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Analysis of AM Peak Period Travel
In
Northern Virginia's I-95/I-395 Corridor

Summary

Two out of every three inbound AM peak period travelers in Northern Virginia's I-95/I-395 corridor are using transit or multiple occupant autos and vans for their travel to or through regional core area employment sites in Northern Virginia and the District of Columbia. The multi-modal Shirley Highway facility itself carries one out of every two of the inbound AM peak period travelers in this corridor, 24,500 of them in carpools and vanpools and 7,400 in buses and 16,500 in single occupant vehicles (SOV).

It is particularly noteworthy that during the 6:00AM to 9:00AM time period, when the Shirley Highway HOV3+ use restrictions are in effect, the two Shirley HOV3+ lanes carry an average of 5,100 persons per lane per hour. This average is about 3 and one-half times greater than the average of 1,500 persons per lane per hour found on Shirley Highway's four non-restricted general purpose lanes during this 3-hour time period.

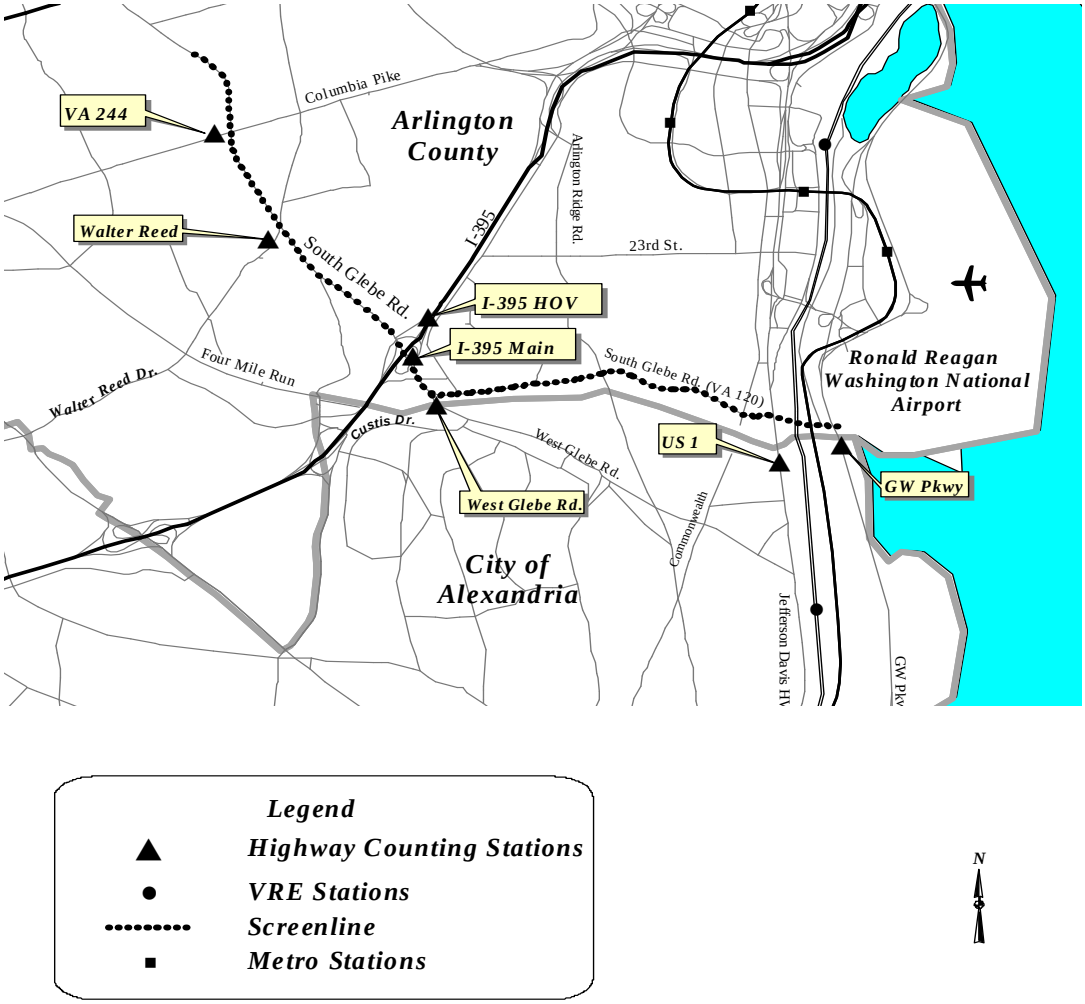
Rail transit, including both Metrorail and the Virginia Railways Express (VRE), carries 22,000 of the inbound AM peak period travelers in this corridor. Metrorail's Yellow and Blue lines account for more than 18,100 of this total and VRE's ridership in this corridor is estimated to be about 3,900 AM peak period riders. Inbound AM peak period bus ridership in this corridor, including WMATA Metrobus, PRTC OmniRide and Metro Direct, City of Alexandria DASH, and Fairfax Connector bus service, totals approximately 9,900. Rail and bus ridership together total about 31,900 riders and constitutes a 34% share of all inbound AM peak period travelers in Northern Virginia's I-95/I-395 corridor.

These significant findings are based on two-day traffic and transit passenger counts conducted in mid-September and early October, 2006 by staff from the National Capital Region Transportation Planning Board (TPB) at the Metropolitan Washington Council of Governments, the Washington Metropolitan Area Transit Authority (WMATA), the Virginia Railway Express (VRE), the City of Alexandria transit system (DASH), the Fairfax Connector bus system and the Potomac and Rappahannock Transportation Commission (PRTC). This project was sponsored by the Virginia Department of Transportation (VDOT) in response to a request by the Northern Virginia Transportation Commission (NVTC) and was carried out as a VDOT Technical Assistance project in the TPB's Fiscal Year 2007 Unified Planning Work Program (UPWP).

Study Background

One of NVTC's goals is to monitor and track changes in daily transit ridership relative to the growth in peak period auto travel in Northern Virginia's major commuting corridors. In pursuit of this goal, NVTC asked VDOT to include an I-95/I-395 Corridor Count project in its TPB Technical Assistance work program. VDOT agreed to this request and programmed some of its FY 2007 UPWP Technical Assistance funds for multi-day traffic counts in the I-95 / I-395 corridor at selected locations along the inner area screen line just outside Glebe Road (Figure 1) (See Appendix A for exact locations).

Figure 1
Northern Virginia I-95 / I-395 Corridor
Inner Area (South Glebe Road) Screenline



This study complements a similar Corridor Count project requested by NVTC and funded by VDOT in FY 2006 to analyze peak period transit ridership and auto travel in the I-66 Corridor. Traffic and passenger counts conducted along a screen line are designed to measure the overall volume of vehicle, person and passenger movements at a specific location within a major travel corridor.

