Appendix E – Air Quality Technical Back-up Data

Appendix E-1
Emission Factors and Composite Emissions for CO

MOBILE6 CO EMISSION FACTOR TABLE

(for Arterial, Collector and Local Road)

YEAR 2005

CO RATE (grams/hr for 0.0 mph; grams/mile for 5 - 65 mph)

	Speed (mph)													
Veh. Type	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0
LDGV	74.00	15.76	9.62	7.95	7.11	6.67	6.51	6.63	7.17	7.71	8.25	8.78	9.32	9.86
LDGT1	72.38	15.62	9.61	7.92	7.08	6.63	6.46	6.57	7.10	7.63	8.16	8.69	9.22	9.75
LDGT2	73.10	15.75	9.69	8.00	7.15	6.71	6.54	6.66	7.18	7.71	8.24	8.77	9.30	9.82
LDGT3	67.15	14.40	8.81	7.26	6.49	6.08	5.93	6.03	6.51	7.00	7.49	7.97	8.46	8.94
LDGT4	67.88	14.55	8.91	7.35	6.57	6.15	6.00	6.10	6.59	7.08	7.58	8.07	8.56	9.05
HDGV2B	111.35	35.59	23.68	16.64	12.36	9.70	8.04	7.04	6.52	6.37	6.58	7.19	8.29	10.09
HDGV3	178.98	57.20	38.05	26.75	19.87	15.59	12.92	11.32	10.48	10.24	10.58	11.55	13.32	16.22
HDGV4	160.82	51.40	34.20	24.04	17.85	14.01	11.61	10.17	9.41	9.20	9.51	10.38	11.97	14.58
HDGV5	322.00	102.91	68.47	48.13	35.74	28.05	23.25	20.37	18.85	18.43	19.04	20.78	23.96	29.19
HDGV6	597.98	191.11	127.15	89.38	66.38	52.08	43.18	37.82	35.00	34.22	35.35	38.59	44.49	54.21
HDGV7	545.90	174.47	116.08	81.60	60.60	47.55	39.42	34.53	31.95	31.24	32.27	35.23	40.62	49.49
HDGV8A	875.30	279.75	186.12	130.83	97.16	76.24	63.21	55.36	51.23	50.09	51.75	56.48	65.13	79.35
LDDV	10.04	3.28	2.26	1.63	1.23	0.97	0.81	0.70	0.63	0.60	0.59	0.62	0.67	0.76
LDDT12	5.85	1.91	1.32	0.95	0.72	0.57	0.47	0.41	0.37	0.35	0.35	0.36	0.39	0.44
LDDT34	6.87	2.24	1.55	1.12	0.84	0.67	0.55	0.48	0.43	0.41	0.41	0.42	0.46	0.52
HDDV2B	11.13	3.63	2.50	1.81	1.36	1.08	0.89	0.77	0.70	0.66	0.66	0.68	0.74	0.84
HDDV3	12.93	4.22	2.91	2.10	1.59	1.25	1.04	0.90	0.81	0.77	0.77	0.80	0.86	0.98
HDDV4	14.78	4.83	3.33	2.40	1.81	1.43	1.19	1.03	0.93	0.88	0.88	0.91	0.99	1.12
HDDV5	17.46	5.70	3.93	2.84	2.14	1.69	1.40	1.21	1.10	1.04	1.03	1.07	1.17	1.33
HDDV6	19.27	6.29	4.34	3.13	2.36	1.87	1.55	1.34	1.21	1.15	1.14	1.18	1.29	1.46
HDDV7	23.01	7.51	5.18	3.74	2.82	2.23	1.85	1.60	1.45	1.37	1.36	1.41	1.54	1.75
HDDV8A	42.03	13.72	9.46	6.83	5.16	4.08	3.37	2.92	2.65	2.51	2.49	2.58	2.81	3.19
HDDV8B	42.26	13.80	9.51	6.87	5.18	4.10	3.39	2.93	2.66	2.52	2.50	2.60	2.82	3.21
HDGB	456.45	145.89	97.06	68.23	50.67	39.76	32.96	28.87	26.72	26.12	26.99	29.45	33.97	41.38
HDDBT	100.13	32.70	22.54	16.27	12.29	9.71	8.03	6.95	6.30	5.97	5.93	6.16	6.69	7.61
HDDBS	27.31	8.92	6.15	4.44	3.35	2.65	2.19	1.90	1.72	1.63	1.62	1.68	1.82	2.08
MC	231.80	53.41	25.66	16.67	12.53	9.99	8.15	6.79	5.85	5.25	5.00	5.00	11.03	17.06

MOBILE6 CO EMISSION FACTOR TABLE

(for Arterial, Collector and Local Road)

YEAR 2015

CO RATE (grams/hr for 0.0 mph; grams/mile for 5 - 65 mph)

	Speed (mph)													
Veh. Type	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0	65.0
LDGV	37.63	8.27	5.14	4.22	3.76	3.51	3.43	3.48	3.78	4.08	4.37	4.67	4.97	5.27
LDGT1	32.05	7.26	4.61	3.79	3.38	3.15	3.08	3.12	3.40	3.67	3.94	4.22	4.49	4.76
LDGT2	33.80	7.64	4.85	3.99	3.56	3.33	3.26	3.31	3.60	3.90	4.19	4.48	4.77	5.06
LDGT3	31.50	7.11	4.51	3.72	3.32	3.10	3.03	3.09	3.36	3.63	3.91	4.18	4.46	4.73
LDGT4	31.97	7.22	4.58	3.78	3.37	3.15	3.08	3.14	3.41	3.69	3.97	4.25	4.53	4.81
HDGV2B	77.13	24.65	16.40	11.53	8.56	6.72	5.57	4.88	4.51	4.41	4.56	4.98	5.74	6.99
HDGV3	96.20	30.74	20.45	14.38	10.68	8.38	6.95	6.08	5.63	5.51	5.69	6.21	7.16	8.72
HDGV4	93.60	29.91	19.90	13.99	10.39	8.15	6.76	5.92	5.48	5.36	5.53	6.04	6.96	8.48
HDGV5	115.00	36.75	24.45	17.19	12.76	10.02	8.30	7.27	6.73	6.58	6.80	7.42	8.56	10.42
HDGV6	119.35	38.15	25.38	17.84	13.25	10.40	8.62	7.55	6.99	6.83	7.06	7.70	8.88	10.82
HDGV7	129.03	41.24	27.44	19.29	14.32	11.24	9.32	8.16	7.55	7.38	7.63	8.33	9.60	11.70
HDGV8A	142.80	45.64	30.36	21.34	15.85	12.44	10.31	9.03	8.36	8.17	8.44	9.21	10.63	12.95
LDDV	9.13	2.98	2.06	1.48	1.12	0.89	0.73	0.63	0.57	0.55	0.54	0.56	0.61	0.69
LDDT12	2.82	0.92	0.64	0.46	0.35	0.27	0.23	0.20	0.18	0.17	0.17	0.17	0.19	0.21
LDDT34	3.20	1.04	0.72	0.52	0.39	0.31	0.26	0.22	0.20	0.19	0.19	0.20	0.21	0.24
HDDV2B	2.97	0.97	0.67	0.48	0.36	0.29	0.24	0.21	0.19	0.18	0.18	0.18	0.20	0.23
HDDV3	3.31	1.08	0.74	0.54	0.41	0.32	0.27	0.23	0.21	0.20	0.20	0.20	0.22	0.25
HDDV4	3.32	1.08	0.75	0.54	0.41	0.32	0.27	0.23	0.21	0.20	0.20	0.20	0.22	0.25
HDDV5	4.47	1.46	1.01	0.73	0.55	0.43	0.36	0.31	0.28	0.27	0.26	0.28	0.30	0.34
HDDV6	5.31	1.74	1.20	0.86	0.65	0.52	0.43	0.37	0.33	0.32	0.32	0.33	0.35	0.40
HDDV7	6.80	2.22	1.53	1.10	0.83	0.66	0.55	0.47	0.43	0.41	0.40	0.42	0.45	0.52
HDDV8A	11.81	3.85	2.66	1.92	1.45	1.15	0.95	0.82	0.74	0.70	0.70	0.73	0.79	0.90
HDDV8B	8.90	2.91	2.00	1.45	1.09	0.86	0.71	0.62	0.56	0.53	0.53	0.55	0.59	0.68
HDGB	181.10	57.88	38.51	27.07	20.10	15.77	13.08	11.45	10.60	10.36	10.71	11.69	13.48	16.42
HDDBT	39.26	12.82	8.84	6.38	4.82	3.81	3.15	2.73	2.47	2.34	2.32	2.41	2.62	2.98
HDDBS	12.05	3.93	2.71	1.96	1.48	1.17	0.97	0.84	0.76	0.72	0.71	0.74	0.81	0.92
MC	231.56	53.36	25.64	16.65	12.51	9.98	8.14	6.78	5.84	5.24	5.00	5.00	11.02	17.04

July 2004
EAB - NYSDOT

Table C1 - MOBILE6 PM10 Non-Idle Emission Factors (g/mi)

	Analysis Year															
Veh. Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LDGV	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
LDGT1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
LDGT2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
LDGT3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
LDGT4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
HDGV2B	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04
HDGV3	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05
HDGV4	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05
HDGV5	0.14	0.13	0.13	0.12	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.07	0.06	0.06	0.06	0.06
HDGV6	0.14	0.14	0.14	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.08	0.08	0.07	0.06	0.06
HDGV7	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.10	0.08	0.07	0.07	0.06	0.06
HDGV8A	0.18	0.18	0.18	0.19	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.11	0.11	0.10	0.09	0.09
LDDV	0.31	0.30	0.28	0.27	0.24	0.20	0.18	0.17	0.15	0.14	0.13	0.12	0.12	0.11	0.11	0.10
LDDT12	0.20	0.19	0.18	0.17	0.16	0.14	0.13	0.11	0.09	0.08	0.07	0.06	0.06	0.05	0.05	0.04
LDDT34	0.19	0.17	0.16	0.16	0.15	0.13	0.11	0.09	0.08	0.07	0.06	0.06	0.05	0.04	0.04	0.04
HDDV2B	0.23	0.21	0.19	0.18	0.17	0.16	0.14	0.13	0.11	0.09	0.08	0.07	0.06	0.06	0.05	0.05
HDDV3	0.21	0.19	0.18	0.17	0.16	0.15	0.13	0.12	0.11	0.10	0.08	0.07	0.07	0.06	0.05	0.05
HDDV4	0.19	0.17	0.17	0.16	0.15	0.14	0.12	0.12	0.10	0.09	0.08	0.07	0.06	0.06	0.05	0.05
HDDV5	0.26	0.23	0.20	0.19	0.18	0.17	0.14	0.13	0.12	0.10	0.09	0.08	0.07	0.06	0.06	0.05
HDDV6	0.49	0.43	0.39	0.36	0.33	0.31	0.27	0.25	0.22	0.19	0.16	0.14	0.12	0.11	0.09	0.08
HDDV7	0.50	0.44	0.39	0.37	0.33	0.31	0.26	0.24	0.21	0.18	0.16	0.13	0.12	0.10	0.09	0.08
HDDV8A	0.86	0.77	0.70	0.63	0.58	0.53	0.45	0.41	0.36	0.31	0.27	0.24	0.21	0.19	0.16	0.14
HDDV8B	0.78	0.62	0.54	0.48	0.45	0.42	0.37	0.35	0.30	0.24	0.19	0.18	0.16	0.14	0.13	0.11
HDGB	0.13	0.13	0.11	0.13	0.12	0.12	0.11	0.11	0.10	0.10	0.10	0.07	0.07	0.07	0.06	0.06
HDDBT	1.60	1.43	1.73	1.67	1.64	1.59	1.48	1.41	1.36	1.33	1.26	1.17	0.94	0.89	0.68	0.73
HDDBS	1.88	1.73	1.44	1.05	0.93	0.81	0.64	0.52	0.43	0.33	0.24	0.19	0.16	0.14	0.13	0.12
MC	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table c1 - MOBILE6 PM10 Non-Idle Emission Factors (g/mi)

	Analysis Year														
Veh. Type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LDGV	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV2B	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDGV3	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDGV4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDGV5	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDGV6	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
HDGV7	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04
HDGV8A	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
LDDV	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.03
LDDT12	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LDDT34	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV2B	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV3	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDDV4	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDDV5	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDDV6	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04
HDDV7	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
HDDV8A	0.13	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
HDDV8B	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
HDGB	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
HDDBT	0.66	0.35	0.14	0.14	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09
HDDBS	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05
MC	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table C2 - MOBILE6 PM2.5 Non-Idle Emission Factors (g/mi)

	Analysis Year															
Veh. Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LDGV	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT1	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT2	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT3	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT4	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
HDGV2B	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.03	0.03	0.03	0.03	0.02
HDGV3	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03
HDGV4	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03
HDGV5	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.05	0.04	0.04	0.04	0.04	0.04
HDGV6	0.09	0.09	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.05	0.05	0.05	0.04	0.04
HDGV7	0.09	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.05	0.05	0.04	0.04	0.04
HDGV8A	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.06	0.06	0.06	0.05	0.05
LDDV	0.27	0.26	0.25	0.23	0.21	0.18	0.16	0.14	0.13	0.11	0.11	0.10	0.10	0.09	0.09	0.08
LDDT12	0.17	0.16	0.15	0.14	0.13	0.12	0.10	0.09	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.03
LDDT34	0.16	0.15	0.14	0.13	0.13	0.11	0.09	0.08	0.06	0.05	0.05	0.04	0.03	0.03	0.03	0.02
HDDV2B	0.21	0.18	0.17	0.16	0.15	0.13	0.11	0.11	0.09	0.07	0.06	0.05	0.05	0.04	0.04	0.03
HDDV3	0.18	0.17	0.15	0.15	0.14	0.13	0.11	0.10	0.09	0.07	0.06	0.05	0.05	0.04	0.04	0.03
HDDV4	0.16	0.15	0.14	0.13	0.13	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.04	0.04	0.03
HDDV5	0.23	0.19	0.18	0.16	0.15	0.14	0.12	0.11	0.09	0.08	0.07	0.06	0.05	0.05	0.04	0.04
HDDV6	0.44	0.38	0.35	0.32	0.29	0.27	0.23	0.21	0.19	0.16	0.13	0.11	0.09	0.08	0.07	0.06
HDDV7	0.45	0.39	0.35	0.32	0.30	0.27	0.23	0.21	0.18	0.16	0.13	0.11	0.09	0.08	0.07	0.06
HDDV8A	0.77	0.68	0.61	0.55	0.50	0.46	0.38	0.35	0.30	0.25	0.21	0.19	0.16	0.14	0.12	0.10
HDDV8B	0.69	0.54	0.46	0.41	0.39	0.36	0.31	0.29	0.24	0.19	0.15	0.13	0.11	0.10	0.09	0.07
HDGB	0.09	0.08	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04
HDDBT	1.46	1.31	1.58	1.53	1.49	1.45	1.35	1.29	1.24	1.21	1.15	1.06	0.85	0.81	0.61	0.66
HDDBS	1.72	1.58	1.31	0.95	0.84	0.73	0.57	0.47	0.39	0.29	0.21	0.16	0.13	0.12	0.11	0.09
MC	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table C2 - MOBILE6 PM2.5 Non-Idle Emission Factors (g/mi)

	Analysis Year														
Veh. Type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LDGV	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
HDGV2B	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV3	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV4	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
HDGV6	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDGV7	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDGV8A	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
LDDV	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.05	0.04	0.03	0.03	0.02	0.02	0.02	0.02
LDDT12	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDDT34	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV2B	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV3	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV4	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV5	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV6	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV7	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV8A	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04
HDDV8B	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
HDGB	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDBT	0.59	0.30	0.11	0.11	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
HDDBS	0.08	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03
MC	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table C3 - MOBILE6 PM10 Idle Emission Factors (g/hour)

Analysis Year

Veh. Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LDGV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV2B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV8A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDV2B	1.68	1.52	1.41	1.33	1.26	1.19	1.15	1.11	1.08	1.05	1.04	1.02	1.01	1.01	1.01	1.01
HDDV3	1.50	1.37	1.30	1.25	1.19	1.14	1.11	1.08	1.05	1.04	1.03	1.02	1.01	1.01	1.01	1.01
HDDV4	1.35	1.25	1.21	1.17	1.12	1.09	1.07	1.05	1.03	1.02	1.02	1.01	1.01	1.01	1.01	1.01
HDDV5	1.87	1.61	1.47	1.38	1.31	1.24	1.20	1.15	1.12	1.09	1.06	1.05	1.03	1.02	1.02	1.01
HDDV6	1.78	1.60	1.50	1.42	1.33	1.28	1.22	1.16	1.13	1.10	1.08	1.07	1.04	1.03	1.03	1.01
HDDV7	1.81	1.63	1.50	1.43	1.33	1.26	1.20	1.14	1.11	1.08	1.06	1.04	1.03	1.02	1.02	1.01
HDDV8A	2.25	2.05	1.89	1.74	1.62	1.51	1.42	1.33	1.27	1.21	1.17	1.13	1.08	1.06	1.05	1.03
HDDV8B	2.06	1.72	1.54	1.42	1.36	1.30	1.24	1.20	1.16	1.13	1.10	1.08	1.05	1.04	1.03	1.02
HDGB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDBT	2.81	2.58	3.14	3.06	2.95	2.88	2.79	2.72	2.66	2.57	2.48	2.36	1.75	1.70	1.64	1.29
HDDBS	3.25	3.03	2.55	1.95	1.70	1.54	1.42	1.28	1.19	1.13	1.08	1.04	1.03	1.02	1.01	1.01
MC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

The dashed lines mean that MOBILE6.2 does not provide idle emission factors for those vehicles and a value of zero should be assumed per recommendation by US EPA (July 2004).

Table C4 - MOBILE6 PM2.5 Idle Emission Factors (g/hour)

Analysis Year

Veh. Type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LDGV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV2B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV8A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDV2B	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV3	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV4	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV5	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV6	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV7	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV8A	0.94	0.94	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV8B	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDGB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDBT	1.16	1.13	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDBS	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
MC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

The dashed lines mean that MOBILE6.2 does not provide idle emission factors for those vehicles and a value of zero should be assumed per recommendation by US EPA (July 2004).

StapletonProject - CO Emission (grams/hour) Calculation for Year 2005 at 0 mph (Queue)

