

Appendix E: VMT and Speeds

Based on 2008 8-hour Non-attainment Boundary

2045: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Cabarrus (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	10.1	218,289	44.6	49,368	41.8	71,072	45.6	55,910	41.2	41,939	52.6
Rural Minor Art.	20.1	337,596	41.8	78,759	40.2	110,597	44.3	86,013	35.9	62,226	50.6
Rural Major Collect.	49.9	610,266	34.9	139,404	33.0	206,250	35.7	156,881	30.5	107,731	46.5
Rural Minor Collect.	50.3	429,913	33.2	99,246	32.1	144,437	34.5	114,653	28.8	71,577	42.8
Rural Local		1,127,527	25.9	258,296	24.9	394,775	26.1	291,572	25.6	182,885	27.3
Urban Interstate	28.2	2,341,610	55.5	531,941	45.7	769,487	63.6	582,554	49.6	457,628	68.4
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	37.5	1,289,540	26.5	283,766	25.1	449,515	27.1	321,960	21.9	234,300	39.3
Urban Minor Art.	69.8	1,429,753	25.8	312,893	24.4	506,413	26.0	358,941	21.9	251,506	37.7
Urban Collector	100.8	965,386	21.2	211,416	20.1	347,133	21.1	241,742	17.5	165,095	34.6
Urban Local		1,695,887	22.6	375,368	22.5	623,128	22.6	423,856	21.2	273,534	25.4
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	130.3	2,723,591	31.3	625,074	30.0	927,131	31.8	705,029	29.0	466,358	36.7
Urban	236.2	7,722,175	28.9	1,715,383	27.2	2,695,677	29.2	1,929,053	25.2	1,382,062	39.7
County	366.5	10,445,767	29.5	2,340,457	27.9	3,622,808	29.8	2,634,081	26.1	1,848,420	38.9

2045: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Gaston (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	4.6	193,035	61.9	45,734	60.8	60,525	62.9	48,970	60.8	37,806	63.0
Rural Principal Art.	20.8	326,890	57.6	74,818	57.3	103,638	58.2	85,879	56.8	62,555	58.2
Rural Minor Art.	16.5	248,984	41.3	60,949	35.4	75,478	48.8	67,123	35.0	45,434	54.4
Rural Major Collect.	38.2	285,692	40.4	66,257	37.1	92,510	44.2	77,461	35.4	49,464	49.6
Rural Minor Collect.	52.0	155,896	38.9	40,474	38.3	47,030	40.0	47,986	37.7	20,405	40.9
Rural Local		251,825	27.4	58,845	27.5	83,821	27.2	67,794	27.9	41,365	27.2
Urban Interstate	34.7	2,483,628	50.8	567,641	46.0	801,749	61.1	614,394	39.7	499,843	63.0
Urban Frwy/Exprwy	4.6	124,028	43.5	27,285	40.0	40,589	44.2	30,255	40.5	25,899	51.3
Urban Principal Art.	90.1	1,447,076	30.4	331,592	28.3	492,565	32.0	374,424	26.5	248,494	38.9
Urban Minor Art.	127.9	1,163,947	30.7	265,399	28.2	398,785	31.8	301,920	27.6	197,843	39.2
Urban Collector	71.1	343,517	27.1	79,300	27.1	117,359	26.8	91,441	24.4	55,417	34.5
Urban Local		1,129,045	24.2	254,535	24.3	408,141	24.1	284,420	24.1	181,948	24.4
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	132.2	1,462,321	41.7	347,077	39.6	463,002	43.5	395,213	39.0	257,028	46.5
Urban	328.3	6,691,240	34.0	1,525,753	32.1	2,259,189	35.7	1,696,854	29.8	1,209,445	41.8
County	460.5	8,153,562	35.2	1,872,830	33.3	2,722,191	36.8	2,092,067	31.2	1,466,474	42.5

2045: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Iredell (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	6.1	277,485	45.5	61,570	41.4	94,556	56.0	66,295	31.3	55,064	68.1
Rural Principal Art.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Minor Art.	5.0	192,197	35.7	44,714	30.0	63,372	38.1	49,393	33.1	34,718	47.3
Rural Major Collect.	12.9	152,996	30.1	34,294	28.5	52,459	32.0	37,821	23.4	28,422	45.7
Rural Minor Collect.	20.6	237,211	26.9	54,964	26.5	79,681	28.2	63,489	21.3	39,077	41.9
Rural Local		534,318	27.7	120,596	27.2	189,935	27.8	137,989	27.3	85,797	29.2
Urban Interstate	16.5	754,395	48.5	160,438	43.4	258,461	54.2	169,865	36.5	165,631	67.9
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	6.7	181,267	29.8	40,728	28.6	62,792	30.7	45,402	25.5	32,345	38.8
Urban Minor Art.	17.5	209,765	26.0	46,369	23.1	72,325	26.1	50,291	23.2	40,781	35.8
Urban Collector	21.8	302,319	30.6	68,025	29.0	106,127	31.0	76,904	27.2	51,263	40.0
Urban Local		556,314	23.7	123,531	23.3	203,901	23.7	137,053	22.5	91,830	26.2
Urban HOV	6.2	109,738	52.7	31,297	54.6	39,262	68.3	38,937	41.9	241	68.6
Rural	44.6	1,394,207	31.2	316,138	29.5	480,003	32.8	354,988	26.7	243,079	40.3
Urban	68.6	2,113,799	32.4	470,389	30.7	742,868	33.5	518,451	28.1	382,091	41.5
County	113.3	3,508,006	31.9	786,526	30.2	1,222,871	33.2	873,439	27.5	625,170	41.0

