Appendix BB
Traffic Counts

Appendix BB, Traffic Counts

Appendix BB-1: Existing Traffic Counts

Appendix BB-2: Year 2008 Existing Capacity Analysis

Appendix BB-3: Year 2010 No Project Capacity Analysis

Appendix BB-4: Year 2010 No Project Plus Project Construction Capacity Analysis

Appendix BB-5: Year 2017 No Project Capacity Analysis

Appendix BB-6: Year 2017 No Project Plus Project Operation Capacity Analysis

Appendix BB-1

Existing Traffic Counts

Intersection Turning Movement

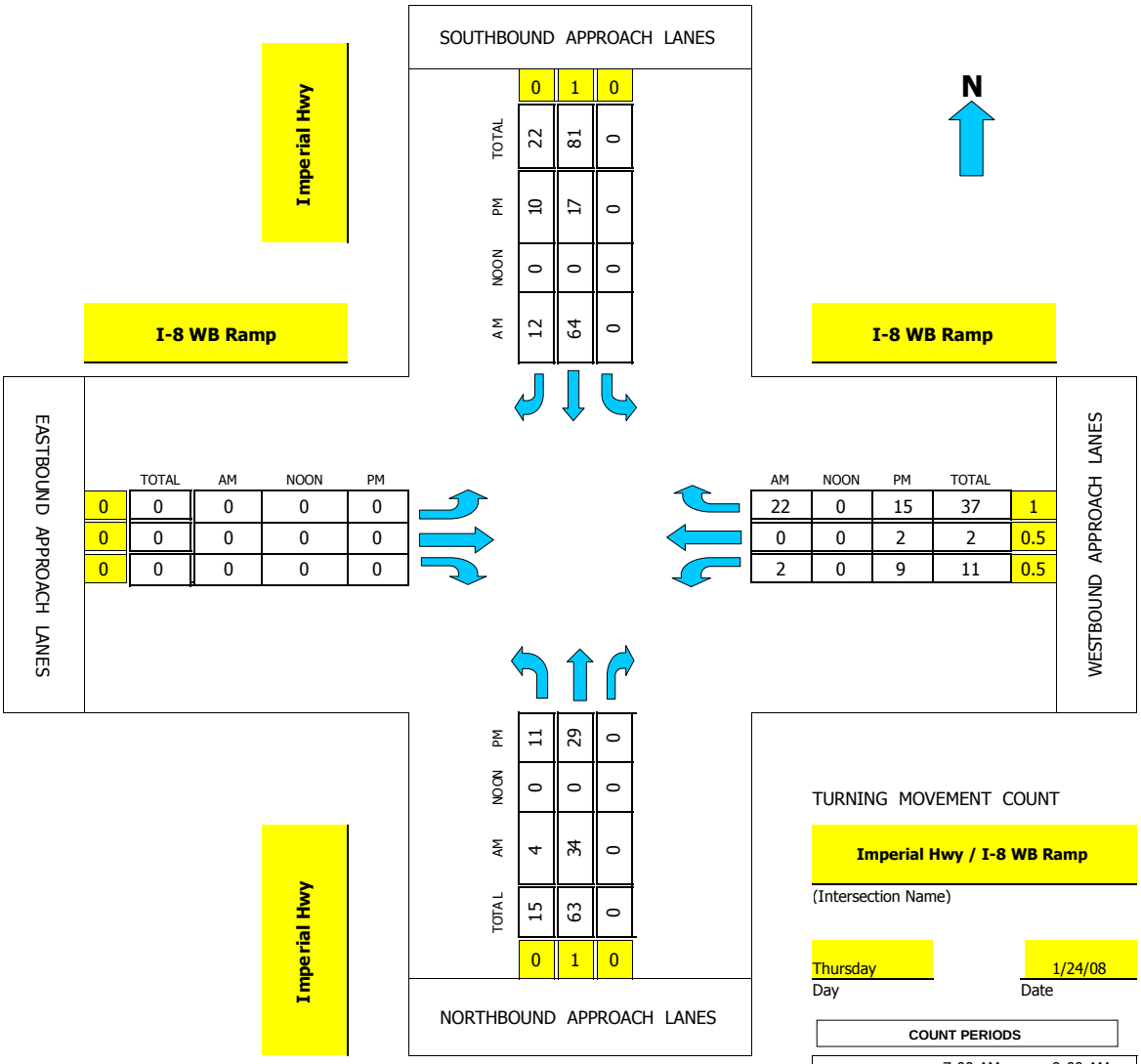
Prepared by:

NDS

National Data & Surveying Services

TMC Summary of Imperial Hwy/I-8 WB Ramp

Project #: 08-4026-001



	TOTAL	AM	NOON	PM
	0	1	0	
	22	81	0	
	10	17	0	
	0	0	0	
	12	64	0	

	TOTAL	AM	NOON	PM
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AM	NOON	PM	TOTAL	
22	0	15	37	1
0	0	2	2	0.5
2	0	9	11	0.5

	TOTAL	AM	NOON	PM
	15	4	0	11
	63	34	0	29
	0	0	0	0
	0	1	0	

TURNING MOVEMENT COUNT

Imperial Hwy / I-8 WB Ramp

(Intersection Name)

Thursday — Day

1/24/08 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: 1-Stop Sign (WB)

AM PEAK HOUR	730 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	430 PM

Intersection Turning Movement

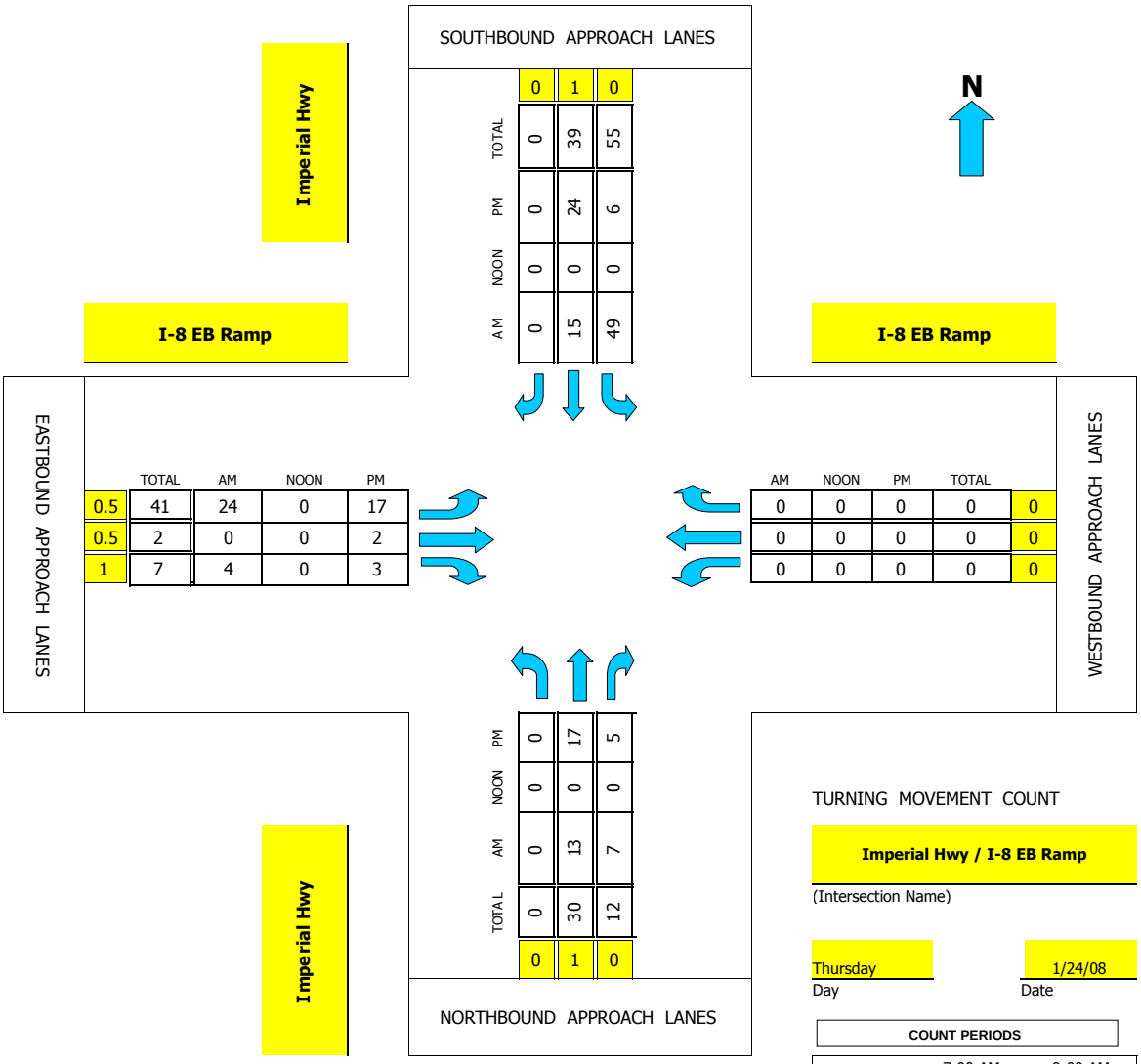
Prepared by:

