

**2025 Metrolina
NOx Emissions**

	Model		NOX RATES			NOX kg/day
	VMT	MPH	IM	No IM	Comp	
Iredell AM Peak						
Rural Interstate	345,516	28	0.327	0.449	0.344	119
Rural Principal Arterial	0	0	0.542	0.827	0.582	0
Rural Minor Arterial	36,698	13	0.315	0.502	0.341	13
Rural Major Collector	72,473	23	0.246	0.408	0.269	19
Rural Minor Collector	67,048	24	0.248	0.407	0.270	18
Rural Local	194,908	25	0.260	0.411	0.281	55
Urban Interstate	0	0	0.577	0.846	0.615	0
Urban Other Freeway/Xprwy	0	0	0.527	0.817	0.568	0
Urban Principal Arterial	26,020	22	0.240	0.408	0.264	7
Urban Minor Arterial	44,277	18	0.255	0.432	0.280	12
Urban Collector	21,975	22	0.239	0.406	0.262	6
Urban Local	122,859	24	0.237	0.399	0.260	32
Iredell	931,774		86%	14%		281
Iredell Midday						
Rural Interstate	502,949	47	0.353	0.476	0.370	186
Rural Principal Arterial	0	0	0.542	0.827	0.582	0
Rural Minor Arterial	56,932	14	0.307	0.488	0.332	19
Rural Major Collector	103,839	28	0.234	0.389	0.256	27
Rural Minor Collector	91,910	28	0.239	0.392	0.260	24
Rural Local	305,895	26	0.257	0.407	0.278	85
Urban Interstate	0	0	0.577	0.846	0.615	0
Urban Other Freeway/Xprwy	0	0	0.527	0.817	0.568	0
Urban Principal Arterial	42,222	23	0.237	0.403	0.260	11
Urban Minor Arterial	68,514	20	0.247	0.419	0.271	19
Urban Collector	34,056	22	0.239	0.406	0.262	9
Urban Local	208,394	25	0.234	0.395	0.257	53
Iredell	1,414,710		86%	14%		433
Iredell PM Peak						
Rural Interstate	367,862	27	0.328	0.450	0.345	127
Rural Principal Arterial	0	0	0.542	0.827	0.582	0
Rural Minor Arterial	40,807	11	0.337	0.535	0.365	15
Rural Major Collector	81,426	22	0.249	0.413	0.272	22
Rural Minor Collector	76,496	24	0.248	0.407	0.270	21
Rural Local	228,954	24	0.262	0.415	0.283	65
Urban Interstate	0	0	0.577	0.846	0.615	0
Urban Other Freeway/Xprwy	0	0	0.527	0.817	0.568	0
Urban Principal Arterial	29,822	19	0.251	0.426	0.276	8
Urban Minor Arterial	49,166	15	0.272	0.459	0.298	15
Urban Collector	25,474	20	0.246	0.417	0.270	7
Urban Local	144,497	23	0.240	0.403	0.263	38
Iredell	1,044,503		86%	14%		317
Iredell Night						
Rural Interstate	282,802	68	0.487	0.615	0.505	143
Rural Principal Arterial	0	0	0.542	0.827	0.582	0
Rural Minor Arterial	33,623	29	0.247	0.396	0.268	9
Rural Major Collector	59,164	39	0.230	0.381	0.251	15
Rural Minor Collector	45,865	41	0.237	0.386	0.258	12
Rural Local	156,059	31	0.249	0.393	0.269	42
Urban Interstate	0	0	0.577	0.846	0.615	0
Urban Other Freeway/Xprwy	0	0	0.527	0.817	0.568	0
Urban Principal Arterial	21,473	32	0.220	0.375	0.242	5
Urban Minor Arterial	37,539	32	0.220	0.375	0.242	9
Urban Collector	14,603	32	0.219	0.374	0.241	4
Urban Local	97,706	26	0.232	0.391	0.254	25
Iredell	748,834		86%	14%		263
Iredell 24 Hour						
Rural Interstate	1,499,128					575
Rural Principal Arterial	0					0
Rural Minor Arterial	168,059					55
Rural Major Collector	316,903					83
Rural Minor Collector	281,319					75
Rural Local	885,815					247
Urban Interstate	0					0
Urban Other Freeway/Xprwy	0					0
Urban Principal Arterial	119,537					31
Urban Minor Arterial	199,494					55
Urban Collector	96,108					25
Urban Local	573,457					148
Iredell	4,139,820		model kg / day	NOX		1,294
						total model emissions
						1,294
						emissions budget
						5,637
						budget minus model
						4,343

