

Exhibit 2 – Vehicle Classification Counts

Weekday vehicle classification counts from GDOT were obtained for the years 2008 through 2010 for the entire state of Georgia. The counts were stratified by two areas, the counts within the 13-county portion of the Atlanta MPO area, and the remaining statewide counts. In order to provide a reasonable sample, the remaining statewide counts were used to factor the outer 7-county portion of the nonattainment area. The vehicle classification counts collected were stratified based on the FHWA vehicle classifications. The counts were then summarized into the 6 HPMS vehicle type categories. This result was then summarized for the three years. The percent by vehicle type by road type based on functional classification was calculated. The counts by the area type (urban versus rural) were combined since FHWA eliminated the urban/rural area type distinction from HPMS functional classifications beginning with the 2009 data, reported in 2010¹.

Table 1, below, lists the counts by year for the 13-county area. Table 2 lists the final factors which were applied to the 13-county area VMT by vehicle type by road type based on the counts. Table 3 lists the counts by year for the 7-county area. Table 4 lists the final factors which were applied to the 7-county area VMT by vehicle type by road type based on the counts. These values were used to weight the VMT from the travel demand model by road type by vehicle type for input into AADVMT worksheet importer.

¹ *Guidance for the Functional Classification of Highways (updated)*, Federal Highway Administration, October 14, 2008

**Table 1 – GDOT Vehicle Classification Counts
13-County Atlanta MPO**

2008 13 County Atlanta MPO Area										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	16,858	184,014	1,321,610	154,567	0.2%	0.4%	0.2%	0.2%
20	Passenger Cars	Class 2	5,033,881	33,440,176	441,682,775	62,560,573	63.1%	70.0%	74.6%	79.0%
30	Other 2 axle-4 tire vehicles	Class 3	1,589,435	8,589,583	94,611,416	12,979,814	19.9%	18.0%	16.0%	16.4%
40	Buses	Class 4	61,002	347,125	4,273,934	596,264	0.8%	0.7%	0.7%	0.8%
50	Single Unit Trucks	Class 5-7	323,988	1,948,590	18,577,894	2,159,833	4.1%	4.1%	3.1%	2.7%
60	Combination Trucks	Class 8-13	952,385	3,242,388	31,896,705	759,298	11.9%	6.8%	5.4%	1.0%
	Total		7,977,549	47,751,876	592,364,334	79,210,349	100%	100%	100%	100%
2009 13 County Atlanta MPO Area										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	51,352	101,595	1,540,072	240,506	0.2%	0.2%	0.2%	0.2%
20	Passenger Cars	Class 2	15,065,261	40,708,739	573,832,909	98,353,063	65.0%	74.0%	75.7%	79.7%
30	Other 2 axle-4 tire vehicles	Class 3	4,297,018	9,664,212	119,721,238	20,115,480	18.5%	17.6%	15.8%	16.3%
40	Buses	Class 4	162,864	365,145	4,755,365	733,635	0.7%	0.7%	0.6%	0.6%
50	Single Unit Trucks	Class 5-7	778,609	1,744,325	21,464,577	3,043,483	3.4%	3.2%	2.8%	2.5%
60	Combination Trucks	Class 8-13	2,831,994	2,402,216	36,457,015	957,240	12.2%	4.4%	4.8%	0.8%
			23,187,098	54,986,232	757,771,176	123,443,407	100%	100%	100%	100%