2045: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Lincoln (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	7.2	124,276	47.8	27,076	44.8	40,676	48.8	30,699	42.4	25,825	58.7
Rural Minor Art.	40.0	653,817	37.9	151,667	36.0	207,462	38.6	166,230	34.6	128,458	45.1
Rural Major Collect.	13.7	138,484	49.8	31,565	48.9	45,839	51.0	36,345	47.1	24,735	53.3
Rural Minor Collect.	29.6	209,019	36.7	50,992	34.7	67,984	38.2	57,185	33.8	32,858	43.0
Rural Local		997,753	26.9	232,211	26.1	338,483	27.2	258,683	26.1	168,376	28.9
Urban Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Frwy/Exprwy	17.4	298,446	68.2	65,817	68.2	97,955	68.2	77,467	68.2	57,207	68.2
Urban Principal Art.	9.3	115,960	37.4	26,133	36.1	37,853	37.8	29,590	34.1	22,384	44.4
Urban Minor Art.	31.4	409,608	38.0	92,714	36.4	138,355	38.8	102,323	34.3	76,215	45.4
Urban Collector	17.3	106,253	33.1	23,584	31.3	35,444	34.0	28,355	30.4	18,871	38.9
Urban Local		214,607	26.7	47,449	26.5	76,469	26.8	53,077	26.0	37,612	28.0
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	90.5	2,123,349	32.5	493,511	31.2	700,445	32.8	549,142	30.7	380,251	36.8
Urban	75.4	1,144,874	38.8	255,696	37.7	386,076	39.0	290,812	36.5	212,290	43.8
County	165.9	3,268,223	34.4	749,207	33.1	1,086,521	34.8	839,954	32.5	592,541	39.0

2045: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Mecklenburg	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	7.3	305,509	35.5	73,227	32.0	98,180	38.4	82,462	31.0	51,640	46.8
Rural Minor Art.	3.8	135,179	28.6	31,319	22.1	44,532	30.2	34,112	26.9	25,215	44.1
Rural Major Collect.	5.8	107,549	30.8	24,435	28.6	37,236	31.2	27,164	26.5	18,713	44.2
Rural Minor Collect.	16.2	326,676	16.0	74,132	14.3	114,322	15.7	83,610	13.8	54,613	28.2
Rural Local		983,332	24.9	223,067	23.9	350,994	25.2	248,538	23.9	160,732	27.5
Urban Interstate	143.5	9,172,699	48.4	2,017,168	43.4	3,093,175	52.6	2,159,942	40.2	1,902,414	62.6
Urban Frwy/Exprwy	145.0	8,162,872	51.4	1,858,237	47.9	2,807,657	55.3	1,994,616	43.2	1,502,363	65.0
Urban Principal Art.	198.0	7,182,820	22.1	1,591,239	20.7	2,539,921	22.5	1,813,600	18.3	1,238,060	35.2
Urban Minor Art.	236.1	6,587,302	22.3	1,463,536	20.9	2,358,407	22.5	1,669,198	18.6	1,096,160	35.1
Urban Collector	344.6	5,240,800	18.8	1,142,478	16.8	1,862,345	18.9	1,276,164	15.3	959,812	33.6
Urban Local		10,086,960	20.4	2,224,954	20.3	3,730,267	20.4	2,523,242	18.6	1,608,498	24.4
Urban HOV	78.9	1,686,943	50.6	508,939	49.2	523,204	57.4	633,127	47.0	21,673	57.6
Rural	33.1	1,858,245	24.2	426,180	22.3	645,265	24.4	475,887	22.2	310,913	31.5
Urban	1,146.2	48,120,397	27.1	10,806,551	25.7	16,914,976	27.4	12,069,889	23.1	8,328,981	38.8
County	1,179.3	49,978,643	27.0	11,232,732	25.5	17,560,241	27.3	12,545,776	23.1	8,639,895	38.4