NDS

National Data & Surveying Services

TMC Summary of Imperial Hwy/I-8 EB Ramp

Project #: 08-4026-002



	TOTAL	AM	NOON	PM
0	0	0	0	0
1	39	15	0	24
0	55	49	0	6

	TOTAL	AM	NOON	PM
0.5	41	24	0	17
0.5	2	0	0	2
1	7	4	0	3

AM	NOON	PM	TOTAL	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

	TOTAL	AM	NOON	PM
0	0	0	0	0
1	30	13	0	17
0	12	7	0	5

TURNING MOVEMENT COUNT

Imperial Hwy / I-8 EB Ramp

(Intersection Name)

Thursday — Day

1/24/08 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: 1-Stop Sign (EB)

AM PEAK HOUR	730 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	445 PM

Intersection Turning Movement

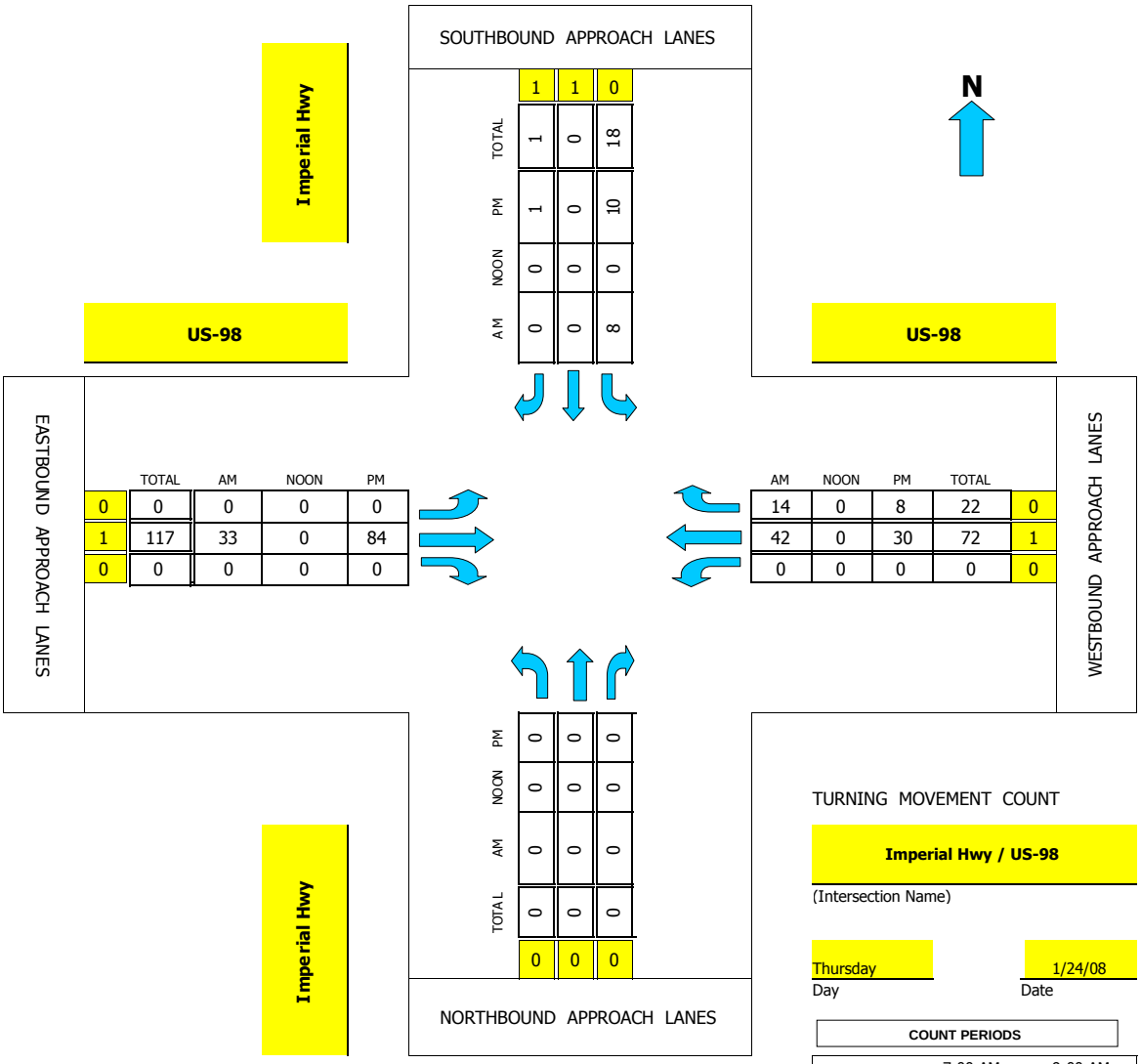
Prepared by:

NDS

National Data & Surveying Services

TMC Summary of Imperial Hwy/US-98

Project #: 08-4026-003



	TOTAL	AM	NOON	PM
1	1	0	0	1
1	1	0	0	1
0	18	8	0	10

	TOTAL	AM	NOON	PM
0	0	0	0	0
1	117	33	0	84
0	0	0	0	0

AM	NOON	PM	TOTAL	
14	0	8	22	0
42	0	30	72	1
0	0	0	0	0

	TOTAL	AM	NOON	PM
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

TURNING MOVEMENT COUNT

Imperial Hwy / US-98

(Intersection Name)

Thursday — Day

1/24/08 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: 1-Stop Sign (SB)

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	445 PM

Intersection Turning Movement

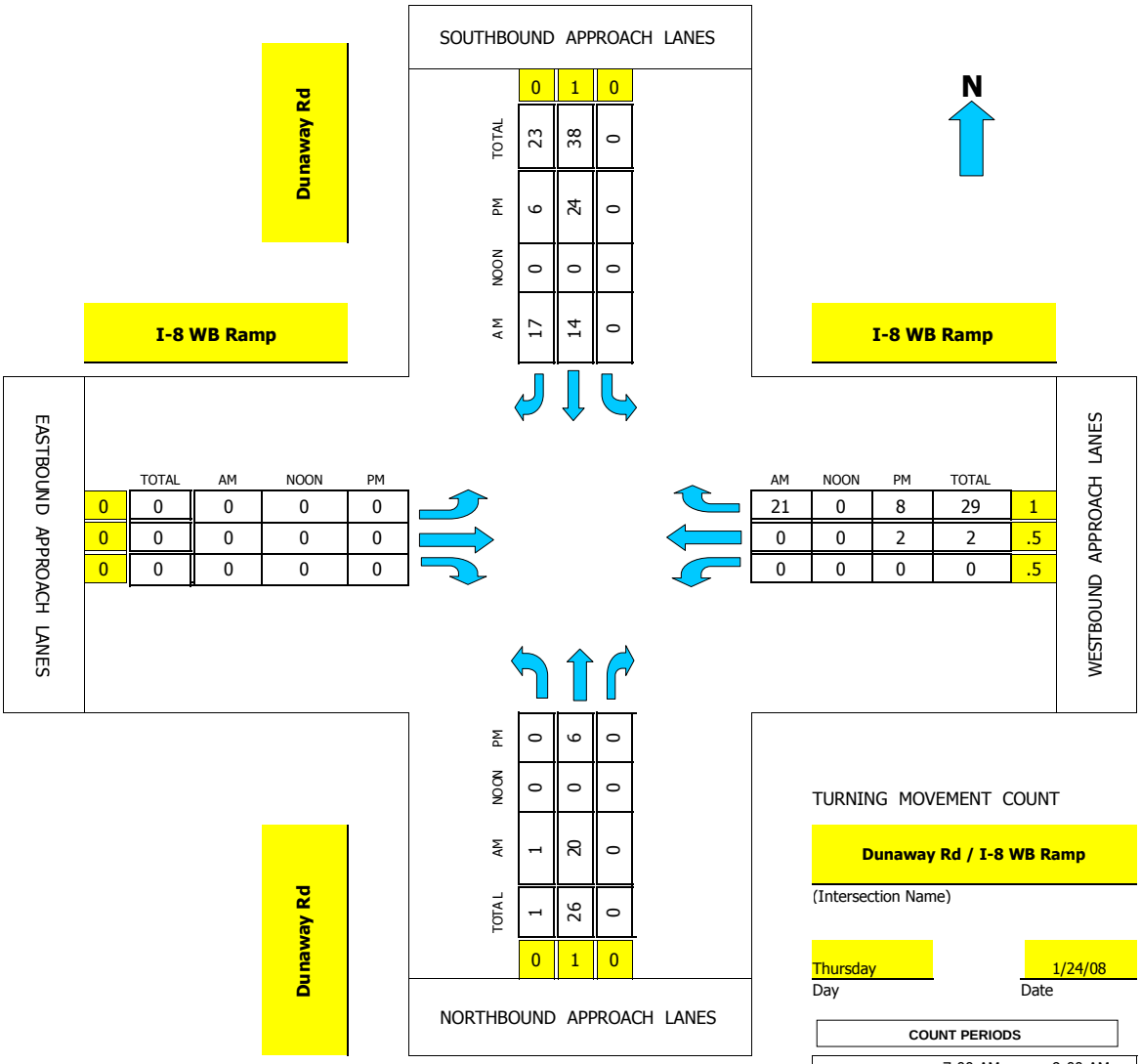
Prepared by:

NDS

National Data & Surveying Services

TMC Summary of Dunaway Rd/I-8 WB Ramp

Project #: 08-4026-004



	TOTAL	AM	NOON	PM
0	23	17	0	6
1	38	14	0	24
0	0	0	0	0

	TOTAL	AM	NOON	PM
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AM	NOON	PM	TOTAL	
21	0	8	29	1
0	0	2	2	.5
0	0	0	0	.5

	TOTAL	AM	NOON	PM
0	1	1	0	0
1	26	20	0	6
0	0	0	0	0

TURNING MOVEMENT COUNT

Dunaway Rd / I-8 WB Ramp

(Intersection Name)

Thursday — Day

1/24/08 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: 1-Stop Sign (WB)

AM PEAK HOUR	700 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	400 PM

Intersection Turning Movement

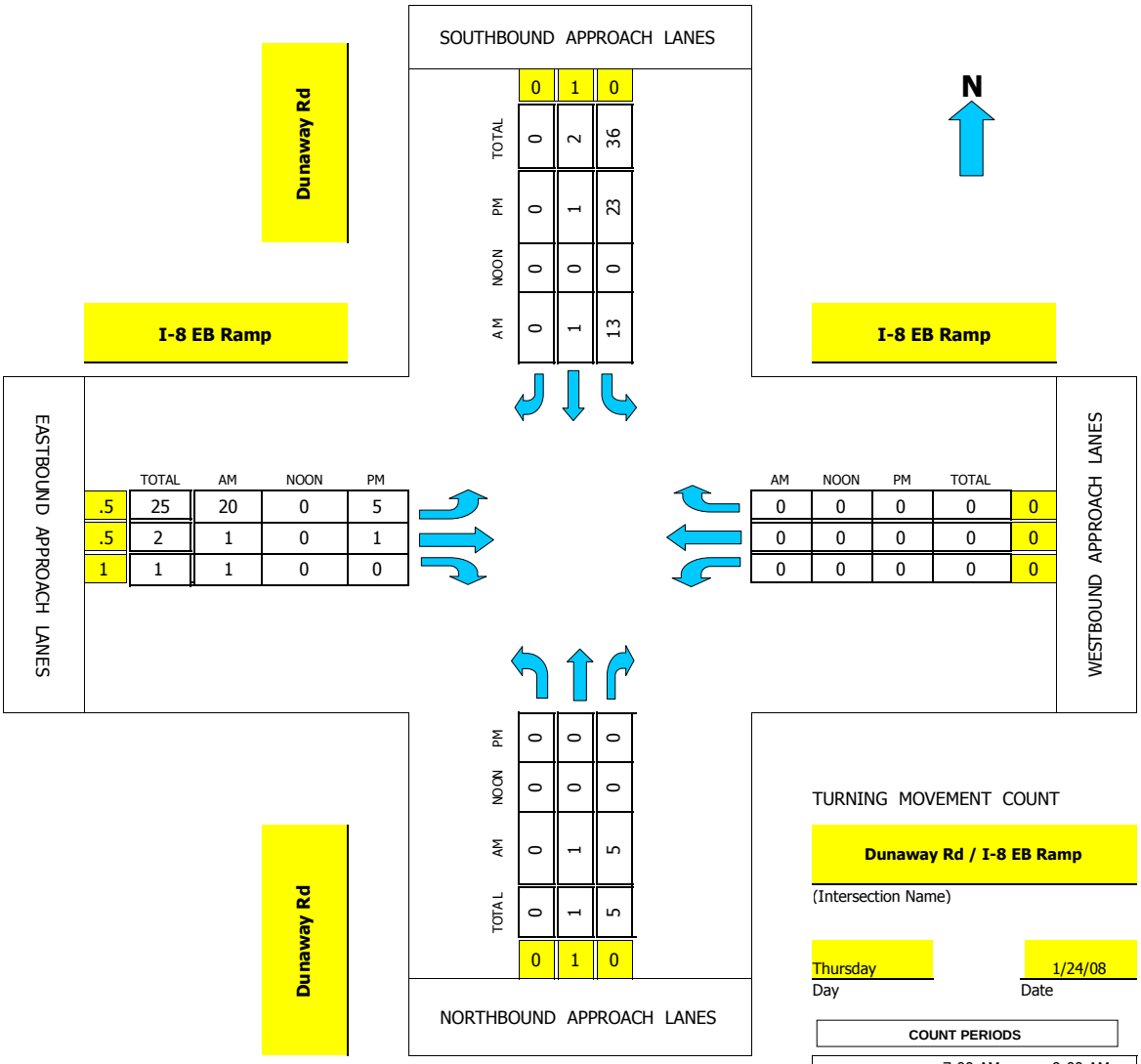
Prepared by:

NDS

National Data & Surveying Services

TMC Summary of Dunaway Rd/I-8 EB Ramp

Project #: 08-4026-005



	TOTAL	AM	NOON	PM
0	1	0		
0	2	36		
0	1	23		
0	0	0		
0	1	13		

	TOTAL	AM	NOON	PM
.5	25	20	0	5
.5	2	1	0	1
1	1	1	0	0

AM	NOON	PM	TOTAL	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

	TOTAL	AM	NOON	PM
0	0	0	0	0
0	1	1	0	0
0	5	5	0	0
0	0	0	0	0

TURNING MOVEMENT COUNT

Dunaway Rd / I-8 EB Ramp

(Intersection Name)

Thursday — Day

1/24/08 — Date

COUNT PERIODS			
am	7:00 AM	-	9:00 AM
noon		-	
pm	4:00 PM	-	6:00 PM

CONTROL: 1-Stop Sign (EB)

AM PEAK HOUR	715 AM
NOON PEAK HOUR	0 AM
PM PEAK HOUR	400 PM

Volumes for: Thursday, January 24, 2008 City: Thermal Project #: 08-4027-001

Location: US-98 W/o Imperial Hwy

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			4		0			12:00			11		7		
00:15			5		1			12:15			12		14		
00:30			3		0			12:30			7		6		
00:45			2	14	0	1	15	12:45			9	39	8	35	74
01:00			6		2			13:00			9		12		
01:15			2		0			13:15			14		9		
01:30			2		0			13:30			10		11		
01:45			5	15	0	2	17	13:45			7	40	9	41	81
02:00			0		2			14:00			16		8		
02:15			0		0			14:15			17		12		
02:30			3		1			14:30			12		7		
02:45			1	4	1	4	8	14:45			16	61	3	30	91
03:00			0		0			15:00			17		11		
03:15			3		4			15:15			9		12		
03:30			0		3			15:30			15		10		
03:45			0	3	6	13	16	15:45			26	67	13	46	113
04:00			2		8			16:00			16		12		
04:15			4		6			16:15			19		6		
04:30			0		6			16:30			12		11		
04:45			1	7	4	24	31	16:45			27	74	9	38	112
05:00			5		4			17:00			22		7		
05:15			5		9			17:15			20		5		
05:30			4		3			17:30			16		10		
05:45			6	20	8	24	44	17:45			20	78	8	30	108
06:00			3		7			18:00			11		7		
06:15			0		0			18:15			12		5		
06:30			4		8			18:30			18		5		
06:45			10	17	8	23	40	18:45			12	53	5	22	75
07:00			6		9			19:00			13		6		
07:15			6		9			19:15			23		6		
07:30			12		13			19:30			15		6		
07:45			8	32	13	44	76	19:45			11	62	7	25	87
08:00			8		10			20:00			10		6		
08:15			11		3			20:15			10		5		
08:30			9		9			20:30			8		3		
08:45			6	34	18	40	74	20:45			11	39	3	17	56
09:00			5		12			21:00			10		7		
09:15			10		18			21:15			12		4		
09:30			8		7			21:30			9		6		
09:45			8	31	10	47	78	21:45			9	40	3	20	60
10:00			8		12			22:00			7		0		
10:15			14		11			22:15			3		3		
10:30			10		16			22:30			14		3		
10:45			8	40	5	44	84	22:45			10	34	4	10	44
11:00			12		11			23:00			5		4		
11:15			9		10			23:15			4		2		
11:30			12		14			23:30			2		0		
11:45			12	45	12	47	92	23:45			5	16	2	8	24
Total Vol.				262		313	**575**					603		322	**925**

Daily Totals

NB	SB	EB	WB	**Combined**
		865	635	**1500**

	AM			**PM**		
Split %	45.6%	54.4%	**38.3%**	65.2%	34.8%	**61.7%**
Peak Hour	11:30	08:30	**11:30**	16:45	15:15	**15:30**
Volume	47	57	**94**	85	47	**117**
P.H.F.	0.98	0.79	**0.90**	0.79	0.90	**0.75**