**Table 1 (continued) – GDOT Vehicle Classification Counts
13-County Atlanta MPO**

2010 13 County Atlanta MPO Area										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	12,376	36,254	710,183	121,758	0.3%	0.2%	0.2%	0.3%
20	Passenger Cars	Class 2	3,072,873	14,347,044	232,240,678	36,234,722	76.0%	81.9%	80.8%	84.0%
30	Other 2 axle-4 tire vehicles	Class 3	702,918	2,691,501	40,925,619	6,029,282	17.4%	15.4%	14.2%	14.0%
40	Buses	Class 4	11,738	45,390	790,705	115,939	0.3%	0.3%	0.3%	0.3%
50	Single Unit Trucks	Class 5-7	71,303	251,025	4,313,075	499,692	1.8%	1.4%	1.5%	1.2%
60	Combination Trucks	Class 8-13	170,081	157,197	8,296,213	131,598	4.2%	0.9%	2.9%	0.3%
	Total		4,041,289	17,528,411	287,276,473	43,132,991	100%	100%	100%	100%
2008-2010 13 County Atlanta MPO Area Summary										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	80,586	321,863	3,571,865	516,831	0.2%	0.3%	0.2%	0.2%
20	Passenger Cars	Class 2	23,172,015	88,495,959	1,247,756,362	197,148,358	65.8%	73.6%	76.2%	80.2%
30	Other 2 axle-4 tire vehicles	Class 3	6,589,371	20,945,296	255,258,273	39,124,576	18.7%	17.4%	15.6%	15.9%
40	Buses	Class 4	235,604	757,660	9,820,004	1,445,838	0.7%	0.6%	0.6%	0.6%
50	Single Unit Trucks	Class 5-7	1,173,900	3,943,940	44,355,546	5,703,008	3.3%	3.3%	2.7%	2.3%
60	Combination Trucks	Class 8-13	3,954,460	5,801,801	76,649,933	1,848,136	11.2%	4.8%	4.7%	0.8%
	Total		35,205,936	120,266,519	1,637,411,983	245,786,747	100%	100%	100%	100%

**Table 2 – Final Factor of VMT by Vehicle Type by Road Type
13-County Atlanta MPO**

Code	HPMS Vehicle Type	FHWA Veh Class	Restricted Access	Unrestricted Access	Restricted Access Factor	Unrestricted Access Factor
10	Motorcycles	Class 1	3,652,451	838,694	0.002184	0.002291
20	Passenger Cars	Class 2	1,270,928,377	285,644,317	0.759844	0.780335
30	Other 2 axle-4 tire vehicles	Class 3	261,847,644	60,069,872	0.156550	0.164101
40	Buses	Class 4	10,055,608	2,203,498	0.006012	0.006020
50	Single Unit Trucks	Class 5-7	45,529,446	9,646,948	0.027220	0.026354
60	Combination Trucks	Class 8-13	80,604,393	7,649,937	0.048191	0.020898
	Total		1,672,617,919	366,053,266	1.000000	1.000000

**Table 3 – GDOT Vehicle Classification Counts
Statewide minus 13-County Atlanta MPO**

2008 Statewide minus ARC 13 County MPO Area										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	415,477	276,557	703,762	273,810	0.3%	0.4%	0.3%	0.3%
20	Passenger Cars	Class 2	78,146,859	45,813,738	134,370,835	70,721,022	55.0%	64.5%	65.4%	74.5%
30	Other 2 axle-4 tire vehicles	Class 3	23,048,320	16,181,222	37,536,241	19,040,830	16.2%	22.8%	18.3%	20.1%
40	Buses	Class 4	1,348,962	412,115	1,464,298	372,563	0.9%	0.6%	0.7%	0.4%
50	Single Unit Trucks	Class 5-7	5,177,758	3,054,596	6,643,091	2,735,728	3.6%	4.3%	3.2%	2.9%
60	Combination Trucks	Class 8-13	33,983,937	5,320,479	24,746,197	1,724,995	23.9%	7.5%	12.0%	1.8%
			142,121,313	71,058,707	205,464,424	94,868,948	100%	100%	100%	100%
2009 Statewide minus ARC 13 County MPO Area										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	543,569	380,461	552,296	334,712	0.3%	0.3%	0.3%	0.3%
20	Passenger Cars	Class 2	99,860,922	74,033,369	123,617,071	92,974,090	57.6%	65.0%	66.5%	73.4%
30	Other 2 axle-4 tire vehicles	Class 3	29,013,174	25,257,242	35,153,989	26,580,997	16.7%	22.2%	18.9%	21.0%
40	Buses	Class 4	1,445,231	636,498	1,260,763	480,718	0.8%	0.6%	0.7%	0.4%
50	Single Unit Trucks	Class 5-7	5,931,816	4,577,695	5,977,298	3,774,967	3.4%	4.0%	3.2%	3.0%
60	Combination Trucks	Class 8-13	36,572,792	9,058,107	19,363,526	2,566,080	21.1%	7.9%	10.4%	2.0%
			173,367,504	113,943,372	185,924,943	126,711,564	100%	100%	100%	100%

