3	0	0	17	7	28
Zn 10	0	0	0	8	0	0	0	0	0	0	0	41	49
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	1	11	9	0	1	5	43	0	2	22	48	142
PassBy	2	1	5	18	0	6	9	61	2	4	69	24	201
Future	2	59	48	39	0	10	14	282	3	9	288	86	840
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	2	59	48	39	0	10	14	282	3	9	288	86	840

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#13 Canary Grass Dr/Landbays FF1 & FF2													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=9.8,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	38	0	0	0	0	0	0	0	5	0	0	0	43
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	14	139	0	0	0	0	0	153
Zn 9	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 10	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	38	0	0	0	0	14	139	0	5	0	0	0	196
PassBy	19	4	0	0	1	14	18	0	14	0	0	0	70
Future	57	4	0	0	1	28	157	0	19	0	0	0	266
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	57	4	0	0	1	28	157	0	19	0	0	0	266

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#22 Millstream Dr/ West Industrial Site													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=A,Del=6.9,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	1	0	0	0	0	0	0	0	5	6
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	1	1
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	24	0	0	0	0	0	0	0	5	29
Zn 10	0	0	0	0	0	156	29	8	0	0	41	0	234
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	24	0	156	29	8	0	0	41	11	269
PassBy	0	5	10	7	3	8	2	4	0	9	13	7	68
Future	0	5	10	31	3	164	31	12	0	9	54	18	337
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	5	10	31	3	164	31	12	0	9	54	18	337

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#126 Stone Springs Blvd/Millstream Drive													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	57	459	8	45	223	43	93	16	27	5	45	247	1268
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	57	459	8	45	223	43	93	16	27	5	45	247	1268
Zn 1	0	23	0	0	3	1	5	0	0	0	0	0	32
Zn 2	0	12	0	0	2	0	0	0	0	0	0	0	14
Zn 3	0	10	0	1	1	0	0	0	0	0	0	10	22
Zn 4	0	0	0	6	0	0	0	0	0	0	0	49	55
Zn 5	0	6	0	0	1	0	1	0	0	0	0	0	8
Zn 6	0	5	0	0	0	0	0	0	0	0	0	1	6
Zn 7	0	68	0	0	10	0	0	0	0	0	0	0	78
Zn 8	0	0	0	179	0	0	0	0	0	0	0	18	197
Zn 9	0	1	0	0	6	24	5	0	0	0	0	0	36
Zn 10	8	0	0	0	0	124	23	4	1	0	24	0	184
Zn 11	5	0	0	0	0	46	29	4	3	0	7	0	94
Zn 22	0	0	2	23	0	0	0	0	0	1	0	9	35
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	10	0	0	11	0	0	0	0	0	0	0	21
Zn 778	0	12	0	0	1	0	0	0	0	0	0	0	13
Added	12	146	2	210	35	194	63	9	4	1	30	87	793
PassBy	11	0	7	0	0	0	0	11	10	2	15	0	56
Future	80	605	17	255	258	237	156	36	41	8	90	334	2117
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	80	605	17	255	258	237	156	36	41	8	90	334	2117

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2008 TF - TOTAL

#1197 US Rte 50/Goshen Rd
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
Base	114	117	157	25	45	4	20	1284	67	96	506	37	2472
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	114	117	157	25	45	4	20	1284	67	96	506	37	2472
Zn 1	0	0	0	0	0	0	0	2	0	0	11	0	13
Zn 2	0	0	0	0	0	0	0	1	0	0	5	0	6
Zn 3	0	0	0	0	0	0	0	1	0	0	8	0	9
Zn 4	0	0	0	0	0	0	0	3	0	0	19	0	22
Zn 5	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 6	0	0	0	0	0	0	0	0	0	0	3	0	3
Zn 7	0	0	0	0	0	0	0	6	0	0	38	0	44
Zn 8	0	0	0	0	0	0	0	39	0	0	4	0	43
Zn 9	0	0	0	0	0	0	0	7	0	0	1	0	8
Zn 10	0	0	0	0	0	0	0	30	0	0	6	0	36
Zn 11	0	0	0	0	0	0	0	11	0	0	7	0	18
Zn 22	0	0	0	0	0	0	0	10	0	0	4	0	14
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	0	0	0	0	0	0	0	15	0	0	2	0	17
Added	0	0	0	0	0	0	0	130	0	0	115	0	245
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	114	117	157	25	45	4	20	1414	67	96	621	37	2717
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	114	117	157	25	45	4	20	1414	67	96	621	37	2717

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1226 US Rte 50/West Spine Road													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	228	0	467	0	0	0	0	1867	166	382	805	0	3915
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	228	0	467	0	0	0	0	1867	166	382	805	0	3915
Zn 1	0	0	8	0	0	0	0	10	0	1	1	0	20
Zn 2	0	0	3	0	0	0	0	4	0	1	1	0	9
Zn 3	0	0	4	0	0	0	0	8	0	1	1	0	14
Zn 4	0	0	12	0	0	0	0	18	0	2	2	0	34
Zn 5	0	0	3	0	0	0	0	2	0	0	0	0	5
Zn 6	0	0	3	0	0	0	0	1	0	0	0	0	4
Zn 7	11	0	43	0	0	0	0	18	2	6	3	0	83
Zn 8	0	0	3	0	0	0	0	9	0	32	87	0	131
Zn 9	0	0	2	0	0	0	0	3	0	8	16	0	29
Zn 10	0	0	6	0	0	0	0	12	0	33	65	0	116
Zn 11	0	0	0	0	0	0	0	16	0	0	26	0	42
Zn 22	0	0	0	0	0	0	0	4	0	1	11	0	16
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	2	0	0	0	0	3	0	3	4	0	12
Zn 778	8	0	0	0	0	0	0	6	2	0	46	0	62
Added	20	0	90	0	0	0	0	116	4	87	262	0	579
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	248	0	557	0	0	0	0	1983	170	469	1067	0	4494
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	248	0	557	0	0	0	0	1983	170	469	1067	0	4494

2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1262 US Rte 50/Loudoun County Pkwy
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	100	1052	333	728	323	424	1051	1353	176	94	655	646	6935
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	100	1052	333	728	323	424	1051	1353	176	94	655	646	6935
Zn 1	0	0	0	0	0	1	5	14	0	0	2	0	22
Zn 2	0	0	0	0	0	0	2	6	0	0	1	0	9
Zn 3	0	0	0	0	0	0	3	9	0	0	1	0	13
Zn 4	0	0	0	0	0	1	8	23	0	0	3	0	35
Zn 5	0	0	0	0	0	0	1	4	0	0	1	0	6
Zn 6	0	0	0	0	0	0	1	4	0	0	0	0	5
Zn 7	0	0	0	0	0	2	15	46	0	0	7	0	70
Zn 8	0	0	0	0	0	39	4	8	0	0	79	0	130
Zn 9	0	0	0	0	0	9	2	3	0	0	14	0	28
Zn 10	0	0	0	0	0	39	7	11	0	0	59	0	116
Zn 11	0	0	0	0	0	9	5	11	0	0	17	0	42
Zn 22	0	0	0	0	0	3	1	3	0	0	8	0	15
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	2	2	4	0	0	5	0	13
Zn 778	0	0	0	0	0	15	2	4	0	0	31	0	52
Added	0	0	0	0	0	122	58	148	0	0	227	0	555
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	100	1052	333	728	323	546	1109	1501	176	94	882	646	7490
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	100	1052	333	728	323	546	1109	1501	176	94	882	646	7490

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2008 TF - TOTAL

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1381 Gum Spring Rd/Tall Cedars Pkwy													
[Base(LOS=F,Del=199.5,V/C=0.000)][Future(LOS=F,Del=1058.8,V/C=0.000)][+0.000 V/C													
Base	273	718	1	0	332	21	16	0	139	5	0	0	1505
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	273	718	1	0	332	21	16	0	139	5	0	0	1505
Zn 1	1	0	0	0	0	1	8	0	9	0	0	0	19
Zn 2	1	0	0	0	0	1	3	0	4	0	0	0	9
Zn 3	1	0	0	0	0	1	4	0	6	0	0	0	12
Zn 4	2	0	0	0	0	2	12	0	15	0	0	0	31
Zn 5	0	0	0	0	0	0	3	0	2	0	0	0	5
Zn 6	0	0	0	0	0	0	3	0	2	0	0	0	5
Zn 7	4	0	0	0	0	8	54	0	31	0	0	0	97
Zn 8	53	0	0	0	0	32	3	0	5	0	0	0	93
Zn 9	9	0	0	0	0	8	2	0	2	0	0	0	21
Zn 10	39	0	0	0	0	33	6	0	7	0	0	0	85
Zn 11	11	0	0	0	0	0	0	0	7	0	0	0	18
Zn 22	8	0	0	0	0	1	0	0	3	0	0	0	12
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	5	0	0	0	0	3	2	0	4	0	0	0	14
Zn 778	12	8	0	0	2	0	0	0	1	0	0	0	23
Added	147	8	0	0	2	88	101	0	99	0	0	0	445
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	420	726	1	0	334	109	117	0	238	5	0	0	1950
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	420	726	1	0	334	109	117	0	238	5	0	0	1950

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2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1405 US Rte 50/Stone Springs Blvd
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	87	96	625	138	85	96	168	1237	149	140	658	21	3500
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	87	96	625	138	85	96	168	1237	149	140	658	21	3500
Zn 1	11	7	10	0	1	0	0	0	2	1	0	0	32
Zn 2	5	3	4	0	0	0	0	0	1	1	0	0	14
Zn 3	8	5	8	0	1	0	0	0	1	1	0	0	24
Zn 4	19	11	18	0	2	0	0	0	3	2	0	0	55
Zn 5	3	2	2	0	0	0	0	0	1	0	0	0	8
Zn 6	3	2	1	0	0	0	0	0	0	0	0	0	6
Zn 7	27	23	18	0	3	0	0	2	4	3	11	0	91
Zn 8	4	5	9	0	53	0	0	0	39	87	0	0	197
Zn 9	1	1	3	0	7	0	0	0	7	16	0	0	35
Zn 10	6	6	12	0	30	0	0	0	30	65	0	0	149
Zn 11	7	5	16	0	9	0	0	0	11	26	0	0	74
Zn 22	4	1	4	0	3	0	0	0	10	11	0	0	33
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	5	2	3	0	2	0	0	0	5	4	0	0	21
Zn 778	12	0	0	0	0	21	3	8	1	0	55	0	100
Added	114	72	110	0	110	21	3	10	114	216	66	0	836
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	201	168	735	138	195	117	171	1247	263	356	724	21	4336
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	201	168	735	138	195	117	171	1247	263	356	724	21	4336

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2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1407 Stone Springs Blvd/Tall Cedars Pkwy
[Base(LOS=D,Del=18.5,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/C]

Base	75	228	2	91	118	64	88	43	47	10	57	157	980
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	75	228	2	91	118	64	88	43	47	10	57	157	980
Zn 1	0	0	0	0	0	3	23	17	0	0	2	0	45
Zn 2	0	0	0	4	0	1	5	3	0	0	1	1	15
Zn 3	0	0	0	1	0	0	0	0	0	0	0	0	1
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	1	6	5	0	0	1	0	13
Zn 6	0	0	0	0	0	0	0	0	0	0	0	5	5
Zn 7	0	68	85	0	10	0	0	0	0	12	0	0	175
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	6	1	3	0	0	17	0	27
Zn 10	0	0	0	1	0	0	0	8	0	0	41	8	58
Zn 11	0	0	0	3	0	0	0	0	0	0	0	5	8
Zn 22	0	0	0	1	0	0	0	0	0	0	0	2	3
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	10	6	0	11	0	0	0	0	7	0	0	34
Zn 778	0	0	0	1	0	0	0	0	0	0	0	12	13
Added	0	78	91	11	21	11	35	37	0	19	62	32	397
PassBy	73	23	40	2	16	8	7	15	65	43	17	1	310
Future	148	329	133	104	155	83	130	95	112	72	136	190	1687
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	148	329	133	104	155	83	130	95	112	72	136	190	1687

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2008 TF - TOTAL

#1433 US Rte 50/Gum Spring Rd/Canary Grass Dr RIRO
[Base(LOS=B,Del=0.1,V/C=0.000)][Future(LOS=C,Del=0.2,V/C=0.000)][+0.000 V/C]

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
Base	0	0	0	0	0	51	0	2033	0	0	770	262	3116
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	51	0	2033	0	0	770	262	3116
Zn 1	0	0	0	0	0	0	0	10	0	0	1	0	11
Zn 2	0	0	0	0	0	0	0	4	0	0	1	0	5
Zn 3	0	0	0	0	0	0	0	8	0	0	1	0	9
Zn 4	0	0	0	0	0	0	0	18	0	0	2	0	20
Zn 5	0	0	0	0	0	0	0	2	0	0	0	0	2
Zn 6	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 7	0	0	0	0	0	0	0	20	0	0	14	0	34
Zn 8	0	0	0	0	0	0	0	9	0	0	87	0	96
Zn 9	0	0	0	0	0	0	0	3	0	0	16	0	19
Zn 10	0	0	0	0	0	0	0	12	0	0	65	0	77
Zn 11	0	0	0	0	0	0	0	16	0	0	26	0	42
Zn 22	0	0	0	0	0	0	0	4	0	0	11	0	15
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	3	0	0	4	0	7
Zn 778	0	0	0	0	0	0	0	8	0	0	55	0	63
Added	0	0	0	0	0	0	0	120	0	0	282	0	402
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	51	0	2153	0	0	1052	262	3518
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	51	0	2153	0	0	1052	262	3518

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2008 TF - TOTAL

#1441 Landbay 9 RIRO Entrance
[Base(LOS=F,Del=68.5,V/C=0.000)][Future(LOS=F,Del=317.0,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	100	0	62	83	1444	0	0	663	235	2587
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	100	0	62	83	1444	0	0	663	235	2587
Zn 1	0	0	0	0	0	0	0	2	0	0	11	0	13
Zn 2	0	0	0	0	0	0	0	1	0	0	5	0	6
Zn 3	0	0	0	0	0	0	0	1	0	0	8	0	9
Zn 4	0	0	0	0	0	0	0	3	0	0	19	0	22
Zn 5	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 6	0	0	0	0	0	0	0	0	0	0	3	0	3
Zn 7	0	0	0	0	0	0	0	6	0	0	38	0	44
Zn 8	0	0	0	0	0	0	0	39	0	0	4	0	43
Zn 9	0	0	0	0	0	0	0	7	0	0	1	0	8
Zn 10	0	0	0	0	0	0	0	30	0	0	6	0	36
Zn 11	0	0	0	0	0	0	0	11	0	0	7	0	18
Zn 22	0	0	0	0	0	0	0	10	0	0	4	0	14
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	2	0	12	0	0	0	0	0	15	88	0	0	117
Added	2	0	12	0	0	0	0	114	15	88	113	0	344
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	2	0	12	100	0	62	83	1558	15	88	776	235	2931
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	2	0	12	100	0	62	83	1558	15	88	776	235	2931

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2008 TF - TOTAL

Scenario Report

Scenario:	2015 PM Peak TF
Command:	2010 PM Peak TF
Volume:	2010 PM TF
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2010 PM TF
Trip Distribution:	2010
Paths:	2010 TF
Routes:	Default Route
Configuration:	2010 PM Peak TF

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2008 TF - TOTAL

Trip Generation Report

Forecast for 2010 PM TF

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Zone 1 - Res	1.00	Residential	37.00	23.00	37	23	60	4.0
	Zone 1 Subtotal					37	23	60	4.0
2	Zone 2 - Res	1.00	Residential	17.00	10.00	17	10	27	1.8
	Zone 2 Subtotal					17	10	27	1.8
3	Zone 3 - Res	1.00	Residential	25.00	16.00	25	16	41	2.7
	Zone 3 Subtotal					25	16	41	2.7
4	Zone 4 - Res	1.00	Residential	63.00	38.00	63	38	101	6.8
	Zone 4 Subtotal					63	38	101	6.8
5	Zone 5 - Res	1.00	Residential	10.00	6.00	10	6	16	1.1
	Zone 5 Subtotal					10	6	16	1.1
6	Zone 6 - Res	1.00	Residential	9.00	5.00	9	5	14	0.9
	Zone 6 Subtotal					9	5	14	0.9
7	Zone 7 - Res	1.00	Residential	130.00	77.00	130	77	207	13.9
	Zone 7 Subtotal					130	77	207	13.9
8	Zone 8 - Off	1.00	Office	4.00	188.00	4	188	192	12.9
	Zone 8 Subtotal					4	188	192	12.9
9	Zone 9 - Ind	1.00	Industrial	4.00	46.00	4	46	50	3.3
	Zone 9 Subtotal					4	46	50	3.3
10	Zone 10 - In	1.00	Industrial	10.00	183.00	10	183	193	12.9
	Zone 10 Subtotal					10	183	193	12.9
11	Retail	1.00	Retail	92.00	100.00	92	100	192	12.9
	Zone 11 Subtotal					92	100	192	12.9
22	Library	1.00	Library	109.00	119.00	109	119	228	15.3
	Zone 22 Subtotal					109	119	228	15.3
70	Zone 70 - Mi	1.00	Middle School	0.00	0.00	0	0	0	0.0
707	Zone 707 Day	1.00	Day Care	0.00	0.00	0	0	0	0.0
777	Zone 777 - C	1.00	Church	16.00	15.00	16	15	31	2.1
	Zone 777 Subtotal					16	15	31	2.1
778	Landbay 9	1.00	Office	24.00	117.00	24	117	141	9.4
	Zone 778 Subtotal					24	117	141	9.4

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2008 TF - TOTAL

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
TOTAL						550	943	1493	100.0

2008 TF - TOTAL

Trip Distribution Report

Percent Of Trips 2010

Zone	To Gates 2	3	4	5	6	7
1	20.0	30.0	0.0	25.0	15.0	10.0
2	20.0	30.0	0.0	25.0	15.0	10.0
3	20.0	30.0	0.0	25.0	15.0	10.0
4	20.0	30.0	0.0	25.0	15.0	10.0
5	20.0	30.0	0.0	25.0	15.0	10.0
6	20.0	30.0	0.0	25.0	15.0	10.0
7	20.0	30.0	0.0	25.0	15.0	10.0
8	20.0	30.0	0.0	15.0	20.0	15.0
9	20.0	30.0	0.0	15.0	15.0	20.0
10	20.0	30.0	0.0	15.0	15.0	20.0
11	20.0	30.0	0.0	20.0	15.0	15.0
22	25.0	25.0	0.0	30.0	10.0	10.0
70	40.0	10.0	0.0	30.0	10.0	10.0
111	40.0	10.0	0.0	30.0	10.0	10.0
707	30.0	35.0	0.0	20.0	5.0	10.0
777	25.0	25.0	0.0	30.0	10.0	10.0
778	20.0	30.0	0.0	15.0	20.0	15.0