Volumes for: Thursday, January 24, 2008 City: Thermal Project #: 08-4027-002

Location: Imperial Hwy N/o US-98

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	0		0					12:00	6		4				
00:15	0		0					12:15	7		1				
00:30	1		0					12:30	11		5				
00:45	0	1	0	0			1	12:45	3	27	3	13			40
01:00	0		0					13:00	7		9				
01:15	0		2					13:15	1		5				
01:30	0		0					13:30	7		6				
01:45	1	1	0	2			3	13:45	0	15	13	33			48
02:00	0		0					14:00	5		2				
02:15	0		0					14:15	0		3				
02:30	0		0					14:30	2		3				
02:45	0	0	0	0				14:45	4	11	0	8			19
03:00	0		0					15:00	4		6				
03:15	1		0					15:15	6		4				
03:30	0		0					15:30	2		0				
03:45	0	1	0	0			1	15:45	3	15	1	11			26
04:00	1		0					16:00	4		4				
04:15	0		0					16:15	1		0				
04:30	0		0					16:30	0		2				
04:45	0	1	0	0			1	16:45	3	8	2	8			16
05:00	1		0					17:00	1		1				
05:15	0		0					17:15	1		4				
05:30	0		0					17:30	2		4				
05:45	0	1	1	1			2	17:45	2	6	4	13			19
06:00	0		0					18:00	8		0				
06:15	2		0					18:15	0		1				
06:30	3		1					18:30	1		2				
06:45	2	7	3	4			11	18:45	0	9	0	3			12
07:00	3		3					19:00	1		1				
07:15	3		4					19:15	4		1				
07:30	5		0					19:30	0		0				
07:45	2	13	0	7			20	19:45	3	8	0	2			10
08:00	4		1					20:00	0		1				
08:15	0		2					20:15	2		1				
08:30	4		3					20:30	5		1				
08:45	3	11	1	7			18	20:45	2	9	1	4			13
09:00	5		0					21:00	1		1				
09:15	0		1					21:15	1		1				
09:30	1		3					21:30	1		0				
09:45	0	6	0	4			10	21:45	0	3	0	2			5
10:00	4		0					22:00	3		1				
10:15	0		5					22:15	0		0				
10:30	2		4					22:30	0		3				
10:45	2	8	1	10			18	22:45	0	3	0	4			7
11:00	2		0					23:00	0		1				
11:15	2		1					23:15	0		1				
11:30	2		3					23:30	0		0				
11:45	2	8	0	4			12	23:45	0	0	0	2			2
Total Vol.		58		39			**97**			114		103			**217**

Daily Totals

NB	SB	EB	WB	**Combined**
172	142			**314**

	AM			**PM**		
Split %	59.8%	40.2%	**30.9%**	52.5%	47.5%	**69.1%**
Peak Hour	11:45	06:30	**11:45**	12:15	13:00	**13:00**
Volume	26	11	**36**	28	33	**48**
P.H.F.	0.59	0.69	**0.56**	0.55	0.63	**0.75**

Volumes for: Thursday, January 24, 2008 City: Thermal Project #: 08-4027-003

Location: Evan Hewes Hwy E/o Imperial Hwy

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		2			12:00			17		11		
00:15			2		0			12:15			21		14		
00:30			0		0			12:30			14		20		
00:45			0	2	0	2	4	12:45			25	77	12	57	134
01:00			0		2			13:00			17		19		
01:15			1		0			13:15			12		12		
01:30			1		1			13:30			11		25		
01:45			0	2	0	3	5	13:45			15	55	19	75	130
02:00			0		0			14:00			5		13		
02:15			0		0			14:15			8		10		
02:30			0		0			14:30			8		3		
02:45			0	0	2	2	2	14:45			7	28	6	32	60
03:00			0		0			15:00			4		12		
03:15			1		0			15:15			5		10		
03:30			0		0			15:30			2		3		
03:45			0	1	0	0	1	15:45			2	13	4	29	42
04:00			0		0			16:00			1		7		
04:15			2		0			16:15			3		8		
04:30			0		0			16:30			1		1		
04:45			3	5	2	2	7	16:45			7	12	2	18	30
05:00			19		3			17:00			0		4		
05:15			6		0			17:15			2		8		
05:30			9		3			17:30			4		3		
05:45			21	55	15	21	76	17:45			0	6	1	16	22
06:00			20		15			18:00			2		0		
06:15			8		10			18:15			0		1		
06:30			27		13			18:30			4		2		
06:45			0	55	0	38	93	18:45			0	6	0	3	9
07:00			15		8			19:00			0		2		
07:15			5		7			19:15			0		0		
07:30			15		12			19:30			0		1		
07:45			9	44	20	47	91	19:45			0	0	0	3	3
08:00			29		19			20:00			5		2		
08:15			12		14			20:15			0		0		
08:30			16		15			20:30			1		3		
08:45			24	81	11	59	140	20:45			3	9	0	5	14
09:00			13		12			21:00			0		0		
09:15			16		21			21:15			0		0		
09:30			12		15			21:30			0		0		
09:45			5	46	16	64	110	21:45			0	0	1	1	1
10:00			19		4			22:00			0		0		
10:15			28		3			22:15			0		1		
10:30			23		8			22:30			0		0		
10:45			28	98	28	43	141	22:45			0	0	0	1	1
11:00			9		26			23:00			1		3		
11:15			13		26			23:15			0		1		
11:30			16		14			23:30			1		0		
11:45			14	52	9	75	127	23:45			0	2	0	4	6
Total Vol.				441		356	**797**					208		244	**452**

Daily Totals

NB	SB	EB	WB	**Combined**
		649	600	**1249**

	AM			**PM**		
Split %	55.3%	44.7%	**63.8%**	46.0%	54.0%	**36.2%**
Peak Hour	10:00	10:45	**10:30**	12:00	13:00	**12:15**
Volume	98	94	**161**	77	75	**142**
P.H.F.	0.88	0.84	**0.72**	0.77	0.75	**0.96**

Volumes for: Thursday, January 24, 2008 City: Thermal Project #: 08-4027-004

Location: Dunaway Rd N/o I-8 WB Ramp

AM Period	NB		SB		EB		WB			PM Period	NB		SB		EB		WB		
00:00	0		6							12:00	9		1						
00:15	1		0							12:15	5		3						
00:30	2		1							12:30	10		0						
00:45	0	3	0	7					10	12:45	4	28	3	7					35
01:00	2		1							13:00	7		6						
01:15	0		0							13:15	7		1						
01:30	2		0							13:30	5		2						
01:45	0	4	3	4					8	13:45	16	35	4	13					48
02:00	0		2							14:00	4		10						
02:15	0		0							14:15	1		6						
02:30	0		4							14:30	3		3						
02:45	0	0	2	8					8	14:45	2	10	2	21					31
03:00	0		2							15:00	1		17						
03:15	1		1							15:15	16		11						
03:30	2		1							15:30	8		5						
03:45	5	8	1	5					13	15:45	6	31	7	40					71
04:00	3		0							16:00	2		11						
04:15	0		2							16:15	6		6						
04:30	3		4							16:30	0		7						
04:45	1	7	1	7					14	16:45	6	14	7	31					45
05:00	4		1							17:00	5		3						
05:15	6		1							17:15	7		5						
05:30	16		1							17:30	5		5						
05:45	15	41	1	4					45	17:45	1	18	5	18					36
06:00	9		6							18:00	0		3						
06:15	23		2							18:15	3		3						
06:30	16		4							18:30	0		0						
06:45	10	58	6	18					76	18:45	0	3	2	8					11
07:00	8		8							19:00	5		0						
07:15	11		12							19:15	7		0						
07:30	10		3							19:30	0		0						
07:45	11	40	8	31					71	19:45	4	16	4	4					20
08:00	7		4							20:00	1		4						
08:15	9		3							20:15	3		0						
08:30	7		4							20:30	2		0						
08:45	3	26	5	16					42	20:45	2	8	1	5					13
09:00	5		3							21:00	3		0						
09:15	2		3							21:15	5		1						
09:30	15		3							21:30	2		0						
09:45	7	29	6	15					44	21:45	4	14	3	4					18
10:00	7		9							22:00	3		10						
10:15	2		0							22:15	4		0						
10:30	2		1							22:30	1		1						
10:45	6	17	6	16					33	22:45	2	10	3	14					24
11:00	13		6							23:00	0		3						
11:15	2		4							23:15	5		1						
11:30	5		10							23:30	11		0						
11:45	1	21	3	23					44	23:45	0	16	0	4					20
Total Vol.		254		154					**408**			203		169					**372**

Daily Totals

NB	SB	EB	WB	**Combined**
457	323			**780**

	AM			**PM**		
Split %	62.3%	37.7%	**52.3%**	54.6%	45.4%	**47.7%**
Peak Hour	05:30	07:00	**06:15**	13:00	15:00	**15:00**
Volume	63	31	**77**	35	40	**71**
P.H.F.	0.68	0.65	**0.77**	0.86	0.59	**0.66**