2045: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Rowan (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	17.3	179,374	54.4	45,288	53.3	53,425	55.4	48,965	52.7	31,695	56.9
Rural Minor Art.	10.9	116,361	53.5	25,916	51.3	38,371	54.6	28,260	49.9	23,815	59.6
Rural Major Collect.	59.0	465,542	50.7	109,269	49.5	145,562	52.2	123,606	47.5	87,104	55.0
Rural Minor Collect.	60.6	310,547	46.7	77,585	45.6	99,763	48.5	90,663	44.1	42,536	50.7
Rural Local		519,682	29.4	119,832	29.6	180,287	29.3	133,914	29.3	85,649	29.6
Urban Interstate	38.8	2,408,633	65.8	551,122	64.9	766,227	67.0	615,206	64.3	476,078	67.1
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	42.1	493,375	39.1	111,298	37.9	168,645	39.4	125,078	36.5	88,354	44.7
Urban Minor Art.	61.1	592,749	36.0	131,985	35.0	205,396	36.1	148,145	33.2	107,222	42.3
Urban Collector	118.6	566,941	34.6	130,043	34.1	193,842	34.9	149,137	32.1	93,919	39.6
Urban Local		801,172	25.9	179,830	26.0	287,509	25.9	202,564	25.8	131,269	26.3
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	147.8	1,591,507	40.8	377,890	40.6	517,409	40.8	425,409	39.7	270,799	43.2
Urban	260.7	4,862,869	43.1	1,104,279	42.6	1,621,619	42.6	1,240,130	41.4	896,841	47.3
County	408.5	6,454,376	42.5	1,482,169	42.0	2,139,028	42.2	1,665,539	40.9	1,167,641	46.3

2045: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Union (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	34.9	674,858	53.5	164,106	53.4	219,484	54.5	184,237	51.8	107,031	55.1
Rural Minor Art.	13.4	91,914	29.6	21,556	26.8	29,690	30.2	24,574	26.8	16,093	40.8
Rural Major Collect.	108.5	967,138	35.0	219,877	31.8	327,304	35.9	239,662	31.1	180,295	46.0
Rural Minor Collect.	76.2	408,815	37.5	96,140	35.8	136,965	38.6	109,547	34.0	66,163	45.3
Rural Local		1,654,185	28.8	385,213	27.9	578,711	29.0	421,472	27.8	268,789	31.6
Urban Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Frwy/Exprwy	14.5	405,133	42.1	95,054	39.5	137,138	46.9	106,464	35.5	66,478	51.8
Urban Principal Art.	19.5	703,451	30.7	160,269	28.9	244,775	31.6	176,075	26.9	122,332	39.9
Urban Minor Art.	51.9	795,999	23.0	177,352	20.8	275,178	23.6	193,589	18.7	149,880	36.0
Urban Collector	73.8	972,636	22.9	216,106	20.7	336,961	23.4	240,480	18.8	179,089	36.9
Urban Local		1,787,298	24.4	397,356	23.6	644,225	24.7	446,221	22.9	299,496	27.4
Urban HOV	0.4	2,004	22.3	921	21.3	488	25.0	400	21.6	195	22.5
Rural	232.9	3,796,910	34.0	886,892	32.5	1,292,154	34.3	979,493	32.0	638,372	39.3
Urban	160.1	4,666,520	25.5	1,047,058	23.9	1,638,764	26.1	1,163,228	22.3	817,469	33.6
County	393.0	8,463,430	28.7	1,933,950	27.2	2,930,918	29.2	2,142,721	25.9	1,455,841	35.9

Based on 2008 8-hour Non-attainment Boundary

2035: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Cabarrus (NA part)	Miles	VTAssn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	10.1	185,571	47.4	41,889	45.0	59,902	48.5	47,456	44.2	36,325	53.5
Rural Minor Art.	20.1	317,771	45.6	74,520	43.8	103,121	48.2	80,968	40.0	59,163	53.8
Rural Major Collect.	49.9	526,535	37.9	121,158	35.9	177,911	38.6	134,520	33.9	92,947	47.5
Rural Minor Collect.	50.3	368,325	36.0	85,553	35.0	123,479	37.1	99,215	32.0	60,077	43.9
Rural Local		931,440	26.7	213,945	26.1	325,595	26.8	241,224	26.7	150,676	27.5
Urban Interstate	28.2	2,159,545	58.9	502,525	50.3	689,002	66.4	548,594	54.0	419,423	68.3
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	37.5	1,130,650	28.5	248,879	26.8	391,138	28.9	280,860	24.0	209,772	40.1
Urban Minor Art.	69.8	1,210,288	28.2	264,380	26.8	427,413	28.3	301,356	24.5	217,138	38.9
Urban Collector	100.8	854,419	23.6	186,727	22.8	307,135	23.9	216,949	19.5	143,608	36.4
Urban Local		1,444,143	23.6	319,957	23.5	529,536	23.5	361,650	22.4	233,000	25.7
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	130.3	2,329,643	33.3	537,065	32.3	790,007	33.7	603,383	31.4	399,188	37.7
Urban	236.2	6,799,044	31.4	1,522,469	29.9	2,344,224	31.5	1,709,410	27.8	1,222,941	40.8
County	366.5	9,128,687	31.9	2,059,533	30.5	3,134,232	32.0	2,312,793	28.7	1,622,129	40.0

