



# MEMORANDUM

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**Date:** January 14, 2010  
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**CC:** James Burnett, RK&K  
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**Subject:** **Churchmans Crossing Traffic Monitoring**  
Fall 2009 Counts

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This memo summarizes the latest updates to the Churchmans Crossing traffic monitoring program. Traffic data for the study was collected during October 2009. This represents the tenth time the intersections have been counted since the annual traffic monitoring program began in 2000. The number of intersections studied in 2009 was nine; the same nine locations were studied in 2005-2008.

The intersections studied in 2009 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.

- 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. Previously, Highway Capacity Software HCS+ 5.3 and SYNCHRO Version 7 (Build 755) were used. For this update, the newest versions of those software programs were used: HCS+ version 5.4 and SYNCRHO Version 7 (Build 773, Rev 8).

### **Key Findings from 2009**

- In 2009, three intersections operated at a better level of service in the AM peak than in 2008, and two intersections operated at a better level of service in the PM peak.
- In 2009, one intersection operated at a worse level of service in the AM peak than in 2008, and three intersections operated at a worse level of service in the PM peak.

- The most significant change in level of service from 2008 to 2009 was observed at the SR 4 / Harmony Road intersection where, during the AM peak, the level of service improved from a LOS E to a LOS D.

One factor that may have affected the Churchmans Crossing volumes is the completion of the 5<sup>th</sup> lane widening project on I-95 that was under construction during the counts in 2008. For example, during the AM peak hour, additional capacity on I-95 due to the 5<sup>th</sup> lane being open may have resulted in traffic volumes decreasing from 2008 to 2009 on the parallel routes of SR 2 and SR 4 while increasing the traffic on SR 273, which provides access to/from I-95.

Also, during the counts in October 2009, a bridge deck replacement project on SR 2 (east of Upper Pike Creek Road) was underway. Although the number of existing lanes was maintained during construction, this project may also have affected traffic levels on the SR 2 corridor, which appears to have decreased slightly in 2009.

### **AM Peak Summary**

Attached to this memo are turning movement count data tables by 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 delay in seconds computed using HCS+ and SYNCHRO Version 7. A comparison between the AM peak hour Levels of Service (LOS) computed using the three analysis methods for the 2008 and 2009 counts indicate that:

- Four (4) intersections operated at the same LOS as the previous year for all analysis methods:
  - SR 2 / Harmony Road (1)
  - SR 7 / SR 4 (Stanton Split) (4)
  - SR 4 / SR 7 / J.P. Morgan (5)
  - SR 273 / Old Baltimore Pike (16)
- Three (3) intersections operated at an improved LOS for at least one analysis method:
  - SR 4 / Harmony Road (8)
  - SR 7 / SR 273 (17)
  - SR 2 / Red Mill Road / Polly Drummond Hill Road (22)
- One (1) intersection operated at an improved LOS for two analysis methods:
  - SR 2 / Red Mill Road / Polly Drummond Hill Road (22)
- Two (2) intersections operated at a worse LOS for one analysis method:
  - SR 273 / Harmony Road (14)
  - SR 273 / Chapman Road / Eagle Run Road (15)

Table 1 shows the Level of Service (LOS) for the October 2009 counts for each of the five intersections that experienced a change in LOS during the AM peak; the change from 2008 to 2009 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 indicate that traffic on both eastbound and westbound SR 2 decreased slightly compared to 2008. The decrease in traffic contributed to an improvement in LOS at the intersection of SR 2 at Red Mill Road/Polly Drummond Hill Road, from LOS D to LOS C.

Levels of traffic on SR 4 during the AM peak also slightly decreased compared to 2008, resulting in modest improvements or no change in AM peak levels of service at the intersections of SR 7 / SR 4 Stanton Split, SR 4 / SR 7 / J.P. Morgan, and the intersection of SR 4 / Harmony Road (improved from LOS E to LOS D).

AM peak traffic trends on SR 273 varied throughout the corridor, which runs from Harmony Road east to SR 7. For westbound traffic on SR 273, traffic trends were slightly lower west of I-95 and were generally unchanged east of I-95, compared to 2008. For eastbound traffic on SR 273, trends indicate an increase in traffic at Harmony Road (west of I-95), resulting in a decline in LOS at that intersection, from LOS D to LOS E. At the corridor intersections east of I-95, eastbound traffic decreased compared to 2008, resulting in slight improvements (SR 273 at SR 7 improved from LOS E to LOS D) or no change in AM peak levels of service.

| <b>Table 1<br/>AM Peak Hour<br/>Intersection Level of Service (LOS) Comparison<br/>For All Intersections Experiencing a Change in AM Peak LOS</b> |                                                            |            |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------|----------------|
|                                                                                                                                                   | <b>Fall 2009 LOS<br/>(Change in LOS from 2008 to 2009)</b> |            |                |
|                                                                                                                                                   | <b>CLV</b>                                                 | <b>HCS</b> | <b>SYNCHRO</b> |
| SR 4 / Harmony Road (8)                                                                                                                           | D (+)                                                      | D ( )      | D ( )          |
| SR 273 / Harmony Road (14)                                                                                                                        | E (-)                                                      | D ( )      | D ( )          |
| SR 273 / Chapman Road / Eagle Run Road (15)                                                                                                       | D ( )                                                      | D ( )      | D (-)          |
| SR 7 / SR 273 (17)                                                                                                                                | D (+)                                                      | F ( )      | F ( )          |
| SR 2 / Red Mill Road / Polly Drummond Hill Road (22)                                                                                              | C (+)                                                      | 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 2008 and Fall 2009 counts indicates that:

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

- Three (3) intersections operated at a worse LOS for at least two analysis methods:
  - SR 7 / SR 4 (Stanton Split) (4)
  - SR 273 / Harmony Road (14)
  - SR 2 / Red Mill Road / Polly Drummond Hill Road (22)
- Two (2) intersections operated at a worse LOS for all three analysis methods:
  - SR 7 / SR 4 (Stanton Split) (4)
  - SR 273 / Harmony Road (14)

Table 2 shows the Level of Service (LOS) computed by each analysis method for the October 2009 counts for the seven intersections that experienced a change in LOS during the PM peak; the change in LOS from 2008 to 2009 is also shown. The following trends and comparisons with prior counts are based primarily on the CLV results:

Traffic trends during the PM peak on SR 2 indicated minimal decreases compared to 2008, resulting in no changes to levels of service at the intersections of SR 2 at Harmony Road and SR 2 at Red Mill Road/Polly Drummond Hill Road.

Traffic trends varied along the SR 4/SR 7 corridor, which runs from SR 4 at Harmony Road to the Stanton Split of SR 4 and SR 7. At SR 4 and Harmony Road, despite a decrease in traffic on eastbound SR 4, the level of service remained unchanged. The level of service also remained unchanged at the intersection of SR 4/SR 7/J.P. Morgan, where traffic trends at the SR 4 and SR 7 approaches were also relatively constant compared to 2008. At the SR 4/SR 7 Stanton Split, an increase in westbound traffic on SR 4 resulted in a decline in level of service at that intersection, from LOS D to LOS E.

Traffic trends were also varied along the SR 273 corridor. West of I-95, increases in eastbound traffic on SR 273 at the Harmony Road intersection resulted in a decline in level of service at that intersection from LOS D to LOS E. East of I-95, decreases in eastbound traffic on SR 273 at the intersections with Chapman Road/Eagle Run Road and SR 7 (along with lower traffic volumes on side streets) resulted in level of service improvements from LOS E to LOS D and from LOS D to LOS C, respectively. At the intersection of SR 273 at Old Baltimore Pike, while traffic on the eastbound and westbound SR 273 approaches were relatively unchanged from 2008, increases in traffic volumes from northbound and southbound Old Baltimore Pike led to a decline in level of service from LOS D to LOS E.

| <b>Table 2</b><br><b>PM Peak Hour</b><br><b>Intersection Level of Service (LOS) Comparison</b><br><b>For All Intersections Experiencing a Change in PM Peak LOS</b> |                                                                  |       |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------|---------|
|                                                                                                                                                                     | <b>Fall 2009 LOS</b><br><b>(Change in LOS from 2008 to 2009)</b> |       |         |
|                                                                                                                                                                     | CLV                                                              | HCS   | SYNCHRO |
| SR 7 / SR 4 (Stanton Split) (4)                                                                                                                                     | E (-)                                                            | F (-) | E (-)   |
| SR 4 / SR 7 / J.P. Morgan (5)                                                                                                                                       | D ( )                                                            | E ( ) | C (-)   |
| SR 273 / Harmony Road (14)                                                                                                                                          | E (-)                                                            | D (-) | D (-)   |
| SR 273 / Chapman Road / Eagle Run Road (15)                                                                                                                         | D (+)                                                            | D ( ) | D ( )   |
| SR 273 / Old Baltimore Pike (16)                                                                                                                                    | E (-)                                                            | D ( ) | D ( )   |
| SR 7 / SR 273 (17)                                                                                                                                                  | C (+)                                                            | D (+) | D (++)  |
| SR 2 / Red Mill Road / Polly Drummond Hill Road (22)                                                                                                                | E ( )                                                            | E (-) | E (-)   |
| ( ) No change in LOS    (+) Improved by 1 LOS    (-) Declined by 1 LOS    (++) Improved by 2 LOS                                                                    |                                                                  |       |         |

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## Fall 2009 Traffic Summary

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

### 1. SR 2 / Harmony Road

**AM:** Level of service continues unchanged from LOS C (V/C = 0.75 to 0.72). The intersection has operated at LOS C or D for the last ten years. Decrease observed in northbound rights by 17% (-85 vehicles), continuing a decline first reported in 2008 traffic. Traffic on eastbound and westbound SR 2 approaches decreased 8% and 4%, respectively.

**PM:** Level of service remained constant at LOS D (V/C = 0.87 to 0.86). This intersection has operated at LOS D or E for the last twelve years. Westbound traffic on SR 2 decreased 6%. Traffic on northbound and eastbound approaches is generally consistent with 2008 volumes.

### 4. SR 7 / SR 4 (Stanton Split)

**AM:** Level of service remained the same at LOS C (same V/C = 0.79). Except for in 2006, this intersection has operated at LOS C consistently during this traffic monitoring program. Increase in southbound traffic by 8%. Eastbound through traffic decreased 20% (-236 vehicles). Traffic on the westbound SR 4 approach decreased 7%.

**PM:** Level of service worsened from LOS D (V/C = 0.90) to LOS E (V/C = 0.98). Eastbound left turns on SR 4 increased 10% while eastbound through traffic decreased 8%. Traffic on the westbound approach increased 12%. Traffic on the southbound SR 7 approach remained relatively unchanged.

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

**AM:** Level of service continues unchanged from LOS B (V/C = 0.66 to 0.63). Northbound and southbound traffic on SR 7 remained relatively constant, while eastbound traffic on SR 4 decreased by 27% (-195 vehicles).

**PM:** Level of service remains constant at LOS D (V/C = 0.83 to 0.86), for the fourth year in a row. Traffic on the westbound J.P. Morgan approach increased by 44% (+147 vehicles), while all other approaches remained constant.

### 8. SR 4 / Harmony Road

**AM:** Level of service improved from LOS E (V/C = 0.95) to LOS D (V/C = 0.82). The intersection last operated at LOS D in 2001. Traffic from northbound and southbound approaches (Harmony Road) decreased 10%. Eastbound traffic on SR 4 decreased 21% (-312 vehicles).

**PM:** Level of service remains unchanged from LOS D (V/C = 0.88 to 0.85). Traffic on the SR 4 eastbound approach decreased 25% (-283 vehicles). Southbound traffic from Harmony Road decreased 9%.

### 14. SR 273 / Harmony Road

**AM:** Level of service worsened from LOS D (V/C = 0.89) to LOS E (V/C = 0.93). While northbound traffic through from Gerald Drive decreased 64% (-34 vehicles) and westbound right-turning traffic from SR 273 decreased 22% (-142 vehicles), traffic on the eastbound approach of SR 273 increased by 11% (+196 vehicles).

**PM:** Level of service worsened from LOS D (V/C = 0.88) to LOS E (V/C = 0.95). Westbound traffic on SR 273 decreased 14%. Eastbound traffic on SR 273 increased 11%. Northbound traffic from Gerald Drive increased 13%. Southbound traffic on Harmony Road increased 7%.

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

**AM:** Level of service remained constant at LOS D (V/C = 0.84 to 0.89). The intersection has operated at LOS D for the past three years. Traffic on southbound Eagle Run Road decreased 21% (-30 vehicles) and eastbound traffic on SR 273 decreased 8%.

**PM:** Level of service improved from LOS E (V/C = 0.94) to LOS D (V/C = 0.89). Traffic decreased 10% on both northbound and eastbound approaches. Traffic on southbound Eagle Run Road approach increased 20% (+36 vehicles).

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

**AM:** Level of service remained constant at LOS D (V/C = 0.83 to 0.88). The intersection has operated at LOS D for six of the past eight years. Northbound Old Baltimore Pike traffic increased 8%. Eastbound traffic on SR 273 decreased 12%.

**PM:** Level of service worsened from LOS D (V/C = 0.90) to LOS E (V/C = 0.99). Traffic increased on Old Baltimore Pike northbound (+10%) and southbound Old Baltimore Pike (+18%, +56 vehicles).

17. **SR 273 / SR 7**

**AM:** Level of service improved from LOS E (V/C = 0.95) to LOS D (V/C = 0.84). Traffic on northbound SR 7 decreased 15% (-254 vehicles). Traffic on the southbound SR 7 approach increased 15% (+15 vehicles).