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2008 TF - TOTAL

Turning Movement By Zone Report
2010 PM TF

#11 Tall Cedars Pkwy/Sandbar Terrace
[Base(LOS=B,Del=3.0,V/C=0.000)][Future(LOS=B,Del=5.2,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	11	12	8	15	0	1	48	0	41	119	5	260
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	11	12	8	15	0	1	48	0	41	119	5	260
Zn 1	0	0	0	0	0	4	3	20	0	0	33	0	60
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	6	0	1	0	0	0	0	9	0	0	16
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	6	0	0	0	17	0	0	1	1	25
Zn 10	0	0	0	38	0	0	0	0	0	0	0	2	40
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	6	45	1	4	3	37	0	9	34	3	142
PassBy	0	3	4	39	5	20	14	12	0	4	14	29	144
Future	0	14	22	92	21	24	18	97	0	54	167	37	546
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	14	22	92	21	24	18	97	0	54	167	37	546

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#13 Canary Grass Dr/Landbays FF1 & FF2													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=8.4,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	19	0	0	0	0	0	0	0	32	0	0	0	51
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	100	2	0	0	0	0	0	102
Zn 9	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 10	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	19	0	0	0	0	100	2	0	32	0	0	0	153
PassBy	13	5	0	0	18	53	38	0	16	0	0	0	143
Future	32	5	0	0	18	153	40	0	48	0	0	0	296
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	32	5	0	0	18	153	40	0	48	0	0	0	296

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#22 Millstream Dr/ West Industrial Site													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=6.2,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	4	0	0	0	0	0	0	0	3	7
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	1	0	0	0	0	0	0	0	0	1
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	2	0	0	0	0	0	0	0	23	25
Zn 10	0	0	0	0	0	8	145	38	0	0	2	0	193
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	7	0	8	145	38	0	0	2	26	226
PassBy	0	31	9	26	33	0	17	26	0	10	15	24	191
Future	0	31	9	33	33	8	162	64	0	10	17	50	417
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	31	9	33	33	8	162	64	0	10	17	50	417

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2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#126 Stone Springs Blvd/Millstream Drive
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	57	180	2	66	461	39	151	57	52	1	45	34	1145
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	57	180	2	66	461	39	151	57	52	1	45	34	1145
Zn 1	0	12	0	0	19	4	3	0	0	0	0	0	38
Zn 2	0	6	0	0	11	0	0	0	0	0	0	0	17
Zn 3	0	5	0	9	8	0	0	0	0	0	0	5	27
Zn 4	0	0	0	40	0	0	0	0	0	0	0	24	64
Zn 5	0	3	0	0	5	1	0	0	0	0	0	0	9
Zn 6	0	2	0	1	4	0	0	0	0	0	0	1	8
Zn 7	0	34	0	0	58	0	0	0	0	0	0	0	92
Zn 8	0	0	0	3	0	0	0	0	0	0	0	128	131
Zn 9	0	6	0	0	1	2	23	0	0	0	0	0	32
Zn 10	0	0	0	0	0	6	115	22	7	0	1	0	151
Zn 11	7	0	0	0	0	74	80	12	8	0	11	0	192
Zn 22	0	0	5	80	0	0	0	0	0	6	0	87	178
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	9	0	0	10	0	0	0	0	0	0	0	19
Zn 778	0	3	0	0	7	0	0	0	0	0	0	0	10
Added	8	80	5	132	121	87	222	34	15	6	12	245	967
PassBy	69	0	10	0	0	0	0	62	78	14	54	0	287
Future	134	260	17	198	582	126	373	153	145	21	111	279	2399
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	134	260	17	198	582	126	373	153	145	21	111	279	2399

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2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1197 US Rte 50/Goshen Rd
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	65	58	96	24	110	7	4	656	99	186	1589	40	2934
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	65	58	96	24	110	7	4	656	99	186	1589	40	2934
Zn 1	0	0	0	0	0	0	0	9	0	0	6	0	15
Zn 2	0	0	0	0	0	0	0	4	0	0	3	0	7
Zn 3	0	0	0	0	0	0	0	6	0	0	4	0	10
Zn 4	0	0	0	0	0	0	0	16	0	0	10	0	26
Zn 5	0	0	0	0	0	0	0	3	0	0	2	0	5
Zn 6	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 7	0	0	0	0	0	0	0	33	0	0	19	0	52
Zn 8	0	0	0	0	0	0	0	1	0	0	28	0	29
Zn 9	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 10	0	0	0	0	0	0	0	2	0	0	27	0	29
Zn 11	0	0	0	0	0	0	0	18	0	0	20	0	38
Zn 22	0	0	0	0	0	0	0	33	0	0	36	0	69
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	0	0	0	0	0	0	0	4	0	0	18	0	22
Added	0	0	0	0	0	0	0	135	0	0	184	0	319
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	65	58	96	24	110	7	4	791	99	186	1773	40	3253
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	65	58	96	24	110	7	4	791	99	186	1773	40	3253

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1226 US Rte 50/West Spine Road													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	243	0	568	0	0	0	0	1003	306	1051	1826	0	4997
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	243	0	568	0	0	0	0	1003	306	1051	1826	0	4997
Zn 1	0	0	4	0	0	0	0	5	0	7	8	0	24
Zn 2	0	0	2	0	0	0	0	2	0	3	4	0	11
Zn 3	0	0	2	0	0	0	0	4	0	3	7	0	16
Zn 4	0	0	6	0	0	0	0	9	0	10	15	0	40
Zn 5	0	0	1	0	0	0	0	1	0	2	2	0	6
Zn 6	0	0	1	0	0	0	0	1	0	3	1	0	6
Zn 7	6	0	22	0	0	0	0	9	10	36	16	0	99
Zn 8	0	0	23	0	0	0	0	62	0	0	1	0	86
Zn 9	0	0	8	0	0	0	0	15	0	1	1	0	25
Zn 10	0	0	31	0	0	0	0	60	0	2	3	0	96
Zn 11	0	0	0	0	0	0	0	45	0	0	41	0	86
Zn 22	0	0	2	0	0	0	0	39	0	2	36	0	79
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	2	0	0	0	0	3	0	2	3	0	10
Zn 778	2	0	0	0	0	0	0	53	16	0	11	0	82
Added	8	0	104	0	0	0	0	309	26	71	150	0	668
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	251	0	672	0	0	0	0	1312	332	1122	1976	0	5665
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	251	0	672	0	0	0	0	1312	332	1122	1976	0	5665

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2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1262 US Rte 50/Loudoun County Pkwy
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	217	457	168	703	1007	1131	588	888	210	425	1613	1042	8449
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	217	457	168	703	1007	1131	588	888	210	425	1613	1042	8449
Zn 1	0	0	0	0	0	4	2	7	0	0	11	0	24
Zn 2	0	0	0	0	0	2	1	3	0	0	5	0	11
Zn 3	0	0	0	0	0	3	2	5	0	0	8	0	18
Zn 4	0	0	0	0	0	6	4	11	0	0	19	0	40
Zn 5	0	0	0	0	0	1	1	2	0	0	3	0	7
Zn 6	0	0	0	0	0	1	1	2	0	0	3	0	7
Zn 7	0	0	0	0	0	13	8	23	0	0	39	0	83
Zn 8	0	0	0	0	0	1	28	56	0	0	1	0	86
Zn 9	0	0	0	0	0	1	9	14	0	0	1	0	25
Zn 10	0	0	0	0	0	2	37	55	0	0	3	0	97
Zn 11	0	0	0	0	0	14	15	30	0	0	28	0	87
Zn 22	0	0	0	0	0	11	12	30	0	0	27	0	80
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	2	2	4	0	0	4	0	12
Zn 778	0	0	0	0	0	4	18	35	0	0	7	0	64
Added	0	0	0	0	0	62	137	276	0	0	159	0	634
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	217	457	168	703	1007	1193	725	1164	210	425	1772	1042	9083
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	217	457	168	703	1007	1193	725	1164	210	425	1772	1042	9083

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1381 Gum Spring Rd/Tall Cedars Pkwy													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	142	605	5	0	1345	135	21	0	276	3	0	0	2532
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	142	605	5	0	1345	135	21	0	276	3	0	0	2532
Zn 1	7	0	0	0	0	7	4	0	5	0	0	0	23
Zn 2	3	0	0	0	0	3	2	0	2	0	0	0	10
Zn 3	5	0	0	0	0	3	2	0	3	0	0	0	13
Zn 4	13	0	0	0	0	10	6	0	8	0	0	0	37
Zn 5	2	0	0	0	0	2	1	0	1	0	0	0	6
Zn 6	2	0	0	0	0	3	1	0	1	0	0	0	7
Zn 7	26	0	0	0	0	46	27	0	15	0	0	0	114
Zn 8	1	0	0	0	0	0	23	0	38	0	0	0	62
Zn 9	1	0	0	0	0	1	8	0	9	0	0	0	19
Zn 10	2	0	0	0	0	2	31	0	37	0	0	0	72
Zn 11	18	0	0	0	0	0	0	0	20	0	0	0	38
Zn 22	27	0	0	0	0	2	2	0	30	0	0	0	61
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	4	0	0	0	0	2	2	0	4	0	0	0	12
Zn 778	3	2	0	0	16	0	0	0	7	0	0	0	28
Added	114	2	0	0	16	81	110	0	179	0	0	0	502
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	256	607	5	0	1361	216	131	0	455	3	0	0	3034
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	256	607	5	0	1361	216	131	0	455	3	0	0	3034

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1405 US Rte 50/Stone Springs Blvd													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	145	79	249	240	182	97	191	736	82	476	1672	54	4203
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	145	79	249	240	182	97	191	736	82	476	1672	54	4203
Zn 1	6	3	5	0	6	0	0	0	9	8	0	0	37
Zn 2	3	2	2	0	3	0	0	0	4	4	0	0	18
Zn 3	4	2	4	0	4	0	0	0	6	7	0	0	27
Zn 4	10	6	9	0	9	0	0	0	16	15	0	0	65
Zn 5	2	1	1	0	2	0	0	0	3	2	0	0	11
Zn 6	1	1	1	0	1	0	0	0	2	1	0	0	7
Zn 7	13	12	9	0	20	0	0	10	23	16	6	0	109
Zn 8	28	38	62	0	1	0	0	0	1	1	0	0	131
Zn 9	7	7	15	0	1	0	0	0	1	1	0	0	32
Zn 10	27	27	60	0	2	0	0	0	2	3	0	0	121
Zn 11	20	15	45	0	14	0	0	0	18	41	0	0	153
Zn 22	36	12	39	0	11	0	0	0	33	36	0	0	167
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	5	2	3	0	2	0	0	0	5	3	0	0	20
Zn 778	3	0	0	0	0	5	23	69	7	0	13	0	120
Added	164	127	257	0	73	5	23	79	129	139	18	0	1014
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	309	206	506	240	255	102	214	815	211	615	1690	54	5217
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	309	206	506	240	255	102	214	815	211	615	1690	54	5217

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2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1407 Stone Springs Blvd/Tall Cedars Pkwy
[Base(LOS=C,Del=15.4,V/C=0.000)][Future(LOS=F,Del=661.1,V/C=0.000)][+0.000 V/C]

Base	44	135	10	223	186	51	25	9	15	14	25	96	833
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	44	135	10	223	186	51	25	9	15	14	25	96	833
Zn 1	0	0	0	0	0	19	12	9	0	0	14	0	54
Zn 2	0	0	0	2	0	5	3	2	0	0	3	3	18
Zn 3	0	0	0	0	0	0	0	0	0	0	0	1	1
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	5	3	3	0	0	4	0	15
Zn 6	0	0	0	4	0	0	0	0	0	0	0	2	6
Zn 7	0	34	43	0	58	0	0	0	0	72	0	0	207
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	1	6	17	0	0	1	0	25
Zn 10	0	0	0	7	0	0	0	38	0	0	2	0	47
Zn 11	0	0	0	8	0	0	0	0	0	0	0	7	15
Zn 22	0	0	0	6	0	0	0	0	0	0	0	5	11
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	9	6	0	10	0	0	0	0	6	0	0	31
Zn 778	0	0	0	7	0	0	0	0	0	0	0	3	10
Added	0	43	49	35	68	28	23	69	0	78	25	22	440
PassBy	31	59	27	10	70	15	14	9	36	30	8	9	318
Future	75	237	86	268	324	94	62	87	51	122	58	127	1591
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	75	237	86	268	324	94	62	87	51	122	58	127	1591

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2008 TF - TOTAL

#1433 US Rte 50/Gum Spring Rd/Canary Grass Dr RIRO
[Base(LOS=F,Del=2.1,V/C=0.000)][Future(LOS=F,Del=3.3,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	0	0	92	0	1309	0	0	1876	194	3471
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	92	0	1309	0	0	1876	194	3471
Zn 1	0	0	0	0	0	0	0	5	0	0	8	0	13
Zn 2	0	0	0	0	0	0	0	2	0	0	4	0	6
Zn 3	0	0	0	0	0	0	0	4	0	0	7	0	11
Zn 4	0	0	0	0	0	0	0	9	0	0	15	0	24
Zn 5	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 6	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 7	0	0	0	0	0	0	0	19	0	0	21	0	40
Zn 8	0	0	0	0	0	0	0	62	0	0	1	0	63
Zn 9	0	0	0	0	0	0	0	15	0	0	1	0	16
Zn 10	0	0	0	0	0	0	0	60	0	0	3	0	63
Zn 11	0	0	0	0	0	0	0	45	0	0	41	0	86
Zn 22	0	0	0	0	0	0	0	39	0	0	36	0	75
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	3	0	0	3	0	6
Zn 778	0	0	0	0	0	0	0	69	0	0	13	0	82
Added	0	0	0	0	0	0	0	335	0	0	157	0	492
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	92	0	1644	0	0	2033	194	3963
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	92	0	1644	0	0	2033	194	3963

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1441 Landbay 9 RIRO Entrance													
[Base(LOS=F,Del=841.0,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/C													
Base	0	0	0	282	0	124	46	728	0	0	1810	146	3136
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	282	0	124	46	728	0	0	1810	146	3136
Zn 1	0	0	0	0	0	0	0	9	0	0	6	0	15
Zn 2	0	0	0	0	0	0	0	4	0	0	3	0	7
Zn 3	0	0	0	0	0	0	0	6	0	0	4	0	10
Zn 4	0	0	0	0	0	0	0	16	0	0	10	0	26
Zn 5	0	0	0	0	0	0	0	3	0	0	2	0	5
Zn 6	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 7	0	0	0	0	0	0	0	33	0	0	19	0	52
Zn 8	0	0	0	0	0	0	0	1	0	0	28	0	29
Zn 9	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 10	0	0	0	0	0	0	0	2	0	0	27	0	29
Zn 11	0	0	0	0	0	0	0	18	0	0	20	0	38
Zn 22	0	0	0	0	0	0	0	33	0	0	36	0	69
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	18	0	99	0	0	0	0	0	4	20	0	0	141
Added	18	0	99	0	0	0	0	131	4	20	167	0	439
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	18	0	99	282	0	124	46	859	4	20	1977	146	3575
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	18	0	99	282	0	124	46	859	4	20	1977	146	3575

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APPENDIX F

2015 TRAFFIC FORECASTS FOR PROPOSED CONDITIONS

2008 TF - TOTAL

Scenario Report

Scenario:	2015 AM Peak TF
Command:	2015 AM Peak TF
Volume:	2010 AM TF
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2010 AM TF
Trip Distribution:	2010
Paths:	2010 TF
Routes:	Default Route
Configuration:	2010 AM Peak TF

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2008 TF - TOTAL

Trip Generation Report

Forecast for 2010 AM TF

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Zone 1 - Res	1.00	Residential	6.00	45.00	6	45	51	3.8
	Zone 1 Subtotal					6	45	51	3.8
2	Zone 2 - Res	1.00	Residential	4.00	28.00	4	28	32	2.4
	Zone 2 Subtotal					4	28	32	2.4
3	Zone 3 - Res	1.00	Residential	4.00	30.00	4	30	34	2.5
	Zone 3 Subtotal					4	30	34	2.5
4	Zone 4 - Res	1.00	Residential	10.00	67.00	10	67	77	5.8
	Zone 4 Subtotal					10	67	77	5.8
5	Zone 5 - Res	1.00	Residential	2.00	12.00	2	12	14	1.0
	Zone 5 Subtotal					2	12	14	1.0
6	Zone 6 - Res	1.00	Residential	1.00	12.00	1	12	13	1.0
	Zone 6 Subtotal					1	12	13	1.0
7	Zone 7 - Res	1.00	Residential	22.00	153.00	22	153	175	13.1
	Zone 7 Subtotal					22	153	175	13.1
8	Zone 8 - Off	1.00	Office	367.00	38.00	367	38	405	30.3
	Zone 8 Subtotal					367	38	405	30.3
9	Zone 9 - Ind	1.00	Industrial	50.00	10.00	50	10	60	4.5
	Zone 9 Subtotal					50	10	60	4.5
10	Zone 10 - In	1.00	Industrial	156.00	31.00	156	31	187	14.0
	Zone 10 Subtotal					156	31	187	14.0
11	Retail	1.00	Retail	57.00	36.00	57	36	93	7.0
	Zone 11 Subtotal					57	36	93	7.0
22	Library	1.00	Library	32.00	12.00	32	12	44	3.3
	Zone 22 Subtotal					32	12	44	3.3
70	Zone 70 - Mi	1.00	Middle School	0.00	0.00	0	0	0	0.0
111	Zone 111 - E	1.00	Elementary Sch	0.00	0.00	0	0	0	0.0
707	Zone 707 Day	1.00	Day Care	0.00	0.00	0	0	0	0.0
777	Zone 777 - C	1.00	Church	18.00	16.00	18	16	34	2.5
	Zone 777 Subtotal					18	16	34	2.5
778	Landbay 9	1.00	Office	103.00	14.00	103	14	117	8.8
	Zone 778 Subtotal					103	14	117	8.8

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2008 TF - TOTAL

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
TOTAL						832	504	1336	100.0

2008 TF - TOTAL

Trip Distribution Report

Percent Of Trips 2010

Zone	To Gates 2	3	4	5	6	7
1	20.0	30.0	0.0	25.0	15.0	10.0
2	20.0	30.0	0.0	25.0	15.0	10.0
3	20.0	30.0	0.0	25.0	15.0	10.0
4	20.0	30.0	0.0	25.0	15.0	10.0
5	20.0	30.0	0.0	25.0	15.0	10.0
6	20.0	30.0	0.0	25.0	15.0	10.0
7	20.0	30.0	0.0	25.0	15.0	10.0
8	20.0	30.0	0.0	15.0	20.0	15.0
9	20.0	30.0	0.0	15.0	15.0	20.0
10	20.0	30.0	0.0	15.0	15.0	20.0
11	20.0	30.0	0.0	20.0	15.0	15.0
22	25.0	25.0	0.0	30.0	10.0	10.0
70	40.0	10.0	0.0	30.0	10.0	10.0
111	40.0	10.0	0.0	30.0	10.0	10.0
707	30.0	35.0	0.0	20.0	5.0	10.0
777	25.0	25.0	0.0	30.0	10.0	10.0
778	20.0	30.0	0.0	15.0	20.0	15.0