**2025 Metrolina
NOx Emissions**

	Model		NOX RATES			NOX kg/day
	VMT	MPH	IM	No IM	Comp	
Lincoln AM Peak						
Rural Interstate	0	0	0.629	0.875	0.636	0
Rural Principal Arterial	173,197	49	0.291	0.434	0.295	51
Rural Minor Arterial	114,915	31	0.244	0.391	0.248	29
Rural Major Collector	77,874	51	0.248	0.401	0.253	20
Rural Minor Collector	101,337	37	0.233	0.382	0.237	24
Rural Local	222,759	28	0.253	0.401	0.257	57
Urban Interstate	0	0	0.577	0.846	0.585	0
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.536	0
Urban Principal Arterial	27,303	37	0.220	0.373	0.225	6
Urban Minor Arterial	14,547	18	0.255	0.432	0.260	4
Urban Collector	7,785	21	0.242	0.412	0.247	2
Urban Local	51,643	25	0.234	0.395	0.239	12
Lincoln	791,361		97%	3%		205
Lincoln Midday						
Rural Interstate	0	0	0.629	0.875	0.636	0
Rural Principal Arterial	220,865	53	0.305	0.449	0.309	68
Rural Minor Arterial	169,673	35	0.241	0.387	0.245	42
Rural Major Collector	101,025	53	0.252	0.406	0.257	26
Rural Minor Collector	121,385	43	0.240	0.390	0.245	30
Rural Local	321,691	28	0.253	0.401	0.257	83
Urban Interstate	0	0	0.577	0.846	0.585	0
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.536	0
Urban Principal Arterial	37,597	37	0.220	0.373	0.225	8
Urban Minor Arterial	22,162	20	0.247	0.419	0.252	6
Urban Collector	10,937	27	0.227	0.386	0.232	3
Urban Local	83,394	25	0.234	0.395	0.239	20
Lincoln	1,088,728		97%	3%		285
Lincoln PM Peak						
Rural Interstate	0	0	0.629	0.875	0.636	0
Rural Principal Arterial	187,793	45	0.281	0.423	0.285	54
Rural Minor Arterial	126,145	29	0.247	0.396	0.251	32
Rural Major Collector	87,050	50	0.245	0.399	0.250	22
Rural Minor Collector	113,495	38	0.234	0.383	0.238	27
Rural Local	257,814	28	0.253	0.401	0.257	66
Urban Interstate	0	0	0.577	0.846	0.585	0
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.536	0
Urban Principal Arterial	31,146	35	0.218	0.372	0.223	7
Urban Minor Arterial	15,721	16	0.266	0.449	0.271	4
Urban Collector	9,006	22	0.239	0.406	0.244	2
Urban Local	61,029	25	0.234	0.395	0.239	15
Lincoln	889,199		97%	3%		228
Lincoln Night						
Rural Interstate	0	0	0.629	0.875	0.636	0
Rural Principal Arterial	115,225	59	0.331	0.477	0.335	39
Rural Minor Arterial	113,459	45	0.253	0.400	0.257	29
Rural Major Collector	56,874	56	0.259	0.414	0.264	15
Rural Minor Collector	61,727	47	0.246	0.397	0.251	15
Rural Local	165,161	28	0.253	0.401	0.257	43
Urban Interstate	0	0	0.577	0.846	0.585	0
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.536	0
Urban Principal Arterial	22,047	46	0.229	0.385	0.234	5
Urban Minor Arterial	11,969	28	0.226	0.384	0.231	3
Urban Collector	5,609	34	0.218	0.371	0.223	1
Urban Local	43,709	25	0.234	0.395	0.239	10
Lincoln	595,780		97%	3%		160
Lincoln 24 Hour						
Rural Interstate	0					0
Rural Principal Arterial	697,080					212
Rural Minor Arterial	524,191					131
Rural Major Collector	322,822					82
Rural Minor Collector	397,943					96
Rural Local	967,425					249
Urban Interstate	0					0
Urban Other Freeway/Xprway	0					0
Urban Principal Arterial	118,092					27
Urban Minor Arterial	64,399					16
Urban Collector	33,337					8
Urban Local	239,776					57
Lincoln	3,365,067		model kg / day	NOX		879
						total model emissions
						879
						emissions budget
						2,948
						budget minus model
						2,069