**PM:** Level of service improved from LOS D (V/C = 0.87) to LOS C (V/C = 0.76). This is the second consecutive year of LOS improvements at this intersection. Traffic decreased on all approaches (-18% NB, -21% SB, -7% EB, -3% WB).

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

**AM:** Level of service improved from LOS D (V/C = 0.90) to LOS C (V/C = 0.81). On SR 2, westbound traffic decreased 10% and eastbound traffic decreased 6%.

**PM:** Level of service remained the same at LOS E (V/C = 0.95 to 0.98). The intersection has operated at LOS E for four of the past five years. Traffic on all 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 4:45 and 5:45 PM. However, the nearby intersection at SR 4 / Harmony Road was found to occur between 4:30 and 5:30 PM. As a result, the volumes in the following table may not balance between intersections.

SR 2 / HARMONY ROAD

# 1

|                   |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Oct) Count | 2008 (Oct) Count | 2009 (Oct) Count | Notes |
|-------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------|
| NB<br>Harmony     | L | 341        | 518        | 253        | 262              | 220              | 279              | 244              | 259              | 230              | 234              | 228              | 224              | 195              |       |
|                   | R | 310        | 607        | 419        | 321              | 417              | 545              | 456              | 547              | 448              | 524              | 676              | 507              | 422              |       |
| SB                | L |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |       |
|                   | R |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |       |
| EB<br>SR 2        | U |            |            | 14         | 16               | 8                | 18               | 21               | 11               | 9                | 9                | 6                | 14               | 7                |       |
|                   | T | 1077       | 1673       | 1105       | 963              | 1,010            | 1,155            | 1,125            | 1,063            | 1,081            | 1,186            | 1,141            | 1,013            | 941              |       |
| WB<br>SR 2        | R | 689        | 587        | 507        | 462              | 355              | 682              | 426              | 432              | 355              | 417              | 415              | 460              | 414              |       |
|                   | L | 506        | 536        | 723        | 604              | 537              | 651              | 618              | 616              | 548              | 572              | 569              | 503              | 520              |       |
| WB<br>SR 2        | T | 863        | 985        | 956        | 902              | 929              | 883              | 930              | 981              | 778              | 897              | 877              | 880              | 812              |       |
|                   | R |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |       |
| CLV LOS v/c       |   | D<br>0.99  | F<br>1.11  | E<br>0.93  | C<br>0.81        | C<br>0.77        | D<br>0.90        | D<br>0.86        | D<br>0.85        | C<br>0.80        | D<br>0.85        | D<br>0.83        | C<br>0.75        | C<br>0.72        |       |
| HCS LOS Delay     |   | N/A<br>N/A | D<br>47    | C<br>34    | C<br>26          | B<br>18          | D<br>38          | C<br>24          | B<br>20          | C<br>21          | C<br>24          | B<br>20          | B<br>18          | B<br>17          |       |
| Synchro LOS Delay |   | N/A<br>N/A | D<br>40    | C<br>21    | B<br>15          | B<br>14          | B<br>19          | B<br>15          | B<br>15          | B<br>15          | B<br>14          | B<br>17          | B<br>16          | B<br>16          |       |

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

SR 2 / DELAWARE PARK BOULEVARD

# 2

|                   |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Oct) Count | 2009 (Oct) Count | Notes                                                                                                                                                                    |
|-------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>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               |                  |                  |                  |                  |                  |                                                                                                                                                                          |
| SB<br>Gas         | R | -          | 59         | 90         | 80               | 55               | 88               | 72               | 59               |                  |                  |                  |                  |                  |                                                                                                                                                                          |
|                   | L | -          | 15         | 23         | 13               | 7                | 12               | 24               | 16               |                  |                  |                  |                  |                  |                                                                                                                                                                          |
| EB<br>SR 2        | T | -          | 7          | 9          | 11               | 6                | 9                | 3                | 9                |                  |                  |                  |                  |                  |                                                                                                                                                                          |
|                   | R | -          | 29         | 40         | 36               | 21               | 32               | 30               | 43               |                  |                  |                  |                  |                  |                                                                                                                                                                          |
| WB<br>SR 2        | L | -          | 16         | 18         | 48               | 13               | 25               | 33               | 14               |                  |                  |                  |                  |                  |                                                                                                                                                                          |
|                   | T | -          | 1563       | 1731       | 1631             | 1,599            | 1,543            | 1,621            | 1,641            |                  |                  |                  |                  |                  |                                                                                                                                                                          |
| WB<br>SR 2        | R | -          | 118        | 145        | 191              | 257              | 210              | 195              | 195              |                  |                  |                  |                  |                  |                                                                                                                                                                          |
|                   | L | -          | 79         | 93         | 123              | 130              | 163              | 170              | 129              |                  |                  |                  |                  |                  |                                                                                                                                                                          |
| WB<br>SR 2        | 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<br>N/A | B<br>0.69  | C<br>0.76  | C<br>0.77        | C<br>0.78        | C<br>0.73        | C<br>0.76        | C<br>0.73        |                  |                  |                  |                  |                  |                                                                                                                                                                          |
| HCS LOS Delay     |   | N/A<br>N/A | B<br>18    | B<br>18    | C<br>21          | B<br>17          | C<br>21          | C<br>20          | C<br>21          |                  |                  |                  |                  |                  |                                                                                                                                                                          |
| Synchro LOS Delay |   | N/A<br>N/A | B<br>16    | B<br>16    | B<br>18          | B<br>15          | B<br>18          | B<br>16          | B<br>16          |                  |                  |                  |                  |                  |                                                                                                                                                                          |



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

SR 7 / SR 2

# 3

|                      |     | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008(Oct) Count | 2009 (Oct) Count | Notes                                                                                                                                                    |
|----------------------|-----|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>SR 7           | L   | 175        | 193        | 181        | 157              | 212              | 164              | 291              | 150              |                  |                  |                  |                 |                  | Before 10/02, all free rights, except for the WB 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<br>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<br>SR 2           | R   | 48         | 57         | 49         | 65               | 70               | 43               | 54               | 47               |                  |                  |                  |                 |                  |                                                                                                                                                          |
|                      | L   | 115        | 98         | 154        | 133              | 138              | 129              | 112              | 122              |                  |                  |                  |                 |                  |                                                                                                                                                          |
| WB<br>SR 2           | T   | 1341       | 1402       | 1601       | 1268             | 1,384            | 1,508            | 1,571            | 1,355            |                  |                  |                  |                 |                  |                                                                                                                                                          |
|                      | R   | 198        | 191        | 153        | 189              | 187              | 139              | 180              | 147              |                  |                  |                  |                 |                  |                                                                                                                                                          |
| CLV LOS<br>v/c       | L   | 297        | 290        | 312        | 290              | 403              | 298              | 374              | 393              |                  |                  |                  |                 |                  |                                                                                                                                                          |
|                      | T   | 1289       | 721        | 832        | 656              | 812              | 863              | 835              | 749              |                  |                  |                  |                 |                  |                                                                                                                                                          |
| HCS LOS<br>Delay     | R   | 207        | 251        | 266        | 265              | 285              | 239              | 264              | 255              |                  |                  |                  |                 |                  |                                                                                                                                                          |
|                      | F   | 1.21       | 0.97       | 1.10       | 0.93             | 1.07             | 0.98             | 1.04             | 0.93             |                  |                  |                  |                 |                  |                                                                                                                                                          |
| Synchro LOS<br>Delay | E   | N/A        | E          | E          | E                | E                | E                | E                | E                |                  |                  |                  |                 |                  |                                                                                                                                                          |
|                      | D   | N/A        | D          | E          | D                | E                | D                | E                | D                |                  |                  |                  |                 |                  |                                                                                                                                                          |
| Delay                | N/A | 48         | 69         | 45         | 66               | 47               | 58               | 53               |                  |                  |                  |                  |                 |                  |                                                                                                                                                          |
|                      | N/A |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                                                                                                                                                          |

SR 7 / SR 4 (Stanton Split)

# 4

|                      |     | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008(Oct) Count | 2009 (Oct) Count | Notes |
|----------------------|-----|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|-------|
| NB<br>Mill Road      | L   | -          |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |       |
|                      | T   | -          |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |       |
|                      | R   | -          |            | 5          |                  | 5                | 4                | 5                | 6                | 3                | 4                | 5                | 7               | 4                |       |
| SB<br>SR 7           | L   | -          | 407        | 397        | 355              | 359              | 256              | 348              | 361              | 310              | 314              | 327              | 301             | 316              |       |
|                      | T   | -          |            | 1          |                  | 1                |                  | 1                | 2                | 0                | 0                | 0                | 1               | 2                |       |
| EB<br>SR 4/SR 7      | R   | -          | 1091       | 1057       | 1178             | 1,154            | 1,123            | 1,213            | 1,247            | 1,218            | 1,326            | 1,280            | 1,252           | 1,363            |       |
|                      | L   | -          | 835        | 956        | 915              | 932              | 912              | 1,015            | 966              | 1,006            | 991              | 953              | 945             | 873              |       |
| WB<br>SR 4           | T   | -          | 948        | 1001       | 1085             | 1,158            | 1,164            | 1,339            | 1,148            | 1,287            | 1,256            | 1,176            | 1,136           | 900              |       |
|                      | R   | -          |            | 4          |                  | 2                | 2                | 0                | 2                | 1                | 2                | 1                | 2               | 1                |       |
| CLV LOS<br>v/c       | L   | -          |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |       |
|                      | T   | -          | 822        | 751        | 810              | 887              | 997              | 848              | 916              | 891              | 1,002            | 909              | 909             | 803              |       |
| HCS LOS<br>Delay     | R   | -          | 243        | 302        | 282              | 349              | 239              | 259              | 238              | 245              | 271              | 218              | 211             | 234              |       |
|                      | N/A | N/A        | C          | C          | C                | C                | C                | C                | C                | C                | D                | C                | C               | C                |       |
| Synchro LOS<br>Delay | C   | 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             |       |
|                      | D   | N/A        | C          | C          | C                | C                | D                | C                | C                | C                | C                | C                | C               | C                |       |
| Delay                | N/A | 27         | 28         | 27         | 29               | 36               | 31               | 32               | 30               | 34               | 29               | 28               | 26              |                  |       |
|                      | N/A | C          | C          | C          | D                | D                | D                | D                | D                | D                | D                | D                | D               |                  |       |
| Delay                | N/A | 38         | 34         | 34         | 36               | 39               | 39               | 38               | 38               | 37               | 40               | 36               | 39              | 39               |       |
|                      | N/A |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |       |

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

SR 4 / SR 7 / J.P. MORGAN

# 5

|                   |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008(Oct) Count | 2009 (Oct) Count | Notes                                                                                                                                 |
|-------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>SR 7        | L | 19         | 41         | 78         | 114              | 156              | 170              | 279              | 271              | 186              | 227              | 225              | 237             | 267              | 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            |                                                                                                                                       |
|                   | R | 119        | 125        | 70         | 137              | 167              | 177              | 105              | 227              | 226              | 275              | 200              | 231             | 284              |                                                                                                                                       |
| SB<br>SR 7        | L | 126        | 174        | 213        | 174              | 201              | 202              | 159              | 192              | 212              | 183              | 180              | 189             | 203              |                                                                                                                                       |
|                   | T | 1563       | 1473       | 1242       | 1261             | 1,512            | 1,450            | 1,538            | 1,550            | 1,400            | 1,444            | 1,583            | 1,684           | 1,667            |                                                                                                                                       |
|                   | R | 441        | 595        | 693        | 708              | 754              | 690              | 782              | 887              | 777              | 561              | 767              | 816             | 776              |                                                                                                                                       |
| EB<br>SR 4        | L | 323        | 369        | 437        | 424              | 402              | 535              | 537              | 507              | 550              | 575              | 474              | 529             | 384              |                                                                                                                                       |
|                   | T | 57         | 113        | 145        | 92               | 117              | 121              | 92               | 127              | 183              | 135              | 113              | 118             | 97               |                                                                                                                                       |
|                   | R | 28         | 46         | 53         | 26               | 31               | 38               | 51               | 43               | 53               | 64               | 64               | 83              | 54               |                                                                                                                                       |
| WB<br>J.P. Morgan | L | 23         | 32         | 15         | 9                | 11               | 8                | 6                | 11               | 9                | 11               | 11               | 9               | 11               |                                                                                                                                       |
|                   | T | 8          | 7          | 6          | 11               | 11               | 7                | 10               | 20               | 13               | 16               | 4                | 9               | 10               |                                                                                                                                       |
|                   | R | 8          | 8          | 5          | 6                | 14               | 5                | 10               | 14               | 9                | 9                | 0                | 3               | 4                |                                                                                                                                       |
| CLV LOS v/c       |   | A<br>0.58  | B<br>0.63  | C<br>0.78  | B<br>0.69        | B<br>0.71        | C<br>0.75        | D<br>0.90        | C<br>0.75        | C<br>0.72        | C<br>0.72        | C<br>0.75        | B<br>0.66       | B<br>0.63        |                                                                                                                                       |
| HCS LOS Delay     |   | N/A<br>N/A | C<br>23    | C<br>26    | C<br>26          | C<br>25          | C<br>35          | D<br>42          | C<br>30          | D<br>38          | D<br>38          | D<br>41          | D<br>35         | D<br>35          |                                                                                                                                       |
| Synchro LOS Delay |   | N/A<br>N/A | C<br>24    | C<br>26    | C<br>24          | C<br>25          | C<br>30          | D<br>37          | C<br>24          | C<br>25          | C<br>23          | C<br>23          | C<br>24         | C<br>23          |                                                                                                                                       |