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2008 TF - TOTAL

Turning Movement By Zone Report
2010 AM TF

#11 Tall Cedars Pkwy/Sandbar Terrace
[Base(LOS=B,Del=2.5,V/C=0.000)][Future(LOS=C,Del=3.0,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	57	32	12	0	3	0	178	1	3	197	14	497
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	57	32	12	0	3	0	178	1	3	197	14	497
Zn 1	0	0	0	0	0	0	0	34	0	0	5	0	39
Zn 2	0	0	0	4	0	0	0	0	0	0	0	1	5
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	12	0	0	0	0	0	0	2	0	0	14
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 10	0	0	0	0	0	0	0	11	0	0	56	0	67
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	12	4	0	0	0	45	0	2	62	1	126
PassBy	2	1	5	16	0	6	9	61	2	4	69	24	199
Future	2	58	49	32	0	9	9	284	3	9	328	39	822
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	2	58	49	32	0	9	9	284	3	9	328	39	822

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#12 Gum Spring Rd/Canary Grass Dr													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=A,Del=0.0,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	4	0	0	0	0	4
Zn 2	0	0	0	0	0	0	0	2	0	0	0	0	2
Zn 3	0	0	0	0	0	0	0	4	0	0	0	0	4
Zn 4	0	0	0	0	0	0	0	15	0	0	2	0	17
Zn 5	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 6	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 7	0	0	0	0	0	0	0	11	0	0	2	0	13
Zn 8	0	0	0	0	0	0	0	5	0	0	50	0	55
Zn 9	0	0	0	0	0	0	0	3	0	0	13	0	16
Zn 10	0	0	0	0	0	0	0	3	0	0	16	0	19
Zn 11	0	0	0	0	0	0	0	3	0	0	5	0	8
Zn 22	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	52	0	0	90	0	142
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	0	0	52	0	0	90	0	142
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	0	0	52	0	0	90	0	142

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#13 Canary Grass Dr/Landbays FF1 & FF2													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=6.3,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	4	0	0	0	0	4
Zn 2	0	0	0	0	0	0	0	2	0	0	0	0	2
Zn 3	0	0	0	0	0	0	0	4	0	0	0	0	4
Zn 4	25	0	15	0	0	0	0	0	4	2	0	0	46
Zn 5	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 6	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 7	0	0	0	0	0	0	0	11	0	0	2	0	13
Zn 8	0	0	0	5	0	18	172	0	0	0	0	50	245
Zn 9	0	0	0	0	0	0	0	3	0	0	13	0	16
Zn 10	0	0	0	0	0	0	0	3	0	0	16	0	19
Zn 11	0	0	0	0	0	0	0	3	0	0	5	0	8
Zn 22	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	25	0	15	5	0	18	172	32	4	2	38	50	361
PassBy	19	4	0	0	1	15	18	0	15	0	0	0	72
Future	44	4	15	5	1	33	190	32	19	2	38	50	433
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	44	4	15	5	1	33	190	32	19	2	38	50	433

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#22 Millstream Dr/ West Industrial Site													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=8.1,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	11	0	0	1	0	0	0	0	0	0	0	12
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	1	0	0	0	0	0	0	0	0	0	0	1
Zn 10	0	0	56	100	0	0	0	0	0	11	0	20	187
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	13	56	100	2	0	0	0	0	11	0	20	202
PassBy	0	5	10	7	3	8	2	4	0	9	13	3	64
Future	0	18	66	107	5	8	2	4	0	20	13	23	266
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	18	66	107	5	8	2	4	0	20	13	23	266

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#126 Stone Springs Blvd/Millstream Drive													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	57	459	8	45	223	43	93	16	27	5	45	247	1268
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	57	459	8	45	223	43	93	16	27	5	45	247	1268
Zn 1	0	17	0	0	2	1	7	4	0	0	0	0	31
Zn 2	0	7	0	0	1	1	10	1	1	0	0	0	21
Zn 3	0	9	0	1	1	0	0	0	0	0	0	8	19
Zn 4	0	0	0	5	0	0	0	0	0	0	0	36	41
Zn 5	0	5	0	0	1	0	0	0	0	0	0	0	6
Zn 6	0	5	0	0	0	0	0	0	0	0	0	1	6
Zn 7	0	68	0	0	10	0	0	0	0	0	0	0	78
Zn 8	0	0	0	195	0	0	0	0	0	0	0	20	215
Zn 9	4	0	0	0	0	28	6	4	1	0	18	0	61
Zn 10	0	2	0	0	8	75	15	5	0	0	25	0	130
Zn 11	5	0	0	0	0	40	26	8	3	0	12	0	94
Zn 22	0	0	2	21	0	0	0	0	0	1	0	8	32
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	10	0	0	11	0	0	0	0	0	0	0	21
Zn 778	0	12	0	0	1	0	0	0	0	0	0	0	13
Added	9	135	2	222	35	145	64	21	5	1	55	73	767
PassBy	11	0	7	0	0	0	0	11	5	2	15	0	51
Future	77	594	17	267	258	188	157	48	37	8	115	320	2086
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	77	594	17	267	258	188	157	48	37	8	115	320	2086

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Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1197 US Rte 50/Goshen Rd													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	114	117	157	25	45	4	20	1284	67	96	506	37	2472
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	114	117	157	25	45	4	20	1284	67	96	506	37	2472
Zn 1	0	0	0	0	0	0	0	2	0	0	11	0	13
Zn 2	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 3	0	0	0	0	0	0	0	1	0	0	8	0	9
Zn 4	0	0	0	0	0	0	0	3	0	0	17	0	20
Zn 5	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 6	0	0	0	0	0	0	0	0	0	0	3	0	3
Zn 7	0	0	0	0	0	0	0	6	0	0	38	0	44
Zn 8	0	0	0	0	0	0	0	55	0	0	6	0	61
Zn 9	0	0	0	0	0	0	0	8	0	0	2	0	10
Zn 10	0	0	0	0	0	0	0	23	0	0	5	0	28
Zn 11	0	0	0	0	0	0	0	11	0	0	7	0	18
Zn 22	0	0	0	0	0	0	0	10	0	0	4	0	14
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	0	0	0	0	0	0	0	15	0	0	2	0	17
Added	0	0	0	0	0	0	0	140	0	0	116	0	256
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	114	117	157	25	45	4	20	1424	67	96	622	37	2728
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	114	117	157	25	45	4	20	1424	67	96	622	37	2728

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#1226 US Rte 50/West Spine Road
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
Base	228	0	467	0	0	0	0	1867	166	382	805	0	3915
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	228	0	467	0	0	0	0	1867	166	382	805	0	3915
Zn 1	0	0	12	0	0	0	0	6	0	2	1	0	21
Zn 2	0	0	5	0	0	0	0	6	0	1	1	0	13
Zn 3	0	0	7	0	0	0	0	5	0	1	1	0	14
Zn 4	0	0	18	0	0	0	0	9	0	3	1	0	31
Zn 5	0	0	4	0	0	0	0	1	0	1	0	0	6
Zn 6	0	0	3	0	0	0	0	1	0	0	0	0	4
Zn 7	11	0	43	0	0	0	0	18	2	6	3	0	83
Zn 8	0	0	10	0	0	0	0	7	0	99	66	0	182
Zn 9	0	0	3	0	0	0	0	3	0	13	13	0	32
Zn 10	0	0	8	0	0	0	0	7	0	42	36	0	93
Zn 11	0	0	3	0	0	0	0	13	0	5	21	0	42
Zn 22	0	0	1	0	0	0	0	3	0	3	9	0	16
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	2	0	0	0	0	3	0	3	4	0	12
Zn 778	8	0	0	0	0	0	0	6	2	0	46	0	62
Added	20	0	119	0	0	0	0	89	4	177	200	0	609
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	248	0	586	0	0	0	0	1956	170	559	1005	0	4524
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	248	0	586	0	0	0	0	1956	170	559	1005	0	4524

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Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1262 US Rte 50/Loudoun County Pkwy													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	100	1052	333	728	323	424	1051	1353	176	94	655	646	6935
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	100	1052	333	728	323	424	1051	1353	176	94	655	646	6935
Zn 1	0	0	0	0	0	1	5	14	0	0	2	0	22
Zn 2	0	0	0	0	0	0	3	8	0	0	1	0	12
Zn 3	0	0	0	0	0	0	3	9	0	0	1	0	13
Zn 4	0	0	0	0	0	1	7	20	0	0	3	0	31
Zn 5	0	0	0	0	0	0	1	4	0	0	1	0	6
Zn 6	0	0	0	0	0	0	1	4	0	0	0	0	5
Zn 7	0	0	0	0	0	2	15	46	0	0	7	0	70
Zn 8	0	0	0	0	0	55	6	11	0	0	110	0	182
Zn 9	0	0	0	0	0	10	2	3	0	0	15	0	30
Zn 10	0	0	0	0	0	31	6	9	0	0	47	0	93
Zn 11	0	0	0	0	0	9	5	11	0	0	17	0	42
Zn 22	0	0	0	0	0	3	1	3	0	0	8	0	15
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	2	2	4	0	0	5	0	13
Zn 778	0	0	0	0	0	15	2	4	0	0	31	0	52
Added	0	0	0	0	0	130	59	150	0	0	247	0	586
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	100	1052	333	728	323	554	1110	1503	176	94	902	646	7521
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	100	1052	333	728	323	554	1110	1503	176	94	902	646	7521

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#1381 Gum Spring Rd/Tall Cedars Pkwy
[Base(LOS=F,Del=199.5,V/C=0.000)][Future(LOS=F,Del=894.8,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	273	718	1	0	332	21	16	0	139	5	0	0	1505
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	273	718	1	0	332	21	16	0	139	5	0	0	1505
Zn 1	1	0	0	0	0	1	8	0	9	0	0	0	19
Zn 2	1	0	0	0	0	0	3	0	6	0	0	0	10
Zn 3	1	0	0	0	0	0	3	0	6	0	0	0	10
Zn 4	1	1	0	0	4	1	7	0	9	0	0	0	23
Zn 5	0	0	0	0	0	0	3	0	2	0	0	0	5
Zn 6	0	0	0	0	0	0	2	0	2	0	0	0	4
Zn 7	4	0	0	0	0	6	44	0	31	0	0	0	85
Zn 8	73	0	0	0	0	50	5	0	8	0	0	0	136
Zn 9	10	0	0	0	0	0	0	0	2	0	0	0	12
Zn 10	31	0	0	0	0	27	5	0	6	0	0	0	69
Zn 11	11	0	0	0	0	0	0	0	7	0	0	0	18
Zn 22	8	0	0	0	0	1	0	0	3	0	0	0	12
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	5	0	0	0	0	3	2	0	4	0	0	0	14
Zn 778	12	8	0	0	2	0	0	0	1	0	0	0	23
Added	160	9	0	0	6	89	83	0	96	0	0	0	443
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	433	727	1	0	338	110	99	0	235	5	0	0	1948
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	433	727	1	0	338	110	99	0	235	5	0	0	1948

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Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1405 US Rte 50/Stone Springs Blvd													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	87	96	625	138	85	96	168	1237	149	140	658	21	3500
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	87	96	625	138	85	96	168	1237	149	140	658	21	3500
Zn 1	11	7	6	0	1	0	0	0	2	1	0	0	28
Zn 2	7	4	6	0	1	0	0	0	1	1	0	0	20
Zn 3	8	5	5	0	1	0	0	0	1	1	0	0	21
Zn 4	17	10	9	0	2	0	0	0	3	1	0	0	42
Zn 5	3	2	1	0	0	0	0	0	1	0	0	0	7
Zn 6	3	2	1	0	0	0	0	0	0	0	0	0	6
Zn 7	27	23	18	0	3	0	0	2	4	3	11	0	91
Zn 8	6	8	7	0	73	0	0	0	55	66	0	0	215
Zn 9	2	2	3	0	8	0	0	0	8	13	0	0	36
Zn 10	5	5	7	0	23	0	0	0	23	36	0	0	99
Zn 11	7	5	13	0	9	0	0	0	11	21	0	0	66
Zn 22	4	1	3	0	3	0	0	0	10	9	0	0	30
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	5	2	3	0	2	0	0	0	5	4	0	0	21
Zn 778	12	0	0	0	0	21	3	8	1	0	55	0	100
Added	115	74	83	0	125	21	3	10	124	154	66	0	775
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	202	170	708	138	210	117	171	1247	273	294	724	21	4275
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	202	170	708	138	210	117	171	1247	273	294	724	21	4275

2008 TF - TOTAL

#1407 Stone Springs Blvd/Tall Cedars Pkwy
[Base(LOS=D,Del=18.5,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	75	228	2	91	118	64	88	43	47	10	57	157	980
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	75	228	2	91	118	64	88	43	47	10	57	157	980
Zn 1	0	0	0	0	0	2	17	17	0	0	2	0	38
Zn 2	0	0	0	4	0	1	5	3	0	0	0	1	14
Zn 3	0	0	0	1	0	0	0	0	0	0	0	0	1
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	1	5	6	0	0	1	0	13
Zn 6	0	0	0	0	0	0	0	0	0	0	0	5	5
Zn 7	0	68	85	0	10	0	0	0	0	12	0	0	175
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	1	0	0	0	0	0	0	1	4	6
Zn 10	0	0	0	0	0	8	2	10	0	0	48	0	68
Zn 11	0	0	0	3	0	0	0	0	0	0	0	5	8
Zn 22	0	0	0	1	0	0	0	0	0	0	0	2	3
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	10	6	0	11	0	0	0	0	7	0	0	34
Zn 778	0	0	0	1	0	0	0	0	0	0	0	12	13
Added	0	78	91	10	21	12	29	36	0	19	53	28	377
PassBy	73	23	40	0	16	8	7	15	65	42	18	2	309
Future	148	329	133	101	155	84	124	94	112	71	128	187	1666
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	148	329	133	101	155	84	124	94	112	71	128	187	1666

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Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1409 Millstream Extended / Tall Cedars Pkwy													
[Base(LOS=A,Del=0.0,V/C=0.000)][Future(LOS=B,Del=0.6,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	179	0	0	200	0	379
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	179	0	0	200	0	379
Zn 1	0	11	34	0	1	0	0	0	0	5	0	0	51
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	0	0	0	0	0	0	1	1
Zn 10	0	0	0	11	0	0	0	0	0	0	0	56	67
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	11	34	11	1	0	0	0	0	5	0	58	120
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	11	34	11	1	0	0	179	0	5	200	58	499
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	11	34	11	1	0	0	179	0	5	200	58	499

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1433 US Rte 50/Gum Spring Rd/Canary Grass Dr RIRO													
[Base(LOS=B,Del=0.1,V/C=0.000)][Future(LOS=C,Del=0.2,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	51	0	2033	0	0	770	262	3116
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	51	0	2033	0	0	770	262	3116
Zn 1	0	0	0	0	0	0	0	6	0	0	1	0	7
Zn 2	0	0	0	0	0	0	0	6	0	0	1	0	7
Zn 3	0	0	0	0	0	0	0	5	0	0	1	0	6
Zn 4	0	0	0	0	0	0	0	9	0	0	1	0	10
Zn 5	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 6	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 7	0	0	0	0	0	0	0	20	0	0	14	0	34
Zn 8	0	0	0	0	0	0	0	7	0	0	66	0	73
Zn 9	0	0	0	0	0	0	0	3	0	0	13	0	16
Zn 10	0	0	0	0	0	0	0	7	0	0	36	0	43
Zn 11	0	0	0	0	0	0	0	13	0	0	21	0	34
Zn 22	0	0	0	0	0	0	0	3	0	0	9	0	12
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	3	0	0	4	0	7
Zn 778	0	0	0	0	0	0	0	8	0	0	55	0	63
Added	0	0	0	0	0	0	0	93	0	0	220	0	313
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	51	0	2126	0	0	990	262	3429
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	51	0	2126	0	0	990	262	3429

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2008 TF - TOTAL

#1441 Landbay 9 RIRO Entrance
[Base(LOS=F,Del=68.5,V/C=0.000)][Future(LOS=F,Del=323.7,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	100	0	62	83	1444	0	0	663	235	2587
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	100	0	62	83	1444	0	0	663	235	2587
Zn 1	0	0	0	0	0	0	0	2	0	0	11	0	13
Zn 2	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 3	0	0	0	0	0	0	0	1	0	0	8	0	9
Zn 4	0	0	0	0	0	0	0	3	0	0	17	0	20
Zn 5	0	0	0	0	0	0	0	1	0	0	3	0	4
Zn 6	0	0	0	0	0	0	0	0	0	0	3	0	3
Zn 7	0	0	0	0	0	0	0	6	0	0	38	0	44
Zn 8	0	0	0	0	0	0	0	55	0	0	6	0	61
Zn 9	0	0	0	0	0	0	0	8	0	0	2	0	10
Zn 10	0	0	0	0	0	0	0	23	0	0	5	0	28
Zn 11	0	0	0	0	0	0	0	11	0	0	7	0	18
Zn 22	0	0	0	0	0	0	0	10	0	0	4	0	14
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	2	0	12	0	0	0	0	0	15	88	0	0	117
Added	2	0	12	0	0	0	0	125	15	88	114	0	356
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	2	0	12	100	0	62	83	1569	15	88	777	235	2943
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	2	0	12	100	0	62	83	1569	15	88	777	235	2943

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1443 Millstream / N. Industrial Site / North Residential													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=A,Del=0.6,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	11	0	0	1	0	12
Zn 2	0	0	5	0	0	0	0	0	0	1	0	0	6
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	4	0	0	1	0	0	0	0	20	25
Zn 10	0	0	0	0	0	0	0	20	0	0	100	0	120
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	5	4	0	0	1	31	0	1	101	20	163
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	5	4	0	0	1	31	0	1	101	20	163
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	5	4	0	0	1	31	0	1	101	20	163

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1444 Millstream / N. Industrial 2 / N. Residential													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=A,Del=0.6,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	11	0	0	1	0	12
Zn 2	0	0	7	0	0	0	0	5	0	1	1	0	14
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	6	0	0	0	4	0	0	20	29	59
Zn 10	0	0	0	0	0	0	0	20	0	0	100	0	120
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	7	6	0	0	0	41	0	1	122	29	206
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	7	6	0	0	0	41	0	1	122	29	206
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	7	6	0	0	0	41	0	1	122	29	206