Total Person Travel

The traffic and transit passenger counts taken for this study on two "typical weekdays" were averaged together to compute a statistically dependable estimate of the 3-hour AM peak period for inbound person travel across an "inner area" Glebe Road screen line for the I-95 / I-395 corridor. A "typical weekday" for the purposes of this study was defined as a non-holiday Tuesday, Wednesday, or Thursday on which there were no special events or major traffic incidents that would affect typical travel patterns on these days. Analysis of the count data collected in this study, presented in Table 1, show this 3-hour AM peak period for person travel to be from 6:15AM to 9:15AM when approximately 94,300 persons are traveling inbound on the major roads and transit routes serving Northern Virginia's I-95 / I-395 corridor on their way to or through regional core area employment sites.

Table 1 further reveals that the standard weekday variation for travel during this AM peak period is slightly less than 800 persons or approximately 1% of the total inbound AM peak period person travel across this screen line. This suggests little day-to-day variation in total weekday inbound AM peak period person travel across this screen line. Day-to-day variation in inbound AM peak period weekday travel by carpool and transit is considerably higher, however. Daily variation in AM peak period travel by transit is 9% and is 16% for carpool/vanpool travel. This difference between the percent variation in overall person travel and the percent variation by the transit and carpool travel mode suggests some considerable switching between these two modes on a daily basis. It is likely that this considerable level of daily mode switching is related to the high incidence of informal carpooling known as "slugging" in this corridor.

The data in Table 1 also show the morning peak 1-hour for inbound total person travel across the I-95 / I-395 corridor inner area screen line at Glebe Road to be from 7:30AM to 8:30AM. The 36,600 peak hour travelers crossing this screen line represent approximately 39% of persons crossing this screen line the during 3-hour 6:15AM to 9:15AM morning peak period. About 9,000 inbound I-95 / I-395 corridor travelers traverse this screen line in each 15-minute period during the AM peak hour. Day-to-day variation in typical weekday AM peak hour travel is about the same as for the entire 3-hour AM peak period.

Modal Shares

The count data collected in this study indicate that typical weekday AM peak period travel in this corridor is about evenly split between transit, carpools and single occupant vehicles (SOV). Travel by SOV had the highest modal share at 35%, followed

Table 1
AM Peak Period Travel in the I-395 Corridor
Total Inbound Person Trips at the Inner Area (Glebe Road) Screenline

Time Period	Persons Total AVG	Persons Auto AVG	Persons Transit AVG	Persons Percent Transit	Persons Car/Van Pool AVG	Persons Percent Car/Van Pool	Persons SOV AVG	Persons Percent SOV
5:00 - 5:15 AM	1,443	862	581	40%	155	11%	708	49%
5:15 - 5:30 AM	2,272	1,894	378	17%	318	14%	1,576	69%
5:30 - 5:45 AM	3,360	2,724	636	19%	502	15%	2,222	66%
5:45 - 6:00 AM	3,917	2,892	1,025	26%	484	12%	2,408	61%
6:00 - 6:15 AM	4,438	3,113	1,325	30%	958	22%	2,156	49%
6:15 - 6:30 AM	7,254	4,650	2,604	36%	2,443	34%	2,207	30%
6:30 - 6:45 AM	7,665	5,667	1,998	26%	3,293	43%	2,374	31%
6:45 - 7:00 AM	8,369	5,424	2,945	35%	2,798	33%	2,627	31%
7:00 - 7:15 AM	7,999	5,526	2,473	31%	2,777	35%	2,749	34%
7:15 - 7:30 AM	9,012	5,626	3,386	38%	2,927	32%	2,699	30%
7:30 - 7:45 AM	9,262	6,191	3,071	33%	3,066	33%	3,125	34%
7:45 - 8:00 AM	10,078	6,090	3,988	40%	2,871	28%	3,219	32%
8:00 - 8:15 AM	8,317	5,742	2,575	31%	2,674	32%	3,068	37%
8:15 - 8:30 AM	8,984	5,351	3,633	40%	2,267	25%	3,084	34%
8:30 - 8:45 AM	6,859	4,522	2,337	34%	1,915	28%	2,607	38%
8:45 - 9:00 AM	5,596	3,797	1,799	32%	1,300	23%	2,497	45%
9:00 - 9:15 AM	4,882	3,765	1,117	23%	1,122	23%	2,643	54%
9:15 - 9:30 AM	4,078	3,341	737	18%	790	19%	2,551	63%
9:30 - 9:45 AM	3,625	2,826	799	22%	647	18%	2,179	60%
9:45 - 10:00 AM	3,284	2,810	475	14%	508	15%	2,302	70%
Total								
5:00-10:00 AM	120,691	82,810	37,881	31%	33,812	28%	48,998	41%
Standard Weekday Variation (STD)	1,450	4,571	3,121		4,914		343	
Percent Variation (CV)	1%	6%	8%		15%		1%	
Peak Period								
6:15-9:15 AM	94,276	62,349	31,928	34%	29,451	31%	32,898	35%
Standard Weekday Variation (STD)	756	3,627	2,871		4,794		1,167	
Percent Variation (CV)	1%	6%	9%		16%		4%	
Peak Hour								
7:30-8:30 AM	36,640	23,374	13,267	36%	10,878	30%	12,496	34%
Standard Weekday Variation (STD)	288	553	265		1,662		1,109	
Percent Variation (CV)	1%	2%	2%		15%		9%	

Note: The person trip data presented in this table are the average of two "typical weekday" counts taken in mid-September and early October, 2006. The standard weekday variation is the standard deviation (STD) of these two counts. The percent variation is the coefficient of variation (CV) expressed as the ratio of the count standard deviation to the count average times 100%.

closely by transit at 34% and carpooling/vanpooling at 31%. Together, persons traveling by transit or carpool/vanpool account for about 65% of the total volume of AM peak period inbound travel across the I-95/I-395 corridor inner area screen line.

In the 7:30AM to 8:30AM peak hour, transit accounts for the greatest share of inbound person travel across the I-95 / I-395 corridor screen line with a 36% modal share. This higher transit modal share percentage comes at the expense of SOV and HOV modal shares. The SOV modal share drops by 1 percentage point from 35% for the entire the 3-hour AM peak period to 34% for the AM peak 1-hour. Likewise, the carpool/vanpool modal share drops from 31% for the 3-hour AM peak period to 30% for the AM peak hour. Travel by carpool/vanpool accounts for the greatest share of inbound travel in the corridor during the 6:30AM to 7:30AM time period with a modal share of 36%. Travel by SOV dominates in the period before 6:15AM and after 8:30AM.

Travel by Transit

Approximately 18,100 persons in the I-95 / I-395 corridor choose Metrorail for their AM peak period travel to and through regional core area employment centers. The data in Table 2 show that travel by Metrorail accounts for about 57% of total inbound AM peak period transit ridership in the I-95 / I-395 corridor. This is not surprising given the fact that WMATA and local jurisdiction bus service feed many transit riders from local neighborhoods to the Metrorail system.