Volumes for: Thursday, January 24, 2008 City: Thermal Project #: 08-4027-005

Location: Evan Hewes Hwy W/o Dunaway Rd

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			6		0			12:00			7		7		
00:15			0		0			12:15			4		6		
00:30			7		0			12:30			5		0		
00:45			1	14	1	1	15	12:45			2	18	6	19	37
01:00			4		5			13:00			10		4		
01:15			0		5			13:15			13		4		
01:30			0		2			13:30			4		6		
01:45			4	8	2	14	22	13:45			8	35	12	26	61
02:00			3		0			14:00			11		7		
02:15			2		0			14:15			11		8		
02:30			5		0			14:30			7		10		
02:45			1	11	1	1	12	14:45			2	31	3	28	59
03:00			2		0			15:00			40		3		
03:15			2		1			15:15			27		20		
03:30			2		2			15:30			11		10		
03:45			6	12	0	3	15	15:45			5	83	4	37	120
04:00			1		5			16:00			23		6		
04:15			4		2			16:15			8		6		
04:30			5		3			16:30			17		1		
04:45			1	11	5	15	26	16:45			12	60	3	16	76
05:00			0		4			17:00			7		1		
05:15			2		8			17:15			4		3		
05:30			0		17			17:30			5		7		
05:45			2	4	13	42	46	17:45			4	20	3	14	34
06:00			9		12			18:00			4		1		
06:15			4		29			18:15			7		2		
06:30			7		31			18:30			2		2		
06:45			5	25	13	85	110	18:45			6	19	1	6	25
07:00			17		5			19:00			5		2		
07:15			13		19			19:15			2		6		
07:30			2		21			19:30			0		0		
07:45			4	36	8	53	89	19:45			4	11	5	13	24
08:00			3		5			20:00			1		1		
08:15			12		11			20:15			1		2		
08:30			9		6			20:30			3		0		
08:45			10	34	8	30	64	20:45			1	6	1	4	10
09:00			6		12			21:00			1		1		
09:15			7		4			21:15			4		0		
09:30			5		4			21:30			1		3		
09:45			5	23	5	25	48	21:45			0	6	1	5	11
10:00			5		5			22:00			5		5		
10:15			7		1			22:15			1		8		
10:30			3		4			22:30			1		4		
10:45			9	24	3	13	37	22:45			3	10	2	19	29
11:00			5		14			23:00			4		1		
11:15			3		3			23:15			3		7		
11:30			11		6			23:30			6		6		
11:45			5	24	5	28	52	23:45			0	13	0	14	27
Total Vol.				226		310	**536**					312		201	**513**

Daily Totals

NB	SB	EB	WB	**Combined**
		538	511	**1049**

	AM			**PM**		
Split %	42.2%	57.8%	**51.1%**	60.8%	39.2%	**48.9%**
Peak Hour	06:30	05:45	**06:15**	15:00	15:15	**15:00**
Volume	42	85	**111**	83	40	**120**
P.H.F.	0.62	0.69	**0.73**	0.52	0.50	**0.64**

Appendix BB-2

Year 2008 Existing Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	2	0	22	4	34	0	0	64	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	2	0	24	4	37	0	0	70	13
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	146	122	76	122	128	37	83			37		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	146	122	76	122	128	37	83			37		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	98	100			100		
cM capacity (veh/h)	802	766	985	851	760	1035	1515			1574		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	2	24	41	83
Volume Left	2	0	4	0
Volume Right	0	24	0	13
cSH	851	1035	1515	1700
Volume to Capacity	0.00	0.02	0.00	0.05
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	9.2	8.6	0.8	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.6		0.8	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	15.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	24	0	4	0	0	0	0	13	7	49	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	0	4	0	0	0	0	14	8	53	16	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	141	145	16	145	141	18	16			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	141	145	16	145	141	18	16			22		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	97	100	100	100	100	100	100			97		
cM capacity (veh/h)	808	722	1063	799	725	1061	1601			1594		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	26	4	22	70
Volume Left	26	0	0	53
Volume Right	0	4	8	0
cSH	808	1063	1700	1594
Volume to Capacity	0.03	0.00	0.01	0.03
Queue Length 95th (ft)	2	0	0	3
Control Delay (s)	9.6	8.4	0.0	5.7
Lane LOS	A	A		A
Approach Delay (s)	9.4		0.0	5.7
Approach LOS	A			

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	33	42	14	8	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	36	46	15	9	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	61				89	53
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	61				89	53
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1542				911	1014

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	36	61	9	0
Volume Left	0	0	9	0
Volume Right	0	15	0	0
cSH	1542	1700	911	1700
Volume to Capacity	0.00	0.04	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.0	0.0	9.0	0.0
Lane LOS			A	A
Approach Delay (s)	0.0	0.0	9.0	
Approach LOS			A	

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	21	1	20	0	0	14	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	23	1	22	0	0	15	18
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	71	48	24	48	58	22	34			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	71	48	24	48	58	22	34			22		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	98	100			100		
cM capacity (veh/h)	900	843	1052	952	833	1055	1578			1594		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	0	23	23	34
Volume Left	0	0	1	0
Volume Right	0	23	0	18
cSH	1700	1055	1578	1700
Volume to Capacity	0.00	0.02	0.00	0.02
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	0.0	8.5	0.4	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.5		0.4	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	1	1	0	0	0	0	1	5	13	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	1	1	0	0	0	0	1	5	14	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	33	36	1	35	33	4	1			7		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	33	36	1	35	33	4	1			7		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	98	100	100	100	100	100	100			99		
cM capacity (veh/h)	967	849	1083	963	852	1080	1622			1614		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	23	1	7	15
Volume Left	22	0	0	14
Volume Right	0	1	5	0
cSH	961	1083	1700	1614
Volume to Capacity	0.02	0.00	0.00	0.01
Queue Length 95th (ft)	2	0	0	1
Control Delay (s)	8.8	8.3	0.0	6.7
Lane LOS	A	A		A
Approach Delay (s)	8.8		0.0	6.7
Approach LOS	A			

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	9	2	15	11	29	0	0	17	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	10	2	16	12	32	0	0	18	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)												
pX, platoon unblocked												
vC, conflicting volume	97	79	24	79	85	32	29			32		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	97	79	24	79	85	32	29			32		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	99	100	98	99			100		
cM capacity (veh/h)	865	805	1053	904	799	1042	1584			1581		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	12	16	43	29
Volume Left	10	0	12	0
Volume Right	0	16	0	11
cSH	883	1042	1584	1700
Volume to Capacity	0.01	0.02	0.01	0.02
Queue Length 95th (ft)	1	1	1	0
Control Delay (s)	9.1	8.5	2.0	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.8		2.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	18.8%	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			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	17	2	3	0	0	0	0	17	5	6	24	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	2	3	0	0	0	0	18	5	7	26	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	60	63	26	65	60	21	26			24		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	60	63	26	65	60	21	26			24		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	98	100	100	100	100	100	100			100		
cM capacity (veh/h)	932	824	1050	922	827	1056	1588			1591		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	21	3	24	33
Volume Left	18	0	0	7
Volume Right	0	3	5	0
cSH	920	1050	1700	1591
Volume to Capacity	0.02	0.00	0.01	0.00
Queue Length 95th (ft)	2	0	0	0
Control Delay (s)	9.0	8.4	0.0	1.5
Lane LOS	A	A		A
Approach Delay (s)	8.9		0.0	1.5
Approach LOS	A			

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	16.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	84	30	8	10	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	91	33	9	11	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	41				128	37
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	41				128	37
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1568				866	1035

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	91	41	11	1
Volume Left	0	0	11	0
Volume Right	0	9	0	1
cSH	1568	1700	866	1035
Volume to Capacity	0.00	0.02	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.0	0.0	9.2	8.5
Lane LOS			A	A
Approach Delay (s)	0.0	0.0	9.1	
Approach LOS			A	

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	14.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	2	8	0	6	0	0	24	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	2	9	0	7	0	0	26	7
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	46	36	29	36	39	7	33			7		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	46	36	29	36	39	7	33			7		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	99	100			100		
cM capacity (veh/h)	946	857	1045	970	853	1076	1579			1614		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	2	9	7	33
Volume Left	0	0	0	0
Volume Right	0	9	0	7
cSH	853	1076	1579	1700
Volume to Capacity	0.00	0.01	0.00	0.02
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	9.2	8.4	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	8.5		0.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	1	0	0	0	0	0	0	0	23	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	1	0	0	0	0	0	0	0	25	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	51	51	1	52	51	0	1			0		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	51	51	1	52	51	0	1			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	99	100	100	100	100	100	100			98		
cM capacity (veh/h)	937	827	1083	935	827	1085	1622			1623		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	7	0	0	26
Volume Left	5	0	0	25
Volume Right	0	0	0	0
cSH	917	1700	1700	1623
Volume to Capacity	0.01	0.00	0.00	0.02
Queue Length 95th (ft)	1	0	0	1
Control Delay (s)	9.0	0.0	0.0	7.0
Lane LOS	A	A		A
Approach Delay (s)	9.0		0.0	7.0
Approach LOS	A			

