



MEMORANDUM

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Date: February 14, 2012

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Subject: **Churchmans Crossing Traffic Monitoring**
Fall 2011 Counts

This memo summarizes the latest updates to the Churchmans Crossing traffic monitoring program. Traffic data for the study was collected during October and November 2011. This represents the thirteenth time the intersections have been counted since the annual traffic monitoring program began in 2000. Nine different intersections have been studied each year between 2005-2010. The same nine intersections were studied again in 2011.

The nine intersections studied in 2011 are listed below. The number in parentheses behind the intersection name is the identification number that the intersection has been referenced by in previous years, and corresponds with the numbered list of intersections in the attached Traffic Summary.

- SR 2 / Harmony Road (1)
- SR 7 / SR 4 (Stanton Split) (4)
- SR 4 / SR 7 / J.P. Morgan (5)
- SR 4 / Harmony Road (8)
- SR 273 / Harmony Road (14)
- SR 273 / Chapman Road / Eagle Run Road (15)
- SR 273 / Old Baltimore Pike (16)
- SR 7 / SR 273 (17)
- SR 2 / Red Mill Road / Polly Drummond Hill Road (22)

This update also includes changes to the programs and software packages used to provide intersection LOS and delay results. Over the past decade, these software packages have undergone several upgrades and RK&K has been instructed to use the most current edition for each traffic monitoring update. Previously, Highway Capacity Software HCS+ 5.5 and SYNCHRO Version 7 (Build 773, Rev 8) were used. For this update, the newest version of SYNCHRO Version 8 was used. The same version of HCS+ 5.5 software was used in this report.

Key Findings from 2011 CLV Analysis

- In 2011, three intersections operated at a *better* level of service in the AM peak than in 2010, and four intersections operated at a *better* level of service in the PM peak.
- In 2011, two intersections operated at a *worse* level of service in the AM peak than in 2010, and zero intersections operated at a worse level of service in the PM peak.
- The most significant change in level of service from 2010 to 2011 was observed at the SR 273 / Harmony Road intersection where, during the PM peak, the level of service *improved* from LOS F to LOS E.

One factor that may have affected the Churchman's Crossing analyses results are the intersection modifications at SR 273 and Harmony Road which were completed before the 2011 traffic counts were performed. The improvements included the lengthening of the westbound left-turn lane and the conversion of eastbound and westbound left-turn phasing on SR 273 from permitted-protected to protected only, recommended by a study of the crash history at this intersection.

Additionally, the SR 2 at Harmony Road intersection has also undergone a minor geometric change along with a signal phasing change between the 2010 and 2011 traffic counts; the westbound left turn lane storage length was increased from 550 feet to 1,400 feet to accommodate longer queues associated with a left turn phasing change. Specifically, the eastbound and westbound left turn phasing on SR 2 has become a protected only left-turn instead of a permitted-protected left-turn, as a result of safety concerns related to left turn crashes at this intersection.

AM Peak Summary

Attached to this memo are turning movement count data tables for each intersection with the respective Level of Service (LOS) and volume to capacity ratio computed using the Critical Lane Volume (CLV) analysis method; also included are intersection LOS and the corresponding delay in seconds computed using HCS+ and SYNCHRO Version 8. A comparison between the AM peak hour Levels of Service (LOS) computed using the three analysis methods for the 2010 and 2011 counts indicate that:

- One (1) intersection operated at the same LOS as the previous year for all analysis methods:
 - SR 4 / SR 7 / J.P. Morgan (5)
- Four (4) intersections operated at an improved LOS for at least one analysis methods:
 - SR 4 / Harmony Road (8)
 - SR 273 / Old Baltimore Pike (16)
 - SR 7 / SR 273 (17)
 - SR 2 / Red Mill Road / Polly Drummond Hill Road (22)
- Four (4) intersections operated at a worse LOS for at least one analysis method:
 - SR 2 / Harmony Road (1)
 - SR 7 / SR 4 (Stanton Split) (4)
 - SR 273 / Harmony Road (14)
 - SR 273 / Chapman Road / Eagle Run Road (15)

Table 1 shows the Level of Service (LOS) for the Fall 2011 counts for each of the eight (8) intersections that experienced a change in LOS during the AM peak; the change from 2010 to 2011 is also shown. The results in Table 1 indicate some slight variation in the level of service calculated using each of the three methods. These slight differences are reasonably expected when comparing multiple analysis methods due to the different approaches and assumptions about capacity found in these methods. The trends and comparisons with prior counts that follow are based primarily on the CLV results:

Traffic trends during the AM peak on SR 2 varied on the corridor. While SR 2 eastbound and westbound thru traffic at Polly Drummond Hill/Red Mill Road decreased compared to 2010, resulting in an improvement in level of service (from LOS E to LOS D), SR 2 traffic levels were relatively consistent at Harmony Road, where the LOS was unchanged from 2010 according to the CLV analysis. The LOS decreased at this location, however, according to results from the HCS and Synchro analyses (LOS B to LOS D). This could be a result of the signal phasing change that took place in the Fall of 2011, which converted the eastbound and westbound left-turn phasing to protected only. This reduced the effective green time for northbound traffic, decreasing the approach LOS, and ultimately decreasing the intersection LOS.

Similar variations in traffic trends in the AM peak were observed on the SR 4/SR 7 corridor. AM peak hour traffic decreased for a majority of turning movements at the intersection of SR 4 at Harmony Rd, resulting in an improvement in level of service (from LOS F to LOS E), while traffic levels increased at SR 4/SR 7 Stanton Split, resulting in a decline of level of service (from LOS C to LOS D). Traffic was nearly unchanged at the intersection of SR 7/SR 4 J.P. Morgan, where no change in level of service (LOS A) was reported.

Traffic trends varied along SR 273, where two out of the four intersections on the corridor reported changes in level of service. AM peak hour traffic increased at the intersection of SR 273 and Chapman Road/Eagle Run Road, resulting in a decline in level of service (from LOS D to LOS E), while traffic levels at SR 273/SR 7 decreased, resulting in an improvement in level of service (from LOS D to LOS C). No change in level of service from 2010 to 2011 was reported at the SR 273 intersections with Harmony Road (LOS E) or Old Baltimore Pike (LOS D).

Table 1			
AM Peak Hour			
Intersection Level of Service (LOS) Comparison			
For All Intersections Experiencing a Change in AM Peak LOS			
	Fall 2011 LOS		
	(Change in LOS from 2010 to 2011)		
	CLV	HCS	SYNCHRO
SR2 / Harmony Road (1)	C ()	D (-)	D (-)
SR 7 / SR 4 (Stanton Split) (4)	D (-)	C ()	D ()
SR 4 / Harmony Road (8)	E (+)	D (+)	D (+)
SR 273 / Harmony Road (14)	E ()	D (-)	D (-)
SR 273 / Chapman Road / Eagle Run Road (15)	E (-)	D ()	D ()
SR 273 / Old Baltimore Pike (16)	D ()	C (+)	C (+)
SR 273 / SR 7 (17)	C (+)	E (+)	F ()
SR 2 / Red Mill Road / Polly Drummond Hill Road (22)	D (+)	D (+)	D (+)
() No change in LOS (+) Improved by 1 LOS (-) Declined by 1 LOS			

PM Peak Summary

A comparison between the PM peak hour Levels of Service (LOS) for the Fall 2010 and Fall 2011 counts indicates that:

- One (1) intersection operated at the same LOS as the previous year for all analysis methods:
 - SR 7 / SR 4 (Stanton Split) (4)
- Six (6) intersection operated at a better LOS for one analysis method:
 - SR 4 / SR 7 / J.P. Morgan (5)
 - SR 4 / Harmony Road (8)
 - SR 273 / Harmony Road (14)
 - SR 273 / Old Baltimore Pike (16)
 - SR 7 / SR 273 (17)
 - SR 2 / Red Mill Road / Polly Drummond Hill Road (22)
- Two (2) intersection operated at a worse LOS for at least one analysis method:
 - SR 2 / Harmony Road (1)
 - SR 273 / Chapman Road / Eagle Run Road (15)

Table 2 shows the Level of Service (LOS) computed by each analysis method for the Fall 2011 counts for the eight (8) intersections that experienced a change in LOS during the PM peak; the change in LOS from 2010 to 2011 is also shown. The following trends and comparisons with prior counts are based primarily on the CLV results:

PM peak traffic trends during the PM peak on SR 2 indicated minimal changes compared to 2010, resulting in no changes to levels of service at the intersections of SR 2 at Red Mill Road/Polly Drummond Hill Road (LOS E) and SR 2 at Harmony Road (LOS D).

Variations in PM peak trends indicated a decrease in traffic at the intersection of SR 4/SR 7 at J.P. Morgan, resulting in an improvement in the level of service (from LOS E to LOS D). No change in level of service from Fall 2010 to Fall 2011 was reported at the SR 4/SR 7 intersections with Harmony Road (LOS E) or at the Stanton Split (LOS F).

Traffic trends varied along SR 273, where three out of the four intersections on the corridor reported improvements in level of service. At the intersection of SR 273 and Harmony Road, through traffic on westbound and eastbound SR 273 decreased compared to 2010 levels, resulting in an improvement in level of service from LOS F to LOS E. At the intersections of SR 273/Old Baltimore Pike and SR 7/SR 273, decreased levels of traffic on the mainline approaches and cross-streets contributed to an improvement in level of service (both from LOS D to LOS C). SR 273 traffic levels were relatively consistent at Chapman Road/Eagle Run Road where level of service was unchanged from 2010 (LOS E).

Table 2 PM Peak Hour Intersection Level of Service (LOS) Comparison For All Intersections Experiencing a Change in PM Peak LOS			
	Fall 2011 LOS (Change in LOS from 2010 to 2011)		
	CLV	HCS	SYNCHRO
SR 2 / Harmony Road (1)	D ()	D (-)	C ()
SR 4 / SR 7 / J.P. Morgan (5)	D (+)	E (+)	C ()
SR 4 / Harmony Road (8)	E ()	D (+)	D ()
SR 273 / Harmony Road (14)	E (+)	D (+)	D (+)
SR 273 / Chapman Road / Eagle Run Road (15)	E ()	E (-)	E (-)
SR 273 / Old Baltimore Pike (16)	C (+)	C (+)	D ()
SR 273 / SR 7 (17)	C (+)	E ()	E ()
SR 2 / Red Mill Road / Polly Drummond Hill Road (22)	E ()	D (+)	D (+)
() No change in LOS (+) Improved by 1 LOS (-) Declined by 1 LOS			

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Fall 2011 Traffic Summary

NOTE: LOS comparisons based on Critical Lane Volume (CLV) analyses

1. SR 2 / Harmony Road

In fall 2011, the SR 2 / Harmony Road intersection was partially reconstructed to increase the westbound left-turn lane storage length from 550 feet to 1,400 feet. The eastbound and westbound left-turn signal phasing on SR 2 was also converted to protected only due to the left-turn crash history at this location. These changes were completed before the October 2011 traffic counts.