WMATA Metrobus, Fairfax Connector (FFX CONN), City of Alexandria Transit (DASH) and PRTC OmniRide and Metro Direct bus routes provide feeder bus service to Yellow and Blue Line Metrorail stations outside the I-95 / I-395 inner area screen line. Many of the daily riders on these bus routes transfer to Metrorail at stations outside the inner area I-95/ I-395 screen line. Thus, some of these bus/rail transit users show up solely as Metrorail riders in the Metrorail passenger counts taken at the Glebe Road screen line. In addition to providing feeder bus service to Yellow and Blue Line Metrorail stations outside the I-95 / I-395 inner area screen line, these four transit providers also operate some direct bus service that crosses the I-95 / I-395 inner area screen line on routes directly serving Crystal City and the Pentagon in Arlington, and various locations across the 14th Street Bridge in the District of Columbia.

The data presented in Table 2 show that on a typical weekday WMATA Metrobuses serve 7,800 inbound AM peak period weekday passengers for their travel across this I-95 / I-395 inner area screen line, Fairfax Connector buses serve slightly less than 100 passengers, City of Alexandria Transit buses serve about 500 passengers and PRTC OmniRide buses serve almost 1,600 AM peak period riders.

Virginia Railway Express' (VRE) Manassas and Fredericksburg lines also provides service to AM peak period travelers who live in the broad I-95 / I-395 transportation corridor. Because of the configuration of the railroad lines providing service from Northern Virginia's outer suburban jurisdictions to regional core area employment centers, some VRE riders who board trains at VRE stations in the I-66 corridor technically cross the Glebe Road inner area screen line in the I-95 travel corridor. Thus, for the purposes of this study, all of the AM peak

Table 2
AM Peak Period Travel in the I-95/I-395 Corridor
Total Inbound Transit Passengers at the Inner Area (Glebe Road) Screenline

Time Period	TOTAL TRANSIT	DASH BUS	FFX CONN BUS	WMATA BUS	WMATA RAIL	VRE RAIL	PRTC BUS
5:00 - 5:15 AM	581	0	0	189	303	0	89
5:15 - 5:30 AM	378	0	0	147	181	0	51
5:30 - 5:45 AM	636	0	0	256	288	0	92
5:45 - 6:00 AM	1,025	0	0	186	579	96	165
6:00 - 6:15 AM	1,325	24	6	376	683	0	238
6:15 - 6:30 AM	2,604	19	8	567	1,131	761	119
6:30 - 6:45 AM	1,998	16	4	535	1,068	164	213
6:45 - 7:00 AM	2,945	38	24	654	1,402	554	275
7:00 - 7:15 AM	2,473	46	3	680	1,377	158	210
7:15 - 7:30 AM	3,386	32	15	706	1,857	577	200
7:30 - 7:45 AM	3,071	44	3	889	1,920	147	70
7:45 - 8:00 AM	3,988	50	8	985	2,130	626	191
8:00 - 8:15 AM	2,575	40	8	801	1,498	130	100
8:15 - 8:30 AM	3,633	80	5	875	2,250	375	48
8:30 - 8:45 AM	2,337	34	3	611	1,477	107	107
8:45 - 9:00 AM	1,799	54	2	325	1,129	266	24
9:00 - 9:15 AM	1,117	13	0	206	899	0	0
9:15 - 9:30 AM	737	12	0	166	516	0	44
9:30 - 9:45 AM	799	18	0	145	616	21	0
9:45 - 10:00 AM	475	8	0	64	403	0	0
Total							
5:00-10:00 AM	37,881	523	87	9,357	21,702	3,981	2,233
Standard Weekday Variation (STD)	3,121	28	33	1,102	2,075	106	55
Percent Variation (CV)	8%	5%	38%	12%	10%	3%	2%
Peak Period							
6:15-9:15 AM	31,928	463	81	7,830	18,135	3,864	1,556
Standard Weekday Variation (STD)	2,871	41	30	862	2,083	108	23
Percent Variation (CV)	9%	9%	37%	11%	11%	3%	1%
Peak Hour							
7:30-8:30 AM	13,267	212	23	3,549	7,797	1,278	409
Standard Weekday Variation (STD)	265	24	6	123	148	33	57
Percent Variation (CV)	2%	11%	26%	3%	2%	3%	14%

Note: The transit ridership data presented in this table are the average of two "typical weekday" counts taken in mid-September and early October, 2006. The standard weekday variation is the standard deviation (STD) of these two counts. The percent variation is the coefficient of variation (CV) expressed as the ratio of the count standard deviation to the count average times 100%.

period VRE passengers boarding at Fredericksburg, Leeland Road, Brooke, Quantico, Rippon, Woodbridge, Lorton, Franconia/Springfield stations on the Fredericksburg line, plus all of the VRE riders boarding at the Rolling Road, Backlick Road commuter rail stations on the Manassas line, plus one-half the AM peak VRE riders at the Burke Center station, plus all the VRE riders boarding at the Alexandria King Street minus the number of VRE passengers alighting trains before the Crystal City station were considered I-95 / I-395 corridor inner area screen line travelers.

The rationale for the decision to exclude some of the VRE Manassas line riders from I-95 / I-395 corridor inner area transit and total person counts is that many of these riders boarding trains at the excluded VRE Manassas line stations could use, if they so chose, other available options in the I-66 corridor for their AM peak period travel and thus, these riders are more logically grouped with AM peak period travelers in the I-66 corridor. VRE Manassas line riders boarding at the Broad Run, Manassas, and Manassas Park commuter rail stations were included in the transit ridership totals for the I-66 Corridor Count study conducted for NVTC in FY 2006. Because Burke Centre is located almost midway between the I-66 and I-95 travel corridors, it was decided to include half of the AM peak period transit passengers boarding VRE trains at the Burke Centre station in the calculation of I-95 / I-395 inner area screen line total person and transit passenger counts. This was similar to what was done with the riders boarding at this station in the I-66 Corridor Count study.

The data in Table 2 show that VRE trains are estimated to serve approximately 3,900 of the inbound I-95 / I-395 corridor transit passengers traveling to regional core area employment centers in Arlington and DC. This represents approximately 12% of the total inbound transit ridership in this corridor during the AM peak period. Also, of the various transit modes that were counted in this study, VRE ridership exhibited the least day-to-day variation in ridership, with an average percent difference of only about 3% for the 3-hour AM peak period.

The data presented in Tables 2 and 2a show that the Shirley Highway HOV lanes also operate very effectively as a fixed guideway facility for bus transit. The Shirley Highway facility carries about 7,400 inbound AM peak period weekday transit passengers. This is approximately 41% of the total number of transit riders carried by the Blue and Yellow Metrorail lines at the Glebe Road screen line and almost twice the number of riders carried by VRE in this corridor.