SR 4 / CHURCHMANS ROAD / DELAWARE PARK

# 6

|                   |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008(Oct) Count | 2009 (Oct) Count | Notes                                  |
|-------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|----------------------------------------|
| NB<br>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<br>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<br>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<br>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<br>N/A | A<br>0.43  | A<br>0.48  | A<br>0.47        | A<br>0.52        | A<br>0.62        | A<br>0.60        | A<br>0.62        |                  |                  |                  |                 |                  |                                        |
| HCS LOS Delay     |   | N/A<br>N/A | C<br>22    | C<br>22    | C<br>23          | C<br>24          | C<br>25          | C<br>29          | C<br>33          |                  |                  |                  |                 |                  |                                        |
| Synchro LOS Delay |   | N/A<br>N/A | C<br>22    | C<br>21    | C<br>24          | C<br>23          | C<br>21          | C<br>25          | C<br>26          |                  |                  |                  |                 |                  |                                        |

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

SR 4 / CHRISTIANA HOSPITAL / HYGEIA DRIVE

# 7

|                |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                  |
|----------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------|
| NB<br>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<br>Hygeia   | L | -             | -             | 28            | 33                  | 47                  | 45                  | 50                  | 44                  |                     |                     |                     |                     |                     |                                        |
|                | T | -             | -             | 5             | 4                   | 9                   | 11                  | 12                  | 2                   |                     |                     |                     |                     |                     |                                        |
|                | R | -             | -             | 18            | 22                  | 25                  | 38                  | 35                  | 28                  |                     |                     |                     |                     |                     |                                        |
| EB<br>SR 4     | L | -             | -             | 183           | 125                 | 197                 | 215                 | 229                 | 203                 |                     |                     |                     |                     |                     |                                        |
|                | T | -             | -             | 1249          | 836                 | 1,140               | 1,376               | 1,213               | 1,301               |                     |                     |                     |                     |                     |                                        |
| WB<br>SR 4     | L | -             | -             | 110           | 191                 | 154                 | 157                 | 165                 | 136                 |                     |                     |                     |                     |                     |                                        |
|                | T | -             | -             | 706           | 1098                | 944                 | 1,009               | 994                 | 1,198               |                     |                     |                     |                     |                     |                                        |
|                | R | -             | -             | 202           | 369                 | 239                 | 244                 | 248                 | 264                 |                     |                     |                     |                     |                     |                                        |
| CLV LOS<br>v/c |   | N/A           | N/A           | A             | A                   | A                   | B                   | A                   | B                   |                     |                     |                     |                     |                     |                                        |
|                |   | N/A           | N/A           | 0.55          | 0.50                | 0.54                | 0.63                | 0.59                | 0.63                |                     |                     |                     |                     |                     |                                        |
| HCS LOS        |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | B                   | B                   |                     |                     |                     |                     |                     |                                        |
| Delay          |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | 11                  | 14                  |                     |                     |                     |                     |                     |                                        |
| Synchro LOS    |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | A                   | B                   |                     |                     |                     |                     |                     |                                        |
| Delay          |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | 10                  | 14                  |                     |                     |                     |                     |                     |                                        |

SR 4 / HARMONY ROAD

# 8

|                |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes |
|----------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------|
| NB<br>Harmony  | L | -             | 145           | 118           | 112                 | 114                 | 90                  | 135                 | 112                 | 99                  | 123                 | 77                  | 97                  | 83                  |       |
|                | T | -             | 315           | 310           | 275                 | 235                 | 261                 | 270                 | 277                 | 262                 | 290                 | 270                 | 275                 | 232                 |       |
|                | R | -             | 377           | 384           | 316                 | 282                 | 302                 | 302                 | 433                 | 374                 | 279                 | 371                 | 369                 | 338                 |       |
| SB<br>Harmony  | L | -             | 654           | 668           | 684                 | 705                 | 774                 | 785                 | 704                 | 775                 | 755                 | 838                 | 792                 | 734                 |       |
|                | T | -             | 553           | 382           | 346                 | 250                 | 305                 | 279                 | 274                 | 337                 | 295                 | 269                 | 287                 | 238                 |       |
| EB<br>SR 4     | R | -             | 158           | 162           | 174                 | 223                 | 219                 | 191                 | 154                 | 156                 | 139                 | 88                  | 102                 | 106                 |       |
|                | L | -             | 148           | 168           | 121                 | 186                 | 231                 | 220                 | 214                 | 233                 | 220                 | 213                 | 201                 | 148                 |       |
| WB<br>SR 4     | T | -             | 731           | 1171          | 1128                | 1,099               | 1,225               | 1,252               | 1,330               | 1,214               | 1,375               | 1,311               | 1,255               | 1,014               |       |
|                | R | -             | 110           | 97            | 96                  | 66                  | 66                  | 50                  | 83                  | 67                  | 62                  | 45                  | 65                  | 47                  |       |
| WB<br>SR 4     | L | -             | 64            | 81            | 95                  | 52                  | 78                  | 83                  | 79                  | 73                  | 84                  | 75                  | 73                  | 78                  |       |
|                | T | -             | 332           | 391           | 531                 | 550                 | 587                 | 527                 | 638                 | 588                 | 582                 | 453                 | 493                 | 450                 |       |
| WB<br>SR 4     | R | -             | 301           | 215           | 197                 | 272                 | 290                 | 231                 | 351                 | 284                 | 282                 | 203                 | 242                 | 248                 |       |
|                |   |               |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |       |
| CLV LOS<br>v/c |   | N/A           | C             | D             | D                   | D                   | E                   | E                   | E                   | E                   | E                   | E                   | E                   | D                   |       |
|                |   | 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                |       |
| HCS LOS        |   | N/A           | D             | E             | D                   | D                   | E                   | E                   | E                   | E                   | E                   | D                   | D                   | D                   |       |
| Delay          |   | N/A           | 54            | 61            | 55                  | 51                  | 66                  | 68                  | 72                  | 61                  | 80                  | 54                  | 54                  | 45                  |       |
| Synchro LOS    |   | N/A           | D             | D             | D                   | D                   | D                   | D                   | D                   | D                   | D                   | D                   | D                   | D                   |       |
| Delay          |   | N/A           | 37            | 47            | 42                  | 41                  | 51                  | 44                  | 45                  | 42                  | 53                  | 50                  | 46                  | 38                  |       |

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

**CHURCHMANS ROAD / CONTINENTAL DRIVE**

# 9

|                        |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                                                                                                                            |  |
|------------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| NB<br>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. / Churchmans Place. Intersection was not counted in Fall 2003. |  |
|                        | T | -             | -             | 14            | 6                   | 10                  | 4                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
|                        | R | -             | -             | 159           | 128                 | 161                 | 68                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
| SB<br>Churchmans Place | L | -             | -             | 44            | 41                  | 31                  | 38                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
|                        | T | -             | -             | 31            | 103                 | 86                  | 68                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
|                        | R | -             | -             | 10            | 0                   | 8                   | 8                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
| EB<br>Churchmans       | L | -             | -             | 37            | 5                   | 7                   | 6                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
|                        | T | -             | -             | 566           | 650                 | 662                 | 556                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
|                        | R | -             | -             | 60            | 146                 | 107                 | 95                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
| WB<br>Churchmans       | L | -             | -             | 510           | 595                 | 611                 | 467                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
|                        | T | -             | -             | 996           | 1277                | 1,319               | 1,402               |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
|                        | R | -             | -             | 66            | 41                  | 31                  | 46                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
| <b>CLV LOS</b>         |   | N/A           | N/A           | A             | A                   | A                   | A                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |
| <b>v/c</b>             |   | N/A           | N/A           | 0.42          | 0.50                | 0.51                | 0.42                |                     |                     |                     |                     |                     |                     |                     |                                                                                                                                                                                                                  |  |

**SR 7 / CHURCHMANS ROAD (Ramp A)**

# 10

|                  |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                          |  |
|------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------|--|
| NB<br>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<br>SR 7       | L | -             | 371           | 149           | 230                 | 169                 | 180                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | 1084          | 379           | 406                 | 414                 | 522                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | 103           | 95            | 69                  | 113                 | 96                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| EB<br>Churchmans | L | -             | 130           |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | 392           | 332           | 382                 | 285                 | 344                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | 573           | 437           | 540                 | 442                 | 446                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| WB<br>Churchmans | L | -             | 326           | 231           | 232                 | 294                 | 252                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | 1170          | 1572          | 1856                | 1,942               | 1,839               |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | 653           |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>CLV LOS</b>   |   | N/A           | F             | D             | B                   | B                   | B                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>v/c</b>       |   | 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<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                          |  |
|------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------|--|
| NB<br>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<br>SR 7       | L | -             | 371           | 147           | 178                 | 163                 | 153                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | 1084          | 11            | 16                  | 24                  | 18                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | 103           | 509           | 658                 | 669                 | 609                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| EB<br>Churchmans | L | -             | 130           | 24            | 34                  | 44                  | 29                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | 392           | 456           | 548                 | 462                 | 448                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | 573           | 14            | 18                  | 26                  | 18                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| WB<br>Churchmans | L | -             | 326           | 33            | 26                  | 31                  | 32                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | 1170          | 1654          | 1489                | 1,492               | 1,510               |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | 653           | 153           | 316                 | 368                 | 331                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>CLV LOS</b>   |   | N/A           | F             | D             | C                   | C                   | C                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>v/c</b>       |   | N/A           | 1.09          | 0.89          | 0.78                | 0.79                | 0.76                |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |

CHURCHMANS ROAD / DEL TECH

# 12

|                  |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                          |  |
|------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------|--|
| NB<br>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<br>Del Tech   | L | -             | -             | 112           | 77                  | 65                  | 26                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | -             | -             | -                   | -                   | -                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | -             | 22            | 21                  | 6                   | 31                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| EB<br>Churchmans | L | -             | -             | 98            | 159                 | 80                  | 150                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | -             | 494           | 512                 | 458                 | 430                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | -             | 11            | 24                  | 10                  | 27                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| WB<br>Churchmans | L | -             | -             | -             | -                   | -                   | -                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | -             | 1700          | 1687                | 1,732               | 1,769               |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | -             | 469           | 593                 | 379                 | 435                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>CLV LOS</b>   |   | N/A           | N/A           | C             | A                   | A                   | A                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>v/c</b>       |   | 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 Count | 1998 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008(Oct) Count | 2009 (Oct) Count | Notes                                      |
|--------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|--------------------------------------------|
| NB<br>c.c.         | L | -          | -          | 190        | 220              | 223              | 190              |                  |                  |                  |                  |                  |                 |                  | Intersection was not counted in Fall 2003. |
|                    | T | -          | -          |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                                            |
|                    | R | -          | -          | 108        | 78               | 67               | 75               |                  |                  |                  |                  |                  |                 |                  |                                            |
| SB                 | L | -          | -          |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                                            |
|                    | T | -          | -          |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                                            |
|                    | R | -          | -          |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                                            |
| EB<br>Churchmans   | L | -          | -          |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                                            |
|                    | T | -          | -          | 662        | 704              | 600              | 554              |                  |                  |                  |                  |                  |                 |                  |                                            |
|                    | R | -          | -          | 44         | 40               | 48               | 52               |                  |                  |                  |                  |                  |                 |                  |                                            |
| WB<br>Churchmans   | L | -          | -          | 22         | 20               | 14               | 17               |                  |                  |                  |                  |                  |                 |                  |                                            |
|                    | T | -          | -          | 405        | 492              | 489              | 530              |                  |                  |                  |                  |                  |                 |                  |                                            |
|                    | R | -          | -          |            |                  |                  |                  |                  |                  |                  |                  |                  |                 |                  |                                            |
| <b>CLV LOS v/c</b> |   | 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 Count | 1998 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008(Oct) Count | 2009 (Oct) Count | Notes                                                                                           |
|--------------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|-------------------------------------------------------------------------------------------------|
| NB<br>Gerald Drive       | L | -          | 18         | 24         | 21               | 27               | 23               | 22               |                  | 19               | 21               | 10               | 14              | 23               | Before 10/02, an exclusive WB right turn lane was added. Intersection was not counted in 10/04. |
|                          | T | -          | 30         | 23         | 18               | 18               | 17               | 18               |                  | 22               | 26               | 25               | 53              | 19               |                                                                                                 |
|                          | R | -          | 160        | 157        | 102              | 166              | 132              | 160              |                  | 142              | 118              | 103              | 102             | 98               |                                                                                                 |
| SB<br>Harmony            | L | -          | 682        | 665        | 547              | 392              | 450              | 400              |                  | 455              | 461              | 367              | 449             | 457              |                                                                                                 |
|                          | T | -          | 6          | 17         | 15               | 7                | 9                | 14               |                  | 9                | 13               | 8                | 15              | 8                |                                                                                                 |
|                          | R | -          | 18         | 15         | 38               | 18               | 17               | 13               |                  | 21               | 26               | 28               | 28              | 29               |                                                                                                 |
| EB<br>SR 273             | L | -          | 26         | 30         | 22               | 9                | 62               | 69               |                  | 40               | 42               | 51               | 27              | 62               |                                                                                                 |
|                          | T | -          | 1530       | 1675       | 1598             | 1,889            | 1,695            | 1,898            |                  | 1,945            | 2,063            | 1,721            | 1,790           | 1,958            |                                                                                                 |
|                          | R | -          | 14         | 30         | 30               | 22               | 26               | 31               |                  | 66               | 41               | 31               | 38              | 31               |                                                                                                 |
| WB<br>SR 273             | L | -          | 34         | 27         | 30               | 29               | 27               | 38               |                  | 31               | 21               | 22               | 28              | 30               |                                                                                                 |
|                          | T | -          | 1624       | 1905       | 1899             | 2,007            | 1,912            | 2,048            |                  | 1,945            | 1,892            | 1,815            | 1,792           | 1,755            |                                                                                                 |
|                          | R | -          | 925        | 786        | 637              | 575              | 622              | 700              |                  | 661              | 555              | 639              | 643             | 501              |                                                                                                 |
| <b>CLV LOS v/c</b>       |   | N/A        | E          | F          | E                | E                | E                | F                |                  | E                | E                | D                | D               | 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             |                                                                                                 |
| <b>HCS LOS Delay</b>     |   | N/A        | E          | E          | D                | E                | D                | E                |                  | E                | E                | C                | D               | D                |                                                                                                 |
|                          |   | N/A        | 56         | 71         | 49               | 58               | 50               | 72               |                  | 67               | 65               | 31               | 38              | 38               |                                                                                                 |
| <b>Synchro LOS Delay</b> |   | N/A        | D          | E          | D                | D                | D                | E                |                  | E                | E                | C                | D               | D                |                                                                                                 |
|                          |   | N/A        | 45         | 61         | 43               | 52               | 45               | 65               |                  | 62               | 63               | 31               | 37              | 38               |                                                                                                 |