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	74.00	64.86%	63.02%	46.632
LT Truck (G & D)	26.87%	LDGT1	72.38	4.80%	6.11%	4.422
		LDGT2	73.10	16.15%	20.56%	15.027
Med. Truck (G&D)	4.21%	LDGT3	67.15	5.75%	2.78%	1.868
		LDGT4	67.88	2.61%	1.26%	0.857
H. Truck - All	1.75%	HDGV2B	111.35	0.70%	0.31%	0.342
(Gas & Diesel)		HDGV3	178.98	0.26%	0.11%	0.204
		HDGV4	160.82	0.15%	0.07%	0.106
		HDGV5	322.00	0.19%	0.08%	0.268
		HDGV6	597.98	0.16%	0.07%	0.420
		HDGV7	545.90	0.15%	0.07%	0.359
		HDGV8A	875.30	0.27%	0.12%	1.037
		LDDV	10.04	0.22%	0.21%	0.021
		LDDT12	5.85	0.16%	0.20%	0.012
		LDDT34	6.87	0.34%	0.16%	0.011
		HDDV2B	11.13	0.08%	0.04%	0.004
		HDDV3	12.93	0.09%	0.04%	0.005
		HDDV4	14.78	0.11%	0.05%	0.007
		HDDV5	17.46	0.16%	0.07%	0.012
		HDDV6	19.27	0.19%	0.08%	0.016
		HDDV7	23.01	0.28%	0.12%	0.028
		HDDV8A	42.03	0.52%	0.23%	0.096
		HDDV8B	42.26	0.68%	0.30%	0.126
Bus	3.94%	HDGB	456.45	0.17%	0.60%	2.730
		HDDBT	100.13	0.43%	1.51%	1.515
		HDDBS	27.31	0.52%	1.83%	0.500
MC	0.00%	MC	231.80	0.00%	0.00%	0.000
Total	100.00%			100.00%	100.00%	**76.626**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 5 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	15.76	64.86%	63.02%	9.931
LT Truck (G & D)	26.87%	LDGT1	15.62	4.80%	6.11%	0.954
		LDGT2	15.75	16.15%	20.56%	3.238
Med. Truck (G&D)	4.21%	LDGT3	14.40	5.75%	2.78%	0.401
		LDGT4	14.55	2.61%	1.26%	0.184
H. Truck - All	1.75%	HDGV2B	35.59	0.70%	0.31%	0.109
(Gas & Diesel)		HDGV3	57.20	0.26%	0.11%	0.065
		HDGV4	51.40	0.15%	0.07%	0.034
		HDGV5	102.91	0.19%	0.08%	0.086
		HDGV6	191.11	0.16%	0.07%	0.134
		HDGV7	174.47	0.15%	0.07%	0.115
		HDGV8A	279.75	0.27%	0.12%	0.331
		LDDV	3.28	0.22%	0.21%	0.007
		LDDT12	1.91	0.16%	0.20%	0.004
		LDDT34	2.24	0.34%	0.16%	0.004
		HDDV2B	3.63	0.08%	0.04%	0.001
		HDDV3	4.22	0.09%	0.04%	0.002
		HDDV4	4.83	0.11%	0.05%	0.002
		HDDV5	5.70	0.16%	0.07%	0.004
		HDDV6	6.29	0.19%	0.08%	0.005
		HDDV7	7.51	0.28%	0.12%	0.009
		HDDV8A	13.72	0.52%	0.23%	0.031
		HDDV8B	13.80	0.68%	0.30%	0.041
Bus	3.94%	HDGB	145.89	0.17%	0.60%	0.872
		HDDBT	32.70	0.43%	1.51%	0.495
		HDDBS	8.92	0.52%	1.83%	0.163
MC	0.00%	MC	53.41	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**17.223**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 10 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	9.62	64.86%	63.02%	6.062
LT Truck (G & D)	26.87%	LDGT1	9.61	4.80%	6.11%	0.587
		LDGT2	9.69	16.15%	20.56%	1.992
Med. Truck (G&D)	4.21%	LDGT3	8.81	5.75%	2.78%	0.245
		LDGT4	8.91	2.61%	1.26%	0.113
H. Truck - All	1.75%	HDGV2B	23.68	0.70%	0.31%	0.073
(Gas & Diesel)		HDGV3	38.05	0.26%	0.11%	0.043
		HDGV4	34.20	0.15%	0.07%	0.023
		HDGV5	68.47	0.19%	0.08%	0.057
		HDGV6	127.15	0.16%	0.07%	0.089
		HDGV7	116.08	0.15%	0.07%	0.076
		HDGV8A	186.12	0.27%	0.12%	0.220
		LDDV	2.26	0.22%	0.21%	0.005
		LDDT12	1.32	0.16%	0.20%	0.003
		LDDT34	1.55	0.34%	0.16%	0.003
		HDDV2B	2.50	0.08%	0.04%	0.001
		HDDV3	2.91	0.09%	0.04%	0.001
		HDDV4	3.33	0.11%	0.05%	0.002
		HDDV5	3.93	0.16%	0.07%	0.003
		HDDV6	4.34	0.19%	0.08%	0.004
		HDDV7	5.18	0.28%	0.12%	0.006
		HDDV8A	9.46	0.52%	0.23%	0.022
		HDDV8B	9.51	0.68%	0.30%	0.028
Bus	3.94%	HDGB	97.06	0.17%	0.60%	0.580
		HDDBT	22.54	0.43%	1.51%	0.341
		HDDBS	6.15	0.52%	1.83%	0.113
MC	0.00%	MC	25.66	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**10.691**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 15 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	7.95	64.86%	63.02%	5.010
LT Truck (G & D)	26.87%	LDGT1	7.92	4.80%	6.11%	0.484
		LDGT2	8.00	16.15%	20.56%	1.645
Med. Truck (G&D)	4.21%	LDGT3	7.26	5.75%	2.78%	0.202
		LDGT4	7.35	2.61%	1.26%	0.093
H. Truck - All	1.75%	HDGV2B	16.64	0.70%	0.31%	0.051
(Gas & Diesel)		HDGV3	26.75	0.26%	0.11%	0.031
		HDGV4	24.04	0.15%	0.07%	0.016
		HDGV5	48.13	0.19%	0.08%	0.040
		HDGV6	89.38	0.16%	0.07%	0.063
		HDGV7	81.60	0.15%	0.07%	0.054
		HDGV8A	130.83	0.27%	0.12%	0.155
		LDDV	1.63	0.22%	0.21%	0.003
		LDDT12	0.95	0.16%	0.20%	0.002
		LDDT34	1.12	0.34%	0.16%	0.002
		HDDV2B	1.81	0.08%	0.04%	0.001
		HDDV3	2.10	0.09%	0.04%	0.001
		HDDV4	2.40	0.11%	0.05%	0.001
		HDDV5	2.84	0.16%	0.07%	0.002
		HDDV6	3.13	0.19%	0.08%	0.003
		HDDV7	3.74	0.28%	0.12%	0.005
		HDDV8A	6.83	0.52%	0.23%	0.016
		HDDV8B	6.87	0.68%	0.30%	0.020
Bus	3.94%	HDGB	68.23	0.17%	0.60%	0.408
		HDDBT	16.27	0.43%	1.51%	0.246
		HDDBS	4.44	0.52%	1.83%	0.081
MC	0.00%	MC	16.67	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**8.632**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 20 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	7.11	64.86%	63.02%	4.480
LT Truck (G & D)	26.87%	LDGT1	7.08	4.80%	6.11%	0.433
		LDGT2	7.15	16.15%	20.56%	1.470
Med. Truck (G&D)	4.21%	LDGT3	6.49	5.75%	2.78%	0.181
		LDGT4	6.57	2.61%	1.26%	0.083
H. Truck - All	1.75%	HDGV2B	12.36	0.70%	0.31%	0.038
(Gas & Diesel)		HDGV3	19.87	0.26%	0.11%	0.023
		HDGV4	17.85	0.15%	0.07%	0.012
		HDGV5	35.74	0.19%	0.08%	0.030
		HDGV6	66.38	0.16%	0.07%	0.047
		HDGV7	60.60	0.15%	0.07%	0.040
		HDGV8A	97.16	0.27%	0.12%	0.115
		LDDV	1.23	0.22%	0.21%	0.003
		LDDT12	0.72	0.16%	0.20%	0.001
		LDDT34	0.84	0.34%	0.16%	0.001
		HDDV2B	1.36	0.08%	0.04%	0.000
		HDDV3	1.59	0.09%	0.04%	0.001
		HDDV4	1.81	0.11%	0.05%	0.001
		HDDV5	2.14	0.16%	0.07%	0.002
		HDDV6	2.36	0.19%	0.08%	0.002
		HDDV7	2.82	0.28%	0.12%	0.003
		HDDV8A	5.16	0.52%	0.23%	0.012
		HDDV8B	5.18	0.68%	0.30%	0.015
Bus	3.94%	HDGB	50.67	0.17%	0.60%	0.303
		HDDBT	12.29	0.43%	1.51%	0.186
		HDDBS	3.35	0.52%	1.83%	0.061
MC	0.00%	MC	12.53	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**7.542**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 25 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	6.67	64.86%	63.02%	4.203
LT Truck (G & D)	26.87%	LDGT1	6.63	4.80%	6.11%	0.405
		LDGT2	6.71	16.15%	20.56%	1.379
Med. Truck (G&D)	4.21%	LDGT3	6.08	5.75%	2.78%	0.169
		LDGT4	6.15	2.61%	1.26%	0.078
H. Truck - All	1.75%	HDGV2B	9.70	0.70%	0.31%	0.030
(Gas & Diesel)		HDGV3	15.59	0.26%	0.11%	0.018
		HDGV4	14.01	0.15%	0.07%	0.009
		HDGV5	28.05	0.19%	0.08%	0.023
		HDGV6	52.08	0.16%	0.07%	0.037
		HDGV7	47.55	0.15%	0.07%	0.031
		HDGV8A	76.24	0.27%	0.12%	0.090
		LDDV	0.97	0.22%	0.21%	0.002
		LDDT12	0.57	0.16%	0.20%	0.001
		LDDT34	0.67	0.34%	0.16%	0.001
		HDDV2B	1.08	0.08%	0.04%	0.000
		HDDV3	1.25	0.09%	0.04%	0.000
		HDDV4	1.43	0.11%	0.05%	0.001
		HDDV5	1.69	0.16%	0.07%	0.001
		HDDV6	1.87	0.19%	0.08%	0.002
		HDDV7	2.23	0.28%	0.12%	0.003
		HDDV8A	4.08	0.52%	0.23%	0.009
		HDDV8B	4.10	0.68%	0.30%	0.012
Bus	3.94%	HDGB	39.76	0.17%	0.60%	0.238
		HDDBT	9.71	0.43%	1.51%	0.147
		HDDBS	2.65	0.52%	1.83%	0.048
MC	0.00%	MC	9.99	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**6.939**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 30 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	6.51	64.86%	63.02%	4.102
LT Truck (G & D)	26.87%	LDGT1	6.46	4.80%	6.11%	0.395
		LDGT2	6.54	16.15%	20.56%	1.344
Med. Truck (G&D)	4.21%	LDGT3	5.93	5.75%	2.78%	0.165
		LDGT4	6.00	2.61%	1.26%	0.076
H. Truck - All	1.75%	HDGV2B	8.04	0.70%	0.31%	0.025
(Gas & Diesel)		HDGV3	12.92	0.26%	0.11%	0.015
		HDGV4	11.61	0.15%	0.07%	0.008
		HDGV5	23.25	0.19%	0.08%	0.019
		HDGV6	43.18	0.16%	0.07%	0.030
		HDGV7	39.42	0.15%	0.07%	0.026
		HDGV8A	63.21	0.27%	0.12%	0.075
		LDDV	0.81	0.22%	0.21%	0.002
		LDDT12	0.47	0.16%	0.20%	0.001
		LDDT34	0.55	0.34%	0.16%	0.001
		HDDV2B	0.89	0.08%	0.04%	0.000
		HDDV3	1.04	0.09%	0.04%	0.000
		HDDV4	1.19	0.11%	0.05%	0.001
		HDDV5	1.40	0.16%	0.07%	0.001
		HDDV6	1.55	0.19%	0.08%	0.001
		HDDV7	1.85	0.28%	0.12%	0.002
		HDDV8A	3.37	0.52%	0.23%	0.008
		HDDV8B	3.39	0.68%	0.30%	0.010
Bus	3.94%	HDGB	32.96	0.17%	0.60%	0.197
		HDDBT	8.03	0.43%	1.51%	0.121
		HDDBS	2.19	0.52%	1.83%	0.040
MC	0.00%	MC	8.15	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**6.666**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 35 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	6.63	64.86%	63.02%	4.178
LT Truck (G & D)	26.87%	LDGT1	6.57	4.80%	6.11%	0.401
		LDGT2	6.66	16.15%	20.56%	1.369
Med. Truck (G&D)	4.21%	LDGT3	6.03	5.75%	2.78%	0.168
		LDGT4	6.10	2.61%	1.26%	0.077
H. Truck - All	1.75%	HDGV2B	7.04	0.70%	0.31%	0.022
(Gas & Diesel)		HDGV3	11.32	0.26%	0.11%	0.013
		HDGV4	10.17	0.15%	0.07%	0.007
		HDGV5	20.37	0.19%	0.08%	0.017
		HDGV6	37.82	0.16%	0.07%	0.027
		HDGV7	34.53	0.15%	0.07%	0.023
		HDGV8A	55.36	0.27%	0.12%	0.066
		LDDV	0.70	0.22%	0.21%	0.001
		LDDT12	0.41	0.16%	0.20%	0.001
		LDDT34	0.48	0.34%	0.16%	0.001
		HDDV2B	0.77	0.08%	0.04%	0.000
		HDDV3	0.90	0.09%	0.04%	0.000
		HDDV4	1.03	0.11%	0.05%	0.000
		HDDV5	1.21	0.16%	0.07%	0.001
		HDDV6	1.34	0.19%	0.08%	0.001
		HDDV7	1.60	0.28%	0.12%	0.002
		HDDV8A	2.92	0.52%	0.23%	0.007
		HDDV8B	2.93	0.68%	0.30%	0.009
Bus	3.94%	HDGB	28.87	0.17%	0.60%	0.173
		HDDBT	6.95	0.43%	1.51%	0.105
		HDDBS	1.90	0.52%	1.83%	0.035
MC	0.00%	MC	6.79	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**6.702**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 40 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	7.17	64.86%	63.02%	4.518
LT Truck (G & D)	26.87%	LDGT1	7.10	4.80%	6.11%	0.434
		LDGT2	7.18	16.15%	20.56%	1.476
Med. Truck (G&D)	4.21%	LDGT3	6.51	5.75%	2.78%	0.181
		LDGT4	6.59	2.61%	1.26%	0.083
H. Truck - All	1.75%	HDGV2B	6.52	0.70%	0.31%	0.020
(Gas & Diesel)		HDGV3	10.48	0.26%	0.11%	0.012
		HDGV4	9.41	0.15%	0.07%	0.006
		HDGV5	18.85	0.19%	0.08%	0.016
		HDGV6	35.00	0.16%	0.07%	0.025
		HDGV7	31.95	0.15%	0.07%	0.021
		HDGV8A	51.23	0.27%	0.12%	0.061
		LDDV	0.63	0.22%	0.21%	0.001
		LDDT12	0.37	0.16%	0.20%	0.001
		LDDT34	0.43	0.34%	0.16%	0.001
		HDDV2B	0.70	0.08%	0.04%	0.000
		HDDV3	0.81	0.09%	0.04%	0.000
		HDDV4	0.93	0.11%	0.05%	0.000
		HDDV5	1.10	0.16%	0.07%	0.001
		HDDV6	1.21	0.19%	0.08%	0.001
		HDDV7	1.45	0.28%	0.12%	0.002
		HDDV8A	2.65	0.52%	0.23%	0.006
		HDDV8B	2.66	0.68%	0.30%	0.008
Bus	3.94%	HDGB	26.72	0.17%	0.60%	0.160
		HDDBT	6.30	0.43%	1.51%	0.095
		HDDBS	1.72	0.52%	1.83%	0.031
MC	0.00%	MC	5.85	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**7.160**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2005 at 45 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	7.71	64.86%	63.02%	4.859
LT Truck (G & D)	26.87%	LDGT1	7.63	4.80%	6.11%	0.466
		LDGT2	7.71	16.15%	20.56%	1.585
Med. Truck (G&D)	4.21%	LDGT3	7.00	5.75%	2.78%	0.195
		LDGT4	7.08	2.61%	1.26%	0.089
H. Truck - All	1.75%	HDGV2B	6.37	0.70%	0.31%	0.020
(Gas & Diesel)		HDGV3	10.24	0.26%	0.11%	0.012
		HDGV4	9.20	0.15%	0.07%	0.006
		HDGV5	18.43	0.19%	0.08%	0.015
		HDGV6	34.22	0.16%	0.07%	0.024
		HDGV7	31.24	0.15%	0.07%	0.021
		HDGV8A	50.09	0.27%	0.12%	0.059
		LDDV	0.60	0.22%	0.21%	0.001
		LDDT12	0.35	0.16%	0.20%	0.001
		LDDT34	0.41	0.34%	0.16%	0.001
		HDDV2B	0.66	0.08%	0.04%	0.000
		HDDV3	0.77	0.09%	0.04%	0.000
		HDDV4	0.88	0.11%	0.05%	0.000
		HDDV5	1.04	0.16%	0.07%	0.001
		HDDV6	1.15	0.19%	0.08%	0.001
		HDDV7	1.37	0.28%	0.12%	0.002
		HDDV8A	2.51	0.52%	0.23%	0.006
		HDDV8B	2.52	0.68%	0.30%	0.008
Bus	3.94%	HDGB	26.12	0.17%	0.60%	0.156
		HDDBT	5.97	0.43%	1.51%	0.090
		HDDBS	1.63	0.52%	1.83%	0.030
MC	0.00%	MC	5.25	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**7.647**

Stapleton Project - PM10 Emission (grams/hour) Calculation for Year 2005 at 0 mph (Idle)

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM10 Factor Table C3 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-10 Emission Factor
Car	63.23%	LDGV	0.00	64.86%	63.02%	0.000
LT Truck (G & D)	26.87%	LDGT1	0.00	4.80%	6.11%	0.000
		LDGT2	0.00	16.15%	20.56%	0.000
Med. Truck (G&D)	4.21%	LDGT3	0.00	5.75%	2.78%	0.000
		LDGT4	0.00	2.61%	1.26%	0.000
H. Truck - All (Gas & Diesel)	1.75%	HDGV2B	0.00	0.70%	0.31%	0.000
		HDGV3	0.00	0.26%	0.11%	0.000
		HDGV4	0.00	0.15%	0.07%	0.000
		HDGV5	0.00	0.19%	0.08%	0.000
		HDGV6	0.00	0.16%	0.07%	0.000
		HDGV7	0.00	0.15%	0.07%	0.000
		HDGV8A	0.00	0.27%	0.12%	0.000
		LDDV	0.00	0.22%	0.21%	0.000
		LDDT12	0.00	0.16%	0.20%	0.000
		LDDT34	0.00	0.34%	0.16%	0.000
		HDDV2B	1.19	0.08%	0.04%	0.000
		HDDV3	1.14	0.09%	0.04%	0.000
		HDDV4	1.09	0.11%	0.05%	0.001
		HDDV5	1.24	0.16%	0.07%	0.001
		HDDV6	1.28	0.19%	0.08%	0.001
		HDDV7	1.26	0.28%	0.12%	0.002
		HDDV8A	1.51	0.52%	0.23%	0.003
		HDDV8B	1.30	0.68%	0.30%	0.004
Bus	3.94%	HDGB	0.00	0.17%	0.60%	0.000
		HDDBT	2.88	0.43%	1.51%	0.044
		HDDBS	1.54	0.52%	1.83%	0.028
MC	0.00%	MC	0.00	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.084**

Stapleton Project - PM10 Emission (grams/mile) Calculation for Year 2005 at Non-Idle

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM10 Factor Table C1 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-10 Emission Factor
Car	63.23%	LDGV	0.03	64.86%	63.02%	0.019
LT Truck (G & D)	26.87%	LDGT1	0.03	4.80%	6.11%	0.002
		LDGT2	0.03	16.15%	20.56%	0.006
Med. Truck (G&D)	4.21%	LDGT3	0.03	5.75%	2.78%	0.001
		LDGT4	0.03	2.61%	1.26%	0.000
H. Truck - All	1.75%	HDGV2B	0.08	0.70%	0.31%	0.000
(Gas & Diesel)		HDGV3	0.09	0.26%	0.11%	0.000
		HDGV4	0.09	0.15%	0.07%	0.000
		HDGV5	0.11	0.19%	0.08%	0.000
		HDGV6	0.14	0.16%	0.07%	0.000
		HDGV7	0.12	0.15%	0.07%	0.000
		HDGV8A	0.18	0.27%	0.12%	0.000
		LDDV	0.20	0.22%	0.21%	0.000
		LDDT12	0.14	0.16%	0.20%	0.000
		LDDT34	0.13	0.34%	0.16%	0.000
		HDDV2B	0.16	0.08%	0.04%	0.000
		HDDV3	0.15	0.09%	0.04%	0.000
		HDDV4	0.14	0.11%	0.05%	0.000
		HDDV5	0.17	0.16%	0.07%	0.000
		HDDV6	0.31	0.19%	0.08%	0.000
		HDDV7	0.31	0.28%	0.12%	0.000
		HDDV8A	0.53	0.52%	0.23%	0.001
		HDDV8B	0.42	0.68%	0.30%	0.001
Bus	3.94%	HDGB	0.12	0.17%	0.60%	0.001
		HDDBT	1.59	0.43%	1.51%	0.024
		HDDBS	0.81	0.52%	1.83%	0.015
MC	0.00%	MC	0.04	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.073**

Stapleton Project - PM2.5 Emission (grams/hour) Calculation for Year 2005 at 0 mph (Idle)

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM2.5 Factor Table C4 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-2.5 Emission Factor
Car	63.23%	LDGV	0.00	64.86%	63.02%	0.000
LT Truck (G & D)	26.87%	LDGT1	0.00	4.80%	6.11%	0.000
		LDGT2	0.00	16.15%	20.56%	0.000
Med. Truck (G&D)	4.21%	LDGT3	0.00	5.75%	2.78%	0.000
		LDGT4	0.00	2.61%	1.26%	0.000
H. Truck - All	1.75%	HDGV2B	0.00	0.70%	0.31%	0.000
(Gas & Diesel)		HDGV3	0.00	0.26%	0.11%	0.000
		HDGV4	0.00	0.15%	0.07%	0.000
		HDGV5	0.00	0.19%	0.08%	0.000
		HDGV6	0.00	0.16%	0.07%	0.000
		HDGV7	0.00	0.15%	0.07%	0.000
		HDGV8A	0.00	0.27%	0.12%	0.000
		LDDV	0.00	0.22%	0.21%	0.000
		LDDT12	0.00	0.16%	0.20%	0.000
		LDDT34	0.00	0.34%	0.16%	0.000
		HDDV2B	1.09	0.08%	0.04%	0.000
		HDDV3	1.05	0.09%	0.04%	0.000
		HDDV4	1.00	0.11%	0.05%	0.000
		HDDV5	1.14	0.16%	0.07%	0.001
		HDDV6	1.18	0.19%	0.08%	0.001
		HDDV7	1.16	0.28%	0.12%	0.001
		HDDV8A	1.39	0.52%	0.23%	0.003
		HDDV8B	1.20	0.68%	0.30%	0.004
Bus	3.94%	HDGB	0.00	0.17%	0.60%	0.000
		HDDBT	2.65	0.43%	1.51%	0.040
		HDDBS	1.42	0.52%	1.83%	0.026
MC	0.00%	MC	0.00	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.077**

Stapleton Project - PM2.5 Emission (grams/mile) Calculation for Year 2005 at Non-Idle

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM2.5 Factor Table C2 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-2.5 Emission Factor
Car	63.23%	LDGV	0.01	64.86%	63.02%	0.006
LT Truck (G & D)	26.87%	LDGT1	0.01	4.80%	6.11%	0.001
		LDGT2	0.01	16.15%	20.56%	0.002
Med. Truck (G&D)	4.21%	LDGT3	0.01	5.75%	2.78%	0.000
		LDGT4	0.01	2.61%	1.26%	0.000
H. Truck - All	1.75%	HDGV2B	0.06	0.70%	0.31%	0.000
(Gas & Diesel)		HDGV3	0.07	0.26%	0.11%	0.000
		HDGV4	0.06	0.15%	0.07%	0.000
		HDGV5	0.07	0.19%	0.08%	0.000
		HDGV6	0.09	0.16%	0.07%	0.000
		HDGV7	0.08	0.15%	0.07%	0.000
		HDGV8A	0.11	0.27%	0.12%	0.000
		LDDV	0.18	0.22%	0.21%	0.000
		LDDT12	0.12	0.16%	0.20%	0.000
		LDDT34	0.11	0.34%	0.16%	0.000
		HDDV2B	0.13	0.08%	0.04%	0.000
		HDDV3	0.13	0.09%	0.04%	0.000
		HDDV4	0.12	0.11%	0.05%	0.000
		HDDV5	0.14	0.16%	0.07%	0.000
		HDDV6	0.27	0.19%	0.08%	0.000
		HDDV7	0.27	0.28%	0.12%	0.000
		HDDV8A	0.46	0.52%	0.23%	0.001
		HDDV8B	0.36	0.68%	0.30%	0.001
Bus	3.94%	HDGB	0.08	0.17%	0.60%	0.000
		HDDBT	1.45	0.43%	1.51%	0.022
		HDDBS	0.73	0.52%	1.83%	0.013
MC	0.00%	MC	0.02	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.049**

StapletonProject - CO Emission (grams/hour) Calculation for Year 2015 at 0 mph (Queue)

