APPENDICES

APPENDIX A

TRAFFIC DATA

Study Name	Chenoweth Rd & Elmwood Ave
Start Date	Tuesday, August 27, 2013 7:00 AM
End Date	Tuesday, August 27, 2013 6:00 PM
Site Code	

Report Summary

		Southbound					Northbound					Eastbound					
Time Period	**Class.**	**R**	**T**	**U**	**I**	**O**	**T**	**L**	**U**	**I**	**O**	**R**	**L**	**U**	**I**	**O**	**Total**
Peak 1	Car	2	684	0	686	236	227	4	0	231	696	12	9	0	21	6	938
Specified Period	%	100%	99%	0%	99%	97%	97%	80%	0%	96%	99%	92%	100%	0%	95%	86%	98%
7:00 AM - 9:00 AM	Truck	0	5	0	5	8	8	1	0	9	6	1	0	0	1	1	15
One Hour Peak	%	0%	1%	0%	1%	3%	3%	20%	0%	4%	1%	8%	0%	0%	5%	14%	2%
7:15 AM - 8:15 AM	**Total**	**2**	**689**	**0**	**691**	**244**	**235**	**5**	**0**	**240**	**702**	**13**	**9**	**0**	**22**	**7**	**953**
	PHF	0.5	0.77	0	0.76	0.92	0.9	0.42	0	0.91	0.77	0.46	0.75	0	0.79	0.44	0.81
	Approach %				73%	26%				25%	74%				2%	1%	
Peak 2	Car	7	588	0	595	510	506	9	0	515	595	7	4	0	11	16	1121
Specified Period	%	100%	100%	0%	100%	100%	100%	100%	0%	100%	100%	100%	100%	0%	100%	100%	100%
4:00 PM - 6:00 PM	Truck	0	1	0	1	1	1	0	0	1	1	0	0	0	0	0	2
One Hour Peak	%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5:00 PM - 6:00 PM	**Total**	**7**	**589**	**0**	**596**	**511**	**507**	**9**	**0**	**516**	**596**	**7**	**4**	**0**	**11**	**16**	**1123**
	PHF	0.58	0.91	0	0.91	0.97	0.97	0.56	0	0.98	0.93	0.58	0.5	0	0.55	0.8	0.95
	Approach %				53%	46%				46%	53%				1%	1%	

Study Name	Chenoweth Ln & Washington Square
Start Date	Wednesday, August 28, 2013 7:00 AM
End Date	Wednesday, August 28, 2013 6:00 PM
Site Code	

Report Summary

		Southbound					Northbound					Eastbound					
Time Period	**Class.**	**R**	**T**	**U**	**I**	**O**	**T**	**L**	**U**	**I**	**O**	**R**	**L**	**U**	**I**	**O**	**Total**
Peak 1	Car	2	679	0	681	250	249	2	0	251	685	6	1	0	7	4	939
Specified Period	%	100%	99%	0%	99%	95%	95%	67%	0%	95%	99%	86%	100%	0%	88%	80%	98%
7:00 AM - 9:00 AM	Truck	0	9	0	9	12	12	1	0	13	10	1	0	0	1	1	23
One Hour Peak	%	0%	1%	0%	1%	5%	5%	33%	0%	5%	1%	14%	0%	0%	13%	20%	2%
7:15 AM - 8:15 AM	**Total**	**2**	**688**	**0**	**690**	**262**	**261**	**3**	**0**	**264**	**695**	**7**	**1**	**0**	**8**	**5**	**962**
	PHF	0.5	0.73	0	0.73	0.78	0.78	0.75	0	0.78	0.73	0.58	0.25	0	0.67	0.62	0.79
	Approach %				72%	27%				27%	72%				1%	1%	
Peak 2	Car	4	574	0	578	475	469	14	0	483	584	10	6	0	16	18	1077
Specified Period	%	100%	99%	0%	99%	100%	100%	100%	0%	100%	99%	100%	100%	0%	100%	100%	100%
4:00 PM - 6:00 PM	Truck	0	3	0	3	0	0	0	0	0	3	0	0	0	0	0	3
One Hour Peak	%	0%	1%	0%	1%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
5:00 PM - 6:00 PM	**Total**	**4**	**577**	**0**	**581**	**475**	**469**	**14**	**0**	**483**	**587**	**10**	**6**	**0**	**16**	**18**	**1080**
	PHF	0.5	0.91	0	0.92	0.91	0.92	0.7	0	0.91	0.92	0.5	0.5	0	0.57	0.75	0.98
	Approach %				54%	44%				45%	54%				1%	2%	

Study Name	Chenoweth Ln & Ormand Ave
Start Date	Thursday, May 29, 2014 6:00 AM
End Date	Thursday, May 29, 2014 6:00 PM
Site Code	

Report Summary

		Southbound					Northbound					Eastbound					
Time Period	**Class.**	**R**	**T**	**U**	**I**	**O**	**T**	**L**	**U**	**I**	**O**	**R**	**L**	**U**	**I**	**O**	**Total**
Peak 1	Lights	4	597	0	601	334	328	8	0	336	602	5	6	0	11	12	948
Specified Period	%	100%	99%	0%	99%	98%	98%	100%	0%	98%	99%	83%	100%	0%	92%	100%	98%
6:00 AM - 9:00 AM	Other Vehicles	0	8	0	8	7	7	0	0	7	9	1	0	0	1	0	16
One Hour Peak	%	0%	1%	0%	1%	2%	2%	0%	0%	2%	1%	17%	0%	0%	8%	0%	2%
8:00 AM - 9:00 AM	**Total**	**4**	**605**	**0**	**609**	**341**	**335**	**8**	**0**	**343**	**611**	**6**	**6**	**0**	**12**	**12**	**964**
	PHF	0.5	0.84	0	0.84	0.92	0.9	0.67	0	0.89	0.83	0.5	0.5	0	0.6	0.6	0.89
	Approach %				63%	35%				36%	63%				1%	1%	
Peak 2	Lights	7	666	0	673	471	468	13	0	481	673	7	3	0	10	20	1164
Specified Period	%	100%	100%	0%	100%	99%	99%	100%	0%	99%	99%	88%	100%	0%	91%	100%	99%
3:00 PM - 6:00 PM	Other Vehicles	0	3	0	3	6	6	0	0	6	4	1	0	0	1	0	10
One Hour Peak	%	0%	0%	0%	0%	1%	1%	0%	0%	1%	1%	13%	0%	0%	9%	0%	1%
5:00 PM - 6:00 PM	**Total**	**7**	**669**	**0**	**676**	**477**	**474**	**13**	**0**	**487**	**677**	**8**	**3**	**0**	**11**	**20**	**1174**
	PHF	0.44	0.83	0	0.83	0.91	0.9	0.65	0	0.92	0.83	0.67	0.75	0	0.69	0.56	0.93
	Approach %				58%	41%				41%	58%				1%	2%	

Study Name	Chenoweth Ln & Leland Ave
Start Date	Thursday, May 29, 2014 6:00 AM
End Date	Thursday, May 29, 2014 6:00 PM
Site Code	

Report Summary

		Southbound						Westbound						Northbound						Eastbound						
Time Period	**Class.**	**R**	**T**	**L**	**U**	**I**	**O**	**R**	**T**	**L**	**U**	**I**	**O**	**R**	**T**	**L**	**U**	**I**	**O**	**R**	**T**	**L**	**U**	**I**	**O**	**Total**
Peak 1	Lights	2	585	14	0	601	338	18	0	18	0	36	17	3	314	2	0	319	616	13	0	6	0	19	4	975
Specified Period	%	67%	99%	100%	0%	99%	98%	100%	0%	100%	0%	100%	100%	100%	98%	100%	0%	98%	99%	100%	0%	100%	0%	100%	80%	98%
6:00 AM - 9:00 AM	Other Vehicle:	1	8	0	0	9	7	0	0	0	0	0	0	0	7	0	0	7	8	0	0	0	0	0	1	16
One Hour Peak	%	33%	1%	0%	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	1%	0%	0%	0%	0%	0%	20%	2%
8:00 AM - 9:00 AM	**Total**	**3**	**593**	**14**	**0**	**610**	**345**	**18**	**0**	**18**	**0**	**36**	**17**	**3**	**321**	**2**	**0**	**326**	**624**	**13**	**0**	**6**	**0**	**19**	**5**	**991**
	PHF	0.38	0.81	0.7	0	0.81	0.93	0.45	0	0.75	0	0.69	0.85	0.75	0.89	0.5	0	0.91	0.8	0.65	0	0.38	0	0.79	0.42	0.89
	Approach %					62%	35%					4%	2%					33%	63%					2%	1%	
Peak 2	Lights	8	656	21	0	685	471	11	0	18	0	29	33	10	453	18	0	481	690	16	2	7	0	25	26	1220
Specified Period	%	89%	100%	100%	0%	99%	99%	100%	0%	95%	0%	97%	100%	100%	99%	100%	0%	99%	99%	94%	100%	100%	0%	96%	96%	99%
3:00 PM - 6:00 PM	Other Vehicle:	1	3	0	0	4	6	0	0	1	0	1	0	0	6	0	0	6	5	1	0	0	0	1	1	12
One Hour Peak	%	11%	0%	0%	0%	1%	1%	0%	0%	5%	0%	3%	0%	0%	1%	0%	0%	1%	1%	6%	0%	0%	0%	4%	4%	1%
5:00 PM - 6:00 PM	**Total**	**9**	**659**	**21**	**0**	**689**	**477**	**11**	**0**	**19**	**0**	**30**	**33**	**10**	**459**	**18**	**0**	**487**	**695**	**17**	**2**	**7**	**0**	**26**	**27**	**1232**
	PHF	0.45	0.83	0.58	0	0.82	0.87	0.39	0	0.59	0	0.62	0.69	0.5	0.88	0.9	0	0.89	0.83	0.61	0.5	0.44	0	0.65	0.75	0.93
	Approach %					56%	39%					2%	3%					40%	56%					2%	2%	

Study Name	US 60 & Masonic Homes Dr
Start Date	Tuesday, August 27, 2013 6:00 AM
End Date	Tuesday, August 27, 2013 7:00 PM
Site Code	