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

SR 273 / CHAPMAN ROAD / EAGLE RUN ROAD

# 15

|                      |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                                                                                      |
|----------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>Chapman        | L | -             | 10            | 490           | 563                 | 498                 | 578                 | 566                 |                     | 543                 | 591                 | 528                 | 462                 | 530                 | 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                  |                                                                                                                                                                            |
|                      | R | -             | 160           | 187           | 206                 | 218                 | 188                 | 179                 |                     | 180                 | 220                 | 133                 | 169                 | 134                 |                                                                                                                                                                            |
| SB<br>Eagle Run      | L | -             | 26            | 34            | 29                  | 51                  | 38                  | 43                  |                     | 35                  | 39                  | 34                  | 25                  | 17                  |                                                                                                                                                                            |
|                      | T | -             | 23            | 16            | 20                  | 35                  | 28                  | 22                  |                     | 11                  | 18                  | 35                  | 17                  | 19                  |                                                                                                                                                                            |
|                      | R | -             | 83            | 61            | 81                  | 56                  | 81                  | 86                  |                     | 75                  | 65                  | 79                  | 100                 | 76                  |                                                                                                                                                                            |
| EB<br>SR 273         | L | -             | 232           | 195           | 267                 | 147                 | 242                 | 261                 |                     | 182                 | 166                 | 193                 | 172                 | 167                 |                                                                                                                                                                            |
|                      | T | -             | 775           | 893           | 898                 | 1,260               | 1,002               | 1,212               |                     | 948                 | 929                 | 892                 | 838                 | 825                 |                                                                                                                                                                            |
| WB<br>SR 273         | R | -             | 859           | 773           | 910                 | 711                 | 701                 | 555                 |                     | 735                 | 594                 | 598                 | 632                 | 524                 |                                                                                                                                                                            |
|                      | L | -             | 358           | 344           | 326                 | 302                 | 326                 | 283                 |                     | 295                 | 247                 | 248                 | 216                 | 202                 |                                                                                                                                                                            |
| WB<br>SR 273         | T | -             | 1655          | 1878          | 1862                | 1,688               | 1,763               | 1,916               |                     | 1,887               | 2,026               | 1,726               | 1,726               | 1,786               |                                                                                                                                                                            |
|                      | R | -             | 91            | 92            | 108                 | 89                  | 121                 | 109                 |                     | 96                  | 122                 | 76                  | 74                  | 66                  |                                                                                                                                                                            |
| CLV LOS<br>v/c       |   | N/A           | N/A           | E             | E                   | D                   | E                   | E                   |                     | E                   | E                   | D                   | D                   | D                   |                                                                                                                                                                            |
|                      |   | N/A           | N/A           | 0.91          | 0.96                | 0.84                | 0.93                | 0.98                |                     | 0.93                | 0.99                | 0.89                | 0.84                | 0.89                |                                                                                                                                                                            |
| HCS LOS<br>Delay     |   | N/A           | C             | E             | F                   | D                   | E                   | F                   |                     | E                   | F                   | D                   | D                   | D                   |                                                                                                                                                                            |
|                      |   | N/A           | 33            | 70            | 118                 | 46                  | 75                  | 87                  |                     | 69                  | 82                  | 40                  | 37                  | 44                  |                                                                                                                                                                            |
| Synchro LOS<br>Delay |   | N/A           | B             | D             | D                   | D                   | D                   | E                   |                     | D                   | E                   | C                   | C                   | D                   |                                                                                                                                                                            |
|                      |   | N/A           | 20            | 44            | 53                  | 36                  | 46                  | 59                  |                     | 55                  | 65                  | 34                  | 34                  | 40                  |                                                                                                                                                                            |

SR 273 / OLD BALTIMORE PIKE

# 16

|                      |                | 1993<br>Count | 1998<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                                               |
|----------------------|----------------|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>Old Balt       | L              | -             | 788           | 875           | 868                 | 638                 | 802                 | 780                 | 699                 | 746                 | 939                 | 656                 | 846                 | 1,018               | Main Street was closed 10/01. Intersection operates as split phased in the northbound/southbound directions during the 2002 counts. |
|                      | T              | -             | 127           | 123           | 142                 | 187                 | 169                 | 142                 | 160                 | 157                 | 173                 | 110                 | 142                 | 145                 |                                                                                                                                     |
|                      | R              | -             | 441           | 442           | 614                 | 358                 | 476                 | 460                 | 530                 | 438                 | 386                 | 382                 | 403                 | 337                 |                                                                                                                                     |
| SB<br>Old Balt       | L              | -             | 9             | 13            | 52                  | 14                  | 12                  | 13                  | 18                  | 14                  | 12                  | 6                   | 12                  | 8                   |                                                                                                                                     |
|                      | T              | -             | 35            | 21            | 22                  | 43                  | 36                  | 35                  | 34                  | 43                  | 43                  | 40                  | 40                  | 24                  |                                                                                                                                     |
| EB<br>SR 273         | R              | -             | 63            | 55            | 10                  | 156                 | 39                  | 65                  | 53                  | 43                  | 67                  | 59                  | 43                  | 59                  |                                                                                                                                     |
|                      | L              | -             | 25            | 16            | 8                   | 282                 | 30                  | 42                  | 47                  | 34                  | 58                  | 70                  | 66                  | 37                  |                                                                                                                                     |
| WB<br>SR 273         | T              | -             | 1380          | 842           | 882                 | 1,056               | 848                 | 918                 | 951                 | 850                 | 792                 | 784                 | 742                 | 685                 |                                                                                                                                     |
|                      | R              | -             | 168           | 155           | 219                 | 192                 | 199                 | 213                 | 181                 | 182                 | 199                 | 245                 | 181                 | 151                 |                                                                                                                                     |
| WB<br>SR 273         | L              | -             | 173           | 192           | 215                 | 157                 | 230                 | 171                 | 239                 | 164                 | 155                 | 160                 | 153                 | 181                 |                                                                                                                                     |
|                      | T              | -             | 1333          | 1351          | 835                 | 1,215               | 1,331               | 1,464               | 1,481               | 1,476               | 1,422               | 1,231               | 1,217               | 1,223               |                                                                                                                                     |
| WB<br>SR 273         | R              | -             | 8             | 25            | 55                  | 23                  | 15                  | 15                  | 11                  | 13                  | 20                  | 8                   | 8                   | 5                   |                                                                                                                                     |
|                      | CLV LOS<br>v/c |               | N/A           | D             | D                   | D                   | E                   | D                   | D                   | D                   | D                   | E                   | C                   | 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                |                                                                                                                                     |
| HCS LOS<br>Delay     |                | N/A           | D             | D             | E                   | E                   | E                   | E                   | E                   | D                   | E                   | C                   | D                   | D                   |                                                                                                                                     |
|                      |                | N/A           | 47            | 48            | 67                  | 73                  | 55                  | 59                  | 65                  | 50                  | 62                  | 30                  | 37                  | 37                  |                                                                                                                                     |
| Synchro LOS<br>Delay |                | N/A           | D             | D             | D                   | D                   | D                   | D                   | D                   | D                   | D                   | C                   | C                   | C                   |                                                                                                                                     |
|                      |                | N/A           | 43            | 48            | 39                  | 52                  | 51                  | 43                  | 40                  | 42                  | 47                  | 27                  | 33                  | 34                  |                                                                                                                                     |

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

SR 7 / SR 273

# 17

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

SR 273 / SB SR 1 RAMP

# 18

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



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

SR 273 / NB SR 1 RAMP

# 19

|                              |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008(Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                      |  |
|------------------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|--------------------------------------------|--|
| NB<br>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<br>SR 273                 | L | -             | -             | 615           | 542                 | 570                 | 597                 | 546                 | 524                 |                     |                     |                     |                    |                     |                                            |  |
|                              | T | -             | -             | 1763          | 1306                | 1,351               | 1,279               | 1,403               | 1,633               |                     |                     |                     |                    |                     |                                            |  |
|                              | R | -             | -             |               |                     |                     |                     | -                   | -                   |                     |                     |                     |                    |                     |                                            |  |
| WB<br>SR 273                 | L | -             | -             |               |                     |                     |                     | -                   | -                   |                     |                     |                     |                    |                     |                                            |  |
|                              | T | -             | -             | 916           | 758                 | 780                 | 813                 | 781                 | 779                 |                     |                     |                     |                    |                     |                                            |  |
|                              | R | -             | -             | 340           | 397                 | 375                 | 341                 | 340                 | 370                 |                     |                     |                     |                    |                     |                                            |  |
| <b>CLV LOS<br/>v/c</b>       |   | N/A<br>N/A    | N/A<br>N/A    | D<br>0.88     | D<br>0.84           | D<br>0.87           | D<br>0.88           | D<br>0.84           | D<br>0.83           |                     |                     |                     |                    |                     |                                            |  |
| <b>HCS LOS<br/>Delay</b>     |   | N/A<br>N/A    | N/A<br>N/A    | N/A<br>N/A    | N/A<br>N/A          | N/A<br>N/A          | N/A<br>N/A          | D<br>37             | C<br>33             |                     |                     |                     |                    |                     |                                            |  |
| <b>Synchro LOS<br/>Delay</b> |   | N/A<br>N/A    | N/A<br>N/A    | N/A<br>N/A    | N/A<br>N/A          | N/A<br>N/A          | N/A<br>N/A          | C<br>29             | C<br>27             |                     |                     |                     |                    |                     |                                            |  |

SB SR 1 RAMPS / ROAD A

# 20

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

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

NB SR 1 RAMPS / ROAD A

# 21

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

SR 2 / RED MILL ROAD / POLLY DRUMMOND HILL ROAD

# 22

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

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

SR 7 / SCHOOL BELL ROAD

# 24

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

SR 4 / TELEGRAPH ROAD

# 25

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

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

SR 2 / ST. JAMES CHURCH ROAD

# 26

|                        |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Oct)<br>Count | 2009 (Oct)<br>Count | Notes                                      |
|------------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------------------------|
| NB<br>St. James Church | L | -             | -             | -             | -                   | -                   | -                   | -                   | 80                  |                     |                     |                     |                     |                     | Intersection was not counted in Fall 2005. |
|                        | T | -             | -             | -             | -                   | -                   | -                   | -                   | 31                  |                     |                     |                     |                     |                     |                                            |
|                        | R | -             | -             | -             | -                   | -                   | -                   | -                   | 85                  |                     |                     |                     |                     |                     |                                            |
| SB<br>Griffin Drive    | L | -             | -             | -             | -                   | -                   | -                   | -                   | 54                  |                     |                     |                     |                     |                     |                                            |
|                        | T | -             | -             | -             | -                   | -                   | -                   | -                   | 60                  |                     |                     |                     |                     |                     |                                            |
|                        | R | -             | -             | -             | -                   | -                   | -                   | -                   | 37                  |                     |                     |                     |                     |                     |                                            |
| EB<br>SR 2             | L | -             | -             | -             | -                   | -                   | -                   | -                   | 59                  |                     |                     |                     |                     |                     |                                            |
|                        | T | -             | -             | -             | -                   | -                   | -                   | -                   | 1,698               |                     |                     |                     |                     |                     |                                            |
| WB<br>SR 2             | R | -             | -             | -             | -                   | -                   | -                   | -                   | 150                 |                     |                     |                     |                     |                     |                                            |
|                        | L | -             | -             | -             | -                   | -                   | -                   | -                   | 16                  |                     |                     |                     |                     |                     |                                            |
|                        | T | -             | -             | -             | -                   | -                   | -                   | -                   | 899                 |                     |                     |                     |                     |                     |                                            |
|                        | R | -             | -             | -             | -                   | -                   | -                   | -                   | 114                 |                     |                     |                     |                     |                     |                                            |
| <b>CLV LOS</b>         |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | N/A                 | A                   |                     |                     |                     |                     |                     |                                            |
| <b>v/c</b>             |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | N/A                 | 0.61                |                     |                     |                     |                     |                     |                                            |
| <b>HCS LOS</b>         |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | N/A                 | C                   |                     |                     |                     |                     |                     |                                            |
| <b>Delay</b>           |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | N/A                 | 30                  |                     |                     |                     |                     |                     |                                            |
| <b>Synchro LOS</b>     |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | N/A                 | C                   |                     |                     |                     |                     |                     |                                            |
| <b>Delay</b>           |   | 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 4:45 and 5:45 PM. However, the nearby intersection at SR 4 / Harmony Road was found to occur between 4:30 and 5:30 PM. As a result, the volumes in the following table may not balance between intersections.