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	37.63	64.86%	63.02%	23.713
LT Truck (G & D)	26.87%	LDGT1	32.05	4.80%	6.11%	1.958
		LDGT2	33.80	16.15%	20.56%	6.948
Med. Truck (G&D)	4.21%	LDGT3	31.50	5.75%	2.78%	0.876
		LDGT4	31.97	2.61%	1.26%	0.404
H. Truck - All	1.75%	HDGV2B	77.13	0.70%	0.31%	0.237
(Gas & Diesel)		HDGV3	96.20	0.26%	0.11%	0.110
		HDGV4	93.60	0.15%	0.07%	0.062
		HDGV5	115.00	0.19%	0.08%	0.096
		HDGV6	119.35	0.16%	0.07%	0.084
		HDGV7	129.03	0.15%	0.07%	0.085
		HDGV8A	142.80	0.27%	0.12%	0.169
		LDDV	9.13	0.22%	0.21%	0.020
		LDDT12	2.82	0.16%	0.20%	0.006
		LDDT34	3.20	0.34%	0.16%	0.005
		HDDV2B	2.97	0.08%	0.04%	0.001
		HDDV3	3.31	0.09%	0.04%	0.001
		HDDV4	3.32	0.11%	0.05%	0.002
		HDDV5	4.47	0.16%	0.07%	0.003
		HDDV6	5.31	0.19%	0.08%	0.004
		HDDV7	6.80	0.28%	0.12%	0.008
		HDDV8A	11.81	0.52%	0.23%	0.027
		HDDV8B	8.90	0.68%	0.30%	0.027
Bus	3.94%	HDGB	181.10	0.17%	0.60%	1.083
		HDDBT	39.26	0.43%	1.51%	0.594
		HDDBS	12.05	0.52%	1.83%	0.220
MC	0.00%	MC	231.56	0.00%	0.00%	0.000
Total	100.00%			100.00%	100.00%	**36.742**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 5 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	8.27	64.86%	63.02%	5.211
LT Truck (G & D)	26.87%	LDGT1	7.26	4.80%	6.11%	0.444
		LDGT2	7.64	16.15%	20.56%	1.571
Med. Truck (G&D)	4.21%	LDGT3	7.11	5.75%	2.78%	0.198
		LDGT4	7.22	2.61%	1.26%	0.091
H. Truck - All	1.75%	HDGV2B	24.65	0.70%	0.31%	0.076
(Gas & Diesel)		HDGV3	30.74	0.26%	0.11%	0.035
		HDGV4	29.91	0.15%	0.07%	0.020
		HDGV5	36.75	0.19%	0.08%	0.031
		HDGV6	38.15	0.16%	0.07%	0.027
		HDGV7	41.24	0.15%	0.07%	0.027
		HDGV8A	45.64	0.27%	0.12%	0.054
		LDDV	2.98	0.22%	0.21%	0.006
		LDDT12	0.92	0.16%	0.20%	0.002
		LDDT34	1.04	0.34%	0.16%	0.002
		HDDV2B	0.97	0.08%	0.04%	0.000
		HDDV3	1.08	0.09%	0.04%	0.000
		HDDV4	1.08	0.11%	0.05%	0.001
		HDDV5	1.46	0.16%	0.07%	0.001
		HDDV6	1.74	0.19%	0.08%	0.001
		HDDV7	2.22	0.28%	0.12%	0.003
		HDDV8A	3.85	0.52%	0.23%	0.009
		HDDV8B	2.91	0.68%	0.30%	0.009
Bus	3.94%	HDGB	57.88	0.17%	0.60%	0.346
		HDDBT	12.82	0.43%	1.51%	0.194
		HDDBS	3.93	0.52%	1.83%	0.072
MC	0.00%	MC	53.36	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**8.429**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 10 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	5.14	64.86%	63.02%	3.239
LT Truck (G & D)	26.87%	LDGT1	4.61	4.80%	6.11%	0.282
		LDGT2	4.85	16.15%	20.56%	0.997
Med. Truck (G&D)	4.21%	LDGT3	4.51	5.75%	2.78%	0.125
		LDGT4	4.58	2.61%	1.26%	0.058
H. Truck - All	1.75%	HDGV2B	16.40	0.70%	0.31%	0.050
(Gas & Diesel)		HDGV3	20.45	0.26%	0.11%	0.023
		HDGV4	19.90	0.15%	0.07%	0.013
		HDGV5	24.45	0.19%	0.08%	0.020
		HDGV6	25.38	0.16%	0.07%	0.018
		HDGV7	27.44	0.15%	0.07%	0.018
		HDGV8A	30.36	0.27%	0.12%	0.036
		LDDV	2.06	0.22%	0.21%	0.004
		LDDT12	0.64	0.16%	0.20%	0.001
		LDDT34	0.72	0.34%	0.16%	0.001
		HDDV2B	0.67	0.08%	0.04%	0.000
		HDDV3	0.74	0.09%	0.04%	0.000
		HDDV4	0.75	0.11%	0.05%	0.000
		HDDV5	1.01	0.16%	0.07%	0.001
		HDDV6	1.20	0.19%	0.08%	0.001
		HDDV7	1.53	0.28%	0.12%	0.002
		HDDV8A	2.66	0.52%	0.23%	0.006
		HDDV8B	2.00	0.68%	0.30%	0.006
Bus	3.94%	HDGB	38.51	0.17%	0.60%	0.230
		HDDBT	8.84	0.43%	1.51%	0.134
		HDDBS	2.71	0.52%	1.83%	0.050
MC	0.00%	MC	25.64	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**5.317**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 15 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	4.22	64.86%	63.02%	2.659
LT Truck (G & D)	26.87%	LDGT1	3.79	4.80%	6.11%	0.232
		LDGT2	3.99	16.15%	20.56%	0.820
Med. Truck (G&D)	4.21%	LDGT3	3.72	5.75%	2.78%	0.104
		LDGT4	3.78	2.61%	1.26%	0.048
H. Truck - All	1.75%	HDGV2B	11.53	0.70%	0.31%	0.035
(Gas & Diesel)		HDGV3	14.38	0.26%	0.11%	0.016
		HDGV4	13.99	0.15%	0.07%	0.009
		HDGV5	17.19	0.19%	0.08%	0.014
		HDGV6	17.84	0.16%	0.07%	0.013
		HDGV7	19.29	0.15%	0.07%	0.013
		HDGV8A	21.34	0.27%	0.12%	0.025
		LDDV	1.48	0.22%	0.21%	0.003
		LDDT12	0.46	0.16%	0.20%	0.001
		LDDT34	0.52	0.34%	0.16%	0.001
		HDDV2B	0.48	0.08%	0.04%	0.000
		HDDV3	0.54	0.09%	0.04%	0.000
		HDDV4	0.54	0.11%	0.05%	0.000
		HDDV5	0.73	0.16%	0.07%	0.001
		HDDV6	0.86	0.19%	0.08%	0.001
		HDDV7	1.10	0.28%	0.12%	0.001
		HDDV8A	1.92	0.52%	0.23%	0.004
		HDDV8B	1.45	0.68%	0.30%	0.004
Bus	3.94%	HDGB	27.07	0.17%	0.60%	0.162
		HDDBT	6.38	0.43%	1.51%	0.097
		HDDBS	1.96	0.52%	1.83%	0.036
MC	0.00%	MC	16.65	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**4.299**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 20 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	3.76	64.86%	63.02%	2.369
LT Truck (G & D)	26.87%	LDGT1	3.38	4.80%	6.11%	0.207
		LDGT2	3.56	16.15%	20.56%	0.732
Med. Truck (G&D)	4.21%	LDGT3	3.32	5.75%	2.78%	0.092
		LDGT4	3.37	2.61%	1.26%	0.043
H. Truck - All (Gas & Diesel)	1.75%	HDGV2B	8.56	0.70%	0.31%	0.026
		HDGV3	10.68	0.26%	0.11%	0.012
		HDGV4	10.39	0.15%	0.07%	0.007
		HDGV5	12.76	0.19%	0.08%	0.011
		HDGV6	13.25	0.16%	0.07%	0.009
		HDGV7	14.32	0.15%	0.07%	0.009
		HDGV8A	15.85	0.27%	0.12%	0.019
		LDDV	1.12	0.22%	0.21%	0.002
		LDDT12	0.35	0.16%	0.20%	0.001
		LDDT34	0.39	0.34%	0.16%	0.001
		HDDV2B	0.36	0.08%	0.04%	0.000
		HDDV3	0.41	0.09%	0.04%	0.000
		HDDV4	0.41	0.11%	0.05%	0.000
		HDDV5	0.55	0.16%	0.07%	0.000
		HDDV6	0.65	0.19%	0.08%	0.001
		HDDV7	0.83	0.28%	0.12%	0.001
		HDDV8A	1.45	0.52%	0.23%	0.003
		HDDV8B	1.09	0.68%	0.30%	0.003
Bus	3.94%	HDGB	20.10	0.17%	0.60%	0.120
		HDDBT	4.82	0.43%	1.51%	0.073
		HDDBS	1.48	0.52%	1.83%	0.027
MC	0.00%	MC	12.51	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**3.769**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 25 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	3.51	64.86%	63.02%	2.212
LT Truck (G & D)	26.87%	LDGT1	3.15	4.80%	6.11%	0.192
		LDGT2	3.33	16.15%	20.56%	0.685
Med. Truck (G&D)	4.21%	LDGT3	3.10	5.75%	2.78%	0.086
		LDGT4	3.15	2.61%	1.26%	0.040
H. Truck - All	1.75%	HDGV2B	6.72	0.70%	0.31%	0.021
(Gas & Diesel)		HDGV3	8.38	0.26%	0.11%	0.010
		HDGV4	8.15	0.15%	0.07%	0.005
		HDGV5	10.02	0.19%	0.08%	0.008
		HDGV6	10.40	0.16%	0.07%	0.007
		HDGV7	11.24	0.15%	0.07%	0.007
		HDGV8A	12.44	0.27%	0.12%	0.015
		LDDV	0.89	0.22%	0.21%	0.002
		LDDT12	0.27	0.16%	0.20%	0.001
		LDDT34	0.31	0.34%	0.16%	0.001
		HDDV2B	0.29	0.08%	0.04%	0.000
		HDDV3	0.32	0.09%	0.04%	0.000
		HDDV4	0.32	0.11%	0.05%	0.000
		HDDV5	0.43	0.16%	0.07%	0.000
		HDDV6	0.52	0.19%	0.08%	0.000
		HDDV7	0.66	0.28%	0.12%	0.001
		HDDV8A	1.15	0.52%	0.23%	0.003
		HDDV8B	0.86	0.68%	0.30%	0.003
Bus	3.94%	HDGB	15.77	0.17%	0.60%	0.094
		HDDBT	3.81	0.43%	1.51%	0.058
		HDDBS	1.17	0.52%	1.83%	0.021
MC	0.00%	MC	9.98	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**3.472**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 30 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	3.43	64.86%	63.02%	2.161
LT Truck (G & D)	26.87%	LDGT1	3.08	4.80%	6.11%	0.188
		LDGT2	3.26	16.15%	20.56%	0.670
Med. Truck (G&D)	4.21%	LDGT3	3.03	5.75%	2.78%	0.084
		LDGT4	3.08	2.61%	1.26%	0.039
H. Truck - All	1.75%	HDGV2B	5.57	0.70%	0.31%	0.017
(Gas & Diesel)		HDGV3	6.95	0.26%	0.11%	0.008
		HDGV4	6.76	0.15%	0.07%	0.004
		HDGV5	8.30	0.19%	0.08%	0.007
		HDGV6	8.62	0.16%	0.07%	0.006
		HDGV7	9.32	0.15%	0.07%	0.006
		HDGV8A	10.31	0.27%	0.12%	0.012
		LDDV	0.73	0.22%	0.21%	0.002
		LDDT12	0.23	0.16%	0.20%	0.000
		LDDT34	0.26	0.34%	0.16%	0.000
		HDDV2B	0.24	0.08%	0.04%	0.000
		HDDV3	0.27	0.09%	0.04%	0.000
		HDDV4	0.27	0.11%	0.05%	0.000
		HDDV5	0.36	0.16%	0.07%	0.000
		HDDV6	0.43	0.19%	0.08%	0.000
		HDDV7	0.55	0.28%	0.12%	0.001
		HDDV8A	0.95	0.52%	0.23%	0.002
		HDDV8B	0.71	0.68%	0.30%	0.002
Bus	3.94%	HDGB	13.08	0.17%	0.60%	0.078
		HDDBT	3.15	0.43%	1.51%	0.048
		HDDBS	0.97	0.52%	1.83%	0.018
MC	0.00%	MC	8.14	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**3.356**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 35 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	3.48	64.86%	63.02%	2.193
LT Truck (G & D)	26.87%	LDGT1	3.12	4.80%	6.11%	0.191
		LDGT2	3.31	16.15%	20.56%	0.680
Med. Truck (G&D)	4.21%	LDGT3	3.09	5.75%	2.78%	0.086
		LDGT4	3.14	2.61%	1.26%	0.040
H. Truck - All	1.75%	HDGV2B	4.88	0.70%	0.31%	0.015
(Gas & Diesel)		HDGV3	6.08	0.26%	0.11%	0.007
		HDGV4	5.92	0.15%	0.07%	0.004
		HDGV5	7.27	0.19%	0.08%	0.006
		HDGV6	7.55	0.16%	0.07%	0.005
		HDGV7	8.16	0.15%	0.07%	0.005
		HDGV8A	9.03	0.27%	0.12%	0.011
		LDDV	0.63	0.22%	0.21%	0.001
		LDDT12	0.20	0.16%	0.20%	0.000
		LDDT34	0.22	0.34%	0.16%	0.000
		HDDV2B	0.21	0.08%	0.04%	0.000
		HDDV3	0.23	0.09%	0.04%	0.000
		HDDV4	0.23	0.11%	0.05%	0.000
		HDDV5	0.31	0.16%	0.07%	0.000
		HDDV6	0.37	0.19%	0.08%	0.000
		HDDV7	0.47	0.28%	0.12%	0.001
		HDDV8A	0.82	0.52%	0.23%	0.002
		HDDV8B	0.62	0.68%	0.30%	0.002
Bus	3.94%	HDGB	11.45	0.17%	0.60%	0.068
		HDDBT	2.73	0.43%	1.51%	0.041
		HDDBS	0.84	0.52%	1.83%	0.015
MC	0.00%	MC	6.78	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**3.375**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 40 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	3.78	64.86%	63.02%	2.382
LT Truck (G & D)	26.87%	LDGT1	3.40	4.80%	6.11%	0.208
		LDGT2	3.60	16.15%	20.56%	0.740
Med. Truck (G&D)	4.21%	LDGT3	3.36	5.75%	2.78%	0.093
		LDGT4	3.41	2.61%	1.26%	0.043
H. Truck - All	1.75%	HDGV2B	4.51	0.70%	0.31%	0.014
(Gas & Diesel)		HDGV3	5.63	0.26%	0.11%	0.006
		HDGV4	5.48	0.15%	0.07%	0.004
		HDGV5	6.73	0.19%	0.08%	0.006
		HDGV6	6.99	0.16%	0.07%	0.005
		HDGV7	7.55	0.15%	0.07%	0.005
		HDGV8A	8.36	0.27%	0.12%	0.010
		LDDV	0.57	0.22%	0.21%	0.001
		LDDT12	0.18	0.16%	0.20%	0.000
		LDDT34	0.20	0.34%	0.16%	0.000
		HDDV2B	0.19	0.08%	0.04%	0.000
		HDDV3	0.21	0.09%	0.04%	0.000
		HDDV4	0.21	0.11%	0.05%	0.000
		HDDV5	0.28	0.16%	0.07%	0.000
		HDDV6	0.33	0.19%	0.08%	0.000
		HDDV7	0.43	0.28%	0.12%	0.001
		HDDV8A	0.74	0.52%	0.23%	0.002
		HDDV8B	0.56	0.68%	0.30%	0.002
Bus	3.94%	HDGB	10.60	0.17%	0.60%	0.063
		HDDBT	2.47	0.43%	1.51%	0.037
		HDDBS	0.76	0.52%	1.83%	0.014
MC	0.00%	MC	5.84	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**3.637**

Stapleton Project - CO Emission (grams/mile) Calculation for Year 2015 at 45 mph

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT Aug. 2004 CO Emi. Factor Table EF1 (For Richmond)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	CO Emission Factor
Car	63.23%	LDGV	4.08	64.86%	63.02%	2.571
LT Truck (G & D)	26.87%	LDGT1	3.67	4.80%	6.11%	0.224
		LDGT2	3.90	16.15%	20.56%	0.802
Med. Truck (G&D)	4.21%	LDGT3	3.63	5.75%	2.78%	0.101
		LDGT4	3.69	2.61%	1.26%	0.047
H. Truck - All (Gas & Diesel)	1.75%	HDGV2B	4.41	0.70%	0.31%	0.014
		HDGV3	5.51	0.26%	0.11%	0.006
		HDGV4	5.36	0.15%	0.07%	0.004
		HDGV5	6.58	0.19%	0.08%	0.005
		HDGV6	6.83	0.16%	0.07%	0.005
		HDGV7	7.38	0.15%	0.07%	0.005
		HDGV8A	8.17	0.27%	0.12%	0.010
		LDDV	0.55	0.22%	0.21%	0.001
		LDDT12	0.17	0.16%	0.20%	0.000
		LDDT34	0.19	0.34%	0.16%	0.000
		HDDV2B	0.18	0.08%	0.04%	0.000
		HDDV3	0.20	0.09%	0.04%	0.000
		HDDV4	0.20	0.11%	0.05%	0.000
		HDDV5	0.27	0.16%	0.07%	0.000
		HDDV6	0.32	0.19%	0.08%	0.000
		HDDV7	0.41	0.28%	0.12%	0.001
		HDDV8A	0.70	0.52%	0.23%	0.002
		HDDV8B	0.53	0.68%	0.30%	0.002
Bus	3.94%	HDGB	10.36	0.17%	0.60%	0.062
		HDDBT	2.34	0.43%	1.51%	0.035
		HDDBS	0.72	0.52%	1.83%	0.013
MC	0.00%	MC	5.24	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**3.909**

Stapleton Project - PM10 Emission (grams/hour) Calculation for Year 2015 at 0 mph (Idle)

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM10 Factor Table C3 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-10 Emission Factor
Car	63.23%	LDGV	0.00	64.86%	63.02%	0.000
LT Truck (G & D)	26.87%	LDGT1	0.00	4.80%	6.11%	0.000
		LDGT2	0.00	16.15%	20.56%	0.000
Med. Truck (G&D)	4.21%	LDGT3	0.00	5.75%	2.78%	0.000
		LDGT4	0.00	2.61%	1.26%	0.000
H. Truck - All	1.75%	HDGV2B	0.00	0.70%	0.31%	0.000
(Gas & Diesel)		HDGV3	0.00	0.26%	0.11%	0.000
		HDGV4	0.00	0.15%	0.07%	0.000
		HDGV5	0.00	0.19%	0.08%	0.000
		HDGV6	0.00	0.16%	0.07%	0.000
		HDGV7	0.00	0.15%	0.07%	0.000
		HDGV8A	0.00	0.27%	0.12%	0.000
		LDDV	0.00	0.22%	0.21%	0.000
		LDDT12	0.00	0.16%	0.20%	0.000
		LDDT34	0.00	0.34%	0.16%	0.000
		HDDV2B	1.01	0.08%	0.04%	0.000
		HDDV3	1.01	0.09%	0.04%	0.000
		HDDV4	1.01	0.11%	0.05%	0.000
		HDDV5	1.01	0.16%	0.07%	0.001
		HDDV6	1.01	0.19%	0.08%	0.001
		HDDV7	1.01	0.28%	0.12%	0.001
		HDDV8A	1.03	0.52%	0.23%	0.002
		HDDV8B	1.02	0.68%	0.30%	0.003
Bus	3.94%	HDGB	0.00	0.17%	0.60%	0.000
		HDDBT	1.29	0.43%	1.51%	0.020
		HDDBS	1.01	0.52%	1.83%	0.018
MC	0.00%	MC	0.00	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.047**

Stapleton Project - PM10 Emission (grams/mile) Calculation for Year 2015 at Non-Idle

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM10 Factor Table C1 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-10 Emission Factor
Car	63.23%	LDGV	0.02	64.86%	63.02%	0.013
LT Truck (G & D)	26.87%	LDGT1	0.02	4.80%	6.11%	0.001
		LDGT2	0.02	16.15%	20.56%	0.004
Med. Truck (G&D)	4.21%	LDGT3	0.02	5.75%	2.78%	0.001
		LDGT4	0.02	2.61%	1.26%	0.000
H. Truck - All	1.75%	HDGV2B	0.04	0.70%	0.31%	0.000
(Gas & Diesel)		HDGV3	0.05	0.26%	0.11%	0.000
		HDGV4	0.05	0.15%	0.07%	0.000
		HDGV5	0.06	0.19%	0.08%	0.000
		HDGV6	0.06	0.16%	0.07%	0.000
		HDGV7	0.06	0.15%	0.07%	0.000
		HDGV8A	0.09	0.27%	0.12%	0.000
		LDDV	0.10	0.22%	0.21%	0.000
		LDDT12	0.04	0.16%	0.20%	0.000
		LDDT34	0.04	0.34%	0.16%	0.000
		HDDV2B	0.05	0.08%	0.04%	0.000
		HDDV3	0.05	0.09%	0.04%	0.000
		HDDV4	0.05	0.11%	0.05%	0.000
		HDDV5	0.05	0.16%	0.07%	0.000
		HDDV6	0.08	0.19%	0.08%	0.000
		HDDV7	0.08	0.28%	0.12%	0.000
		HDDV8A	0.14	0.52%	0.23%	0.000
		HDDV8B	0.11	0.68%	0.30%	0.000
Bus	3.94%	HDGB	0.06	0.17%	0.60%	0.000
		HDDBT	0.73	0.43%	1.51%	0.011
		HDDBS	0.12	0.52%	1.83%	0.002
MC	0.00%	MC	0.04	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.034**

Stapleton Project - PM2.5 Emission (grams/hour) Calculation for Year 2015 at 0 mph (Idle)

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM2.5 Factor Table C4 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-2.5 Emission Factor
Car	63.23%	LDGV	0.00	64.86%	63.02%	0.000
LT Truck (G & D)	26.87%	LDGT1	0.00	4.80%	6.11%	0.000
		LDGT2	0.00	16.15%	20.56%	0.000
Med. Truck (G&D)	4.21%	LDGT3	0.00	5.75%	2.78%	0.000
		LDGT4	0.00	2.61%	1.26%	0.000
H. Truck - All	1.75%	HDGV2B	0.00	0.70%	0.31%	0.000
(Gas & Diesel)		HDGV3	0.00	0.26%	0.11%	0.000
		HDGV4	0.00	0.15%	0.07%	0.000
		HDGV5	0.00	0.19%	0.08%	0.000
		HDGV6	0.00	0.16%	0.07%	0.000
		HDGV7	0.00	0.15%	0.07%	0.000
		HDGV8A	0.00	0.27%	0.12%	0.000
		LDDV	0.00	0.22%	0.21%	0.000
		LDDT12	0.00	0.16%	0.20%	0.000
		LDDT34	0.00	0.34%	0.16%	0.000
		HDDV2B	0.93	0.08%	0.04%	0.000
		HDDV3	0.93	0.09%	0.04%	0.000
		HDDV4	0.93	0.11%	0.05%	0.000
		HDDV5	0.93	0.16%	0.07%	0.001
		HDDV6	0.93	0.19%	0.08%	0.001
		HDDV7	0.93	0.28%	0.12%	0.001
		HDDV8A	0.94	0.52%	0.23%	0.002
		HDDV8B	0.94	0.68%	0.30%	0.003
Bus	3.94%	HDGB	0.00	0.17%	0.60%	0.000
		HDDBT	1.18	0.43%	1.51%	0.018
		HDDBS	0.93	0.52%	1.83%	0.017
MC	0.00%	MC	0.00	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.044**

Stapleton Project - PM2.5 Emission (grams/mile) Calculation for Year 2015 at Non-Idle

Traffic Survey Classification	Traffic Count (%) On Site	EPA Class.	MOBILE62 NYSDOT November 2004 PM2.5 Factor Table C2 (For All Region 11)	Region 11 Vehicle Classification NYSDOT Table EF1.3	Adjusted Project Area Vehicular Classification	PM-2.5 Emission Factor
Car	63.23%	LDGV	0.01	64.86%	63.02%	0.006
LT Truck (G & D)	26.87%	LDGT1	0.01	4.80%	6.11%	0.001
		LDGT2	0.01	16.15%	20.56%	0.002
Med. Truck (G&D)	4.21%	LDGT3	0.01	5.75%	2.78%	0.000
		LDGT4	0.01	2.61%	1.26%	0.000
H. Truck - All	1.75%	HDGV2B	0.02	0.70%	0.31%	0.000
(Gas & Diesel)		HDGV3	0.03	0.26%	0.11%	0.000
		HDGV4	0.03	0.15%	0.07%	0.000
		HDGV5	0.04	0.19%	0.08%	0.000
		HDGV6	0.04	0.16%	0.07%	0.000
		HDGV7	0.04	0.15%	0.07%	0.000
		HDGV8A	0.05	0.27%	0.12%	0.000
		LDDV	0.08	0.22%	0.21%	0.000
		LDDT12	0.03	0.16%	0.20%	0.000
		LDDT34	0.02	0.34%	0.16%	0.000
		HDDV2B	0.03	0.08%	0.04%	0.000
		HDDV3	0.03	0.09%	0.04%	0.000
		HDDV4	0.03	0.11%	0.05%	0.000
		HDDV5	0.04	0.16%	0.07%	0.000
		HDDV6	0.06	0.19%	0.08%	0.000
		HDDV7	0.06	0.28%	0.12%	0.000
		HDDV8A	0.10	0.52%	0.23%	0.000
		HDDV8B	0.07	0.68%	0.30%	0.000
Bus	3.94%	HDGB	0.04	0.17%	0.60%	0.000
		HDDBT	0.66	0.43%	1.51%	0.010
		HDDBS	0.09	0.52%	1.83%	0.002
MC	0.00%	MC	0.02	0.00%	0.00%	0.000
Total	100.0%			100.00%	100.00%	**0.022**