Report Summary

		Southbound						Westbound						Northbound						Eastbound						
Time Period	**Class**	**R**	**T**	**L**	**U**	**I**	**O**	**R**	**T**	**L**	**U**	**I**	**O**	**R**	**T**	**L**	**U**	**I**	**O**	**R**	**T**	**L**	**U**	**I**	**O**	**Total**
Peak 1	Car	16	16	16	0	48	108	54	623	2	0	679	416	7	28	32	0	67	51	33	393	26	0	452	671	1246
Specified Period	%	100%	94%	100%	0%	98%	100%	100%	99%	100%	0%	99%	98%	58%	100%	97%	0%	97%	98%	100%	98%	100%	0%	98%	99%	99%
6:00 AM - 12:00 PM	Truck	0	1	0	0	1	0	0	8	0	0	8	8	1	0	1	0	2	1	0	7	0	0	7	9	18
One Hour Peak	%	0%	6%	0%	0%	2%	0%	0%	1%	0%	0%	1%	2%	13%	0%	3%	0%	3%	2%	0%	2%	0%	0%	2%	1%	1%
7:15 AM - 8:15 AM	**Total**	**16**	**17**	**16**	**0**	**49**	**108**	**54**	**631**	**2**	**0**	**687**	**424**	**8**	**28**	**33**	**0**	**69**	**52**	**33**	**400**	**26**	**0**	**459**	**680**	**1264**
	PHF	0.8	0.53	0.67	0	0.77	0.82	0.84	0.72	0.5	0	0.75	0.66	0.4	0.7	0.63	0	0.64	0.68	0.55	0.65	0.93	0	0.66	0.74	0.73
	Approach %					4%	9%					54%	34%					5%	4%					36%	54%	
Peak 2	Car	23	31	38	0	92	253	150	496	11	0	657	574	14	40	69	0	123	109	67	522	63	0	652	588	1524
Specified Period	%	100%	97%	100%	0%	99%	100%	100%	99%	100%	0%	99%	99%	88%	100%	100%	0%	98%	99%	100%	99%	98%	0%	99%	99%	99%
12:00 PM - 7:00 PM	Truck	0	1	0	0	1	1	0	6	0	0	6	7	2	0	0	0	2	1	0	5	1	0	6	6	15
One Hour Peak	%	0%	3%	0%	0%	1%	0%	0%	1%	0%	0%	1%	1%	13%	0%	0%	0%	2%	1%	0%	1%	2%	0%	1%	1%	1%
5:00 PM - 6:00 PM	**Total**	**23**	**32**	**38**	**0**	**93**	**254**	**150**	**502**	**11**	**0**	**663**	**581**	**16**	**40**	**69**	**0**	**125**	**110**	**67**	**527**	**64**	**0**	**658**	**594**	**1539**
	PHF	0.72	0.89	0.79	0	0.89	0.87	0.87	0.94	0.55	0	0.93	0.91	0.57	0.83	0.86	0	0.87	0.95	0.84	0.93	0.84	0	0.92	0.95	0.95
	Approach %					6%	17%					43%	38%					8%	7%					43%	39%	

Kentucky Traffic Counts

Route: KY 1932 **Street:** BRECKINRIDGE LANE

From MP: 5.523 **At:** US 60 (SHELBYVILLE ROAD)
To MP: 6.590 **At:** US 42 (BROWNSBORO ROAD)

Station ID: 208 **Station Cnty:** JEFFERSON
Station Type: Full Coverage
Functional Class: URBAN - Minor Arterial

District: 5
County: JEFFERSON
City: LOUISVILLE

Last Actual Count: 11,171 **in** 2009

New Road Year:
Impact Year:

2012 10,607 Actual Count

Year	Count	Type
2011	11,600	Computer Estimate
2010	11,500	Computer Estimate
2009	11,200	Actual Count
2008		
2007		
2006	12,100	Actual Count
2005		
2004		
2003		
2002	11,500	Actual Count
2001		
2000		
1999		
1998		
1997	14,300	Actual Count
1996		
1995		
1994		
1993		
1992		
1991	12,000	Actual Count
1990		
1989		
1988		
1987		
1986		
1985	8,800	Actual Count
1984		
1983		
1982		
1981	9,460	Actual Count
1980		
1979		
1978		
1977		
1976		
1975		
1974		
1973		
1972		
1971		

Kentucky Traffic Counts

Route: US 60 **Street:** FRANKFORT AVENUE

From MP: 2.735 **At:** KY 2048/FENLEY AVENUE

To MP: 3.459 **At:** US 60A (LEXINGTON ROAD)

Station ID: 165 **Station Cnty:** JEFFERSON

Station Type: Rest Areas(RtSuffix=RA) & Ramps(RtSuffix=RP)

Functional Class: URBAN - Other Principal Arterial

District: 5

County: JEFFERSON

City:

Last Actual Count: 11,853 **in** 2009

New Road Year:

Impact Year:

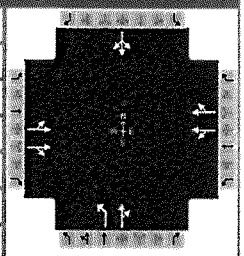
Year	Count	Type
2011	11,800	Computer Estimate
2010	11,900	Computer Estimate
2009	11,900	Actual Count
2008		
2007		
2006	11,400	Actual Count
2005		
2004		
2003	14,700	Actual Count
2002		
2001		
2000	13,500	Actual Count
1999		
1998		
1997		
1996	16,100	Actual Count
1995	14,200	Adjusted by Engineer
1994		
1993		
1992		
1991	14,300	Actual Count
1990		
1989		
1988		
1987		
1986		
1985	11,400	Actual Count
1984		
1983		
1982		
1981		
1980		
1979		
1978		
1977		
1976		
1975		
1974		
1973		
1972		
1971		

APPENDIX B

CAPACITY ANALYSIS

HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
gency	Qk4			Duration, h	1.00
nalyst	JJL	Analysis Date	Sep 18, 2013	Area Type	Other
urisdiction	Louisville Metro	Time Period	AM Peak Hour	PHF	1.00
ntersection	Frankfort Ave & Masonic H	Analysis Year	2013 Existing	Analysis Period	1> 7:00
le Name	AM Peak Hour Existing.xus				
oject Description	Masonic Homes				



Demand Information	EB			WB			NB			SB		
pproach Movement	L	T	R	L	T	R	L	T	R	L	T	R
emand (*v*), veh/h	26	400	33	2	631	54	33	28	8	16	17	16

Signal Information					EB			WB			NB			SB		
ycle, s	73.8	Reference Phase	2		L	T	R	L	T	R	L	T	R	L	T	R
Offset, s	0	Reference Point	End	Green	45.0	4.4	5.3	0.0	0.0	0.0						
oncoordinated	Yes	Simult. Gap E/W	Off	Yellow	3.6	3.6	3.6	0.0	0.0	0.0						
orce Mode	Fixed	Simult. Gap N/S	Off	Red	2.3	4.1	1.9	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
ssigned Phase		2		6		8		4
ase Number		8.0		8.0		10.0		12.0
hase Duration, s		50.9		50.9		10.8		12.1
hange Period, ($Y+R_c$), s		5.9		5.9		5.5		7.7
ax Allow Headway (*MAH*), s		4.7		4.6		4.6		4.7
eue Clearance Time (g_s), s		6.5		9.0		3.4		4.0
reen Extension Time (g_e), s		2.3		3.5		0.3		0.2
hase Call Probability		1.00		1.00		0.76		0.63
ax Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
pproach Movement	L	T	R	L	T	R	L	T	R	L	T	R
ssigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
djusted Flow Rate (*v*), veh/h	235		224	364		323	33	36			49	
djusted Saturation Flow Rate (*s*), veh/h/ln	1688		1651	1880		1662	1757	1774			1733	
ueue Service Time (g_s), s	0.0		4.5	0.0		7.0	1.3	1.4			2.0	
ycle Queue Clearance Time (g_c), s	4.2		4.5	6.9		7.0	1.3	1.4			2.0	
reen Ratio (*g/C*)	0.61		0.61	0.61		0.61	0.07	0.07			0.06	
apacity (*c*), veh/h	1083		1006	1195		1013	126	127			104	
olume-to-Capacity Ratio (*X*)	0.217		0.223	0.305		0.319	0.261	0.282			0.470	
vailable Capacity (c_a), veh/h	1950		2492	2208		2616	952	961			938	
ack of Queue (*Q*), veh/ln (50th percentile)	1.4		1.3	2.3		2.0	0.6	0.6			0.9	
ueue Storage Ratio (*RQ*) (50th percentile)	0.00		0.00	0.00		0.00	0.00	0.00			0.00	
niform Delay (d_1), s/veh	6.4		6.5	7.0		7.0	32.4	32.5			33.6	
cremental Delay (d_2), s/veh	0.1		0.1	0.2		0.2	1.3	1.4			4.0	
itial Queue Delay (d_3), s/veh	0.0		0.0	0.0		0.0	0.0	0.0			0.0	
ontrol Delay (*d*), s/veh	6.6		6.7	7.2		7.2	33.7	33.9			37.5	
evel of Service (LOS)	A		A	A		A	C	C			D	
pproach Delay, s/veh / LOS	6.6	A		7.2	A		33.8	C		37.5	D	
tersection Delay, s/veh / LOS	9.6						A					

Multimodal Results	EB		WB		NB		SB	
edestrian LOS Score / LOS	2.2	B	2.1	B	2.7	B	2.7	B
icycle LOS Score / LOS	0.9	A	1.1	A	0.6	A	0.6	A

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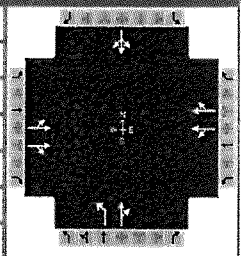
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
gency	Qk4			Duration, h	0.25
nalyst	JJL	Analysis Date	Sep 18, 2013	Area Type	Other
urisdiction	Louisville Metro	Time Period	PM Peak Hour	PHF	0.95
ntersection	Frankfort Ave & Masonic H	Analysis Year	2013 Existing	Analysis Period	1> 7:00
le Name	PM Peak Hour Existing.xus				
roject Description	Masonic Homes				



emand Information	EB			WB			NB			SB		
pproach Movement	L	T	R	L	T	R	L	T	R	L	T	R
emand (*v*), veh/h	64	527	67	11	502	150	69	40	16	38	32	23

gnal Information			
ycle, s	76.8	Reference Phase	2
ffset, s	0	Reference Point	End
ncoordinated	Yes	Simult. Gap E/W	Off
orce Mode	Fixed	Simult. Gap N/S	Off