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NOx Emissions**

	Model		NOX RATES			NOX kg/day
	VMT	MPH	IM	No IM	Comp	
Mecklenburg AM Peak						
Rural Principal Arterial	51,249	29	0.187	0.295	0.198	10
Rural Minor Arterial	38,248	16	0.212	0.345	0.225	9
Rural Major Collector	5,649	20	0.188	0.316	0.201	1
Rural Minor Collector	61,451	31	0.170	0.284	0.181	11
Rural Local	152,923	28	0.181	0.293	0.192	29
Urban Interstate	1,695,161	37	0.200	0.301	0.210	356
Urban Other Freeway/Xprway	1,992,786	50	0.199	0.310	0.210	419
Urban Principal Arterial	1,173,050	21	0.181	0.310	0.194	227
Urban Minor Arterial	1,297,261	22	0.177	0.305	0.190	246
Urban Collector	1,075,310	19	0.185	0.318	0.198	213
Urban Local	1,854,123	21	0.181	0.308	0.194	359
Urban HOV	57,851	65	0.197	0.326	0.210	12
Mecklenburg	9,455,063		90%	10%		1,893
Mecklenburg Midday						
Rural Principal Arterial	66,910	39	0.189	0.296	0.200	13
Rural Minor Arterial	53,985	21	0.194	0.316	0.206	11
Rural Major Collector	8,369	28	0.171	0.289	0.183	2
Rural Minor Collector	87,603	37	0.169	0.282	0.180	16
Rural Local	231,983	29	0.179	0.291	0.190	44
Urban Interstate	2,458,198	49	0.218	0.321	0.228	561
Urban Other Freeway/Xprway	2,364,812	58	0.219	0.332	0.230	545
Urban Principal Arterial	1,781,275	25	0.172	0.295	0.184	328
Urban Minor Arterial	2,001,051	25	0.171	0.295	0.183	367
Urban Collector	1,648,854	23	0.174	0.300	0.187	308
Urban Local	3,017,529	21	0.181	0.308	0.194	584
Urban HOV	52,566	67	0.197	0.326	0.210	11
Mecklenburg	13,773,136		90%	10%		2,790
Mecklenburg PM Peak						
Rural Principal Arterial	57,503	30	0.187	0.295	0.198	11
Rural Minor Arterial	43,387	18	0.204	0.331	0.217	9
Rural Major Collector	6,154	22	0.183	0.308	0.196	1
Rural Minor Collector	76,383	29	0.172	0.288	0.184	14
Rural Local	184,050	27	0.182	0.295	0.193	36
Urban Interstate	1,865,069	34	0.198	0.299	0.208	388
Urban Other Freeway/Xprway	2,248,556	48	0.196	0.307	0.207	466
Urban Principal Arterial	1,367,455	19	0.186	0.320	0.199	273
Urban Minor Arterial	1,531,515	19	0.186	0.319	0.199	305
Urban Collector	1,249,469	18	0.188	0.323	0.202	252
Urban Local	2,214,565	20	0.184	0.313	0.197	436
Urban HOV	53,843	65	0.197	0.326	0.210	11
Mecklenburg	10,897,949		90%	10%		2,202
Mecklenburg Night						
Rural Principal Arterial	38,514	48	0.202	0.311	0.213	8
Rural Minor Arterial	33,826	35	0.172	0.283	0.183	6
Rural Major Collector	5,078	37	0.166	0.281	0.178	1
Rural Minor Collector	42,326	44	0.175	0.289	0.186	8
Rural Local	109,536	29	0.179	0.291	0.190	21
Urban Interstate	1,493,484	61	0.261	0.367	0.272	406
Urban Other Freeway/Xprway	1,230,580	61	0.229	0.343	0.240	296
Urban Principal Arterial	966,855	36	0.161	0.278	0.173	167
Urban Minor Arterial	1,060,363	36	0.160	0.277	0.172	182
Urban Collector	865,889	35	0.159	0.276	0.171	148
Urban Local	1,428,738	24	0.174	0.297	0.186	266
Urban HOV	60	68	0.197	0.326	0.210	0
Mecklenburg	7,275,249		90%	10%		1,509
Mecklenburg 24 Hour						
Rural Principal Arterial	214,176					43
Rural Minor Arterial	169,447					35
Rural Major Collector	25,251					5
Rural Minor Collector	267,764					49
Rural Local	678,492					130
Urban Interstate	7,511,913					1,711
Urban Other Freeway/Xprway	7,836,735					1,725
Urban Principal Arterial	5,288,635					995
Urban Minor Arterial	5,890,190					1,101
Urban Collector	4,839,523					920
Urban Local	8,514,954					1,646
Urban HOV	164,320					34
Mecklenburg	41,401,397		model kg / day	NOX		8,395
			total model emissions			8,395
			emissions budget			34,526
			budget minus model			26,131