2005 CO	S1 Listed Speed	E1 Listed Emission	S2 Listed Speed	E2 Listed Emission	S3 Speed (mph) Surveyed	E3 Calculated CO (g/mile)
	25	6.94	30	6.67	**26.32**	**6.869**
	5	17.22	10	10.69	**4.76**	**17.533**
	15	8.63	20	7.54	**18.56**	**7.854**
	30	6.67	35	6.7	**35.1**	**6.701**
	20	7.54	25	6.94	**21.01**	**7.419**
	15	8.63	20	7.54	**18.68**	**7.828**
	10	10.69	15	8.63	**13.28**	**9.339**
	25	6.94	30	6.67	**25.96**	**6.888**
	20	7.54	25	6.94	**22.88**	**7.194**
	20	7.54	25	6.94	**23.59**	**7.109**
	20	7.54	25	6.94	**21.68**	**7.338**
	20	7.54	25	6.94	**24.4**	**7.012**
	20	7.54	25	6.94	**20.93**	**7.428**
	25	6.94	30	6.67	**28.72**	**6.739**
	25	6.94	30	6.67	**28.83**	**6.733**
	25	6.94	30	6.67	**26.26**	**6.872**
	25	6.94	30	6.67	**28.2**	**6.767**
	10	10.69	15	8.63	**13.65**	**9.186**
	15	8.63	20	7.54	**16.49**	**8.305**
	10	10.69	15	8.63	**10.3**	**10.566**
	20	7.54	25	6.94	**24.18**	**7.038**
	5	17.22	10	10.69	**7.61**	**13.811**
	30	6.67	35	6.7	**31.84**	**6.681**
	20	7.54	25	6.94	**24.68**	**6.978**
	5	17.22	10	10.69	**3.06**	**19.754**
	10	10.69	15	8.63	**10.71**	**10.397**
	25	6.94	30	6.67	**29.94**	**6.673**
	25	6.94	30	6.67	**25.78**	**6.898**

2005 CO	S1 Listed Speed	E1 Listed Emission	S2 Listed Speed	E2 Listed Emission	S3 Speed (mph) Surveyed	E3 Calculated CO (g/mile)
	5	17.22	10	10.69	**8.42**	**12.753**
	5	17.22	10	10.69	**3.81**	**18.774**
	10	10.69	15	8.63	**11.6**	**10.031**
	15	8.63	20	7.54	**16.01**	**8.410**
	15	8.63	20	7.54	**17.51**	**8.083**
	10	10.69	15	8.63	**10.99**	**10.282**
	5	17.22	10	10.69	**7.47**	**13.994**
	25	6.94	30	6.67	**25.96**	**6.888**
	30	6.67	35	6.7	**34.31**	**6.696**
	30	6.67	35	6.7	**33.03**	**6.688**
	30	6.67	35	6.7	**30.97**	**6.676**
	5	17.22	10	10.69	**9.86**	**10.873**
	20	7.54	25	6.94	**21.88**	**7.314**
	15	8.63	20	7.54	**18.28**	**7.915**
	25	6.94	30	6.67	**26.91**	**6.837**
	20	7.54	25	6.94	**22.51**	**7.239**
	20	7.54	25	6.94	**21.15**	**7.402**
	25	6.94	30	6.67	**25.35**	**6.921**
	30	6.67	35	6.7	**30.24**	**6.671**
	5	17.22	10	10.69	**5.15**	**17.024**
	30	6.67	35	6.7	**32.81**	**6.687**
	5	17.22	10	10.69	**6.52**	**15.235**
	25	6.94	30	6.67	**25.87**	**6.893**
	10	10.69	15	8.63	**14.52**	**8.828**
	5	17.22	10	10.69	**8.99**	**12.009**
	5	17.22	10	10.69	**4.81**	**17.468**
	25	6.94	30	6.67	**26.31**	**6.869**
	20	7.54	25	6.94	**21.77**	**7.328**

2015 CO AM Peak Build	S1 Listed Speed	E1 Listed Emission	S2 Listed Speed	E2 Listed Emission	S3 Speed (mph) Surveyed	E3 Calculated CO (g/mile)
	20	3.77	25	3.47	**21.37**	**3.688**
	5	8.43	10	5.32	**5.56**	**8.082**
	15	4.3	20	3.77	**16.14**	**4.179**
	30	3.36	35	3.38	**32.54**	**3.370**
	15	4.3	20	3.77	**19.94**	**3.776**
	15	4.3	20	3.77	**15.03**	**4.297**
	10	5.32	15	4.3	**13.02**	**4.704**
	25	3.47	30	3.36	**25.96**	**3.449**
	20	3.77	25	3.47	**22.00**	**3.650**
	20	3.77	25	3.47	**22.55**	**3.617**
	20	3.77	25	3.47	**20.11**	**3.763**
	5	8.43	10	5.32	**7.54**	**6.850**
	20	3.77	25	3.47	**20.82**	**3.721**
	20	3.77	25	3.47	**27.54**	**3.318**
	25	3.47	30	3.36	**28.29**	**3.398**
	20	3.77	25	3.47	**24.20**	**3.518**
	25	3.47	30	3.36	**28.20**	**3.400**
	10	5.32	15	4.3	**13.25**	**4.657**
	15	4.3	20	3.77	**16.49**	**4.142**
	5	8.43	10	5.32	**8.65**	**6.160**
	20	3.77	25	3.47	**23.56**	**3.556**
	5	8.43	10	5.32	**10.66**	**4.909**
	20	3.77	25	3.47	**21.69**	**3.669**
	20	3.77	25	3.47	**21.92**	**3.655**
	5	8.43	10	5.32	**3.00**	**9.674**
	5	8.43	10	5.32	**4.77**	**8.573**
	25	3.47	30	3.36	**29.56**	**3.370**
	25	3.47	30	3.36	**27.14**	**3.423**

2015 CO AM Peak No-Build	S1 Listed Speed	E1 Listed Emission	S2 Listed Speed	E2 Listed Emission	S3 Speed (mph) Surveyed	E3 Calculated CO (g/mile)
	20	3.77	25	3.47	**21.37**	**3.688**
	5	8.43	10	5.32	**4.69**	**8.623**
	15	4.3	20	3.77	**17.91**	**3.992**
	30	3.36	35	3.38	**34.31**	**3.377**
	20	3.77	25	3.47	**20.28**	**3.753**
	15	4.3	20	3.77	**17.72**	**4.012**
	10	5.32	15	4.3	**13.06**	**4.696**
	25	3.47	30	3.36	**25.96**	**3.449**
	20	3.77	25	3.47	**22.32**	**3.631**
	20	3.77	25	3.47	**23.27**	**3.574**
	20	3.77	25	3.47	**21.05**	**3.707**
	10	5.32	15	4.3	**10.90**	**5.136**
	20	3.77	25	3.47	**20.82**	**3.721**
	20	3.77	25	3.47	**27.54**	**3.318**
	25	3.47	30	3.36	**28.71**	**3.388**
	25	3.47	30	3.36	**25.50**	**3.459**
	25	3.47	30	3.36	**28.20**	**3.400**
	10	5.32	15	4.3	**13.34**	**4.639**
	15	4.3	20	3.77	**16.49**	**4.142**
	5	8.43	10	5.32	**9.05**	**5.911**
	20	3.77	25	3.47	**23.65**	**3.551**
	5	8.43	10	5.32	**5.00**	**8.430**
	20	3.77	25	3.47	**22.83**	**3.600**
	20	3.77	25	3.47	**21.92**	**3.655**
	5	8.43	10	5.32	**3.02**	**9.662**
	5	8.43	10	5.32	**9.12**	**5.867**
	25	3.47	30	3.36	**29.16**	**3.378**
	20	3.77	25	3.47	**22.40**	**3.626**

2015 CO PM Peak Build	S1 Listed Speed	E1 Listed Emission	S2 Listed Speed	E2 Listed Emission	S3 Speed (mph) Surveyed	E3 Calculated CO (g/mile)
	20	3.77	25	3.47	**20.57**	**3.736**
	5	8.43	10	5.32	**4.93**	**8.474**
	5	8.43	10	5.32	**3.54**	**9.338**
	5	8.43	10	5.32	**9.63**	**5.550**
	15	4.3	20	3.77	**16.29**	**4.163**
	5	8.43	10	5.32	**4.97**	**8.449**
	5	8.43	10	5.32	**7.17**	**7.080**
	25	3.47	30	3.36	**25.96**	**3.449**
	25	3.47	30	3.36	**27.67**	**3.411**
	25	3.47	30	3.36	**30.44**	**3.350**
	25	3.47	30	3.36	**27.45**	**3.416**
	5	8.43	10	5.32	**6.03**	**7.789**
	20	3.77	25	3.47	**21.7**	**3.668**
	15	4.3	20	3.77	**17.84**	**3.999**
	25	3.47	30	3.36	**25.15**	**3.467**
	20	3.77	25	3.47	**17.43**	**3.924**
	20	3.77	25	3.47	**21.15**	**3.701**
	20	3.77	25	3.47	**24.21**	**3.517**
	25	3.47	30	3.36	**30.24**	**3.355**
	5	8.43	10	5.32	**4.83**	**8.536**
	25	3.47	30	3.36	**32.29**	**3.310**
	5	8.43	10	5.32	**8.78**	**6.079**
	10	5.32	15	4.3	**13.43**	**4.620**
	5	8.43	10	5.32	**8.61**	**6.185**
	5	8.43	10	5.32	**0.92**	**10.968**
	25	3.47	30	3.36	**25.24**	**3.465**
	15	4.3	20	3.77	**23.12**	**3.439**
	20	3.77	25	3.47	**22.40**	**3.626**

2015 CO PM Peak No-Build	S1 Listed Speed	E1 Listed Emission	S2 Listed Speed	E2 Listed Emission	S3 Speed (mph) Surveyed	E3 Calculated CO (g/mile)
	20	3.77	25	3.47	**20.57**	**3.736**
	5	8.43	10	5.32	**3.11**	**9.606**
	5	8.43	10	5.32	**7.69**	**6.757**
	10	5.32	15	4.3	**14.56**	**4.390**
	15	4.3	20	3.77	**16.84**	**4.105**
	10	5.32	15	4.3	**10.13**	**5.293**
	5	8.43	10	5.32	**7.31**	**6.993**
	25	3.47	30	3.36	**25.96**	**3.449**
	25	3.47	30	3.36	**31.92**	**3.318**
	25	3.47	30	3.36	**32.18**	**3.312**
	25	3.47	30	3.36	**29.46**	**3.372**
	5	8.43	10	5.32	**7.5**	**6.875**
	20	3.77	25	3.47	**21.73**	**3.666**
	15	4.3	20	3.77	**17.94**	**3.988**
	25	3.47	30	3.36	**26.49**	**3.437**
	20	3.77	25	3.47	**20.73**	**3.726**
	20	3.77	25	3.47	**21.15**	**3.701**
	20	3.77	25	3.47	**24.62**	**3.493**
	25	3.47	30	3.36	**30.24**	**3.355**
	5	8.43	10	5.32	**4.93**	**8.474**
	25	3.47	30	3.36	**32.36**	**3.308**
	5	8.43	10	5.32	**5.89**	**7.876**
	10	5.32	15	4.3	**13.91**	**4.522**
	5	8.43	10	5.32	**8.84**	**6.042**
	5	8.43	10	5.32	**3.16**	**9.574**
	25	3.47	30	3.36	**25.23**	**3.465**
	15	4.3	20	3.77	**19.35**	**3.839**
	20	3.77	25	3.47	**22.40**	**3.626**

Appendix E-2
Emission Factors and Fugitive Dust for Particulate Matters

July 2004
EAB - NYSDOT

Table C1 - MOBILE6 PM10 Non-Idle Emission Factors (g/mi)

	Analysis Year															
Veh. Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LDGV	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
LDGT1	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
LDGT2	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
LDGT3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
LDGT4	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
HDGV2B	0.10	0.10	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04
HDGV3	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05
HDGV4	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05
HDGV5	0.14	0.13	0.13	0.12	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.07	0.06	0.06	0.06	0.06
HDGV6	0.14	0.14	0.14	0.15	0.14	0.14	0.13	0.13	0.13	0.12	0.12	0.08	0.08	0.07	0.06	0.06
HDGV7	0.13	0.13	0.13	0.13	0.13	0.12	0.12	0.12	0.11	0.11	0.10	0.08	0.07	0.07	0.06	0.06
HDGV8A	0.18	0.18	0.18	0.19	0.18	0.18	0.17	0.17	0.17	0.17	0.16	0.11	0.11	0.10	0.09	0.09
LDDV	0.31	0.30	0.28	0.27	0.24	0.20	0.18	0.17	0.15	0.14	0.13	0.12	0.12	0.11	0.11	0.10
LDDT12	0.20	0.19	0.18	0.17	0.16	0.14	0.13	0.11	0.09	0.08	0.07	0.06	0.06	0.05	0.05	0.04
LDDT34	0.19	0.17	0.16	0.16	0.15	0.13	0.11	0.09	0.08	0.07	0.06	0.06	0.05	0.04	0.04	0.04
HDDV2B	0.23	0.21	0.19	0.18	0.17	0.16	0.14	0.13	0.11	0.09	0.08	0.07	0.06	0.06	0.05	0.05
HDDV3	0.21	0.19	0.18	0.17	0.16	0.15	0.13	0.12	0.11	0.10	0.08	0.07	0.07	0.06	0.05	0.05
HDDV4	0.19	0.17	0.17	0.16	0.15	0.14	0.12	0.12	0.10	0.09	0.08	0.07	0.06	0.06	0.05	0.05
HDDV5	0.26	0.23	0.20	0.19	0.18	0.17	0.14	0.13	0.12	0.10	0.09	0.08	0.07	0.06	0.06	0.05
HDDV6	0.49	0.43	0.39	0.36	0.33	0.31	0.27	0.25	0.22	0.19	0.16	0.14	0.12	0.11	0.09	0.08
HDDV7	0.50	0.44	0.39	0.37	0.33	0.31	0.26	0.24	0.21	0.18	0.16	0.13	0.12	0.10	0.09	0.08
HDDV8A	0.86	0.77	0.70	0.63	0.58	0.53	0.45	0.41	0.36	0.31	0.27	0.24	0.21	0.19	0.16	0.14
HDDV8B	0.78	0.62	0.54	0.48	0.45	0.42	0.37	0.35	0.30	0.24	0.19	0.18	0.16	0.14	0.13	0.11
HDGB	0.13	0.13	0.11	0.13	0.12	0.12	0.11	0.11	0.10	0.10	0.10	0.07	0.07	0.07	0.06	0.06
HDDBT	1.60	1.43	1.73	1.67	1.64	1.59	1.48	1.41	1.36	1.33	1.26	1.17	0.94	0.89	0.68	0.73
HDDBS	1.88	1.73	1.44	1.05	0.93	0.81	0.64	0.52	0.43	0.33	0.24	0.19	0.16	0.14	0.13	0.12
MC	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table c1 - MOBILE6 PM10 Non-Idle Emission Factors (g/mi)

	Analysis Year														
Veh. Type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LDGV	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT2	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDGT4	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV2B	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDGV3	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDGV4	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDGV5	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDGV6	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
HDGV7	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04
HDGV8A	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
LDDV	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.03
LDDT12	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
LDDT34	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV2B	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV3	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDDV4	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDDV5	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
HDDV6	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04
HDDV7	0.08	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
HDDV8A	0.13	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
HDDV8B	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
HDGB	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
HDDBT	0.66	0.35	0.14	0.14	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.09	0.09
HDDBS	0.11	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05
MC	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table C2 - MOBILE6 PM2.5 Non-Idle Emission Factors (g/mi)

	Analysis Year															
Veh. Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LDGV	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT1	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT2	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT3	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT4	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
HDGV2B	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.03	0.03	0.03	0.03	0.02
HDGV3	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03
HDGV4	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.03
HDGV5	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.05	0.04	0.04	0.04	0.04	0.04
HDGV6	0.09	0.09	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.08	0.08	0.05	0.05	0.05	0.04	0.04
HDGV7	0.09	0.08	0.08	0.09	0.09	0.08	0.08	0.08	0.08	0.07	0.07	0.05	0.05	0.04	0.04	0.04
HDGV8A	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.06	0.06	0.06	0.05	0.05
LDDV	0.27	0.26	0.25	0.23	0.21	0.18	0.16	0.14	0.13	0.11	0.11	0.10	0.10	0.09	0.09	0.08
LDDT12	0.17	0.16	0.15	0.14	0.13	0.12	0.10	0.09	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.03
LDDT34	0.16	0.15	0.14	0.13	0.13	0.11	0.09	0.08	0.06	0.05	0.05	0.04	0.03	0.03	0.03	0.02
HDDV2B	0.21	0.18	0.17	0.16	0.15	0.13	0.11	0.11	0.09	0.07	0.06	0.05	0.05	0.04	0.04	0.03
HDDV3	0.18	0.17	0.15	0.15	0.14	0.13	0.11	0.10	0.09	0.07	0.06	0.05	0.05	0.04	0.04	0.03
HDDV4	0.16	0.15	0.14	0.13	0.13	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.04	0.04	0.03
HDDV5	0.23	0.19	0.18	0.16	0.15	0.14	0.12	0.11	0.09	0.08	0.07	0.06	0.05	0.05	0.04	0.04
HDDV6	0.44	0.38	0.35	0.32	0.29	0.27	0.23	0.21	0.19	0.16	0.13	0.11	0.09	0.08	0.07	0.06
HDDV7	0.45	0.39	0.35	0.32	0.30	0.27	0.23	0.21	0.18	0.16	0.13	0.11	0.09	0.08	0.07	0.06
HDDV8A	0.77	0.68	0.61	0.55	0.50	0.46	0.38	0.35	0.30	0.25	0.21	0.19	0.16	0.14	0.12	0.10
HDDV8B	0.69	0.54	0.46	0.41	0.39	0.36	0.31	0.29	0.24	0.19	0.15	0.13	0.11	0.10	0.09	0.07
HDGB	0.09	0.08	0.07	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04
HDDBT	1.46	1.31	1.58	1.53	1.49	1.45	1.35	1.29	1.24	1.21	1.15	1.06	0.85	0.81	0.61	0.66
HDDBS	1.72	1.58	1.31	0.95	0.84	0.73	0.57	0.47	0.39	0.29	0.21	0.16	0.13	0.12	0.11	0.09
MC	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table C2 - MOBILE6 PM2.5 Non-Idle Emission Factors (g/mi)

	Analysis Year														
Veh. Type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LDGV	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT1	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT2	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
LDGT4	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
HDGV2B	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV3	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV4	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDGV5	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
HDGV6	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDGV7	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDGV8A	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
LDDV	0.08	0.08	0.07	0.07	0.07	0.06	0.06	0.05	0.04	0.03	0.03	0.02	0.02	0.02	0.02
LDDT12	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
LDDT34	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV2B	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV3	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV4	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV5	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
HDDV6	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV7	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDV8A	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04
HDDV8B	0.07	0.07	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04
HDGB	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
HDDBT	0.59	0.30	0.11	0.11	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07
HDDBS	0.08	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03
MC	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

Table C3 - MOBILE6 PM10 Idle Emission Factors (g/hour)

	Analysis Year															
Veh. Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LDGV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV2B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV8A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDV2B	1.68	1.52	1.41	1.33	1.26	1.19	1.15	1.11	1.08	1.05	1.04	1.02	1.01	1.01	1.01	1.01
HDDV3	1.50	1.37	1.30	1.25	1.19	1.14	1.11	1.08	1.05	1.04	1.03	1.02	1.01	1.01	1.01	1.01
HDDV4	1.35	1.25	1.21	1.17	1.12	1.09	1.07	1.05	1.03	1.02	1.02	1.01	1.01	1.01	1.01	1.01
HDDV5	1.87	1.61	1.47	1.38	1.31	1.24	1.20	1.15	1.12	1.09	1.06	1.05	1.03	1.02	1.02	1.01
HDDV6	1.78	1.60	1.50	1.42	1.33	1.28	1.22	1.16	1.13	1.10	1.08	1.07	1.04	1.03	1.03	1.01
HDDV7	1.81	1.63	1.50	1.43	1.33	1.26	1.20	1.14	1.11	1.08	1.06	1.04	1.03	1.02	1.02	1.01
HDDV8A	2.25	2.05	1.89	1.74	1.62	1.51	1.42	1.33	1.27	1.21	1.17	1.13	1.08	1.06	1.05	1.03
HDDV8B	2.06	1.72	1.54	1.42	1.36	1.30	1.24	1.20	1.16	1.13	1.10	1.08	1.05	1.04	1.03	1.02
HDGB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDBT	2.81	2.58	3.14	3.06	2.95	2.88	2.79	2.72	2.66	2.57	2.48	2.36	1.75	1.70	1.64	1.29
HDDBS	3.25	3.03	2.55	1.95	1.70	1.54	1.42	1.28	1.19	1.13	1.08	1.04	1.03	1.02	1.01	1.01
MC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

The dashed lines mean that MOBILE6.2 does not provide idle emission factors for those vehicles and a value of zero should be assumed per recommendation by US EPA (July 2004).

Table C3 - MOBILE6 PM10 Idle Emission Factors (g/hour)

	Analysis Year														
Veh. Type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LDGV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV2B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV8A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDV2B	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDV3	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDV4	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDV5	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDV6	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDV7	1.01	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDV8A	1.02	1.02	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDV8B	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDGB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDBT	1.26	1.22	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HDDBS	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

The dashed lines mean that MOBILE6.2 does not provide idle emission factors for those vehicles and a value of zero should be assumed per recommendation by US EPA (July 2004).

Table C4 - MOBILE6 PM2.5 Idle Emission Factors (g/hour)

	Analysis Year															
Veh. Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
LDGV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV2B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV8A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDV2B	1.54	1.40	1.30	1.22	1.16	1.09	1.06	1.02	0.99	0.97	0.95	0.94	0.93	0.93	0.93	0.93
HDDV3	1.38	1.26	1.20	1.15	1.10	1.05	1.02	0.99	0.97	0.96	0.94	0.94	0.93	0.93	0.93	0.93
HDDV4	1.24	1.15	1.11	1.08	1.03	1.00	0.98	0.96	0.95	0.94	0.94	0.93	0.93	0.93	0.93	0.93
HDDV5	1.72	1.48	1.36	1.27	1.20	1.14	1.10	1.06	1.03	1.00	0.98	0.96	0.95	0.94	0.94	0.93
HDDV6	1.63	1.47	1.38	1.31	1.22	1.18	1.12	1.07	1.04	1.02	0.99	0.98	0.95	0.95	0.94	0.93
HDDV7	1.67	1.50	1.38	1.31	1.22	1.16	1.10	1.05	1.02	0.99	0.97	0.96	0.94	0.94	0.93	0.93
HDDV8A	2.07	1.89	1.74	1.61	1.49	1.39	1.30	1.23	1.17	1.11	1.07	1.04	0.99	0.98	0.97	0.94
HDDV8B	1.90	1.59	1.42	1.30	1.25	1.20	1.14	1.10	1.07	1.04	1.01	1.00	0.96	0.96	0.95	0.94
HDGB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDBT	2.59	2.38	2.89	2.82	2.72	2.65	2.57	2.50	2.44	2.37	2.29	2.17	1.61	1.56	1.51	1.18
HDDBS	2.99	2.79	2.34	1.79	1.57	1.42	1.30	1.18	1.09	1.04	0.99	0.96	0.94	0.94	0.93	0.93
MC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

The dashed lines mean that MOBILE6.2 does not provide idle emission factors for those vehicles and a value of zero should be assumed per recommendation by US EPA (July 2004).

Table C4 - MOBILE6 PM2.5 Idle Emission Factors (g/hour)

Veh. Type	Analysis Year														
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LDGV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDGT4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV2B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV7	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDGV8A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT12	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
LDDT34	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDV2B	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV3	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV4	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV5	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV6	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV7	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV8A	0.94	0.94	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDV8B	0.93	0.93	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDGB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
HDDBT	1.16	1.13	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
HDDBS	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
MC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Note: This table should be used for the following Counties in NYSDOT Regions:
All counties in Region 10 and 11 and Rockland and Westchester counties in Region 8.