Green	45.0	6.1	6.6	0.0	0.0	0.0
Yellow	3.6	3.6	3.6	0.0	0.0	0.0
Red	2.3	4.1	1.9	0.0	0.0	0.0

imer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
ssigned Phase		2		6		8		4
ase Number		8.0		8.0		10.0		12.0
hase Duration, s		50.9		50.9		12.1		13.8
hange Period, ($Y+R_c$), s		5.9		5.9		5.5		7.7
ax Allow Headway (*MAH*), s		4.8		4.6		4.6		4.6
ueue Clearance Time (g_s), s		10.8		10.2		5.3		6.1
reen Extension Time (g_e), s		4.0		3.7		0.6		0.4
hase Call Probability		1.00		1.00		0.94		0.88
ax Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
pproach Movement	L	T	R	L	T	R	L	T	R	L	T	R
ssigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
djusted Flow Rate (*v*), veh/h	336		357	377		321	73	59			98	
djusted Saturation Flow Rate (*s*), veh/h/ln	1520		1653	1857		1573	1601	1807			1766	
ueue Service Time (g_s), s	0.1		8.8	0.0		8.2	3.3	2.4			4.1	
ycle Queue Clearance Time (g_c), s	8.2		8.8	8.0		8.2	3.3	2.4			4.1	
reen Ratio (*g/C*)	0.59		0.59	0.59		0.59	0.09	0.09			0.08	
apacity (*c*), veh/h	947		968	1136		921	137	155			141	
olume-to-Capacity Ratio (*X*)	0.355		0.368	0.332		0.348	0.529	0.381			0.694	
vailable Capacity (c_a), veh/h	1703		2690	2077			834	941			920	
ack of Queue (*Q*), veh/ln (50th percentile)	2.4		2.7	2.8		2.4	1.4	1.1			2.0	
ueue Storage Ratio (*RQ*) (50th percentile)	0.00		0.00	0.00		0.00	0.00	0.00			0.00	
niform Delay (d_1), s/veh	8.0		8.4	8.2		8.3	33.6	33.2			34.4	
cremental Delay (d_2), s/veh	0.3		0.3	0.2		0.3	3.8	1.9			7.2	
itial Queue Delay (d_3), s/veh	0.0		0.0	0.0		0.0	0.0	0.0			0.0	
ontrol Delay (*d*), s/veh	8.3		8.7	8.4		8.5	37.4	35.0			41.6	
evel of Service (LOS)	A		A	A		A	D	D			D	
pproach Delay, s/veh / LOS	8.5	A		8.5	A		36.4	D		41.6	D	
tersection Delay, s/veh / LOS	12.8						B					

ultimodal Results	EB		WB		NB		SB	
edestrian LOS Score / LOS	2.2	B	2.1	B	2.7	B	2.7	B
icycle LOS Score / LOS	1.1	A	1.1	A	0.7	A	0.6	A

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HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Elmwood Ave
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Elmwood Ave
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	235			689	2
Peak-Hour Factor, PHF	0.42	0.90			0.77	0.50
Hourly Flow Rate, HFR	11	261			894	4
Percent Heavy Vehicles	20	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				9		13
Peak Hour Factor, PHF				0.75		0.45
Hourly Flow Rate, HFR				12		28
Percent Heavy Vehicles				0		8
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	11						40	
C(m) (vph)	686						282	
v/c	0.02						0.14	
95% queue length	0.05						0.49	
Control Delay	10.3						19.9	
LOS	B						C	
Approach Delay							19.9	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Elmwood Ave
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Elmwood Ave
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	507			589	7
Peak-Hour Factor, PHF	0.56	0.97			0.91	0.58
Hourly Flow Rate, HFR	16	522			647	12
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				4		7
Peak Hour Factor, PHF				0.50		0.58
Hourly Flow Rate, HFR				8		12
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	16						20	
C(m) (vph)	939						306	
v/c	0.02						0.07	
95% queue length	0.05						0.21	
Control Delay	8.9						17.6	
LOS	A						C	
Approach Delay							17.6	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Washington Sq
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Washington Square
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	261			688	2
Peak-Hour Factor, PHF	0.75	0.78			0.73	0.50
Hourly Flow Rate, HFR	4	334			942	4
Percent Heavy Vehicles	33	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				1		7
Peak Hour Factor, PHF				0.25		0.58
Hourly Flow Rate, HFR				4		12
Percent Heavy Vehicles				0		14
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	4						16	
C(m) (vph)	614						259	
v/c	0.01						0.06	
95% queue length	0.02						0.20	
Control Delay	10.9						19.8	
LOS	B						C	
Approach Delay							19.8	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Washington Sq
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Washington Square
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	14	469			577	4
Peak-Hour Factor, PHF	0.70	0.92			0.91	0.50
Hourly Flow Rate, HFR	20	509			634	8
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				6		10
Peak Hour Factor, PHF				0.50		0.50
Hourly Flow Rate, HFR				12		20
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	20						32	
C(m) (vph)	952						320	
v/c	0.02						0.10	
95% queue length	0.06						0.33	
Control Delay	8.9						17.5	
LOS	A						C	
Approach Delay							17.5	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Leland Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Leland Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	231	3	14	593	3
Peak-Hour Factor, PHF	0.50	0.89	0.75	0.70	0.81	0.38
Hourly Flow Rate, HFR	4	259	4	20	732	7
Percent Heavy Vehicles	2	--	--	1	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	18	0	8	6	0	13
Peak Hour Factor, PHF	0.75	1.00	0.45	0.38	1.00	0.65
Hourly Flow Rate, HFR	24	0	17	15	0	20
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	4	20		41			35	
C(m) (vph)	867	1307		277			283	
v/c	0.00	0.02		0.15			0.12	
95% queue length	0.01	0.05		0.51			0.42	
Control Delay	9.2	7.8		20.2			19.5	
LOS	A	A		C			C	
Approach Delay				20.2			19.5	
Approach LOS				C			C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Leland Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Leland Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	18	459	10	21	659	9
Peak-Hour Factor, PHF	0.90	0.88	0.50	0.58	0.83	0.45
Hourly Flow Rate, HFR	20	521	20	36	793	20
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	19	0	11	7	2	17
Peak Hour Factor, PHF	0.59	1.00	0.39	0.44	0.50	0.61
Hourly Flow Rate, HFR	32	0	28	15	4	27
Percent Heavy Vehicles	5	0	0	0	0	6
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	20	36		60			46	
C(m) (vph)	818	1033		145			175	
v/c	0.02	0.03		0.41			0.26	
95% queue length	0.08	0.11		1.81			1.01	
Control Delay	9.5	8.6		46.3			32.8	
LOS	A	A		E			D	
Approach Delay				46.3			32.8	
Approach LOS				E			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Ormand Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Ormand Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	8	355			605	4
Peak-Hour Factor, PHF	0.67	0.90			0.84	0.50
Hourly Flow Rate, HFR	11	394			720	8
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				6		6
Peak Hour Factor, PHF				0.50		0.50
Hourly Flow Rate, HFR				12		12
Percent Heavy Vehicles				0		17
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	11						24	
C(m) (vph)	885						285	
v/c	0.01						0.08	
95% queue length	0.04						0.27	
Control Delay	9.1						18.8	
LOS	A						C	
Approach Delay							18.8	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Ormand Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2013 Existing
Project ID: Masonic Homes
East/West Street: Ormand Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	13	474			669	7
Peak-Hour Factor, PHF	0.65	0.90			0.83	0.44
Hourly Flow Rate, HFR	20	526			806	15
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

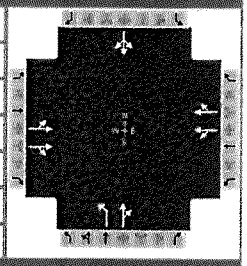
Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				3		8
Peak Hour Factor, PHF				0.75		0.67
Hourly Flow Rate, HFR				4		11
Percent Heavy Vehicles				0		13
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	20						15	
C(m) (vph)	817						268	
v/c	0.02						0.06	
95% queue length	0.08						0.18	
Control Delay	9.5						19.2	
LOS	A						C	
Approach Delay							19.2	
Approach LOS							C	

HCS 2010 Signalized Intersection Results Summary

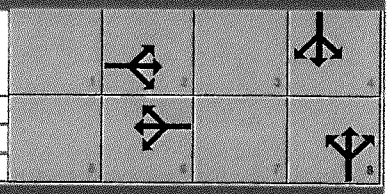
General Information				Intersection Information	
Agency	Qk4			Duration, h	1.00
Analyst	JJL	Analysis Date	Sep 18, 2013	Area Type	Other
Jurisdiction	Louisville Metro	Time Period	AM Peak Hour	PHF	1.00
Intersection	Frankfort Ave & Masonic H	Analysis Year	2020 Future Year	Analysis Period	1> 7:00
File Name	AM Peak Hour Existing.xus				
Project Description	Masonic Homes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	27	429	33	2	677	57	35	29	9	17	18	17

Signal Information			
Cycle, s	74.2	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off

Green	45.0	4.6	5.4	0.0	0.0	0.0
Yellow	3.6	3.6	3.6	0.0	0.0	0.0
Red	2.3	4.1	1.9	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		10.0		12.0
Phase Duration, s		50.9		50.9		10.9		12.3
Change Period, ($Y+R_c$), s		5.9		5.9		5.5		7.7
Max Allow Headway (*MAH*), s		4.7		4.6		4.6		4.7
Queue Clearance Time (g_s), s		6.9		9.7		3.5		4.2
Green Extension Time (g_e), s		2.5		3.8		0.3		0.2
Phase Call Probability		1.00		1.00		0.78		0.66
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	249		240	390		346	35	38			52	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1682		1654	1880		1663	1757	1769			1732	
Queue Service Time (g_s), s	0.0		4.9	0.0		7.7	1.4	1.5			2.2	
Cycle Queue Clearance Time (g_c), s	4.5		4.9	7.6		7.7	1.4	1.5			2.2	
Green Ratio (*g/C*)	0.61		0.61	0.61		0.61	0.07	0.07			0.06	
Capacity (*c*), veh/h	1074		1004	1190		1009	129	130			108	
Volume-to-Capacity Ratio (*X*)	0.232		0.239	0.328		0.343	0.271	0.292			0.483	
Available Capacity (c_a), veh/h	1932		2439	2199		2593	948	954			934	
Back of Queue (*Q*), veh/ln (50th percentile)	1.5		1.4	2.5		2.2	0.6	0.7			1.0	
Queue Storage Ratio (*RQ*) (50th percentile)	0.00		0.00	0.00		0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	6.6		6.7	7.2		7.2	32.5	32.5			33.6	
Incremental Delay (d_2), s/veh	0.1		0.1	0.2		0.2	1.4	1.5			4.1	
Initial Queue Delay (d_3), s/veh	0.0		0.0	0.0		0.0	0.0	0.0			0.0	
Control Delay (*d*), s/veh	6.7		6.8	7.4		7.5	33.8	34.0			37.7	
Level of Service (LOS)	A		A	A		A	C	C			D	