AM: Even with the modifications described above, the level of service remains unchanged at LOS C (V/C = 0.72 to 0.73). The intersection has operated at LOS C or D for the past 12 years. Left-turning and right-turning northbound traffic from Harmony Road decreased 4% and 11%, respectively, resulting in an overall 9% decrease (-60 vehicles) for the approach during the AM peak hour. Overall, approach volumes on eastbound and westbound SR 2 are generally consistent with 2010 volumes.

PM: Similarly, even with the modifications described above, the level of service remained constant at LOS D (V/C = 0.85 to 0.84). This intersection has operated at LOS D or E for the duration of this traffic monitoring program. Left-turning and right-turning northbound traffic from Harmony Road decreased 3% and 15%, respectively, resulting in an overall 11% decrease (-138 vehicles) for the approach. Eastbound right-turning traffic from SR 2 increased 13% (+37 vehicles). Overall, traffic volumes on the eastbound and westbound approaches are generally consistent with 2010 volumes.

4. SR 7 / SR 4 (Stanton Split)

AM: Level of service worsened from LOS C (V/C = 0.79) to LOS D (V/C = 0.81). This intersection has operated at LOS C or D for the duration of this traffic monitoring program. Southbound left-turning traffic from SR 7 increased 13% (+40 vehicles). Westbound through traffic from SR 4 increased 10% (+78 vehicles). Eastbound traffic from SR 4/SR 7 and westbound right-turning traffic remained relatively constant.

PM: Level of service remained constant at LOS F (V/C = 1.09 to 1.08) marking the sixth year the intersection has been reported to operate at LOS F since 2000. Traffic during the PM peak hour on the westbound approach from SR 4 increased 18% (+254 vehicles). Traffic on the eastbound approach from SR 4/SR 7 decreased 11% (-306 vehicles). Traffic on the southbound SR 7 approach remained relatively unchanged.

5. SR 4 / SR 7 / J.P. Morgan

AM: Level of service remained constant at LOS A (V/C = 0.58). Except for in 2003 (LOS D), this intersection has operated at LOS C or better during this traffic monitoring program. Southbound left-turning vehicles from SR 7 increased 12% (+22 vehicles) while eastbound left-turning vehicles from SR 4 decreased 12% (-40 vehicles). However, overall, traffic on all intersection approaches remained relatively constant, fluctuating between 0-3% from 2010 volumes.

PM: Level of service improved from LOS E (V/C = 0.92) to LOS D (V/C = 0.83). The intersection has operated at LOS D or E for the past seven years. Overall, traffic decreased for all approaches, with a significant PM peak hour decrease for the westbound approach from J.P. Morgan (14%, -83 vehicles). Northbound left-turning traffic from SR 7 decreased 26% (-43 vehicles) and southbound through traffic decreased 9% (-182 vehicles).

8. **SR 4 / Harmony Road**

AM: Level of service improved from LOS F (V/C = 1.01) to LOS E (V/C = 0.95). Except for in 2010 (LOS F), the intersection has operated at LOS D or E since 2000. Northbound left-turning traffic from Harmony Road increased 25% (+29 vehicles) while the northbound right-turning traffic decreased 28% (-125 vehicles). Southbound through traffic on Harmony Road decreased 24% (-102 vehicles) while southbound right-turning traffic increased 68% (+57 vehicles). The eastbound and westbound approaches on SR 4 decreased 8% (-113 vehicles) and 5% (-43 vehicles), respectively.

PM: Level of service remained unchanged at LOS E (V/C = 0.97 to 0.92). The intersection has operated at LOS D or E during the entire traffic monitoring program. Overall, traffic for the southbound approach on Harmony Road decreased 14% (-140 vehicles). Westbound left-turning traffic from SR 4 increased 11% (-26 vehicles). Overall, traffic volumes on the eastbound and northbound approaches are generally consistent with 2010 volumes.

14. **SR 273 / Harmony Road**

In fall 2011, the eastbound and westbound SR 273 left-turn signal phasing was converted from a permitted-protected to protected only as a result of safety concerns related to left-turn crashes at this intersection. The westbound left-turn lane on SR 273 was also lengthened during this time.

AM: Even with the modifications described above, the level of service remained unchanged at LOS E (V/C = 0.91 to 0.92). The intersection has operated at LOS D or E for the past seven years. Overall, traffic from the northbound approach of Gerald Drive and the southbound approach of Harmony Road increased 38% (+35 vehicles) and 11% (+52 vehicles), respectively. Through traffic on the eastbound approach of SR 273 decreased 11% (-219 vehicles) while through traffic on the westbound approach of SR 273 increased 8% (+139 vehicles).

PM: Level of service improved from LOS F (V/C = 1.09) to LOS E (V/C = 0.93). The intersection has operated at LOS E or F for 11 of the 13 years of the traffic monitoring program. Overall, traffic decreased for all approaches, with a significant PM peak hour decrease for the eastbound (19%, -38 vehicles) and westbound approaches on SR 273 (6%, -163 vehicles). The LOS improvement in the PM peak is a result of both the lower volumes on SR 273 and the intersection modifications that were completed in Fall 2011.

15. **SR 273 / Chapman Road / Eagle Run Road**

AM: Level of service worsened from LOS D (V/C = 0.88) to LOS E (V/C = 0.98). The intersection has operated at LOS D or E for the entire duration of the traffic monitoring program. Overall, traffic from the westbound direction of SR 273 increased 9% (+180 vehicles). Northbound through and right-turning traffic from Chapman Road increased 86% (+25 vehicles) and 22% (+25 vehicles), respectively. Southbound left-turning traffic from Eagle Run Road decreased 65% (-40 vehicles). On SR 273, AM peak hour traffic volumes from the eastbound direction were relatively unchanged from 2010 levels.

PM: Level of service remained constant at LOS E (V/C = 0.94 to 0.98). The intersection has operated at LOS D or E for the past five years. Traffic increased on the northbound (10%, +111 vehicles) and westbound (13%, +187 vehicles) approaches, while traffic on the eastbound SR 273 and southbound Eagle Run Road approaches remained relatively unchanged from 2010 levels.

16. **SR 273 / Old Baltimore Pike**

AM: Level of service remained constant at LOS D (V/C = 0.85 to 0.84). The intersection has operated at LOS D for eight of the past ten years. Traffic decreased significantly on the northbound direction (20%, -323 vehicles) while traffic increased on the eastbound approach (9%, +81 vehicles). Overall, traffic on the southbound approach from Old Baltimore Pike and the eastbound approach from SR 273 remained relatively unchanged from 2010 volumes.

PM: Level of service improved from LOS D (V/C = 0.89) to LOS C (V/C = 0.81), marking the third year the intersection has reported to operate at LOS C since 2000. Eastbound and westbound SR 273 left-turning traffic increased 44% (+43 vehicles) and 11% (+34 vehicles), respectively. The southbound approach of Old Baltimore Pike experienced an 8% increase (+28 vehicles). Traffic on the northbound approach of Old Baltimore Pike remained relatively constant.

17. **SR 273 / SR 7**

AM: Level of service improved from LOS D (V/C = 0.87) to LOS C (V/C = 0.81), marking the third year the intersection has reported to operate at LOS C since 2000. Traffic in the southbound direction on SR 7 experienced a significant increase by 97% (+63 vehicles). Northbound right-turning vehicles from SR 7 decreased 15% (-141 vehicles). Overall, traffic on the eastbound and westbound approaches on SR 273 remained relatively constant.

PM: Level of service improved from LOS D (V/C = 0.82) to LOS C (V/C = 0.79), marking the third year the intersection has reported to operate at LOS C since 2000. Westbound left-turning traffic from SR 273 decreased 19% (-152 vehicles) and westbound right-turning traffic decreased 17% (-22 vehicles). Overall, traffic on the southbound approach of SR 7 increased 10% (+25 vehicles). Traffic on the eastbound approach from SR 7 increased 8% (+134 vehicles). Traffic on the northbound approach of SR 7 remained relatively unchanged from 2010 volumes.

22. **SR 2 / Red Mill Road / Polly Drummond Hill Road**

AM: Level of service improved from LOS E (V/C = 0.97) to LOS D (V/C = 0.83). The intersection has now operated at LOS D or better for five of the past seven years. Traffic decreased significantly on the northbound and eastbound approaches to the intersection which experienced decreases of 16% (-134 vehicles) and 19% (-368 vehicles), respectively. The westbound SR2 approach experienced a less significant decrease of 8% (-83 vehicles), while the overall traffic on the southbound Polly Drummond Hill Road approach remained relatively consistent with 2010 volumes.

PM: Level of service remained the same at LOS E (V/C = 0.99 to 0.94). The intersection has operated at LOS E or F for the past seven years. Traffic on the eastbound SR 2 approach decreased 10% (-206 vehicles) and the northbound Red Mill Road approach decreased 11% (-81 vehicles). Traffic on the southbound and westbound approaches was relatively unchanged.

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Churchmans Crossing Volume and Level of Service Comparison - AM Peak Hour

NOTE:

Volumes shown in the following table represent the peak hour volumes at each intersection (e.g., they are not the peak volumes of an entire corridor). Therefore, the peak hours may vary among intersections, even between adjacent intersections. For example, the peak hour at SR 2 / Harmony Road was found to occur between 4:30 and 5:30 PM. However, the nearby intersection at SR 4 / Harmony Road was found to occur between 4:45 and 5:45 PM. As a result, the volumes in the following table may not balance between intersections.

