

**2008**

**Virginia Department of Transportation  
Daily Traffic Volume Estimates  
Including Vehicle Classification Estimates**

where available

**Special Locality Report**

**321**

Town of Warsaw

Information in this report is included in Report

**79**

(Richmond County)

Prepared By

**Virginia Department of Transportation  
Traffic Engineering Division**

In Cooperation With

**U.S. Department of Transportation  
Federal Highway Administration**

Virginia Department of Transportation  
Traffic Engineering Division  
Traffic Monitoring Section

The Virginia Department of Transportation (VDOT) conducts a program where traffic count data are gathered from sensors in or along streets and highways and other sources. From these data, estimates of the average number of vehicles that traveled each segment of road are calculated. VDOT periodically publishes booklets listing these estimates.

One of these booklets, titled “Average Daily Traffic Volumes with Vehicle Classification Data, on Interstate, Arterial and Primary Routes” includes a list of each Interstate and Primary highway segment with the estimated Annual Average Daily Traffic (AADT) for that segment. AADT is the total annual traffic estimate divided by the number of days in the year. This booklet also includes information such as estimates of the percentage of the AADT made up by 6 different vehicle types, ranging from cars to double trailer trucks; estimated Annual Average Weekday Traffic (AAWDT), which is the number of vehicles estimated to have traveled the segment of highway during a 24 hour weekday averaged over the year; as well as Peak Hour and Peak Direction factors used by planners to formulate design criteria.

In addition to the Primary and Interstate publication, one hundred books are published periodically, one for each of 100 areas across the state defined by VDOT for record-keeping purposes. These books include traffic volume estimates for roads within the county, cities, and towns within the area. These books are titled “Daily Traffic Volumes Including Vehicle Classification Estimates, where available; Jurisdiction Report numbers 00 through 99”.

Also available are a number of reports summarizing the average Vehicle Miles Traveled (VMT) in selected jurisdictions and other categories of highways. There are many different ways to present traffic volume summary information. Because the user determines the value of each presentation, the reports have been redesigned based on user requests and feedback. The people of the VDOT Traffic Engineering Division Traffic Monitoring Section who produce these books welcome requests for other helpful ways of presenting the summary information.

A compact disc (CD) is available that includes files in the Adobe® Portable Document Format (PDF) that can be displayed, searched, and printed using common desktop computer equipment. The CD includes the publications described above as well as a number of other reports, including specialized VMT summaries and smaller AADT reports for each city and town separately.

## **Publication Notes**

### **Parallel Roads**

For road inventory and management purposes, some roadways are counted separately by direction and have separately published traffic estimates for each direction of travel. Examples of such roadways are the interstate system and routes with separated facilities and (usually) one-way traffic facilities in urban areas. In these publications, they are referred to as parallel roads. As a convenience for the users of the publication, the listing for segments of roads with parallel segments are published with both the traffic estimates for their own direction of travel (e.g. I-95 Northbound) as well as the estimate of the total of all traffic on the same route including parallel roadways (all directions of I-95). The publication will have a “Combined Traffic Estimates for Parallel Roadways on this Route” or “Combined Traffic” identifiers for the combined direction of travel estimates.

Roadways such as I-395 with a North segment, a South segment and a separate Reversible lane segment will have the estimate for more than two parallel roadways included in the entire combined traffic estimate.

Some routes have very complicated paths through cities and towns. These parallel paths may be too complex to allow a relationship between nearby sections of the opposite direction on the same route. In this case, to indicate that the traffic estimates for such a road segment may not include all directions of traffic on that route, the line that would list the combined values will indicate “NA” for not available.

---

VDOT’s traffic monitoring program includes more than 100,000 segments of roads and highways ranging from several mile sections of Interstate highways to very short sections of city streets. Due to problems experienced obtaining some traffic count data, and the level of quality necessary to maintain confidence in the data, no estimate is currently available for some segments of roadway. These segments are included in the publications indicating “NA” for not available. It is the intention of the VDOT Traffic Engineering Division Traffic Monitoring group to obtain the data necessary and to report traffic volume estimates on all road segments included in these publications.