	EB		WB		NB		SB	
Approach Delay, s/veh / LOS	6.8	A	7.5	A	33.9	C	37.7	D
Intersection Delay, s/veh / LOS	9.8				A			

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	0.9	A	1.1	A	0.6	A	0.6	A

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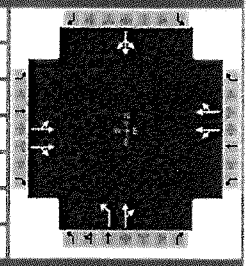
HCS 2010 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Qk4			Duration, h	0.25
Analyst	JJL	Analysis Date	Sep 18, 2013	Area Type	Other
Jurisdiction	Louisville Metro	Time Period	PM Peak Hour	PHF	0.95
Intersection	Frankfort Ave & Masonic H	Analysis Year	2020 Future Year	Analysis Period	1> 7:00
File Name	PM Peak Hour Existing.xus				
Project Description	Masonic Homes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	65	565	72	12	538	152	74	40	17	40	34	24

Signal Information					EB			WB			NB			SB		
Cycle, s	77.0	Reference Phase	2		L	T	R	L	T	R	L	T	R	L	T	R
Offset, s	0	Reference Point	End	Green	45.0	6.2	6.6	0.0	0.0	0.0						
Uncoordinated	Yes	Simult. Gap E/W	Off	Yellow	3.6	3.6	3.6	0.0	0.0	0.0						
Force Mode	Fixed	Simult. Gap N/S	Off	Red	2.3	4.1	1.9	0.0	0.0	0.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Phase Number		8.0		8.0		10.0		12.0
Phase Duration, s		50.9		50.9		12.1		13.9
Change Period, ($Y+R_c$), s		5.9		5.9		5.5		7.7
Max Allow Headway (*MAH*), s		4.8		4.6		4.6		4.6
Queue Clearance Time (g_s), s		11.6		10.8		5.6		6.4
Green Extension Time (g_e), s		4.3		4.0		0.6		0.4
Phase Call Probability		1.00		1.00		0.95		0.89
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	357		382	399		340	78	60			103	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1513		1653	1854		1578	1601	1803			1767	
Queue Service Time (g_s), s	0.1		9.6	0.0		8.8	3.6	2.4			4.4	
Cycle Queue Clearance Time (g_c), s	8.9		9.6	8.6		8.8	3.6	2.4			4.4	
Green Ratio (*g/C*)	0.58		0.58	0.58		0.58	0.09	0.09			0.08	
Capacity (*c*), veh/h	940		966	1132		923	138	155			143	
Volume-to-Capacity Ratio (*X*)	0.380		0.395	0.352		0.369	0.564	0.386			0.721	
Available Capacity (c_a), veh/h	1692		2689	2067		-37997	832	937			918	
Back of Queue (*Q*), veh/ln (50th percentile)	2.6		3.0	3.0		2.6	1.5	1.1			2.1	
Queue Storage Ratio (*RQ*) (50th percentile)	0.00		0.00	0.00		0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	8.2		8.6	8.4		8.5	33.8	33.2			34.5	
Incremental Delay (d_2), s/veh	0.3		0.3	0.2		0.3	4.3	1.9			8.0	
Initial Queue Delay (d_3), s/veh	0.0		0.0	0.0		0.0	0.0	0.0			0.0	
Control Delay (*d*), s/veh	8.5		9.0	8.7		8.8	38.1	35.1			42.5	
Level of Service (LOS)	A		A	A		A	D	D			D	
Approach Delay, s/veh / LOS	8.7	A		8.7	A		36.8	D		42.5	D	
Intersection Delay, s/veh / LOS	13.0						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.1	A	1.1	A	0.7	A	0.7	A

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HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Elmwood Ave
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Future Year
Project ID: Masonic Homes
East/West Street: Elmwood Ave
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	252			739	2
Peak-Hour Factor, PHF	0.42	0.90			0.77	0.50
Hourly Flow Rate, HFR	11	280			959	4
Percent Heavy Vehicles	20	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				10		14
Peak Hour Factor, PHF				0.75		0.45
Hourly Flow Rate, HFR				13		31
Percent Heavy Vehicles				0		8
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	11						44	
C(m) (vph)	647						256	
v/c	0.02						0.17	
95% queue length	0.05						0.61	
Control Delay	10.7						22.0	
LOS	B						C	
Approach Delay							22.0	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Elmwood Ave
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Future Year
Project ID: Masonic Homes
East/West Street: Elmwood Ave
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	10	544			561	8
Peak-Hour Factor, PHF	0.56	0.97			0.91	0.58
Hourly Flow Rate, HFR	17	560			616	13
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration		LT				TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				4		8
Peak Hour Factor, PHF				0.50		0.58
Hourly Flow Rate, HFR				8		13
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	17						21	
C(m) (vph)	963						314	
v/c	0.02						0.07	
95% queue length	0.05						0.21	
Control Delay	8.8						17.3	
LOS	A						C	
Approach Delay							17.3	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Washington Sq
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Future Year
Project ID: Masonic Homes
East/West Street: Washington Square
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	280			738	2
Peak-Hour Factor, PHF	0.75	0.78			0.73	0.50
Hourly Flow Rate, HFR	4	358			1010	4
Percent Heavy Vehicles	33	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				1		8
Peak Hour Factor, PHF				0.25		0.58
Hourly Flow Rate, HFR				4		13
Percent Heavy Vehicles				0		14
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	4						17	
C(m) (vph)	576						235	
v/c	0.01						0.07	
95% queue length	0.02						0.23	
Control Delay	11.3						21.5	
LOS	B						C	
Approach Delay							21.5	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Washington Sq
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Future Year
Project ID: Masonic Homes
East/West Street: Washington Square
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	15	503			619	4
Peak-Hour Factor, PHF	0.70	0.92			0.91	0.50
Hourly Flow Rate, HFR	21	546			680	8
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				6		11
Peak Hour Factor, PHF				0.50		0.50
Hourly Flow Rate, HFR				12		22
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	21						34	
C(m) (vph)	916						298	
v/c	0.02						0.11	
95% queue length	0.07						0.38	
Control Delay	9.0						18.6	
LOS	A						C	
Approach Delay							18.6	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Leland Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 No Build
Project ID: Masonic Homes
East/West Street: Leland Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	2	245	3	15	629	3
Peak-Hour Factor, PHF	0.50	0.89	0.75	0.70	0.81	0.38
Hourly Flow Rate, HFR	4	275	4	21	776	7
Percent Heavy Vehicles	2	--	--	1	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	19	0	8	6	0	13
Peak Hour Factor, PHF	0.75	1.00	0.45	0.38	1.00	0.65
Hourly Flow Rate, HFR	25	0	17	15	0	20
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	4	21		42			35	
C(m) (vph)	835	1289		251			260	
v/c	0.00	0.02		0.17			0.13	
95% queue length	0.01	0.05		0.59			0.46	
Control Delay	9.3	7.8		22.2			21.0	
LOS	A	A		C			C	
Approach Delay				22.2			21.0	
Approach LOS				C			C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Leland Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 No Build
Project ID: Masonic Homes
East/West Street: Leland Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	19	487	11	22	700	10
Peak-Hour Factor, PHF	0.90	0.88	0.50	0.58	0.83	0.45
Hourly Flow Rate, HFR	21	553	22	37	843	22
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	20	0	12	7	2	18
Peak Hour Factor, PHF	0.59	1.00	0.39	0.44	0.50	0.61
Hourly Flow Rate, HFR	33	0	30	15	4	29
Percent Heavy Vehicles	5	0	0	0	0	6
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	21	37		63			48	
C(m) (vph)	782	1003		125			157	
v/c	0.03	0.04		0.50			0.31	
95% queue length	0.08	0.11		2.34			1.21	
Control Delay	9.7	8.7		60.0			37.7	
LOS	A	A		F			E	
Approach Delay				60.0			37.7	
Approach LOS				F			E	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Ormand Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 No Build
Project ID: Masonic Homes
East/West Street: Ormand Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	8	356			642	4
Peak-Hour Factor, PHF	0.67	0.90			0.84	0.50
Hourly Flow Rate, HFR	11	395			764	8
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				6		6
Peak Hour Factor, PHF				0.50		0.50
Hourly Flow Rate, HFR				12		12
Percent Heavy Vehicles				0		17
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	11						24	
C(m) (vph)	852						269	
v/c	0.01						0.09	
95% queue length	0.04						0.29	
Control Delay	9.3						19.7	
LOS	A						C	
Approach Delay							19.7	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Ormand Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 No Build
Project ID: Masonic Homes
East/West Street: Ormand Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	14	503			731	7
Peak-Hour Factor, PHF	0.65	0.90			0.83	0.44
Hourly Flow Rate, HFR	21	558			880	15
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

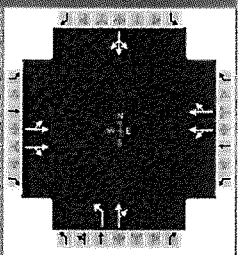
Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				3		8
Peak Hour Factor, PHF				0.75		0.67
Hourly Flow Rate, HFR				4		11
Percent Heavy Vehicles				0		13
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	21						15	
C(m) (vph)	767						236	
v/c	0.03						0.06	
95% queue length	0.08						0.20	
Control Delay	9.8						21.3	
LOS	A						C	
Approach Delay							21.3	
Approach LOS							C	