Travel by Carpool/Vanpool

This study also found 7,400 persons traveling in passenger vehicles with two occupants (HOV2) for their inbound AM peak period travel across the I-95 / I-395 corridor inner area screen line (Table 3). About 38% of the persons traveling in these HOV2 carpools were on Shirley Highway's four general purpose lanes, 10% were on the Shirley Highway's two HOV lanes, and another 17% were counted on the GW Memorial Parkway. HOV2 person travel on US 1 (Jefferson Davis Highway), West Glebe Road, Walter Reed Drive and VA 244 (Columbia Pike) ranged from an average of about 400 to

Table 2a
AM Peak Period Travel in the I-95/I-395 Corridor
Total Inbound Bus Ridership at the Inner Area (Glebe Road) Screenline

Time Period	Total Bus Riders	Number of Bus Riders by I-395 Corridor Roadway Facility						
		GWM Pkwy	US1	West Glebe	I-395 GP	I-395 HOV	Walter Reed	Columbia Pike
5:00 - 5:15 AM	278	0	48	0	0	150	0	80
5:15 - 5:30 AM	198	0	34	0	0	102	0	62
5:30 - 5:45 AM	348	0	54	0	0	183	60	51
5:45 - 6:00 AM	380	0	28	3	0	238	28	84
6:00 - 6:15 AM	640	0	39	15	0	453	44	91
6:15 - 6:30 AM	705	0	84	22	0	457	35	109
6:30 - 6:45 AM	809	0	37	23	0	608	43	99
6:45 - 7:00 AM	977	0	79	14	0	777	4	105
7:00 - 7:15 AM	937	15	24	8	0	713	74	104
7:15 - 7:30 AM	952	15	98	19	0	701	0	120
7:30 - 7:45 AM	1,016	37	60	17	0	689	69	146
7:45 - 8:00 AM	1,222	28	95	18	0	964	11	107
8:00 - 8:15 AM	985	32	34	10	0	738	37	136
8:15 - 8:30 AM	960	40	83	12	0	683	16	127
8:30 - 8:45 AM	774	0	16	11	0	648	48	52
8:45 - 9:00 AM	362	0	35	5	0	213	12	98
9:00 - 9:15 AM	261	0	0	0	0	163	29	69
9:15 - 9:30 AM	183	0	40	22	0	86	6	30
9:30 - 9:45 AM	152	0	9	4	0	58	35	47
9:45 - 10:00 AM	64	0	27	0	0	0	22	16
Total								
5:00-10:00 AM	**12,199**	**164**	**919**	**199**	**0**	**8,621**	**567**	**1,730**
Peak Period								
6:15-9:15 AM	**9,958**	**164**	**643**	**156**	**0**	**7,352**	**374**	**1,270**
Peak Hour								
7:30-8:30 AM	**4,183**	**135**	**271**	**55**	**0**	**3,074**	**132**	**516**

Note: The transit ridership data presented in this table are the average of two "typical weekday" counts taken in mid-September and early October, 2006.

800 persons. The percent day-to-day variation in AM peak period person travel by HOV2 in this corridor was very high, averaging about 17% for all roadway facilities in this corridor.

Persons traveling in passenger vehicles with three or more occupants (HOV3+) during the AM peak period totaled about 22,000 (Table 4). Not surprisingly, 92% of this HOV3+ travel was on the Shirley Highway HOV lanes. Use of I-395's inbound HOV lanes between 6:00AM and 9:00AM is restricted to HOV3+-person vehicles and single occupant vehicles that have special "clean fuel" license tags or are law enforcement vehicles. Percent day-to-day variation in AM peak period person travel by HOV3+ carpools and van pools was extremely high, averaging 28% on the Shirley Highway HOV facility. This, together with the high percent variation in transit travel suggests significant switching between the carpool and transit modes on a daily basis and may be related to the high incidence of daily informal carpooling known as "slugging" in this corridor.

The effectiveness of the I-395 HOV3+ lanes in encouraging the use of car and vanpooling and their efficiency in moving large numbers of people per lane of roadway is clearly seen in the count data collected in this study. During the three-hour time period when the I-395 HOV3+ use restrictions are in effect, the two inbound I-395 HOV lanes carry an average of 3,800 auto persons per lane per hour compared to an average of just 1,500 auto persons per lane per hour on Shirley Highway's four non-restricted general purpose lanes at the Glebe Road screen line. If transit riders on buses are included in the persons moved per lane per hour statistic, then average number of persons moved per lane per hour on the Shirley HOV lanes increases to 5,100. Thus, in the 6:00AM to 9:00AM period, the Shirley Highway HOV lanes move roughly 3 and a half times more persons per lane per hour than on this roadway's non-restricted general purpose lanes.

Travel by Single Occupant Vehicles

The results of the two-day traffic counts conducted for this study presented in Table 5 show that on a typical weekday approximately 32,900 inbound AM peak period travelers cross the I-95/I-395 inner area screen line in single occupancy autos and motorcycles (SOVs). The greatest amount of AM peak period SOV travel was seen on Shirley Highway's general purpose lanes. During the 3-hour 6:00AM to 9:00AM restricted use period, SOV travel on Shirley Highway's four general purpose lanes totaled approximately 14,600 persons. In this same restricted time period, SOV travel on the Shirley HOV lanes was 2,100 or 14% of the SOVs travel in the general purpose lanes. The majority of the SOVs counted in these HOV lanes appeared to be vehicles with clean fuel license tags that exempt them from the HOV3+ requirement.

Persons in SOVs traveling inbound across the Glebe Road screen line in the AM peak period totaled about 6,800 on George Washington Memorial Parkway, about 3,300 on US 1 (Jefferson Davis Highway), and about 2,100 each on the West Glebe Road, Walter Reed Drive and VA 244 (Columbia Pike) roadways.