Many of the road segments in this program are local secondary roads. The amount and detail of data collected on these roads are not as great as the data collected on higher volume roads. The vehicle classification, average weekday traffic volumes, and the theoretical design hour traffic volumes are not calculated for these roads. The publications indicate “NA” for the information that is not available.

This publication is based on a traffic monitoring program initiated in 1997. Because the data collection techniques and statistical evaluation processes are different than those used in previous years, comparison with previous publications may be misleading.

Glossary of Terms:

**Route:** The Route Number assigned to this segment of roadway with the master inventory route number if this is an overlapping route, with official street or highway name if available.

**Length:** Length of the traffic segment in miles.

**AADT:** Annual Average Daily Traffic. The estimate of typical daily traffic on a road segment for all days of the week, Sunday through Saturday, over the period of one year.

**QA:** Quality of AADT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- H Historical Estimate
- M Manual Uncounted Estimate
- N AADT of Similar Neighboring Traffic Link
- O Provided By External Source
- R Raw Traffic Count, Unfactored

**4Tire:** Percentage of the traffic volume made up of motorcycles, passenger cars, vans and pickup trucks.

**Bus:** Percentage of the traffic volume made up of busses.

**2Axle Truck:** Percentage of the traffic volume made up of 2 axle single unit trucks (not including pickups and vans).

**3+Axle Truck:** Percentage of the traffic volume made up of single unit trucks with three or more axles.

**1Trail Truck:** Percentage of the traffic volume made up of units with a single trailer.

**2Trail Truck:** Percentage of the traffic volume made up of units with more than one trailer.

**QC:** Quality of Classification Data:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- C Short Term Classified Traffic Count Data
- F Factored Short Term Traffic Count Data
- H Historical Estimate
- M Mass Collective Average
- N Classification Estimates of Similar Neighboring Traffic Link

**K Factor:** The estimate of the portion of the traffic volume traveling during the peak hour or design hour.

**QK:** Quality of the K Factor estimate:

- A Factor based on 30th Highest Hour Observed During at least 250 days of Continuous Traffic Data
- B Factor based on other Hour Observed During Less than 250 days of Continuous Traffic Data
- F Factor based on Highest Hour Collected at in a 48 Hour Weekday Period
- M Factor based on Manual Estimate of design hour
- N Design Hour Factor (K Factor) of Similar Neighboring Traffic Link
- O Provided by External Source

**Dir Factor:** The estimate of the portion of the traffic volume traveling in the peak direction during the peak hour..

**AAWDT:** Average Annual Weekday Traffic. The estimate of typical traffic over the period of one year for the days between Monday through Thursday inclusive.

**QW:** Quality of AAWDT:

- A Average of Complete Continuous Count Data
- B Average of Selected Continuous Count Data
- F Factored Short Term Traffic Count Data
- G Factored Short Term Traffic Count Data with Growth Element
- M Manual Uncounted Estimate
- N AAWDT of Similar Neighboring Traffic Link
- O Provided by External Source

**Year:** Year for which the published values are appropriate. If the Quality of AADT (QA) is “R”, the year is the year that the raw traffic count was collected, and if available,

## Route Shield Legend

### Route Systems

 Interstate Route      Traffic volume data for Interstate Routes and some other routes are reported separately by direction, as well as combined.

 US Route

 Virginia State Route

 Frontage Road (F precedes frontage route number)

 Secondary Route

### Special Routes

 Bus - Business Route  
 Bypas - Bypass Route  
 Truck - Truck Route  
 ALT - Alternate Route  
 Wye - Wye Route connector

 P - Parallel Route; Southbound or Westbound direction lanes of a numbered route where they are on a different road facility than the other direction.

 The VDOT Maintenance Jurisdiction number is displayed below the Secondary Route Number if the Maintenance Jurisdiction is different than the jurisdiction in the title of the report.