2035: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Gaston (NA part)	Miles	VTAssn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	4.6	171,660	61.7	40,814	61.4	53,832	62.9	43,387	59.6	33,626	63.0
Rural Principal Art.	20.8	300,443	57.8	70,052	57.5	93,920	58.2	78,637	57.3	57,834	58.2
Rural Minor Art.	15.7	225,443	43.6	55,173	39.0	67,841	50.2	60,846	37.0	41,582	54.4
Rural Major Collect.	37.7	268,566	41.7	62,744	38.6	86,832	45.3	73,601	37.1	45,389	49.7
Rural Minor Collect.	52.0	146,451	39.3	36,708	38.9	45,060	40.5	44,817	37.9	19,867	41.1
Rural Local		239,523	27.3	55,730	27.4	80,285	27.1	64,816	27.8	38,692	27.0
Urban Interstate	34.7	2,274,509	52.7	528,147	47.5	725,734	62.0	564,944	43.2	455,684	63.0
Urban Frwy/Exprwy	4.6	115,079	45.0	25,444	41.2	37,390	45.7	28,294	42.8	23,951	52.1
Urban Principal Art.	87.5	1,297,055	31.1	297,297	29.3	439,383	32.8	335,961	27.1	224,415	39.0
Urban Minor Art.	124.7	1,091,101	31.6	249,099	29.0	373,745	32.8	282,879	28.6	185,378	39.3
Urban Collector	71.1	312,894	27.7	72,768	27.3	105,953	27.5	84,704	25.2	49,470	35.1
Urban Local		1,036,742	24.2	233,116	24.4	374,663	24.2	260,323	24.2	168,639	24.4
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	130.9	1,352,086	42.1	321,220	40.6	427,771	43.6	366,104	39.6	236,991	46.2
Urban	322.6	6,127,381	34.8	1,405,871	32.9	2,056,868	36.3	1,557,105	31.0	1,107,537	41.8
County	453.5	7,479,467	35.9	1,727,091	34.1	2,484,639	37.4	1,923,209	32.4	1,344,528	42.5

2035: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Iredell (NA part)	Miles	VTAssn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	6.1	257,796	52.8	58,631	49.7	86,087	63.3	63,532	39.4	49,547	68.2
Rural Principal Art.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Minor Art.	5.0	184,479	36.8	42,630	31.0	60,805	39.0	47,197	34.5	33,847	47.6
Rural Major Collect.	12.9	132,541	32.9	29,693	31.8	45,441	34.7	32,386	25.8	25,021	46.9
Rural Minor Collect.	20.6	215,585	29.1	49,727	28.8	71,710	30.2	57,336	23.4	36,812	42.8
Rural Local		467,752	28.1	105,927	27.7	166,544	28.1	120,330	27.8	74,950	29.1
Urban Interstate	16.5	721,320	53.8	156,886	49.6	245,870	59.0	165,866	43.4	152,697	68.1
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	6.7	169,555	31.0	37,976	29.8	58,787	31.7	42,228	27.0	30,564	39.5
Urban Minor Art.	17.5	192,634	28.2	42,393	25.6	66,518	28.3	45,890	25.6	37,834	37.0
Urban Collector	21.8	280,138	32.0	63,407	30.5	97,658	32.5	71,678	28.5	47,395	41.0
Urban Local		501,819	24.2	111,773	24.0	183,256	24.2	124,132	23.1	82,658	26.1
Urban HOV	6.2	85,890	57.1	26,364	59.8	25,917	68.4	33,489	49.1	121	68.6
Rural	44.6	1,258,153	33.1	286,608	31.7	430,587	34.4	320,781	29.1	220,177	40.7
Urban	68.6	1,951,357	34.4	438,799	33.0	678,006	35.1	483,283	30.7	351,269	42.0
County	113.3	3,209,510	33.9	725,407	32.5	1,108,593	34.8	804,064	30.1	571,446	41.5

2035: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Lincoln (NA part)	Miles	VTAssn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	7.2	111,755	48.4	24,388	45.1	36,540	49.5	27,623	43.2	23,203	59.2
Rural Minor Art.	40.0	541,183	36.7	123,877	34.5	171,244	37.3	137,354	33.0	108,708	45.6
Rural Major Collect.	13.7	127,441	51.7	29,257	50.7	41,920	52.8	33,018	49.3	23,246	54.9
Rural Minor Collect.	29.6	203,199	38.3	47,943	35.8	65,770	39.8	55,299	35.8	34,188	44.8
Rural Local		845,972	27.7	197,493	27.2	289,150	27.8	219,672	27.4	139,657	28.8
Urban Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Frwy/Exprwy	17.4	270,499	68.2	60,252	68.2	88,763	68.2	69,604	68.2	51,879	68.2
Urban Principal Art.	9.3	100,719	38.8	22,701	37.3	32,302	38.8	26,257	36.4	19,459	44.7
Urban Minor Art.	30.8	363,982	37.3	82,458	35.7	121,764	38.3	89,377	33.1	70,384	44.9
Urban Collector	17.3	96,922	34.5	21,244	32.8	32,422	35.3	26,217	32.5	17,040	39.3
Urban Local		204,525	26.9	45,141	26.7	73,064	26.9	50,673	26.4	35,647	27.9
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	90.5	1,829,550	33.1	422,958	31.8	604,625	33.3	472,966	31.4	329,001	37.3
Urban	74.8	1,036,648	38.8	231,796	37.7	348,315	38.9	262,128	36.6	194,409	43.5
County	165.3	2,866,198	34.9	654,753	33.7	952,940	35.1	735,094	33.1	523,410	39.4