HCS 2010 Signalized Intersection Results Summary

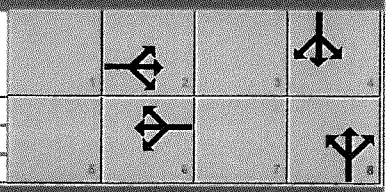
General Information				Intersection Information	
gency	Qk4			Duration, h	1.00
Analyst	JJL	Analysis Date	Sep 18, 2013	Area Type	Other
urisdiction	Louisville Metro	Time Period	AM Peak Hour	PHF	1.00
tersection	Frankfort Ave & Masonic H	Analysis Year	2020 Diverted	Analysis Period	1> 7:00
le Name	AM Peak Hour Existing.xus				
Project Description	Masonic Homes				



emand Information	EB			WB			NB			SB		
pproach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	27	429	35	2	677	28	35	29	9	8	18	17

ignal Information			
Cycle, s	73.6	Reference Phase	2
Offset, s	0	Reference Point	End
ncoordinated	Yes	Simult. Gap E/W	Off
orce Mode	Fixed	Simult. Gap N/S	Off

Green	45.0	4.1	5.4	0.0	0.0	0.0
Yellow	3.6	3.6	3.6	0.0	0.0	0.0
Red	2.3	4.1	1.9	0.0	0.0	0.0



imer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
ssigned Phase		2		6		8		4
ase Number		8.0		8.0		10.0		12.0
Phase Duration, s		50.9		50.9		10.9		11.8
hange Period, (*Y*+*Rc*), s		5.9		5.9		5.5		7.7
ax Allow Headway (*MAH*), s		4.7		4.5		4.6		4.7
ueue Clearance Time (*gs*), s		6.9		9.1		3.5		3.8
Green Extension Time (*ge*), s		2.5		3.6		0.3		0.1
hase Call Probability		1.00		1.00		0.78		0.59
ax Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
pproach Movement	L	T	R	L	T	R	L	T	R	L	T	R
ssigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	251		240	373		334	35	38			43	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1690		1652	1880		1686	1757	1769			1724	
ueue Service Time (*gs*), s	0.0		4.9	0.0		7.1	1.4	1.5			1.8	
ycle Queue Clearance Time (*gc*), s	4.5		4.9	7.1		7.1	1.4	1.5			1.8	
Green Ratio (*g*/*C*)	0.61		0.61	0.61		0.61	0.07	0.07			0.06	
Capacity (*c*), veh/h	1087		1009	1198		1031	130	131			96	
olume-to-Capacity Ratio (*X*)	0.231		0.238	0.311		0.325	0.270	0.291			0.448	
vailable Capacity (*ca*), veh/h	1957		2493	2214		2281	954	961			936	
Back of Queue (*Q*), veh/ln (50th percentile)	1.4		1.4	2.3		2.1	0.6	0.7			0.8	
Queue Storage Ratio (*RQ*) (50th percentile)	0.00		0.00	0.00		0.00	0.00	0.00			0.00	
niform Delay (*d1*), s/veh	6.4		6.5	6.9		6.9	32.2	32.3			33.7	
cremental Delay (*d2*), s/veh	0.1		0.1	0.2		0.2	1.3	1.5			3.9	
nitial Queue Delay (*d3*), s/veh	0.0		0.0	0.0		0.0	0.0	0.0			0.0	
Control Delay (*d*), s/veh	6.6		6.7	7.1		7.2	33.6	33.8			37.6	
evel of Service (LOS)	A		A	A		A	C	C			D	
pproach Delay, s/veh / LOS	6.6	A		7.1	A		33.7	C		37.6	D	
ntersection Delay, s/veh / LOS	9.4						A					

ultimodal Results	EB		WB		NB		SB	
edestrian LOS Score / LOS	2.2	B	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	0.9	A	1.1	A	0.6	A	0.6	A

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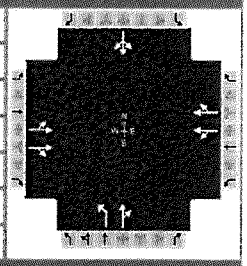
HCS 2010 Signalized Intersection Results Summary

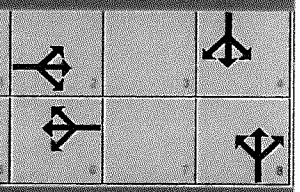
General Information				Intersection Information	
Agency	Qk4			Duration, h	0.25
Analyst	JJL	Analysis Date	Sep 18, 2013	Area Type	Other
Jurisdiction	Louisville Metro	Time Period	PM Peak Hour	PHF	0.95
Intersection	Frankfort Ave & Masonic H	Analysis Year	2020 Diverted	Analysis Period	1> 7:00
File Name	PM Peak Hour Existing.xus				
Project Description	Masonic Homes				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	65	565	72	12	538	76	74	40	17	20	34	24

Signal Information			
Cycle, s	76.5	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	Yes	Simult. Gap E/W	Off
Force Mode	Fixed	Simult. Gap N/S	Off

Green	45.0	5.8	6.6	0.0	0.0	0.0
Yellow	3.6	3.6	3.6	0.0	0.0	0.0
Red	2.3	4.1	1.9	0.0	0.0	0.0



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2		6		8		4
Case Number		8.0		8.0		10.0		12.0
Phase Duration, s		50.9		50.9		12.1		13.5
Change Period, (*Y+Rc*), s		5.9		5.9		5.5		7.7
Max Allow Headway (*MAH*), s		4.7		4.6		4.6		4.7
Queue Clearance Time (g_s), s		11.3		9.4		5.6		5.5
Green Extension Time (g_e), s		4.3		3.4		0.6		0.3
Phase Call Probability		1.00		1.00		0.95		0.83
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	363		376	350		309	78	60			82	
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1566		1652	1850		1636	1601	1803			1761	
Queue Service Time (g_s), s	0.0		9.3	0.0		7.4	3.6	2.4			3.5	
Cycle Queue Clearance Time (g_c), s	7.5		9.3	7.2		7.4	3.6	2.4			3.5	
Green Ratio (*g/C*)	0.59		0.59	0.59		0.59	0.09	0.09			0.08	
Capacity (*c*), veh/h	977		972	1137		962	139	156			133	
Volume-to-Capacity Ratio (*X*)	0.372		0.387	0.307		0.322	0.561	0.384			0.617	
Available Capacity (c_a), veh/h	1757		2726	2072		3215	837	943			921	
Back of Queue (*Q*), veh/ln (50th percentile)	2.6		2.8	2.5		2.2	1.5	1.1			1.6	
Queue Storage Ratio (*RQ*) (50th percentile)	0.00		0.00	0.00		0.00	0.00	0.00			0.00	
Uniform Delay (d_1), s/veh	8.0		8.4	8.0		8.0	33.5	33.0			34.3	
Incremental Delay (d_2), s/veh	0.3		0.3	0.2		0.2	4.2	1.9			5.5	
Initial Queue Delay (d_3), s/veh	0.0		0.0	0.0		0.0	0.0	0.0			0.0	
Control Delay (*d*), s/veh	8.3		8.7	8.2		8.2	37.8	34.9			39.8	
Level of Service (LOS)	A		A	A		A	D	C			D	
Approach Delay, s/veh / LOS	8.5	A		8.2	A		36.5	D		39.8	D	
Intersection Delay, s/veh / LOS	12.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.2	B	2.1	B	2.7	B	2.7	B
Bicycle LOS Score / LOS	1.1	A	1.0	A	0.7	A	0.6	A

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HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Elmwood Ave
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Diverted
Project ID: Masonic Homes
East/West Street: Elmwood Ave
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	258			741	2
Peak-Hour Factor, PHF	0.42	0.90			0.77	0.50
Hourly Flow Rate, HFR	11	286			962	4
Percent Heavy Vehicles	20	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				24		16
Peak Hour Factor, PHF				0.75		0.45
Hourly Flow Rate, HFR				32		35
Percent Heavy Vehicles				0		8
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	11						67	
C(m) (vph)	646						231	
v/c	0.02						0.29	
95% queue length	0.05						1.16	
Control Delay	10.7						26.8	
LOS	B						D	
Approach Delay							26.8	
Approach LOS							D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Elmwood Ave
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Diverted
Project ID: Masonic Homes
East/West Street: Elmwood Ave
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	10	552			632	8
Peak-Hour Factor, PHF	0.56	0.97			0.91	0.58
Hourly Flow Rate, HFR	17	569			694	13
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				17		9
Peak Hour Factor, PHF				0.50		0.58
Hourly Flow Rate, HFR				34		15
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	17						49	
C(m) (vph)	901						216	
v/c	0.02						0.23	
95% queue length	0.06						0.85	
Control Delay	9.1						26.5	
LOS	A						D	
Approach Delay							26.5	
Approach LOS							D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Washington Sq
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Diverted
Project ID: Masonic Homes
East/West Street: Washington Square
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	6	297			740	32
Peak-Hour Factor, PHF	0.75	0.78			0.73	0.50
Hourly Flow Rate, HFR	8	380			1013	64
Percent Heavy Vehicles	33	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT				TR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				1		8
Peak Hour Factor, PHF				0.25		0.58
Hourly Flow Rate, HFR				4		13
Percent Heavy Vehicles				0		14
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	8						17	
C(m) (vph)	544						221	
v/c	0.01						0.08	
95% queue length	0.04						0.25	
Control Delay	11.7						22.6	
LOS	B						C	
Approach Delay							22.6	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Washington Sq
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Diverted
Project ID: Masonic Homes
East/West Street: Washington Square
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	19	520			620	36
Peak-Hour Factor, PHF	0.70	0.92			0.91	0.50
Hourly Flow Rate, HFR	27	565			681	72
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				6		11
Peak Hour Factor, PHF				0.50		0.50
Hourly Flow Rate, HFR				12		22
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	27						34	
C(m) (vph)	866						276	
v/c	0.03						0.12	
95% queue length	0.10						0.42	
Control Delay	9.3						19.9	
LOS	A						C	
Approach Delay							19.9	
Approach LOS							C	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Leland Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Build
Project ID: Masonic Homes
East/West Street: Leland Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	5	257	3	15	661	34
Peak-Hour Factor, PHF	0.50	0.89	0.75	0.70	0.81	0.38
Hourly Flow Rate, HFR	10	288	4	21	816	89
Percent Heavy Vehicles	2	--	--	1	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	19	0	8	6	0	4
Peak Hour Factor, PHF	0.75	1.00	0.45	0.38	1.00	0.65
Hourly Flow Rate, HFR	25	0	17	15	0	6
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	10	21		42			21	
C(m) (vph)	752	1275		222			178	
v/c	0.01	0.02		0.19			0.12	
95% queue length	0.04	0.05		0.68			0.39	
Control Delay	9.9	7.9		25.0-			27.9	
LOS	A	A		C			D	
Approach Delay				25.0-			27.9	
Approach LOS				C			D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Leland Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Build
Project ID: Masonic Homes
East/West Street: Leland Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	23	500	11	22	733	42
Peak-Hour Factor, PHF	0.90	0.88	0.50	0.58	0.83	0.45
Hourly Flow Rate, HFR	25	568	22	37	883	93
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	20	0	12	7	2	18
Peak Hour Factor, PHF	0.59	1.00	0.39	0.44	0.50	0.61
Hourly Flow Rate, HFR	33	0	30	15	4	29
Percent Heavy Vehicles	5	0	0	0	0	6
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			No /
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	25	37		63			48	
C(m) (vph)	711	990		105			133	
v/c	0.04	0.04		0.60			0.36	
95% queue length	0.11	0.12		2.90			1.49	
Control Delay	10.2	8.8		81.0			46.6	
LOS	B	A		F			E	
Approach Delay				81.0			46.6	
Approach LOS				F			E	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: AM Peak Hour
Intersection: Chenoweth Ln & Ormand Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Build
Project ID: Masonic Homes
East/West Street: Ormand Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	8	370			703	4
Peak-Hour Factor, PHF	0.67	0.90			0.84	0.50
Hourly Flow Rate, HFR	11	411			836	8
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				20		8
Peak Hour Factor, PHF				0.50		0.50
Hourly Flow Rate, HFR				40		16
Percent Heavy Vehicles				0		17
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage				/		No /
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	11						56	
C(m) (vph)	801						212	
v/c	0.01						0.26	
95% queue length	0.04						1.02	
Control Delay	9.6						28.0	
LOS	A						D	
Approach Delay							28.0	
Approach LOS							D	