**Table 3 (continued) – GDOT Vehicle Classification Counts
Statewide minus 13-County Atlanta MPO**

2010 Statewide minus ARC 13 County MPO Area										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	531,781	465,637	767,240	413,477	0.3%	0.3%	0.3%	0.3%
20	Passenger Cars	Class 2	115,785,383	90,783,273	163,511,794	103,655,999	58.1%	64.4%	68.1%	73.3%
30	Other 2 axle-4 tire vehicles	Class 3	33,029,619	31,077,060	45,607,435	29,985,205	16.6%	22.1%	19.0%	21.2%
40	Buses	Class 4	1,648,242	837,435	1,403,597	520,635	0.8%	0.6%	0.6%	0.4%
50	Single Unit Trucks	Class 5-7	6,527,272	5,527,587	7,477,099	4,162,187	3.3%	3.9%	3.1%	2.9%
60	Combination Trucks	Class 8-13	41,728,831	12,222,357	21,492,738	2,746,397	20.9%	8.7%	8.9%	1.9%
	Total		199,251,128	140,913,349	240,259,903	141,483,900	100%	100%	100%	100%
2008-2010 Statewide minus ARC 13 County MPO Area Summary										
Code	HPMS Vehicle Type	FHWA Veh Class	Weekday Counts				Percent by Road Type			
			Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)	Rural Restricted Access (FC=1)	Rural Unrestricted Access (FC=2-7)	Urban Restricted Access (FC=11-12)	Urban Unrestricted Access (FC=14-19)
10	Motorcycles	Class 1	1,490,827	1,122,655	2,023,298	1,021,999	0.3%	0.3%	0.2%	0.2%
20	Passenger Cars	Class 2	293,793,164	210,630,380	421,499,700	267,351,111	57.7%	67.7%	73.5%	76.6%
30	Other 2 axle-4 tire vehicles	Class 3	85,091,113	72,515,524	118,297,665	75,607,032	16.7%	20.7%	16.5%	18.6%
40	Buses	Class 4	4,442,435	1,886,048	4,128,658	1,373,916	0.9%	0.6%	0.7%	0.5%
50	Single Unit Trucks	Class 5-7	17,636,846	13,159,878	20,097,488	10,672,882	3.4%	3.8%	3.0%	2.7%
60	Combination Trucks	Class 8-13	112,285,560	26,600,943	65,602,461	7,037,472	21.0%	6.9%	6.2%	1.4%
	Total		514,739,945	325,915,428	631,649,270	363,064,412	100%	100%	100%	100%

**Table 4 – Final Factor of VMT by Vehicle Type by Road Type
7-County Area**

Code	HPMS Vehicle Type	FHWA Veh Class	Restricted Access	Unrestricted Access	Restricted Access Factor	Unrestricted Access Factor
10	Motorcycles	Class 1	3,514,125	2,144,654	0.003065	0.003113
20	Passenger Cars	Class 2	715,292,864	477,981,491	0.623953	0.693753
30	Other 2 axle-4 tire vehicles	Class 3	203,388,778	148,122,556	0.177417	0.214988
40	Buses	Class 4	8,571,093	3,259,964	0.007477	0.004732
50	Single Unit Trucks	Class 5-7	37,734,334	23,832,760	0.032916	0.034591
60	Combination Trucks	Class 8-13	177,888,021	33,638,415	0.155172	0.048824
	Total		1,146,389,215	688,979,840	1.000000	1.000000

Since the vehicle classification counts are collected using counters that do not adequately distinguish between passenger cars and SUVs, the MOVES defaults for vehicle types 20 and 30 by road type were used to redistribute the VMT. The MOVES Defaults are listed in Table 5.