2035: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Mecklenburg	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	7.3	261,970	38.8	62,642	35.3	83,438	41.5	70,420	34.8	45,469	48.0
Rural Minor Art.	3.8	119,176	31.5	27,751	24.9	38,751	33.1	30,188	30.0	22,487	45.2
Rural Major Collect.	5.8	89,515	30.7	20,005	27.8	31,149	32.1	22,473	25.7	15,889	45.1
Rural Minor Collect.	16.2	274,827	21.3	62,439	19.5	95,694	21.2	71,612	18.1	45,083	36.8
Rural Local		741,630	26.5	169,269	26.0	264,448	26.5	188,786	26.0	119,127	28.0
Urban Interstate	143.5	8,662,867	50.6	1,932,364	46.6	2,888,292	54.4	2,076,812	42.6	1,765,399	62.8
Urban Frwy/Exprwy	145.0	7,623,226	54.8	1,776,663	52.0	2,560,294	58.3	1,916,934	47.7	1,369,335	65.3
Urban Principal Art.	198.0	6,385,340	24.1	1,413,739	22.6	2,246,757	24.5	1,613,232	20.3	1,111,611	36.1
Urban Minor Art.	233.9	5,871,215	24.3	1,304,950	22.8	2,086,811	24.6	1,484,747	20.6	994,708	36.0
Urban Collector	346.7	4,789,333	21.2	1,050,052	19.0	1,694,392	21.6	1,173,525	17.5	871,365	35.0
Urban Local		8,849,727	21.4	1,955,334	21.3	3,259,158	21.5	2,217,012	19.8	1,418,224	24.6
Urban HOV	66.6	1,283,694	53.5	411,959	53.5	348,499	57.4	508,024	50.9	15,212	56.9
Rural	33.1	1,487,118	27.4	342,106	25.7	513,480	27.6	383,478	25.3	248,055	34.1
Urban	1,133.7	43,465,402	29.4	9,845,061	28.1	15,084,202	29.6	10,990,285	25.6	7,545,854	39.6
County	1,166.8	44,952,521	29.3	10,187,166	28.0	15,597,682	29.5	11,373,763	25.6	7,793,909	39.4

2035: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Rowan (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	12.7	110,469	56.7	27,412	55.6	33,034	57.5	29,068	55.2	20,955	58.8
Rural Minor Art.	10.9	108,992	54.6	24,175	52.7	35,916	55.5	26,630	51.2	22,272	59.9
Rural Major Collect.	59.0	440,215	52.0	103,627	50.7	138,461	53.1	115,161	49.2	82,967	56.4
Rural Minor Collect.	60.6	275,401	47.8	68,913	46.9	87,800	49.2	80,173	45.9	38,514	50.7
Rural Local		475,838	29.0	108,900	29.1	165,823	28.9	121,503	28.9	79,612	29.2
Urban Interstate	38.8	2,147,696	66.6	494,499	66.2	675,589	67.1	553,756	66.0	423,852	67.1
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	41.4	474,984	40.3	107,476	39.3	163,032	40.6	119,514	37.8	84,962	45.3
Urban Minor Art.	61.1	568,417	36.8	126,571	35.8	197,232	36.8	141,616	34.2	102,997	42.7
Urban Collector	118.6	522,617	35.3	119,425	34.8	179,329	35.6	135,805	33.0	88,057	39.8
Urban Local		747,860	26.0	168,062	26.1	268,409	25.9	188,430	25.9	122,959	26.3
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	143.2	1,410,916	40.8	333,026	40.5	461,034	40.6	372,535	39.9	244,320	43.0
Urban	260.0	4,461,573	43.3	1,016,032	43.0	1,483,592	42.6	1,139,121	42.1	822,829	47.0
County	403.3	5,872,489	42.7	1,349,059	42.4	1,944,626	42.1	1,511,656	41.5	1,067,149	46.0