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2008 TF - TOTAL

Scenario Report

Scenario:	2015 PM Peak TF
Command:	2015 PM Peak TF
Volume:	2010 PM TF
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	2010 PM TF
Trip Distribution:	2010
Paths:	2010 TF
Routes:	Default Route
Configuration:	2010 PM Peak TF

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2008 TF - TOTAL

Trip Generation Report

Forecast for 2010 PM TF

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Zone 1 - Res	1.00	Residential	37.00	23.00	37	23	60	3.9
	Zone 1 Subtotal					37	23	60	3.9
2	Zone 2 - Res	1.00	Residential	23.00	15.00	23	15	38	2.5
	Zone 2 Subtotal					23	15	38	2.5
3	Zone 3 - Res	1.00	Residential	25.00	16.00	25	16	41	2.7
	Zone 3 Subtotal					25	16	41	2.7
4	Zone 4 - Res	1.00	Residential	58.00	33.00	58	33	91	5.9
	Zone 4 Subtotal					58	33	91	5.9
5	Zone 5 - Res	1.00	Residential	10.00	6.00	10	6	16	1.0
	Zone 5 Subtotal					10	6	16	1.0
6	Zone 6 - Res	1.00	Residential	9.00	5.00	9	5	14	0.9
	Zone 6 Subtotal					9	5	14	0.9
7	Zone 7 - Res	1.00	Residential	130.00	77.00	130	77	207	13.5
	Zone 7 Subtotal					130	77	207	13.5
8	Zone 8 - Off	1.00	Office	4.00	254.00	4	254	258	16.8
	Zone 8 Subtotal					4	254	258	16.8
9	Zone 9 - Ind	1.00	Industrial	5.00	49.00	5	49	54	3.5
	Zone 9 Subtotal					5	49	54	3.5
10	Zone 10 - In	1.00	Industrial	13.00	149.00	13	149	162	10.6
	Zone 10 Subtotal					13	149	162	10.6
11	Retail	1.00	Retail	92.00	100.00	92	100	192	12.5
	Zone 11 Subtotal					92	100	192	12.5
22	Library	1.00	Library	109.00	119.00	109	119	228	14.9
	Zone 22 Subtotal					109	119	228	14.9
70	Zone 70 - Mi	1.00	Middle School	0.00	0.00	0	0	0	0.0
707	Zone 707 Day	1.00	Day Care	0.00	0.00	0	0	0	0.0
777	Zone 777 - C	1.00	Church	16.00	15.00	16	15	31	2.0
	Zone 777 Subtotal					16	15	31	2.0
778	Landbay 9	1.00	Office	24.00	117.00	24	117	141	9.2
	Zone 778 Subtotal					24	117	141	9.2

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2008 TF - TOTAL

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
TOTAL						555	978	1533	100.0

2008 TF - TOTAL

Trip Distribution Report

Percent Of Trips 2010

Zone	To Gates 2	3	4	5	6	7
1	20.0	30.0	0.0	25.0	15.0	10.0
2	20.0	30.0	0.0	25.0	15.0	10.0
3	20.0	30.0	0.0	25.0	15.0	10.0
4	20.0	30.0	0.0	25.0	15.0	10.0
5	20.0	30.0	0.0	25.0	15.0	10.0
6	20.0	30.0	0.0	25.0	15.0	10.0
7	20.0	30.0	0.0	25.0	15.0	10.0
8	20.0	30.0	0.0	15.0	20.0	15.0
9	20.0	30.0	0.0	15.0	15.0	20.0
10	20.0	30.0	0.0	15.0	15.0	20.0
11	20.0	30.0	0.0	20.0	15.0	15.0
22	25.0	25.0	0.0	30.0	10.0	10.0
70	40.0	10.0	0.0	30.0	10.0	10.0
111	40.0	10.0	0.0	30.0	10.0	10.0
707	30.0	35.0	0.0	20.0	5.0	10.0
777	25.0	25.0	0.0	30.0	10.0	10.0
778	20.0	30.0	0.0	15.0	20.0	15.0

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2008 TF - TOTAL

Turning Movement By Zone Report
2010 PM TF

#11 Tall Cedars Pkwy/Sandbar Terrace
[Base(LOS=B,Del=3.0,V/C=0.000)][Future(LOS=B,Del=2.5,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	11	12	8	15	0	1	48	0	41	119	5	260
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	11	12	8	15	0	1	48	0	41	119	5	260
Zn 1	0	0	0	0	0	0	0	17	0	0	28	0	45
Zn 2	0	0	0	2	0	0	0	0	0	0	0	3	5
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	6	0	0	0	0	0	0	10	0	0	16
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	0	0	0	1	0	0	0	0	1
Zn 10	0	0	0	0	0	0	0	54	0	0	5	0	59
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	6	2	0	0	0	72	0	10	33	3	126
PassBy	3	0	4	3	0	0	1	41	4	5	36	4	101
Future	3	11	22	13	15	0	2	161	4	56	188	12	487
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	3	11	22	13	15	0	2	161	4	56	188	12	487

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#12 Gum Spring Rd/Canary Grass Dr													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=A,Del=0.0,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	2	0	0	3	0	5
Zn 2	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 3	0	0	0	0	0	0	0	2	0	0	3	0	5
Zn 4	0	0	0	0	0	0	0	7	0	0	13	0	20
Zn 5	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 6	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 7	0	0	0	0	0	0	0	5	0	0	9	0	14
Zn 8	0	0	0	0	0	0	0	34	0	0	1	0	35
Zn 9	0	0	0	0	0	0	0	12	0	0	1	0	13
Zn 10	0	0	0	0	0	0	0	15	0	0	1	0	16
Zn 11	0	0	0	0	0	0	0	9	0	0	8	0	17
Zn 22	0	0	0	0	0	0	0	7	0	0	7	0	14
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	0	0	0	0	0	96	0	0	49	0	145
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	0	0	96	0	0	49	0	145
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	0	0	96	0	0	49	0	145

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#13 Canary Grass Dr/Landbays FF1 & FF2													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=7.0,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	2	0	0	3	0	5
Zn 2	0	0	0	0	0	0	0	1	0	0	2	0	3
Zn 3	0	0	0	0	0	0	0	2	0	0	3	0	5
Zn 4	13	0	7	0	0	0	0	0	22	13	0	0	55
Zn 5	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 6	0	0	0	0	0	0	0	0	0	0	1	0	1
Zn 7	0	0	0	0	0	0	0	5	0	0	9	0	14
Zn 8	0	0	0	34	0	119	2	0	0	0	0	1	156
Zn 9	0	0	0	0	0	0	0	12	0	0	1	0	13
Zn 10	0	0	0	0	0	0	0	15	0	0	1	0	16
Zn 11	0	0	0	0	0	0	0	9	0	0	8	0	17
Zn 22	0	0	0	0	0	0	0	7	0	0	7	0	14
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	13	0	7	34	0	119	2	55	22	13	36	1	302
PassBy	12	5	0	0	9	65	56	0	15	0	0	0	162
Future	25	5	7	34	9	184	58	55	37	13	36	1	464
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	25	5	7	34	9	184	58	55	37	13	36	1	464

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#22 Millstream Dr/ West Industrial Site													
[Base(LOS=A,Del=6.9,V/C=0.000)][Future(LOS=B,Del=6.7,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	20	0	0	0	0	0	0	0	5	25
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	20	0	0	0	0	0	0	0	5	25
Zn 1	0	6	0	0	9	0	0	0	0	0	0	0	15
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	0	1	0	0	0	0	0	0	0	1
Zn 10	0	0	5	8	0	0	0	0	0	54	0	95	162
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	6	5	8	10	0	0	0	0	54	0	95	178
PassBy	0	16	21	28	20	0	0	0	0	32	0	28	145
Future	0	22	26	56	30	0	0	0	0	86	0	128	348
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	22	26	56	30	0	0	0	0	86	0	128	348

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#126 Stone Springs Blvd/Millstream Drive													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	57	180	2	66	461	39	151	57	52	1	45	34	1145
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	57	180	2	66	461	39	151	57	52	1	45	34	1145
Zn 1	0	9	0	0	14	6	4	2	0	0	3	0	38
Zn 2	1	4	0	0	6	8	5	1	1	0	1	0	27
Zn 3	0	5	0	7	8	0	0	0	0	0	0	4	24
Zn 4	0	0	0	31	0	0	0	0	0	0	0	17	48
Zn 5	0	3	0	0	5	0	0	0	0	0	0	0	8
Zn 6	0	2	0	1	4	0	0	0	0	0	0	1	8
Zn 7	0	34	0	0	58	0	0	0	0	0	0	0	92
Zn 8	0	0	0	2	0	0	0	0	0	0	0	135	137
Zn 9	0	0	0	0	0	3	27	17	4	0	2	0	53
Zn 10	0	7	0	0	1	6	72	24	0	0	2	0	112
Zn 11	7	0	0	0	0	65	71	21	8	0	19	0	191
Zn 22	0	0	5	73	0	0	0	0	0	6	0	80	164
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	9	0	0	10	0	0	0	0	0	0	0	19
Zn 778	0	3	0	0	7	0	0	0	0	0	0	0	10
Added	9	76	5	114	111	89	179	64	13	6	27	237	930
PassBy	70	0	16	0	0	0	0	64	77	21	59	0	307
Future	136	256	23	180	572	128	330	185	142	28	131	271	2382
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	136	256	23	180	572	128	330	185	142	28	131	271	2382

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1197 US Rte 50/Goshen Rd													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	65	58	96	24	110	7	4	656	99	186	1589	40	2934
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	65	58	96	24	110	7	4	656	99	186	1589	40	2934
Zn 1	0	0	0	0	0	0	0	9	0	0	6	0	15
Zn 2	0	0	0	0	0	0	0	6	0	0	4	0	10
Zn 3	0	0	0	0	0	0	0	6	0	0	4	0	10
Zn 4	0	0	0	0	0	0	0	15	0	0	8	0	23
Zn 5	0	0	0	0	0	0	0	3	0	0	2	0	5
Zn 6	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 7	0	0	0	0	0	0	0	33	0	0	19	0	52
Zn 8	0	0	0	0	0	0	0	1	0	0	38	0	39
Zn 9	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 10	0	0	0	0	0	0	0	2	0	0	22	0	24
Zn 11	0	0	0	0	0	0	0	18	0	0	20	0	38
Zn 22	0	0	0	0	0	0	0	33	0	0	36	0	69
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	0	0	0	0	0	0	0	4	0	0	18	0	22
Added	0	0	0	0	0	0	0	136	0	0	189	0	325
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	65	58	96	24	110	7	4	792	99	186	1778	40	3259
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	65	58	96	24	110	7	4	792	99	186	1778	40	3259

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1226 US Rte 50/West Spine Road													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	243	0	568	0	0	0	0	1003	306	1051	1826	0	4997
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	243	0	568	0	0	0	0	1003	306	1051	1826	0	4997
Zn 1	0	0	6	0	0	0	0	3	0	10	5	0	24
Zn 2	0	0	3	0	0	0	0	3	0	4	5	0	15
Zn 3	0	0	4	0	0	0	0	3	0	6	4	0	17
Zn 4	0	0	9	0	0	0	0	4	0	16	8	0	37
Zn 5	0	0	2	0	0	0	0	1	0	3	1	0	7
Zn 6	0	0	1	0	0	0	0	1	0	3	1	0	6
Zn 7	6	0	22	0	0	0	0	9	10	36	16	0	99
Zn 8	0	0	69	0	0	0	0	46	0	1	1	0	117
Zn 9	0	0	12	0	0	0	0	12	0	1	1	0	26
Zn 10	0	0	40	0	0	0	0	34	0	4	3	0	81
Zn 11	0	0	9	0	0	0	0	36	0	8	33	0	86
Zn 22	0	0	10	0	0	0	0	32	0	9	29	0	80
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	2	0	0	0	0	3	0	2	3	0	10
Zn 778	2	0	0	0	0	0	0	53	16	0	11	0	82
Added	8	0	188	0	0	0	0	240	26	102	121	0	685
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	251	0	756	0	0	0	0	1243	332	1153	1947	0	5682
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	251	0	756	0	0	0	0	1243	332	1153	1947	0	5682

2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1262 US Rte 50/Loudoun County Pkwy
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	217	457	168	703	1007	1131	588	888	210	425	1613	1042	8449
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	217	457	168	703	1007	1131	588	888	210	425	1613	1042	8449
Zn 1	0	0	0	0	0	4	2	7	0	0	11	0	24
Zn 2	0	0	0	0	0	2	1	5	0	0	7	0	15
Zn 3	0	0	0	0	0	3	2	5	0	0	8	0	18
Zn 4	0	0	0	0	0	6	3	10	0	0	17	0	36
Zn 5	0	0	0	0	0	1	1	2	0	0	3	0	7
Zn 6	0	0	0	0	0	1	1	2	0	0	3	0	7
Zn 7	0	0	0	0	0	13	8	23	0	0	39	0	83
Zn 8	0	0	0	0	0	1	38	76	0	0	1	0	116
Zn 9	0	0	0	0	0	1	10	15	0	0	2	0	28
Zn 10	0	0	0	0	0	3	30	45	0	0	4	0	82
Zn 11	0	0	0	0	0	14	15	30	0	0	28	0	87
Zn 22	0	0	0	0	0	11	12	30	0	0	27	0	80
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	2	2	4	0	0	4	0	12
Zn 778	0	0	0	0	0	4	18	35	0	0	7	0	64
Added	0	0	0	0	0	63	141	287	0	0	160	0	651
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	217	457	168	703	1007	1194	729	1175	210	425	1773	1042	9100
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	217	457	168	703	1007	1194	729	1175	210	425	1773	1042	9100

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1381 Gum Spring Rd/Tall Cedars Pkwy													
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/													
Base	142	605	5	0	1345	135	21	0	276	3	0	0	2532
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	142	605	5	0	1345	135	21	0	276	3	0	0	2532
Zn 1	7	0	0	0	0	7	4	0	5	0	0	0	23
Zn 2	5	0	0	0	0	2	2	0	3	0	0	0	12
Zn 3	5	0	0	0	0	3	2	0	3	0	0	0	13
Zn 4	8	3	0	0	2	6	4	0	5	0	0	0	28
Zn 5	2	0	0	0	0	2	1	0	1	0	0	0	6
Zn 6	2	0	0	0	0	2	1	0	1	0	0	0	6
Zn 7	26	0	0	0	0	37	22	0	15	0	0	0	100
Zn 8	1	0	0	0	0	1	34	0	51	0	0	0	87
Zn 9	1	0	0	0	0	0	0	0	10	0	0	0	11
Zn 10	3	0	0	0	0	2	25	0	30	0	0	0	60
Zn 11	18	0	0	0	0	0	0	0	20	0	0	0	38
Zn 22	27	0	0	0	0	2	2	0	30	0	0	0	61
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	4	0	0	0	0	2	2	0	4	0	0	0	12
Zn 778	3	2	0	0	16	0	0	0	7	0	0	0	28
Added	112	5	0	0	18	66	99	0	184	0	0	0	484
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	254	610	5	0	1363	201	120	0	460	3	0	0	3016
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	254	610	5	0	1363	201	120	0	460	3	0	0	3016

2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1405 US Rte 50/Stone Springs Blvd
[Base(LOS=F,Del=OVRFLW,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/

Base	145	79	249	240	182	97	191	736	82	476	1672	54	4203
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	145	79	249	240	182	97	191	736	82	476	1672	54	4203
Zn 1	6	3	3	0	6	0	0	0	9	5	0	0	32
Zn 2	4	2	3	0	3	0	0	0	6	5	0	0	23
Zn 3	4	2	3	0	4	0	0	0	6	4	0	0	23
Zn 4	8	5	4	0	9	0	0	0	15	8	0	0	49
Zn 5	2	1	1	0	2	0	0	0	3	1	0	0	10
Zn 6	1	1	1	0	1	0	0	0	2	1	0	0	7
Zn 7	13	12	9	0	20	0	0	10	23	16	6	0	109
Zn 8	38	51	46	0	1	0	0	0	1	1	0	0	138
Zn 9	7	7	12	0	1	0	0	0	1	1	0	0	29
Zn 10	22	22	34	0	2	0	0	0	2	3	0	0	85
Zn 11	20	15	36	0	14	0	0	0	18	33	0	0	136
Zn 22	36	12	32	0	11	0	0	0	33	29	0	0	153
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	5	2	3	0	2	0	0	0	5	3	0	0	20
Zn 778	3	0	0	0	0	5	23	69	7	0	13	0	120
Added	169	135	187	0	74	5	23	79	129	110	18	0	929
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	314	214	436	240	256	102	214	815	211	586	1690	54	5132
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	314	214	436	240	256	102	214	815	211	586	1690	54	5132

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2008 TF - TOTAL

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume

#1407 Stone Springs Blvd/Tall Cedars Pkwy
[Base(LOS=C,Del=15.4,V/C=0.000)][Future(LOS=F,Del=608.7,V/C=0.000)][+0.000 V/C]

Base	44	135	10	223	186	51	25	9	15	14	25	96	833
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	44	135	10	223	186	51	25	9	15	14	25	96	833
Zn 1	0	0	0	0	0	14	9	9	0	0	14	0	46
Zn 2	0	0	0	2	0	4	3	2	0	0	3	3	17
Zn 3	0	0	0	0	0	0	0	0	0	0	0	1	1
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	5	3	3	0	0	5	0	16
Zn 6	0	0	0	4	0	0	0	0	0	0	0	2	6
Zn 7	0	34	43	0	58	0	0	0	0	72	0	0	207
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	4	0	0	0	1	0	0	0	0	5
Zn 10	0	0	0	0	0	1	7	46	0	0	4	0	58
Zn 11	0	0	0	8	0	0	0	0	0	0	0	7	15
Zn 22	0	0	0	6	0	0	0	0	0	0	0	5	11
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	9	6	0	10	0	0	0	0	6	0	0	31
Zn 778	0	0	0	7	0	0	0	0	0	0	0	3	10
Added	0	43	49	31	68	23	21	61	0	78	26	22	422
PassBy	28	65	24	10	76	14	11	9	32	30	9	9	317
Future	72	243	83	264	330	88	57	79	47	122	60	127	1572
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	72	243	83	264	330	88	57	79	47	122	60	127	1572

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1409 Millstream Extended / Tall Cedars Pkwy													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=A,Del=3.3,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	6	17	0	9	0	0	0	0	28	0	0	60
Zn 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	1	0	0	0	0	0	0	0	0	1
Zn 10	0	0	0	54	0	0	0	0	0	0	0	5	59
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	6	17	55	9	0	0	0	0	28	0	5	120
PassBy	0	14	12	34	18	0	0	0	0	16	0	24	118
Future	0	20	29	89	27	0	0	0	0	44	0	29	238
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	20	29	89	27	0	0	0	0	44	0	29	238