Virginia Department of Transportation  
Traffic Engineering Division  
2008  
Annual Average Daily Traffic Volume Estimates By Section of Route  
Town of Warsaw

Route	Jurisdiction	Length	AADT	QA	4Tire	Bus	Truck				QC	K Factor	QK	Dir Factor	AAWDT	QW
							2Axle	3+Axle	1Trail	2Trail						
 Historyland Hwy	Town of Warsaw (Maint: 79)	0.20	<b>6300</b>	<b>N</b>	92%	1%	1%	1%	5%	0%	N	0.087	N	0.554	6800	N
 Historyland Hwy	Town of Warsaw (Maint: 79)	0.11	<b>7800</b>	<b>G</b>	94%	1%	1%	1%	3%	0%	F	0.105	F	0.586	8500	G
 Main St	Town of Warsaw (Maint: 79)	0.77	<b>12000</b>	<b>N</b>	95%	0%	1%	1%	3%	0%	N	0.093	N	0.584	13000	N
 360 Richmond Rd	Town of Warsaw (Maint: 79)	0.78	<b>12000</b>	<b>G</b>	95%	0%	1%	1%	3%	0%	F	0.093	F	0.584	13000	G
 Richmond Rd	Town of Warsaw (Maint: 79)	2.02	<b>13000</b>	<b>N</b>	95%	0%	1%	1%	3%	0%	N	0.099	N	0.6	14000	N
 Bus 3 Richmond Rd	Town of Warsaw (Maint: 79)	0.78	<b>12000</b>	<b>G</b>	95%	0%	1%	1%	3%	0%	F	0.093	F	0.584	13000	G
 360 Richmond Rd	Town of Warsaw (Maint: 79)	0.37	<b>8000</b>	<b>G</b>	95%	0%	1%	1%	3%	0%	F	0.092	F	0.601	8700	G

Virginia Department of Transportation  
Traffic Engineering Division

2008  
Annual Average Daily Traffic Volume Estimates By Section of Route  
Town of Warsaw

Route	Length	AADT	QA	4Tire	Bus	Truck				QC	K Factor	Dir Factor	AAWDT	QW	Year	
						2Axle	3+Axle	1Trail	2Trail							
<b>Town of Warsaw</b>																
(624) 79	0.10	90	N			From: SCL Warsaw								NA	05/24/2004	
			To: US 360 E, Richmond Rd													
(649) 79	Meadowbrook Rd	0.34	220	R		From: US 360 W, Richmond Rd								NA	05/14/2007	
			To: US 360 E, Richmond Rd													
(690) 79	Menokin Rd	0.20	860	G	98%	0%	1%	0%	1%	0%	F	0.111	F	0.540	930	G 2008
			To: NCL Warsaw													
(700) 79	Selftown Rd	0.13	700	R		From: US 360 Richmond Rd								NA	05/14/2007	
			To: NCL Warsaw													
(1000) 79	Harris Ave	0.25	70	R		From: SR 3								NA	05/14/2007	
			To: Cul-de-Sac													
(1001) 79	Hamilton Blvd	0.75	430	G	96%	0%	2%	1%	0%	0%	C	0.131	F	0.597	470	G 2008
			To: Bus SR 3													
(1002) 79	Belleville Lane	0.23	310	R		From: SR 3								NA	05/02/2007	
			To: 79-1001 Hamilton Blvd													
(1003) 79	St Johns St	0.23	1000	R		From: SR 3								NA	05/02/2007	
			To: US 360 Richmond Rd													
(1004) 79	Court Circle	0.17	320	R		From: US 360 Richmond Rd; Bus SR 3								NA	05/14/2007	
			To: 79-1036 Campus Dr													
(1004) 79	Court Circle	0.13	310	R		From: End Loop								NA	09/11/2001	
			To:													
(1005) 79	Lakeside Dr	0.18	30	R		From: 79-1012 Sunset Lane								NA	06/06/2004	
			To: 79-1006 Ridgeway Rd													
(1005) 79	Lakeside Dr	0.17	100	R		From: 79-1006 Ridgeway Rd								NA	06/07/2004	
			To:													
(1005) 79	Lakeside Dr	0.08	80	R		From: 79-1020 Ivy Lane								NA	06/07/2004	
			To: 79-690 Menokin Rd													
(1006) 79	Ridgeway Rd	0.08	240	R		From: 79-1012 Sunset Lane								NA	05/14/2007	
			To: 79-1005 Lakeside Dr													
(1006) 79	Ridgeway Rd	0.10	410	R		From: SR 3								NA	05/14/2007	
			To:													
(1007) 79	Sabine Hall Rd	0.13	820	R		From: US 360 Richmond Rd								NA	05/14/2007	
			To: Dead End													
(1008) 79	Pine St	0.19	120	R		From: US 360 Richmond Rd								NA	05/02/2007	
			To: 79-1002 Belleville Lane													
(1009) 79	Washington Ave	0.09	200	R		From: 79-1028 Level Blvd								NA	06/09/2004	
			To:													
(1009) 79	Washington Ave	0.02	230	R		From: 79-1014 SOUTH								NA	06/09/2004	
			To:													
(1009) 79	Washington Ave	0.06	240	R		From: 79-1014 NORTH								NA	06/09/2004	
			To:													
(1009) 79	Washington Ave	0.06	240	R		From: 79-1010 SOUTH								NA	06/09/2004	
			To:													