HCS+: Unsignalized Intersections Release 5.6

TWO-WAY STOP CONTROL SUMMARY

Analyst: JJL
Agency/Co.: Qk4
Date Performed: 9/18/2013
Analysis Time Period: PM Peak Hour
Intersection: Chenoweth Ln & Ormand Rd
Jurisdiction: Louisville Metro
Units: U. S. Customary
Analysis Year: 2020 Build
Project ID: Masonic Homes
East/West Street: Ormand Rd
North/South Street: Chenoweth Ln
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	14	515			795	7
Peak-Hour Factor, PHF	0.65	0.90			0.83	0.44
Hourly Flow Rate, HFR	21	572			957	15
Percent Heavy Vehicles	0	--	--		--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1			1	0
Configuration	LT					TR
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				15		9
Peak Hour Factor, PHF				0.75		0.67
Hourly Flow Rate, HFR				20		13
Percent Heavy Vehicles				0		13
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/		No	/
Lanes				0	0	
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LR	
v (vph)	21						33	
C(m) (vph)	717						155	
v/c	0.03						0.21	
95% queue length	0.09						0.77	
Control Delay	10.2						34.4	
LOS	B						D	
Approach Delay							34.4	
Approach LOS							D	

APPENDIX C

WALKING SURVEY

Study Name	**Elmwood Ave Ped Count**
Start Date	**05/24/2013**
Start Time	**7:00 AM**
Site Code	

	Westbound Approach Westbound	Eastbound Approach Eastbound
Start Time	Thru	Thru
7:00 AM	0	0
7:15 AM	0	0
7:30 AM	1	1
7:45 AM	0	0
8:00 AM	0	0
8:15 AM	0	0
8:30 AM	2	0
8:45 AM	0	0
9:00 AM	0	0
9:15 AM	1	0
9:30 AM	1	1
9:45 AM	0	0
10:00 AM	0	0
10:15 AM	0	0
10:30 AM	0	0
10:45 AM	0	0
11:00 AM	0	0
11:15 AM	0	0
11:30 AM	0	0
11:45 AM	0	0
12:00 PM	0	0
12:15 PM	0	0
12:30 PM	0	0
12:45 PM	0	0
1:00 PM	0	0
1:15 PM	0	0
1:30 PM	0	1
1:45 PM	1	0
2:00 PM	0	0
2:15 PM	0	0
2:30 PM	0	0
2:45 PM	0	0
3:00 PM	0	0
3:15 PM	0	0
3:30 PM	0	0
3:45 PM	0	0
4:00 PM	0	0
4:15 PM	3	1
4:30 PM	0	0
4:45 PM	0	0
5:00 PM	4	1
5:15 PM	0	0
5:30 PM	3	1
5:45 PM	2	0
6:00 PM	1	0
6:15 PM	4	0
6:30 PM	2	0
6:45 PM	3	0
7:00 PM	1	0
7:15 PM	0	0
7:30 PM	0	1
7:45 PM	0	0
8:00 PM	0	0
8:15 PM	0	0
8:30 PM	0	0
8:45 PM	0	0

Study Name	**Washington Square Pedestrian Gate**
Start Date	**05/24/2013**
Start Time	**7:00 AM**
Site Code	

	Westbound Approach Westbound	Eastbound Approach Eastbound
Start Time	Thru	Thru
7:00 AM	0	0
7:15 AM	1	3
7:30 AM	2	1
7:45 AM	3	1
8:00 AM	2	0
8:15 AM	0	3
8:30 AM	1	4
8:45 AM	1	1
9:00 AM	1	0
9:15 AM	0	0
9:30 AM	2	2
9:45 AM	2	2
10:00 AM	1	2
10:15 AM	2	1
10:30 AM	2	5
10:45 AM	0	0
11:00 AM	5	0
11:15 AM	4	2
11:30 AM	2	4
11:45 AM	2	2
12:00 PM	0	1
12:15 PM	0	3
12:30 PM	0	1
12:45 PM	2	1
1:00 PM	0	0
1:15 PM	2	2
1:30 PM	1	2
1:45 PM	1	2
2:00 PM	2	2
2:15 PM	2	0
2:30 PM	2	2
2:45 PM	3	3
3:00 PM	5	3
3:15 PM	1	6
3:30 PM	0	1
3:45 PM	0	0
4:00 PM	1	0
4:15 PM	3	2
4:30 PM	0	3
4:45 PM	0	0
5:00 PM	1	0
5:15 PM	0	2
5:30 PM	0	1
5:45 PM	1	0
6:00 PM	0	3
6:15 PM	0	0
6:30 PM	0	2
6:45 PM	0	0
7:00 PM	0	0
7:15 PM	0	0
7:30 PM	0	4
7:45 PM	0	0
8:00 PM	1	0
8:15 PM	0	1
8:30 PM	1	0
8:45 PM	1	2

APPENDIX D

STAFF AND RESIDENT SURVEY

Masonic Homes of Kentucky is currently reviewing traffic flow and accessibility on our Louisville campus. ***You can help us by completing the following survey and returning it to the Sam Swope Care Center Concierge by close of business Wednesday, July 10.*** Participation is voluntary and your responses are solely for Masonic Homes of Kentucky's use in creating a more enjoyable environment on our campus. If you have questions or concerns, please contact Masonic Homes' Senior Vice President for Human Resources Trasee Whitaker (753-8893; twhitaker@mhky.com).

Where do you work on the Louisville campus?

□ Sproutlings □ Miralea □ Campus Maintenance □ Corporate Office □ Rehab
□ Sam Swope Care Center □ The Pillars Assisted Care Center □ Security
□ Masonic Home Village/Club Olmsted/The Bistro

How do you usually get to and from work?

□ Drive my own vehicle □ Bus □ Walk □ Carpool with another MHKY employee
□ Dropped off and picked up by another driver

In which Zip Code is your home located? _____

Do you currently use the walking gates on the east side of the Louisville campus?

□ Yes □ No

If you currently use the walking gates, how often do you use them?

□ Daily □ 3 to 5 Times a Week □ 1 or 2 Times a Week □ I do not use the walking gates

If available solely for resident and MHKY employee use, would you use an east campus exit to Chenoweth Lane? __ Yes ___ No

If a restricted east campus exit to Chenoweth Lane was available for you to drive off and onto the Louisville campus, please estimate how often you would use it.

□ Daily □ 5 Times a Week □ 2 to 4 Times a Week □ Once a Week □ I would not use it

How would you prefer MHKY and management at your location communicate with you?

□ Printed materials (like *Pillar Talk* and this survey)
□ MHKY Intranet or MHKY e-mail
□ Your personal e-mail
□ Text messages to your mobile phone or tablet
□ Group staff meetings

If you have any comments about these questions or this survey, please tell us:

_____

_____

Please return your completed survey to the Sam Swope Care Center Concierge by 5 p.m. Wednesday, July 10. Thank you for participating.