2008 TF - TOTAL

#1433 US Rte 50/Gum Spring Rd/Canary Grass Dr RIRO
[Base(LOS=F,Del=2.1,V/C=0.000)][Future(LOS=F,Del=3.0,V/C=0.000)][+0.000 V/C]

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
Base	0	0	0	0	0	92	0	1309	0	0	1876	194	3471
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	92	0	1309	0	0	1876	194	3471
Zn 1	0	0	0	0	0	0	0	3	0	0	5	0	8
Zn 2	0	0	0	0	0	0	0	3	0	0	5	0	8
Zn 3	0	0	0	0	0	0	0	3	0	0	4	0	7
Zn 4	0	0	0	0	0	0	0	4	0	0	8	0	12
Zn 5	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 6	0	0	0	0	0	0	0	1	0	0	1	0	2
Zn 7	0	0	0	0	0	0	0	19	0	0	21	0	40
Zn 8	0	0	0	0	0	0	0	46	0	0	1	0	47
Zn 9	0	0	0	0	0	0	0	12	0	0	1	0	13
Zn 10	0	0	0	0	0	0	0	34	0	0	3	0	37
Zn 11	0	0	0	0	0	0	0	36	0	0	33	0	69
Zn 22	0	0	0	0	0	0	0	32	0	0	29	0	61
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	3	0	0	3	0	6
Zn 778	0	0	0	0	0	0	0	69	0	0	13	0	82
Added	0	0	0	0	0	0	0	266	0	0	129	0	395
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	0	0	0	0	0	92	0	1575	0	0	2005	194	3866
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	0	0	0	92	0	1575	0	0	2005	194	3866

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1441 Landbay 9 RIRO Entrance													
[Base(LOS=F,Del=841.0,V/C=0.000)][Future(LOS=F,Del=OVRFLW,V/C=0.000)][+0.000 V/C													
Base	0	0	0	282	0	124	46	728	0	0	1810	146	3136
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	282	0	124	46	728	0	0	1810	146	3136
Zn 1	0	0	0	0	0	0	0	9	0	0	6	0	15
Zn 2	0	0	0	0	0	0	0	6	0	0	4	0	10
Zn 3	0	0	0	0	0	0	0	6	0	0	4	0	10
Zn 4	0	0	0	0	0	0	0	15	0	0	8	0	23
Zn 5	0	0	0	0	0	0	0	3	0	0	2	0	5
Zn 6	0	0	0	0	0	0	0	2	0	0	1	0	3
Zn 7	0	0	0	0	0	0	0	33	0	0	19	0	52
Zn 8	0	0	0	0	0	0	0	1	0	0	38	0	39
Zn 9	0	0	0	0	0	0	0	1	0	0	7	0	8
Zn 10	0	0	0	0	0	0	0	2	0	0	22	0	24
Zn 11	0	0	0	0	0	0	0	18	0	0	20	0	38
Zn 22	0	0	0	0	0	0	0	33	0	0	36	0	69
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	5	0	0	5	0	10
Zn 778	18	0	99	0	0	0	0	0	4	20	0	0	141
Added	18	0	99	0	0	0	0	132	4	20	172	0	445
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	0
Future	18	0	99	282	0	124	46	860	4	20	1982	146	3581
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	18	0	99	282	0	124	46	860	4	20	1982	146	3581

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2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1443 Millstream / N. Industrial Site / North Residential													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=1.7,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	6	0	0	9	0	15
Zn 2	0	0	3	0	0	0	0	0	0	4	0	0	7
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	20	0	1	0	0	0	0	0	2	23
Zn 10	0	0	0	0	0	0	0	95	0	0	8	0	103
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	3	20	0	1	0	101	0	4	18	2	149
PassBy	1	0	2	5	0	3	4	41	0	3	44	4	107
Future	1	0	5	25	0	4	4	142	0	7	62	6	256
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	1	0	5	25	0	4	4	142	0	7	62	6	256

2008 TF - TOTAL

Volume Type	Northbound Left	Northbound Thru	Northbound Right	Southbound Left	Southbound Thru	Southbound Right	Eastbound Left	Eastbound Thru	Eastbound Right	Westbound Left	Westbound Thru	Westbound Right	Total Volume
#1444 Millstream / N. Industrial 2 / N. Residential													
[Base(LOS= ,Del=0.0,V/C=0.000)][Future(LOS=B,Del=1.8,V/C=0.000)][+0.000 V/C]													
Base	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
InitBs	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 1	0	0	0	0	0	0	0	6	0	0	9	0	15
Zn 2	0	0	4	0	0	0	0	3	0	6	4	0	17
Zn 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 9	0	0	0	28	0	0	0	20	0	0	2	3	53
Zn 10	0	0	0	0	0	0	0	95	0	0	8	0	103
Zn 11	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 70	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 111	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 707	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 777	0	0	0	0	0	0	0	0	0	0	0	0	0
Zn 778	0	0	0	0	0	0	0	0	0	0	0	0	0
Added	0	0	4	28	0	0	0	124	0	6	24	3	189
PassBy	0	0	4	10	0	1	0	47	0	5	49	9	125
Future	0	0	8	38	0	1	0	171	0	11	73	12	314
UseAdj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total	0	0	8	38	0	1	0	171	0	11	73	12	314

APPENDIX G

APPROVED CONDITIONS
CAPACITY ANALYSES

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	282	3	9	288	86	2	59	48	39	0	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	16	313	3	10	320	96	2	66	53	43	0	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1195							
pX, platoon unblocked												
vC, conflicting volume	416			317			537	782	158	662	736	208
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	416			317			537	782	158	662	736	208
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			99	79	94	84	100	99
cM capacity (veh/h)	1140			1240			414	317	859	270	338	798

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	172	160	170	256	121	54
Volume Left	16	0	10	0	2	43
Volume Right	0	3	0	96	53	11
cSH	1140	1700	1240	1700	442	312
Volume to Capacity	0.01	0.09	0.01	0.15	0.27	0.17
Queue Length 95th (ft)	1	0	1	0	28	16
Control Delay (s)	0.9	0.0	0.5	0.0	16.2	19.0
Lane LOS	A		A		C	C
Approach Delay (s)	0.4		0.2		16.2	19.0
Approach LOS					C	C

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	34.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	157	19	57	4	1	28
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	174	21	63	4	1	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	148	17	32			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	148	17	32			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	98	96			
cM capacity (veh/h)	811	1062	1580			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	196	68	32
Volume Left	174	63	0
Volume Right	21	0	31
cSH	832	1580	1700
Volume to Capacity	0.24	0.04	0.02
Queue Length 95th (ft)	23	3	0
Control Delay (s)	10.7	6.9	0.0
Lane LOS	B	A	
Approach Delay (s)	10.7	6.9	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	26.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	34	22	63	18	34	164
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	38	24	70	20	38	182
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	279	110	220			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	279	110	220			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	97	95			
cM capacity (veh/h)	652	922	1346			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	62	77	13	25	195
Volume Left	38	70	0	0	0
Volume Right	24	0	0	0	182
cSH	737	1346	1700	1700	1700
Volume to Capacity	0.08	0.05	0.01	0.01	0.11
Queue Length 95th (ft)	7	4	0	0	0
Control Delay (s)	10.3	7.2	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	10.3	6.1		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	23.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	156	36	41	8	90	334	80	605	17	255	258	237
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	173	40	46	9	100	371	89	672	19	283	287	263
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											960	
pX, platoon unblocked												
vC, conflicting volume	1788	1722	143	1626	1967	336	550			691		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1788	1722	143	1626	1967	336	550			691		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	28	95	55	0	44	91			69		
cM capacity (veh/h)	0	55	878	20	39	660	1016			900		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	193	66	59	421	89	336	336	19	283	143	143	263
Volume Left	173	0	9	0	89	0	0	0	283	0	0	0
Volume Right	0	46	0	371	0	0	0	19	0	0	0	263
cSH	0	158	34	228	1016	1700	1700	1700	900	1700	1700	1700
Volume to Capacity	Err	0.41	1.74	1.85	0.09	0.20	0.20	0.01	0.31	0.08	0.08	0.15
Queue Length 95th (ft)	Err	46	163	738	7	0	0	0	34	0	0	0
Control Delay (s)	Err	43.0	610.1	435.1	8.9	0.0	0.0	0.0	10.8	0.0	0.0	0.0
Lane LOS	F	E	F	F	A				B			
Approach Delay (s)	Err		456.6		1.0				3.7			
Approach LOS	F		F									

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1414	67	96	621	37	114	117	157	25	45	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.98	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1818	1583		1819	
Flt Permitted	0.39	1.00	1.00	0.06	1.00	1.00		0.82	1.00		0.74	
Satd. Flow (perm)	725	3539	1583	112	3539	1583		1526	1583		1361	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	1571	74	107	690	41	127	130	174	28	50	4
RTOR Reduction (vph)	0	0	31	0	0	17	0	0	13	0	2	0
Lane Group Flow (vph)	22	1571	43	107	690	24	0	257	161	0	80	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		pm+ov	Perm		
Protected Phases	7	4		3	8			2	3		6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	62.4	60.3	60.3	75.2	67.1	67.1		25.2	34.1		25.2	
Effective Green, g (s)	62.4	60.3	60.3	75.2	67.1	67.1		25.2	34.1		25.2	
Actuated g/C Ratio	0.56	0.54	0.54	0.67	0.60	0.60		0.22	0.30		0.22	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)	422	1899	849	206	2113	945		342	565		305	
v/s Ratio Prot	0.00	c0.44		c0.04	0.19				0.02			
v/s Ratio Perm	0.03		0.03	0.31		0.02		c0.17	0.08		0.06	
v/c Ratio	0.05	0.83	0.05	0.52	0.33	0.03		0.75	0.29		0.26	
Uniform Delay, d1	11.3	21.7	12.4	19.3	11.3	9.3		40.7	29.9		36.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.1	3.1	0.0	2.2	0.1	0.0		9.0	0.3		0.5	
Delay (s)	11.3	24.8	12.4	21.5	11.4	9.3		49.7	30.1		36.4	
Level of Service	B	C	B	C	B	A		D	C		D	
Approach Delay (s)		24.1			12.6			41.8			36.4	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM Average Control Delay	23.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	112.4	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1983	170	469	1067	248	557
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.0	6.0	6.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2203	189	521	1186	276	619
RTOR Reduction (vph)	0	19	0	0	0	0
Lane Group Flow (vph)	2203	170	521	1186	276	619
Turn Type		pm+ov	Prot			pt+ov
Protected Phases	4	5	3	8	5	5 3
Permitted Phases		4				
Actuated Green, G (s)	56.2	84.2	26.8	89.0	28.0	60.8
Effective Green, g (s)	56.2	84.2	26.8	89.0	28.0	60.8
Actuated g/C Ratio	0.43	0.65	0.21	0.68	0.22	0.47
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	2198	1025	708	3481	381	740
v/s Ratio Prot	c0.43	0.04	0.15	0.23	0.16	c0.39
v/s Ratio Perm		0.07				
v/c Ratio	1.00	0.17	0.74	0.34	0.72	0.84
Uniform Delay, d1	36.9	9.0	48.3	8.4	47.4	30.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	19.7	0.1	4.0	0.1	6.7	8.2
Delay (s)	56.6	9.1	52.3	8.5	54.1	38.4
Level of Service	E	A	D	A	D	D
Approach Delay (s)	52.9			21.9	43.2	
Approach LOS	D			C	D	

Intersection Summary			
HCM Average Control Delay	40.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1109	1501	176	94	882	646	100	1052	333	728	323	546
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1232	1668	196	104	980	718	111	1169	370	809	359	607
RTOR Reduction (vph)	0	0	77	0	0	146	0	0	65	0	0	357
Lane Group Flow (vph)	1232	1668	119	104	980	572	111	1169	305	809	359	250
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Actuated Green, G (s)	49.0	81.5	81.5	7.0	39.5	39.5	7.0	38.0	38.0	24.0	55.0	55.0
Effective Green, g (s)	52.0	86.0	86.0	10.0	44.0	44.0	10.0	41.0	41.0	27.0	58.0	58.0
Actuated g/C Ratio	0.29	0.48	0.48	0.06	0.24	0.24	0.06	0.23	0.23	0.15	0.32	0.32
Clearance Time (s)	7.0	8.5	8.5	7.0	8.5	8.5	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	992	2430	756	191	1243	387	191	806	361	515	1140	510
v/s Ratio Prot	c0.36	0.33		0.03	0.19		0.03	c0.33		c0.24	0.10	
v/s Ratio Perm			0.08			c0.36			0.19			0.16
v/c Ratio	1.24	0.69	0.16	0.54	0.79	1.48	0.58	1.45	0.85	1.57	0.31	0.49
Uniform Delay, d1	64.0	36.5	26.5	82.8	63.6	68.0	83.0	69.5	66.5	76.5	46.0	49.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	117.5	1.6	0.4	3.2	5.1	228.8	4.4	209.6	16.4	266.2	0.2	0.7
Delay (s)	181.5	38.1	27.0	85.9	68.8	296.8	87.4	279.1	82.9	342.7	46.2	49.9
Level of Service	F	D	C	F	E	F	F	F	F	F	D	D
Approach Delay (s)		94.5			160.6			222.2			182.6	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	152.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	111.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	117	238	420	726	334	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.98	1.00	1.00
Satd. Flow (prot)	1770	1583		3476	3539	1583
Flt Permitted	0.95	1.00		0.70	1.00	1.00
Satd. Flow (perm)	1770	1583		2486	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	130	264	467	807	371	121
RTOR Reduction (vph)	0	217	0	0	0	0
Lane Group Flow (vph)	130	47	0	1274	371	121
Turn Type		Perm	Perm			pm+ov
Protected Phases	4			2	6	4
Permitted Phases		4	2			6
Actuated Green, G (s)	9.7	9.7		32.4	32.4	42.1
Effective Green, g (s)	9.7	9.7		32.4	32.4	42.1
Actuated g/C Ratio	0.18	0.18		0.60	0.60	0.78
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	317	284		1489	2119	1583
v/s Ratio Prot	c0.07				0.10	0.01
v/s Ratio Perm		0.03		c0.51		0.06
v/c Ratio	0.41	0.17		0.86	0.18	0.08
Uniform Delay, d1	19.7	18.8		8.9	4.9	1.4
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	0.3		5.1	0.0	0.0
Delay (s)	20.5	19.1		14.0	4.9	1.4
Level of Service	C	B		B	A	A
Approach Delay (s)	19.5			14.0	4.0	
Approach LOS	B			B	A	

Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	171	1247	263	356	724	21	201	168	735	138	195	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	4.0	4.0	3.0	4.0	7.0	3.0	6.0	3.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	1770	1863	2787	3433	1863	1583
Flt Permitted	0.34	1.00	1.00	0.95	1.00	1.00	0.32	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	626	5085	1583	3433	5085	1583	591	1863	2787	3433	1863	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	190	1386	292	396	804	23	223	187	817	153	217	130
RTOR Reduction (vph)	0	0	161	0	0	11	0	0	333	0	0	110
Lane Group Flow (vph)	190	1386	131	396	804	12	223	187	484	153	217	20
Turn Type	pm+pt		Perm	Prot		Perm	pm+pt		Prot	Prot		Perm
Protected Phases	5	2		1	6		3	8	8	7	4	
Permitted Phases	2		2			6	8					4
Actuated Green, G (s)	75.1	64.4	64.4	21.6	75.3	75.3	45.0	29.3	29.3	9.7	23.3	23.3
Effective Green, g (s)	75.1	67.4	67.4	24.6	78.3	75.3	48.0	29.3	32.3	9.7	23.3	23.3
Actuated g/C Ratio	0.50	0.45	0.45	0.16	0.52	0.50	0.32	0.20	0.22	0.06	0.16	0.16
Clearance Time (s)	6.0	7.0	7.0	6.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	395	2285	711	563	2654	795	336	364	600	222	289	246
v/s Ratio Prot	0.03	c0.27		c0.12	0.16		c0.08	0.10	c0.17	0.04	0.12	
v/s Ratio Perm	0.21		0.08			0.01	0.13					0.01
v/c Ratio	0.48	0.61	0.18	0.70	0.30	0.01	0.66	0.51	0.81	0.69	0.75	0.08
Uniform Delay, d1	20.9	31.3	24.8	59.3	20.4	18.7	40.5	54.0	55.9	68.7	60.6	54.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	1.2	0.6	4.0	0.3	0.0	4.9	1.2	7.8	8.6	10.5	0.1
Delay (s)	21.9	32.5	25.4	63.2	20.6	18.8	45.4	55.2	63.7	77.3	71.0	54.3
Level of Service	C	C	C	E	C	B	D	E	E	E	E	D
Approach Delay (s)		30.3			34.4			59.1			68.6	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM Average Control Delay	42.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	130	95	112	72	136	190	148	329	133	104	155	83
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	144	106	124	80	151	211	164	366	148	116	172	92
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	362			230			808	917	53	983	830	76
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	362			230			808	917	53	983	830	76
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			94			0	0	85	0	31	90
cM capacity (veh/h)	1193			1335			97	224	1003	0	251	970

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	144	53	53	124	80	76	76	211	347	331	202	178
Volume Left	144	0	0	0	80	0	0	0	164	0	116	0
Volume Right	0	0	0	124	0	0	0	211	0	148	0	92
cSH	1193	1700	1700	1700	1335	1700	1700	1700	139	343	0	407
Volume to Capacity	0.12	0.03	0.03	0.07	0.06	0.04	0.04	0.12	2.51	0.96	Err	0.44
Queue Length 95th (ft)	10	0	0	0	5	0	0	0	759	260	Err	54
Control Delay (s)	8.4	0.0	0.0	0.0	7.9	0.0	0.0	0.0	749.9	75.6	Err	20.5
Lane LOS	A				A				F	F	F	C
Approach Delay (s)	3.3				1.4				421.0		Err	
Approach LOS									F		F	

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	2153	1052	262	0	51
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	2392	1169	291	0	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			811			
pX, platoon unblocked	0.96				0.96	0.96
vC, conflicting volume	1460				1966	390
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1341				1867	228
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	92
cM capacity (veh/h)	491				62	745