Table 5 – MOVES Default Percent VMT by Vehicle Type

	Vehicle Type					
Year	10	20	30	40	50	60
1999	0.00390	0.58310	0.33480	0.00280	0.02610	0.04920
2000	0.00380	0.58250	0.33600	0.00280	0.02570	0.04920
2001	0.00340	0.58240	0.33740	0.00250	0.02590	0.04850
2002	0.00330	0.58110	0.33850	0.00240	0.02660	0.04820
2003	0.00330	0.57880	0.34060	0.00230	0.02690	0.04810
2004	0.00340	0.57260	0.34600	0.00220	0.02730	0.04850
2005	0.00360	0.57060	0.34770	0.00220	0.02710	0.04870
2006	0.00400	0.55990	0.35850	0.00220	0.02750	0.04780
2007	0.00450	0.55070	0.36630	0.00220	0.02790	0.04840
2008	0.00510	0.54610	0.36980	0.00230	0.02870	0.04800
2009	0.00530	0.54760	0.37480	0.00210	0.02660	0.04370
2010	0.00530	0.54360	0.37770	0.00220	0.02770	0.04350
2011	0.00530	0.53940	0.37830	0.00240	0.02970	0.04500
2012	0.00530	0.53700	0.37740	0.00250	0.03140	0.04640
2013	0.00520	0.53640	0.37610	0.00260	0.03240	0.04730
2014	0.00520	0.53780	0.37370	0.00260	0.03310	0.04760
2015	0.00511	0.54185	0.36926	0.00266	0.03358	0.04754
2016	0.00505	0.54655	0.36414	0.00270	0.03413	0.04743
2017	0.00500	0.55148	0.35868	0.00274	0.03465	0.04744

	Vehicle Type					
Year	10	20	30	40	50	60
2018	0.00495	0.55719	0.35240	0.00278	0.03509	0.04759
2019	0.00490	0.56346	0.34559	0.00281	0.03548	0.04777
2020	0.00484	0.57033	0.33840	0.00283	0.03581	0.04779
2021	0.00479	0.57743	0.33138	0.00285	0.03599	0.04755
2022	0.00475	0.58459	0.32444	0.00286	0.03613	0.04723
2023	0.00471	0.59142	0.31755	0.00288	0.03639	0.04705
2024	0.00466	0.59782	0.31089	0.00291	0.03674	0.04698
2025	0.00462	0.60374	0.30470	0.00294	0.03709	0.04692
2026	0.00458	0.60921	0.29896	0.00296	0.03745	0.04684
2027	0.00455	0.61410	0.29377	0.00300	0.03784	0.04674
2028	0.00452	0.61852	0.28903	0.00303	0.03828	0.04662
2029	0.00450	0.62265	0.28449	0.00307	0.03876	0.04652
2030	0.00448	0.62625	0.28038	0.00311	0.03930	0.04648
2031	0.00444	0.62984	0.27688	0.00313	0.03959	0.04611
2032	0.00440	0.63303	0.27380	0.00316	0.03987	0.04574
2033	0.00436	0.63573	0.27104	0.00319	0.04023	0.04545
2034	0.00432	0.63812	0.26857	0.00321	0.04058	0.04519
2035	0.00429	0.64015	0.26636	0.00324	0.04096	0.04501
2036	0.00425	0.64184	0.26447	0.00327	0.04134	0.04483
2037	0.00421	0.64323	0.26287	0.00330	0.04173	0.04465
2038	0.00418	0.64417	0.26173	0.00333	0.04211	0.04447
2039	0.00414	0.64476	0.26096	0.00336	0.04249	0.04428

	Vehicle Type					
Year	10	20	30	40	50	60
2040	0.00411	0.64532	0.26017	0.00340	0.04289	0.04411
2041	0.00407	0.64586	0.25937	0.00343	0.04331	0.04396
2042	0.00404	0.64630	0.25864	0.00346	0.04374	0.04381
2043	0.00401	0.64666	0.25799	0.00350	0.04418	0.04366
2044	0.00398	0.64693	0.25741	0.00353	0.04462	0.04352
2045	0.00395	0.64711	0.25692	0.00357	0.04507	0.04338
2046	0.00392	0.64719	0.25653	0.00360	0.04552	0.04324
2047	0.00389	0.64720	0.25620	0.00364	0.04598	0.04310
2048	0.00386	0.64715	0.25593	0.00368	0.04643	0.04295
2049	0.00383	0.64704	0.25572	0.00371	0.04690	0.04281
2050	0.00380	0.64689	0.25554	0.00375	0.04736	0.04266