Table 3
AM Peak Period Travel in the I-95/I-395 Corridor
Total Inbound Persons in HOV2 Vehicles at the Inner Area (Glebe Road) Screenline

Time Period	Total HOV2 Persons	HOV2 Persons by I-395 Corridor Roadway Facility						
		GWM Pkwy	US1	West Glebe	I-395 GP GP	I-395 HOV	Walter Reed	Columbia Pike
5:00 - 5:15 AM	81	0	5	11	24	29	5	7
5:15 - 5:30 AM	148	0	1	16	7	102	1	21
5:30 - 5:45 AM	209	2	12	35	1	113	4	42
5:45 - 6:00 AM	273	0	32	49	21	126	5	40
6:00 - 6:15 AM	244	0	21	46	74	64	7	32
6:15 - 6:30 AM	399	0	25	30	251	34	9	50
6:30 - 6:45 AM	376	21	54	35	172	24	13	57
6:45 - 7:00 AM	483	103	45	44	172	31	19	69
7:00 - 7:15 AM	605	105	74	74	243	30	25	54
7:15 - 7:30 AM	644	128	87	60	222	29	33	85
7:30 - 7:45 AM	780	144	87	79	264	77	39	90
7:45 - 8:00 AM	810	162	73	84	307	67	50	67
8:00 - 8:15 AM	817	183	71	53	352	51	36	71
8:15 - 8:30 AM	746	137	56	75	298	54	70	56
8:30 - 8:45 AM	640	110	59	83	208	50	58	72
8:45 - 9:00 AM	525	67	46	42	202	54	49	65
9:00 - 9:15 AM	597	77	43	26	114	241	34	62
9:15 - 9:30 AM	574	70	32	25	151	218	30	48
9:30 - 9:45 AM	454	53	43	33	119	129	30	47
9:45 - 10:00 AM	395	44	39	44	93	100	25	50
Total								
5:00-10:00 AM	9,800	1,406	905	944	3,295	1,623	542	1,085
Standard Weekday Variation (STD)	1,000	108	422	100	34	538	20	86
Percent Variation (CV)	10%	8%	47%	11%	1%	33%	4%	8%
Peak Period								
6:15-9:15 AM	7,422	1,237	720	685	2,805	742	435	798
Standard Weekday Variation (STD)	1,236	182	376	102	206	448	6	132
Percent Variation (CV)	17%	15%	52%	15%	7%	60%	1%	17%
Peak Hour								
7:30-8:30 AM	3,153	626	287	291	1,221	249	195	284
Standard Weekday Variation (STD)	1,094	76	98	74	510	366	10	108
Percent Variation (CV)	35%	12%	34%	25%	42%	147%	5%	38%

Note: The traffic count data presented in this table are the average of two "typical weekday" counts taken in mid-September and early October, 2006. The standard weekday variation is the standard deviation (STD) of these two counts. The percent variation is the coefficient of variation (CV) expressed as the ratio of the count standard deviation to the count average times 100%

Table 4
AM Peak Period Travel in the I-95/I-395 Corridor
Total Inbound Persons in HOV3+ Vehicles at the Inner Area (Glebe Road) Screenline

Time Period	Total HOV3+ Persons	HOV3+ Persons by I-395 Corridor Roadway Facility						
		GWM Pkwy	US1	West Glebe	I-395 GP GP	I-395 HOV	Walter Reed	Columbia Pike
5:00 - 5:15 AM	49	6	8	0	21	6	0	8
5:15 - 5:30 AM	170	0	0	6	33	123	0	8
5:30 - 5:45 AM	293	6	8	52	30	171	0	27
5:45 - 6:00 AM	211	0	24	49	11	110	0	18
6:00 - 6:15 AM	714	0	8	26	23	629	0	28
6:15 - 6:30 AM	2,044	0	15	17	71	1,895	0	47
6:30 - 6:45 AM	2,917	14	39	17	59	2,759	0	29
6:45 - 7:00 AM	2,315	8	7	17	52	2,204	0	29
7:00 - 7:15 AM	2,172	5	14	7	27	2,078	4	39
7:15 - 7:30 AM	2,283	19	75	8	21	2,125	5	32
7:30 - 7:45 AM	2,286	53	19	28	45	2,104	3	36
7:45 - 8:00 AM	2,061	20	14	43	64	1,888	6	28
8:00 - 8:15 AM	1,857	31	9	21	79	1,692	8	18
8:15 - 8:30 AM	1,521	23	9	24	39	1,402	8	18
8:30 - 8:45 AM	1,275	36	27	20	47	1,128	2	16
8:45 - 9:00 AM	775	14	16	18	39	668	8	14
9:00 - 9:15 AM	525	20	32	2	42	398	2	31
9:15 - 9:30 AM	216	15	29	10	42	94	9	18
9:30 - 9:45 AM	193	18	21	2	49	77	9	18
9:45 - 10:00 AM	113	8	24	3	40	35	2	3
Total								
5:00-10:00 AM	23,987	292	395	365	829	21,584	63	461
Standard Weekday Variation (STD)	5,964	42	235	41	482	5,537	35	132
Percent Variation (CV)	25%	14%	60%	11%	58%	26%	56%	29%
Peak Period								
6:15-9:15 AM	22,029	240	274	218	582	20,339	43	335
Standard Weekday Variation (STD)	6,030	10	111	54	313	5,712	7	59
Percent Variation (CV)	27%	4%	41%	25%	54%	28%	16%	18%
Peak Hour								
7:30-8:30 AM	7,725	127	50	115	226	7,085	24	99
Standard Weekday Variation (STD)	2,756	3	20	29	22	2,684	12	10
Percent Variation (CV)	36%	2%	40%	25%	10%	38%	50%	10%

Note: The traffic count data presented in this table are the average of two "typical weekday" counts taken in mid-September and early October, 2006. The standard weekday variation is the standard deviation (STD) of these two counts. The percent variation is the coefficient of variation (CV) expressed as the ratio of the count standard deviation to the count average times 100%.

Table 5
AM Peak Period Travel in the I-95/I-395 Corridor
Total Inbound Persons in SOV Vehicles at the Inner Area (Glebe Road) Screenline

Time Period	Total SOV Persons	SOV Persons by I-395 Corridor Roadway Facility						
		GWM Pkwy	US1	West Glebe	I-395 GP GP	I-395 HOV	Walter Reed	Columbia Pike
5:00 - 5:15 AM	708	98	72	13	289	204	7	26
5:15 - 5:30 AM	1,576	147	117	42	557	672	7	35
5:30 - 5:45 AM	2,222	259	135	72	927	746	13	71
5:45 - 6:00 AM	2,408	294	184	76	943	817	29	67
6:00 - 6:15 AM	2,156	301	193	71	1,016	455	32	89
6:15 - 6:30 AM	2,207	417	165	98	1,219	154	54	101
6:30 - 6:45 AM	2,374	438	212	111	1,300	108	87	120
6:45 - 7:00 AM	2,627	541	200	148	1,321	149	111	159
7:00 - 7:15 AM	2,749	576	272	132	1,334	141	111	184
7:15 - 7:30 AM	2,699	561	233	192	1,223	143	172	177
7:30 - 7:45 AM	3,125	643	342	235	1,345	160	181	220
7:45 - 8:00 AM	3,219	660	324	189	1,432	142	247	227
8:00 - 8:15 AM	3,068	655	318	242	1,237	163	237	217
8:15 - 8:30 AM	3,084	733	320	236	1,183	149	275	190
8:30 - 8:45 AM	2,607	562	333	197	996	110	246	164
8:45 - 9:00 AM	2,497	496	328	164	950	183	206	171
9:00 - 9:15 AM	2,643	476	301	148	855	554	140	170
9:15 - 9:30 AM	2,551	464	279	174	793	599	111	132
9:30 - 9:45 AM	2,179	352	200	132	736	573	95	93
9:45 - 10:00 AM	2,302	273	183	188	792	660	75	133
Total								
5:00-10:00 AM	48,998	8,941	4,708	2,854	20,445	6,878	2,433	2,742
Standard Weekday Variation (STD)	776	1,403	52	85	709	519	227	136
Percent Variation (CV)	2%	16%	1%	3%	3%	8%	9%	5%
Peak Period								
6:15-9:15 AM	32,898	6,755	3,346	2,089	14,393	2,154	2,065	2,097
Standard Weekday Variation (STD)	1,185	1,596	101	195	1,031	644	143	213
Percent Variation (CV)	4%	24%	3%	9%	7%	30%	7%	10%
Peak Hour								
7:30-8:30 AM	12,496	2,691	1,304	901	5,197	613	940	853
Standard Weekday Variation (STD)	1,138	1,380	11	50	715	378	46	201
Percent Variation (CV)	9%	51%	1%	6%	14%	62%	5%	24%