Location	Mode of Transport	Zip Code	Currently use gate	# of times/week	Would you use gate?	If restricted how often would you use it?	Comments
Corp	own vehicle	40206	No	N/A	Yes	2-4/week	
Corp	own vehicle	40207	Yes	3-5/week	Yes	Daily	
Corp	own vehicle	47130	No	N/A	Yes	5/week	
Corp	own vehicle	40014	No	N/A	Yes	Daily	
Corp	own vehicle	40241	No	N/A	Yes	5/week	
Corp	own vehicle	47150	No	N/A	Yes	2-4/week	
Corp	own vehicle	40031	No	N/A	Yes	5/week	
Corp	own vehicle	40207	Yes	5/week	yes	5/week	
Corp	own vehicle	40228	No	N/A	Yes	1/week	
Corp	own vehicle	40206	No	N/A	Yes	5/week	
Corp	own vehicle	40291	Yes	3-5/week	Yes	2-4/week	
Corp	own vehicle	40205	No	N/A	Yes	1/week	
Corp	own vehicle	40217	No	N/A	Yes	1/week	
Corp	own vehicle	40223	Yes	3-5/week	Yes	Daily	
Corp	own vehicle	40023	Yes	1-2/week	Yes	Daily	
Corp	own vehicle	40031	Yes	1/month	Yes	Daily	
Maintenance	own vehicle	40213	No	N/A	No	no	
Maintenance	own vehicle	40213	No	N/A	Yes	2-4/week	
Maintenance	own vehicle	40023	No	N/A	Yes	Daily	
Maintenance	own vehicle	40207	Yes	3-5/week	Yes	2-4/week	
Maintenance	own vehicle	40204	No	N/A	No	no	
Maintenance	own vehicle	40219	No	N/A	Yes	2-4/week	
Maintenance	own vehicle	40203	No	N/A	No	no	
Maintenance	own vehicle	40212	Yes	1-2/week	Yes	Daily	
Maintenance	own vehicle	40047	No	N/A	No	2-4/week	
Miralea	own vehicle	40206	No	N/A	Yes	Daily	
Miralea	own vehicle	40291	No	N/A	Yes	2-4/week	
Miralea	own vehicle	40207	No	N/A	Yes	2-4/week	
Miralea	own vehicle	40047	No	N/A	Yes	2-4/week	
Miralea	own vehicle	40207	No	N/A	Yes	5/week	
Miralea	own vehicle	40204	No	N/A	No	no	
Miralea	own vehicle	40206	No	N/A	Yes	1/week	
Miralea	own vehicle	40291	No	N/A	Yes	2-4/week	
Miralea	own vehicle	40291	No	N/A	Yes	1/week	
Miralea	own vehicle	40216	No	N/A	Yes	Daily	
Miralea	own vehicle	47130	No	N/A	No	no	
Miralea	own vehicle	40216	No	N/A	Yes	no	
Miralea	bus	40216	Yes	3-5/week	Yes	5/week	
Miralea	own vehicle	40207	No	N/A	Yes	Daily	
Miralea	own vehicle	40207	No	N/A	Yes	Daily	
Miralea	own vehicle	40047	Yes	Daily	Yes	5/week	need more employee parking
Miralea	own vehicle	40014	No	N/A	No	no	
Miralea	own vehicle	40218	No	N/A	Yes	2-4/week	
Miralea	own vehicle	40213	No	N/A	No	no	
Miralea	own vehicle	40245	No	N/A	Yes	2-4/week	
Miralea	own vehicle	40206	No	N/A	No	no	
Miralea	own vehicle	40212	No	N/A	No	no	
Miralea	own vehicle	40208	No	N/A	No	no	
Miralea	own vehicle	40204	No	N/A	No	no	
Miralea	own vehicle	40242	No	N/A	Yes	Daily	
Miralea	own vehicle	40242	No	N/A	Yes	1/week	
Miralea	own vehicle	40206	No	N/A	No	no	
Security	own vehicle	40258	No	N/A	Yes	2-4/week	
Security	own vehicle	40215	No	N/A	Yes	Daily	
Security	own vehicle	40258	No	N/A	No	no	
Security	own vehicle	40214	No	N/A	Yes	2-4/week	
Security	own vehicle	40214	No	N/A	No	no	
Security	own vehicle	40208	No	N/A	Yes	2-4/week	
Security	own vehicle	40214	No	N/A	No	no	
Sproutlings	own vehicle	40291	No	N/A	No	no	
Sproutlings	own vehicle	40291	No	N/A	Yes	2-4/week	
Sproutlings	Bus	40211	No	Daily	No	no	
Sproutlings	own vehicle	40207	No	N/A	No	no	

Sproutlings	own vehicle	47150	No	N/A	Yes	1/week
Sproutlings	own vehicle	40241	No	N/A	Yes	5/week
Sproutlings	own vehicle	40206	No	N/A	No	no
Sproutlings	own vehicle	40206	No	N/A	No	no
Sproutlings	own vehicle	40291	No	N/A	No	no
Sproutlings	own vehicle	40222	No	N/A	No	no
Sproutlings	own vehicle	40245	No	N/A	Possibly	5/week
Sproutlings	own vehicle	40204	No	N/A	No	no
Sproutlings	own vehicle	40206	No	N/A	Yes	Daily
Sproutlings	own vehicle	40206	No	N/A	Yes	1/week
Sproutlings	Bus	40216	No	N/A	Yes	Daily
Sproutlings	own vehicle	40299	No	N/A	Yes	2-4/week
Sproutlings	own vehicle	40067	No	N/A	No	no
Sproutlings	own vehicle	40204	No	N/A	Yes	Daily
Sproutlings	own vehicle	40241	No	N/A	Yes	2-4/week
Sproutlings	own vehicle	40205	No	N/A	No	no
Miralea	own vehicle	40206	No	N/A	Yes	2-4/week

Location	Mode of Transport	Zip Code	Currently use gate	# of times/week	Would you use gate?	If restricted how often would you use it?	Comments
Pillars	own vehicle	40202	N	N	N	N	
Pillars	own vehicle	40229	N	N	N	N	
Pillars	own vehicle	40216	N	N	N	N	
Pillars	own vehicle	40211	N	N	N	N	
Pillars	own vehicle	40216	N	N	N	N	
Pillars	own vehicle	40245	N	N	Y	5/week	
Pillars	own vehicle	40220	N	N	N	5/week	
Pillars	own vehicle	40212	Y	1-2/week	Y	N	
Pillars	own vehicle	40220	N	N	N	N	
Pillars	own vehicle	40219	N	N	N	N	
Pillars	own vehicle	40223	N	N	N	N	
Pillars	own vehicle	40210	N	N	N	N	
Pillars	Bike	40211	N	N	N	N	
Pillars	own vehicle	40211	N	N	Y	N	
Pillars	own vehicle	40211	N	N	N	N	
Pillars	bus	40211	N	N	N	N	
Pillars	bus	40214	N	N	N	N	
Pillars	own vehicle	40211	N	N	N	N	
Pillars	own vehicle	40214	N	N	N	N	
Rehab	own vehicle	40118	N	N	N	N	
Rehab	own vehicle	40217	N	N	Y	2-4/week	
Rehab	own vehicle	40222	N	N	Y	Daily	
Rehab	own vehicle	40258	N	N	Y	Daily	
Rehab	own vehicle	40214	N	N	Y	N	
Rehab	own vehicle	40222	N	N	Y	Daily	
Rehab	own vehicle	40220	N	N	Y	Daily	
Rehab	own vehicle	40205	N	N	N	N	
Rehab	own vehicle	40218	N	N	Y	2-4/week	
Rehab	own vehicle	40205	N	N	Y	1/week	
SSCC	own vehicle	40059	N	N	Y	5/week	
SSCC	own vehicle	40222	N	N	N	N	
SSCC	own vehicle	47150	N	N	N	N	I would use the east gate if asked to
SSCC	own vehicle	40258	N	N	Y	1/week	
SSCC	own vehicle	47165	N	N	N	N	
SSCC	own vehicle	40219	N	N	Y	N	
SSCC	own vehicle	40165	N	N	N	N	
SSCC	own vehicle	40065	N	B	Y	5/week	
SSCC	own vehicle	40299	N	N	N	N	
SSCC	own vehicle	40220	N	N	N	N	
SSCC	own vehicle	40047	N	N	N	N	
SSCC	own vehicle	40272	N	N	Y	1/week	
SSCC	own vehicle	40299	N	N	Y	Daily	
SSCC	own vehicle	40229	N	N	N	N	
SSCC	own vehicle	40207	N	N	Y	2/4 week	
SSCC	own vehicle	40291	N	N	Y	2/4 week	
SSCC	own vehicle	40229	N	N	N	N	
SSCC	own vehicle	40212	N	N	Y	Daily	
SSCC	own vehicle	40219	Y	3-5/week	Y	2-4/week	
SSCC	own vehicle	40299	N	N	Y	2/4 week	

Location	Mode of Transport	Zip Code	Currently use gate	# of times/week	Would you use gate?	If restricted how often would you use it?	Comments
SSCC	own vehicle	40291	N	N	N	N	
SSCC	own vehicle	40210	N	N	N	N	
SSCC	bus	40203	N	N	N	N	
SSCC	own vehicle	40212	N	N	N	N	
SSCC	own vehicle	40206	N	N	N	N	
SSCC	own vehicle	40206	N	N	Y	N	
SSCC	own vehicle	40206	N	N	Y	Daily	
SSCC	own vehicle	40210	N	N	Y	5/week	
SSCC	Carpool	40211	N	N	Y	5/week	
SSCC	own vehicle	40219	N	N	Y	5/week	
SSCC	own vehicle	40291	N	N	Y	Daily	
SSCC	own vehicle	40203	N	N	Y	5/week	
SSCC	bus	40211	N	N	N	N	
SSCC	own vehicle	40242	N	N	Y	Daily	
SSCC	own vehicle	40213	N	N	Y	2-4/week	
SSCC	own vehicle	40220	N	N	Y	2-4/week	
SSCC	own vehicle	40071	N	N	Maybe	2-4/week	
SSCC	own vehicle	40241	N	N	Y	Daily	
SSCC	own vehicle	40258	N	N	N	N	
SSCC	bus	40204	N	N	N	N	
SSCC	own vehicle	40211	N	N	N	N	
SSCC	own vehicle	40219	N	N	N	N	
SSCC	own vehicle	40228	N	N	N	N	
SSCC	own vehicle	40258	N	N	N	N	
SSCC	bus	40204	Y	3-5/week	Y	5/week	
SSCC	dropped	?	N	N	N	N	
SSCC	own vehicle	40291	N	N	N	N	
SSCC	own vehicle	40208	N	N	N	N	
SSCC	own vehicle	?	N	N	N	N	
SSCC	own vehicle	40223	N	N	Y	1/week	
Rehab	own vehicle	40204	N	N	Y	5/week	
SSCC	bus	40214	N	N	N	N	
SSCC	dropped	40211	N	N	N	N	
Pillars	own vehicle	40216	N	N	Y	5/week	
SSCC	own vehicle	40212	N	N	Y	2-4/week	
Pillars	own vehicle	40216	N	N	Y	Daily	
SSCC	own vehicle	47135	N	N	N	N	
SSCC	own vehicle	40219	N	N	N	N	
SSCC	dropped	40210	N	N	N	N	
SSCC	own vehicle	47130	N	N	N	N	
SSCC	own vehicle	40229	N	N	N	N	
SSCC	own vehicle	40207	N	N	N	N	
SSCC	walk	40041	N	N	Y	Daily	
SSCC	own vehicle	40214	N	N	N	N	

Masonic Homes of Kentucky is currently reviewing traffic flow and accessibility on our Louisville campus. You have received this survey because you have registered a vehicle with us. ***You can help us by completing the following survey and returning it to the Miralea Concierge by close of business Wednesday, July 10.*** Your participation is voluntary and your responses are solely for Masonic Homes of Kentucky's use in creating a more enjoyable living experience for you on our campus. If you have questions or concerns, please contact Masonic Homes' Chief Communications Officer CJ Parrish (753-8806; cjparrish@mhky.com). ***Thank you for your participation.***

How often do you drive your car off the Louisville campus?