Virginia Department of Transportation  
Traffic Engineering Division

2008  
Annual Average Daily Traffic Volume Estimates By Section of Route  
Town of Warsaw

Route	Length	AADT	QA	4Tire	Bus	Truck				QC	K Factor	Dir Factor	AAWDT	QW	Year
						2Axle	3+Axle	1Trail	2Trail						
<b>Town of Warsaw</b>															
(1009) 79 Washington Ave	0.03	280	R								NA		NA		06/09/2004
(1009) 79 Washington Ave	0.05	330	R								NA		NA		05/14/2007
(1010) 79	0.06	30	R								NA		NA		06/09/2004
(1010) 79	0.09	150	R								NA		NA		06/09/2004
(1010) 79	0.14	30	R								NA		NA		06/07/2004
(1011) 79 Madison Ave	0.09	70	R								NA		NA		06/09/2004
(1012) 79 Sunset Lane	0.11	170	R								NA		NA		06/07/2004
(1012) 79 Sunset Lane	0.08	160	R								NA		NA		06/07/2004
(1012) 79 Sunset Lane	0.28	80	R								NA		NA		06/07/2004
(1013) 79 Jones Lane	0.18	410	R								NA		NA		05/14/2007
(1014) 79	0.04	20	R								NA		NA		06/09/2004
(1014) 79	0.09	20	R								NA		NA		06/09/2004
(1014) 79	0.15	40	R								NA		NA		06/07/2004
(1015) 79 Wallace St	0.23	120	R								NA		NA		05/14/2007
(1015) 79 Wallace St	0.33	450	R								NA		NA		05/14/2007
(1015) 79 Wallace St	0.09	800	R								NA		NA		05/14/2007
(1016) 79 Morgan Lane	0.40	370	R								NA		NA		05/07/2004
(1017) 79 West Morgan Lane	0.04	40	R								NA		NA		06/07/2004
(1017) 79 West Morgan Lane	0.07	150	R								NA		NA		06/07/2004
(1017) 79 West Morgan Lane	0.10	60	R								NA		NA		06/07/2004
(1018) 79 Memorial Dr	0.05	50	R								NA		NA		06/07/2004
(1018) 79 Memorial Dr	0.10	80	R								NA		NA		06/07/2004

Virginia Department of Transportation  
Traffic Engineering Division

2008

Annual Average Daily Traffic Volume Estimates By Section of Route  
Town of Warsaw