SR 2 / HARMONY ROAD

1

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Harmony	L	341	518	253	262	220	279	244	259	230	234	228	224	195	225	217	Eastbound and westbound left-turn signal phasing was converted from permitted-protected to protective only prior to 10/11 counts.
	R	310	607	419	321	417	545	456	547	448	524	676	507	422	480	428	
SB	L																
	R																
EB SR 2	U			14	16	8	18	21	11	9	9	6	14	7	6	0	
	R	1077	1673	1105	963	1,010	1,155	1,125	1,063	1,081	1,186	1,141	1,013	941	869	847	
WB SR 2	L	689	587	507	462	355	682	426	432	355	417	415	460	414	472	471	
	R	506	536	723	604	537	651	618	616	548	572	569	503	520	546	571	
CLV LOS v/c	D	0.99	1.11	0.93	0.81	0.77	0.90	0.86	0.85	0.80	0.85	0.83	0.75	0.72	0.72	0.73	
	F																
HCS LOS Delay	C	N/A	D	C	C	B	D	C	B	C	C	B	B	B	B	D	
	E	N/A	47	34	26	18	38	24	20	21	24	20	18	17	19	47	
Synchro LOS Delay	B	N/A	D	C	B	B	B	B	B	B	B	B	B	B	B	D	
	C	N/A	40	21	15	14	19	15	15	15	14	17	16	16	17	40	

*SR 2 intersections analyzed as pretimed in SYNCHRO due to large distance between signals.

SR 2 / DELAWARE PARK BOULEVARD

2

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Del Park	L	-	230	223	190	229	227	230	197								Right Turns into gas station were not counted Fall 2002. Shared NBL was added before 10/02 and NB/SB approaches are split phased. Intersection not counted in Fall 2005.
	T	-	6	9	30	5	3	7	11								
	R	-	59	90	80	55	88	72	59								
SB Gas	L	-	15	23	13	7	12	24	16								
	T	-	7	9	11	6	9	3	9								
	R	-	29	40	36	21	32	30	43								
EB SR 2	L	-	16	18	48	13	25	33	14								
	T	-	1563	1731	1631	1,599	1,543	1,621	1,641								
	R	-	118	145	191	257	210	195	195								
WB SR 2	L	-	79	93	123	130	163	170	129								
	T	-	1073	1130	1165	1,201	1,201	1,134	1,323								
	R	-	26	16	27	13	--	25	47								
CLV LOS v/c	N/A	N/A	B	C	C	C	C	C	C								
	E	N/A	0.69	0.76	0.77	0.78	0.73	0.76	0.73								
HCS LOS Delay	B	N/A	B	B	C	B	C	C	C								
	C	N/A	18	18	21	17	21	20	21								
Synchro LOS Delay	B	N/A	B	B	B	B	B	B	B								
	C	N/A	16	16	18	15	18	16	16								

Churchmans Crossing Volume and Level of Service Comparison - AM Peak Hour

SR 7 / SR 2

3

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	175	193	181	157	212	164	291	150								Before 10/02, all free rights, except for the WBR, were removed to accommodate 2nd EB & WB left turn lanes on SR 2. Intersection not counted in Fall 2005.
	T	540	551	687	690	707	711	602	656								
	R	308	347	427	396	396	381	518	418								
SB SR 7	L	754	622	700	527	617	644	597	568								
	T	1838	1070	1137	1122	1,049	1,158	1,156	1,097								
EB SR 2	L	115	98	154	133	138	129	112	122								
	T	1341	1402	1601	1268	1,384	1,508	1,571	1,355								
WB SR 2	L	297	290	312	290	403	298	374	393								
	T	1289	721	832	656	812	863	835	749								
CLV LOS v/c	F	1.21	0.97	1.10	0.93	1.07	0.98	1.04	0.93								
	E																
HCS LOS Delay	E	N/A	55	78	56	77	56	69	66								
	D																
Synchro LOS Delay	D	N/A	48	69	45	66	47	58	53								
	E																

SR 7 / SR 4 (Stanton Split)

4

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Mill Road	L	-															
	T	-															
	R	-		5		5	4	5	6	3	4	5	7	4	4	4	
SB SR 7	L	-	407	397	355	359	256	348	361	310	314	327	301	316	306	346	
	T	-		1		1		1	2	0	0	0	1	2	0	1	
EB SR 4/SR 7	L	-	835	956	915	932	912	1,015	966	1,006	991	953	945	873	953	889	
	T	-	948	1001	1085	1,158	1,164	1,339	1,148	1,287	1,256	1,176	1,136	900	847	791	
WB SR 4	L	-															
	T	-	822	751	810	887	997	848	916	891	1,002	909	909	803	802	880	
CLV LOS v/c	F	N/A	0.72	0.74	0.73	0.78	0.78	0.80	0.81	0.79	0.84	0.80	0.79	0.79	0.79	0.81	
	E																
HCS LOS Delay	E	N/A	27	28	27	29	36	31	32	30	34	29	28	26	29	29	
	D																
Synchro LOS Delay	D	N/A	38	34	34	36	39	38	38	37	40	36	39	39	40	42	
	E																

Churchmans Crossing Volume and Level of Service Comparison - AM Peak Hour

SR 4 / SR 7 / J.P. MORGAN

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		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	19	41	78	114	156	170	279	271	186	227	225	237	267	236	244	Only two lanes per direction open on NB and SB SR 7 during February 2000 count. NB and EB left turn lanes added prior to 2004 counts.
	T	1421	1492	1395	1672	1,728	1,671	2,380	1,935	1,716	1,742	1,998	1,549	1,507	1,460	1,431	
	R	119	125	70	137	167	177	105	227	226	275	200	231	284	353	374	
SB SR 7	L	126	174	213	174	201	202	159	192	212	183	180	189	203	189	211	
	T	1563	1473	1242	1261	1,512	1,450	1,538	1,550	1,400	1,444	1,583	1,684	1,667	1,551	1,522	
	R	441	595	693	708	754	690	782	887	777	561	767	816	776	716	759	
EB SR 4	L	323	369	437	424	402	535	537	507	550	575	474	529	384	346	306	
	T	57	113	145	92	117	121	92	127	183	135	113	118	97	120	132	
	R	28	46	53	26	31	38	51	43	53	64	64	83	54	71	81	
WB J.P. Morgan	L	23	32	15	9	11	8	6	11	9	11	11	9	11	5	6	
	T	8	7	6	11	11	7	10	20	13	16	4	9	10	5	8	
	R	8	8	5	6	14	5	10	14	9	9	0	3	4	1	4	
CLV LOS v/c		A	B	C	B	B	C	D	C	C	C	C	B	B	A	A	
		0.58	0.63	0.78	0.69	0.71	0.75	0.90	0.75	0.72	0.72	0.75	0.66	0.63	0.58	0.58	
HCS LOS Delay		N/A	C	C	C	C	C	D	C	D	D	D	D	D	C	C	
		N/A	23	26	26	25	35	42	30	38	38	41	35	35	34	35	
Synchro LOS Delay		N/A	C	C	C	C	C	D	C	C	C	C	C	C	C	C	
		N/A	24	26	24	25	30	37	24	25	23	23	24	23	21	22	

SR 4 / CHURCHMANS ROAD / DELAWARE PARK

6

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Churchmans	L	-	550	543	546	706	736	800	840								Intersection not counted in Fall 2005.
	T	-	47	23	41	35	18	45	49								
	R	-	14	38	34	46	42	51	52								
SB Del Park	L	-	5	5	7	19	4	4	6								
	T	-	11	7	18	16	15	18	22								
	R	-	6	8	16	4	24	10	16								
EB SR 4	L	-	37	30	51	35	73	51	61								
	T	-	440	575	505	552	845	688	725								
	R	-	595	704	613	613	871	715	661								
WB SR 4	L	-	71	97	100	97	88	92	83								
	T	-	451	467	529	563	649	707	747								
	R	-	4	10	10	7	10	18	16								
CLV LOS v/c		N/A	A	A	A	A	A	A	A								
		N/A	0.43	0.48	0.47	0.52	0.62	0.60	0.62								
HCS LOS Delay		N/A	C	C	C	C	C	C	C								
		N/A	22	22	23	24	25	29	33								
Synchro LOS Delay		N/A	C	C	C	C	C	C	C								
		N/A	22	21	24	23	21	25	26								

Churchmans Crossing Volume and
Level of Service Comparison - AM Peak Hour

SR 4 / CHRISTIANA HOSPITAL / HYGIEIA DRIVE

7

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Hospital	L	-	-	75	73	75	77	95	148								Intersection not counted in Fall 2005.
	T	-	-	3	10	12	7	17	17								
	R	-	-	32	25	33	35	53	58								
SB Hygeia	L	-	-	28	33	47	45	50	44								
	R	-	-	18	22	25	38	35	28								
EB SR 4	L	-	-	183	125	197	215	229	203								
	R	-	-	336	219	344	474	488	411								
WB SR 4	L	-	-	110	191	154	157	165	136								
	R	-	-	706	1098	944	1,009	994	1,198								
CLV LOS v/c		N/A	N/A	A	A	A	B	A	B								
HCS LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	B	B								
Synchro LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	A	B								

SR 4 / HARMONY ROAD

8

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Harmony	L	-	145	118	112	114	90	135	112	99	123	77	97	83	114	143	
	T	-	315	310	275	235	261	270	277	262	290	270	275	232	241	260	
	R	-	377	384	316	282	302	433	374	279	371	369	338	323	439	314	
SB Harmony	L	-	654	668	684	705	774	785	704	775	755	838	792	734	934	936	
	R	-	158	162	174	223	219	191	154	156	139	88	102	106	84	141	
EB SR 4	L	-	148	168	121	186	231	220	214	233	220	213	201	148	209	202	
	R	-	731	1171	1128	1,099	1,225	1,252	1,330	1,214	1,375	1,311	1,255	1,014	1,227	1,126	
WB SR 4	L	-	64	81	95	52	78	83	79	73	84	75	73	78	139	85	
	R	-	332	391	531	550	587	527	638	588	582	453	493	450	481	538	
CLV LOS v/c		N/A	C	D	D	D	E	E	E	E	E	E	E	D	F	E	
HCS LOS Delay		N/A	0.73	0.90	0.88	0.82	0.93	0.95	0.94	0.92	0.99	0.98	0.95	0.82	1.01	0.95	
Synchro LOS Delay		N/A	D	D	D	D	D	D	D	D	D	D	D	D	E	D	
Synchro LOS Delay		N/A	54	61	55	51	66	68	72	61	80	54	54	45	60	54	
Synchro LOS Delay		N/A	37	47	42	41	51	44	45	42	53	50	46	38	55	48	