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	SB 1
Volume Total	797	797	797	390	390	390	291	57
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	291	57
cSH	1700	1700	1700	1700	1700	1700	1700	745
Volume to Capacity	0.47	0.47	0.47	0.23	0.23	0.23	0.17	0.08
Queue Length 95th (ft)	0	0	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
Lane LOS								B
Approach Delay (s)	0.0			0.0				10.2
Approach LOS								B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	1558	15	88	776	235	2	0	12	100	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00		1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.88		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583		1634		1681	1681	1583
Flt Permitted	0.31	1.00	1.00	0.06	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (perm)	584	3539	1583	113	5085	1583		1634		1681	1681	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	92	1731	17	98	862	261	2	0	13	111	0	69
RTOR Reduction (vph)	0	0	5	0	0	97	0	13	0	0	0	61
Lane Group Flow (vph)	92	1731	12	98	862	164	0	2	0	55	56	8
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		pm+ov
Protected Phases	5	2		1	6		4	4		8	8	5
Permitted Phases	2		2	6		6						8
Actuated Green, G (s)	69.4	64.3	64.3	72.8	66.0	66.0		2.3		7.5	7.5	12.6
Effective Green, g (s)	69.4	64.3	64.3	72.8	66.0	66.0		2.3		7.5	7.5	12.6
Actuated g/C Ratio	0.66	0.61	0.61	0.69	0.63	0.63		0.02		0.07	0.07	0.12
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	444	2169	970	186	3199	996		36		120	120	281
v/s Ratio Prot	0.01	c0.49		c0.03	0.17			c0.00		0.03	c0.03	0.00
v/s Ratio Perm	0.13		0.01	0.33		0.10						0.00
v/c Ratio	0.21	0.80	0.01	0.53	0.27	0.16		0.06		0.46	0.47	0.03
Uniform Delay, d1	6.3	15.4	7.9	15.9	8.7	8.0		50.2		46.8	46.8	40.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	2.1	0.0	2.7	0.0	0.1		0.7		2.8	2.9	0.0
Delay (s)	6.6	17.5	7.9	18.5	8.7	8.1		51.0		49.5	49.6	40.8
Level of Service	A	B	A	B	A	A		D		D	D	D
Approach Delay (s)		16.9			9.4			51.0			46.2	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	104.9	Sum of lost time (s)	24.0
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	97	0	54	167	37	0	14	22	92	21	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	20	108	0	60	186	41	0	16	24	102	23	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1195							
pX, platoon unblocked												
vC, conflicting volume	227			108			399	494	54	432	453	93
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	227			108			399	494	54	432	453	93
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			96			100	97	98	78	95	97
cM capacity (veh/h)	1339			1481			480	449	1002	462	473	946

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	20	54	54	0	60	93	93	41	40	152
Volume Left	20	0	0	0	60	0	0	0	0	102
Volume Right	0	0	0	0	0	0	0	41	24	27
cSH	1339	1700	1700	1700	1481	1700	1700	1700	677	510
Volume to Capacity	0.01	0.03	0.03	0.00	0.04	0.05	0.05	0.02	0.06	0.30
Queue Length 95th (ft)	1	0	0	0	3	0	0	0	5	31
Control Delay (s)	7.7	0.0	0.0	0.0	7.5	0.0	0.0	0.0	10.7	15.0
Lane LOS	A				A				B	C
Approach Delay (s)	1.2				1.6				10.7	15.0
Approach LOS									B	C

Intersection Summary			
Average Delay	5.5		
Intersection Capacity Utilization	32.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	40	48	32	5	18	153
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	44	53	36	6	20	170
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	182	105	190			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	182	105	190			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	94	97			
cM capacity (veh/h)	787	949	1384			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	98	41	190
Volume Left	44	36	0
Volume Right	53	0	170
cSH	868	1384	1700
Volume to Capacity	0.11	0.03	0.11
Queue Length 95th (ft)	9	2	0
Control Delay (s)	9.7	6.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.7	6.7	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	28.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	193	73	27	50	66	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	214	81	30	56	73	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	166	41	82			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	166	41	82			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	73	92	98			
cM capacity (veh/h)	793	1021	1513			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	296	49	37	49	33
Volume Left	214	30	0	0	0
Volume Right	81	0	0	0	9
cSH	845	1513	1700	1700	1700
Volume to Capacity	0.35	0.02	0.02	0.03	0.02
Queue Length 95th (ft)	39	2	0	0	0
Control Delay (s)	11.5	4.6	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.5	2.6		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	7.8		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	373	153	145	21	111	279	134	260	17	198	582	126
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	414	170	161	23	123	310	149	289	19	220	647	140
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											960	
pX, platoon unblocked												
vC, conflicting volume	1901	1692	323	1596	1813	144	787			308		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1901	1692	323	1596	1813	144	787			308		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	76	0	0	65	82			82		
cM capacity (veh/h)	0	62	672	0	52	877	828			1250		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	499	246	85	372	149	144	144	19	220	323	323	140
Volume Left	414	0	23	0	149	0	0	0	220	0	0	0
Volume Right	0	161	0	310	0	0	0	19	0	0	0	140
cSH	0	153	0	243	828	1700	1700	1700	1250	1700	1700	1700
Volume to Capacity	Err	1.60	Err	1.53	0.18	0.08	0.08	0.01	0.18	0.19	0.19	0.08
Queue Length 95th (ft)	Err	425	Err	559	16	0	0	0	16	0	0	0
Control Delay (s)	Err	352.7	Err	295.8	10.3	0.0	0.0	0.0	8.5	0.0	0.0	0.0
Lane LOS	F	F	F	F	B				A			
Approach Delay (s)	Err		Err		3.4				1.9			
Approach LOS	F		F									

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		70.2%	ICU Level of Service	C
Analysis Period (min)		15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	791	99	186	1773	40	65	58	96	24	110	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1815	1583		1834	
Flt Permitted	0.07	1.00	1.00	0.24	1.00	1.00		0.67	1.00		0.92	
Satd. Flow (perm)	132	3539	1583	446	3539	1583		1254	1583		1707	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	879	110	207	1970	44	72	64	107	27	122	8
RTOR Reduction (vph)	0	0	50	0	0	13	0	0	77	0	2	0
Lane Group Flow (vph)	4	879	60	207	1970	31	0	136	30	0	155	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		pm+ov	Perm		
Protected Phases	7	4		3	8			2	3		6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	57.0	56.5	56.5	72.5	66.0	66.0		18.8	28.8		18.8	
Effective Green, g (s)	57.0	56.5	56.5	72.5	66.0	66.0		18.8	28.8		18.8	
Actuated g/C Ratio	0.55	0.55	0.55	0.70	0.64	0.64		0.18	0.28		0.18	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)	81	1936	866	441	2261	1011		228	533		311	
v/s Ratio Prot	0.00	0.25		c0.05	c0.56				0.01			
v/s Ratio Perm	0.03		0.04	0.28		0.02		c0.11	0.01		0.09	
v/c Ratio	0.05	0.45	0.07	0.47	0.87	0.03		0.60	0.06		0.50	
Uniform Delay, d1	16.5	14.1	11.0	7.1	15.2	6.9		38.8	27.3		38.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.3	0.2	0.0	0.8	4.0	0.0		4.2	0.0		1.3	
Delay (s)	16.7	14.3	11.1	7.9	19.2	6.9		42.9	27.3		39.3	
Level of Service	B	B	B	A	B	A		D	C		D	
Approach Delay (s)		13.9			17.9			36.1			39.3	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	103.3	Sum of lost time (s)	18.0
Intersection Capacity Utilization	81.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1312	332	1122	1976	251	672
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1458	369	1247	2196	279	747
RTOR Reduction (vph)	0	7	0	0	0	0
Lane Group Flow (vph)	1458	362	1247	2196	279	747
Turn Type		pm+ov	Prot			pt+ov
Protected Phases	4	5	3	8	5	5 3
Permitted Phases		4				
Actuated Green, G (s)	37.0	62.0	50.0	93.0	25.0	81.0
Effective Green, g (s)	37.0	62.0	50.0	93.0	25.0	81.0
Actuated g/C Ratio	0.28	0.48	0.38	0.72	0.19	0.62
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1447	828	1320	3638	340	986
v/s Ratio Prot	c0.29	0.08	c0.36	0.43	0.16	c0.47
v/s Ratio Perm		0.14				
v/c Ratio	1.01	0.44	0.94	0.60	0.82	0.76
Uniform Delay, d1	46.5	22.5	38.7	9.3	50.3	17.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	25.5	0.4	13.6	0.3	14.6	3.4
Delay (s)	72.0	22.8	52.3	9.6	64.9	20.9
Level of Service	E	C	D	A	E	C
Approach Delay (s)	62.1			25.0	32.8	
Approach LOS	E			C	C	

Intersection Summary			
HCM Average Control Delay	37.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	725	1164	210	425	1772	1042	217	457	168	703	1007	1193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	516	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	806	1293	233	472	1969	1158	241	508	187	781	1119	1326
RTOR Reduction (vph)	0	0	141	0	0	216	0	0	157	0	0	197
Lane Group Flow (vph)	806	1293	92	472	1969	942	241	508	30	781	1119	1129
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8	4		4
Actuated Green, G (s)	19.0	51.1	51.1	22.4	54.5	54.5	14.1	21.0	21.0	54.0	32.9	32.9
Effective Green, g (s)	22.0	55.6	55.6	25.4	59.0	59.0	17.1	24.0	24.0	57.0	35.9	35.9
Actuated g/C Ratio	0.15	0.37	0.37	0.17	0.39	0.39	0.11	0.16	0.16	0.38	0.24	0.24
Clearance Time (s)	7.0	8.5	8.5	7.0	8.5	8.5	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	504	1885	587	581	2000	623	391	566	253	760	847	379
v/s Ratio Prot	c0.23	0.25		0.14	0.39		0.07	0.14		c0.20	0.32	
v/s Ratio Perm			0.06			c0.59			0.02	0.19		c0.71
v/c Ratio	1.60	0.69	0.16	0.81	0.98	1.51	0.62	0.90	0.12	1.03	1.32	2.98
Uniform Delay, d1	64.0	39.8	31.5	60.0	45.0	45.5	63.3	61.8	53.9	46.5	57.1	57.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	278.9	2.1	0.6	8.5	16.8	238.7	2.9	16.8	0.2	39.9	152.8	897.6
Delay (s)	342.9	41.9	32.1	68.5	61.8	284.2	66.2	78.6	54.2	86.4	209.8	954.6
Level of Service	F	D	C	E	E	F	E	E	D	F	F	F
Approach Delay (s)		144.9			134.2			70.5			486.1	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	243.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.87		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	127.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	131	455	256	607	1361	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		6.5	6.5	7.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.99	1.00	1.00
Satd. Flow (prot)	1770	1583		3488	3539	1583
Flt Permitted	0.95	1.00		0.52	1.00	1.00
Satd. Flow (perm)	1770	1583		1830	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	146	506	284	674	1512	240
RTOR Reduction (vph)	0	20	0	0	0	0
Lane Group Flow (vph)	146	486	0	958	1512	240
Turn Type		Perm	Perm			pm+ov
Protected Phases	4			2	6	4
Permitted Phases		4	2			6
Actuated Green, G (s)	26.0	26.0		50.5	50.5	76.5
Effective Green, g (s)	26.0	26.0		50.5	50.5	76.5
Actuated g/C Ratio	0.29	0.29		0.56	0.56	0.85
Clearance Time (s)	7.0	7.0		6.5	6.5	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	511	457		1027	1986	1469
v/s Ratio Prot	0.08				0.43	0.05
v/s Ratio Perm		c0.31		c0.52		0.10
v/c Ratio	0.29	1.06		3.12dl	0.76	0.16
Uniform Delay, d1	24.8	32.0		18.2	15.1	1.2
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.4	60.0		15.9	2.8	0.2
Delay (s)	26.2	92.0		34.1	17.9	1.4
Level of Service	C	F		C	B	A
Approach Delay (s)	77.3			34.1	15.7	
Approach LOS	E			C	B	

Intersection Summary			
HCM Average Control Delay	32.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	100.1%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	214	815	211	615	1690	54	309	206	506	240	255	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	4.0	4.0	4.0	4.0	7.0	3.0	7.0	4.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	1770	1863	2787	3433	1863	1583
Flt Permitted	0.10	1.00	1.00	0.95	1.00	1.00	0.21	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	178	5085	1583	3433	5085	1583	400	1863	2787	3433	1863	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	238	906	234	683	1878	60	343	229	562	267	283	113
RTOR Reduction (vph)	0	0	164	0	0	30	0	0	435	0	0	93
Lane Group Flow (vph)	238	906	70	683	1878	30	343	229	127	267	283	20
Turn Type	pm+pt		Perm	Prot		Perm	pm+pt		Prot	Prot		Perm
Protected Phases	5	2		1	6		3	8	8	7	4	
Permitted Phases	2		2			6	8					4
Actuated Green, G (s)	60.1	41.9	41.9	33.6	58.3	58.3	52.8	30.9	30.9	16.6	26.6	26.6
Effective Green, g (s)	60.1	44.9	44.9	36.6	61.3	58.3	56.5	30.9	33.9	16.6	26.6	26.6
Actuated g/C Ratio	0.40	0.30	0.30	0.24	0.41	0.39	0.38	0.21	0.23	0.11	0.18	0.18
Clearance Time (s)	6.0	7.0	7.0	7.0	7.0	7.0	6.0	7.0	7.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	264	1522	474	838	2078	615	378	384	630	380	330	281
v/s Ratio Prot	0.11	0.18		c0.20	c0.37		c0.15	0.12	0.05	0.08	0.15	
v/s Ratio Perm	0.25		0.04			0.02	c0.19					0.01
v/c Ratio	0.90	0.60	0.15	0.82	0.90	0.05	0.91	0.60	0.20	0.70	0.86	0.07
Uniform Delay, d1	43.6	44.8	38.5	53.5	41.6	28.6	38.1	53.9	47.1	64.3	59.9	51.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	30.9	1.7	0.7	6.1	7.0	0.2	24.6	2.5	0.2	5.8	19.2	0.1
Delay (s)	74.5	46.5	39.2	59.6	48.6	28.7	62.7	56.4	47.2	70.1	79.1	51.5
Level of Service	E	D	D	E	D	C	E	E	D	E	E	D
Approach Delay (s)		50.1			51.0			53.8			70.8	
Approach LOS		D			D			D			E	

Intersection Summary			
HCM Average Control Delay	53.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	62	87	51	122	58	127	75	237	86	268	324	94
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	69	97	57	136	64	141	83	263	96	298	360	104
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	206			153			822	711	48	749	627	32
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	206			153			822	711	48	749	627	32
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			90			0	14	91	0	0	90
cM capacity (veh/h)	1363			1425			0	306	1010	67	343	1034

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	69	48	48	57	136	32	32	141	215	227	478	284
Volume Left	69	0	0	0	136	0	0	0	83	0	298	0
Volume Right	0	0	0	57	0	0	0	141	0	96	0	104
cSH	1363	1700	1700	1700	1425	1700	1700	1700	0	433	97	454
Volume to Capacity	0.05	0.03	0.03	0.03	0.10	0.02	0.02	0.08	Err	0.52	4.94	0.63
Queue Length 95th (ft)	4	0	0	0	8	0	0	0	Err	74	Err	105
Control Delay (s)	7.8	0.0	0.0	0.0	7.8	0.0	0.0	0.0	Err	22.1	Err	25.3
Lane LOS	A				A				F	C	F	D
Approach Delay (s)	2.4				3.1				Err		6277.0	
Approach LOS									F		F	

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	54.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	1644	2033	194	0	92
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1827	2259	216	0	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			811			
pX, platoon unblocked	0.79				0.79	0.79
vC, conflicting volume	2474				2868	753
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1930				2429	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	88
cM capacity (veh/h)	237				21	855

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	SB 1
Volume Total	609	609	609	753	753	753	216	102
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	216	102
cSH	1700	1700	1700	1700	1700	1700	1700	855
Volume to Capacity	0.36	0.36	0.36	0.44	0.44	0.44	0.13	0.12
Queue Length 95th (ft)	0	0	0	0	0	0	0	10
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
Lane LOS								A
Approach Delay (s)	0.0			0.0				9.8
Approach LOS								A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	51.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	859	4	20	1977	146	18	0	99	282	0	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00		1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583		1637		1681	1681	1583
Flt Permitted	0.07	1.00	1.00	0.25	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (perm)	127	3539	1583	457	5085	1583		1637		1681	1681	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	51	954	4	22	2197	162	20	0	110	313	0	138
RTOR Reduction (vph)	0	0	2	0	0	66	0	102	0	0	0	113
Lane Group Flow (vph)	51	954	2	22	2197	96	0	28	0	156	157	25
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		pm+ov
Protected Phases	5	2		1	6		4	4		8	8	5
Permitted Phases	2		2	6		6						8
Actuated Green, G (s)	62.6	58.6	58.6	57.6	56.1	56.1		7.8		15.0	15.0	19.0
Effective Green, g (s)	62.6	58.6	58.6	57.6	56.1	56.1		7.8		15.0	15.0	19.0
Actuated g/C Ratio	0.59	0.55	0.55	0.54	0.52	0.52		0.07		0.14	0.14	0.18
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	136	1940	868	265	2669	831		119		236	236	370
v/s Ratio Prot	c0.01	0.27		0.00	c0.43			c0.02		0.09	c0.09	0.00
v/s Ratio Perm	0.21		0.00	0.04		0.06						0.01
v/c Ratio	0.38	0.49	0.00	0.08	0.82	0.12		0.24		0.66	0.67	0.07
Uniform Delay, d1	17.2	14.9	10.9	12.0	21.2	12.8		46.7		43.5	43.6	36.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.7	0.2	0.0	0.1	2.2	0.1		1.0		6.8	6.9	0.1
Delay (s)	18.9	15.1	10.9	12.2	23.4	12.9		47.8		50.3	50.5	36.6
Level of Service	B	B	B	B	C	B		D		D	D	D
Approach Delay (s)		15.3			22.6			47.8			46.2	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM Average Control Delay	24.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	106.9	Sum of lost time (s)	24.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX H

PROPOSED CONDITIONS CAPACITY ANALYSES

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	9	284	3	9	328	39	2	58	49	32	0	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	10	316	3	10	364	43	2	64	54	36	0	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1195							
pX, platoon unblocked												
vC, conflicting volume	408			319			548	763	158	649	723	182
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	408			319			548	763	158	649	723	182
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			99	80	94	87	100	99
cM capacity (veh/h)	1147			1238			409	327	860	279	345	829

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	10	158	158	3	10	182	182	43	121	46
Volume Left	10	0	0	0	10	0	0	0	2	36
Volume Right	0	0	0	3	0	0	0	43	54	10
cSH	1147	1700	1700	1700	1238	1700	1700	1700	456	326
Volume to Capacity	0.01	0.09	0.09	0.00	0.01	0.11	0.11	0.03	0.27	0.14
Queue Length 95th (ft)	1	0	0	0	1	0	0	0	26	12
Control Delay (s)	8.2	0.0	0.0	0.0	7.9	0.0	0.0	0.0	15.7	17.8
Lane LOS	A				A				C	C
Approach Delay (s)	0.2				0.2				15.7	17.8
Approach LOS									C	C

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	24.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	52	0	0	90	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	58	0	0	100	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	100			58			158	158	58	158	158	100
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	100			58			158	158	58	158	158	100
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1493			1546			808	734	1008	808	734	956