**2025 Metrolina
NOx Emissions**

	Model		NOX RATES			NOX kg/day
	VMT	MPH	IM	No IM	Comp	
Rowan AM Peak						
Rural Interstate	0	0	0.629	0.875	0.646	0
Rural Principal Arterial	52,475	48	0.289	0.432	0.299	16
Rural Minor Arterial	29,479	50	0.263	0.412	0.273	8
Rural Major Collector	158,306	45	0.237	0.389	0.248	39
Rural Minor Collector	115,186	40	0.236	0.385	0.246	28
Rural Local	149,956	28	0.253	0.401	0.263	39
Urban Interstate	452,145	60	0.375	0.513	0.385	174
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.547	0
Urban Principal Arterial	113,233	31	0.221	0.377	0.232	26
Urban Minor Arterial	196,755	34	0.218	0.372	0.229	45
Urban Collector	132,811	29	0.223	0.380	0.234	31
Urban Local	212,657	25	0.234	0.395	0.245	52
Rowan	1,613,003		93%	7%		459
Rowan Midday						
Rural Interstate	0	0	0.629	0.875	0.646	0
Rural Principal Arterial	64,757	56	0.316	0.462	0.326	21
Rural Minor Arterial	37,071	56	0.281	0.431	0.292	11
Rural Major Collector	191,638	51	0.248	0.401	0.259	50
Rural Minor Collector	133,843	46	0.245	0.395	0.256	34
Rural Local	206,053	28	0.253	0.401	0.263	54
Urban Interstate	549,942	60	0.375	0.513	0.385	212
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.547	0
Urban Principal Arterial	160,758	33	0.220	0.374	0.231	37
Urban Minor Arterial	294,326	36	0.219	0.372	0.230	68
Urban Collector	178,908	27	0.227	0.386	0.238	43
Urban Local	330,733	25	0.234	0.395	0.245	81
Rowan	2,148,028		93%	7%		610
Rowan PM Peak						
Rural Interstate	0	0	0.629	0.875	0.646	0
Rural Principal Arterial	58,431	49	0.291	0.434	0.301	18
Rural Minor Arterial	32,114	48	0.260	0.407	0.270	9
Rural Major Collector	173,736	45	0.237	0.389	0.248	43
Rural Minor Collector	133,421	39	0.235	0.384	0.245	33
Rural Local	171,233	28	0.253	0.401	0.263	45
Urban Interstate	487,550	60	0.375	0.513	0.385	188
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.547	0
Urban Principal Arterial	128,805	29	0.224	0.381	0.235	30
Urban Minor Arterial	223,788	31	0.221	0.376	0.232	52
Urban Collector	155,567	25	0.231	0.393	0.242	38
Urban Local	251,152	25	0.234	0.395	0.245	62
Rowan	1,815,798		93%	7%		516
Rowan Night						
Rural Interstate	0	0	0.629	0.875	0.646	0
Rural Principal Arterial	34,626	60	0.335	0.482	0.345	12
Rural Minor Arterial	21,459	60	0.294	0.446	0.305	7
Rural Major Collector	118,399	55	0.256	0.411	0.267	32
Rural Minor Collector	68,057	49	0.250	0.401	0.261	18
Rural Local	114,193	28	0.253	0.401	0.263	30
Urban Interstate	307,649	61	0.384	0.522	0.394	121
Urban Other Freeway/Xprway	0	0	0.527	0.817	0.547	0
Urban Principal Arterial	89,031	42	0.224	0.379	0.235	21
Urban Minor Arterial	174,219	42	0.224	0.378	0.235	41
Urban Collector	87,790	36	0.218	0.371	0.229	20
Urban Local	168,993	25	0.234	0.395	0.245	41
Rowan	1,184,415		93%	7%		342
Rowan 24 Hour						
Rural Interstate	0					0
Rural Principal Arterial	210,290					66
Rural Minor Arterial	120,124					34
Rural Major Collector	642,079					163
Rural Minor Collector	450,506					113
Rural Local	641,435					169
Urban Interstate	1,797,286					694
Urban Other Freeway/Xprway	0					0
Urban Principal Arterial	491,826					115
Urban Minor Arterial	889,087					205
Urban Collector	555,076					131
Urban Local	963,534					236
Rowan	6,761,244		model kg / day	NOX		1,928
			total model emissions			1,928
			emissions budget			7,193
			budget minus model			5,265