2035: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Union (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	34.9	579,305	54.1	144,646	54.1	181,163	54.4	159,879	53.2	93,618	55.0
Rural Minor Art.	13.4	87,116	33.5	20,167	30.5	27,802	34.2	23,506	30.6	15,642	43.6
Rural Major Collect.	108.5	861,111	38.6	197,386	35.7	290,885	39.6	214,481	35.1	158,360	47.4
Rural Minor Collect.	76.2	350,504	39.6	81,196	38.6	116,754	39.9	93,419	36.4	59,135	46.6
Rural Local		1,407,133	29.7	326,990	29.0	488,864	29.6	359,109	28.8	232,170	32.2
Urban Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Frwy/Exprwy	14.5	365,379	44.8	88,098	43.2	120,234	48.2	98,348	39.6	58,699	52.2
Urban Principal Art.	19.5	652,131	32.6	146,942	31.1	228,362	33.2	163,371	29.1	113,457	40.6
Urban Minor Art.	48.0	652,099	24.8	146,091	22.7	223,652	25.5	160,268	20.6	122,088	36.9
Urban Collector	73.8	857,006	25.7	191,012	23.4	295,853	26.3	212,703	21.5	157,438	38.6
Urban Local		1,545,199	25.2	343,835	24.5	556,351	25.4	385,405	24.1	259,608	27.7
Urban HOV	0.4	1,629	23.6	805	23.8	371	24.2	301	22.9	152	22.5
Rural	232.9	3,285,169	35.7	770,384	34.6	1,105,468	35.8	850,393	34.1	558,924	40.3
Urban	156.1	4,073,443	27.3	916,782	25.9	1,424,823	27.8	1,020,396	24.4	711,442	34.4
County	389.1	7,358,612	30.5	1,687,166	29.3	2,530,291	30.8	1,870,789	28.0	1,270,367	36.7

Based on 2008 8-hour Non-attainment Boundary

2026: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Cabarrus (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	10.1	166,632	48.3	38,021	45.8	54,481	49.0	41,942	46.0	32,187	54.1
Rural Minor Art.	20.1	266,882	48.9	63,690	47.2	85,788	50.9	67,873	44.6	49,531	54.9
Rural Major Collect.	49.9	428,314	39.0	98,054	37.1	142,948	39.5	107,594	35.2	79,719	48.2
Rural Minor Collect.	50.3	314,632	38.5	73,331	37.5	105,323	39.4	85,700	35.3	50,278	45.1
Rural Local		713,047	27.2	164,265	26.8	248,167	27.2	184,296	27.4	116,320	27.5
Urban Interstate	28.2	1,958,688	62.1	465,872	56.4	609,502	67.6	509,497	58.0	373,816	68.2
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	37.5	1,005,150	31.0	221,866	29.4	347,352	31.5	248,424	26.7	187,509	41.6
Urban Minor Art.	69.8	982,831	29.5	214,261	28.0	345,821	29.4	242,222	26.0	180,526	39.1
Urban Collector	100.8	749,421	26.0	165,559	24.8	269,506	26.6	192,444	21.9	121,912	37.7
Urban Local		1,193,361	24.2	263,863	24.4	437,783	24.2	298,981	23.3	192,734	25.8
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	130.3	1,889,507	34.8	437,361	33.9	636,707	34.9	487,405	33.3	328,035	38.6
Urban	236.2	5,889,451	33.6	1,331,420	32.5	2,009,964	33.5	1,491,569	30.4	1,056,498	41.8
County	366.5	7,778,958	33.9	1,768,781	32.9	2,646,671	33.8	1,978,974	31.1	1,384,533	41.0

2026: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Gaston (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	4.6	151,252	60.0	36,439	61.3	46,839	62.9	38,199	54.1	29,776	63.0
Rural Principal Art.	15.0	268,692	57.3	62,722	57.0	83,246	57.7	70,512	56.8	52,212	57.7
Rural Minor Art.	15.7	204,765	46.5	50,405	42.5	62,789	51.5	54,909	41.0	36,661	55.6
Rural Major Collect.	37.7	260,197	42.8	61,676	40.2	82,581	46.1	71,752	38.4	44,187	49.9
Rural Minor Collect.	52.0	143,558	39.4	36,500	38.8	43,837	40.5	43,060	38.3	20,161	40.9
Rural Local		227,501	27.2	53,289	27.3	75,784	26.9	60,704	27.7	37,724	27.0
Urban Interstate	34.2	2,124,594	53.9	503,253	49.3	662,207	62.6	538,984	45.2	420,150	63.0
Urban Frwy/Exprwy	4.6	112,161	45.6	25,070	41.5	36,140	46.3	27,728	43.9	23,224	52.5
Urban Principal Art.	82.9	1,194,941	31.9	272,858	30.3	405,052	33.4	308,097	28.0	208,934	39.4
Urban Minor Art.	124.9	1,018,287	32.4	232,007	29.8	348,465	33.7	263,974	29.5	173,841	39.7
Urban Collector	70.3	289,230	28.0	67,406	27.5	98,754	28.1	76,987	25.2	46,084	35.3
Urban Local		941,405	24.3	211,236	24.3	340,296	24.2	235,906	24.2	153,966	24.4
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	125.1	1,255,964	42.3	301,031	41.2	395,077	43.4	339,136	40.0	220,721	45.9
Urban	316.9	5,680,617	35.5	1,311,829	33.9	1,890,913	36.8	1,451,676	32.1	1,026,199	42.0
County	442.0	6,936,581	36.6	1,612,859	35.0	2,285,990	37.8	1,790,812	33.3	1,246,920	42.7