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	58	100	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1493	1546	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	8.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	190	32	19	2	38	50	44	4	15	5	1	33
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	211	36	21	2	42	56	49	4	17	6	1	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	98			57			580	571	46	562	553	70
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	98			57			580	571	46	562	553	70
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	86			100			87	99	98	99	100	96
cM capacity (veh/h)	1495			1548			364	370	1023	380	378	993

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	268	100	70	43
Volume Left	211	2	49	6
Volume Right	21	56	17	37
cSH	1495	1548	431	795
Volume to Capacity	0.14	0.00	0.16	0.05
Queue Length 95th (ft)	12	0	14	4
Control Delay (s)	6.4	0.2	15.0	9.8
Lane LOS	A	A	B	A
Approach Delay (s)	6.4	0.2	15.0	9.8
Approach LOS			B	A

Intersection Summary			
Average Delay	6.7		
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	20	23	18	66	107	5
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	22	26	20	73	119	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	297	47			93	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	297	47			93	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	97			92	
cM capacity (veh/h)	617	1013			1499	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	48	13	80	121	4
Volume Left	22	0	0	119	0
Volume Right	26	0	73	0	0
cSH	780	1700	1700	1499	1700
Volume to Capacity	0.06	0.01	0.05	0.08	0.00
Queue Length 95th (ft)	5	0	0	6	0
Control Delay (s)	9.9	0.0	0.0	7.5	0.0
Lane LOS	A			A	
Approach Delay (s)	9.9	0.0		7.3	
Approach LOS	A				

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	22.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	157	48	37	8	115	320	77	594	17	267	258	188
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	174	53	41	9	128	356	86	660	19	297	287	209
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											960	
pX, platoon unblocked												
vC, conflicting volume	1801	1730	143	1636	1920	330	496			679		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1801	1730	143	1636	1920	330	496			679		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	1	95	0	0	47	92			67		
cM capacity (veh/h)	0	54	878	4	41	666	1064			909		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	201	68	73	419	86	330	330	19	297	143	143	209
Volume Left	174	0	9	0	86	0	0	0	297	0	0	0
Volume Right	0	41	0	356	0	0	0	19	0	0	0	209
cSH	0	126	19	201	1064	1700	1700	1700	909	1700	1700	1700
Volume to Capacity	Err	0.54	3.93	2.09	0.08	0.19	0.19	0.01	0.33	0.08	0.08	0.12
Queue Length 95th (ft)	Err	65	Err	804	7	0	0	0	36	0	0	0
Control Delay (s)	Err	63.1	Err	543.7	8.7	0.0	0.0	0.0	10.9	0.0	0.0	0.0
Lane LOS	F	F	F	F	A				B			
Approach Delay (s)	Err		1941.7		1.0				4.1			
Approach LOS	F		F									

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1424	67	96	622	37	114	117	157	25	45	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.98	1.00		0.98	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1818	1583		1819	
Flt Permitted	0.39	1.00	1.00	0.06	1.00	1.00		0.82	1.00		0.73	
Satd. Flow (perm)	724	3539	1583	112	3539	1583		1526	1583		1355	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	22	1582	74	107	691	41	127	130	174	28	50	4
RTOR Reduction (vph)	0	0	30	0	0	16	0	0	12	0	2	0
Lane Group Flow (vph)	22	1582	44	107	691	25	0	257	162	0	80	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		pm+ov	Perm		
Protected Phases	7	4		3	8			2	3		6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	62.8	60.7	60.7	75.6	67.5	67.5		25.2	34.1		25.2	
Effective Green, g (s)	62.8	60.7	60.7	75.6	67.5	67.5		25.2	34.1		25.2	
Actuated g/C Ratio	0.56	0.54	0.54	0.67	0.60	0.60		0.22	0.30		0.22	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)	423	1904	852	206	2118	947		341	563		303	
v/s Ratio Prot	0.00	c0.45		c0.04	0.20				0.02			
v/s Ratio Perm	0.03		0.03	0.31		0.02		c0.17	0.08		0.06	
v/c Ratio	0.05	0.83	0.05	0.52	0.33	0.03		0.75	0.29		0.27	
Uniform Delay, d1	11.2	21.8	12.4	19.5	11.3	9.2		40.9	30.1		36.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.1	3.2	0.0	2.2	0.1	0.0		9.1	0.3		0.5	
Delay (s)	11.3	25.0	12.4	21.7	11.4	9.3		50.0	30.4		36.6	
Level of Service	B	C	B	C	B	A		D	C		D	
Approach Delay (s)		24.3			12.6			42.1			36.6	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	112.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1956	170	559	1005	248	586
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	6.0	6.0	7.0	6.0	6.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	2173	189	621	1117	276	651
RTOR Reduction (vph)	0	11	0	0	0	1
Lane Group Flow (vph)	2173	178	621	1117	276	650
Turn Type		pm+ov	Prot			pt+ov
Protected Phases	4	5	3	8	5	5 3
Permitted Phases		4				
Actuated Green, G (s)	54.5	82.5	28.5	89.0	28.0	62.5
Effective Green, g (s)	54.5	82.5	28.5	89.0	28.0	62.5
Actuated g/C Ratio	0.42	0.63	0.22	0.68	0.22	0.48
Clearance Time (s)	7.0	6.0	6.0	7.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	2132	1005	753	3481	381	761
v/s Ratio Prot	c0.43	0.04	0.18	0.22	0.16	c0.41
v/s Ratio Perm		0.07				
v/c Ratio	1.02	0.18	0.82	0.32	0.72	0.85
Uniform Delay, d1	37.7	9.8	48.4	8.3	47.4	29.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	24.5	0.1	7.3	0.1	6.7	9.3
Delay (s)	62.2	9.9	55.7	8.3	54.1	39.0
Level of Service	E	A	E	A	D	D
Approach Delay (s)	58.0			25.3	43.5	
Approach LOS	E			C	D	

Intersection Summary			
HCM Average Control Delay	44.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1110	1503	176	94	902	646	100	1052	333	728	323	554
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1233	1670	196	104	1002	718	111	1169	370	809	359	616
RTOR Reduction (vph)	0	0	77	0	0	146	0	0	65	0	0	356
Lane Group Flow (vph)	1233	1670	119	104	1002	572	111	1169	305	809	359	260
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Actuated Green, G (s)	49.0	81.5	81.5	7.0	39.5	39.5	7.0	38.0	38.0	24.0	55.0	55.0
Effective Green, g (s)	52.0	86.0	86.0	10.0	44.0	44.0	10.0	41.0	41.0	27.0	58.0	58.0
Actuated g/C Ratio	0.29	0.48	0.48	0.06	0.24	0.24	0.06	0.23	0.23	0.15	0.32	0.32
Clearance Time (s)	7.0	8.5	8.5	7.0	8.5	8.5	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	992	2430	756	191	1243	387	191	806	361	515	1140	510
v/s Ratio Prot	c0.36	0.33		0.03	0.20		0.03	c0.33		c0.24	0.10	
v/s Ratio Perm			0.08			c0.36			0.19			0.16
v/c Ratio	1.24	0.69	0.16	0.54	0.81	1.48	0.58	1.45	0.85	1.57	0.31	0.51
Uniform Delay, d1	64.0	36.5	26.5	82.8	64.0	68.0	83.0	69.5	66.5	76.5	46.0	49.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	117.9	1.6	0.4	3.2	5.7	228.8	4.4	209.6	16.4	266.2	0.2	0.9
Delay (s)	181.9	38.2	27.0	85.9	69.6	296.8	87.4	279.1	82.9	342.7	46.2	50.3
Level of Service	F	D	C	F	E	F	F	F	F	F	D	D
Approach Delay (s)		94.7			160.0			222.2			182.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	152.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.41		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	112.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	99	235	433	727	338	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.98	1.00	1.00
Satd. Flow (prot)	1770	1583		3474	3539	1583
Flt Permitted	0.95	1.00		0.70	1.00	1.00
Satd. Flow (perm)	1770	1583		2471	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	110	261	481	808	376	122
RTOR Reduction (vph)	0	217	0	0	0	0
Lane Group Flow (vph)	110	44	0	1289	376	122
Turn Type		Perm	Perm			pm+ov
Protected Phases	4			2	6	4
Permitted Phases		4	2			6
Actuated Green, G (s)	9.2	9.2		33.3	33.3	42.5
Effective Green, g (s)	9.2	9.2		33.3	33.3	42.5
Actuated g/C Ratio	0.17	0.17		0.61	0.61	0.78
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	299	267		1510	2162	1583
v/s Ratio Prot	c0.06				0.11	0.01
v/s Ratio Perm		0.03		c0.52		0.06
v/c Ratio	0.37	0.17		0.85	0.17	0.08
Uniform Delay, d1	20.1	19.4		8.6	4.6	1.4
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	0.3		4.9	0.0	0.0
Delay (s)	20.8	19.7		13.5	4.7	1.4
Level of Service	C	B		B	A	A
Approach Delay (s)	20.0			13.5	3.9	
Approach LOS	C			B	A	

Intersection Summary			
HCM Average Control Delay	12.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	54.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	171	1247	273	294	724	21	202	170	708	138	210	117
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	4.0	4.0	3.0	4.0	7.0	3.0	6.0	3.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	1770	1863	2787	3433	1863	1583
Flt Permitted	0.33	1.00	1.00	0.95	1.00	1.00	0.28	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	614	5085	1583	3433	5085	1583	517	1863	2787	3433	1863	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	190	1386	303	327	804	23	224	189	787	153	233	130
RTOR Reduction (vph)	0	0	162	0	0	11	0	0	334	0	0	110
Lane Group Flow (vph)	190	1386	141	327	804	12	224	189	453	153	233	20
Turn Type	pm+pt		Perm	Prot		Perm	pm+pt		Prot	Prot		Perm
Protected Phases	5	2		1	6		3	8	8	7	4	
Permitted Phases	2		2			6	8					4
Actuated Green, G (s)	77.6	66.9	66.9	19.4	75.6	75.6	44.7	29.0	29.0	9.7	23.0	23.0
Effective Green, g (s)	77.6	69.9	69.9	22.4	78.6	75.6	47.7	29.0	32.0	9.7	23.0	23.0
Actuated g/C Ratio	0.52	0.47	0.47	0.15	0.52	0.50	0.32	0.19	0.21	0.06	0.15	0.15
Clearance Time (s)	6.0	7.0	7.0	6.0	7.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	400	2370	738	513	2665	798	321	360	595	222	286	243
v/s Ratio Prot	0.03	c0.27		c0.10	0.16		c0.09	0.10	c0.16	0.04	0.13	
v/s Ratio Perm	0.21		0.09			0.01	0.14					0.01
v/c Ratio	0.48	0.58	0.19	0.64	0.30	0.01	0.70	0.52	0.76	0.69	0.81	0.08
Uniform Delay, d1	19.6	29.4	23.5	60.0	20.2	18.6	41.0	54.3	55.4	68.7	61.4	54.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	1.1	0.6	2.6	0.3	0.0	6.5	1.4	5.7	8.6	16.1	0.1
Delay (s)	20.5	30.5	24.1	62.6	20.5	18.6	47.5	55.7	61.2	77.3	77.6	54.6
Level of Service	C	C	C	E	C	B	D	E	E	E	E	D
Approach Delay (s)		28.4			32.4			57.7			71.7	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM Average Control Delay	41.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	124	94	112	71	128	187	148	329	133	101	155	84
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	138	104	124	79	142	208	164	366	148	112	172	93
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	350			229			788	888	52	958	804	71
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	350			229			788	888	52	958	804	71
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			94			0	0	85	0	34	90
cM capacity (veh/h)	1206			1336			107	234	1004	0	262	977

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	138	52	52	124	79	71	71	208	347	331	198	179
Volume Left	138	0	0	0	79	0	0	0	164	0	112	0
Volume Right	0	0	0	124	0	0	0	208	0	148	0	93
cSH	1206	1700	1700	1700	1336	1700	1700	1700	150	357	0	423
Volume to Capacity	0.11	0.03	0.03	0.07	0.06	0.04	0.04	0.12	2.32	0.93	Err	0.42
Queue Length 95th (ft)	10	0	0	0	5	0	0	0	729	240	Err	52
Control Delay (s)	8.4	0.0	0.0	0.0	7.9	0.0	0.0	0.0	661.7	65.5	Err	19.6
Lane LOS	A				A				F	F	F	C
Approach Delay (s)	3.1				1.4				370.9		Err	
Approach LOS									F		F	

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	179	0	5	200	58	0	11	34	11	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	199	0	6	222	64	0	12	38	12	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	287			199			322	497	99	377	432	111
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	287			199			322	497	99	377	432	111
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	97	96	98	100	100
cM capacity (veh/h)	1272			1371			605	471	937	521	513	921

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	0	99	99	0	6	111	111	64	50	13
Volume Left	0	0	0	0	6	0	0	0	0	12
Volume Right	0	0	0	0	0	0	0	64	38	0
cSH	1700	1700	1700	1700	1371	1700	1700	1700	755	520
Volume to Capacity	0.00	0.06	0.06	0.00	0.00	0.07	0.07	0.04	0.07	0.03
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	5	2
Control Delay (s)	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	10.1	12.1
Lane LOS					A				B	B
Approach Delay (s)	0.0				0.1				10.1	12.1
Approach LOS									B	B

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	19.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	2126	990	262	0	51
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	2362	1100	291	0	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			811			
pX, platoon unblocked	0.97				0.97	0.97
vC, conflicting volume	1391				1887	367
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1309				1818	257
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	92
cM capacity (veh/h)	511				67	723

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	SB 1
Volume Total	787	787	787	367	367	367	291	57
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	291	57
cSH	1700	1700	1700	1700	1700	1700	1700	723
Volume to Capacity	0.46	0.46	0.46	0.22	0.22	0.22	0.17	0.08
Queue Length 95th (ft)	0	0	0	0	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
Lane LOS								B
Approach Delay (s)	0.0			0.0				10.4
Approach LOS								B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	1569	15	88	777	235	2	0	12	100	0	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00		1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.88		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583		1634		1681	1681	1583
Flt Permitted	0.31	1.00	1.00	0.06	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (perm)	584	3539	1583	113	5085	1583		1634		1681	1681	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	92	1743	17	98	863	261	2	0	13	111	0	69
RTOR Reduction (vph)	0	0	5	0	0	97	0	13	0	0	0	61
Lane Group Flow (vph)	92	1743	12	98	863	164	0	2	0	55	56	8
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		pm+ov
Protected Phases	5	2		1	6		4	4		8	8	5
Permitted Phases	2		2	6		6						8
Actuated Green, G (s)	69.3	64.0	64.0	72.9	65.8	65.8		2.2		7.5	7.5	12.8
Effective Green, g (s)	69.3	64.0	64.0	72.9	65.8	65.8		2.2		7.5	7.5	12.8
Actuated g/C Ratio	0.66	0.61	0.61	0.70	0.63	0.63		0.02		0.07	0.07	0.12
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	446	2161	967	191	3193	994		34		120	120	284
v/s Ratio Prot	0.01	c0.49		c0.03	0.17			c0.00		0.03	c0.03	0.00
v/s Ratio Perm	0.13		0.01	0.32		0.10						0.00
v/c Ratio	0.21	0.81	0.01	0.51	0.27	0.16		0.07		0.46	0.47	0.03
Uniform Delay, d1	6.3	15.7	8.0	16.1	8.7	8.1		50.3		46.7	46.7	40.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	2.3	0.0	2.3	0.0	0.1		0.8		2.8	2.9	0.0
Delay (s)	6.6	18.0	8.0	18.4	8.8	8.2		51.1		49.5	49.6	40.6
Level of Service	A	B	A	B	A	A		D		D	D	D
Approach Delay (s)		17.3			9.4			51.1			46.1	
Approach LOS		B			A			D			D	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	104.8	Sum of lost time (s)	24.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	31	0	1	101	20	0	0	5	4	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	1	34	0	1	112	22	0	0	6	4	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	134			34			95	173	17	151	162	67
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134			34			95	173	17	151	162	67
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	99	100	100
cM capacity (veh/h)	1448			1575			877	718	1057	797	728	982

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	18	17	57	78	6	4
Volume Left	1	0	1	0	0	4
Volume Right	0	0	0	22	6	0
cSH	1448	1700	1575	1700	1057	797
Volume to Capacity	0.00	0.01	0.00	0.05	0.01	0.01
Queue Length 95th (ft)	0	0	0	0	0	0
Control Delay (s)	0.5	0.0	0.1	0.0	8.4	9.5
Lane LOS	A		A		A	A
Approach Delay (s)	0.2		0.1		8.4	9.5
Approach LOS					A	A

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	14.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	41	0	1	122	29	0	0	7	6	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	46	0	1	136	32	0	0	8	7	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	168			46			116	216	23	184	199	84
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	168			46			116	216	23	184	199	84
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	99	100	100
cM capacity (veh/h)	1407			1561			849	681	1049	754	695	959

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	23	23	69	100	8	7
Volume Left	0	0	1	0	0	7
Volume Right	0	0	0	32	8	0
cSH	1407	1700	1561	1700	1049	754
Volume to Capacity	0.00	0.01	0.00	0.06	0.01	0.01
Queue Length 95th (ft)	0	0	0	0	1	1
Control Delay (s)	0.0	0.0	0.1	0.0	8.5	9.8
Lane LOS			A		A	A
Approach Delay (s)	0.0		0.1		8.5	9.8
Approach LOS					A	A

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	16.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	161	4	56	188	12	3	11	22	13	15	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	2	179	4	62	209	13	3	12	24	14	17	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)					1195							
pX, platoon unblocked												
vC, conflicting volume	222			183			421	530	89	458	521	104
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	222			183			421	530	89	458	521	104
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			96			99	97	97	97	96	100
cM capacity (veh/h)	1344			1389			484	432	951	447	437	930

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1
Volume Total	2	89	89	4	62	104	104	13	40	31
Volume Left	2	0	0	0	62	0	0	0	3	14
Volume Right	0	0	0	4	0	0	0	13	24	0
cSH	1344	1700	1700	1700	1389	1700	1700	1700	657	442
Volume to Capacity	0.00	0.05	0.05	0.00	0.04	0.06	0.06	0.01	0.06	0.07
Queue Length 95th (ft)	0	0	0	0	4	0	0	0	5	6
Control Delay (s)	7.7	0.0	0.0	0.0	7.7	0.0	0.0	0.0	10.8	13.8
Lane LOS	A				A				B	B
Approach Delay (s)	0.1				1.7				10.8	13.8
Approach LOS									B	B

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	23.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	96	0	0	49	0	0	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	107	0	0	54	0	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	54			107			161	161	107	161	161	54
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	54			107			161	161	107	161	161	54
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1551			1484			804	731	947	804	731	1013