**2025 Metrolina
NOx Emissions**

	Model		NOX RATES			NOX kg/day
	VMT	MPH	IM	No IM	Comp	
Union AM Peak						
Rural Interstate	0	0	0.629	0.875	0.656	0
Rural Principal Arterial	193,553	50	0.294	0.437	0.310	60
Rural Minor Arterial	30,652	45	0.253	0.400	0.269	8
Rural Major Collector	283,859	36	0.227	0.378	0.244	69
Rural Minor Collector	144,349	38	0.234	0.383	0.250	36
Rural Local	485,198	29	0.251	0.398	0.267	130
Urban Interstate	0	0	0.577	0.846	0.607	0
Urban Other Freeway/Xprway	72,172	39	0.261	0.405	0.277	20
Urban Principal Arterial	163,944	31	0.221	0.377	0.238	39
Urban Minor Arterial	199,941	25	0.232	0.394	0.250	50
Urban Collector	86,569	27	0.227	0.386	0.244	21
Urban Local	310,599	25	0.234	0.395	0.252	78
Union	1,970,836		89%	11%		511
Union Midday						
Rural Interstate	0	0	0.629	0.875	0.656	0
Rural Principal Arterial	218,293	51	0.297	0.441	0.313	68
Rural Minor Arterial	40,010	48	0.260	0.407	0.276	11
Rural Major Collector	401,408	40	0.231	0.381	0.248	99
Rural Minor Collector	197,367	41	0.237	0.386	0.253	50
Rural Local	694,486	29	0.251	0.398	0.267	186
Urban Interstate	0	0	0.577	0.846	0.607	0
Urban Other Freeway/Xprway	80,595	54	0.295	0.443	0.311	25
Urban Principal Arterial	241,951	35	0.218	0.372	0.235	57
Urban Minor Arterial	303,343	29	0.224	0.381	0.241	73
Urban Collector	128,108	31	0.220	0.375	0.237	30
Urban Local	487,498	26	0.232	0.391	0.249	122
Union	2,793,059		89%	11%		721
Union PM Peak						
Rural Interstate	0	0	0.629	0.875	0.656	0
Rural Principal Arterial	214,302	49	0.291	0.434	0.307	66
Rural Minor Arterial	35,115	43	0.250	0.397	0.266	9
Rural Major Collector	319,411	35	0.227	0.377	0.244	78
Rural Minor Collector	166,482	35	0.232	0.380	0.248	41
Rural Local	560,349	29	0.251	0.398	0.267	150
Urban Interstate	0	0	0.577	0.846	0.607	0
Urban Other Freeway/Xprway	77,488	47	0.276	0.421	0.292	23
Urban Principal Arterial	182,993	30	0.222	0.378	0.239	44
Urban Minor Arterial	229,183	23	0.237	0.403	0.255	59
Urban Collector	99,966	24	0.233	0.397	0.251	25
Urban Local	364,253	24	0.237	0.399	0.255	93
Union	2,249,541		89%	11%		587
Union Night						
Rural Interstate	0	0	0.629	0.875	0.656	0
Rural Principal Arterial	109,129	52	0.301	0.445	0.317	35
Rural Minor Arterial	24,131	52	0.269	0.418	0.285	7
Rural Major Collector	234,454	47	0.241	0.393	0.258	60
Rural Minor Collector	103,064	46	0.245	0.395	0.262	27
Rural Local	356,097	30	0.250	0.395	0.266	95
Urban Interstate	0	0	0.577	0.846	0.607	0
Urban Other Freeway/Xprway	37,469	54	0.295	0.443	0.311	12
Urban Principal Arterial	136,738	43	0.225	0.380	0.242	33
Urban Minor Arterial	179,543	39	0.221	0.374	0.238	43
Urban Collector	64,874	39	0.220	0.374	0.237	15
Urban Local	249,333	28	0.228	0.384	0.245	61
Union	1,494,831		89%	11%		388
Union 24 Hour						
Rural Interstate	0					0
Rural Principal Arterial	735,277					229
Rural Minor Arterial	129,908					36
Rural Major Collector	1,239,131					307
Rural Minor Collector	611,262					154
Rural Local	2,096,130					560
Urban Interstate	0					0
Urban Other Freeway/Xprway	267,724					79
Urban Principal Arterial	725,627					173
Urban Minor Arterial	912,010					224
Urban Collector	379,517					92
Urban Local	1,411,683					354
Union	8,508,268		model kg / day	NOX		2,207
						2,207
						5,660
						3,453