Churchmans Crossing Volume and
Level of Service Comparison - AM Peak Hour

CHURCHMANS ROAD / CONTINENTAL DRIVE

9

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Continental	L	-	-	16	29	31	28										Churchmans Road under construction in 2000; finished by 2001 count. Before the 10/02 count, left turn lanes were added to NB & SB Continental Dr. / Churchman's Place. Intersection was not counted in Fall 2003.
	T	-	-	14	6	10	4										
	R	-	-	159	128	161	68										
SB Churchmans Place	L	-	-	44	41	31	38										
	T	-	-	31	103	86	68										
	R	-	-	10	0	8	8										
EB Churchmans	L	-	-	37	5	7	6										
	T	-	-	566	650	662	556										
	R	-	-	60	146	107	95										
WB Churchmans	L	-	-	510	595	611	467										
	T	-	-	996	1277	1,319	1,402										
	R	-	-	66	41	31	46										
CLV LOS		N/A	N/A	A	A	A	A										
v/c		N/A	N/A	0.42	0.50	0.51	0.42										

SR 7 / CHURCHMANS ROAD (Ramp A)

10

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	-	581														Churchmans Road under construction in 2000; finished by 2001 count. Intersection was not counted in Fall 2003.
	T	-	1441														
	R	-	192														
SB SR 7	L	-	371	149	230	169	180										
	T	-	1084	379	406	414	522										
	R	-	103	95	69	113	96										
EB Churchmans	L	-	130														
	T	-	392	332	382	285	344										
	R	-	573	437	540	442	446										
WB Churchmans	L	-	326	231	232	294	252										
	T	-	1170	1572	1856	1,942	1,839										
	R	-	653														
CLV LOS		N/A	F	D	B	B	B										
v/c		N/A	1.09	0.85	0.72	0.63	0.64										

Churchmans Crossing Volume and
Level of Service Comparison - AM Peak Hour

SR 7 / CHURCHMANS ROAD (Ramp B/C)

11

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	-	581														Churchmans Road under construction in 2000; finished by 2001 count. Intersection was not counted in Fall 2003.
	T	-	1441														
	R	-	192														
SB SR 7	L	-	371	147	178	163	153										
	T	-	1084	11	16	24	18										
	R	-	103	509	658	669	609										
EB Churchmans	L	-	130	24	34	44	29										
	T	-	392	456	548	462	448										
	R	-	573	14	18	26	18										
WB Churchmans	L	-	326	33	26	31	32										
	T	-	1170	1654	1489	1,492	1,510										
	R	-	653	153	316	368	331										
CLV LOS v/c		N/A	F	D	C	C	C										
		N/A	1.09	0.89	0.78	0.79	0.76										

CHURCHMANS ROAD / DEL TECH

12

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Driveway	L	-	-	64	73	109	75										Churchmans Road under construction in 2000; finished by 2001 count. Intersection was not counted in Fall 2003.
	T	-	-	6	12	11	46										
	R	-	-	28	20	21	23										
SB Del Tech	L	-	-	112	77	65	26										
	T	-	-														
	R	-	-	22	21	6	31										
EB Churchmans	L	-	-	98	159	80	150										
	T	-	-	494	512	458	430										
	R	-	-	11	24	10	27										
WB Churchmans	L	-	-														
	T	-	-	1700	1687	1,732	1,769										
	R	-	-	469	593	379	435										
CLV LOS v/c		N/A	N/A	C	A	A	A										
		N/A	N/A	0.74	0.60	0.57	0.59										

Churchmans Crossing Volume and Level of Service Comparison - AM Peak Hour

CHURCHMANS ROAD / COUNTRY CLUB DRIVE

13

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB c.c.	L	-	-	190	220	223	190										Intersection was not counted in Fall 2003.
	T	-	-														
	R	-	-	108	78	67	75										
SB	L	-	-														
	T	-	-														
EB Churchmans	L	-	-														
	T	-	-	662	704	600	554										
WB Churchmans	L	-	-	22	20	14	17										
	T	-	-	405	492	489	530										
CLV LOS v/c		N/A	N/A	A	A	A	A										
		N/A	N/A	0.55	0.59	0.52	0.48										

SR 273 / HARMONY ROAD

14

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Oct)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Gerald Drive	L	-	18	24	21	27	23	22		19	21	10	14	23	10	18	Before 10/04, an exclusive WB right turn lane was added. Intersection was not counted in 10/04. In 2010, the northbound lane configuration was converted to a shared left-through lane and a right-turn only lane. In 2011, the eastbound and westbound left-turn signal phasing was converted from permitted-protected to protected only, and the westbound left turn lane was lanebedded.
	T	-	30	23	18	18	17	18		22	26	25	53	19	14	14	
	R	-	160	157	102	166	132	160	160		142	118	103	102	98	68	
SB Harmony	L	-	682	665	547	392	450	400		455	461	367	449	457	436	492	
	T	-	6	17	15	7	9	14		9	13	8	15	8	15	5	
EB SR 273	L	-	26	30	22	9	62	69		40	42	51	27	62	41	41	
	T	-	1530	1675	1598	1,889	1,695	1,898		1,945	2,063	1,721	1,790	1,958	1,998	1,779	
WB SR 273	L	-	14	30	30	22	26	31		66	41	31	38	31	9	77	
	T	-	34	27	30	29	27	38		31	21	22	28	30	26	20	
	L	-	1624	1905	1899	2,007	1,912	2,048		1,945	1,892	1,815	1,792	1,755	1,780	1,919	
	T	-	925	786	637	575	622	700		661	555	639	643	501	628	609	
CLV LOS v/c		N/A	E	F	E	E	E	F		E	E	D	D	E	E	E	
		N/A	0.95	1.04	0.95	0.95	0.96	1.00		0.96	0.98	0.86	0.89	0.93	0.91	0.92	
HCS LOS Delay		N/A	E	E	D	E	D	E		E	E	C	D	D	C	D	
		N/A	56	71	49	58	50	72		67	65	31	38	38	33	36	
Synchro LOS Delay		N/A	D	E	D	D	D	E		E	E	C	D	D	C	D	
		N/A	45	61	43	52	45	65		62	63	31	37	38	32	43	

Churchmans Crossing Volume and Level of Service Comparison - AM Peak Hour

SR 273 / CHAPMAN ROAD / EAGLE RUN ROAD

15

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB Chapman	L	-	10	490	563	498	578	566		543	591	528	462	530	513	508	NBL in 1997 was affected by something unknown. No count performed in 2004 due to ongoing construction at I-95 / SR 273 interchange. Intersection was not counted in 10/04.	
	T	-	2	21	22	16	42	36		28	41	39	35	31	29	54		
	R	-	160	187	206	218	188	179		180	220	133	169	134	114	139		
SB Eagle Run	L	-	26	34	29	51	38	43		35	39	34	25	17	62	32		
	T	-	23	16	20	35	28	22		11	18	35	17	19	15	21		
	R	-	83	61	81	56	81	86		75	65	79	100	76	72	76		
EB SR 273	L	-	232	195	267	147	242	261		182	166	193	172	167	189	163		
	T	-	775	893	898	1,260	1,002	1,212		948	929	892	838	825	767	786		
	R	-	859	773	910	711	701	555		735	594	598	632	524	569	576		
WB SR 273	L	-	358	344	326	302	326	283		295	247	248	216	202	247	247		
	T	-	1655	1878	1862	1,688	1,763	1,916		1,887	2,026	1,726	1,726	1,786	1,759	1,943		
	R	-	91	92	108	89	121	109		96	122	76	74	66	77	73		
CLV LOS v/c		N/A	N/A	E	E	D	E	E		E	E	D	D	D	D	E		
		N/A	N/A	0.91	0.96	0.84	0.93	0.98		0.93	0.99	0.89	0.84	0.89	0.88	0.98		
HCS LOS Delay		N/A	C	E	F	D	E	F		E	F	D	D	D	D	D		
		N/A	33	70	118	46	75	87		69	82	40	37	44	39	36		
Synchro LOS Delay		N/A	B	D	D	D	D	E		D	E	C	C	D	D	D		
		N/A	20	44	53	36	46	59		55	65	34	34	40	36	40		

SR 273 / OLD BALTIMORE PIKE

16

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB Old Balt	L	-	788	875	868	638	802	780	699	746	939	656	846	1,018	836	854	Main Street was closed 10/01. Intersection operates as split phasing in the northbound/southbound directions during the 2002 counts.	
	T	-	127	123	142	187	169	142	160	157	173	110	142	145	426	133		
	R	-	441	442	614	358	476	460	530	438	386	382	403	337	361	313		
SB Old Balt	L	-	9	13	52	14	12	13	18	14	12	6	12	8	7	7		
	T	-	35	21	22	43	36	35	34	43	43	40	40	24	40	37		
	R	-	63	55	10	156	39	65	53	43	67	59	43	59	59	57		
EB SR 273	L	-	25	16	8	282	30	42	47	34	58	70	66	37	32	43		
	T	-	1380	842	882	1,056	848	918	951	850	792	784	742	685	663	658		
	R	-	168	155	219	192	199	213	181	182	199	245	181	151	168	243		
WB SR 273	L	-	173	192	215	157	230	171	239	164	155	160	153	181	134	145		
	T	-	1333	1351	835	1,215	1,331	1,464	1,481	1,476	1,422	1,231	1,217	1,223	1,320	1,357		
	R	-	8	25	55	23	15	15	11	13	20	8	8	5	7	7		
CLV LOS v/c		N/A	D	D	D	E	D	D	D	D	E	C	D	D	D	D		
		N/A	0.90	0.82	0.88	0.96	0.82	0.88	0.86	0.86	0.95	0.78	0.83	0.88	0.85	0.84		
HCS LOS Delay		N/A	D	D	E	E	E	E	E	D	E	C	D	D	D	C		
		N/A	47	48	67	73	55	59	65	50	62	30	37	37	40	35		
Synchro LOS Delay		N/A	D	D	D	D	D	D	D	D	D	C	C	C	D	C		
		N/A	43	48	39	52	51	43	40	42	47	27	33	34	36	34		