Intersection Summary			
Average Delay	7.4		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix BB-3

Year 2010 No Project Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	2	0	22	4	35	0	0	66	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	2	0	24	4	38	0	0	72	13
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	149	125	78	125	132	38	85			38		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	149	125	78	125	132	38	85			38		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	98	100			100		
cM capacity (veh/h)	798	763	982	847	757	1034	1512			1572		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	2	24	42	85
Volume Left	2	0	4	0
Volume Right	0	24	0	13
cSH	847	1034	1512	1700
Volume to Capacity	0.00	0.02	0.00	0.05
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	9.3	8.6	0.8	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.6		0.8	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	24	0	4	0	0	0	0	13	7	50	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	0	4	0	0	0	0	14	8	54	16	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	143	147	16	147	143	18	16			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	143	147	16	147	143	18	16			22		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	97	100	100	100	100	100	100			97		
cM capacity (veh/h)	805	719	1063	796	723	1061	1601			1594		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	26	4	22	71
Volume Left	26	0	0	54
Volume Right	0	4	8	0
cSH	805	1063	1700	1594
Volume to Capacity	0.03	0.00	0.01	0.03
Queue Length 95th (ft)	3	0	0	3
Control Delay (s)	9.6	8.4	0.0	5.7
Lane LOS	A	A		A
Approach Delay (s)	9.4		0.0	5.7
Approach LOS	A			

Intersection Summary			
Average Delay	5.6		
Intersection Capacity Utilization	20.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	34	43	14	8	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	37	47	15	9	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	62				93	54
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	62				93	54
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1541				906	1013

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	38	62	9	1
Volume Left	1	0	9	0
Volume Right	0	15	0	1
cSH	1541	1700	906	1013
Volume to Capacity	0.00	0.04	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.2	0.0	9.0	8.6
Lane LOS	A		A	A
Approach Delay (s)	0.2	0.0	9.0	
Approach LOS			A	

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	0	21	1	20	0	0	14	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	23	1	22	0	0	15	18
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	71	48	24	48	58	22	34			22		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	71	48	24	48	58	22	34			22		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	98	100			100		
cM capacity (veh/h)	900	843	1052	952	833	1055	1578			1594		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	1	23	23	34
Volume Left	1	0	1	0
Volume Right	0	23	0	18
cSH	952	1055	1578	1700
Volume to Capacity	0.00	0.02	0.00	0.02
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	8.8	8.5	0.4	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.5		0.4	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	1	1	0	0	0	0	1	5	13	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	1	1	0	0	0	0	1	5	14	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	33	36	1	35	33	4	1			7		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	33	36	1	35	33	4	1			7		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	98	100	100	100	100	100	100			99		
cM capacity (veh/h)	967	849	1083	963	852	1080	1622			1614		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	23	1	7	15
Volume Left	22	0	0	14
Volume Right	0	1	5	0
cSH	961	1083	1700	1614
Volume to Capacity	0.02	0.00	0.00	0.01
Queue Length 95th (ft)	2	0	0	1
Control Delay (s)	8.8	8.3	0.0	6.7
Lane LOS	A	A		A
Approach Delay (s)	8.8		0.0	6.7
Approach LOS	A			

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	17.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	9	2	15	11	30	0	0	17	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	10	2	16	12	33	0	0	18	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)												
pX, platoon unblocked												
vC, conflicting volume	98	80	24	80	86	33	29			33		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	98	80	24	80	86	33	29			33		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	99	100	98	99			100		
cM capacity (veh/h)	864	804	1053	902	798	1041	1584			1579		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	12	16	45	29
Volume Left	10	0	12	0
Volume Right	0	16	0	11
cSH	881	1041	1584	1700
Volume to Capacity	0.01	0.02	0.01	0.02
Queue Length 95th (ft)	1	1	1	0
Control Delay (s)	9.1	8.5	2.0	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.8		2.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	18.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	17	2	3	0	0	0	0	17	5	6	24	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	2	3	0	0	0	0	18	5	7	26	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	60	63	26	65	60	21	26			24		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	60	63	26	65	60	21	26			24		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	98	100	100	100	100	100	100			100		
cM capacity (veh/h)	932	824	1050	922	827	1056	1588			1591		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	21	3	24	33
Volume Left	18	0	0	7
Volume Right	0	3	5	0
cSH	920	1050	1700	1591
Volume to Capacity	0.02	0.00	0.01	0.00
Queue Length 95th (ft)	2	0	0	0
Control Delay (s)	9.0	8.4	0.0	1.5
Lane LOS	A	A		A
Approach Delay (s)	8.9		0.0	1.5
Approach LOS	A			

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	16.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	87	31	8	10	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	95	34	9	11	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	42				135	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	42				135	38
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1567				858	1034

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	96	42	11	1
Volume Left	1	0	11	0
Volume Right	0	9	0	1
cSH	1567	1700	858	1034
Volume to Capacity	0.00	0.02	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.1	0.0	9.2	8.5
Lane LOS	A		A	A
Approach Delay (s)	0.1	0.0	9.2	
Approach LOS			A	

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	15.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	2	8	1	6	0	0	24	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	2	9	1	7	0	0	26	7
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	48	38	29	38	41	7	33			7		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	48	38	29	38	41	7	33			7		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	99	100			100		
cM capacity (veh/h)	943	854	1045	966	850	1076	1579			1614		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	3	9	8	33
Volume Left	1	0	1	0
Volume Right	0	9	0	7
cSH	886	1076	1579	1700
Volume to Capacity	0.00	0.01	0.00	0.02
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	9.1	8.4	1.0	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.6		1.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	1	1	0	0	0	0	1	1	23	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	1	1	0	0	0	0	1	1	25	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	53	53	1	54	53	2	1			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	53	53	1	54	53	2	1			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	99	100	100	100	100	100	100			98		
cM capacity (veh/h)	935	825	1083	931	826	1083	1622			1620		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	7	1	2	26
Volume Left	5	0	0	25
Volume Right	0	1	1	0
cSH	915	1083	1700	1620
Volume to Capacity	0.01	0.00	0.00	0.02
Queue Length 95th (ft)	1	0	0	1
Control Delay (s)	9.0	8.3	0.0	7.0
Lane LOS	A	A		A
Approach Delay (s)	8.9		0.0	7.0
Approach LOS	A			

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	18.0%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix BB-4

Year 2010 No Project Plus Project Construction Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	2	0	22	4	35	0	0	73	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	2	0	24	4	38	0	0	79	13
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	157	133	86	133	139	38	92			38		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	157	133	86	133	139	38	92			38		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	98	100			100		
cM capacity (veh/h)	789	756	973	837	750	1034	1502			1572		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	2	24	42	92
Volume Left	2	0	4	0
Volume Right	0	24	0	13
cSH	837	1034	1502	1700
Volume to Capacity	0.00	0.02	0.00	0.05
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	9.3	8.6	0.8	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.6		0.8	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	15.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	24	0	4	0	0	0	0	13	22	57	15	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	0	4	0	0	0	0	14	24	62	16	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	166	178	16	171	166	26	16			38		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	166	178	16	171	166	26	16			38		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	97	100	100	100	100	100	100			96		
cM capacity (veh/h)	774	687	1063	766	698	1050	1601			1572		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	26	4	38	78
Volume Left	26	0	0	62
Volume Right	0	4	24	0
cSH	774	1063	1700	1572
Volume to Capacity	0.03	0.00	0.02	0.04
Queue Length 95th (ft)	3	0	0	3
Control Delay (s)	9.8	8.4	0.0	5.9
Lane LOS	A	A		A
Approach Delay (s)	9.6		0.0	5.9
Approach LOS	A			

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	20.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	9	34	43	22	8	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	37	47	24	9	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	71				115	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	71				115	59
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				99	100
cM capacity (veh/h)	1530				875	1007

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	47	71	9	1
Volume Left	10	0	9	0
Volume Right	0	24	0	1
cSH	1530	1700	875	1007
Volume to Capacity	0.01	0.04	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	1.6	0.0	9.2	8.6
Lane LOS	A		A	A
Approach Delay (s)	1.6	0.0	9.1	
Approach LOS			A	

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	0	554	1	228	0	0	14	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	602	1	248	0	0	15	18
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	877	274	24	274	284	248	34			248		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	877	274	24	274	284	248	34			248		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	24	100			100		
cM capacity (veh/h)	64	632	1052	678	625	791	1578			1318		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	1	602	249	34
Volume Left	1	0	1	0
Volume Right	0	602	0	18
cSH	678	791	1578	1700
Volume to Capacity	0.00	0.76	0.00	0.02
Queue Length 95th (ft)	0	183	0	0
Control Delay (s)	10.3	22.5	0.0	0.0
Lane LOS	B	C	A	
Approach Delay (s)	22.5		0.0	0.0
Approach LOS	C			