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	107	54	0	0
Volume Left	0	0	0	0
Volume Right	0	0	0	0
cSH	1551	1484	1700	1700
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS			A	A
Approach Delay (s)	0.0	0.0	0.0	0.0
Approach LOS			A	A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	8.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	58	55	37	13	36	1	25	5	7	34	9	184
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	64	61	41	14	40	1	28	6	8	38	10	204
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	41			102			489	281	82	291	301	41
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	41			102			489	281	82	291	301	41
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			99			93	99	99	94	98	80
cM capacity (veh/h)	1568			1490			372	596	978	627	581	1031

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	167	56	41	252
Volume Left	64	14	28	38
Volume Right	41	1	8	204
cSH	1568	1490	447	914
Volume to Capacity	0.04	0.01	0.09	0.28
Queue Length 95th (ft)	3	1	8	28
Control Delay (s)	3.1	2.0	13.9	10.4
Lane LOS	A	A	B	B
Approach Delay (s)	3.1	2.0	13.9	10.4
Approach LOS			B	B

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	33.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	86	128	22	26	56	30
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	96	142	24	29	62	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	180	27			53	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	180	27			53	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	87	86			96	
cM capacity (veh/h)	761	1043			1550	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	238	16	37	73	22
Volume Left	96	0	0	62	0
Volume Right	142	0	29	0	0
cSH	907	1700	1700	1550	1700
Volume to Capacity	0.26	0.01	0.02	0.04	0.01
Queue Length 95th (ft)	26	0	0	3	0
Control Delay (s)	10.4	0.0	0.0	6.3	0.0
Lane LOS	B			A	
Approach Delay (s)	10.4	0.0		4.9	
Approach LOS	B				

Intersection Summary			
Average Delay	7.6		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	330	185	142	28	131	271	136	256	23	180	572	128
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	367	206	158	31	146	301	151	284	26	200	636	142
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											960	
pX, platoon unblocked												
vC, conflicting volume	1854	1648	318	1565	1764	142	778			310		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1854	1648	318	1565	1764	142	778			310		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	0	0	77	0	0	66	82			84		
cM capacity (veh/h)	0	68	678	0	57	880	835			1247		

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	469	261	104	374	151	142	142	26	200	318	318	142
Volume Left	367	0	31	0	151	0	0	0	200	0	0	0
Volume Right	0	158	0	301	0	0	0	26	0	0	0	142
cSH	0	148	0	231	835	1700	1700	1700	1247	1700	1700	1700
Volume to Capacity	Err	1.76	Err	1.62	0.18	0.08	0.08	0.02	0.16	0.19	0.19	0.08
Queue Length 95th (ft)	Err	478	Err	593	16	0	0	0	14	0	0	0
Control Delay (s)	Err	418.4	Err	333.7	10.3	0.0	0.0	0.0	8.4	0.0	0.0	0.0
Lane LOS	F	F	F	F	B				A			
Approach Delay (s)	Err		Err		3.4				1.7			
Approach LOS	F		F									

Intersection Summary			
Average Delay		Err	
Intersection Capacity Utilization		69.1%	ICU Level of Service	C
Analysis Period (min)		15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	792	99	186	1778	40	65	58	96	24	110	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		1.00	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.97	1.00		0.99	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583		1815	1583		1834	
Flt Permitted	0.07	1.00	1.00	0.24	1.00	1.00		0.67	1.00		0.92	
Satd. Flow (perm)	131	3539	1583	446	3539	1583		1253	1583		1707	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	4	880	110	207	1976	44	72	64	107	27	122	8
RTOR Reduction (vph)	0	0	50	0	0	13	0	0	77	0	2	0
Lane Group Flow (vph)	4	880	60	207	1976	31	0	136	30	0	155	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm		pm+ov	Perm		
Protected Phases	7	4		3	8			2	3		6	
Permitted Phases	4		4	8		8	2		2	6		
Actuated Green, G (s)	57.2	56.7	56.7	72.7	66.2	66.2		18.8	28.8		18.8	
Effective Green, g (s)	57.2	56.7	56.7	72.7	66.2	66.2		18.8	28.8		18.8	
Actuated g/C Ratio	0.55	0.55	0.55	0.70	0.64	0.64		0.18	0.28		0.18	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)	80	1939	867	441	2264	1013		228	532		310	
v/s Ratio Prot	0.00	0.25		c0.05	c0.56				0.01			
v/s Ratio Perm	0.03		0.04	0.28		0.02		c0.11	0.01		0.09	
v/c Ratio	0.05	0.45	0.07	0.47	0.87	0.03		0.60	0.06		0.50	
Uniform Delay, d1	16.6	14.1	11.0	7.1	15.2	6.9		38.9	27.4		38.1	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2	0.3	0.2	0.0	0.8	4.0	0.0		4.2	0.0		1.3	
Delay (s)	16.8	14.3	11.0	7.9	19.3	6.9		43.0	27.4		39.4	
Level of Service	B	B	B	A	B	A		D	C		D	
Approach Delay (s)		13.9			18.0			36.2			39.4	
Approach LOS		B			B			D			D	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	103.5	Sum of lost time (s)	18.0
Intersection Capacity Utilization	81.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1243	332	1153	1947	251	756
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	0.91	1.00	0.97	0.91	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	5085	1583	3433	5085	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	5085	1583	3433	5085	1770	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1381	369	1281	2163	279	840
RTOR Reduction (vph)	0	6	0	0	0	0
Lane Group Flow (vph)	1381	363	1281	2163	279	840
Turn Type		pm+ov	Prot			pt+ov
Protected Phases	4	5	3	8	5	5 3
Permitted Phases		4				
Actuated Green, G (s)	37.0	62.0	50.0	93.0	25.0	81.0
Effective Green, g (s)	37.0	62.0	50.0	93.0	25.0	81.0
Actuated g/C Ratio	0.28	0.48	0.38	0.72	0.19	0.62
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	1447	828	1320	3638	340	986
v/s Ratio Prot	c0.27	0.08	c0.37	0.43	0.16	c0.53
v/s Ratio Perm		0.15				
v/c Ratio	0.95	0.44	0.97	0.59	0.82	0.85
Uniform Delay, d1	45.7	22.5	39.3	9.2	50.3	19.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.2	0.4	18.1	0.3	14.6	7.2
Delay (s)	59.8	22.9	57.3	9.4	64.9	26.9
Level of Service	E	C	E	A	E	C
Approach Delay (s)	52.0			27.3	36.4	
Approach LOS	D			C	D	

Intersection Summary			
HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	729	1175	210	425	1773	1042	217	457	168	703	1007	1194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.14	1.00	1.00
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	3539	1583	516	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	810	1306	233	472	1970	1158	241	508	187	781	1119	1327
RTOR Reduction (vph)	0	0	140	0	0	216	0	0	157	0	0	197
Lane Group Flow (vph)	810	1306	93	472	1970	942	241	508	30	781	1119	1130
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	pm+pt		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8	4		4
Actuated Green, G (s)	19.0	51.1	51.1	22.4	54.5	54.5	14.1	21.0	21.0	54.0	32.9	32.9
Effective Green, g (s)	22.0	55.6	55.6	25.4	59.0	59.0	17.1	24.0	24.0	57.0	35.9	35.9
Actuated g/C Ratio	0.15	0.37	0.37	0.17	0.39	0.39	0.11	0.16	0.16	0.38	0.24	0.24
Clearance Time (s)	7.0	8.5	8.5	7.0	8.5	8.5	7.0	7.0	7.0	7.0	7.0	7.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	504	1885	587	581	2000	623	391	566	253	760	847	379
v/s Ratio Prot	c0.24	0.26		0.14	0.39		0.07	0.14		c0.20	0.32	
v/s Ratio Perm			0.06			c0.59			0.02	0.19		c0.71
v/c Ratio	1.61	0.69	0.16	0.81	0.98	1.51	0.62	0.90	0.12	1.03	1.32	2.98
Uniform Delay, d1	64.0	40.0	31.6	60.0	45.1	45.5	63.3	61.8	53.9	46.5	57.1	57.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	282.4	2.1	0.6	8.5	16.9	238.7	2.9	16.8	0.2	39.9	152.8	898.8
Delay (s)	346.4	42.1	32.1	68.5	61.9	284.2	66.2	78.6	54.2	86.4	209.8	955.8
Level of Service	F	D	C	E	E	F	E	E	D	F	F	F
Approach Delay (s)		146.0			134.3			70.5			486.7	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	243.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.87		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	127.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	120	460	254	610	1363	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	7.0		6.5	6.5	7.0
Lane Util. Factor	1.00	1.00		0.95	0.95	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.99	1.00	1.00
Satd. Flow (prot)	1770	1583		3488	3539	1583
Flt Permitted	0.95	1.00		0.52	1.00	1.00
Satd. Flow (perm)	1770	1583		1829	3539	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	133	511	282	678	1514	223
RTOR Reduction (vph)	0	20	0	0	0	0
Lane Group Flow (vph)	133	491	0	960	1514	223
Turn Type		Perm	Perm			pm+ov
Protected Phases	4			2	6	4
Permitted Phases		4	2			6
Actuated Green, G (s)	26.0	26.0		50.5	50.5	76.5
Effective Green, g (s)	26.0	26.0		50.5	50.5	76.5
Actuated g/C Ratio	0.29	0.29		0.56	0.56	0.85
Clearance Time (s)	7.0	7.0		6.5	6.5	7.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	511	457		1026	1986	1469
v/s Ratio Prot	0.08				0.43	0.04
v/s Ratio Perm		c0.31		c0.53		0.10
v/c Ratio	0.26	1.07		3.10dl	0.76	0.15
Uniform Delay, d1	24.6	32.0		18.2	15.1	1.2
Progression Factor	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	63.5		16.3	2.8	0.2
Delay (s)	25.8	95.5		34.6	18.0	1.4
Level of Service	C	F		C	B	A
Approach Delay (s)	81.1			34.6	15.8	
Approach LOS	F			C	B	

Intersection Summary			
HCM Average Control Delay	33.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	214	815	211	586	1690	54	314	214	436	240	256	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	4.0	4.0	4.0	4.0	7.0	3.0	7.0	4.0	6.0	6.0	6.0
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.88	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	3433	5085	1583	1770	1863	2787	3433	1863	1583
Flt Permitted	0.09	1.00	1.00	0.95	1.00	1.00	0.21	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	174	5085	1583	3433	5085	1583	396	1863	2787	3433	1863	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	238	906	234	651	1878	60	349	238	484	267	284	113
RTOR Reduction (vph)	0	0	163	0	0	30	0	0	374	0	0	93
Lane Group Flow (vph)	238	906	71	651	1878	30	349	238	110	267	284	20
Turn Type	pm+pt		Perm	Prot		Perm	pm+pt		Prot	Prot		Perm
Protected Phases	5	2		1	6		3	8	8	7	4	
Permitted Phases	2		2			6	8					4
Actuated Green, G (s)	60.8	42.7	42.7	32.7	58.3	58.3	53.0	31.0	31.0	16.6	26.6	26.6
Effective Green, g (s)	60.8	45.7	45.7	35.7	61.3	58.3	56.6	31.0	34.0	16.6	26.6	26.6
Actuated g/C Ratio	0.41	0.30	0.30	0.24	0.41	0.39	0.38	0.21	0.23	0.11	0.18	0.18
Clearance Time (s)	6.0	7.0	7.0	7.0	7.0	7.0	6.0	7.0	7.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	263	1549	482	817	2078	615	378	385	632	380	330	281
v/s Ratio Prot	0.11	0.18		c0.19	c0.37		c0.15	0.13	0.04	0.08	0.15	
v/s Ratio Perm	0.26		0.05			0.02	c0.19					0.01
v/c Ratio	0.90	0.58	0.15	0.80	0.90	0.05	0.92	0.62	0.17	0.70	0.86	0.07
Uniform Delay, d1	43.8	44.1	38.0	53.7	41.6	28.6	38.2	54.1	46.7	64.3	59.9	51.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	31.5	1.6	0.6	5.4	7.0	0.2	27.7	2.9	0.1	5.8	19.9	0.1
Delay (s)	75.4	45.7	38.6	59.2	48.6	28.7	65.9	57.1	46.8	70.1	79.8	51.5
Level of Service	E	D	D	E	D	C	E	E	D	E	E	D
Approach Delay (s)		49.7			50.8			55.3			71.1	
Approach LOS		D			D			E			E	

Intersection Summary			
HCM Average Control Delay	53.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	92.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	57	79	47	122	60	127	72	243	83	264	330	88
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	63	88	52	136	67	141	80	270	92	293	367	98
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	208			140			800	693	44	736	604	33
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	208			140			800	693	44	736	604	33
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			91			0	14	91	0	0	91
cM capacity (veh/h)	1361			1441			0	315	1017	71	355	1033

Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	63	44	44	52	136	33	33	141	215	227	477	281
Volume Left	63	0	0	0	136	0	0	0	80	0	293	0
Volume Right	0	0	0	52	0	0	0	141	0	92	0	98
cSH	1361	1700	1700	1700	1441	1700	1700	1700	0	438	102	460
Volume to Capacity	0.05	0.03	0.03	0.03	0.09	0.02	0.02	0.08	Err	0.52	4.68	0.61
Queue Length 95th (ft)	4	0	0	0	8	0	0	0	Err	73	Err	100
Control Delay (s)	7.8	0.0	0.0	0.0	7.8	0.0	0.0	0.0	Err	21.7	Err	24.4
Lane LOS	A				A				F	C	F	C
Approach Delay (s)	2.4				3.1				Err		6298.7	
Approach LOS									F		F	

Intersection Summary			
Average Delay	Err		
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	44	0	29	0	20	29	89	27	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	0	0	49	0	32	0	22	32	99	30	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	32			0			113	130	0	157	114	16
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	32			0			113	130	0	157	114	16
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			100	97	97	87	96	100
cM capacity (veh/h)	1578			1622			808	737	1084	735	752	1059

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	0	0	49	32	54	129
Volume Left	0	0	49	0	0	99
Volume Right	0	0	0	32	32	0
cSH	1700	1700	1622	1700	909	739
Volume to Capacity	0.00	0.00	0.03	0.02	0.06	0.17
Queue Length 95th (ft)	0	0	2	0	5	16
Control Delay (s)	0.0	0.0	7.3	0.0	9.2	10.9
Lane LOS			A		A	B
Approach Delay (s)	0.0		4.4		9.2	10.9
Approach LOS					A	B

Intersection Summary			
Average Delay	8.6		
Intersection Capacity Utilization	23.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	1575	2005	194	0	92
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	1750	2228	216	0	102
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)			811			
pX, platoon unblocked	0.80				0.80	0.80
vC, conflicting volume	2443				2811	743
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1914				2376	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	88
cM capacity (veh/h)	243				23	862

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	SB 1
Volume Total	583	583	583	743	743	743	216	102
Volume Left	0	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	216	102
cSH	1700	1700	1700	1700	1700	1700	1700	862
Volume to Capacity	0.34	0.34	0.34	0.44	0.44	0.44	0.13	0.12
Queue Length 95th (ft)	0	0	0	0	0	0	0	10
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
Lane LOS								A
Approach Delay (s)	0.0			0.0				9.7
Approach LOS								A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	51.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	860	4	20	1982	146	18	0	99	282	0	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00		1.00		0.95	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (prot)	1770	3539	1583	1770	5085	1583		1637		1681	1681	1583
Flt Permitted	0.07	1.00	1.00	0.24	1.00	1.00		0.99		0.95	0.95	1.00
Satd. Flow (perm)	127	3539	1583	456	5085	1583		1637		1681	1681	1583
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	51	956	4	22	2202	162	20	0	110	313	0	138
RTOR Reduction (vph)	0	0	2	0	0	66	0	102	0	0	0	113
Lane Group Flow (vph)	51	956	2	22	2202	96	0	28	0	156	157	25
Turn Type	pm+pt		Perm	pm+pt		Perm	Split			Split		pm+ov
Protected Phases	5	2		1	6		4	4		8	8	5
Permitted Phases	2		2	6		6						8
Actuated Green, G (s)	62.6	58.6	58.6	57.6	56.1	56.1		7.8		15.0	15.0	19.0
Effective Green, g (s)	62.6	58.6	58.6	57.6	56.1	56.1		7.8		15.0	15.0	19.0
Actuated g/C Ratio	0.59	0.55	0.55	0.54	0.52	0.52		0.07		0.14	0.14	0.18
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0		6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	136	1940	868	264	2669	831		119		236	236	370
v/s Ratio Prot	c0.01	0.27		0.00	c0.43			c0.02		0.09	c0.09	0.00
v/s Ratio Perm	0.21		0.00	0.04		0.06						0.01
v/c Ratio	0.38	0.49	0.00	0.08	0.83	0.12		0.24		0.66	0.67	0.07
Uniform Delay, d1	17.2	15.0	10.9	12.0	21.3	12.9		46.7		43.5	43.6	36.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.7	0.2	0.0	0.1	2.2	0.1		1.0		6.8	6.9	0.1
Delay (s)	19.0	15.1	10.9	12.2	23.5	12.9		47.8		50.3	50.5	36.6
Level of Service	B	B	B	B	C	B		D		D	D	D
Approach Delay (s)		15.3			22.7			47.8			46.2	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM Average Control Delay	24.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	106.9	Sum of lost time (s)	24.0
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	142	0	7	62	6	1	0	5	25	0	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	4	158	0	8	69	7	1	0	6	28	0	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	76			158			221	258	79	181	254	38
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	76			158			221	258	79	181	254	38
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	96	100	100
cM capacity (veh/h)	1522			1419			708	640	966	754	643	1026

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	83	79	42	41	7	32
Volume Left	4	0	8	0	1	28
Volume Right	0	0	0	7	6	4
cSH	1522	1700	1419	1700	910	783
Volume to Capacity	0.00	0.05	0.01	0.02	0.01	0.04
Queue Length 95th (ft)	0	0	0	0	1	3
Control Delay (s)	0.4	0.0	1.4	0.0	9.0	9.8
Lane LOS	A		A		A	A
Approach Delay (s)	0.2		0.7		9.0	9.8
Approach LOS					A	A

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	171	0	11	73	12	0	0	8	38	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	0	190	0	12	81	13	0	0	9	42	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	94			190			256	309	95	216	302	47
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	94			190			256	309	95	216	302	47
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			100	100	99	94	100	100
cM capacity (veh/h)	1497			1381			671	599	943	710	604	1012

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	95	95	53	54	9	43
Volume Left	0	0	12	0	0	42
Volume Right	0	0	0	13	9	1
cSH	1497	1700	1381	1700	943	715
Volume to Capacity	0.00	0.06	0.01	0.03	0.01	0.06
Queue Length 95th (ft)	0	0	1	0	1	5
Control Delay (s)	0.0	0.0	1.8	0.0	8.9	10.4
Lane LOS			A		A	B
Approach Delay (s)	0.0		0.9		8.9	10.4
Approach LOS					A	B

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	26.7%	ICU Level of Service	A
Analysis Period (min)	15		