Churchmans Crossing Volume and Level of Service Comparison - AM Peak Hour

SR 7 / SR 273

17

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	500	736	558	790	586	659	657	637	661	609	656	613	549	651	643	An additional WBL was added to the intersection prior to the 2001 count.
	T	48	66	47	126	146	111	130	106	161	180	149	131	98	132	164	
	R	698	885	1064	1112	830	859	718	575	895	718	913	985	828	926	785	
SB SR 7	L	39	47	43	52	78	37	57	36	57	51	35	55	55	33	64	
	T	20	22	19	29	43	20	29	18	21	25	16	29	45	19	48	
	R	3	7	13	9	14	8	11	10	4	5	6	14	13	13	16	
EB SR 273	L	12	15	11	8	16	7	12	10	7	6	10	8	10	10	12	
	T	822	747	1309	1320	1,120	1,068	1,112	1,194	1,090	971	1,118	898	874	814	845	
WB SR 273	R	190	200	268	188	211	241	229	163	184	183	273	212	194	200	210	
	L	157	221	204	229	175	239	247	214	251	204	209	197	217	242	253	
SR 273	T	499	767	961	853	836	908	979	1,018	1,005	892	764	848	818	824	859	
	R	38	58	45	92	92	25	58	58	74	70	37	77	70	90	11	
CLV LOS v/c		C	D	F	F	E	E	D	C	E	C	E	E	D	D	C	
		0.73	0.83	1.13	1.19	0.93	0.92	0.85	0.78	0.95	0.80	0.97	0.95	0.84	0.87	0.81	
HCS LOS Delay		N/A	F	F	F	F	F	F	F	F	F	F	F	F	F	E	
		N/A	180	130	237	117	144	118	92	165	121	102	105	82	97	73	
Synchro LOS Delay		N/A	F	F	F	F	F	F	F	F	F	F	F	F	F	F	
		N/A	170	138	162	126	139	122	103	138	124	92	111	90	104	83	

SR 273 / SB SR 1 RAMP

18

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB	L	-	-					-	-								Intersection was not counted in Fall 2005.
	T	-	-					-	-								
	R	-	-					-	-								
SB SR 1	L	-	-	119	129	180	146	153	165								
	T	-	-	1				-	-								
WB SR 273	R	-	-	116	157	156	170	170	199								
	L	-	-					-	-								
EB SR 273	T	-	-	2259	1132	1,811	1,699	1,774	1,988								
	R	-	-	157	130	153	179	157	237								
WB SR 273	L	-	-	76	67	92	64	71	84								
	T	-	-	1134	1279	1,013	1,066	1,075	1,105								
SR 273	R	-	-					-	-								
CLV LOS v/c		N/A	N/A	D	A	C	C	C	D								
		N/A	N/A	0.90	0.54	0.79	0.73	0.76	0.86								
HCS LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	B								
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	12	14							
Synchro LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	A	A							
		N/A	N/A	N/A	N/A	N/A	N/A	N/A	9	9							

Churchmans Crossing Volume and
Level of Service Comparison - AM Peak Hour

SR 273 / NB SR 1 RAMP

19

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 1	L	-	-	294	351	388	368	372	373								Intersection was not counted in Fall 2005.
	T	-	-					-	-								
	R	-	-	280	390	353	362	345	370								
SB	L	-	-					-	-								
	T	-	-					-	-								
	R	-	-					-	-								
EB SR 273	L	-	-	615	542	570	597	546	524								
	T	-	-	1763	1306	1,351	1,279	1,403	1,633								
	R	-	-					-	-								
WB SR 273	L	-	-	916	758	780	813	781	779								
	T	-	-	340	397	375	341	340	370								
	R	-	-														
CLV LOS v/c		N/A	N/A	D	D	D	D	D	D								
HCS LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	D	C								
Synchro LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	C	C								

SB SR 1 RAMPS / ROAD A

20

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB	L	-	153	104	68	58	70										Intersection was not counted in Fall 2003.
	T	-															
	R	-	2	12	6	12	19										
SB SR 1	L	-															
	T	-															
	R	-															
EB Road A	L	-															
	T	-	178	192	342	277	213										
	R	-	23	26	7	14	15										
WB Road A	L	-	13	26	25	28	31										
	T	-	76	81	36	37	28										
	R	-															
CLV LOS v/c		N/A	A	A	A	A	A										
		N/A	0.22	0.20	0.27	0.23	0.20										

Churchmans Crossing Volume and Level of Service Comparison - AM Peak Hour

NB SR 1 RAMPS / ROAD A

21

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 1	L	-	59	45	34	25	14										Intersection was not counted in Fall 2003.
	T	-	97	334	624	770	540										
	R	-															
SB Mall	L	-															
	T	-	9	13	16	21	17										
R	R	-	34	27	29	29	29										
	R	-	45	99	181	159	134										
EB Road A	L	-															
	T	-															
R	R	-	124	108	167	137	122										
	R	-															
WB	L	-															
	T	-															
R	R	-															
	R	-															
CLV LOS v/c		N/A	A	A	A	A	A										
		N/A	0.11	0.27	0.50	0.58	0.43										

SR 2 / RED MILL ROAD / POLLY DRUMMOND HILL ROAD

22

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Red Mill	L	-	-	335	384	323	357	496	412	335	343	317	355	343	401	276	
	T	-	-	308	357	319	309	298	319	289	309	325	313	316	299	299	
	R	-	-	139	161	107	104	144	117	135	126	131	93	101	139	130	
SB Polly	L	-	-	278	328	233	297	364	250	214	266	258	251	250	274	278	
	T	-	-	481	514	579	409	480	479	443	577	428	489	437	482	517	
R	R	-	-	376	333	247	269	264	281	266	263	337	320	334	309	280	
	R	-	-	283	250	491	239	337	291	232	301	280	251	234	324	224	
EB SR 2	L	-	-	1115	931	1,253	1,020	1,095	1,109	1,012	1,223	1,132	966	976	1,256	950	
	T	-	-	396	417	436	406	358	424	367	306	363	433	345	353	391	
R	R	-	-	199	173	204	136	180	157	115	158	126	106	104	135	115	
	T	-	-	951	906	944	865	1,066	967	840	861	900	887	764	813	758	
WB SR 2	L	-	-	42	83	147	79	131	122	56	91	111	96	110	96	88	
	R	-	-														
CLV LOS v/c		N/A	N/A	E	E	F	D	F	E	D	F	D	D	C	E	D	
		N/A	N/A	0.93	0.93	1.11	0.84	1.06	0.97	0.84	1.01	0.87	0.90	0.81	0.97	0.83	
HCS LOS Delay		N/A	N/A	E	E	F	D	E	E	D	E	D	E	D	E	D	
		N/A	N/A	66	66	87	55	79	63	52	69	53	57	53	65	54	
Synchro LOS Delay		N/A	N/A	D	D	E	D	E	D	D	E	D	D	D	E	D	
		N/A	N/A	47	49	70	42	63	49	40	57	48	55	51	62	50	

Churchmans Crossing Volume and
Level of Service Comparison - AM Peak Hour

SR 7 / SCHOOL BELL ROAD

24

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB SR 7	L	-	-	-	-	-	-										Intersection was not counted in Fall 2003.	
	T	-	-	1,349	-	-	1,361											
	R	-	-	69	-	-	71											
SB SR 7	L	-	-	60	-	-	79											
	T	-	-	379	-	-	403											
EB -	L	-	-	-	-	-	-											
	T	-	-	-	-	-	-											
WB School	L	-	-	31	-	-	31											
	T	-	-	-	-	-	-											
	R	-	-	181	-	-	223											
CLV LOS		N/A	N/A	E	N/A	N/A	E											
v/c		N/A	N/A	0.96	N/A	N/A	0.99											

SR 4 / TELEGRAPH ROAD

25

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Happy Harry's	L	-	-	-	-	-	-	-	5								Intersection was not counted in Fall 2005.
	T	-	-	-	-	-	-	-	-								
	R	-	-	-	-	-	-	-	1								
SB Telegraph	L	-	-	-	-	-	-	-	204								
	T	-	-	-	-	-	-	-	-								
EB SR 4	L	-	-	-	-	-	-	-	556								
	T	-	-	-	-	-	-	-	239								
WB SR 4	L	-	-	-	-	-	-	-	1,911								
	T	-	-	-	-	-	-	-	9								
	R	-	-	-	-	-	-	-	4								
	R	-	-	-	-	-	-	-	1,997								
	R	-	-	-	-	-	-	-	162								
CLV LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	C								
v/c		N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.72								
HCS LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	C								
Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	32								
Synchro LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	B								
Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	16								

Churchmans Crossing Volume and
Level of Service Comparison - AM Peak Hour

SR 2 / ST. JAMES CHURCH ROAD

26

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB St. James Church	L	-	-	-	-	-	-	-	80								Intersection was not counted in Fall 2005.
	T	-	-	-	-	-	-	-	31								
	R	-	-	-	-	-	-	-	85								
SB Griffin Drive	L	-	-	-	-	-	-	-	54								
	T	-	-	-	-	-	-	-	60								
	R	-	-	-	-	-	-	-	37								
EB SR 2	L	-	-	-	-	-	-	-	59								
	T	-	-	-	-	-	-	-	1,698								
	R	-	-	-	-	-	-	-	150								
WB SR 2	L	-	-	-	-	-	-	-	16								
	T	-	-	-	-	-	-	-	899								
	R	-	-	-	-	-	-	-	114								
CLV LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	A								
v/c		N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.61								
HCS LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	C								
Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	30								
Synchro LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	C								
Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	28								

Churchmans Crossing Volume and Level of Service Comparison - PM Peak Hour

NOTE:

Volumes shown in the following table represent the peak hour volumes at each intersection (e.g., they are not the peak volumes of an entire corridor). Therefore, the peak hours may vary among intersections, even between adjacent intersections. For example, the peak hour at SR 2 / Harmony Road was found to occur between 4:30 and 5:30 PM. However, the nearby intersection at SR 4 / Harmony Road was found to occur between 4:45 and 5:45 PM. As a result, the volumes in the following table may not balance between intersections.