The dashed lines mean that MOBILE6.2 does not provide idle emission factors for those vehicles and a value of zero should be assumed per recommendation by US EPA (July 2004).

~~11/11/06~~ 9/1/06 revised

Stapleton Fugitive Road Dust Emission Calculation

Based on U.S. EPA, AP-42, Chapter 13.2.1 and NYCDEP Guidance, a silt loading (sL) 0.10 g/m^2 for arterials and an average vehicle weight (W) of 6000 lbs (3 tons) are utilized in the following EPA Format.

$$E = K \left[\frac{sL}{2}\right]^{0.65} \times \left[\frac{W}{3}\right]^{1.5} - C$$

where E = Particulate emission factor (g/VMT)

C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear.

From EPA, AP-42, Chapter 13.2.1

For $PM_{2.5}$ { K = 1.8 g/VMT (Table 13.2-1.1)
C = 0.1617 g/VMT (Table 13.2-1.2)

and For PM_{10} { K = 7.3 g/VMT
C = 0.2119 g/VMT

Thus, $PM_{2.5}$ emission factor $E_{2.5}$ (fugitive dust)

$$= 1.8 \times \left[\frac{0.10}{2}\right]^{0.65} \times \left[\frac{3}{3}\right]^{1.5} - 0.1617$$

$$= 0.2597 - 0.1617$$

$$= \boxed{0.0957 \text{ g/VMT}} \text{ for } PM_{2.5}$$

and PM_{10} emission factor E_{10} (fugitive dust)

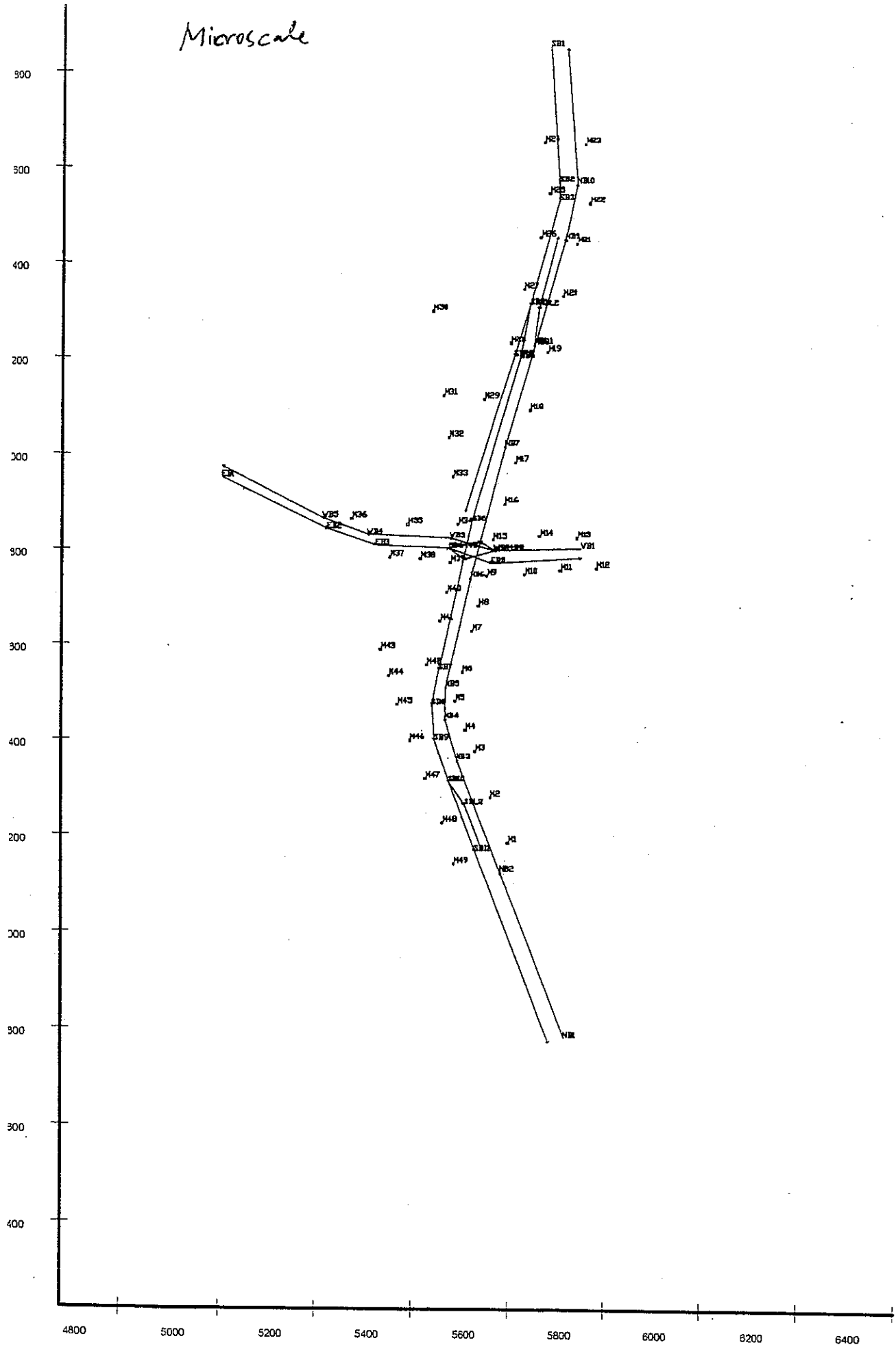
$$= 2.3 \times \left[\frac{0.10}{2}\right]^{0.65} \times \left[\frac{3}{3}\right]^{1.5} - 0.2119$$

$$= \boxed{0.83 \text{ g/VMT}} \quad PM\text{-}10$$

These factors will be used in microscale analysis in addition to idling, engine exhaust, brake-wear, and tired-wear emissions

Appendix E-3
Modeled Links and Receptors at Worst-Case Intersection

Microscale


600
500
400
200
300
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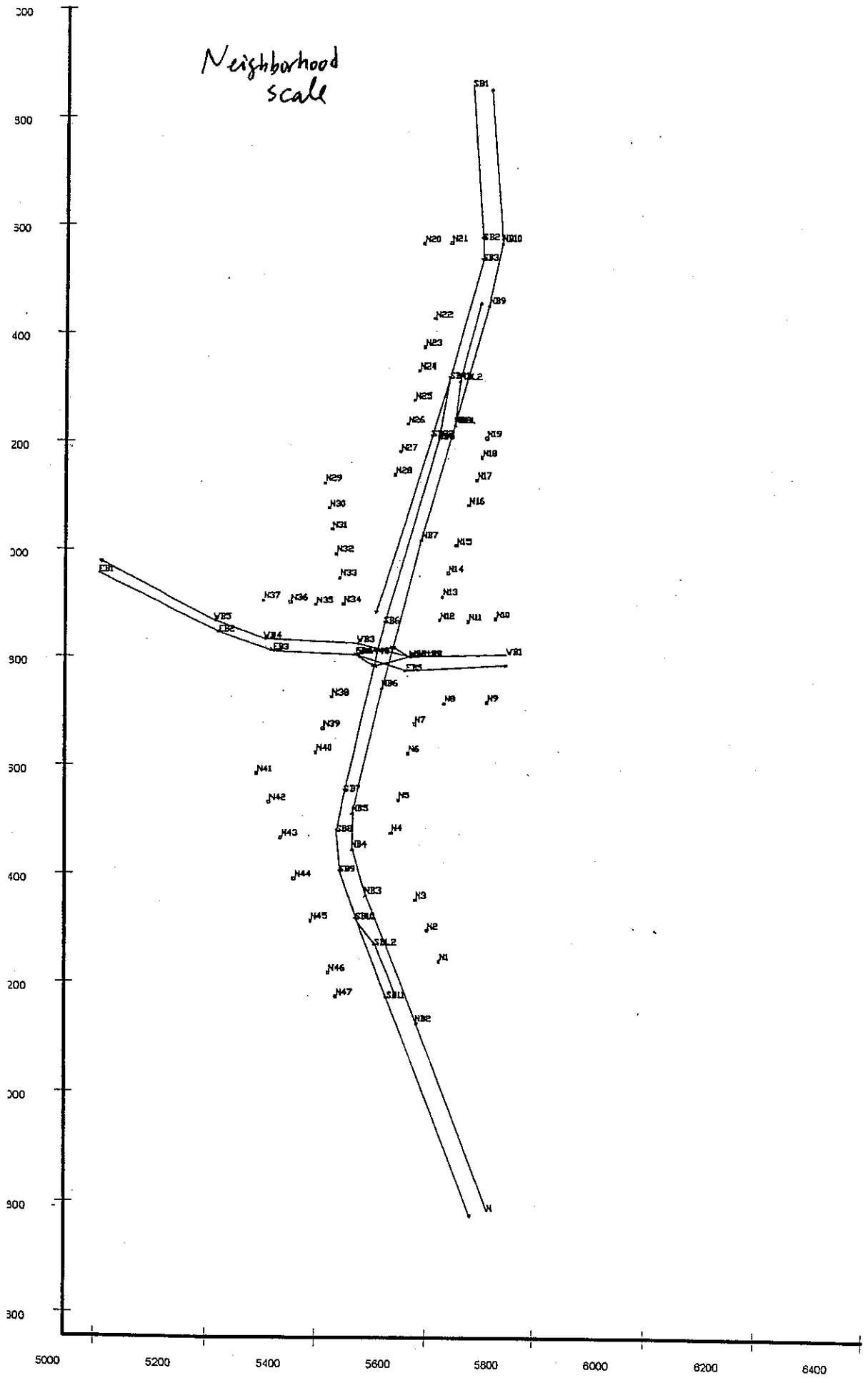
400
4800
5000
5200
5400
5600
5800
6000
6200
6400


Neighborhood scale
5000
5200
5400
5600
5800
6000
6200
6400

Appendix E-4
Parking Facilities Analysis

AIR QUALITY ANALYSIS

- STAPLETON PARKING FACILITIES AND ROADWAY LINE SOURCES

April 2006

Air Quality Analysis
- Stapleton Parking Facilities

1. Methodology

This report summarizes the results of an air quality analysis which was performed to determine the impacts of the proposed major parking lots and enclosed garage located within Stapleton project area. The analysis was performed using the methodology set forth in the *CEQR Technical Manual, Air Quality Appendix*, applying techniques to evaluate air quality impacts from parking garage (Parcel B1 with 500 spaces), and from parking lots (Parcel B2 with 130 spaces, B3 with 220 spaces , and C1 with 75 spaces). Emissions of CO, PM10, and PM2.5 pollutants from vehicles entering, parking, idling, and exiting the parking garage and parking lots were estimated using the EPA MOBILE6.2 mobile source emission model. For all arriving and departing vehicles, an average speed of 5 mph per hour was conservatively assumed for travel within the garage or parking lots. All departing vehicles were assumed to idle for 1 minute before proceeding to the exit. The concentration within the enclosed garage was calculated assuming a minimum ventilation rate, based on New York City Building Code requirements, of 1 cubic foot per minute of fresh air per gross square foot of garage area. Based on the EPA's idling and running emission factors and estimated queuing time, the CO idling emission rate ER (g/sec) and emission strength per unit area Qa (g/m^2-sec) for parking area were determined. The ambient impact concentrations were then calculated based on EPA's *Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9 (Revised), Evaluating Indirect Sources* and formats pertaining to the dispersion of pollutants from area sources, and the methodology in EPA's Workbook of Atmospheric Dispersion Estimate, AP-26. The PM10 and PM2.5 emissions are also calculated, although they are mainly released from diesel vehicles which only account for a small portion (less than 5 %) of the vehicle fleet using the parking facilities.

Based on *CEQR Technical Manual* and EPA's dispersion formats, the ambient impacts resulting from a open-space parking lot and an enclosed parking garage can be calculated as:

A) Parking Lot

The dispersion formats adopted for ambient impact analysis are:

$$C * u/Qa = 0.8 * (Ru^{1-b} - Rd^{1-b}) / (a * (1 - b))$$
$$Ru = Xu + Xo$$
$$Rd = Xd + Xo$$

where:

C = predicted pollutant concentrations (g/m^3)
u = wind speed (worst-case 1 meter/sec)
Qa = pollutant emissions generated per unit area of source (g/m^2-sec)
a,b = empirical constants (for almost all application, a = 0.50, b=0.77)
Ru = effective distance from the receptor to the upwind edge of area source (meters)
Rd = effective distance from the receptor to the downwind edge of area source (meters)
Xu = measured distance from the receptor to the upwind edge of area source (meters)
Xd = measured distance from the receptor to the downwind edge of area source (meters)
Xo = virtual distance used to affect an initial vertical mixing of pollutant emissions (Xo = 19.9 m)

The detailed steps of the impact modeling for parking lot are included in the Appendix A.

B) Enclosed Parking Garage

The CEQR and EPA's formats to predict emissions and ambient concentrations from an enclosed garage are:

$C * u/Qa = Exp (-0.5 * (H/Sz)^2))/ 3.14 * Sy * Sz$
$Sy = 0.16 * D + So$
$Sz = 0.14 * D + So$

Where
D = Distance (meter) between garage vent and receptor location
So = initial dispersion coefficient or size (meter)
C = predicted CO concentrations (g/m^3)
u = wind speed (worst-case 1 meter/sec)
Qa = CO emissions generated per unit area of source (g/m^2-sec)

Detailed calculations for parking garage B1 analysis are shown in Appendix B.

While the impact concentrations resulting from parking garage and parking lots were determined by the above methodologies, the impacts from vehicular emissions on nearby roadways (Front Street, Bay Street, Prospect street, Wave Street, etc.) were also predicted by using MOBILE6.2 and CAL3QHC models. Thus, the impacts from parking facilities and roadway emission sources were summed up, and plus the background levels to obtain total ambient concentrations at each analysis sites to compare with NAAQS.

2. Analysis Sites

The analysis sites were placed on the areas near entrance/exit of the parking lots and garage, as well as the nearby major intersections. The locations of these sites are: Front Street & Bay Street at Prospect Street and Wave Street.

3. Analysis Results and Environmental Consequences

By using the analysis procedures described above, the modeled CO, PM10, and PM2.5 concentrations resulting from analyzed parking garage B1, parking lot B2, B3, and C1; as well as from nearby roadway line sources at each analysis site were summed up, and added to the background concentrations to predict total pollutant concentrations. The total ambient concentrations levels were then compared to the NAAQS.

The worst-case one- and eight- CO concentrations predicted for all analysis sites are summarized in Table 1 and Table 2, respectively. The detailed calculation results are presented in the Appendix A and B.

The worst-case predicted PM10 ambient concentrations levels are presented in Table 3 and Table 4, respectively for 24-hour and annual average levels; while the PM10 and PM2.5 impacts are presented in Table 5 and Table 6 to compare with the New York thresholds, respectively.

All estimated concentrations under both Build and No-Build conditions are well below (within) the standards and New York impact thresholds for CO and PM. No exceedances of the NAAQS are predicted. The 8-hour CO impacts of garage B1, parking lots B2, B3, and C1, and nearby roadways are 0.476 ppm for the receptor

location at Front Street and Lot B1 (5 feet from parking garage); 0.117 ppm at worst-case receptor of intersection Front Street and Wave Street; 0.106 ppm at worst-case receptor of intersection Front Street and Prospect Street; 0.087 ppm at worst-case receptor of intersection Bay Street and Wave Street; and 0.084 ppm at worst-case receptor of intersection Bay Street and Prospect Street. These combined impacts from parking facilities and roadway emissions are all well below CEQR thresholds. The maximum 8-hour impact 0.476 ppm would occur at the receptor location 5 feet from B1 parking garage, and is well below CEQR threshold 3.32 ppm (half of the difference between no-build concentration 2.37 ppm and the 8-hour CO NAAQS of 9 ppm).

Likewise, PM10 and PM2.5 impacts are all below New York thresholds, as shown in Table 5 and Table 6.

4. Project Conformity

The analysis result shows that the operation of the proposed parking garage and parking lots, as well as the Stapleton projects will not create any new violation, nor increase the frequency or severity of any existing violations of the NAAQS standards. Therefore, this action will not delay the timely attainment of the NAAQS, and the project complies with the conformity rules and the requirements of the Clean Air Act.

TABLE 1
Predicted Ambient CO Concentrations[a]
1-hour

(ppm)[b]

Analysis Sites	Impacts From					Total Conc[c].	No-Build Conc[c].
	B1 Garage	B2 Lot	B3 Lot	C1 Lot	Roadways		Roadways
Front Street & Lot B1	0.494	0.007	0.012	0.004	0.300	4.117	3.400
Front Street & Wave Street	0.028	0.010	0.017	0.006	0.300	3.661	3.500
Front Street & Prospect St.	0.014	0.013	0.022	0.008	0.300	3.657	3.500
Bay Street & Wave Street	0.009	0.006	0.010	0.003	0.600	3.928	3.800
Bay Street & Prospect St.	0.005	0.006	0.010	0.003	0.500	3.824	3.700

Notes:

a. NAAQS (National Ambient Air Quality Standard) for 1-hr CO = 35 ppm
b. ppm = parts per million Impacts resulting from worst-case wind direction
c. Including 1-hour background concentrations 3.3 ppm

Source: The Louis Berger Group, Inc., April 2006

TABLE 2
Predicted Ambient CO Concentrations[a]
8-hour (ppm)[b]

Analysis Sites	Impacts From					Total Conc[c].	No-Build Conc[c].
	B1 Garage	B2 Lot	B3 Lot	C1 Lot	Roadways		Roadways
Front Street & Lot B1	0.320	0.005	0.008	0.003	0.210	2.846	2.370
Front Street & Wave Street	0.024	0.007	0.012	0.004	0.210	2.557	2.440
Front Street & Prospect St.	0.007	0.009	0.015	0.005	0.210	2.546	2.440
Bay Street & Wave Street	0.005	0.004	0.006	0.002	0.420	2.737	2.650
Bay Street & Prospect St.	0.002	0.004	0.006	0.002	0.350	2.664	2.580

Notes:

a. NAAQS (National Ambient Air Quality Standard) for 8-hr CO = 9 ppm
b. ppm = parts per million Impacts resulting from worst-case wind direction
c. Including 8-hour background concentrations 2.3 ppm

Source: The Louis Berger Group, Inc., April 2006

TABLE 3
Predicted Ambient PM_{10} Concentrations[a]
24-hour (ug/m^3)[b]

Analysis Sites	Impacts From					Total Conc[c].	No-Build Conc[c].
	B1 Garage	B2 Lot	B3 Lot	C1 Lot	Roadways		Roadways
Front Street & Lot B1	0.012	0.003	0.005	0.002	0.890	51.912	51.440
Front Street & Wave Street	0.015	0.004	0.007	0.002	0.890	51.918	51.440
Front Street & Prospect St.	0.019	0.005	0.008	0.003	0.890	51.925	51.440
Bay Street & Wave Street	0.012	0.003	0.005	0.002	1.330	52.352	52.330
Bay Street & Prospect St.	0.012	0.003	0.005	0.002	1.330	52.352	52.330

Notes:

a. NAAQS (National Ambient Air Quality Standard) for 24-hr PM_{10} = 150 ug/m^3
b. ug/m^3 = micrograms per cubic meter from worst-case wind direction
c. Including 24-hour background concentrations 51 ug/m^3

Source: The Louis Berger Group, Inc., April 2006

TABLE 4
Predicted Ambient PM_{10} Concentrations[a]
Annual Average (ug/m^3)[b]

Analysis Sites	Impacts From					Total Conc[c].	No-Build Conc[c].
	B1 Garage	B2 Lot	B3 Lot	C1 Lot	Roadways		Roadways
Front Street & Lot B1	0.002	0	0	0	0.178	17.180	17.089
Front Street & Wave Street	0.003	0.001	0.001	0	0.178	17.183	17.089
Front Street & Prospect St.	0.004	0.001	0.001	0	0.178	17.184	17.089
Bay Street & Wave Street	0.002	0	0	0	0.267	17.269	17.267
Bay Street & Prospect St.	0.002	0	0	0	0.267	17.269	17.267

Notes:

a. NAAQS (National Ambient Air Quality Standard) for annual average PM_{10} = 50 ug/m^3
b. ug/m^3 = micrograms per cubic meter from worst-case wind direction
c. Including annual avergae background concentrations 17 ug/m^3

Source: The Louis Berger Group, Inc., April 2006

TABLE 5
Predicted Project-Induced Impact PM_{10} Concentrations
(Build/No-Build Comparison)

Analysis Sites	24-hour (ug/m^3) Build[a]	No-Build[a]	Impact	Threshold[c]	Annual Avergae (ug/m^3) Build[b]	No-Build[b]	Impact	Threshold[c]
Front Street & Lot B1	51.912	51.440	0.47	5.0	17.180	17.089	0.091	1.0
Front Street & Wave Street	51.918	51.440	0.48	5.0	17.183	17.089	0.094	1.0
Front Street & Prospect St.	51.925	51.440	0.49	5.0	17.184	17.089	0.095	1.0
Bay Street & Wave Street	52.352	52.330	0.02	5.0	17.269	17.267	0.002	1.0
Bay Street & Prospect St.	52.352	52.330	0.02	5.0	17.269	17.267	0.002	1.0

Notes:

a. Including 24-hour background concentrations 51 ug/m^3
b. Including annual average background concentrations 17 ug/m^3
c. New York Thresholds for worst-case receptor

Source: The Louis Berger Group, Inc., April 2006

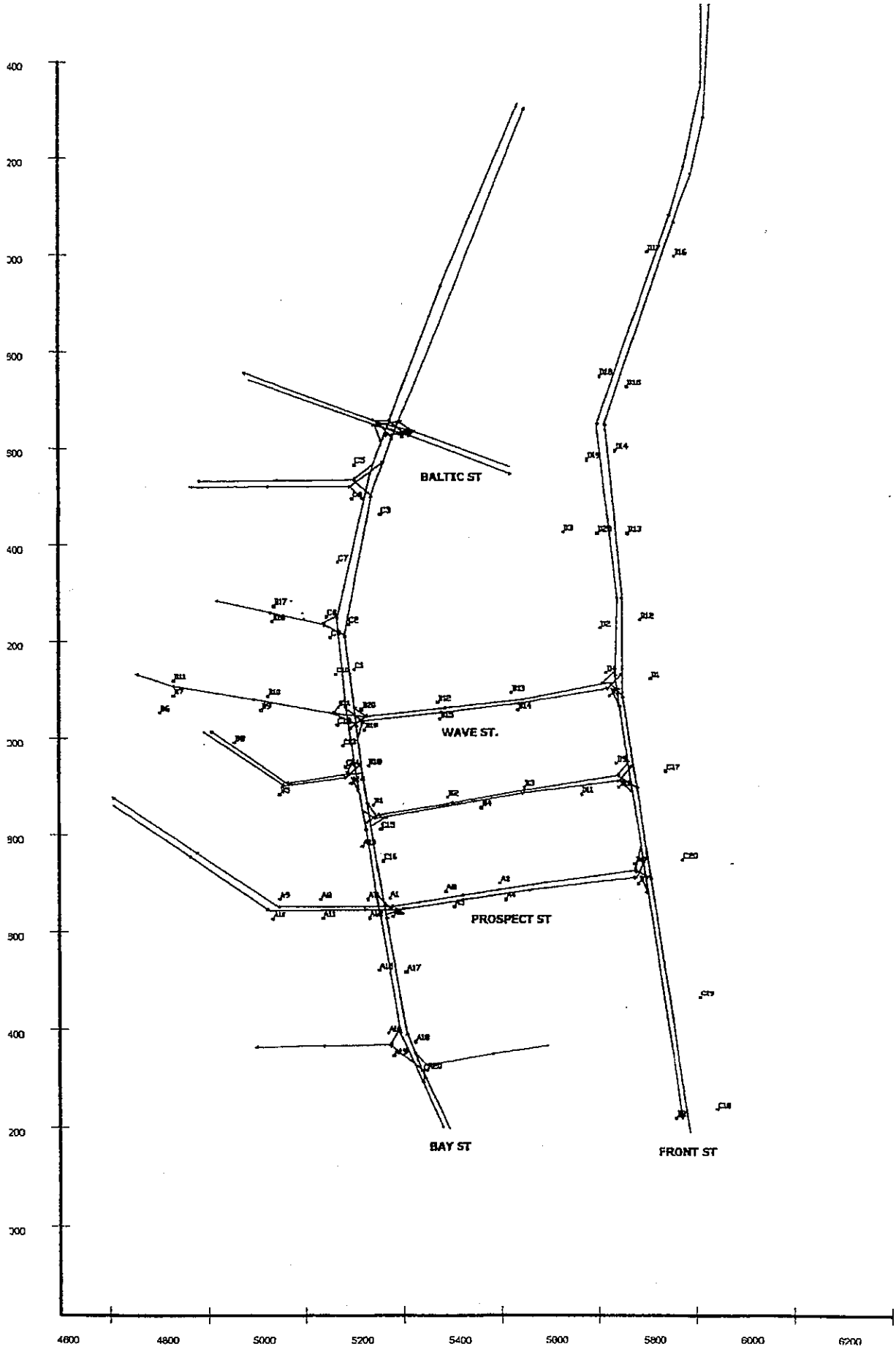
TABLE 6
Predicted Project-Induced Impact $PM_{2.5}$ Concentrations
(Build/No-Build Comparison)