□ Daily □ 5 Times or More a Week □ 2 to 4 Times a Week □ Once a Week

If available solely for resident and MHKY employee use, would you use an east campus exit to Chenoweth Lane?

□ Yes □ No

If a restricted east campus exit to Chenoweth Lane was available for you to drive off and onto the Louisville campus, please estimate how often you would use it.

□ Daily □ 5 Times or More a Week □ 2 to 4 times a week □ Once a Week
□ I would not use it

Do you currently use the walking gates on the east side of the Louisville campus?

□ Yes □ No

If you currently use the walking gates, how often do you use them?

□ Daily □ 3 to 5 Times a Week □ 1 or 2 Times a Week □ I do not use the walking gates

If you have any comments about these questions or this survey, please tell us:

_____

_____

Please return your completed survey to the Miralea Concierge by 5 p.m. Wednesday, July 10. Thank you for participating.

Location	How often do you drive off campus?	Would you use gate?	If restricted how often would you use it?	Currently use the walking gate?	How often?	Comments
Village	2-3/Daily	Yes	2-3/Daily	No		Long overdue. Public street-believes unlawful to be closed. Open it quick!
Village	Daily	Yes	Daily	Yes	Daily	
Village	Daily	Yes	Daily	No	N/A	We need more that one way in/out. W/Square has contract problems. How about an exit near Miralea
Village	2-4/Week	Yes	2-4/Week	No	N/A	
Village	Daily	Yes	Daily	Yes	3-5/week	thanks
Village	Daily	no	no	no	N/A	Get the gates open anyway.
Village	5/week	Yes	2-4/Week	No	N/A	What happened to the West gate discussion?
Village	Daily	Yes	Daily	Yes	3-5/week	
Village	2-4/Week	no	Occasional	No	N/A	Doesn't like change, but would use on occasion. Need Residents only sign.
Village	Daily	no	no	No	N/A	
Village	Daily	Yes	2-4/Week	No	N/A	
Village	5/week	Yes	2-4/Week	No	N/A	
Village	Daily	Yes	2-4/Week	Yes	1-2/week	concerned with residents trying to back out of parking and others driving through.
Village	Daily	Yes	1/week	No	N/A	
Village	Daily	Yes	Daily	No	N/A	I still would like to see yellow lines in place of what we have.
Village	2-4/week	no	No	No	N/A	Drives very little. Lives on West side of campus. Would not use.
Village	2-4/Week	Yes	2-4/Week	No	N/A	
Village	Daily	Yes	5 or more	No	N/A	
Village	5/week	Yes	5 or more	Yes	1-2/week	St.Matthews traffic is bad. Getting to Chenoweth Lane is impossible.
Village	Daily	Yes	Daily	No	N/A	
Village	2-4/Week	Yes	1/week	No	N/A	
Village	2-4/Week	Yes	2-4/Week	No	N/A	
Village	Daily	Yes	5 or more	No	N/A	
Village	1/week	Yes	1/week	No	N/A	I worry about the residents walking because of the speed of the cars
Village	2-4/Week	Yes	2-4/Week	No	N/A	I have friends living on Elmwood who were very upset at the last proposal. Do Not open Elmwood.
Village	1/week	no	no	No	N/A	
Village	2-4/Week	Yes	2-4/Week	No	N/A	
Village	2-4/Week	Yes	no	No	N/A	It would be great to have alternate route when there is a train blocking entrance. Back access would help in that direction
Village	2-4/Week	Yes	no	No	N/A	
Village	Daily	no	no	No	N/A	Not familiar with that neighborhood.
Village	5/week	Yes	5 or more	No	N/A	As long as it is restricted to residents and employees. People don't respect the speed limit
Miralea	Daily	Yes	Daily	No	N/A	
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	Daily	Yes	Daily	
Miralea	Daily	Yes	5 or more	No	N/A	train tracks need to be smoother. Would be glad to have another access.
Miralea	Daily	Yes	Daily	Yes	3-5/week	Need the second access.
Miralea	Daily	Yes	2-4/Week	Yes	3-5/week	
Miralea	Daily	Yes	Daily	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	5/week	Yes	5 or more	No	N/A	Another entrance would be great
Miralea	Daily	Yes	Daily	No	N/A	Another entrance would be great
Miralea	5/week	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	5/week	Yes	5 or more	No	N/A	Another entrance would be great
Miralea	1/week	Yes	5 or more	Yes	1-2/week	safety concern.
Miralea	Daily	no	2-4/Week	No	N/A	
Miralea	5/week	Yes	2-4/Week	No	N/A	
Miralea	1/week	Yes	1/week	No	N/A	
Miralea	5/week	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	5 or more	Yes	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	
Miralea	5/week	Yes	2-4/Week	No	N/A	
Miralea	5/week	Yes	1/week	No	N/A	
Miralea	Daily	Yes	1/week	No	N/A	I could go to Kroger without crossing the RR tracks twice
Miralea	5/week	Yes	5 or more	No	1-2/week	
Miralea	5/week	Yes	5 or more	No	1-2/week	
Miralea	5/week	Yes	5 or more	No	N/A	It would decrease my travel time over to Brownsboro Rd. greatly
Miralea	Daily	Yes	Daily	No	N/A	We need two entrances....
Miralea	5/week	Yes	5 or more	No	N/A	
Miralea	5/week	Yes	2-4/Week	No	N/A	
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	
Miralea	5/week	Yes	2-4/Week	No	N/A	
Miralea	5/week	Yes	5 or more	No	N/A	
Miralea	1/week	no	no	No	N/A	Would use if Frankfort Ave. was blocked
Miralea	2-4/Week	no	2-4/Week	No	N/A	
Miralea	5/week	Yes	5 or more	No	N/A	
Miralea	5/week	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	Frankfort Ave is constant traffice jam. Any relief would be welcome
Miralea	5/week	Yes	5 or more	No	N/A	Considering number of residents living on campus, additional has become a necessity
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	
Location	How often do you drive off campus?	Would you use gate?	If restricted how often would you use it?	Currently use the walking gate?	How often?	Comments
Miralea	5/week	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	Daily	No	N/A	Desperately needed. Kroger runs and access to Brownsboro Rd and downtown would be easier.
Miralea	Daily	Yes	1/week	No	N/A	
Miralea	Daily	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	2-4/Week	No	N/A	Would love to have another exit!

Miralea	Daily	Yes	2-4/Week	No	N/A	East access would be a great addition
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	5/week	Yes	2-4/Week	Yes	1-2/week	
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	2-4/Week	no	no	No	N/A	
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	
Miralea	5/week	Yes	5 or more	No	N/A	
Miralea	Daily	Yes	Daily	Yes	1-2/week	
Miralea	1/week	Yes	1/week	No	N/A	
Miralea	5/week	Yes	2-4/Week	No	N/A	
Miralea	Daily	Yes	2-4/Week	No	N/A	If the city were aware of the amount of traffic that goes in an out of here perhaps they could adjust traffic light
Miralea	Daily	Yes	2-4/Week	No	N/A	
Miralea	2-4/Week	Yes	1/week	No	N/A	
Miralea	Daily	Yes	only as emergency	No	N/A	
Miralea	Daily	no	no	No	N/A	
Miralea	2-4/Week	no	no	No	N/A	
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	Only one entrance is scary
Miralea	5/week	no	no	No	N/A	
Miralea	2-4/Week	Yes	2-4/Week	No	N/A	
Miralea	5/week	Yes	5 or more	no	N/A	Great idea to open east access
Miralea	2-4/Week	Yes	2-4/Week	no	N/A	
Miralea	Daily	Yes	Daily	No	N/A	
Miralea	Daily	Yes	Daily	No	N/A	
Miralea	Daily	Yes	5 or more	Yes	1-2/week	feel sorry for Washington square residents. At least we should not come back in that way.
Miralea	5/week	Yes	5 or more	No	N/A	As a former W/S resident I am interested in MHKY's approach/strategy regarding restricted ingress/egress
Miralea	2-4/week	Yes	1/week	No	N/A	
Miralea	4-5/week	Yes	2-4/Week	No	N/A	It would be nice to have additional access.
Miralea	2-4/week	Yes	1/week	No	N/A	
Miralea	Daily	Yes	1/week	No	N/A	
Miralea	Daily	Yes	Daily	No	N/A	Please work it out to get it open
Village	Daily	Yes	1/week	No	N/A	
Village	2-4/Week	no	1/week	No	N/A	
Village	5/week	Yes	5 or more	Yes	3-5/week	
Village	1/week	no	no	No	N/A	
Village	Daily	no	1/week	Yes	1-2/week	
Village	Daily	no	no	Yes	1-2/week	
Village	5/week	Yes	5 or more	No	N/A	
Village	2-4/Week	Yes	1/week	No	N/A	
Village	2-4/Week	no	no	No	N/A	Another entrance would be helpful for emergency responders
Village	Daily	Yes	5 or more	No	N/A	
Village	Daily	Yes	5 or more	No	N/A	
Village	2-4/Week	Yes	2-4/Week	No	N/A	
Village	Daily	no	1/week	No	N/A	
Village	5/week	Yes	2-4/Week	No	N/A	
Village	5/week	Yes	2-4/Week	No	N/A	
Village	5/week	Yes	2-4/Week	No	N/A	makes sense to have an alternate entrance
Village	Daily	Yes	Daily	Yes, but rarely	N/A	This would be a wonderful improvement to our campus
Village	Daily	Yes	no	Yes, but rarely	1-2/week	It would be a great service to be able to use the east access
Village	2-4/Week	Yes	2-4/Week	No	N/A	It would help relieve traffic when there is a large function at the olmsted.
Village	1/week	no	no	No	N/A	Emergency only
Village	2-4/Week	no	no	No	N/A	
Village	5/week	Yes	5 or more	No	N/A	
Village	2-4/Week	Yes	2-4/Week	No	N/A	
Village	Daily	Yes	Daily	No	N/A	Speed is a great concern
Village	2-4/Week	no	no	No	N/A	
Village	1/week	Yes	1/week	No	N/A	
Village	Daily	Yes	2-4/Week	No	N/A	
Village	1-2/week	Yes	2-4/Week	Yes	1-2/week	Could family have access?
Village	5/week	Yes	2-4/Week	No	N/A	