2026: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Iredell (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	6.1	241,254	57.7	55,619	56.7	78,768	66.3	61,408	45.7	45,459	68.2
Rural Principal Art.	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Minor Art.	5.0	153,435	40.8	34,398	36.2	52,328	41.5	37,350	39.5	29,360	48.3
Rural Major Collect.	12.9	121,497	37.3	27,339	36.4	41,928	38.7	29,907	31.0	22,323	48.6
Rural Minor Collect.	20.6	192,386	30.7	44,081	29.7	64,362	31.5	50,487	25.6	33,456	43.3
Rural Local		420,613	28.2	95,426	27.9	148,604	28.0	108,381	28.1	68,201	28.9
Urban Interstate	16.5	684,361	58.0	150,414	55.5	232,243	62.2	160,816	48.8	140,888	68.2
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	6.7	140,325	30.5	30,715	29.0	48,584	31.0	34,004	26.7	27,021	38.8
Urban Minor Art.	17.5	176,045	29.8	38,702	27.4	60,798	29.9	41,974	27.3	34,571	37.6
Urban Collector	21.8	262,591	32.6	59,566	30.9	92,144	33.3	66,864	29.2	44,017	41.6
Urban Local		452,714	24.5	100,786	24.3	165,532	24.5	111,850	23.6	74,546	26.1
Urban HOV	6.2	70,654	64.0	22,358	66.4	15,922	68.3	32,325	60.5	49	68.5
Rural	44.6	1,129,186	34.8	256,863	33.9	385,991	35.5	287,533	31.6	198,799	40.9
Urban	68.6	1,786,690	35.8	402,539	34.7	615,224	36.0	447,833	32.7	321,093	42.3
County	113.3	2,915,876	35.4	659,403	34.4	1,001,215	35.8	735,366	32.3	519,892	41.7

2026: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Lincoln (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	7.2	100,399	49.1	22,054	44.7	32,711	50.9	24,807	44.5	20,827	59.3
Rural Minor Art.	38.9	476,606	38.9	108,810	37.0	150,452	39.3	119,901	35.0	97,443	47.1
Rural Major Collect.	10.9	73,378	51.4	16,975	50.4	24,017	52.1	18,528	50.1	13,857	53.2
Rural Minor Collect.	29.6	172,635	39.1	41,422	36.3	57,131	40.4	47,005	37.1	27,078	45.3
Rural Local		708,141	28.4	165,721	28.2	242,927	28.4	182,946	28.2	116,548	28.8
Urban Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Frwy/Exprwy	17.4	249,667	68.2	56,488	68.2	81,207	68.2	64,312	68.2	47,660	68.2
Urban Principal Art.	9.3	109,051	35.3	25,013	33.2	35,479	35.8	27,550	32.3	21,010	43.1
Urban Minor Art.	30.8	312,048	32.8	69,487	30.3	104,301	34.8	75,128	27.2	63,132	43.4
Urban Collector	16.2	76,099	35.7	17,196	34.5	26,007	36.4	20,063	33.8	12,833	39.1
Urban Local		196,993	26.9	43,437	26.7	70,422	26.9	48,975	26.4	34,158	28.0
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	86.5	1,531,159	33.9	354,981	32.9	507,238	34.0	393,187	32.5	275,753	37.7
Urban	73.7	943,858	36.7	211,621	35.3	317,416	37.3	236,028	33.7	178,793	42.7
County	160.2	2,475,017	34.9	566,602	33.7	824,654	35.2	629,215	32.9	454,546	39.5