Analysis Sites	24-hour (ug/m^3) Impact[a]	24-hour (ug/m^3) Threshold[b]	Annual Avergae (ug/m^3) Impact[a]	Annual Avergae (ug/m^3) Threshold[b]
Front Street & Lot B1	0.420	5.0	0.082	0.3
Front Street & Wave Street	0.430	5.0	0.085	0.3
Front Street & Prospect St.	0.440	5.0	0.086	0.3
Bay Street & Wave Street	0.02	5.0	0.002	0.3
Bay Street & Prospect St.	0.02	5.0	0.002	0.3

Notes:

a. Concentrations, difference between No-Build and Build concentrations
b. New York Thresholds for worst-case receptor

Source: The Louis Berger Group, Inc., April 2006


BALTIC ST
WAVE ST.
PROSPECT ST
BAY ST
FRONT ST
400
200
300
900
500
400
200
900
200
900
500
400
200
300
4600
4800
5000
5200
5400
5600
5800
6000
6200

APPENDIX A

PARKING LOTS ANALYSIS

Calculation for emission rate –

Parking Lot B2 (130 Spaces)
(For Peak One Hour CO)

Emission Source	Peak Hourly Operating	Area Source GSF (ft^2)	Peak 1-hour CO Emission Rate ER (g/hour)	ER (g/sec)	Emission Strength Qa (g/m^2-sec)
Idling	30 Departure (cold)	50,000	101.27		
Travel	30 Departure (cold)	50,000	109.48		
Travel	10 Arrival (hot)	50,000	3.45		
Total			214.20	0.0595	0.00001281

(For Peak Eight Hour Average CO)

Emission Source	Peak Hourly Operating	Area Source GSF (ft^2)	Peak 1-hour CO Emission Rate ER (g/hour)	ER (g/sec)	Emission Strength Qa (g/m^2-sec)
Idling	11.25 Departure (cold)	50,000	37.97		
Travel	11.25 Departure (cold)	50,000	41.05		
Travel	13.5 Arrival (hot)	50,000	4.65		
Total			83.67	0.0230	0.00000495

(For Peak One Hour PM10)

Emission Source	Peak Hourly Operating	Area Source GSF (ft^2)	Peak 1-hour CO Emission Rate ER (g/hour)	ER (g/sec)	Emission Strength Qa (g/m^2-sec)
Idling	30 Departure (cold)	50,000	0.02611		
Travel	30 Departure (cold)	50,000	0.00417		
Travel	10 Arrival (hot)	50,000	0.00139		
Total			0.03167	0.000009	0.000000002

(For Peak One Hour PM2.5)

Emission Source	Peak Hourly Operating	Area Source GSF (ft^2)	Peak 1-hour CO Emission Rate ER (g/hour)	ER (g/sec)	Emission Strength Qa (g/m^2-sec)
Idling	30 Departure (cold)	50,000	0.02350		
Travel	30 Departure (cold)	50,000	0.00375		
Travel	10 Arrival (hot)	50,000	0.00125		
Total			0.02850	0.000008	0.000000002

Mobile 6.2 Emission Factors

1. Cold Engine Idling Emission Factors (CO)

$= 82.84 \times 85\% + 73.52 \times 12\% + 69.15 \times 2.5\% + 8.233 \times 9.5\%$

$= 81.01$

$\xrightarrow{\times 2.5}$ 202.53 gram/hour Cold start 100%

2. Departing Vehicles @ 5 mph, CO emissions = 87.58 g/mile

3. Arriving Vehicles @ 5 mph, CO emissions = 8.27 g/mile

```
*******************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                                  *
* Input file: STAP-GAR.IN (file 1, run 1).                                    *
*******************************************************************************
*Run  - Mobile Sources and Garage Sources M6.2 Pollutants
  M601 Comment:
               User has enabled STAGE II REFUELING.

  M615 Comment:
               User supplied VMT mix.

* Reading start Starts/day distribution from the following external
* data file: STARTSPD.D

* Reading I/M program description records from the following external
* data file: NYSDEC\NOOBD.D

* Reading non-default I/M CUTPOINTS from the following external
* data file: FINALCUT.D

* Reading hourly start distribution from the following external
* data file: NYSDEC\SDIST\005SDIST.D

* Reading Registration Distributions from the following external
* data file: NYSDEC\REGDATA\02_NYREG.D
  M614 Comment:
               User supplied diesel sale fractions.

* Reading non-default MILEAGE ACCUMULATION RATES from the following external
* data file: NYSDEC\NY_MILE.D

* Reading Hourly VMT distribution from the following external
* data file: NYSDEC\HVMT\00S_HVMT.DEF
  M616 Comment:
               User has supplied post-1999 sulfur levels.

  Reading User Supplied Tier2 Exhaust bin phase-in fractions

     Data read from file: NYSDEC\L2EXH.d


  Reading User Supplied Tier2 EVAP phase-in fractions

     Data read from file: NYSDEC\L2EVAP.d


  Reading User Supplied Tier2 50K certification standards

     Data read from file: NYSDEC\L2CERT.d


* Reading 94+ LEV IMPLEMENTATION SCHEDULE from the following external
```

Cold Vehicle

```
* data file: NYSDEC\LEV2.D

* # # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario 1: Cold Start Stapleton Garage 2.5 mph
* File 1, Run 1, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of  2.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M112 Warning:
              Wintertime Reformulated Gasoline Rules Apply
*** I/M credits for Tech1&2 vehicles were read from the following external
    data file: TECH12.D
  M 48 Warning:
            there are no sales for vehicle class HDGV8b

 LEV phase-in data read from file NYSDEC\LEV2.D
                    Calendar Year:  2015
                            Month:  Jan.
                         Altitude:  Low
               Minimum Temperature:  43.0 (F)
               Maximum Temperature:  43.0 (F)
                 Absolute Humidity:   75. grains/lb
               Fuel Sulfur Content:   30. ppm

               Exhaust I/M Program:  Yes
                  Evap I/M Program:  Yes
                       ATP Program:  Yes
                  Reformulated Gas:  Yes
```

Vehicle Type: / GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.8476	0.1189	0.0047		0.0065	0.0024	0.0014	0.0185	0.0000	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	5.266	3.858	4.206	3.872	6.268	2.136	0.588	0.936	0.00	5.006
Composite CO :	97.95	87.18	82.55	87.01	41.93	11.999	2.990	4.112	0.00	94.160
Composite NOX :	1.613	1.606	1.966	1.620	1.447	1.697	0.331	6.176	0.00	1.695
Exhaust emissions (g/mi):										
VOC Start:	1.319	1.164	1.482	1.176		1.480	0.407		0.000	
VOC Running:	0.381	0.398	0.462	0.400		0.655	0.180		0.000	
VOC Total Exhaust:	1.699	1.561	1.944	1.576	1.635	2.136	0.588	0.936	0.00	1.669
CO Start:	82.84	73.52	69.15	73.35		8.233	1.870		0.000	
CO Running:	15.11	13.66	13.39	13.65		3.766	1.119		0.000	
CO Total Exhaust:	97.95	87.18	82.55	87.01	41.93	11.999	2.990	4.112	0.00	94.160
NOx Start:	1.065	1.049	1.335	1.060		0.430	0.087		0.000	

NOx Running:	0.548	0.557	0.631	0.560		1.268	0.244		0.000	
NOx Total Exhaust:	1.613	1.606	1.966	1.620	1.447	1.697	0.331	6.176	0.00	1.695

* #
* Scenario 2: Cold Start Stapleton Garage 5 mph
* File 1, Run 1, Scenario 2.
* #

M583 Warning:
The user supplied arterial average speed of 5.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.

M112 Warning:
Wintertime Reformulated Gasoline Rules Apply

M 48 Warning:
there are no sales for vehicle class HDGV8b

LEV phase-in data read from file NYSDEC\LEV2.D

Calendar Year:	2015
Month:	Jan.
Altitude:	Low
Minimum Temperature:	43.0 (F)
Maximum Temperature:	43.0 (F)
Absolute Humidity:	75. grains/lb
Fuel Sulfur Content:	30. ppm
Exhaust I/M Program:	Yes
Evap I/M Program:	Yes
ATP Program:	Yes
Reformulated Gas:	Yes

Vehicle Type: / GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.8476	0.1189	0.0047		0.0065	0.0024	0.0014	0.0185	0.0000	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	3.382	2.458	2.944	2.477	2.924	2.056	0.566	0.822	0.00	3.213
Composite CO :	91.14	81.24	76.71	81.07	33.50	11.307	2.784	3.356	0.00	87.581
Composite NOX :	1.544	1.534	1.882	1.547	1.485	1.569	0.306	5.554	0.00	1.617
Exhaust emissions (g/mi):										
VOC Start:	1.319	1.164	1.482	1.176		1.480	0.407		0.000	
VOC Running:	0.237	0.242	0.280	0.243		0.576	0.158		0.000	
VOC Total Exhaust:	1.556	1.405	1.762	1.419	1.303	2.056	0.566	0.822	0.00	1.524
CO Start:	82.84	73.52	69.15	73.35		8.233	1.870		0.000	
CO Running:	8.30	7.72	7.56	7.71		3.074	0.914		0.000	
CO Total Exhaust:	91.14	81.24	76.71	81.07	33.50	11.307	2.784	3.356	0.00	87.581
NOx Start:	1.065	1.049	1.335	1.060		0.430	0.087		0.000	

NOx Running:	0.479	0.485	0.547	0.488		1.139	0.219		0.000	
NOx Total Exhaust:	1.544	1.534	1.882	1.547	1.485	1.569	0.306	5.554	0.00	1.617

* #
* Scenario 3: Cold Start Stapleton Garage 10 mph
* File 1, Run 1, Scenario 3.
* #

M583 Warning:
The user supplied arterial average speed of 10.0 will be used for all hours of the day. 100% of VMT has been assigned to the arterial/collector roadway type for all hours of the day and all vehicle types.

M112 Warning:
Wintertime Reformulated Gasoline Rules Apply

M 48 Warning:
there are no sales for vehicle class HDGV8b

LEV phase-in data read from file NYSDEC\LEV2.D

Calendar Year: 2015
Month: Jan.
Altitude: Low
Minimum Temperature: 43.0 (F)
Maximum Temperature: 43.0 (F)
Absolute Humidity: 75. grains/lb
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: Yes
Evap I/M Program: Yes
ATP Program: Yes
Reformulated Gas: Yes

Vehicle Type: / GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.8476	0.1189	0.0047		0.0065	0.0024	0.0014	0.0185	0.0000	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	2.900	2.089	2.594	2.108	1.809	1.932	0.532	0.645	0.00	2.748
Composite CO :	87.99	78.42	73.95	78.25	22.29	10.352	2.500	2.314	0.00	84.475
Composite NOX :	1.445	1.435	1.773	1.448	1.560	1.375	0.269	4.613	0.00	1.503
Exhaust emissions (g/mi):										
VOC Start:	1.319	1.164	1.482	1.176		1.480	0.407		0.000	
VOC Running:	0.146	0.146	0.169	0.147		0.452	0.124		0.000	
VOC Total Exhaust:	1.464	1.310	1.651	1.323	0.854	1.932	0.532	0.645	0.00	1.427
CO Start:	82.84	73.52	69.15	73.35		8.233	1.870		0.000	
CO Running:	5.16	4.90	4.80	4.90		2.120	0.630		0.000	
CO Total Exhaust:	87.99	78.42	73.95	78.25	22.29	10.352	2.500	2.314	0.00	84.475
NOx Start:	1.065	1.049	1.335	1.060		0.430	0.087		0.000	

NOx Running:	0.380	0.386	0.438	0.388		0.945	0.182		0.000	
NOx Total Exhaust:	1.445	1.435	1.773	1.448	1.560	1.375	0.269	4.613	0.00	1.503

* #
* Scenario 4: Cold Start Stapleton Garage 15 mph
* File 1, Run 1, Scenario 4.
* #

MS83 Warning:
The user supplied arterial average speed of 15.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.

M112 Warning:
Wintertime Reformulated Gasoline Rules Apply

M 48 Warning:
there are no sales for vehicle class HDGV8b

LEV phase-in data read from file NYSDEC\LEV2.D

Calendar Year:	2015
Month:	Jan.
Altitude:	Low
Minimum Temperature:	43.0 (F)
Maximum Temperature:	43.0 (F)
Absolute Humidity:	75. grains/lb
Fuel Sulfur Content:	30. ppm
Exhaust I/M Program:	Yes
Evap I/M Program:	Yes
ATP Program:	Yes
Reformulated Gas:	Yes

Vehicle Type: / GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.8476	0.1189	0.0047		0.0065	0.0024	0.0014	0.0185	0.0000	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	2.779	1.995	2.500	2.015	1.408	1.843	0.507	0.518	0.00	2.629
Composite CO :	87.07	77.55	73.10	77.38	15.67	9.762	2.325	1.670	0.00	83.532
Composite NOX :	1.380	1.372	1.705	1.385	1.635	1.242	0.244	3.969	0.00	1.429
Exhaust emissions (g/mi):										
VOC Start:	1.319	1.164	1.482	1.176		1.480	0.407		0.000	
VOC Running:	0.105	0.106	0.122	0.107		0.363	0.100		0.000	
VOC Total Exhaust:	1.424	1.270	1.604	1.282	0.583	1.843	0.507	0.518	0.00	1.384
CO Start:	82.84	73.52	69.15	73.35		8.233	1.870		0.000	
CO Running:	4.24	4.03	3.95	4.03		1.530	0.455		0.000	
CO Total Exhaust:	87.07	77.55	73.10	77.38	15.67	9.762	2.325	1.670	0.00	83.532
NOx Start:	1.065	1.049	1.335	1.060		0.430	0.087		0.000	

NOx Running:	0.315	0.323	0.370	0.325		0.813	0.156		0.000	
NOx Total Exhaust:	1.380	1.372	1.705	1.385	1.635	1.242	0.244	3.969	0.00	1.429

* #
* Scenario 5: Cold Start Stapleton Garage 25 mph
* File 1, Run 1, Scenario 5.
* #

M583 Warning:
The user supplied arterial average speed of 25.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.

M112 Warning:
Wintertime Reformulated Gasoline Rules Apply

M 48 Warning:
there are no sales for vehicle class HDGV8b

LEV phase-in data read from file NYSDEC\LEV2.D

Calendar Year:	2015
Month:	Jan.
Altitude:	Low
Minimum Temperature:	43.0 (F)
Maximum Temperature:	43.0 (F)
Absolute Humidity:	75. grains/lb
Fuel Sulfur Content:	30. ppm
Exhaust I/M Program:	Yes
Evap I/M Program:	Yes
ATP Program:	Yes
Reformulated Gas:	Yes

Vehicle Type: / GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.8476	0.1189	0.0047		0.0065	0.0024	0.0014	0.0185	0.0000	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	2.679	1.919	2.424	1.939	1.024	1.730	0.476	0.356	0.00	2.529
Composite CO :	86.36	76.88	72.45	76.71	9.13	9.146	2.142	0.997	0.00	82.788
Composite NOX :	1.329	1.322	1.651	1.334	1.786	1.098	0.216	3.268	0.00	1.366
Exhaust emissions (g/mi):										
VOC Start:	1.319	1.164	1.482	1.176		1.480	0.407		0.000	
VOC Running:	0.073	0.074	0.084	0.074		0.250	0.069		0.000	
VOC Total Exhaust:	1.392	1.237	1.566	1.250	0.308	1.730	0.476	0.356	0.00	1.348
CO Start:	82.84	73.52	69.15	73.35		8.233	1.870		0.000	
CO Running:	3.53	3.36	3.30	3.36		0.913	0.271		0.000	
CO Total Exhaust:	86.36	76.88	72.45	76.71	9.13	9.146	2.142	0.997	0.00	82.788
NOx Start:	1.065	1.049	1.335	1.060		0.430	0.087		0.000	

NOx Running:	0.264	0.273	0.316	0.274		0.668	0.129		0.000	
NOx Total Exhaust:	1.329	1.322	1.651	1.334	1.786	1.098	0.216	3.268	0.00	1.366

* #
* Scenario 6 Cold Start Stapleton Garage 35 mph
* File 1, Run 1, Scenario 6.
* #

M583 Warning:
The user supplied arterial average speed of 35.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.

M112 Warning:
Wintertime Reformulated Gasoline Rules Apply

M 48 Warning:
there are no sales for vehicle class HDGV8b

LEV phase-in data read from file NYSDEC\LEV2.D

Calendar Year:	2015
Month:	Jan.
Altitude:	Low
Minimum Temperature:	43.0 (F)
Maximum Temperature:	43.0 (F)
Absolute Humidity:	75. grains/lb
Fuel Sulfur Content:	30. ppm
Exhaust I/M Program:	Yes
Evap I/M Program:	Yes
ATP Program:	Yes
Reformulated Gas:	Yes

Vehicle Type: / GVWR:	LDGV	LDGT12 <6000	LDGT34 >6000	LDGT (All)	HDGV	LDDV	LDDT	HDDV	MC	All Veh
VMT Distribution:	0.8476	0.1189	0.0047		0.0065	0.0024	0.0014	0.0185	0.0000	1.0000
Composite Emission Factors (g/mi):										
Composite VOC :	2.644	1.893	2.397	1.912	0.866	1.668	0.459	0.268	0.00	2.492
Composite CO :	86.33	76.86	72.43	76.69	6.63	8.887	2.065	0.714	0.00	82.736
Composite NOX :	1.309	1.304	1.632	1.316	1.937	1.063	0.209	3.098	0.00	1.345
Exhaust emissions (g/mi):										
VOC Start:	1.319	1.164	1.482	1.176		1.480	0.407		0.000	
VOC Running:	0.063	0.064	0.072	0.064		0.188	0.052		0.000	
VOC Total Exhaust:	1.382	1.227	1.554	1.240	0.192	1.668	0.459	0.268	0.00	1.336
CO Start:	82.84	73.52	69.15	73.35		8.233	1.870		0.000	
CO Running:	3.49	3.34	3.28	3.34		0.654	0.194		0.000	
CO Total Exhaust:	86.33	76.86	72.43	76.69	6.63	8.887	2.065	0.714	0.00	82.736
NOx Start:	1.065	1.049	1.335	1.060		0.430	0.087		0.000	

NOx Running:	0.244	0.255	0.297	0.256		0.633	0.122		0.000	
NOx Total Exhaust:	1.309	1.304	1.632	1.316	1.937	1.063	0.209	3.098	0.00	1.345

Stapleton Parking Lot Analysis
Pollutant: [redacted]
Lot&Size: [redacted]

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: [redacted] feet
Lot Side Length: [redacted] feet

Xd:	1.524	meter
Xu:	77.724	meter

Qa [redacted] g/sec-m2

Ru = Xu + Xo =	97.624	meter
Rd = Xd + Xo =	21.424	meter

Predicted Ambient Concentration at a Site 5 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 2.03587E-05 g/m3

= **0.0177032** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size: [redacted]

CEQR Assumption:

a:	0.5
b:	0.77
Xo:	19.9 meter
U:	1 m/s
PF:	0.7

For Distance from Lot Edge: [redacted] feet
Lot Side Length: [redacted] feet

Xd:	15.24 meter
Xu:	91.44 meter

Qa [redacted] g/sec-m2

Ru = Xu + Xo =	111.34 meter
Rd = Xd + Xo =	35.14 meter

Predicted Ambient Concentration at a Site 50 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 1.66016E-05 g/m3

= **0.0144362** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size: [redacted]

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: [redacted] feet
Lot Side Length: [redacted] feet

Xd:	30.48	meter
Xu:	106.68	meter

Qa [redacted] g/sec-m2

Ru = Xu + Xo =	126.58	meter
Rd = Xd + Xo =	50.38	meter

Predicted Ambient Concentration at a Site 100 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 1.40139E-05 g/m3

= **0.01218599** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 200 feet
Lot Side Length: 250 feet

Xd:	60.96	meter
Xu:	137.16	meter

Qa 0.000004951 g/sec-m2

Ru = Xu + Xo =	157.06	meter
Rd = Xd + Xo =	80.86	meter

Predicted Ambient Concentration at a Site 200 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 1.09217E-05 g/m3
= **0.00949713** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size: [redacted]

CEQR Assumption:

a:	0.5
b:	0.77
Xo:	19.9 meter
U:	1 m/s
PF:	0.7

For Distance from Lot Edge: 400 feet
Lot Side Length: 250 feet

Xd:	121.92 meter
Xu:	198.12 meter

Qa [redacted] g/sec-m2

Ru = Xu + Xo =	218.02 meter
Rd = Xd + Xo =	141.82 meter

Predicted Ambient Concentration at a Site 400 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 7.83202E-06 g/m3

= **0.00681046** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size: [redacted]

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 600 feet
Lot Side Length: 250 feet

Xd:	182.88	meter
Xu:	259.08	meter

Qa = 0.000000496 g/sec-m2

Ru = Xu + Xo =	278.98	meter
Rd = Xd + Xo =	202.78	meter

Predicted Ambient Concentration at a Site 600 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 6.22709E-06 g/m3
= **0.00541486** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5
b:	0.77
Xo:	19.9 meter
U:	1 m/s
PF:	0.7

For Distance from Lot Edge: 800 feet
Lot Side Length: 250 feet

Xd:	243.84 meter
Xu:	320.04 meter

Qa 0.000006495 g/sec-m2

Ru = Xu + Xo =	339.94 meter
Rd = Xd + Xo =	263.74 meter

Predicted Ambient Concentration at a Site 800 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 5.22315E-06 g/m3

= **0.00454187** ppm

Stapleton Parking Lot Analysis
Pollutant: 24-hour PM10
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.4	

For Distance from Lot Edge: 5 feet
Lot Side Length: 250 feet

Xd:	1.524	meter
Xu:	77.724	meter

Qa 0.000000020 g/sec-m2

Ru = Xu + Xo =	97.624	meter
Rd = Xd + Xo =	21.424	meter

Predicted Ambient Concentration at a Site 5 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 4.70042E-09 g/m3

= **0.00470042** ug/m3

Stapleton Parking Lot Analysis
Pollutant: Annual Avg. PM10
Lot&Size:

CEQR Assumption:

a:	0.5
b:	0.77
Xo:	19.9 meter
U:	1 m/s
PF:	0.08

For Distance from Lot Edge: 5 feet
Lot Side Length: 250 feet

Xd:	1.524 meter
Xu:	77.724 meter

Qa 0.000000000020 g/sec-m2

Ru = Xu + Xo =	97.624 meter
Rd = Xd + Xo =	21.424 meter

Predicted Ambient Concentration at a Site 5 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 9.40084E-10 g/m3

= **0.00094008** ug/m3

APPENDIX B

PARKING GARAGE ANALYSIS

For a 500-space enclosed garage on north side of Lot B1.