Note: The traffic count data presented in this table are the average of two "typical weekday" counts taken in mid-September and early October, 2006. The standard weekday variation is the standard deviation (STD) of these two counts. The percent variation is the coefficient of variation (CV) expressed as the ratio of the count standard deviation to the count average times 100%.

Vehicle Counts

An inbound AM peak period passenger vehicle flow of approximately 43,200 vehicles was observed crossing the I-95 / I-395 inner area Glebe Road screen line in this study, as shown in Table 6. The greatest number of these AM peak period vehicle movements was seen on the general purpose lanes of the I-395 facility. An inbound passenger vehicle flow of 15,900 vehicles was seen on the four general purposes lanes on this facility. This passenger vehicle flow total was followed by inbound flow of about 8,700 vehicles on the two I-395 HOV lanes. Inbound AM peak period passenger vehicle movements totaled approximately 7,400 on the George Washington Memorial Parkway, 3,800 on US 1 (Jefferson Davis Highway), 2,600 on VA 244(Columbia Pike), 2,500 on West Glebe Road and 2,300 on Walter Reed Drive .

Average Passenger Vehicle Occupancies

On a typical weekday a total of 62,300 persons in approximately 43,200 passenger vehicles were found to be traveling inbound across the Glebe Road screen line during the 3-hour AM peak period. The persons in these passenger vehicles, which included autos, vans and motorcycles, accounted for about 66% of all of the inbound AM peak person travel across this inner area screen line. These passenger vehicle totals and the average vehicle occupancies shown in Table 7, by definition, do not include buses or bus ridership.

The data in Table 7 also show that the total number inbound AM peak period passenger vehicle flows on the I-395 general purpose lanes exceeded the number of passenger vehicles on the I-395 HOV lanes by 7,200 vehicles, but the number of persons in the passenger vehicles on the I-395 HOV lanes exceeded the number of persons in the passenger vehicles on I-395 general purpose lanes by 5,500 persons. Thus, on a typical weekday, inbound AM peak period passenger vehicles on two I-395 HOV lanes carry approximately 5,500 more people in 7,200 fewer vehicles than on four I-395 general purpose lanes.

The I-395 HOV facility moves more people in fewer vehicles. The average passenger vehicle occupancies for inbound AM peak period vehicles on I-395 HOV lanes are more than double those found on the other major roadways in this corridor. Typical weekday AM peak period inbound passenger vehicle occupancies on I-395 HOV lanes averaged 2.66 persons per vehicle. Comparable passenger vehicle occupancies for the other roadway facilities are 1.12 person per vehicle for the Shirley Highway general purpose lanes, 1.11 persons per vehicle for the George Washington Memorial Parkway, 1.16 for US 1 (Jefferson Davis Highway), 1.21 for West Glebe Road, 1.12 for I-395 general purpose facility, 1.11 for Walter Reed Drive, and 1.25 persons per vehicle on VA 244 (Columbia Pike).

The data in tables 8 and 9 present the number and percentage distribution of vehicle occupancies classified by the number of persons in the vehicle for inbound AM peak period passenger vehicle flows across the I-95/I-395 corridor inner area screen line, respectively. These tables show that for the George Washington Memorial Parkway, US 1 (Jefferson Davis Highway), the I-395 general purpose lanes and Walter Reed Drive roadways, about 90% of the inbound AM peak period passenger vehicles on these roadways are only carrying a single occupant. Counts on the West Glebe Road and VA 244 (Columbia Pike) showed a greater share

Table 6
AM Peak Period Travel in the I-95/I-395 Corridor
Total Inbound Passenger Vehicles at the Inner Area (Glebe Road) Screenline

Time Period	Total Passenger Vehicles	Passenger Vehicles by I-395 Corridor Roadway Facility						
		GWM Pkwy	US1	West Glebe	I-395 GP GP	I-395 HOV	Walter Reed	Columbia Pike
5:00 - 5:15 AM	612	99	75	18	162	219	10	31
5:15 - 5:30 AM	1,669	147	118	50	566	734	8	48
5:30 - 5:45 AM	2,369	260	142	98	936	819	15	100
5:45 - 6:00 AM	2,572	294	202	108	956	889	31	93
6:00 - 6:15 AM	2,431	301	205	102	1,056	620	36	113
6:15 - 6:30 AM	2,951	417	180	117	1,361	682	59	137
6:30 - 6:45 AM	3,296	450	244	133	1,393	829	94	155
6:45 - 7:00 AM	3,576	595	224	175	1,416	849	120	200
7:00 - 7:15 AM	3,725	630	310	171	1,460	811	125	219
7:15 - 7:30 AM	3,727	630	289	224	1,338	829	190	227
7:30 - 7:45 AM	4,211	723	390	280	1,487	856	202	274
7:45 - 8:00 AM	4,274	745	364	240	1,600	786	274	267
8:00 - 8:15 AM	4,062	752	355	272	1,428	742	257	257
8:15 - 8:30 AM	3,946	806	351	278	1,342	635	312	223
8:30 - 8:45 AM	3,305	621	367	244	1,107	488	275	205
8:45 - 9:00 AM	2,991	531	354	187	1,056	423	233	208
9:00 - 9:15 AM	3,089	516	329	161	918	800	158	209
9:15 - 9:30 AM	2,889	502	299	188	876	737	128	160
9:30 - 9:45 AM	2,450	383	224	149	804	660	111	121
9:45 - 10:00 AM	2,515	296	206	211	842	715	88	159
Total								
5:00-10:00 AM	60,655	9,694	5,223	3,402	22,099	14,119	2,720	3,401
Standard Weekday Variation (STD)	1,354	1,467	265	143	1,071	1,822	207	157
Percent Variation (CV)	2%	15%	5%	4%	5%	13%	8%	5%
Peak Period								
6:15-9:15 AM	43,150	7,414	3,754	2,480	15,903	8,728	2,295	2,578
Standard Weekday Variation (STD)	192	1,696	343	261	990	1,139	116	275
Percent Variation (CV)	0%	23%	9%	11%	6%	13%	5%	11%
Peak Hour								
7:30-8:30 AM	16,493	3,026	1,459	1,069	5,856	3,019	1,044	1,020
Standard Weekday Variation (STD)	753	1,427	34	96	464	358	42	252
Percent Variation (CV)	5%	47%	2%	9%	8%	12%	4%	25%

Note: The traffic count data presented in this table are the average of two "typical weekday" counts taken in mid-September and early October, 2006. The standard weekday variation is the standard deviation (STD) of these two counts. The percent variation is the coefficient of variation (CV) expressed as the ratio of the count standard deviation to the count average times 100%.