SR 2 / HARMONY ROAD

1

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Harmony	L	647	433	544	475	447	586	454	545	417	430	405	471	423	490	473	Eastbound and westbound left-turn signal phasing was converted from permitted-protected to protective only prior to 10/11 counts.
	T																
SB	R	542	662	632	655	673	944	792	754	703	672	1,399	695	716	781	660	
	L																
EB SR 2	T	13		28	17	5	28	14	16	19	19	22	21	9	4	9	
	R	1157	1258	1063	1078	1,126	1,314	1,103	1,093	1,190	1,040	1,055	1,062	1,055	988	1,057	
WB SR 2	L	361	345	276	305	306	467	283	354	243	281	358	283	267	292	329	
	T	507	503	626	500	607	548	598	651	501	623	646	531	536	526	477	
	R	1409	1367	1441	1340	1,313	1,205	1,382	1,301	1,265	1,265	1,503	1,337	1,215	1,207	1,274	
CLV LOS v/c		F	E	E	D	E	E	E	E	D	E	E	D	D	D	D	
		1.12	0.94	0.96	0.86	0.93	1.00	0.92	0.99	0.88	0.91	0.92	0.87	0.86	0.85	0.84	
HCS LOS Delay		N/A	C	C	C	C	D	C	D	D	C	C	C	C	C	D	
		N/A	30	33	30	28	38	29	38	37	29	23	22	22	22	42	
Synchro LOS Delay		N/A	C	C	B	C	C	C	C	C	B	C	C	C	C	C	
		N/A	21	23	19	20	26	20	31	29	19	21	21	21	20	34	

SR 2 / DELAWARE PARK BOULEVARD

2

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Del Park	L	149	277	292	289	329	326	349	331								Right Turns into gas station were not counted Fall 2002. Shared NBL was added before 10/02 and NB/SB approaches are split phased. Intersection was not counted in Fall 2005.
	T	15	10	7	12	0	8	9	10								
	R	311	122	129	121	90	154	150	149								
SB Gas Station	L	20	14	30	20	8	16	19	24								
	T	15	15	11	11	8	12	7	18								
EB SR 2	R	50	50	59	66	37	47	56	70								
	L	50	19	55	41	32	52	69	46								
WB SR 2	T	1628	1297	1389	1356	1,670	1,494	1,468	1,505								
	R	100	156	162	178	192	232	213	185								
	L	354	176	184	154	205	188	187	176								
	T	1922	2084	1981	1874	1,883	1,972	1,892	1,955								
	R	50	46	8	1	30	--	67	74								
CLV LOS v/c		D	D	D	D	E	D	D	D								
		0.86	0.89	0.85	0.87	0.92	0.85	0.83	0.84								
HCS LOS Delay		N/A	C	B	B	B	B	B	C								
		N/A	25	17	17	19	16	16	31								
Synchro LOS Delay		N/A	B	B	B	B	B	B	C								
		N/A	20	16	15	17	16	15	29								

Churchmans Crossing Volume and
Level of Service Comparison - PM Peak Hour

SR 7 / SR 2

3

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	372	266	272	276	338	248	392	237								Before 10/02, all free rights, except for the WB were removed to accommodate 2nd EB & WB left turn lanes on SR 2. Intersection was not counted in Fall 2005.
	T	1047	802	914	969	941	958	904	977								
	R	423	451	452	404	458	365	538	587								
SB SR 7	L	436	403	539	358	502	409	427	399								
	T R	785 118	743 88	768 113	727 93	802 113	805 124	815 101	864 83								
EB SR 2	L	220	224	259	217	237	285	321	312								
	T R	1044 273	1059 187	1073 143	996 144	1,097 166	1,097 187	1,197 228	1,054 207								
WB SR 2	L	426	417	458	490	471	572	634	696								
	T R	1554 1017	1898 622	2060 478	1648 540	1,542 518	1,832 535	1,620 661	1,650 596								
CLV LOS v/c		F 1.05	F 1.04	F 1.20	F 1.02	F 1.08	F 1.05	F 1.01	F 1.01								
HCS LOS Delay		N/A N/A	E 65	F 98	E 69	E 78	E 66	E 63	F 84								
Synchro LOS Delay		N/A N/A	E 59	F 87	E 64	E 70	E 60	E 59	E 62								

SR 7 / SR 4 (Stanton Split)

4

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Mill Road	L	BAD DATA															
	T																
	R			8		6	8	2	6	6	4	3	5	4	8	3	
SB SR 7	L	923?	311	311	340	279	272	295	254	231	218	329	257	251	305	279	
	T R	431? 431?	1028 1028	972 972	1128 1128	1,002 1,002	1,159 1,159	1,266 1,266	1,426 1,426	1,356 1,356	1,272 1,272	1,370 1,370	1,301 1,301	1,320 1,320	1,472 1,472	1,463 1,463	
EB SR 4/SR 7	L	351?	1261	1226	1274	1,078	1,341	1,213	1,259	1,260	1,101	1,257	1,195	1,316	1,565	1,284	
	T R	955? 955?	1044 1044	990 990	1213 1213	1,213 1,213	1,266 1,266	1,271 1,271	1,204 1,204	1,173 1,173	1,182 1,182	1,178 1,178	1,246 1,246	1,146 1,146	1,251 1,251	1,226 1,226	
WB SR 4	L																
	T R	1316? 0?	1033 342	1031 316	1044 384	1,024 294	1,254 291	1,163 306	1,288 241	1,299 232	1,292 198	1,222 241	1,056 247	1,152 302	1,135 304	1,446 247	
CLV LOS v/c		N/A N/A	D 0.91	D 0.89	E 0.92	D 0.86	F 1.03	E 0.96	F 1.01	F 1.00	E 0.94	F 1.01	D 0.90	E 0.98	F 1.09	F 1.08	
HCS LOS Delay		N/A N/A	E 76	E 72	E 75	D 50	F 100	E 74	F 95	F 95	E 75	F 87	E 66	F 89	F 127	F 156	
Synchro LOS Delay		N/A N/A	D 54	D 48	E 58	D 41	E 67	D 51	E 68	E 65	E 58	D 54	D 50	E 60	E 78	E 70	

Churchmans Crossing Volume and Level of Service Comparison - PM Peak Hour

SR 4 / SR 7 / J.P. MORGAN

5

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	35	28	57	55	61	65	87	68	93	82	121	88	108	166	123	Only two lanes per direction open on NB and SB SR 7 during February 2000 count. New EB and NB left turn lanes added prior to 2004 counts.
	T	1693	1581	1360	1501	1,464	1,572	1,660	1,527	1,473	1,361	1,919	1,517	1,519	1,822	1,726	
	R	3	15	3	5	6	5	3	6	7	6	8	6	14	18	7	
SB SR 7	L	7	11	14	21	18	16	19	11	12	21	7	10	15	14	6	
	T	1552	1653	1435	1670	1,896	1,959	2,238	2,762	2,253	1,922	2,066	2,038	2,092	2,081	1,899	
EB SR 4	R	476	690	500	532	511	542	631	677	716	562	606	542	569	576	557	
	L	607	655	690	807	828	879	950	903	811	824	773	811	791	884	808	
WB J.P. Morgan	T	6	11	35	12	17	16	7	22	22	14	16	15	13	17	14	
	R	47	87	82	241	358	478	554	571	501	461	375	474	530	466	492	
CLV LOS v/c		E	D	D	D	E	E	F	F	E	D	D	D	D	E	D	
HCS LOS Delay		N/A	D	D	E	E	F	F	F	F	E	F	E	E	F	E	
Synchro LOS Delay		N/A	C	C	D	D	D	E	E	C	C	C	B	C	C	C	

SR 4 / CHURCHMANS ROAD / DELAWARE PARK

6

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Churchmans	L	1009	809	808	709	793	1016	814	782								Intersection not counted in Fall 2005.
	T	3	22	56	70	69	90	41	73								
	R	69	66	115	130	158	238	156	142								
SB Del Park	L	0	4	4	18	19	45	42	54								
	T	38	57	87	85	81	117	157	136								
EB SR 4	R	2	44	66	73	69	120	118	130								
	L	4	20	35	47	70	71	67	79								
WB SR 4	T	536	522	542	730	775	1023	917	1,054								
	R	688	655	747	630	532	836	767	749								
WB SR 4	L	17	8	79	37	40	38	35	40								
	T	523	383	551	513	563	521	614	619								
WB SR 4	R	0	1	8	12	15	13	14	19								
	CLV LOS v/c		A	A	A	B	B	D	C	C							
HCS LOS Delay		N/A	C	C	C	C	D	C	D								
Synchro LOS Delay		N/A	24	25	27	29	44	33	35								
Synchro LOS Delay		N/A	B	C	C	C	C	C	C								
Synchro LOS Delay		N/A	19	22	21	23	30	29	32								

Churchmans Crossing Volume and
Level of Service Comparison - PM Peak Hour

SR 4 / CHRISTIANA HOSPITAL / HYGEIA DRIVE

7

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Hospital	L	-	-	393	395	376	447	353	377								Intersection not counted in Fall 2005.
	T	-	-	12	18	17	12	17	21								
	R	-	-	133	173	138	239	214	168								
SB Hygeia	L	-	-	229	252	213	229	238	246								
	R	-	-	202	232	183	182	227	211								
EB SR 4	L	-	-	96	70	63	78	113	117								
	R	-	-	102	140	110	116	102	85								
WB SR 4	T	-	-	763	905	1,021	1,242	1,213	1,328								
	R	-	-	102	140	110	116	102	85								
CLV LOS v/c		N/A	N/A	B	B	C	D	C	D								
HCS LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	B	C								
Synchro LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	B	C								

SR 4 / HARMONY ROAD

8

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Nov)	2009 (Oct)	2010 (Oct)	2010 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Harmony	L	118	98	108	112	131	173	139	130	99	111	109	115	113	126	120	
	T	673	489	425	395	397	303	333	333	317	311	329	307	332	353	367	
	R	124	123	109	104	97	131	107	132	135	103	157	153	121	159	139	
SB Harmony	L	453	406	360	424	325	454	436	359	411	388	421	419	393	522	437	
	R	96	143	208	186	254	220	211	260	219	243	144	213	146	167	158	
EB SR 4	L	190	253	287	287	302	294	321	331	305	280	273	252	196	276	234	
	R	289	282	113	121	100	188	94	113	82	91	73	67	59	71	98	
WB SR 4	L	250	267	223	233	182	178	200	196	164	179	204	174	179	228	254	
	R	731	742	662	530	505	613	672	712	794	698	635	699	830	772	777	
CLV LOS v/c		E	D	D	E	D	D	E	E	E	E	E	D	D	E	E	
HCS LOS Delay		N/A	F	E	E	E	D	E	E	F	E	D	D	D	E	D	
Synchro LOS Delay		N/A	94	62	60	56	52	58	66	84	77	47	43	43	56	54	