Intersection Summary			
Average Delay	15.3		
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	228	1	1	0	0	0	0	1	5	13	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	248	1	1	0	0	0	0	1	5	14	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	33	36	1	35	33	4	1			7		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	33	36	1	35	33	4	1			7		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	74	100	100	100	100	100	100			99		
cM capacity (veh/h)	967	849	1083	963	852	1080	1622			1614		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	249	1	7	15
Volume Left	248	0	0	14
Volume Right	0	1	5	0
cSH	967	1083	1700	1614
Volume to Capacity	0.26	0.00	0.00	0.01
Queue Length 95th (ft)	26	0	0	1
Control Delay (s)	10.0	8.3	0.0	6.7
Lane LOS	B	A		A
Approach Delay (s)	10.0		0.0	6.7
Approach LOS	B			

Intersection Summary			
Average Delay	9.6		
Intersection Capacity Utilization	26.8%	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			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	9	2	15	11	30	0	0	32	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	10	2	16	12	33	0	0	35	212
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	215	197	141	197	303	33	247			33		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	215	197	141	197	303	33	247			33		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	99	100	98	99			100		
cM capacity (veh/h)	723	692	907	756	604	1041	1319			1579		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	12	16	45	247
Volume Left	10	0	12	0
Volume Right	0	16	0	212
cSH	723	1041	1319	1700
Volume to Capacity	0.02	0.02	0.01	0.15
Queue Length 95th (ft)	1	1	1	0
Control Delay (s)	10.1	8.5	2.1	0.0
Lane LOS	B	A	A	
Approach Delay (s)	9.2		2.1	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	23.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	17	2	3	0	0	0	0	17	5	6	39	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	2	3	0	0	0	0	18	5	7	42	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	77	79	42	81	77	21	42			24		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	77	79	42	81	77	21	42			24		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	98	100	100	100	100	100	100			100		
cM capacity (veh/h)	910	808	1028	899	810	1056	1567			1591		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	21	3	24	49
Volume Left	18	0	0	7
Volume Right	0	3	5	0
cSH	898	1028	1700	1591
Volume to Capacity	0.02	0.00	0.01	0.00
Queue Length 95th (ft)	2	0	0	0
Control Delay (s)	9.1	8.5	0.0	1.0
Lane LOS	A	A		A
Approach Delay (s)	9.0		0.0	1.0
Approach LOS	A			

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	17.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	87	31	8	18	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	95	34	9	20	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	42				135	38
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	42				135	38
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	99
cM capacity (veh/h)	1567				858	1034

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	96	42	20	10
Volume Left	1	0	20	0
Volume Right	0	9	0	10
cSH	1567	1700	858	1034
Volume to Capacity	0.00	0.02	0.02	0.01
Queue Length 95th (ft)	0	0	2	1
Control Delay (s)	0.1	0.0	9.3	8.5
Lane LOS	A		A	A
Approach Delay (s)	0.1	0.0	9.0	
Approach LOS			A	

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	15.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	2	8	1	6	0	0	557	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	2	9	1	7	0	0	605	7
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	627	617	609	617	621	7	612			7		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	627	617	609	617	621	7	612			7		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	99	99	100			100		
cM capacity (veh/h)	391	405	495	402	403	1076	967			1614		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	3	9	8	612
Volume Left	1	0	1	0
Volume Right	0	9	0	7
cSH	403	1076	967	1700
Volume to Capacity	0.01	0.01	0.00	0.36
Queue Length 95th (ft)	1	1	0	0
Control Delay (s)	14.0	8.4	1.3	0.0
Lane LOS	B	A	A	
Approach Delay (s)	9.9		1.3	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	1	1	0	0	0	0	1	1	556	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	1	1	0	0	0	0	1	1	604	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	1211	1212	1	1213	1211	2	1			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1211	1212	1	1213	1211	2	1			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	95	99	100	100	100	100	100			63		
cM capacity (veh/h)	113	114	1083	112	114	1083	1622			1620		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	7	1	2	605
Volume Left	5	0	0	604
Volume Right	0	1	1	0
cSH	113	1083	1700	1620
Volume to Capacity	0.06	0.00	0.00	0.37
Queue Length 95th (ft)	5	0	0	44
Control Delay (s)	38.8	8.3	0.0	8.5
Lane LOS	E	A		A
Approach Delay (s)	34.4		0.0	8.5
Approach LOS	D			

Intersection Summary			
Average Delay	8.8		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix BB-5

Year 2017 No Project Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	2	0	26	4	40	0	0	76	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	2	0	28	4	43	0	0	83	15
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	171	142	90	142	150	43	98			43		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	171	142	90	142	150	43	98			43		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	97	100			100		
cM capacity (veh/h)	769	747	968	825	739	1027	1495			1565		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	2	28	48	98
Volume Left	2	0	4	0
Volume Right	0	28	0	15
cSH	825	1027	1495	1700
Volume to Capacity	0.00	0.03	0.00	0.06
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	9.4	8.6	0.7	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.7		0.7	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	15.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	28	0	4	0	0	0	0	15	8	58	18	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	0	4	0	0	0	0	16	9	63	20	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	166	171	20	171	166	21	20			25		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	166	171	20	171	166	21	20			25		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	96	100	100	100	100	100	100			96		
cM capacity (veh/h)	774	694	1058	766	698	1057	1597			1589		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	30	4	25	83
Volume Left	30	0	0	63
Volume Right	0	4	9	0
cSH	774	1058	1700	1589
Volume to Capacity	0.04	0.00	0.01	0.04
Queue Length 95th (ft)	3	0	0	3
Control Delay (s)	9.8	8.4	0.0	5.7
Lane LOS	A	A		A
Approach Delay (s)	9.7		0.0	5.7
Approach LOS	A			

Intersection Summary			
Average Delay	5.7		
Intersection Capacity Utilization	20.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	39	50	16	9	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	42	54	17	10	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	72				108	63
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	72				108	63
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1528				889	1002

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	43	72	10	1
Volume Left	1	0	10	0
Volume Right	0	17	0	1
cSH	1528	1700	889	1002
Volume to Capacity	0.00	0.04	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.2	0.0	9.1	8.6
Lane LOS	A		A	A
Approach Delay (s)	0.2	0.0	9.0	
Approach LOS			A	

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	13.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	0	25	1	89	0	0	16	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	27	1	97	0	0	17	125
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	179	80	179	241	97	142			97		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	206	179	80	179	241	97	142			97		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	97	100			100		
cM capacity (veh/h)	730	714	980	783	660	960	1440			1497		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	1	27	98	142
Volume Left	1	0	1	0
Volume Right	0	27	0	125
cSH	783	960	1440	1700
Volume to Capacity	0.00	0.03	0.00	0.08
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	9.6	8.9	0.1	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.9		0.1	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	17.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	89	1	1	0	0	0	0	1	6	15	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	97	1	1	0	0	0	0	1	7	16	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	38	41	1	40	38	4	1			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	38	41	1	40	38	4	1			8		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	90	100	100	100	100	100	100			99		
cM capacity (veh/h)	959	842	1083	955	846	1079	1622			1613		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	98	1	8	17
Volume Left	97	0	0	16
Volume Right	0	1	7	0
cSH	958	1083	1700	1613
Volume to Capacity	0.10	0.00	0.00	0.01
Queue Length 95th (ft)	9	0	0	1
Control Delay (s)	9.2	8.3	0.0	6.8
Lane LOS	A	A		A
Approach Delay (s)	9.2		0.0	6.8
Approach LOS	A			

Intersection Summary			
Average Delay	8.3		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	10	2	18	13	34	0	0	20	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	11	2	20	14	37	0	0	22	13
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	114	93	28	93	100	37	35			37		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	114	93	28	93	100	37	35			37		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	99	100	98	99			100		
cM capacity (veh/h)	839	789	1047	884	783	1035	1577			1574		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	13	20	51	35
Volume Left	11	0	14	0
Volume Right	0	20	0	13
cSH	865	1035	1577	1700
Volume to Capacity	0.02	0.02	0.01	0.02
Queue Length 95th (ft)	1	1	1	0
Control Delay (s)	9.2	8.5	2.1	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.8		2.1	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	20	2	3	0	0	0	0	20	6	7	28	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	2	3	0	0	0	0	22	7	8	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	71	74	30	75	71	25	30			28		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	71	74	30	75	71	25	30			28		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	98	100	100	100	100	100	100			100		
cM capacity (veh/h)	918	813	1044	907	816	1051	1582			1585		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	24	3	28	38
Volume Left	22	0	0	8
Volume Right	0	3	7	0
cSH	907	1044	1700	1585
Volume to Capacity	0.03	0.00	0.02	0.00
Queue Length 95th (ft)	2	0	0	0
Control Delay (s)	9.1	8.5	0.0	1.5
Lane LOS	A	A		A
Approach Delay (s)	9.0		0.0	1.5
Approach LOS	A			