Table 7
AM Peak Period Travel in the I-95/I-395 Corridor
Average Inbound Passenger Vehicle Occupancies
at the Inner Area (Glebe Road) Screen Line

Roadway Facility	Number of Inbound Lanes	Passenger Vehicles		
		Person Count	Vehicle Count	Average Occupancy
George Washington M. Parkway	2	8,232	7,414	1.11
US1 (Jefferson Davis Highway)	2	4,339	3,754	1.16
West Glebe Road	2	2,992	2,480	1.21
I-395 (General Purpose Lanes)	4	17,780	15,903	1.12
I-395 (HOV Lanes)	2	23,235	8,728	2.66
Walter Reed Drive	2	2,543	2,295	1.11
VA 244 (Columbia Pike)	2	3,230	2,578	1.25
TOTAL	**16**	**62,349**	**43,150**	**1.44**

Table 8
AM Peak Period Travel in the I-95/I-395 Corridor
Inbound Passenger Vehicle Counts Classified by Number of Persons in Vehicle
at the Inner Area (Glebe Road) Screen Line
3-Hour AM Peak Period - (6:15 AM to 9:15 AM)

Number of Persons in Vehicle	Corridor Total	I-95 / I-395 Corridor Roadway Facility						
		GW Pkwy	US 1	West Glebe Rd.	I-395 GP	I-395 HOV	Walter Reed Dr.	VA 244
1-Person Autos	32,576	6,720	3,321	2,083	14,385	1,933	2,046	2,090
2-Person Autos	3,711	619	360	343	1,403	371	218	399
3+-Person Autos	6,320	29	37	42	83	6,042	13	76
Vanpools	222	13	11	7	25	161	0	6
Motorcycles	322	35	25	6	9	221	20	8
Total Passenger Vehicles	**43,150**	**7,414**	**3,754**	**2,480**	**15,903**	**8,728**	**2,295**	**2,578**

Table 9
AM Peak Period Travel in the I-95/I-395 Corridor
Distribution of Inbound Passenger Vehicle Counts Classified by Number of Persons in Vehicle at the Inner Area (Glebe Road) Screen Line
3-Hour AM Peak Period - (6:15 AM to 9:15 AM)

Number of Persons in Vehicle	Corridor Total	I-95 / I-395 Corridor Roadway Facility						
		GW Pkwy	US 1	West Glebe Rd.	I-395 GP	I-395 HOV	Walter Reed Dr.	VA 244
1-Person Autos	75%	91%	88%	84%	90%	22%	89%	81%
2-Person Autos	9%	8%	10%	14%	9%	4%	9%	15%
3+-Person Autos	15%	0%	1%	2%	1%	69%	1%	3%
Vanpools	1%	0%	0%	0%	0%	2%	0%	0%
Motorcycles	1%	0%	1%	0%	0%	3%	1%	0%
Total Passenger Vehicles	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

of traffic to be in multi-occupant passenger vehicles, with 16% and 19% of the traffic respectively, in multi-occupant vehicles Combining the AM peak period passenger vehicle totals on both the general purpose and HOV lanes I-395, about 33% of the passenger vehicles on the Shirley Highway facility were vehicles with 2 or more occupants.

Statistical Confidence Levels for AM Peak Period Modal Share Estimates

One of the intended purposes of this study was to develop a statistically reliable estimate of the transit mode share of inbound AM peak period travel in Northern Virginia's I-95/I-395 corridor. Based on the statistical analysis of the two-day auto occupancy and transit passenger counts conducted at the inner area Glebe Road screenline, transit's share of inbound AM peak period travel in this corridor is estimated to be 33.9% plus or minus 0.4% percentage points at the 90% confidence level. This means that, statistically, one can be 90% confident that the actual share of AM peak period travel in the I-95/I-395 corridor by transit would be found in the range from 33.5% to 34.3%, if these counts had been taken on every typical weekday between Tuesday, September 12, 2006 and Thursday, October 5, 2006.

The car/vanpool person share of inbound AM peak period travel on a typical weekday at the inner area Glebe Road screen line is estimated to be 31.2% plus or minus 3.5 percentage points at the 90% confidence level. The share of SOV travel at this same screen line is estimated to be 34.9% plus or minus 0.1 percentage points at the 90% confidence level.

The study design and scope of work recommended by TPB staff for this corridor count study specified only two days of traffic counting. The rationale for this recommendation was that for most traffic counting purposes two-day counts are generally adequate and provide a reasonable confidence interval for estimated average traffic volumes across a multiple road screen line. This was the case with the prior I-66 Corridor count study. Nonetheless, with the with the very high variability of the HOV3+ person travel observed on the Shirley Highway HOV lanes in this study, the two-day traffic counts resulted in a larger statistical confidence interval for the carpool/vanpool modal share than desirable. Additional days of traffic counting would be needed on the Shirley facility to obtain a more precise average estimate of HOV3+

person travel in this corridor and a narrower confidence interval for the carpool/vanpool modal share percentage than the one reported here.

Major Findings and Conclusions[1]

- Analysis of two-day auto occupancy and transit passenger counts conducted on typical weekdays in mid-September, 2006 show two-thirds of the inbound AM peak period travelers in Northern Virginia's I-95/I-395 corridor using transit or HOV 2+ passenger vehicles for their travel to or through regional core area employment sites in Northern Virginia and the District of Columbia.

- Travel by transit during the 3-hour AM peak period from 6:15AM to 9:15AM was found to account for a share of inbound person travel across the I-95/I-395 corridor Glebe Road inner area screen line that was almost equal to that SOV travel across this screenline. Based on the statistical analysis of the two-day counts, transit's share of this AM peak travel is estimated at 34%, or 31,900 trips.

- Approximately, 18,100 persons in the I-95/I-395 corridor choose the Metrorail Yellow and Blue Lines for their AM peak period travel to and through regional core area employment centers in Northern Virginia and downtown Washington, DC. By far, Metrorail accounts for the greatest share of transit ridership in the I-95/I-395 corridor, but this is not surprising given that WMATA and local jurisdiction bus service feed many transit riders from local neighborhoods to several Metrorail Yellow and Blue Lines stations located along the I-95/I-395 corridor.