Churchmans Crossing Volume and Level of Service Comparison - PM Peak Hour

CHURCHMANS ROAD / CONTINENTAL DRIVE

9

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB Continental	L	-	-	61	179	184	163										Churchmans Road under construction in 2000; finished by 2001 count. Before the 10/02 count, left turn lanes were added to NB & SB Continental Dr. / Churchmans Place. Intersection was not counted in Fall 2003.	
	T	-	-	69	71	87	80											
	R	-	-	491	500	540	324											
SB Churchmans Pl.	L	-	-	185	73	91	92											
	T	-	-	10	11	9	11											
	R	-	-	45	1	7	13											
EB Churchmans	L	-	-	127	22	22	50											
	T	-	-	1032	1212	1,407	1,344											
	R	-	-	17	45	38	31											
WB Churchmans	L	-	-	214	120	150	130											
	T	-	-	619	1005	990	985											
	R	-	-	201	50	26	59											
CLV LOS v/c		N/A	N/A	C	B	C	A											
		N/A	N/A	0.78	0.67	0.75	0.60											

SR 7 / CHURCHMANS ROAD (Ramp A)

10

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB SR 7	L	317	429														Churchmans Road under construction in 2000; finished by 2001 count. Intersection was not counted in Fall 2003.	
	T	1057	1057															
	R	222	335															
SB SR 7	L	270	290	90	128	190	180											
	T	1455	1956	429	678	677	789											
	R	98	12	70	78	154	88											
EB Churchmans	L	182	317															
	T	459	693	511	652	960	745											
	R	1161	1335	1277	871	734	1,037											
WB Churchmans	L	430	405	484	560	1,046	483											
	T	854	975	958	1194	1,209	1,150											
	R	500	641															
CLV LOS v/c		F	F	E	E	E	E											
		1.39	1.66	0.98	0.96	0.97	0.91											

During the October 2001 PM period count, several eastbound right-turns were made from the eastbound right-most through lane. The volumes are shown below. These vehicles have been included in the eastbound right-turn volume above.

4:00 PM	7
4:15 PM	13
4:30 PM	9
4:45 PM	10

5:00 PM	19
5:15 PM	14
5:30 PM	13
5:45 PM	6

Churchmans Crossing Volume and
Level of Service Comparison - PM Peak Hour

SR 7 / CHURCHMANS ROAD (Ramp B/C)

11

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	317	429														Churchmans Road under construction in 2000; finished by 2001 count. Intersection was not counted in Fall 2003.
	T	1057	1057														
	R	222	335														
SB SR 7	L	270	290	117	186	167	152										
	R	98	12	276	300	326	326										
EB Churchmans	L	182	317	67	97	111	138										
	T	459	693	455	595	576	663										
	R	1161	1335	62	77	129	100										
WB Churchmans	L	430	405	134	141	116	127										
	T	854	975	1355	1266	1,289	1,274										
	R	500	641	286	340	363	378										
CLV LOS		F	F	B	A	A	A										
v/c		1.39	1.66	0.64	0.50	0.53	0.52										

CHURCHMANS ROAD / DEL TECH

12

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Driveway	L	-	-	217	251	396	247										Churchmans Road under construction in 2000; finished by 2001 count. Intersection was not counted in Fall 2003.
	T	-	-	23	18	17	17										
	R	-	-	44	55	80	47										
SB Del Tech	L	-	-	131	128	102	106										
	R	-	-	108	78	140	73										
EB Churchmans	L	-	-	29	125	58	112										
	T	-	-	489	613	762	620										
	R	-	-	54	76	69	62										
WB Churchmans	L	-	-	1600	1486	1,515	1,399										
	T	-	-	133	192	143	209										
	R	-	-														
CLV LOS		N/A	N/A	C	A	A	A										
v/c		N/A	N/A	0.74	0.62	0.62	0.58										

Churchmans Crossing Volume and Level of Service Comparison - PM Peak Hour

CHURCHMANS ROAD / COUNTRY CLUB DRIVE

13

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB c.c.	L	-	96	90	80	106	96										Intersection was not counted in Fall 2003.
	T	-															
	R	-	56	47	39	40	36										
SB	L	-															
	T	-															
	R	-															
EB Churchmans	L	-															
	T	-	564	586	683	716	729										
	R	-	179	172	155	186	199										
WB Churchmans	L	-	67	78	59	50	72										
	T	-	710	771	844	785	780										
	R	-															
CLV LOS v/c		N/A	A	A	A	A	A										
		N/A	0.50	0.54	0.58	0.56	0.56										

SR 273 / HARMONY ROAD

14

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Gerald Drive	L	-	18	7	12	10	10	11		14	22	13	9	12	23	13	Before 10/02, an exclusive WB right turn lane was added. No count performed in 2004 due to ongoing construction at I-95 / SR 273 interchange. Intersection was counted in Fall 2004. In 2010, the northbound lane configuration was converted to a shared left-through lane and a right-turn only lane. In 2011, the eastbound and westbound left-turn signal phasing was converted from protected to protected-to.
	T	-	17	19	10	6	20	27		34	14	10	6	17	16	7	
	R	-	89	99	72	94	80	57		63	66	68	57	52	56	67	
SB Harmony	L	-	829	675	701	478	504	501		498	465	457	472	506	521	523	
	T	-	21	31	21	20	14	17		18	13	11	8	13	16	7	
	R	-	17	10	14	16	5	25		14	13	31	24	20	14	13	
EB SR 273	L	-	36	20	27	27	30	44		15	31	58	27	42	42	32	
	T	-	1612	1653	1925	2,156	1,613	2,157		2,099	2,082	2,062	1,856	2,049	2,294	1,878	
	R	-	15	14	19	25	27	23		28	25	16	18	16	20	8	
WB SR 273	L	-	55	75	65	79	66	113		70	74	69	53	38	107	83	
	T	-	1700	1873	1647	1,972	1,816	1,919		1,877	2,022	1,793	1,805	1,546	1,884	1,796	
	R	-	767	574	602	513	495	620		555	547	524	522	464	539	488	
CLV LOS v/c		N/A	E	E	F	F	D	F		F	E	E	D	E	F	E	
		N/A	0.99	1.00	1.02	1.03	0.89	1.04		1.00	0.98	0.96	0.88	0.95	1.09	0.93	
HCS LOS Delay		N/A	E	E	E	F	D	E		E	E	C	C	D	E	D	
		N/A	67	62	61	82	45	67		76	72	35	33	38	58	42	
Synchro LOS Delay		N/A	D	D	E	E	D	F		E	E	D	C	D	E	D	
		N/A	54	52	55	75	41	83		74	72	36	31	37	58	44	

Churchmans Crossing Volume and
Level of Service Comparison - PM Peak Hour

SR 273 / CHAPMAN ROAD / EAGLE RUN ROAD

15

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB Chapman	L	626	753	755	722	890	792	718		766	706	704	672	606	674	730	No counts performed in 2004 due to ongoing construction on I-95 / SR 273 interchange. Intersection was not counted in Fall 2004.	
	T	31	6	21	27	9	29	18		30	18	22	47	24	37	39		
	R	332	384	407	370	375	466	405		435	428	415	353	339	378	431		
SB Eagle Run	L	142	42	68	61	60	66	59		56	50	52	44	58	63	71		
	T	59	22	22	18	12	20	25		14	16	11	17	12	13	25		
	R	347	73	132	149	119	150	114		147	100	130	119	146	174	155		
EB SR 273	L	58	51	69	92	41	96	66		49	47	48	39	49	54	59		
	T	1400	1643	1614	1590	1,709	1,626	1,817		1,691	1,898	1,672	1,675	1,626	1,757	1,740		
	R	717	892	393	728	653	640	610		539	615	485	639	431	646	632		
WB SR 273	L	154	230	197	161	228	233	249		214	244	269	260	248	214	259		
	T	841	902	1219	1121	1,578	1,240	1,297		1,387	1,566	1,269	1,166	1,160	1,168	1,296		
	R	21	18	18	16	6	31	30		40	24	30	24	58	27	41		
CLV LOS v/c		D 0.85	E 0.95	E 0.93	D 0.89	F 1.07	E 1.00	F 1.03		E 0.96	F 1.02	E 0.95	E 0.94	D 0.89	E 0.94	E 0.98		
HCS LOS Delay		N/A N/A	F 99	E 66	E 66	F 86	F 77	F 86		E 74	F 94	D 49	D 45	D 45	D 52	E 57		
Synchro LOS Delay		N/A N/A	E 57	D 48	D 43	E 65	D 52	E 64		D 54	E 70	D 47	D 46	D 46	D 54	E 59		

*Assume SB count in 1997 was affected by something unknown.

SR 273 / OLD BALTIMORE PIKE

16

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB Old Balt	L	-	280	259	297	294	318	318	312	300	361	254	378	416	324	304	Main Street was closed 10/01. Intersection operates as split phased in the northbound/southbound directions during the 2002 counts.	
	T	-	104	97	67	131	188	171	150	142	138	132	131	146	127	148		
	R	-	293	302	388	297	528	358	574	385	367	292	302	333	257	278		
SB Old Balt	L	-	35	22	68	26	43	24	11	18	23	27	23	17	17	16		
	T	-	143	135	95	155	249	163	158	200	189	187	168	184	178	194		
	R	-	51	32	13	259	125	80	175	149	191	143	119	165	154	167		
EB SR 273	L	-	23	15	2	220	91	135	105	116	127	131	110	114	98	141		
	T	-	1323	1341	920	1,240	1,269	1,385	1,324	1,335	1,322	1,142	1,277	1,393	1,316	1,301		
	R	-	662	551	654	681	747	698	740	718	793	797	774	732	818	781		
WB SR 273	L	-	418	346	669	362	479	380	555	414	422	398	384	374	296	330		
	T	-	1046	1042	1088	1,089	1,144	1,293	1,154	1,076	1,225	1,173	1,078	1,004	1,172	1,143		
	R	-	26	46	74	8	14	31	8	21	77	22	21	81	22	16		
CLV LOS v/c		N/A N/A	D 0.84	C 0.79	C 0.75	E 0.93	F 1.00	D 0.89	F 1.02	E 0.94	E 0.99	D 0.85	D 0.90	E 0.99	D 0.89	C 0.81		
HCS LOS Delay		N/A N/A	D 41	D 53	E 79	F 89	F 105	E 56	F 102	F 83	F 86	C 32	D 36	D 45	D 40	C 34		
Synchro LOS Delay		N/A N/A	B 20	C 21	D 47	D 42	D 55	C 26	E 60	D 37	D 40	C 32	D 36	D 45	D 36	D 38		