SR 2 / HARMONY ROAD

# 1

|               |       | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Oct) Count | 2009 (Oct) Count | Notes |
|---------------|-------|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------|
| NB<br>Harmony | L     | 647        | 433        | 544        | 475              | 447              | 586              | 454              | 545              | 417              | 430              | 405              | 471              | 423              |       |
|               | R     | 542        | 662        | 632        | 655              | 673              | 944              | 792              | 754              | 703              | 672              | 1,399            | 695              | 716              |       |
| SB            | L     |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |       |
|               | R     |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |       |
| EB<br>SR 2    | U     | 13         |            | 28         | 17               | 5                | 28               | 14               | 16               | 19               | 19               | 22               | 21               | 9                |       |
|               | T     | 1157       | 1258       | 1063       | 1078             | 1,126            | 1,314            | 1,103            | 1,093            | 1,190            | 1,040            | 1,055            | 1,062            | 1,055            |       |
|               | R     | 361        | 345        | 276        | 305              | 306              | 467              | 283              | 354              | 243              | 281              | 358              | 283              | 267              |       |
| WB<br>SR 2    | L     | 507        | 503        | 626        | 500              | 607              | 548              | 598              | 651              | 501              | 623              | 646              | 531              | 536              |       |
|               | T     | 1409       | 1367       | 1441       | 1340             | 1,313            | 1,205            | 1,382            | 1,301            | 1,265            | 1,265            | 1,503            | 1,337            | 1,215            |       |
|               | R     |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |       |
| CLV LOS v/c   |       | F          | E          | E          | D                | E                | E                | E                | E                | D                | E                | E                | 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             |       |
| HCS LOS       |       | N/A        | C          | C          | C                | C                | D                | C                | D                | D                | C                | C                | C                | C                |       |
|               | Delay | N/A        | 30         | 33         | 30               | 28               | 38               | 29               | 38               | 37               | 29               | 23               | 22               | 22               |       |
| Synchro LOS   |       | N/A        | C          | C          | B                | C                | C                | C                | C                | C                | B                | C                | C                | C                |       |
|               | Delay | N/A        | 21         | 23         | 19               | 20               | 26               | 20               | 31               | 29               | 19               | 21               | 21               | 21               |       |

SR 2 / DELAWARE PARK BOULEVARD

# 2

|                   |       | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                                                                                                                                                        |
|-------------------|-------|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>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. |
|                   | R     | 311        | 122        | 129        | 121              | 90               | 154              | 150              | 149              |                  |                  |                  |                  |                  |                                                                                                                                                                              |
| SB<br>Gas Station | L     | 20         | 14         | 30         | 20               | 8                | 16               | 19               | 24               |                  |                  |                  |                  |                  |                                                                                                                                                                              |
|                   | T     | 15         | 15         | 11         | 11               | 8                | 12               | 7                | 18               |                  |                  |                  |                  |                  |                                                                                                                                                                              |
|                   | R     | 50         | 50         | 59         | 66               | 37               | 47               | 56               | 70               |                  |                  |                  |                  |                  |                                                                                                                                                                              |
| EB<br>SR 2        | L     | 50         | 19         | 55         | 41               | 32               | 52               | 69               | 46               |                  |                  |                  |                  |                  |                                                                                                                                                                              |
|                   | T     | 1628       | 1297       | 1389       | 1356             | 1,670            | 1,494            | 1,468            | 1,505            |                  |                  |                  |                  |                  |                                                                                                                                                                              |
|                   | R     | 100        | 156        | 162        | 178              | 192              | 232              | 213              | 185              |                  |                  |                  |                  |                  |                                                                                                                                                                              |
| WB<br>SR 2        | 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           |       | N/A        | C          | B          | B                | B                | B                | B                | C                |                  |                  |                  |                  |                  |                                                                                                                                                                              |
|                   | Delay | N/A        | 25         | 17         | 17               | 19               | 16               | 16               | 31               |                  |                  |                  |                  |                  |                                                                                                                                                                              |
| Synchro LOS       |       | N/A        | B          | B          | B                | B                | B                | B                | C                |                  |                  |                  |                  |                  |                                                                                                                                                                              |
|                   | Delay | 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 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                                                                                                                                         |
|----------------------|-----|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>SR 7           | L   | 372        | 266        | 272        | 276              | 338              | 248              | 392              | 237              |                  |                  |                  |                  |                  | Before 10/02, all free rights, except for the WBR 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<br>SR 7           | L   | 436        | 403        | 539        | 358              | 502              | 409              | 427              | 399              |                  |                  |                  |                  |                  |                                                                                                                                                               |
|                      | T   | 785        | 743        | 768        | 727              | 802              | 805              | 815              | 864              |                  |                  |                  |                  |                  |                                                                                                                                                               |
| EB<br>SR 2           | R   | 118        | 88         | 113        | 93               | 113              | 124              | 101              | 83               |                  |                  |                  |                  |                  |                                                                                                                                                               |
|                      | L   | 220        | 224        | 259        | 217              | 237              | 285              | 321              | 312              |                  |                  |                  |                  |                  |                                                                                                                                                               |
| WB<br>SR 2           | T   | 1044       | 1059       | 1073       | 996              | 1,097            | 1,097            | 1,197            | 1,054            |                  |                  |                  |                  |                  |                                                                                                                                                               |
|                      | R   | 273        | 187        | 143        | 144              | 166              | 187              | 228              | 207              |                  |                  |                  |                  |                  |                                                                                                                                                               |
| CLV LOS<br>v/c       | L   | 426        | 417        | 458        | 490              | 471              | 572              | 634              | 696              |                  |                  |                  |                  |                  |                                                                                                                                                               |
|                      | T   | 1554       | 1898       | 2060       | 1648             | 1,542            | 1,832            | 1,620            | 1,650            |                  |                  |                  |                  |                  |                                                                                                                                                               |
| HCS LOS<br>Delay     | R   | 1017       | 622        | 478        | 540              | 518              | 535              | 661              | 596              |                  |                  |                  |                  |                  |                                                                                                                                                               |
|                      | F   | 1.05       | 1.04       | 1.20       | 1.02             | 1.08             | 1.05             | 1.01             | 1.01             |                  |                  |                  |                  |                  |                                                                                                                                                               |
| Synchro LOS<br>Delay | N/A | N/A        | E          | F          | E                | E                | E                | E                | F                |                  |                  |                  |                  |                  |                                                                                                                                                               |
|                      | N/A | N/A        | 65         | 98         | 69               | 78               | 66               | 63               | 84               |                  |                  |                  |                  |                  |                                                                                                                                                               |
| Synchro LOS<br>Delay | N/A | N/A        | E          | F          | E                | E                | E                | E                | E                |                  |                  |                  |                  |                  |                                                                                                                                                               |
|                      | N/A | N/A        | 59         | 87         | 64               | 70               | 60               | 59               | 62               |                  |                  |                  |                  |                  |                                                                                                                                                               |

SR 7 / SR 4 (Stanton Split)

# 4

|                      |     | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes |
|----------------------|-----|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------|
| NB<br>Mill Road      | L   | BAD DATA   |            |            |                  |                  |                  | -                | -                | -                | -                |                  |                  |                  |       |
|                      | T   |            |            |            |                  |                  | -                | -                | -                | -                |                  |                  |                  |                  |       |
|                      | R   |            | 8          | 6          | 8                | 2                | 6                | 6                | 4                | 3                | 5                | 4                |                  |                  |       |
| SB<br>SR 7           | L   | 923?       | 311        | 311        | 340              | 279              | 272              | 295              | 254              | 231              | 218              | 329              | 257              | 251              |       |
|                      | T   |            |            | 3          |                  | 2                | 5                | 3                | 9                | 3                | 4                | 2                | 3                | 1                |       |
| EB<br>SR 4/SR 7      | R   | 431?       | 1028       | 972        | 1128             | 1,002            | 1,159            | 1,266            | 1,426            | 1,356            | 1,272            | 1,370            | 1,301            | 1,320            |       |
|                      | L   | 351?       | 1261       | 1226       | 1274             | 1,078            | 1,341            | 1,213            | 1,259            | 1,260            | 1,101            | 1,257            | 1,195            | 1,316            |       |
| WB<br>SR 4           | T   | 955?       | 1044       | 990        | 1213             | 1,213            | 1,266            | 1,271            | 1,204            | 1,173            | 1,182            | 1,178            | 1,246            | 1,146            |       |
|                      | R   |            |            | 6          | 2                | 1                | 4                | 0                | 2                | 1                | 3                | 6                | 5                | 5                |       |
| CLV LOS<br>v/c       | L   | 1316?      | 1033       | 1031       | 1044             | 1,024            | 1,254            | 1,163            | 1,288            | 1,299            | 1,292            | 1,222            | 1,056            | 1,152            |       |
|                      | T   | 0?         | 342        | 316        | 384              | 294              | 291              | 306              | 241              | 232              | 198              | 241              | 247              | 302              |       |
| HCS LOS<br>Delay     | R   | N/A        | D          | D          | E                | D                | F                | E                | F                | F                | E                | F                | D                | E                |       |
|                      | N/A | N/A        | 0.91       | 0.89       | 0.92             | 0.86             | 1.03             | 0.96             | 1.01             | 1.00             | 0.94             | 1.01             | 0.90             | 0.98             |       |
| Synchro LOS<br>Delay | N/A | N/A        | E          | E          | E                | D                | F                | E                | F                | F                | E                | F                | E                | F                |       |
|                      | N/A | N/A        | 76         | 72         | 75               | 50               | 100              | 74               | 95               | 95               | 75               | 87               | 66               | 89               |       |
| Synchro LOS<br>Delay | N/A | N/A        | D          | D          | E                | D                | E                | D                | E                | E                | E                | D                | D                | E                |       |
|                      | N/A | N/A        | 54         | 48         | 58               | 41               | 67               | 51               | 68               | 65               | 58               | 54               | 50               | 60               |       |

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

SR 4 / SR 7 / J.P. MORGAN

# 5

|                   |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                                                                                                                     |
|-------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>SR 7        | L | 35         | 28         | 57         | 55               | 61               | 65               | 87               | 68               | 93               | 82               | 121              | 88               | 108              | 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            |                                                                                                                                           |
|                   | R | 3          | 15         | 3          | 5                | 6                | 5                | 3                | 6                | 7                | 6                | 8                | 6                | 14               |                                                                                                                                           |
| SB<br>SR 7        | L | 7          | 11         | 14         | 21               | 18               | 16               | 19               | 11               | 12               | 21               | 7                | 10               | 15               |                                                                                                                                           |
|                   | T | 1552       | 1653       | 1435       | 1670             | 1,896            | 1,959            | 2,238            | 2,762            | 2,253            | 1,922            | 2,066            | 2,038            | 2,092            |                                                                                                                                           |
|                   | R | 476        | 690        | 500        | 532              | 511              | 542              | 631              | 677              | 716              | 562              | 606              | 542              | 569              |                                                                                                                                           |
| EB<br>SR 4        | L | 607        | 655        | 690        | 807              | 828              | 879              | 950              | 903              | 811              | 824              | 773              | 811              | 791              |                                                                                                                                           |
|                   | T | 6          | 11         | 35         | 12               | 17               | 16               | 7                | 22               | 22               | 14               | 16               | 15               | 13               |                                                                                                                                           |
|                   | R | 47         | 87         | 82         | 241              | 358              | 478              | 554              | 571              | 501              | 461              | 375              | 474              | 530              |                                                                                                                                           |
| WB<br>J.P. Morgan | L | 244        | 307        | 147        | 171              | 214              | 177              | 138              | 202              | 214              | 200              | 245              | 137              | 172              |                                                                                                                                           |
|                   | T | 49         | 88         | 87         | 95               | 108              | 94               | 97               | 126              | 121              | 131              | 143              | 85               | 119              |                                                                                                                                           |
|                   | R | 103        | 244        | 167        | 218              | 174              | 166              | 147              | 162              | 215              | 103              | 242              | 110              | 188              |                                                                                                                                           |
| CLV LOS v/c       |   | E<br>0.92  | D<br>0.82  | D<br>0.88  | D<br>0.88        | E<br>0.92        | E<br>0.93        | F<br>1.03        | F<br>1.05        | E<br>0.91        | D<br>0.83        | D<br>0.88        | D<br>0.83        | D<br>0.86        |                                                                                                                                           |
| HCS LOS Delay     |   | N/A<br>N/A | D<br>48    | D<br>40    | E<br>59          | E<br>79          | F<br>90          | F<br>127         | F<br>134         | F<br>85          | E<br>63          | F<br>94          | E<br>74          | E<br>78          |                                                                                                                                           |
| Synchro LOS Delay |   | N/A<br>N/A | C<br>30    | C<br>31    | D<br>39          | D<br>45          | D<br>48          | E<br>62          | E<br>67          | C<br>32          | C<br>22          | C<br>24          | B<br>20          | C<br>21          |                                                                                                                                           |