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	17.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	100	36	9	12	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	109	39	10	13	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	49				155	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	49				155	44
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1558				836	1026

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	110	49	13	1
Volume Left	1	0	13	0
Volume Right	0	10	0	1
cSH	1558	1700	836	1026
Volume to Capacity	0.00	0.03	0.02	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.1	0.0	9.4	8.5
Lane LOS	A		A	A
Approach Delay (s)	0.1	0.0	9.3	
Approach LOS			A	

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	16.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	2	9	1	189	0	0	28	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	2	10	1	205	0	0	30	135
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	316	305	98	305	373	205	165			205		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	316	305	98	305	373	205	165			205		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	99	100			100		
cM capacity (veh/h)	627	608	958	647	557	835	1413			1366		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	3	10	207	165
Volume Left	1	0	1	0
Volume Right	0	10	0	135
cSH	584	835	1413	1700
Volume to Capacity	0.01	0.01	0.00	0.10
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	11.2	9.4	0.0	0.0
Lane LOS	B	A	A	
Approach Delay (s)	9.8		0.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	20.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	188	1	1	0	0	0	0	1	1	27	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	204	1	1	0	0	0	0	1	1	29	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	61	62	1	63	61	2	1			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	61	62	1	63	61	2	1			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	78	100	100	100	100	100	100			98		
cM capacity (veh/h)	921	814	1083	917	814	1083	1622			1620		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	205	1	2	30
Volume Left	204	0	0	29
Volume Right	0	1	1	0
cSH	920	1083	1700	1620
Volume to Capacity	0.22	0.00	0.00	0.02
Queue Length 95th (ft)	21	0	0	1
Control Delay (s)	10.0	8.3	0.0	7.0
Lane LOS	B	A		A
Approach Delay (s)	10.0		0.0	7.0
Approach LOS	B			

Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	25.3%	ICU Level of Service	A
Analysis Period (min)	15		

Appendix BB-6

Year 2017 No Project Plus Project Operation Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	2	0	26	4	60	0	0	76	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	2	0	28	4	65	0	0	83	16
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	193	165	91	165	173	65	99			65		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	193	165	91	165	173	65	99			65		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	97	100			100		
cM capacity (veh/h)	743	726	967	798	718	999	1494			1537		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	2	28	70	99
Volume Left	2	0	4	0
Volume Right	0	28	0	16
cSH	798	999	1494	1700
Volume to Capacity	0.00	0.03	0.00	0.06
Queue Length 95th (ft)	0	2	0	0
Control Delay (s)	9.5	8.7	0.5	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.8		0.5	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	16.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	46	0	4	0	0	0	0	18	8	58	18	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	50	0	4	0	0	0	0	20	9	63	20	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	170	174	20	174	170	24	20			28		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	170	174	20	174	170	24	20			28		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	94	100	100	100	100	100	100			96		
cM capacity (veh/h)	770	691	1058	762	695	1053	1597			1585		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	50	4	28	83
Volume Left	50	0	0	63
Volume Right	0	4	9	0
cSH	770	1058	1700	1585
Volume to Capacity	0.06	0.00	0.02	0.04
Queue Length 95th (ft)	5	0	0	3
Control Delay (s)	10.0	8.4	0.0	5.7
Lane LOS	B	A		A
Approach Delay (s)	9.9		0.0	5.7
Approach LOS	A			

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	20.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	2	39	50	17	9	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	42	54	18	10	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	73				110	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	73				110	64
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1527				885	1001

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	45	73	10	1
Volume Left	2	0	10	0
Volume Right	0	18	0	1
cSH	1527	1700	885	1001
Volume to Capacity	0.00	0.04	0.01	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.4	0.0	9.1	8.6
Lane LOS	A		A	A
Approach Delay (s)	0.4	0.0	9.1	
Approach LOS			A	

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	13.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	0	125	1	89	0	0	24	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	0	136	1	97	0	0	26	125
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	323	188	89	188	250	97	151			97		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	323	188	89	188	250	97	151			97		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	86	100			100		
cM capacity (veh/h)	540	707	970	772	652	960	1430			1497		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	1	136	98	151
Volume Left	1	0	1	0
Volume Right	0	136	0	125
cSH	772	960	1430	1700
Volume to Capacity	0.00	0.14	0.00	0.09
Queue Length 95th (ft)	0	12	0	0
Control Delay (s)	9.7	9.4	0.1	0.0
Lane LOS	A	A	A	
Approach Delay (s)	9.4		0.1	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	19.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	89	1	1	0	0	0	0	1	6	23	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	97	1	1	0	0	0	0	1	7	25	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	55	59	1	57	55	4	1			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	55	59	1	57	55	4	1			8		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	90	100	100	100	100	100	100			98		
cM capacity (veh/h)	931	819	1083	927	823	1079	1622			1613		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	98	1	8	26
Volume Left	97	0	0	25
Volume Right	0	1	7	0
cSH	930	1083	1700	1613
Volume to Capacity	0.11	0.00	0.00	0.02
Queue Length 95th (ft)	9	0	0	1
Control Delay (s)	9.3	8.3	0.0	7.0
Lane LOS	A	A		A
Approach Delay (s)	9.3		0.0	7.0
Approach LOS	A			

Intersection Summary			
Average Delay	8.3		
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	10	2	18	13	35	0	0	22	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	11	2	20	14	38	0	0	24	32
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	127	106	40	106	122	38	55			38		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	127	106	40	106	122	38	55			38		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	99	100	98	99			100		
cM capacity (veh/h)	823	777	1032	867	762	1034	1549			1572		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	13	20	52	55
Volume Left	11	0	14	0
Volume Right	0	20	0	32
cSH	848	1034	1549	1700
Volume to Capacity	0.02	0.02	0.01	0.03
Queue Length 95th (ft)	1	1	1	0
Control Delay (s)	9.3	8.5	2.0	0.0
Lane LOS	A	A	A	
Approach Delay (s)	8.9		2.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	19.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	21	2	3	0	0	0	0	20	6	7	30	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	2	3	0	0	0	0	22	7	8	33	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	73	76	33	77	73	25	33			28		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	73	76	33	77	73	25	33			28		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	98	100	100	100	100	100	100			100		
cM capacity (veh/h)	915	810	1041	904	814	1051	1579			1585		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	25	3	28	40
Volume Left	23	0	0	8
Volume Right	0	3	7	0
cSH	904	1041	1700	1585
Volume to Capacity	0.03	0.00	0.02	0.00
Queue Length 95th (ft)	2	0	0	0
Control Delay (s)	9.1	8.5	0.0	1.4
Lane LOS	A	A		A
Approach Delay (s)	9.0		0.0	1.4
Approach LOS	A			

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	17.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	1	100	36	9	13	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	109	39	10	14	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	49				155	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	49				155	44
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	1558				836	1026

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	110	49	14	2
Volume Left	1	0	14	0
Volume Right	0	10	0	2
cSH	1558	1700	836	1026
Volume to Capacity	0.00	0.03	0.02	0.00
Queue Length 95th (ft)	0	0	1	0
Control Delay (s)	0.1	0.0	9.4	8.5
Lane LOS	A		A	A
Approach Delay (s)	0.1	0.0	9.3	
Approach LOS			A	

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	16.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	1	2	13	1	189	0	0	124	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	1	2	14	1	205	0	0	135	135
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	425	410	202	410	477	205	270			205		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	425	410	202	410	477	205	270			205		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	100	100	100	100	100	98	100			100		
cM capacity (veh/h)	528	531	839	552	487	835	1294			1366		

Direction, Lane #	WB 1	WB 2	NB 1	SB 1
Volume Total	3	14	207	270
Volume Left	1	0	1	0
Volume Right	0	14	0	135
cSH	507	835	1294	1700
Volume to Capacity	0.01	0.02	0.00	0.16
Queue Length 95th (ft)	0	1	0	0
Control Delay (s)	12.2	9.4	0.0	0.0
Lane LOS	B	A	A	
Approach Delay (s)	9.9		0.0	0.0
Approach LOS	A			

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	188	1	1	0	0	0	0	1	1	123	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	204	1	1	0	0	0	0	1	1	134	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	270	271	1	272	270	2	1			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	270	271	1	272	270	2	1			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	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 %	68	100	100	100	100	100	100			92		
cM capacity (veh/h)	639	583	1083	636	584	1083	1622			1620		

Direction, Lane #	EB 1	EB 2	NB 1	SB 1
Volume Total	205	1	2	135
Volume Left	204	0	0	134
Volume Right	0	1	1	0
cSH	639	1083	1700	1620
Volume to Capacity	0.32	0.00	0.00	0.08
Queue Length 95th (ft)	35	0	0	7
Control Delay (s)	13.3	8.3	0.0	7.4
Lane LOS	B	A		A
Approach Delay (s)	13.3		0.0	7.4
Approach LOS	B			

Intersection Summary			
Average Delay	10.9		
Intersection Capacity Utilization	30.7%	ICU Level of Service	A
Analysis Period (min)	15		