- The WMATA Metrobus, Fairfax Connector (FFX CONN), City of Alexandria Transit (DASH), PRTC OmniRide and Arlington County Transit (ART) systems, in addition to providing feeder bus service to Metrorail stations, also operate some bus service that directly crosses the I-95/I-395 corridor inner area screen line. On a typical weekday approximately 9,900 persons are riding buses operated by these transit providers as they cross the inner area screen line at Glebe Road.

- The transit count data collected in this study clearly show the effectiveness of the Shirley Highway HOV lanes as a fixed guideway facility for bus transit. About three out every four inbound bus riders in the I-95/I-395 corridor at the Glebe Road screenline are on buses using the Shirley HOV lanes during the 6:15AM to 9:15AM peak period. These 7,400 weekday bus riders represent about 41% of the AM peak period transit riders carried by Metrorail across this screenline and are double the number of AM peak period transit passengers carried by VRE in this corridor.

- The Manassas and Fredericksburg lines of the Virginia Railway Express (VRE) that serves AM peak period travelers living in the I-95/I-395 transportation corridor carries about 3,900 inbound riders across the inner area screen line to regional core area

[1] The major findings presented in this section of the report are for the 6:15PM to 9:15AM 3-hour AM peak period unless otherwise stated.

employment centers.[2] Typical weekday ridership on VRE showed the least day-to-day variation of any of the transit modes.

- More than 29,400 or 31% of the inbound AM peak period travelers in the I-95/I-395 corridor crossing the inner area screen line at Glebe Road were observed to be riding in carpools or vanpools. A total of 24,500 of these carpoolers and vanpoolers used the multi-modal Shirley Highway facility for this inbound travel and more than 20,300 of these persons were traveling in the Shirley Highway HOV lanes in vehicles with 3 or more occupants.

- The effectiveness of the Shirley Highway HOV lanes in encouraging the use of carpooling, vanpooling and transit is clearly seen in the count data collected in study. During the three-hour time period when the I-395 HOV3+use restrictions are in effect, the two inbound I-395 HOV lanes carry an average of 5,100 persons per lane per hour compared to an average of just 1,500 persons per lane per hour on Shirley Highway's four non-restricted general purpose lanes. Thus, the average number of persons served per lane per hour on the two Shirley Highway HOV lanes is about 3 and a half times greater than on this roadway's four non-restricted general purpose lanes.

- On a typical weekday approximately 32,900 or 35% of the inbound AM peak period travelers in the Shirley Highway corridor cross the I-95/I-395 inner area screen line in single occupancy vehicles (SOVs). About half of these SOV travelers use the Shirley Highway general purpose lanes.

- Inbound AM peak period passenger vehicles on I-95/I-395 HOV lanes at the Glebe Road screen line were found to be carrying 113% more people per vehicle than on any other corridor roadway at this screen line. Vehicle occupancies for inbound vehicles on I-95/I-395 HOV lanes during the 6:15AM to 9:15AM peak period averaged 2.66 persons per vehicle. Average vehicle occupancies for inbound vehicles on other roadway facilities in the corridor ranged to 1.11 to 1.25 persons per vehicle.

[2] Includes VRE riders boarding trains at the Broad Run, Manassas and Manassas Park, Fredericksburg, Leeland Rd., Brooke, Quantico, Rippon, Woodbridge, Lorton, Franconia/Springfield stations, plus one-half the riders at the Burke Center station minus passengers alighting VRE trains before the Crystal City station.

--- Appendix A ---
Traffic Counting Locations for
Study of AM Peak Period Travel in Northern Virginia's I-95/I-395 Corridor

I-95 / I-395 Corridor Faclility/Service	Counting Location	Counting Dates
Roadway		
George Washington M. Parkway	George Washington Memorial Parkway at Marina Drive	Tues 9/26 2006 Wed 9/27/2006
US1 (Jefferson Davis Highway)	US1 0.7 mi. South of VA 120 @East Glebe Rd	Tues 9/26 2006 Wed 9/27/2006
West Glebe Road	immediately north of Martha Custis Drive	Wed 9/20/2006 Thurs 9/21/2006
I-395 (General Purpose Lanes)	between Shirlington Circle and Va. 120 (S. Glebe Road)	Wed 9/13/2006 Thurs 10/5/2006
I-395 (HOV Lanes)	between Shirlington Circle and Va. 120 (S. Glebe Road)	Wed 9/13/2006 Thurs 10/5/2006
Walter Reed Drive	Walter Reed Drive at Pollard Street	Tues 9/19 2006 Wed 9/20/2006
VA 244 (Columbia Pike)	VA 244 Columbia Pike west of VA 120	Tues 9/19 2006 [1] Wed 9/20/2006
Metrorail		
Yellow Line - Northbound	Ronald Reagan/National Airport	Tues 9/19 2006 Thurs 9/21/2006
Blue Line - Northbound	Ronald Reagan/National Airport	Tues 9/19 2006 Thurs 9/21/2006
Fairfax Connector Routes		
110	King Street Metrorail Station - leave volume	Tues 9/19 2006 Thurs 9/21/2006
383, 384, 385	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
Metrobus Routes		
9A, 10P	Last stop before US1 & S. Glebe Rd.	Tues 9/19 2006 Thurs 9/21/2006
10A,B,C, 11Y	S. Washington St. @ Huntington Towers	Tues 9/19 2006 Thurs 9/21/2006
11P, 11Y	GWMP @ Slaters Lane	Tues 9/19 2006 Thurs 9/21/2006
7A,B,C,D,E,F,G,L,U,W,X	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
17A,B,c<G,H,K,L,M	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
18E,F,G,H,J,P,R	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
21A,B,C,D,F	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
24B,M,P	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
25G	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
28F,G	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
29C,E,G,H,X	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
N13	King Street Metrorail Station	Tues 9/19 2006 Thurs 9/21/2006
DASH Routes		
AT3, AT4	S. Washington St. @ Huntington Towers	Tues 9/19 2006 Thurs 9/21/2006
AT3, AT4	Pentagon Station @ Rotary Rd.	Tues 9/19 2006 Thurs 9/21/2006
Virginia Railway Express		
Manassas Line	Broad Run, Manassas, Manassas Park, Burke Center, Rolling Road	Tues 9/19 2006 Thurs 9/21/2006
Fredericksburg Line	Fredericksburg, Leeland Rd., Brooke, Quantico, Rippon, Woodbridge, Lorton, Franconia/Springfield	Tues 9/19 2006 Thurs 9/21/2006

[1] The 9/19/07 count for Columbia Pike did not include a count for the 5:00AM to 5:30AM time period.