2026: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Mecklenburg	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	7.3	224,313	38.2	54,565	33.5	70,944	42.2	59,768	34.0	39,036	48.3
Rural Minor Art.	3.8	99,588	32.9	23,227	26.8	32,170	34.0	25,207	31.9	18,984	44.5
Rural Major Collect.	5.8	80,098	33.8	18,289	31.2	28,185	35.3	20,387	29.1	13,236	46.1
Rural Minor Collect.	16.2	213,421	27.2	48,941	24.7	74,100	28.5	55,843	23.2	34,537	40.0
Rural Local		556,571	27.4	127,669	27.1	198,155	27.4	142,519	27.2	88,229	28.3
Urban Interstate	144.3	8,249,667	51.6	1,878,044	47.5	2,712,374	56.0	2,055,284	44.3	1,603,965	62.9
Urban Frwy/Exprwy	145.0	7,017,792	57.6	1,667,362	55.8	2,309,060	60.5	1,806,637	51.6	1,234,733	65.5
Urban Principal Art.	197.7	5,739,248	25.7	1,275,582	24.1	2,006,690	26.2	1,452,910	21.9	1,004,066	36.9
Urban Minor Art.	234.3	5,292,305	25.7	1,178,999	24.1	1,867,127	26.0	1,332,313	22.0	913,866	36.6
Urban Collector	346.4	4,302,640	23.2	951,031	20.8	1,512,484	23.8	1,064,600	19.3	774,525	35.9
Urban Local		7,867,317	22.2	1,744,623	22.2	2,882,486	22.3	1,975,309	20.8	1,264,898	24.8
Urban HOV	53.7	714,741	59.3	241,155	59.4	158,557	60.4	304,454	58.6	10,575	57.6
Rural	33.1	1,173,991	29.8	272,690	27.9	403,554	30.5	303,724	27.9	194,022	35.3
Urban	1,121.3	39,183,710	31.0	8,936,795	29.8	13,448,780	31.3	9,991,508	27.5	6,806,627	40.2
County	1,154.4	40,357,701	31.0	9,209,486	29.8	13,852,334	31.2	10,295,233	27.5	7,000,649	40.0

2026: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Rowan (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	12.7	99,401	57.2	24,594	56.3	29,666	57.9	26,166	56.0	18,976	58.9
Rural Minor Art.	10.9	101,055	55.8	22,265	54.4	33,308	56.5	24,529	52.9	20,952	60.2
Rural Major Collect.	59.0	389,544	53.2	91,530	51.9	122,545	53.9	100,609	51.1	74,861	56.6
Rural Minor Collect.	60.6	244,122	48.7	61,551	47.8	77,604	49.7	70,013	47.3	34,953	50.9
Rural Local		433,484	29.0	99,025	29.1	151,196	28.9	109,906	29.0	73,357	29.2
Urban Interstate	38.8	1,911,662	66.9	442,616	66.8	598,130	67.1	496,288	66.7	374,628	67.1
Urban Frwy/Exprwy	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Principal Art.	37.8	427,434	40.9	96,850	40.2	146,742	41.0	107,230	38.4	76,613	45.5
Urban Minor Art.	61.1	524,854	37.4	116,931	36.2	182,360	37.4	129,446	35.1	96,117	43.1
Urban Collector	118.6	489,415	35.7	112,205	35.2	167,882	36.0	126,865	33.6	82,464	39.8
Urban Local		692,281	26.0	155,465	26.1	248,445	25.9	173,700	26.0	114,670	26.3
Urban HOV	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural	143.2	1,267,607	41.1	298,965	40.9	414,320	40.7	331,223	40.5	223,098	43.0
Urban	256.4	4,045,646	43.3	924,067	43.2	1,343,559	42.5	1,033,529	42.4	744,491	46.7
County	399.6	5,313,253	42.8	1,223,032	42.6	1,757,879	42.1	1,364,753	41.9	967,590	45.8

2026: 2045 MTPs		24 Hour		AM Peak		Midday		PM Peak		Night	
Union (NA part)	Miles	VMTassn	Spd	VMT	Spd	VMT	Spd	VMT	Spd	VMT	Spd
Rural Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rural Principal Art.	34.9	513,233	54.3	128,651	54.5	155,148	54.5	144,058	53.8	85,376	54.9
Rural Minor Art.	13.4	76,898	38.0	17,661	35.3	24,696	39.5	20,756	35.0	13,785	45.2
Rural Major Collect.	108.5	781,746	40.8	181,465	38.2	263,114	42.0	197,003	37.5	140,165	48.6
Rural Minor Collect.	76.2	311,971	40.7	71,751	39.8	104,824	41.1	82,485	37.5	52,911	47.3
Rural Local		1,219,027	30.3	281,135	29.7	423,453	30.2	310,281	29.5	204,159	32.7
Urban Interstate	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Urban Frwy/Exprwy	14.5	324,384	47.3	79,011	46.3	103,404	49.6	89,145	43.3	52,824	52.6
Urban Principal Art.	19.5	583,910	34.2	131,496	32.8	204,175	34.9	145,745	30.9	102,494	41.5
Urban Minor Art.	48.0	581,053	27.6	130,397	25.3	197,938	28.4	143,233	23.4	109,486	38.4
Urban Collector	73.8	761,575	28.4	170,542	26.3	262,697	29.3	190,396	24.2	137,940	40.2
Urban Local		1,340,463	25.9	299,095	25.3	480,648	26.0	334,939	25.1	225,781	27.8
Urban HOV	0.4	1,316	24.5	683	25.9	305	23.3	230	23.2	98	22.5
Rural	232.9	2,902,876	37.0	680,662	36.0	971,235	36.9	754,582	35.5	496,396	41.0
Urban	156.1	3,592,701	29.1	811,225	27.8	1,249,167	29.5	903,687	26.5	628,623	35.2
County	389.1	6,495,577	32.1	1,491,887	31.0	2,220,402	32.3	1,658,269	30.0	1,125,019	37.5