SR 4 / CHURCHMANS ROAD / DELAWARE PARK

# 6

|                   |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                  |
|-------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------------------------|
| NB<br>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<br>Del Park    | L | 0          | 4          | 4          | 18               | 19               | 45               | 42               | 54               |                  |                  |                  |                  |                  |                                        |
|                   | T | 38         | 57         | 87         | 85               | 81               | 117              | 157              | 136              |                  |                  |                  |                  |                  |                                        |
|                   | R | 2          | 44         | 66         | 73               | 69               | 120              | 118              | 130              |                  |                  |                  |                  |                  |                                        |
| EB<br>SR 4        | L | 4          | 20         | 35         | 47               | 70               | 71               | 67               | 79               |                  |                  |                  |                  |                  |                                        |
|                   | T | 536        | 522        | 542        | 730              | 775              | 1023             | 917              | 1,054            |                  |                  |                  |                  |                  |                                        |
|                   | R | 688        | 655        | 747        | 630              | 532              | 836              | 767              | 749              |                  |                  |                  |                  |                  |                                        |
| WB<br>SR 4        | L | 17         | 8          | 79         | 37               | 40               | 38               | 35               | 40               |                  |                  |                  |                  |                  |                                        |
|                   | T | 523        | 383        | 551        | 513              | 563              | 521              | 614              | 619              |                  |                  |                  |                  |                  |                                        |
|                   | R | 0          | 1          | 8          | 12               | 15               | 13               | 14               | 19               |                  |                  |                  |                  |                  |                                        |
| CLV LOS v/c       |   | A<br>0.59  | A<br>0.62  | A<br>0.60  | B<br>0.67        | B<br>0.65        | D<br>0.86        | C<br>0.76        | C<br>0.80        |                  |                  |                  |                  |                  |                                        |
| HCS LOS Delay     |   | N/A<br>N/A | C<br>24    | C<br>25    | C<br>27          | C<br>29          | D<br>44          | C<br>33          | D<br>35          |                  |                  |                  |                  |                  |                                        |
| Synchro LOS Delay |   | N/A<br>N/A | B<br>19    | C<br>22    | C<br>21          | C<br>23          | C<br>30          | C<br>29          | C<br>32          |                  |                  |                  |                  |                  |                                        |

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

SR 4 / CHRISTIANA HOSPITAL / HYGIEIA DRIVE

# 7

|                      |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                  |
|----------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------|
| NB<br>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<br>Hygeia         | L | -             | -             | 229           | 252                 | 213                 | 229                 | 238                 | 246                 |                     |                     |                     |                     |                     |                                        |
|                      | T | -             | -             | 10            | 13                  | 16                  | 10                  | 13                  | 28                  |                     |                     |                     |                     |                     |                                        |
|                      | R | -             | -             | 202           | 232                 | 183                 | 182                 | 227                 | 211                 |                     |                     |                     |                     |                     |                                        |
| EB<br>SR 4           | L | -             | -             | 96            | 70                  | 63                  | 78                  | 113                 | 117                 |                     |                     |                     |                     |                     |                                        |
|                      | T | -             | -             | 763           | 905                 | 1,021               | 1,242               | 1,213               | 1,328               |                     |                     |                     |                     |                     |                                        |
|                      | R | -             | -             | 102           | 140                 | 110                 | 116                 | 102                 | 85                  |                     |                     |                     |                     |                     |                                        |
| WB<br>SR 4           | L | -             | -             | 36            | 47                  | 48                  | 63                  | 52                  | 36                  |                     |                     |                     |                     |                     |                                        |
|                      | T | -             | -             | 1174          | 1190                | 1,165               | 1,453               | 1,308               | 1,457               |                     |                     |                     |                     |                     |                                        |
|                      | R | -             | -             | 133           | 94                  | 73                  | 116                 | 110                 | 97                  |                     |                     |                     |                     |                     |                                        |
| CLV LOS<br>v/c       |   | N/A           | N/A           | B             | B                   | C                   | D                   | C                   | D                   |                     |                     |                     |                     |                     |                                        |
| HCS LOS<br>Delay     |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | B                   | C                   |                     |                     |                     |                     |                     |                                        |
| Synchro LOS<br>Delay |   | N/A           | N/A           | N/A           | N/A                 | N/A                 | N/A                 | B                   | C                   |                     |                     |                     |                     |                     |                                        |

SR 4 / HARMONY ROAD

# 8

|                      |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes |
|----------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------|
| NB<br>Harmony        | L | 118           | 98            | 108           | 112                 | 131                 | 173                 | 139                 | 130                 | 99                  | 111                 | 109                 | 115                 | 113                 |       |
|                      | T | 673           | 489           | 425           | 395                 | 397                 | 303                 | 333                 | 333                 | 317                 | 311                 | 329                 | 307                 | 332                 |       |
|                      | R | 124           | 123           | 109           | 104                 | 97                  | 131                 | 107                 | 132                 | 135                 | 103                 | 157                 | 153                 | 121                 |       |
| SB<br>Harmony        | L | 453           | 406           | 360           | 424                 | 325                 | 454                 | 436                 | 359                 | 411                 | 388                 | 421                 | 419                 | 393                 |       |
|                      | T | 651           | 496           | 348           | 354                 | 261                 | 308                 | 260                 | 302                 | 215                 | 263                 | 288                 | 257                 | 272                 |       |
|                      | R | 96            | 143           | 208           | 186                 | 254                 | 220                 | 211                 | 260                 | 219                 | 243                 | 144                 | 213                 | 146                 |       |
| EB<br>SR 4           | L | 190           | 253           | 287           | 287                 | 302                 | 294                 | 321                 | 331                 | 305                 | 280                 | 273                 | 252                 | 196                 |       |
|                      | T | 624           | 715           | 683           | 760                 | 775                 | 1,068               | 800                 | 832                 | 824                 | 803                 | 853                 | 829                 | 610                 |       |
|                      | R | 289           | 282           | 113           | 121                 | 100                 | 188                 | 94                  | 113                 | 82                  | 91                  | 73                  | 67                  | 59                  |       |
| WB<br>SR 4           | L | 250           | 267           | 223           | 233                 | 182                 | 178                 | 200                 | 196                 | 164                 | 179                 | 204                 | 174                 | 179                 |       |
|                      | T | 759           | 899           | 1087          | 1020                | 1,199               | 1,192               | 1,322               | 1,329               | 1,383               | 1,438               | 1,314               | 1,279               | 1,219               |       |
|                      | R | 731           | 742           | 662           | 530                 | 505                 | 613                 | 672                 | 712                 | 794                 | 698                 | 635                 | 699                 | 830                 |       |
| CLV LOS<br>v/c       |   | E             | D             | D             | E                   | D                   | D                   | E                   | E                   | E                   | E                   | E                   | D                   | D                   |       |
| HCS LOS<br>Delay     |   | 0.96          | 0.87          | 0.88          | 0.92                | 0.90                | 0.88                | 0.95                | 0.92                | 0.94                | 0.94                | 0.92                | 0.88                | 0.85                |       |
| Synchro LOS<br>Delay |   | N/A           | F             | E             | E                   | E                   | D                   | E                   | E                   | F                   | E                   | D                   | D                   | D                   |       |
| HCS LOS<br>Delay     |   | N/A           | 94            | 62            | 60                  | 56                  | 52                  | 58                  | 66                  | 84                  | 77                  | 47                  | 43                  | 43                  |       |
| Synchro LOS<br>Delay |   | N/A           | D             | D             | D                   | D                   | D                   | D                   | D                   | D                   | D                   | D                   | D                   | D                   |       |
| HCS LOS<br>Delay     |   | N/A           | 52            | 44            | 43                  | 43                  | 39                  | 45                  | 44                  | 46                  | 46                  | 42                  | 38                  | 38                  |       |



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

**CHURCHMANS ROAD / CONTINENTAL DRIVE**

# 9

|                      |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                                                                                                                                                                                            |  |
|----------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| NB<br>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<br>Churchmans Pl. | L | -          | -          | 185        | 73               | 91               | 92               |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
|                      | T | -          | -          | 10         | 11               | 9                | 11               |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
|                      | R | -          | -          | 45         | 1                | 7                | 13               |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
| EB<br>Churchmans     | L | -          | -          | 127        | 22               | 22               | 50               |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
|                      | T | -          | -          | 1032       | 1212             | 1,407            | 1,344            |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
|                      | R | -          | -          | 17         | 45               | 38               | 31               |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
| WB<br>Churchmans     | L | -          | -          | 214        | 120              | 150              | 130              |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
|                      | T | -          | -          | 619        | 1005             | 990              | 985              |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
|                      | R | -          | -          | 201        | 50               | 26               | 59               |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
| <b>CLV LOS v/c</b>   |   | N/A        | N/A        | C          | B                | C                | A                |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |
| <b>v/c</b>           |   | N/A        | N/A        | 0.78       | 0.67             | 0.75             | 0.60             |                  |                  |                  |                  |                  |                  |                  |                                                                                                                                                                                                                  |  |

**SR 7 / CHURCHMANS ROAD (Ramp A)**

# 10

|                    |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                                                                                          |  |
|--------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------------------------------------------------------------------------------------------------|--|
| NB<br>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<br>SR 7         | L | 270        | 290        | 90         | 128              | 190              | 180              |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
|                    | T | 1455       | 1956       | 429        | 678              | 677              | 789              |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
|                    | R | 98         | 12         | 70         | 78               | 154              | 88               |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
| EB<br>Churchmans   | L | 182        | 317        |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
|                    | T | 459        | 693        | 511        | 652              | 960              | 745              |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
|                    | R | 1161       | 1335       | 1277       | 871              | 734              | 1,037            |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
| WB<br>Churchmans   | L | 430        | 405        | 484        | 560              | 1,046            | 483              |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
|                    | T | 854        | 975        | 958        | 1194             | 1,209            | 1,150            |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
|                    | R | 500        | 641        |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
| <b>CLV LOS v/c</b> |   | F          | F          | E          | E                | E                | E                |                  |                  |                  |                  |                  |                  |                  |                                                                                                                |  |
| <b>v/c</b>         |   | 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  | 5:00 PM | 19 |
| 4:15 PM | 13 | 5:15 PM | 14 |
| 4:30 PM | 9  | 5:30 PM | 13 |
| 4:45 PM | 10 | 5:45 PM | 6  |

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

SR 7 / CHURCHMANS ROAD (Ramp B/C)

# 11

|                  |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                          |  |
|------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------|--|
| NB<br>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<br>SR 7       | L | 270           | 290           | 117           | 186                 | 167                 | 152                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | 1455          | 1956          | 72            | 69                  | 97                  | 74                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | 98            | 12            | 276           | 300                 | 326                 | 326                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| EB<br>Churchmans | L | 182           | 317           | 67            | 97                  | 111                 | 138                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | 459           | 693           | 455           | 595                 | 576                 | 663                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | 1161          | 1335          | 62            | 77                  | 129                 | 100                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| WB<br>Churchmans | L | 430           | 405           | 134           | 141                 | 116                 | 127                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | 854           | 975           | 1355          | 1266                | 1,289               | 1,274               |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | 500           | 641           | 286           | 340                 | 363                 | 378                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>CLV LOS</b>   |   | F             | F             | B             | A                   | A                   | A                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>v/c</b>       |   | 1.39          | 1.66          | 0.64          | 0.50                | 0.53                | 0.52                |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |

CHURCHMANS ROAD / DEL TECH

# 12

|                  |   | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                          |  |
|------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------|--|
| NB<br>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<br>Del Tech   | L | -             | -             | 131           | 128                 | 102                 | 106                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | -             | -             | -                   | -                   | -                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | -             | 108           | 78                  | 140                 | 73                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| EB<br>Churchmans | L | -             | -             | 29            | 125                 | 58                  | 112                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | -             | 489           | 613                 | 762                 | 620                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | -             | 54            | 76                  | 69                  | 62                  |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| WB<br>Churchmans | L | -             | -             | -             | -                   | -                   | -                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | T | -             | -             | 1600          | 1486                | 1,515               | 1,399               |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
|                  | R | -             | -             | 133           | 192                 | 143                 | 209                 |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>CLV LOS</b>   |   | N/A           | N/A           | C             | A                   | A                   | A                   |                     |                     |                     |                     |                     |                     |                     |                                                                                                                |  |
| <b>v/c</b>       |   | 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<br>Count | 1998<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                      |
|------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------------------------|
| NB<br>c.c.       | L | -             | 96            | 90            | 80                  | 106                 | 96                  |                     |                     |                     |                     |                     |                     |                     | Intersection was not counted in Fall 2003. |
|                  | T | -             |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
| SB               | R | -             | 56            | 47            | 39                  | 40                  | 36                  |                     |                     |                     |                     |                     |                     |                     |                                            |
|                  | L | -             |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
| EB<br>Churchmans | T | -             |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
|                  | R | -             | 564<br>179    | 586<br>172    | 683<br>155          | 716<br>186          | 729<br>199          |                     |                     |                     |                     |                     |                     |                     |                                            |
| WB<br>Churchmans | L | -             | 67            | 78            | 59                  | 50                  | 72                  |                     |                     |                     |                     |                     |                     |                     |                                            |
|                  | T | -             | 710           | 771           | 844                 | 785                 | 780                 |                     |                     |                     |                     |                     |                     |                     |                                            |
| CLV LOS<br>v/c   | R | -             |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
|                  |   | 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<br>Count | 1998<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                                                                                                    |
|----------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>Gerald Drive   | L | -             | 18            | 7             | 12                  | 10                  | 10                  | 11                  |                     | 14                  | 22                  | 13                  | 9                   | 12                  | 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 not counted in Fall 2004. |
|                      | T | -             | 17            | 19            | 10                  | 6                   | 20                  | 27                  |                     | 34                  | 14                  | 10                  | 6                   | 17                  |                                                                                                                                                                                          |
|                      | R | -             | 89            | 99            | 72                  | 94                  | 80                  | 57                  |                     | 63                  | 66                  | 68                  | 57                  | 52                  |                                                                                                                                                                                          |
| SB<br>Harmony        | L | -             | 829           | 675           | 701                 | 478                 | 504                 | 501                 |                     | 498                 | 465                 | 457                 | 472                 | 506                 |                                                                                                                                                                                          |
|                      | T | -             | 21            | 31            | 21                  | 20                  | 14                  | 17                  |                     | 18                  | 13                  | 11                  | 8                   | 13                  |                                                                                                                                                                                          |
| EB<br>SR 273         | R | -             | 17            | 10            | 14                  | 16                  | 5                   | 25                  |                     | 14                  | 13                  | 31                  | 24                  | 20                  |                                                                                                                                                                                          |
|                      | L | -             | 36            | 20            | 27                  | 27                  | 30                  | 44                  |                     | 15                  | 31                  | 58                  | 27                  | 42                  |                                                                                                                                                                                          |
| WB<br>SR 273         | T | -             | 1612          | 1653          | 1925                | 2,156               | 1,613               | 2,157               |                     | 2,099               | 2,082               | 2,062               | 1,856               | 2,049               |                                                                                                                                                                                          |
|                      | R | -             | 15            | 14            | 19                  | 25                  | 27                  | 23                  |                     | 28                  | 25                  | 16                  | 18                  | 16                  |                                                                                                                                                                                          |
| WB<br>SR 273         | L | -             | 55            | 75            | 65                  | 79                  | 66                  | 113                 |                     | 70                  | 74                  | 69                  | 53                  | 38                  |                                                                                                                                                                                          |
|                      | T | -             | 1700          | 1873          | 1647                | 1,972               | 1,816               | 1,919               |                     | 1,877               | 2,022               | 1,793               | 1,805               | 1,546               |                                                                                                                                                                                          |
| CLV LOS<br>v/c       | R | -             | 767           | 574           | 602                 | 513                 | 495                 | 620                 |                     | 555                 | 547                 | 524                 | 522                 | 464                 |                                                                                                                                                                                          |
|                      |   | N/A           | E             | E             | F                   | F                   | D                   | F                   |                     | F                   | E                   | E                   | D                   | 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                |                                                                                                                                                                                          |
| HCS LOS<br>Delay     |   | N/A           | E             | E             | E                   | F                   | D                   | E                   |                     | E                   | E                   | C                   | C                   | D                   |                                                                                                                                                                                          |
|                      |   | N/A           | 67            | 62            | 61                  | 82                  | 45                  | 67                  |                     | 76                  | 72                  | 35                  | 33                  | 38                  |                                                                                                                                                                                          |
| Synchro LOS<br>Delay |   | N/A           | D             | D             | E                   | E                   | D                   | F                   |                     | E                   | E                   | D                   | C                   | D                   |                                                                                                                                                                                          |
|                      |   | N/A           | 54            | 52            | 55                  | 75                  | 41                  | 83                  |                     | 74                  | 72                  | 36                  | 31                  | 37                  |                                                                                                                                                                                          |

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

SR 273 / CHAPMAN ROAD / EAGLE RUN ROAD

# 15

|                      |     | 1993<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                                            |
|----------------------|-----|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------|
| NB<br>Chapman        | L   | 626           | 753           | 755           | 722                 | 890                 | 792                 | 718                 |                     | 766                 | 706                 | 704                 | 672                 | 606                 | 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                  |                                                                                                                                  |
| SB<br>Eagle Run      | R   | 332           | 384           | 407           | 370                 | 375                 | 466                 | 405                 |                     | 435                 | 428                 | 415                 | 353                 | 339                 |                                                                                                                                  |
|                      | L   | 142           | 42            | 68            | 61                  | 60                  | 66                  | 59                  |                     | 56                  | 50                  | 52                  | 44                  | 58                  |                                                                                                                                  |
| EB<br>SR 273         | T   | 59            | 22            | 22            | 18                  | 12                  | 20                  | 25                  |                     | 14                  | 16                  | 11                  | 17                  | 12                  |                                                                                                                                  |
|                      | R   | 347           | 73            | 132           | 149                 | 119                 | 150                 | 114                 |                     | 147                 | 100                 | 130                 | 119                 | 146                 |                                                                                                                                  |
| WB<br>SR 273         | L   | 58            | 51            | 69            | 92                  | 41                  | 96                  | 66                  |                     | 49                  | 47                  | 48                  | 39                  | 49                  |                                                                                                                                  |
|                      | T   | 1400          | 1643          | 1614          | 1590                | 1,709               | 1,626               | 1,817               |                     | 1,691               | 1,898               | 1,672               | 1,675               | 1,626               |                                                                                                                                  |
| CLV LOS<br>v/c       | R   | 717           | 892           | 393           | 728                 | 653                 | 640                 | 610                 |                     | 539                 | 615                 | 485                 | 639                 | 431                 |                                                                                                                                  |
|                      | L   | 154           | 230           | 197           | 161                 | 228                 | 233                 | 249                 |                     | 214                 | 244                 | 269                 | 260                 | 248                 |                                                                                                                                  |
| HCS LOS<br>Delay     | T   | 841           | 902           | 1219          | 1121                | 1,578               | 1,240               | 1,297               |                     | 1,387               | 1,566               | 1,269               | 1,166               | 1,160               |                                                                                                                                  |
|                      | R   | 21            | 18            | 18            | 16                  | 6                   | 31                  | 30                  |                     | 40                  | 24                  | 30                  | 24                  | 58                  |                                                                                                                                  |
| Synchro LOS<br>Delay | D   | 0.85          | 0.95          | 0.93          | 0.89                | 1.07                | 1.00                | 1.03                |                     | 0.96                | 1.02                | 0.95                | 0.94                | 0.89                |                                                                                                                                  |
|                      | N/A | N/A           | F             | E             | E                   | F                   | F                   | F                   |                     | E                   | F                   | D                   | D                   | D                   |                                                                                                                                  |
| N/A                  | N/A | 99            | 66            | 66            | 86                  | 77                  | 86                  |                     | 74                  | 94                  | 49                  | 45                  | 45                  |                     |                                                                                                                                  |
|                      | N/A | E             | D             | D             | E                   | D                   | E                   |                     | D                   | E                   | D                   | D                   | D                   |                     |                                                                                                                                  |
| N/A                  | N/A | 57            | 48            | 43            | 65                  | 52                  | 64                  |                     | 54                  | 70                  | 47                  | 46                  | 46                  |                     |                                                                                                                                  |

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

SR 273 / OLD BALTIMORE PIKE

# 16

|                      |     | 1993<br>Count | 1998<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                                                                                                               |
|----------------------|-----|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| NB<br>Old Balt       | L   | -             | 280           | 259           | 297                 | 294                 | 318                 | 318                 | 312                 | 300                 | 361                 | 254                 | 378                 | 416                 | 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                 |                                                                                                                                     |
| SB<br>Old Balt       | R   | -             | 293           | 302           | 388                 | 297                 | 528                 | 358                 | 574                 | 385                 | 367                 | 292                 | 302                 | 333                 |                                                                                                                                     |
|                      | L   | -             | 35            | 22            | 68                  | 26                  | 43                  | 24                  | 11                  | 18                  | 23                  | 27                  | 23                  | 17                  |                                                                                                                                     |
| EB<br>SR 273         | T   | -             | 143           | 135           | 95                  | 155                 | 249                 | 163                 | 158                 | 200                 | 189                 | 187                 | 168                 | 184                 |                                                                                                                                     |
|                      | R   | -             | 51            | 32            | 13                  | 259                 | 125                 | 80                  | 175                 | 149                 | 191                 | 143                 | 119                 | 165                 |                                                                                                                                     |
| WB<br>SR 273         | L   | -             | 23            | 15            | 2                   | 220                 | 91                  | 135                 | 105                 | 116                 | 127                 | 131                 | 110                 | 114                 |                                                                                                                                     |
|                      | T   | -             | 1323          | 1341          | 920                 | 1,240               | 1,269               | 1,385               | 1,324               | 1,335               | 1,322               | 1,142               | 1,277               | 1,393               |                                                                                                                                     |
| CLV LOS<br>v/c       | R   | -             | 662           | 551           | 654                 | 681                 | 747                 | 698                 | 740                 | 718                 | 793                 | 797                 | 774                 | 732                 |                                                                                                                                     |
|                      | L   | -             | 418           | 346           | 669                 | 362                 | 479                 | 380                 | 555                 | 414                 | 422                 | 398                 | 384                 | 374                 |                                                                                                                                     |
| HCS LOS<br>Delay     | T   | -             | 1046          | 1042          | 1088                | 1,089               | 1,144               | 1,293               | 1,154               | 1,076               | 1,225               | 1,173               | 1,078               | 1,004               |                                                                                                                                     |
|                      | R   | -             | 26            | 46            | 74                  | 8                   | 14                  | 31                  | 8                   | 21                  | 77                  | 22                  | 21                  | 81                  |                                                                                                                                     |
| Synchro LOS<br>Delay | D   | N/A           | D             | C             | C                   | E                   | F                   | D                   | F                   | E                   | E                   | D                   | D                   | E                   |                                                                                                                                     |
|                      | N/A | N/A           | 0.84          | 0.79          | 0.75                | 0.93                | 1.00                | 0.89                | 1.02                | 0.94                | 0.99                | 0.85                | 0.90                | 0.99                |                                                                                                                                     |
| N/A                  | N/A | D             | D             | E             | F                   | F                   | F                   | E                   | F                   | F                   | F                   | C                   | D                   | D                   |                                                                                                                                     |
|                      | N/A | 41            | 53            | 79            | 89                  | 105                 | 56                  | 102                 | 83                  | 86                  | 32                  | 36                  | 45                  |                     |                                                                                                                                     |
| N/A                  | N/A | B             | C             | D             | D                   | D                   | D                   | C                   | E                   | D                   | D                   | C                   | D                   | D                   |                                                                                                                                     |
|                      | N/A | 20            | 21            | 47            | 42                  | 55                  | 26                  | 60                  | 37                  | 40                  | 32                  | 36                  | 45                  |                     |                                                                                                                                     |

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

SR 7 / SR 273

# 17

|                      |     | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                                                    |
|----------------------|-----|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------------------------------------|
| NB<br>SR 7           | L   | 313        | 410        | 345        | 393              | 350              | 472              | 340              | 460              | 352              | 321              | 372              | 332              | 303              | 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               |                                                                          |
|                      | R   | 318        | 511        | 416        | 715              | 459              | 501              | 480              | 301              | 465              | 433              | 510              | 484              | 370              |                                                                          |
| SB<br>SR 7           | L   | 67         | 62         | 112        | 71               | 119              | 113              | 116              | 99               | 113              | 124              | 113              | 100              | 91               |                                                                          |
|                      | T   | 156        | 111        | 165        | 120              | 136              | 197              | 102              | 111              | 123              | 153              | 129              | 142              | 99               |                                                                          |
| EB<br>SR 273         | R   | 3          | 27         | 24         | 6                | 56               | 5                | 36               | 39               | 20               | 23               | 20               | 12               | 10               |                                                                          |
|                      | L   | 5          | 3          | 7          | 13               | 10               | 6                | 12               | 10               | 11               | 12               | 7                | 3                | 6                |                                                                          |
| WB<br>SR 273         | T   | 777        | 1190       | 1530       | 1114             | 959              | 1,036            | 1,157            | 1,300            | 1,154            | 1,140            | 1,176            | 1,027            | 1,003            |                                                                          |
|                      | R   | 592        | 365        | 871        | 859              | 643              | 771              | 665              | 565              | 644              | 558              | 608              | 588              | 499              |                                                                          |
| CLV LOS<br>v/c       | L   | 580        | 650        | 562        | 647              | 695              | 606              | 826              | 646              | 710              | 708              | 858              | 878              | 668              |                                                                          |
|                      | T   | 635        | 1083       | 1153       | 1161             | 1,026            | 1,110            | 1,528            | 1,297            | 1,200            | 1,300            | 1,265            | 1,081            | 1,236            |                                                                          |
| HCS LOS<br>Delay     | R   | 70         | 90         | 84         | 85               | 89               | 66               | 58               | 112              | 85               | 102              | 89               | 85               | 69               |                                                                          |
|                      | 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             |                                                                          |
| Synchro LOS<br>Delay | F   | N/A        | F          | F          | F                | E                | E                | F                | E                | F                | F                | F                | E                | D                |                                                                          |
|                      | N/A | N/A        | 138        | 124        | 82               | 64               | 79               | 91               | 71               | 115              | 103              | 89               | 79               | 50               |                                                                          |
| CLV LOS<br>v/c       | N/A | F          | E          | F          | E                | E                | E                | E                | D                | E                | E                | E                | F                | D                |                                                                          |
|                      | N/A | 100        | 77         | 92         | 68               | 73               | 73               | 52               | 66               | 63               | 78               | 85               | 54               |                  |                                                                          |