The garage occupacy rates in total 2 Floors are:

AM : 2%

Midday: 31%

PM : 42%

The estimated maximum Ins/outs are:

1-Hourly		8-hourly	
Ins	out	Ins	Out
15 veh/hr	70 veh/hr	104 veh/hr	306 veh/hr

Garage GSF = 150' x 200' = 30,000 ft^2/Floor

Mean Travel Distance { 1st Floor = 200 ft; 2nd Floor = 250 ft

Garage Impact Calculation Format: 0.001897

Small Program:
B1 Garage:
2nd Floor Garage Vent#1

Q (8-hr Max. Emission, g/sec per vent to handle:	0.01445
Receptor Distance from vent , (meter):	1.524
H, Receptor below vent center: (meter):	7.92
sig Y at this distance (meter):	1.74
sig z at this distance (meter):	1.71
P.F. factor:	0.7

Thus, calculated concentrations at this recepror:

8-hour Conc. (ug/m3):	2.38E-08
ppm :	0.000
1-hour Conc. (ug/m3)	3.4E-08
ppm:	0.000

B1 Garage:
2nd Floor Garage Vent#1

Q (8-hr Max. Emission, g/sec per vent to handle:	0.01445
Receptor Distance from vent , (meter):	15.24
H, Receptor below vent center: (meter):	7.92
sig Y at this distance (meter):	3.94
sig z at this distance (meter):	3.63
P.F. factor:	0.7

Thus, calculated concentrations at this recepror:

8-hour Conc. (ug/m3):	2.08E-05
ppm :	0.018
1-hour Conc. (ug/m3)	2.98E-05
ppm:	0.026

B1 Garage:
2nd Floor Garage Vent#1

Q (8-hr Max. Emission, g/sec per vent to handle:	0.01445
Receptor Distance from vent , (meter):	30.48
H, Receptor below vent center: (meter):	7.92
sig Y at this distance (meter):	6.38
sig z at this distance (meter):	5.77
P.F. factor:	0.7

Thus, calculated concentrations at this recepror:

8-hour Conc. (ug/m3):	3.41E-05
ppm :	0.030
1-hour Conc. (ug/m3)	4.87E-05
ppm:	0.042

B1 Garage:
2nd Floor Garage Vent#1

Q (8-hr Max. Emission, g/sec per vent to handle:	0.01445
Receptor Distance from vent , (meter):	76.2
H, Receptor below vent center: (meter):	7.92
sig Y at this distance (meter):	13.69
sig z at this distance (meter):	12.17
P.F. factor:	0.7

Thus, calculated concentrations at this recepror:

8-hour Conc. (ug/m3):	1.56E-05
ppm :	0.014
1-hour Conc. (ug/m3)	2.23E-05
ppm:	0.019

B1 Garage:
2nd Floor Garage Vent#1

Q (8-hr Max. Emission, g/sec per vent to handle:	0.01445
Receptor Distance from vent , (meter):	152.4
H, Receptor below vent center: (meter):	7.92
sig Y at this distance (meter):	25.88
sig z at this distance (meter):	22.84
P.F. factor:	0.7

Thus, calculated concentrations at this recepror:

8-hour Conc. (ug/m3):	5.13E-06
ppm :	0.004
1-hour Conc. (ug/m3)	7.33E-06
ppm:	0.006

B1 Garage:
2nd Floor Garage Vent#1

Q (8-hr Max. Emission, g/sec per vent to handle:	0.01445
Receptor Distance from vent , (meter):	228.6
H, Receptor below vent center: (meter):	7.92
sig Y at this distance (meter):	38.08
sig z at this distance (meter):	33.5
P.F. factor:	0.7

Thus, calculated concentrations at this recepror:

8-hour Conc. (ug/m3):	2.45E-06
ppm :	0.002
1-hour Conc. (ug/m3)	3.51E-06
ppm:	0.003

APPENDIX C

ROADWAY LINE SOURCE MODELING - CAL3QHC INPUTS AND OUTPUTS

Analysis Sites

8-Hr CO Impacts (ppm) From Parking Facilities

	B1 Garage Impact (ppm)				
	1st FL. Vent #1 (Distance To Vent#1)	2nd FL. Vent#1	1st FL. Vent #2 (Distance To Vent #2)	2nd FL. Vent#2	B1 Garage Impact Sub-Total
Front Street & Lot B1	0.216 (5 feet)	0.000	0.074 (100 feet)	0.030	0.320
Front St. & Wave St.	0.005 (500 feet)	0.004	0.009 (450 feet)	0.006	0.024
Front St. & Prospect St.	0.002 (900 feet)	0.001	0.002 (750 feet)	0.002	0.007
Bay St. & Wave St.	0.001 (1000 feet)	0.001	0.002 (900 feet)	0.001	0.005
Bay St. & Prospect St.	0.0005 (1300 feet)	0.0005	0.0005 (1280 feet)	0.0005	0.002

Analysis Sites	8-Hr CO Impacts (ppm) From Parking Lot B2 (Distance To B2)
Front Street & Lot B1	0.005 (700 feet)
Front St. & Wave St.	0.007 (400 feet)
Front St. & Prospect St.	0.009 (250 feet)
Bay St. & Wave St.	0.004 (900 feet)
Bay St. & Prospect St.	0.004 (850 feet)

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 5 feet
Lot Side Length: 250 feet

Xd:	1.524	meter
Xu:	77.724	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo = 97.624 meter
Rd = Xd + Xo = 21.424 meter

Predicted Ambient Concentration at a Site 5 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 2.03587E-05 g/m3
= **0.0177032** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge:	50	feet
Lot Side Length:	250	feet
Xd:	15.24	meter
Xu:	91.44	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	111.34	meter
Rd = Xd + Xo =	35.14	meter

Predicted Ambient Concentration at a Site 50 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 1.66016E-05 g/m3

= **0.0144362** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 100 feet
Lot Side Length: 250 feet

Xd:	30.48	meter
Xu:	106.68	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo = 126.58 meter
Rd = Xd + Xo = 50.38 meter

Predicted Ambient Concentration at a Site 100 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 1.40139E-05 g/m3
= **0.01218599** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 200 feet
Lot Side Length: 250 feet

Xd:	60.96	meter
Xu:	137.16	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	157.06	meter
Rd = Xd + Xo =	80.86	meter

Predicted Ambient Concentration at a Site 200 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 1.09217E-05 g/m3

= **0.00949713** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 400 feet
Lot Side Length: 250 feet

Xd:	121.92	meter
Xu:	198.12	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo = 218.02 meter
Rd = Xd + Xo = 141.82 meter

Predicted Ambient Concentration at a Site 400 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 7.83202E-06 g/m3
= **0.00681046** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge:	600	feet
Lot Side Length:	250	feet
Xd:	182.88	meter
Xu:	259.08	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	278.98	meter
Rd = Xd + Xo =	202.78	meter

Predicted Ambient Concentration at a Site 600 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 6.22709E-06 g/m3

= **0.00541486** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 800 feet
Lot Side Length: 250 feet

Xd:	243.84	meter
Xu:	320.04	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	339.94	meter
Rd = Xd + Xo =	263.74	meter

Predicted Ambient Concentration at a Site 800 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 5.22315E-06 g/m3
= **0.00454187** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 850 feet
Lot Side Length: 250 feet

Xd:	259.08	meter
Xu:	335.28	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	355.18	meter
Rd = Xd + Xo =	278.98	meter

Predicted Ambient Concentration at a Site 850 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 5.02702E-06 g/m3

= **0.00437133** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 250 feet
Lot Side Length: 250 feet

Xd:	76.2	meter
Xu:	152.4	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo = 172.3 meter
Rd = Xd + Xo = 96.1 meter

Predicted Ambient Concentration at a Site 250 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 9.9E-06 g/m3
= **0.00860869** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 700 feet
Lot Side Length: 250 feet

Xd:	213.36	meter
Xu:	289.56	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	309.46	meter
Rd = Xd + Xo =	233.26	meter

Predicted Ambient Concentration at a Site 700 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 5.67425E-06 g/m3

= **0.00493413** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 900 feet
Lot Side Length: 250 feet

Xd:	274.32	meter
Xu:	350.52	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	370.42	meter
Rd = Xd + Xo =	294.22	meter

Predicted Ambient Concentration at a Site 900 feet away:

C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))

= 4.84712E-06 g/m3

= **0.00421488** ppm

Stapleton Parking Lot Analysis
Pollutant: CO
Lot&Size:

CEQR Assumption:

a:	0.5	
b:	0.77	
Xo:	19.9	meter
U:	1	m/s
PF:	0.7	

For Distance from Lot Edge: 1100 feet
Lot Side Length: 250 feet

Xd:	335.28	meter
Xu:	411.48	meter

Qa 0.00000495 g/sec-m2

Ru = Xu + Xo =	431.38	meter
Rd = Xd + Xo =	355.18	meter

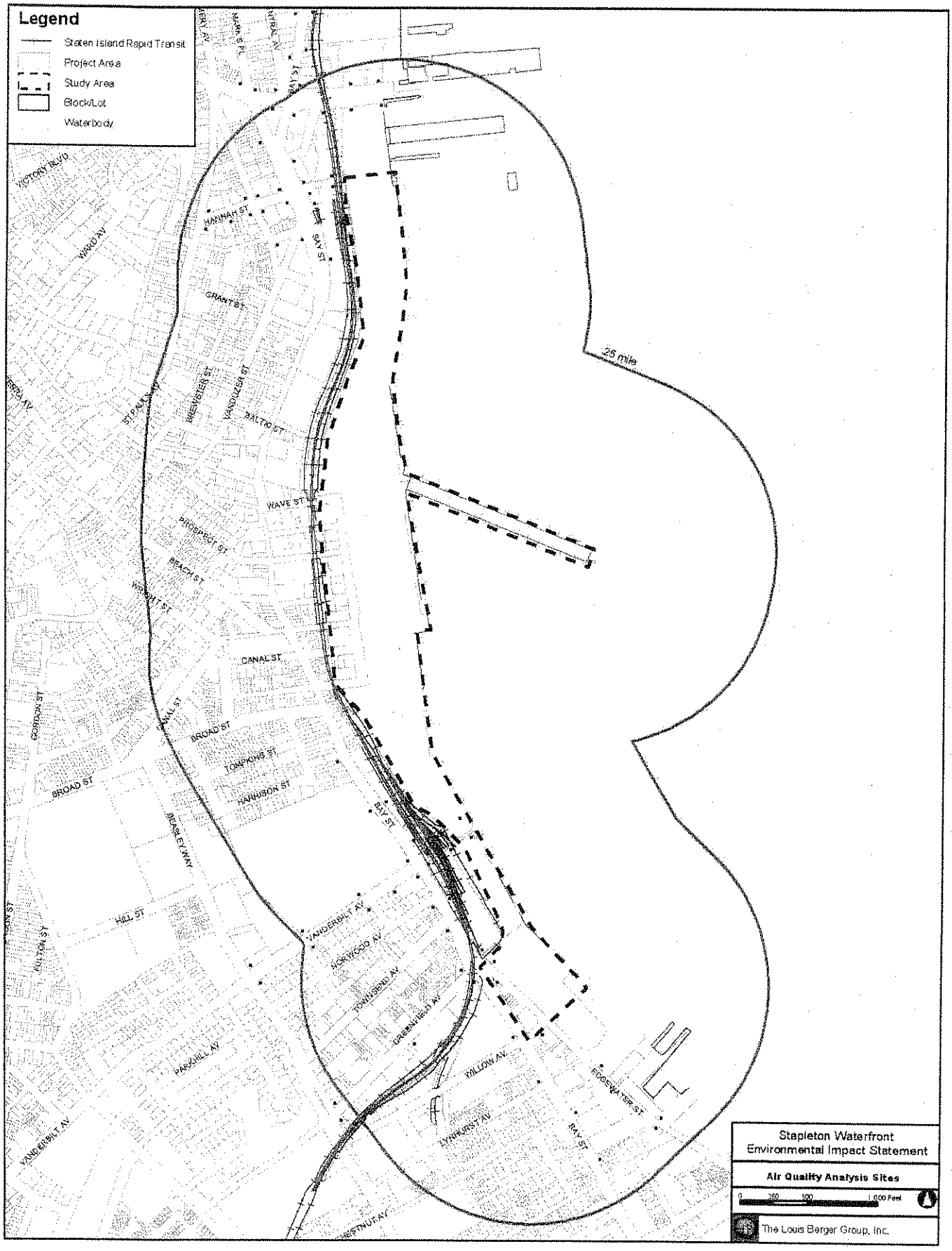
Predicted Ambient Concentration at a Site 1100 feet away:
C = Qa/U x 0.8 x (Ru ^(1-b) - Rd^(1-b)) * PF / (a x (1 - b))
= 4.2539E-06 g/m3
= **0.00369904** ppm

Analysis Sites	8-Hr CO Impacts (ppm) From Parking Facilities
	B3 Impact (ppm) Parking Lot
	(Distance To B3)
Front Street & Lot B1	0.008 (800 feet)
Front St. & Wave St.	0.012 (400 feet)
Front St. & Prospect St.	0.015 (250 feet)
Bay St. & Wave St.	0.006 (1100 feet)
Bay St. & Prospect St.	0.006 (1050 feet)

Look-Up Table

Distance From Lot (feet)	8-Hr CO Impact (ppm) From Lot B2 (130 Spaces)	8-Hr CO Impact (ppm) From Lot B3 (220 Spaces)
5	0.0177	0.030
50	0.0144	0.024
100	0.0122	0.021
200	0.0095	0.016
250	0.0086	0.015
400	0.0068	0.012
600	0.0054	0.009
700	0.0049	0.008
800	0.0045	0.008
850	0.0044	0.007
900	0.0042	0.007
1100	0.0037	0.006

Appendix E-5
CAL3QHC Modeling


Legend
Staten Island Rapid Transit
Project Area
Study Area
Block/Lot
Waterbody
.25 mile
VICTORY BLVD
HANNAH ST
GRANT ST
WAVE ST
PROSPECT ST
BRACH ST
CANAL ST
BROAD ST
TOMPKINS ST
HARRISON ST
HILL ST
VANDERBILT AV
PARKHILL AV
WILLOW AV
LYNHURST AV
EDGEWATER ST
BAY ST
Stapleton Waterfront
Environmental Impact Statement
Air Quality Analysis Sites
0 250 500 1,000 Feet
The Louis Berger Group, Inc.

JOB: CO 2015 AM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Greenfield

DATE : 2/28/ 6
TIME : 17: 8:34

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
		*	X1	Y1	X2	Y2	*				
LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)				
198.	1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*				
	299.	AG	311.	4.9	.0	32.0					
321.	2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*				
	312.	AG	311.	4.9	.0	32.0					
449.	3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*				
	313.	AG	222.	4.9	.0	32.0					
17.	4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1759.3	950.3	*				
	133.	AG	103.	100.0	.0	30.0	.08	.9			
224.	5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*				
	323.	AG	1.	4.9	.0	32.0					
675.	6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*				
	316.	AG	257.	4.9	.0	32.0					
36.	7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1617.3	1104.1	*				
	136.	AG	192.	100.0	.0	30.0	.17	1.8			
447.	8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*				
	133.	AG	283.	4.9	.0	32.0					
324.	9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*				
	132.	AG	233.	4.9	.0	32.0					
232.	10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*				
	122.	AG	233.	4.9	.0	32.0					
792.	11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*				
	331.	AG	702.	3.7	.0	32.0					
337.	12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*				
	327.	AG	735.	8.1	.0	32.0					
56.	13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1750.4	891.6	*				
	147.	AG	103.	100.0	.0	30.0	.25	2.9			
400.	14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*				
	330.	AG	753.	4.2	.0	32.0					
58.	15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1512.6	1288.9	*				
	150.	AG	103.	100.0	.0	30.0	.25	2.9			
384.	16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*				
	325.	AG	667.	3.4	.0	32.0					

```
      17. L11 BAY ST NB 6-7    *    1264.0     1654.0     1049.0     2127.0 *
520.   336. AG     667.    3.8     .0 32.0
      18. L12 BAY ST SB 1-2    *    1030.0     2123.0     1244.0     1644.0 *
525.   156. AG     730.    3.8     .0 32.0
      19. L13 BAY ST SB 2-3    *    1244.0     1644.0     1445.0     1358.0 *
350.   145. AG     730.    6.2     .0 32.0
      20. L13Q BAY ST SB 3-2   *    1445.0     1358.0     1412.9     1403.7 *
56.    325. AG     103. 100.0     .0 30.0  .25   2.8
      21. L14 BAY ST SB 3-1T   *    1445.0     1358.0     1661.0      964.0 *
449.   151. AG     557.    4.9     .0 32.0
      22. L14Q BAY ST SB 1T-3  *    1661.0      964.0     1640.6     1001.3 *
42.    331. AG     103. 100.0     .0 30.0  .19   2.2
      23. L15 BAY ST SB 1T-2   *    1661.0      964.0     1830.0      731.0 *
288.   144. AG     610.    3.4     .0 32.0
      24. L16 BAY ST SB 2-3    *    1830.0      731.0     2218.0       32.0 *
799.   151. AG     532.    3.7     .0 32.0
      25. L18 GREENFIELD AVE W*    1645.0      963.0     1158.0      437.0 *
717.   223. AG     178.    4.9     .0 32.0
      26. L19 VANDERBILT AVE E*     885.0      932.0     1459.0     1322.0 *
694.    56. AG     181.    4.2     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0     1322.0     1437.8     1307.6 *
26.    236. AG     192. 100.0     .0 30.0  .12   1.3
      28. L22 VANDERBILT AVE W*    1458.0     1351.0      874.0      954.0 *
706.   236. AG     440.    4.2     .0 32.0
```

JOB: CO 2015 AM No-Build Alt-A Stapleton Ave & Bay ST Intersection

RUN: Greenfield

DATE : 2/28/ 6
TIME : 17: 8:34

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	222	1600	36.74	1	3	
7. L4Q EDGEWATER ST SB	*	120	78	2.0	257	1600	36.74	1	3	
13. L8Q BAY ST NB 3-2	*	120	42	2.0	735	1600	36.74	1	3	
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	753	1600	36.74	1	3	
20. L13Q BAY ST SB 3-2	*	120	42	2.0	730	1600	36.74	1	3	
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	557	1600	36.74	1	3	
27. L19Q VANDERBILT AVE	*	120	78	2.0	181	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC G1	*	1570.0	1110.0	6.0	*
2. REC G2	*	1624.0	966.0	6.0	*
3. REC G3	*	1463.0	787.0	6.0	*
4. REC G4	*	1175.0	485.0	6.0	*
5. REC G5	*	1199.0	437.0	6.0	*
6. REC G6	*	1478.0	738.0	6.0	*
7. REC G7	*	1665.0	932.0	6.0	*
8. REC G8	*	1728.0	842.0	6.0	*
9. REC G9	*	1814.0	728.0	6.0	*
10. REC G10	*	1946.0	606.0	6.0	*
11. REC G11	*	1889.0	716.0	6.0	*
12. REC G12	*	1931.0	760.0	6.0	*
13. REC G13	*	2036.0	658.0	6.0	*
14. REC G14	*	2065.0	687.0	6.0	*
15. REC G15	*	1922.0	819.0	6.0	*
16. REC G16	*	1744.0	925.0	6.0	*
17. REC G17	*	1814.0	841.0	6.0	*
18. REC G18	*	1717.0	1010.0	6.0	*
19. REC G19	*	1691.0	1039.0	6.0	*

20. REC	G20	*	1577.0	1215.0	6.0	*

JOB: CO 2015 AM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Greenfield

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20				
0.	* .3	.3	.0	.0	.0	.0	.5	.5	.3	.0	.0	.1
	.2	.0	.0	.3	.0	.0	.0	.0				
5.	* .2	.3	.0	.0	.0	.0	.3	.5	.3	.0	.0	.1
	.2	.0	.0	.1	.0	.0	.0	.0				
10.	* .2	.3	.0	.0	.0	.0	.4	.5	.3	.0	.0	.0
	.1	.0	.0	.2	.0	.0	.0	.0				
15.	* .2	.3	.0	.0	.0	.0	.3	.5	.3	.0	.0	.0
	.0	.0	.0	.2	.0	.0	.0	.0				
20.	* .2	.3	.0	.0	.0	.0	.2	.3	.3	.0	.0	.0
	.0	.0	.0	.2	.0	.0	.0	.0				
25.	* .2	.4	.0	.0	.0	.0	.2	.3	.3	.0	.0	.0
	.0	.0	.0	.2	.0	.0	.0	.0				
30.	* .2	.4	.0	.0	.0	.0	.2	.3	.3	.0	.0	.0
	.0	.0	.0	.1	.0	.0	.0	.0				
35.	* .3	.4	.0	.0	.0	.0	.2	.2	.3	.0	.0	.0
	.0	.0	.0	.1	.0	.0	.0	.0				
40.	* .3	.4	.0	.0	.0	.0	.2	.2	.3	.0	.0	.0
	.0	.0	.0	.1	.0	.0	.0	.0				
45.	* .4	.5	.1	.1	.0	.0	.2	.2	.3	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0				
50.	* .5	.5	.1	.1	.0	.0	.2	.2	.3	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0				
55.	* .6	.4	.1	.1	.0	.0	.2	.2	.3	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0				
60.	* .6	.4	.1	.1	.0	.0	.2	.2	.3	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0				
65.	* .7	.5	.1	.1	.0	.0	.2	.2	.2	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0				
70.	* .7	.5	.1	.0	.0	.0	.3	.2	.2	.0	.0	.0
	.0	.0	.0	.0	.0	.0	.0	.0				
75.	* .7	.5	.0	.0	.0	.0	.4	.2	.2	.0	.0	.0
	.0	.0	.0	.1	.0	.0	.0	.0				
80.	* .7	.4	.0	.0	.0	.0	.3	.2	.2	.0	.0	.0
	.0	.0	.0	.1	.0	.0	.0	.0				
85.	* .7	.4	.0	.0	.0	.0	.3	.2	.2	.0	.0	.1
	.0	.0	.0	.1	.0	.0	.0	.0				