Churchmans Crossing Volume and Level of Service Comparison - PM Peak Hour

SR 7 / SR 273

17

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	313	410	345	393	350	472	340	460	352	321	372	332	303	369	366	An additional WBL was added to the intersection prior to the 2001 count.
	T	64	57	49	76	74	70	64	83	52	86	88	93	69	85	84	
	R	318	511	416	715	459	501	480	301	465	433	510	484	370	409	439	
SB SR 7	L	67	62	112	71	119	113	116	99	113	124	113	100	91	109	107	
	T	156	111	165	120	136	197	102	111	123	153	129	142	99	119	142	
EB SR 273	R	3	27	24	6	56	5	36	39	20	23	20	12	10	13	17	
	L	5	3	7	13	10	6	12	10	11	12	7	3	6	5	10	
WB SR 273	T	777	1190	1530	1114	959	1,036	1,157	1,300	1,154	1,140	1,176	1,027	1,003	958	1,016	
	R	592	365	871	859	643	771	665	565	644	558	608	588	499	627	698	
WB SR 273	L	580	650	562	647	695	606	826	646	710	708	858	878	668	780	628	
	T	635	1083	1153	1161	1,026	1,110	1,528	1,297	1,200	1,300	1,265	1,081	1,236	1,089	1,118	
CLV LOS v/c	R	70	90	84	85	89	66	58	112	85	102	89	85	69	133	111	
	B	0.65	1.01	1.06	0.87	0.79	0.84	0.89	0.91	0.85	0.85	0.93	0.87	0.76	0.82	0.79	
HCS LOS Delay	F	N/A	F	F	F	E	E	F	E	F	F	F	E	D	E	E	
	N/A	138	124	82	64	79	91	71	115	103	89	79	50	58	58		
Synchro LOS Delay	E	N/A	F	E	F	E	E	E	D	E	E	E	F	D	E	E	
	N/A	100	77	92	68	73	73	52	66	63	78	85	54	62	61		

SR 273 / SB SR 1 RAMP

18

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB	L	-															Intersection was not counted in Fall 2005.
	T	-															
	R	-															
SB SR 1	L	-	266	324	303	315	271	371	338								
	T	-		11	4												
EB SR 273	R	-	204	331	446	502	438	434	468								
	L	-															
WB SR 273	T	-	1353	1864	1581	1,264	1,242	1,410	1,452								
	R	-	191	194	218	283	312	293	375								
WB SR 273	L	-	152	214	182	203	181	195	228								
	T	-	1601	1585	980	1,474	1,520	1,538	1,671								
CLV LOS v/c	R	-															
	N/A	N/A	C	E	E	D	D	D	E								
HCS LOS Delay	N/A	0.73	0.98	0.94	0.88	0.81	0.88	0.93									
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	D								
Synchro LOS Delay	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27	39								
	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	C								
Synchro LOS Delay	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22	30								
	N/A	N/A	N/A	N/A	N/A	N/A	N/A										

Churchmans Crossing Volume and Level of Service Comparison - PM Peak Hour

SR 273 / NB SR 1 RAMP

19

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 1	L	-	130	141	162	181	203	209	208								Intersection was not counted in Fall 2005.
	T	-															
	R	-	106	114	139	147	171	189	178								
SB	L	-															
	T	-															
	R	-															
EB SR 273	L	-	260	315	297	376	305	385	313								
	T	-	1358	1873	1204	1,172	1,288	1,428	1,406								
	R	-															
WB SR 273	L	-															
	T	-	1623	1658	1456	1,518	1,512	1,532	1,668								
	R	-	229	286	330	353	365	335	315								
CLV LOS v/c		N/A	C	D	C	D	D	D	D								
HCS LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	C	D								
Synchro LOS Delay		N/A	N/A	N/A	N/A	N/A	N/A	C	D								

SB SR 1 RAMPS / ROAD A

20

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 1	L	126	149	144	94	104	136										Intersection was not counted in Fall 2003.
	T																
	R	11	6	29	49	70	66										
SB	L																
	T																
	R																
EB Road A	L																
	T	263	256	283	337	491	353										
	R	30	47	70	49	84	65										
WB Road A	L	196	199	236	280	456	326										
	T	120	108	199	227	336	200										
	R																
CLV LOS v/c		A	A	A	A	B	A										
		0.37	0.38	0.41	0.44	0.66	0.51										

Churchmans Crossing Volume and
Level of Service Comparison - PM Peak Hour

NB SR 1 RAMPS / ROAD A

21

		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 1	L	10	20	20	12	16	11										Intersection was not counted in Fall 2003.
	T	187	214	269	297	344	358										
	R																
SB Mall	L																
	T	94	100	163	194	236	264										
	R	212	278	416	484	557	518										
EB Road A	L	81	136	200	253	262	314										
	T																
	R	120	174	114	124	149	106										
WB	L																
	T																
	R																
CLV LOS v/c		A 0.17	A 0.23	A 0.29	A 0.34	A 0.38	A 0.43										

SR 2 / RED MILL ROAD / POLLY DRUMMOND HILL ROAD

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		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes	
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count		
NB Red Mill	L	-	-	218	238	254	194	296	199	208	274	215	206	253	250	220		
	T	-	-	374	426	412	434	421	312	359	401	391	435	418	389	343		
	R	-	-	72	102	108	90	97	69	119	92	139	100	82	118	113		
SB Polly	L	-	-	233	171	312	177	200	209	189	201	200	186	216	189	189		
	T	-	-	375	380	453	288	319	301	323	366	323	347	359	370	380		
	R	-	-	245	253	298	246	246	241	251	281	323	274	261	287	276		
EB SR 2	L	-	-	411	346	368	352	381	282	358	353	369	323	375	401	350		
	T	-	-	1091	1024	1,169	1,172	1,142	1,164	997	993	1,129	995	950	1,113	988		
	R	-	-	344	415	476	407	369	427	367	316	364	432	348	449	419		
WB SR 2	L	-	-	210	202	254	214	260	196	180	204	226	314	203	186	230		
	T	-	-	1259	1207	1,305	1,107	1,326	1,305	1,270	1,326	1,306	1,189	1,158	1,219	1,159		
	R	-	-	241	270	350	293	408	365	239	200	317	167	302	295	359		
CLV LOS v/c		N/A N/A	N/A N/A	F 1.01	E 0.96	F 1.06	E 0.95	F 1.03	D 0.90	E 0.96	F 1.01	E 1.00	E 0.95	E 0.98	E 0.99	E 0.94		
HCS LOS Delay		N/A N/A	N/A N/A	E 67	E 63	E 79	E 56	E 67	D 52	E 58	E 71	E 59	D 54	E 60	E 62	D 55		
Synchro LOS Delay		N/A N/A	N/A N/A	D 54	D 47	E 61	D 42	D 53	D 39	D 44	D 54	D 53	D 52	E 56	E 59	D 50		

Churchmans Crossing Volume and Level of Service Comparison - PM Peak Hour

SR 7 / SCHOOL BELL ROAD

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		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB SR 7	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Intersection was not counted in Fall 2003.
	T	-	-	752	-	-	787	-	-	-	-	-	-	-	-	-	
	R	-	-	42	-	-	66	-	-	-	-	-	-	-	-	-	
SB SR 7	L	-	-	117	-	-	216	-	-	-	-	-	-	-	-	-	
	T	-	-	1,198	-	-	1,345	-	-	-	-	-	-	-	-	-	
EB	L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
WB School	L	-	-	58	-	-	68	-	-	-	-	-	-	-	-	-	
	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CLV LOS v/c	L	N/A	N/A	C	N/A	N/A	D	-	-	-	-	-	-	-	-	-	
	R	N/A	N/A	0.79	N/A	N/A	0.88	-	-	-	-	-	-	-	-	-	

SR 4 / TELEGRAPH ROAD

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		1993	1997	2000	2001 (Feb)	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007 (Nov)	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	Count	
NB Happy Harry's	L	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	Intersection was not counted in Fall 2005.
	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	R	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	
SB Telegraph	L	-	-	-	-	-	-	-	129	-	-	-	-	-	-	-	
	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
EB SR 4	L	-	-	-	-	-	-	-	508	-	-	-	-	-	-	-	
	T	-	-	-	-	-	-	-	2,309	-	-	-	-	-	-	-	
WB SR 4	L	-	-	-	-	-	-	-	54	-	-	-	-	-	-	-	
	T	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	
CLV LOS v/c	L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,470	-	-	-	-	-	-	-	
	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	233	-	-	-	-	-	-	-	
HCS LOS Delay	L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E	-	-	-	-	-	-	-	
	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.00	-	-	-	-	-	-	-	
Synchro LOS Delay	L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	D	-	-	-	-	-	-	-	
	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	49	-	-	-	-	-	-	-	
Synchro LOS Delay	L	N/A	N/A	N/A	N/A	N/A	N/A	N/A	C	-	-	-	-	-	-	-	
	R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34	-	-	-	-	-	-	-	

*HCS results based on pretimed signal (not actuated-coordinated) and do not account for upstream signal impacts. SYNCHRO results based on actuated-coordinated signal system on SR 4.

Churchmans Crossing Volume and
Level of Service Comparison - PM Peak Hour

SR 2 / ST. JAMES CHURCH ROAD

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		1993	1997	2000	2001	2001 (Oct)	2002 (Oct)	2003 (Oct)	2004 (Oct)	2005 (Oct)	2006 (Oct)	2007	2008 (Oct)	2009 (Oct)	2010 (Oct)	2011 (Oct)	Notes
		Count	Count	Count	(Feb)	Count	Count	Count	Count	Count	Count	(Nov)	Count	Count	Count	Count	
NB St. James	L	-	-	-	-	-	-	-	204								Intersection was not counted in Fall 2005.
	T	-	-	-	-	-	-	-	53								
	R	-	-	-	-	-	-	-	152								
SB Griffin Drive	L	-	-	-	-	-	-	-	111								
	T	-	-	-	-	-	-	-	70								
	R	-	-	-	-	-	-	-	98								
EB SR 2	L	-	-	-	-	-	-	-	120								
	T	-	-	-	-	-	-	-	1,436								
	R	-	-	-	-	-	-	-	84								
WB SR 2	L	-	-	-	-	-	-	-	237								
	T	-	-	-	-	-	-	-	1,700								
	R	-	-	-	-	-	-	-	32								
CLV LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	B								
v/c		N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.68								
HCS LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	D								
Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	38								
Synchro LOS		N/A	N/A	N/A	N/A	N/A	N/A	N/A	C								
Delay		N/A	N/A	N/A	N/A	N/A	N/A	N/A	29								