SR 273 / SB SR 1 RAMP

# 18

|                      |     | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                      |
|----------------------|-----|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------|
| NB                   | L   | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  | Intersection was not counted in Fall 2005. |
|                      | T   | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
|                      | R   | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
| SB<br>SR 1           | L   | -          | 266        | 324        | 303              | 315              | 271              | 371              | 338              |                  |                  |                  |                  |                  |                                            |
|                      | T   | -          |            | 11         | 4                |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
| EB<br>SR 273         | R   | -          | 204        | 331        | 446              | 502              | 438              | 434              | 468              |                  |                  |                  |                  |                  |                                            |
|                      | L   | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
| WB<br>SR 273         | T   | -          | 1353       | 1864       | 1581             | 1,264            | 1,242            | 1,410            | 1,452            |                  |                  |                  |                  |                  |                                            |
|                      | R   | -          | 191        | 194        | 218              | 283              | 312              | 293              | 375              |                  |                  |                  |                  |                  |                                            |
| CLV LOS<br>v/c       | L   | -          | 152        | 214        | 182              | 203              | 181              | 195              | 228              |                  |                  |                  |                  |                  |                                            |
|                      | T   | -          | 1601       | 1585       | 980              | 1,474            | 1,520            | 1,538            | 1,671            |                  |                  |                  |                  |                  |                                            |
| HCS LOS<br>Delay     | R   | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
|                      | N/A | N/A        | C          | E          | E                | D                | D                | D                | E                |                  |                  |                  |                  |                  |                                            |
| Synchro LOS<br>Delay | N/A | 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                |                  |                  |                  |                  |                  |                                            |
| CLV LOS<br>v/c       | N/A | 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                |                  |                  |                  |                  |                  |                                            |
| HCS LOS<br>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 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                      |
|--------------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------|
| NB<br>SR 1               | L | -          | 130        | 141        | 162              | 181              | 203              | 209              | 208              |                  |                  |                  |                  |                  | Intersection was not counted in Fall 2005. |
|                          | T | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
| SB                       | R | -          | 106        | 114        | 139              | 147              | 171              | 189              | 178              |                  |                  |                  |                  |                  |                                            |
|                          | L | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
| EB<br>SR 273             | T | -          | 260        | 315        | 297              | 376              | 305              | 385              | 313              |                  |                  |                  |                  |                  |                                            |
|                          | R | -          | 1358       | 1873       | 1204             | 1,172            | 1,288            | 1,428            | 1,406            |                  |                  |                  |                  |                  |                                            |
| WB<br>SR 273             | L | -          |            |            |                  |                  |                  | -                | -                |                  |                  |                  |                  |                  |                                            |
|                          | T | -          | 1623       | 1658       | 1456             | 1,518            | 1,512            | 1,532            | 1,668            |                  |                  |                  |                  |                  |                                            |
|                          | R | -          | 229        | 286        | 330              | 353              | 365              | 335              | 315              |                  |                  |                  |                  |                  |                                            |
|                          |   |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                                            |
| <b>CLV LOS v/c</b>       |   | N/A        | C          | D          | C                | D                | D                | D                | D                |                  |                  |                  |                  |                  |                                            |
| <b>HCS LOS Delay</b>     |   | N/A        | N/A        | N/A        | N/A              | N/A              | N/A              | C                | D                |                  |                  |                  |                  |                  |                                            |
| <b>Synchro LOS Delay</b> |   | N/A        | N/A        | N/A        | N/A              | N/A              | N/A              | C                | D                |                  |                  |                  |                  |                  |                                            |
|                          |   | N/A        | N/A        | N/A        | N/A              | N/A              | N/A              | 25               | 41               |                  |                  |                  |                  |                  |                                            |

SB SR 1 RAMPS / ROAD A

# 20

|                    |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                      |
|--------------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------|
| NB<br>SR 1         | L | 126        | 149        | 144        | 94               | 104              | 136              |                  |                  |                  |                  |                  |                  |                  | Intersection was not counted in Fall 2003. |
|                    | T |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                                            |
| SB                 | R | 11         | 6          | 29         | 49               | 70               | 66               |                  |                  |                  |                  |                  |                  |                  |                                            |
|                    | L |            |            |            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                                            |
| EB<br>Road A       | T | 263        | 256        | 283        | 337              | 491              | 353              |                  |                  |                  |                  |                  |                  |                  |                                            |
|                    | R | 30         | 47         | 70         | 49               | 84               | 65               |                  |                  |                  |                  |                  |                  |                  |                                            |
| WB<br>Road A       | L | 196        | 199        | 236        | 280              | 456              | 326              |                  |                  |                  |                  |                  |                  |                  |                                            |
|                    | T | 120        | 108        | 199        | 227              | 336              | 200              |                  |                  |                  |                  |                  |                  |                  |                                            |
| <b>CLV LOS v/c</b> |   | 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<br>Count | 1997<br>Count | 2000<br>Count | 2001 (Feb)<br>Count | 2001 (Oct)<br>Count | 2002 (Oct)<br>Count | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                      |
|------------------------|---|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------------------------|
| NB<br>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<br>Mall             | L |               |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
|                        | T | 94            | 100           | 163           | 194                 | 236                 | 264                 |                     |                     |                     |                     |                     |                     |                     |                                            |
|                        | R | 212           | 278           | 416           | 484                 | 557                 | 518                 |                     |                     |                     |                     |                     |                     |                     |                                            |
| EB<br>Road A           | L | 81            | 136           | 200           | 253                 | 262                 | 314                 |                     |                     |                     |                     |                     |                     |                     |                                            |
|                        | T |               |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
|                        | R | 120           | 174           | 114           | 124                 | 149                 | 106                 |                     |                     |                     |                     |                     |                     |                     |                                            |
| WB                     | L |               |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
|                        | T |               |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
|                        | R |               |               |               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |                                            |
| <b>CLV LOS<br/>v/c</b> |   | A<br>0.17     | A<br>0.23     | A<br>0.29     | A<br>0.34           | A<br>0.38           | A<br>0.43           |                     |                     |                     |                     |                     |                     |                     |                                            |

**SR 2 / RED MILL ROAD / POLLY DRUMMOND HILL ROAD**

# 22

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

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

SR 7 / SCHOOL BELL ROAD

# 24

|                |   | 1993 Count | 1997 Count | 2000 Count | 2001 (Feb) Count | 2001 (Oct) Count | 2002 (Oct) Count | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                      |
|----------------|---|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------|
| NB<br>SR 7     | L | -          | -          | -          | -                | -                | -                |                  |                  |                  |                  |                  |                  |                  | Intersection was not counted in Fall 2003. |
|                | T | -          | -          | 752        | -                | -                | 787              |                  |                  |                  |                  |                  |                  |                  |                                            |
| SB<br>SR 7     | R | -          | -          | 42         | -                | -                | 66               |                  |                  |                  |                  |                  |                  |                  |                                            |
|                | L | -          | -          | 117        | -                | -                | 216              |                  |                  |                  |                  |                  |                  |                  |                                            |
| EB<br>-        | T | -          | -          | 1,198      | -                | -                | 1,345            |                  |                  |                  |                  |                  |                  |                  |                                            |
|                | R | -          | -          | -          | -                | -                | -                |                  |                  |                  |                  |                  |                  |                  |                                            |
| WB<br>School   | L | -          | -          | 58         | -                | -                | 68               |                  |                  |                  |                  |                  |                  |                  |                                            |
|                | T | -          | -          | -          | -                | -                | -                |                  |                  |                  |                  |                  |                  |                  |                                            |
| CLV LOS<br>v/c | R | -          | -          | 58         | -                | -                | 184              |                  |                  |                  |                  |                  |                  |                  |                                            |
|                |   | N/A        | N/A        | C          | N/A              | N/A              | D                |                  |                  |                  |                  |                  |                  |                  |                                            |
|                |   | N/A        | N/A        | 0.79       | N/A              | N/A              | 0.88             |                  |                  |                  |                  |                  |                  |                  |                                            |

SR 4 / TELEGRAPH ROAD

# 25

|                          |   | Count 118 | Count 98 | Count 108 | Count 112 | Count 131 | Count 173 | 2003 (Oct) Count | 2004 (Oct) Count | 2005 (Oct) Count | 2006 (Oct) Count | 2007 (Nov) Count | 2008 (Nov) Count | 2009 (Oct) Count | Notes                                      |
|--------------------------|---|-----------|----------|-----------|-----------|-----------|-----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------------|
| NB<br>Happy Harry's      | L | -         | -        | -         | -         | -         | -         | -                | 14               |                  |                  |                  |                  |                  | Intersection was not counted in Fall 2005. |
|                          | T | -         | -        | -         | -         | -         | -         | -                | -                |                  |                  |                  |                  |                  |                                            |
| SB<br>Telegraph          | R | -         | -        | -         | -         | -         | -         | -                | 27               |                  |                  |                  |                  |                  |                                            |
|                          | L | -         | -        | -         | -         | -         | -         | -                | 129              |                  |                  |                  |                  |                  |                                            |
| EB<br>SR 4               | T | -         | -        | -         | -         | -         | -         | -                | 299              |                  |                  |                  |                  |                  |                                            |
|                          | R | -         | -        | -         | -         | -         | -         | -                | 508              |                  |                  |                  |                  |                  |                                            |
| WB<br>SR 4               | L | -         | -        | -         | -         | -         | -         | -                | 2,309            |                  |                  |                  |                  |                  |                                            |
|                          | T | -         | -        | -         | -         | -         | -         | -                | 54               |                  |                  |                  |                  |                  |                                            |
| CLV LOS<br>v/c           | R | -         | -        | -         | -         | -         | -         | -                | 11               |                  |                  |                  |                  |                  |                                            |
|                          |   | N/A       | N/A      | N/A       | N/A       | N/A       | N/A       | N/A              | E                |                  |                  |                  |                  |                  |                                            |
|                          |   | N/A       | N/A      | N/A       | N/A       | N/A       | N/A       | N/A              | 1.00             |                  |                  |                  |                  |                  |                                            |
| <b>HCS LOS Delay</b>     |   | N/A       | N/A      | N/A       | N/A       | N/A       | N/A       | N/A              | D                |                  |                  |                  |                  |                  |                                            |
| <b>Synchro LOS Delay</b> |   | N/A       | N/A      | N/A       | N/A       | N/A       | N/A       | N/A              | 49               |                  |                  |                  |                  |                  |                                            |
|                          |   | N/A       | N/A      | N/A       | N/A       | N/A       | N/A       | N/A              | C                |                  |                  |                  |                  |                  |                                            |
|                          |   | 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

# 26

|                     |   | Count<br>118 | Count<br>98 | Count<br>108 | Count<br>112 | Count<br>131 | Count<br>173 | 2003 (Oct)<br>Count | 2004 (Oct)<br>Count | 2005 (Oct)<br>Count | 2006 (Oct)<br>Count | 2007 (Nov)<br>Count | 2008 (Nov)<br>Count | 2009 (Oct)<br>Count | Notes                                      |  |
|---------------------|---|--------------|-------------|--------------|--------------|--------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------------------------------|--|
| NB<br>St. James     | L | -            | -           | -            | -            | -            | -            | -                   | 204                 |                     |                     |                     |                     |                     | Intersection was not counted in Fall 2006. |  |
|                     | T | -            | -           | -            | -            | -            | -            | -                   | 53                  |                     |                     |                     |                     |                     |                                            |  |
|                     | R | -            | -           | -            | -            | -            | -            | -                   | 152                 |                     |                     |                     |                     |                     |                                            |  |
| SB<br>Griffin Drive | L | -            | -           | -            | -            | -            | -            | -                   | 111                 |                     |                     |                     |                     |                     |                                            |  |
|                     | T | -            | -           | -            | -            | -            | -            | -                   | 70                  |                     |                     |                     |                     |                     |                                            |  |
|                     | R | -            | -           | -            | -            | -            | -            | -                   | 98                  |                     |                     |                     |                     |                     |                                            |  |
| EB<br>SR 2          | L | -            | -           | -            | -            | -            | -            | -                   | 120                 |                     |                     |                     |                     |                     |                                            |  |
|                     | T | -            | -           | -            | -            | -            | -            | -                   | 1,436               |                     |                     |                     |                     |                     |                                            |  |
|                     | R | -            | -           | -            | -            | -            | -            | -                   | 84                  |                     |                     |                     |                     |                     |                                            |  |
| WB<br>SR 2          | L | -            | -           | -            | -            | -            | -            | -                   | 237                 |                     |                     |                     |                     |                     |                                            |  |
|                     | T | -            | -           | -            | -            | -            | -            | -                   | 1,700               |                     |                     |                     |                     |                     |                                            |  |
|                     | R | -            | -           | -            | -            | -            | -            | -                   | 32                  |                     |                     |                     |                     |                     |                                            |  |
| <b>CLV LOS</b>      |   | N/A          | N/A         | N/A          | N/A          | N/A          | N/A          | N/A                 | B                   |                     |                     |                     |                     |                     |                                            |  |
| <b>v/c</b>          |   | N/A          | N/A         | N/A          | N/A          | N/A          | N/A          | N/A                 | 0.68                |                     |                     |                     |                     |                     |                                            |  |
| <b>HCS LOS</b>      |   | N/A          | N/A         | N/A          | N/A          | N/A          | N/A          | N/A                 | D                   |                     |                     |                     |                     |                     |                                            |  |
| <b>Delay</b>        |   | N/A          | N/A         | N/A          | N/A          | N/A          | N/A          | N/A                 | 38                  |                     |                     |                     |                     |                     |                                            |  |
| <b>Synchro LOS</b>  |   | N/A          | N/A         | N/A          | N/A          | N/A          | N/A          | N/A                 | C                   |                     |                     |                     |                     |                     |                                            |  |
| <b>Delay</b>        |   | N/A          | N/A         | N/A          | N/A          | N/A          | N/A          | N/A                 | 29                  |                     |                     |                     |                     |                     |                                            |  |