Route	Length	AADT	QA	4Tire	Bus	Truck				QC	K Factor	Dir Factor	AAWDT	QW	Year
						2Axle	3+Axle	1Trail	2Trail						
<b>Town of Warsaw</b>															
(1018) Memorial Dr	0.08	110	R			From:	79-1010				NA		NA	NA	06/07/2004
						To:	79-649 Meadowbrook Rd								
(1019) Gordon Lane	0.15	40	R			From:	US 360 Richmond Rd				NA		NA	NA	06/07/2004
						To:	Dead End								
(1020) Ivy Lane	0.12	30	R			From:	79-1005 Lakeside Dr				NA		NA	NA	06/07/2004
						To:	NCL Warsaw								
(1021) Maple St	0.15	590	R			From:	79-1022 Walnut St				NA		NA	NA	05/24/2004
						To:	US 360 Richmond Rd								
(1022) Walnut St	0.18	1200	R			From:	SR 3				NA		NA	NA	05/24/2004
						To:	79-1021 Maple St								
(1022) Walnut St	0.04	1200	R			From:	79-1021 Maple St				NA		NA	NA	05/24/2004
						To:	Dead End								
(1023) Quail Trail	0.16	70	R			From:	Dead End				NA		NA	NA	06/07/2004
						To:	79-1017 West Morgan Lane								
(1027) Sturman Lane	0.15	70	R			From:	Dead End				NA		NA	NA	06/07/2004
						To:	79-649 Meadowbrook Rd								
(1028) Level Blvd	0.13	160	R			From:	79-1029 Georgia Ave				NA		NA	NA	06/09/2004
						To:	79-1009 Washington Ave								
(1028) Level Blvd	0.02	30	R			From:	79-1009 Washington Ave				NA		NA	NA	06/09/2004
						To:	Dead End								
(1033) Lee Ave	0.17	150	R			From:	US 360 Richmond Rd				NA		NA	NA	06/07/2004
						To:	79-1034 Jackson Court								
(1033) Lee Ave	0.09	60	R			From:	79-1034 Jackson Court				NA		NA	NA	06/07/2004
						To:	Dead End								
(1034) Jackson Court	0.05	40	R			From:	79-1033 Lee Ave				NA		NA	NA	06/07/2004
						To:	Cul-de-Sac								
(1035) College Ave	0.07	470	R			From:	US 360 Richmond Rd				NA		NA	NA	05/14/2007
						To:	79-1037 Atkinson Dr								
(1035) College Ave	0.22	310	R			From:	79-1037 Atkinson Dr				NA		NA	NA	05/14/2007
						To:	79-1038 Freedom Way								
(1035) College Ave	0.04	20	R			From:	79-1038 Freedom Way				NA		NA	NA	05/14/2007
						To:	Dead End								
(1036) Campus Dr	0.04	260	R			From:	79-1004 Court Circle				NA		NA	NA	06/07/2004
						To:	79-1015 Wallace St								
(1037) Atkinson Dr	0.18	140	R			From:	79-1035 College Ave				NA		NA	NA	06/07/2004
						To:	0.18 MN 79-1035								
(1037) Atkinson Dr	0.02	40	R			From:	0.18 MN 79-1035				NA		NA	NA	06/07/2004
						To:	Dead End								
(1038) Freedom Way	0.16	170	R			From:	Cul-de-Sac				NA		NA	NA	06/07/2004
						To:	79-1035 College Ave								

Virginia Department of Transportation  
Traffic Engineering Division

2008

Annual Average Daily Traffic Volume Estimates By Section of Route  
Town of Warsaw

Route	Length	AADT	QA	4Tire	Bus	Truck				QC	K Factor	Dir Factor	AAWDT	QW	Year
						2Axle	3+Axle	1Trail	2Trail						
<b>Town of Warsaw</b>															
1038  Freedom Way	0.05	30	R			From:	79-1035 College Ave				NA		NA		06/07/2004
						To:	Cul-de-Sac								