90.	*	.7	.3	.0	.0	.0	.0	.4	.2	.2	.0	.0	.2
.1	.0	.0	.1	.1	.0	.0	.0						
95.	*	.6	.2	.0	.0	.0	.0	.4	.2	.3	.0	.0	.2
.1	.0	.0	.1	.1	.0	.0	.0						
100.	*	.5	.3	.0	.0	.0	.0	.4	.3	.2	.0	.0	.2
.1	.0	.0	.2	.1	.0	.0	.0						
105.	*	.5	.4	.0	.0	.0	.0	.5	.3	.2	.0	.0	.3
.0	.0	.0	.2	.1	.0	.0	.0						
110.	*	.5	.4	.0	.0	.0	.0	.5	.3	.2	.0	.0	.3
.1	.0	.0	.2	.1	.0	.0	.0						
115.	*	.4	.3	.0	.0	.0	.0	.4	.3	.3	.0	.0	.3
.1	.0	.0	.4	.1	.0	.0	.0						
120.	*	.4	.4	.0	.0	.0	.0	.4	.3	.3	.0	.0	.3
.2	.0	.0	.4	.1	.1	.1	.0						
125.	*	.4	.4	.0	.0	.0	.0	.4	.3	.2	.0	.0	.3
.2	.0	.0	.3	.1	.1	.1	.0						
130.	*	.5	.2	.0	.0	.0	.0	.4	.2	.2	.0	.0	.2
.2	.1	.0	.3	.0	.1	.1	.0						
135.	*	.4	.2	.0	.0	.0	.0	.3	.2	.2	.0	.0	.2
.1	.1	.1	.3	.0	.2	.1	.0						
140.	*	.5	.2	.0	.0	.0	.0	.2	.4	.3	.1	.0	.1
.0	.1	.2	.5	.0	.4	.2	.0						
145.	*	.4	.0	.0	.0	.0	.0	.2	.3	.3	.1	.1	.1
.0	.1	.2	.7	.2	.4	.2	.3						
150.	*	.4	.0	.0	.0	.0	.0	.1	.0	.2	.1	.1	.1
.0	.1	.3	.8	.2	.4	.4	.3						
155.	*	.3	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.0
.0	.1	.3	.7	.3	.5	.4	.4						
160.	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
.0	.0	.3	.8	.4	.5	.4	.6						
165.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1
.0	.0	.4	.8	.3	.5	.4	.5						
170.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1
.0	.0	.3	.9	.2	.5	.4	.5						
175.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.0	.2	.8	.2	.3	.4	.4						
180.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.0	.1	.8	.2	.3	.1	.4						
185.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.0	.0	.8	.2	.3	.1	.2						
190.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.0	.0	.8	.2	.3	.2	.2						
195.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
.0	.0	.0	.7	.2	.2	.3	.2						
200.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.0
.0	.0	.0	.7	.2	.2	.2	.2						
205.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.1	.0
.0	.0	.0	.7	.2	.2	.2	.2						

JOB: CO 2015 AM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Greenfield

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20					
210.	* .0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.1	.0
.0	.0	.1	.7	.2	.2	.2	.2					
215.	* .0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0
.0	.0	.1	.6	.2	.1	.3	.2					
220.	* .0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0
.0	.0	.1	.6	.2	.1	.4	.2					
225.	* .0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0
.0	.0	.1	.6	.2	.2	.3	.2					
230.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
.0	.0	.1	.6	.2	.2	.3	.2					
235.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
.0	.0	.1	.6	.2	.2	.3	.2					
240.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
.0	.0	.1	.5	.2	.2	.3	.2					
245.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
.0	.0	.1	.5	.2	.3	.2	.2					
250.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.1
.0	.0	.1	.6	.2	.2	.2	.2					
255.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
.0	.0	.1	.6	.2	.2	.2	.2					
260.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
.0	.0	.1	.7	.2	.2	.2	.2					
265.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
.0	.0	.1	.7	.2	.2	.2	.2					
270.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.0	.2	.7	.2	.2	.2	.2					
275.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.0	.2	.7	.2	.2	.2	.2					
280.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.2	.4	.6	.3	.3	.3	.2					
285.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.4	.4	.7	.3	.3	.3	.2					
290.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.1	.4	.4	.8	.3	.3	.3	.2					
295.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.2
.1	.4	.5	.7	.3	.3	.4	.2					
300.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.2
.2	.4	.5	.7	.5	.3	.4	.4					
305.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.2
.3	.4	.3	.8	.4	.4	.4	.4					
310.	* .1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.3
.3	.2	.2	.8	.4	.4	.5	.5					
315.	* .1	.0	.0	.0	.0	.0	.0	.0	.1	.2	.4	.3
.3	.0	.1	.9	.3	.4	.4	.7					
320.	* .1	.0	.0	.0	.0	.0	.2	.1	.1	.2	.3	.3
.3	.0	.0	.9	.5	.4	.4	.5					

325.	*	.2	.0	.0	.0	.0	.0	.2	.3	.2	.2	.2	.3
.3	.0	.0	.9	.3	.3	.3	.4						
330.	*	.3	.1	.0	.0	.0	.0	.3	.4	.3	.2	.2	.3
.3	.0	.0	.5	.3	.2	.2	.2						
335.	*	.4	.1	.0	.0	.0	.0	.6	.5	.5	.2	.1	.3
.3	.0	.0	.4	.1	.0	.0	.2						
340.	*	.4	.3	.0	.0	.0	.0	.7	.3	.5	.0	.0	.3
.3	.0	.0	.2	.1	.0	.0	.0						
345.	*	.4	.3	.0	.0	.0	.0	.6	.4	.3	.0	.0	.3
.2	.0	.0	.3	.1	.0	.0	.0						
350.	*	.3	.3	.0	.0	.0	.0	.6	.3	.3	.0	.0	.2
.2	.0	.0	.2	.1	.0	.0	.0						
355.	*	.3	.3	.0	.0	.0	.0	.5	.5	.3	.0	.0	.2
.2	.0	.0	.3	.1	.0	.0	.0						
360.	*	.3	.3	.0	.0	.0	.0	.5	.5	.3	.0	.0	.1
.2	.0	.0	.3	.0	.0	.0	.0						
------	*	----------											

MAX	*	.7	.5	.1	.1	.0	.0	.7	.5	.5	.3	.4	.3
.3	.4	.5	.9	.5	.5	.5	.7						
DEGR.	*	65	45	45	45	0	0	340	0	335	155	300	105
305	285	295	315	300	155	310	315						

THE HIGHEST CONCENTRATION OF .90 PPM OCCURRED AT RECEPTOR REC16.

JOB: CO 2015 AM Build Alt-A Stapleton RUN: Hanna & Bay ST Intersection

DATE : 2/28/ 6
TIME : 16:57:21

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	LENGTH	BRG	TYPE	VPH	EF	H	W	V/C	QUEUE	
					*	X1	Y1	X2	Y2	*
	(FT)	(DEG)			(G/MI)	(FT)	(FT)		(VEH)	
1. L1 BAY ST NB UP 1-2	358.	22.	AG	661.	3.7	.0	40.0			
						950.0	2917.0	1082.0	3250.0	
2. L2 BAY ST NB UP 2-3	203.	18.	AG	661.	3.7	.0	40.0			
						1082.0	3250.0	1146.0	3443.0	
3. L3 BAY ST NB UP 3-4	314.	344.	AG	781.	3.8	.0	40.0			
						1146.0	3443.0	1058.0	3744.0	
4. L3Q BAY ST NB UP 3-4	90.	164.	AG	69.	100.0	.0	20.0	.40	4.6	
						1058.0	3744.0	1083.1	3658.0	
5. L4 BAY ST NB UP 4-5	185.	336.	AG	947.	6.8	.0	40.0			
						1058.0	3744.0	982.0	3913.0	
6. L5 BAY ST NB UP 5-6	167.	13.	AG	951.	6.8	.0	40.0			
						982.0	3913.0	1020.0	4076.0	
7. L5Q BAY ST NB UP 5-6	109.	193.	AG	69.	100.0	.0	20.0	.48	5.5	
						1020.0	4076.0	995.2	3969.8	
8. L6 BAY ST NB UP 6-7	323.	10.	AG	1116.	6.8	.0	40.0			
						1020.0	4076.0	1076.0	4394.0	
9. L7 BAY ST SB UP 1-2	320.	189.	AG	1027.	3.7	.0	40.0			
						1055.0	4396.0	1006.0	4080.0	
10. L7Q BAY ST SB UP 1-2	118.	9.	AG	69.	100.0	.0	20.0	.52	6.0	
						1006.0	4080.0	1024.1	4196.4	
11. L8 BAY ST SB UP 2-3	188.	197.	AG	883.	3.7	.0	40.0			
						1006.0	4080.0	952.0	3900.0	
12. L9 BAY ST SB UP 3-4	163.	157.	AG	1138.	3.7	.0	40.0			
						952.0	3900.0	1016.0	3750.0	
13. L9Q BAY ST SB UP 3-4	131.	337.	AG	69.	100.0	.0	20.0	.58	6.6	
						1016.0	3750.0	964.7	3870.2	
14. L10 BAY ST SB UP 4-5	319.	162.	AG	728.	3.3	.0	40.0			
						1016.0	3750.0	1113.0	3446.0	
15. L11 BAY ST SB UP 5-6	192.	191.	AG	744.	3.4	.0	40.0			
						1113.0	3446.0	1075.0	3258.0	
16. L12 BAY ST SB UP 6-7	367.	201.	AG	744.	3.4	.0	40.0			
						1075.0	3258.0	943.0	2916.0	

```
      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG    284.   6.8    .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1148.8    3799.5 *
121.   70. AG     64. 100.0    .0 12.0  .56   6.2
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG    160.   6.8    .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG    160.   6.8    .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG     72.   6.8    .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG     72.   6.8    .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1006.9    3738.1 *
31.   251. AG     64. 100.0    .0 12.0  .14   1.6
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.    71. AG    440.   6.8    .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG    338.   6.8    .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG    338.   6.8    .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     916.3    4075.8 *
72.   276. AG    128. 100.0    .0 20.0  .33   3.7
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG     27.   6.8    .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG     20.   6.8    .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1044.2    4091.6 *
4.    82. AG    128. 100.0    .0 20.0  .02    .2
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG    310.   6.8    .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG    310.   6.8    .0 40.0
```

JOB: CO 2015 AM Build Alt-A Stapleton ST Intersection RUN: Hanna & Bay

DATE : 2/28/ 6
TIME : 16:57:21

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4*	120	42	2.0	781	1600	36.74	1	3	
7. L5Q BAY ST NB UP 5-6*	120	42	2.0	951	1600	36.74	1	3	
10. L7Q BAY ST SB UP 1-2*	120	42	2.0	1027	1600	36.74	1	3	
13. L9Q BAY ST SB UP 3-4*	120	42	2.0	1138	1600	36.74	1	3	
18. L13Q HANNAH ST 1-2 W*	120	78	2.0	284	1600	36.74	1	3	
23. L14aQ HANNAH ST 2-3 *	120	78	2.0	72	1600	36.74	1	3	
27. L17Q VICTORY BLVD EB*	120	78	2.0	338	1600	36.74	1	3	
30. L19Q VICTORY BLVD WB*	120	78	2.0	20	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC H1	1133.0	3803.0	6.0
2. REC H2	1059.0	3786.0	6.0
3. REC H3	1023.0	3868.0	6.0
4. REC H4	926.0	3899.0	6.0
5. REC H5	978.0	3762.0	6.0
6. REC H6	899.0	3738.0	6.0
7. REC H7	857.0	3729.0	6.0
8. REC H8	716.0	3681.0	6.0
9. REC H9	711.0	3624.0	6.0
10. REC H10	788.0	3645.0	6.0
11. REC H11	873.0	3673.0	6.0
12. REC H12	916.0	3685.0	6.0
13. REC H13	1007.0	3720.0	6.0
14. REC H14	1025.0	3634.0	6.0
15. REC H15	955.0	3608.0	6.0
16. REC H16	1135.0	3620.0	6.0
17. REC H17	1099.0	3714.0	6.0

18.	REC	H18	*	1085.0	3750.0	6.0	*
19.	REC	H19	*	1148.0	3772.0	6.0	*

JOB: CO 2015 AM Build Alt-A Stapleton ST Intersection

RUN: Hanna & Bay

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
0.	*	.0	.1	.5	.1	.8	.0	.0	.0	.0	.0	.0	.0	1.0	.5	.0	.0	.3	.4	.1
5.	*	.0	.1	.4	.1	.8	.0	.0	.0	.0	.0	.0	.0	.9	.3	.4	.0	.2	.3	.1
10.	*	.0	.0	.1	.2	.7	.1	.0	.0	.0	.0	.0	.2	.8	.2	.4	.0	.2	.3	.0
15.	*	.0	.0	.1	.4	.7	.2	.1	.0	.0	.0	.1	.3	.6	.4	.3	.0	.1	.4	.0
20.	*	.0	.0	.0	.6	.4	.2	.1	.0	.0	.0	.2	.5	.7	.4	.2	.0	.1	.4	.0
25.	*	.0	.0	.0	.6	.4	.3	.2	.0	.0	.1	.1	.3	.7	.4	.1	.0	.1	.4	.0
30.	*	.0	.0	.0	.5	.4	.4	.1	.0	.0	.0	.2	.3	.5	.4	.1	.0	.1	.4	.0
35.	*	.0	.0	.0	.6	.4	.3	.1	.0	.0	.0	.3	.3	.5	.3	.1	.0	.0	.4	.0
40.	*	.0	.0	.0	.5	.4	.3	.1	.0	.0	.0	.2	.3	.5	.3	.1	.0	.0	.4	.0
45.	*	.0	.0	.0	.4	.4	.3	.2	.0	.0	.0	.2	.3	.5	.3	.1	.0	.0	.3	.0
50.	*	.0	.0	.0	.3	.4	.3	.2	.0	.0	.0	.2	.2	.7	.3	.1	.0	.0	.2	.0
55.	*	.0	.0	.0	.3	.4	.3	.3	.0	.0	.0	.1	.2	.7	.3	.1	.0	.0	.2	.0
60.	*	.0	.0	.0	.2	.4	.3	.2	.0	.0	.0	.1	.2	.4	.3	.1	.0	.0	.2	.0
65.	*	.0	.0	.0	.2	.4	.3	.2	.0	.0	.0	.1	.1	.5	.3	.0	.0	.0	.1	.0
70.	*	.0	.1	.0	.2	.5	.3	.2	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.1	.0
75.	*	.0	.2	.0	.3	.5	.3	.2	.0	.0	.0	.0	.1	.3	.2	.0	.0	.0	.1	.0
80.	*	.1	.2	.0	.3	.6	.3	.1	.1	.0	.0	.0	.1	.3	.2	.0	.0	.0	.1	.0
85.	*	.1	.3	.0	.3	.7	.1	.0	.1	.0	.0	.0	.1	.3	.2	.0	.0	.0	.0	.0

90.	*	.1	.4	.0	.2	.6	.0	.0	.1	.0	.0	.0	.1
.3	.2	.0	.0	.0	.0	.0							
95.	*	.1	.4	.0	.2	.5	.1	.0	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
100.	*	.2	.4	.0	.2	.6	.1	.0	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
105.	*	.2	.4	.0	.2	.5	.1	.0	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
110.	*	.2	.4	.0	.3	.4	.0	.0	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
115.	*	.2	.4	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
120.	*	.2	.4	.0	.5	.4	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
125.	*	.2	.4	.1	.5	.4	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
130.	*	.2	.4	.1	.6	.4	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
135.	*	.2	.4	.1	.5	.3	.0	.0	.0	.0	.0	.0	.0
.2	.2	.0	.0	.0	.0	.0							
140.	*	.2	.5	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0
.2	.2	.0	.0	.0	.0	.0							
145.	*	.2	.5	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
150.	*	.2	.5	.3	.4	.2	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
155.	*	.2	.7	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
160.	*	.2	.8	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0
.2	.1	.0	.0	.0	.1	.0							
165.	*	.2	.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.0	.1	.1	.0							
170.	*	.2	.9	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.0	.1	.2	.0							
175.	*	.2	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.1	.1	.3	.0							
180.	*	.2	1.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.1	.4	.0							
185.	*	.3	.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.0							
190.	*	.3	.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.1							
195.	*	.4	.8	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.1							
200.	*	.6	.7	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.1							
205.	*	.6	.7	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.4	.4	.1							

JOB: CO 2015 AM Build Alt-A Stapleton ST Intersection RUN: Hanna & Bay

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
210.	*	.6	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.4	.2	
215.	*	.5	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.2	
220.	*	.6	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1	
225.	*	.7	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1	
230.	*	.7	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1	
235.	*	.7	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1	
240.	*	.7	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1	
245.	*	.6	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.2	
250.	*	.6	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.4	.2	
255.	*	.5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.5	.3	
260.	*	.5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.4	.3	
265.	*	.3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.4	.4	
270.	*	.3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.5	.6	
275.	*	.3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.7	.7	
280.	*	.3	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.7	.7	
285.	*	.3	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.7	.7	
290.	*	.2	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.5	.7	.6	
295.	*	.1	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.7	.8	.5	
300.	*	.1	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.8	.3	
305.	*	.1	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.6	.8	.3	
310.	*	.1	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.8	.8	.2	
315.	*	.1	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.7	.8	.2	
320.	*	.1	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.6	.8	.2	

```
 325.   *     .1     .4     .4     .0     .0     .0     .0     .0     .0     .0     .0     .0
.0     .0     .0     .5     .6     .6     .2
 330.   *     .1     .5     .4     .0     .0     .0     .0     .0     .0     .0     .0     .0
.2     .0     .0     .4     .4     .6     .2
 335.   *     .1     .4     .6     .0     .0     .0     .0     .0     .0     .0     .0     .0
.2     .0     .0     .2     .5     .6     .1
 340.   *     .1     .3     .6     .0     .1     .0     .0     .0     .0     .0     .0     .0
.4     .2     .0     .2     .4     .5     .2
 345.   *     .1     .4     .6     .0     .2     .0     .0     .0     .0     .0     .0     .0
.5     .3     .0     .1     .4     .4     .2
 350.   *     .1     .4     .7     .0     .2     .0     .0     .0     .0     .0     .0     .0
.7     .4     .0     .1     .3     .5     .2
 355.   *     .1     .3     .5     .1     .7     .0     .0     .0     .0     .0     .0     .0
.9     .5     .0     .0     .3     .4     .2
 360.   *     .0     .1     .5     .1     .8     .0     .0     .0     .0     .0     .0     .0
1.0     .5     .0     .0     .3     .4     .1
 -------*-------------------------------------------------------------------------------
----------------------------------------
 MAX    *     .7    1.0     .7     .6     .8     .4     .3     .1     .0     .1     .3     .5
1.0     .5     .4     .5     .8     .8     .7
 DEGR.  *   225    175    170     20      0     30     55     80      0     25     35     20
0      0      5    320    310    305    275
```

THE HIGHEST CONCENTRATION OF 1.00 PPM OCCURRED AT RECEPTOR REC13.

JOB: CO 2015 AM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 2/28/ 6
TIME : 16:56: 6

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	X1	Y1	X2	Y2	V/C QUEUE (VEH)
1. L1 BAY ST NB UP 1-2	358.	22.	AG	661.	3.7	.0	40.0	950.0	2917.0	1082.0	3250.0	
2. L2 BAY ST NB UP 2-3	203.	18.	AG	661.	3.7	.0	40.0	1082.0	3250.0	1146.0	3443.0	
3. L3 BAY ST NB UP 3-4	314.	344.	AG	781.	3.8	.0	40.0	1146.0	3443.0	1058.0	3744.0	
4. L3Q BAY ST NB UP 3-4	90.	164.	AG	69.	100.0	.0	20.0	1058.0	3744.0	1083.1	3658.0	.40
5. L4 BAY ST NB UP 4-5	185.	336.	AG	947.	6.8	.0	40.0	1058.0	3744.0	982.0	3913.0	
6. L5 BAY ST NB UP 5-6	167.	13.	AG	951.	6.8	.0	40.0	982.0	3913.0	1020.0	4076.0	
7. L5Q BAY ST NB UP 5-6	109.	193.	AG	69.	100.0	.0	20.0	1020.0	4076.0	995.2	3969.8	.48
8. L6 BAY ST NB UP 6-7	323.	10.	AG	1116.	6.8	.0	40.0	1020.0	4076.0	1076.0	4394.0	
9. L7 BAY ST SB UP 1-2	320.	189.	AG	1027.	3.7	.0	40.0	1055.0	4396.0	1006.0	4080.0	
10. L7Q BAY ST SB UP 1-2	118.	9.	AG	69.	100.0	.0	20.0	1006.0	4080.0	1024.1	4196.4	.52
11. L8 BAY ST SB UP 2-3	188.	197.	AG	883.	3.7	.0	40.0	1006.0	4080.0	952.0	3900.0	
12. L9 BAY ST SB UP 3-4	163.	157.	AG	1138.	3.7	.0	40.0	952.0	3900.0	1016.0	3750.0	
13. L9Q BAY ST SB UP 3-4	131.	337.	AG	69.	100.0	.0	20.0	1016.0	3750.0	964.7	3870.2	.58
14. L10 BAY ST SB UP 4-5	319.	162.	AG	728.	3.3	.0	40.0	1016.0	3750.0	1113.0	3446.0	
15. L11 BAY ST SB UP 5-6	192.	191.	AG	744.	3.4	.0	40.0	1113.0	3446.0	1075.0	3258.0	
16. L12 BAY ST SB UP 6-7	367.	201.	AG	744.	3.4	.0	40.0	1075.0	3258.0	943.0	2916.0	

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      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG    284.   6.8    .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1148.8    3799.5 *
121.   70. AG     64. 100.0    .0 12.0  .56   6.2
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG    160.   6.8    .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG    160.   6.8    .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG     72.   6.8    .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG     72.   6.8    .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1006.9    3738.1 *
31.   251. AG     64. 100.0    .0 12.0  .14   1.6
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.    71. AG    440.   6.8    .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG    338.   6.8    .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG    338.   6.8    .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     916.3    4075.8 *
72.   276. AG    128. 100.0    .0 20.0  .33   3.7
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG     27.   6.8    .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG     20.   6.8    .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1044.2    4091.6 *
4.    82. AG    128. 100.0    .0 20.0  .02    .2
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG    310.   6.8    .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG    310.   6.8    .0 40.0
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JOB: CO 2015 AM Build Alt-A Stapleton BLvd & Bay ST Intersection RUN: Victory

DATE : 2/28/ 6
TIME : 16:56: 6

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4*	120	42	2.0	781	1600	36.74	1	3	
7. L5Q BAY ST NB UP 5-6*	120	42	2.0	951	1600	36.74	1	3	
10. L7Q BAY ST SB UP 1-2*	120	42	2.0	1027	1600	36.74	1	3	
13. L9Q BAY ST SB UP 3-4*	120	42	2.0	1138	1600	36.74	1	3	
18. L13Q HANNAH ST 1-2 W*	120	78	2.0	284	1600	36.74	1	3	
23. L14aQ HANNAH ST 2-3 *	120	78	2.0	72	1600	36.74	1	3	
27. L17Q VICTORY BLVD EB*	120	78	2.0	338	1600	36.74	1	3	
30. L19Q VICTORY BLVD WB*	120	78	2.0	20	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC V1	1328.0	4151.0	6.0
2. REC V2	1235.0	4141.0	6.0
3. REC V3	1041.0	4131.0	6.0
4. REC V4	1069.0	4277.0	6.0
5. REC V5	1094.0	4402.0	6.0
6. REC V6	1008.0	4231.0	6.0
7. REC V7	1040.0	4396.0	6.0
8. REC V8	966.0	4116.0	6.0
9. REC V9	888.0	4115.0	6.0
10. REC V10	839.0	4137.0	6.0
11. REC V11	1025.0	4034.0	6.0
12. REC V12	891.0	3999.0	6.0
13. REC V13	956.0	4055.0	6.0
14. REC V14	1133.0	4039.0	6.0
15. REC V15	1217.0	4050.0	6.0
16. REC V16	1337.0	4064.0	6.0

JOB: CO 2015 AM Build Alt-A Stapleton BLvd & Bay ST Intersection

RUN: Victory

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
0.	* .0	.0	.8	.6	.0	.1	.0	.0	.0	.0	1.2	.0	.6	.0	.0	.0
5.	* .0	.0	.7	.4	.0	.1	.0	.0	.0	.0	.9	.0	.6	.0	.0	.0
10.	* .0	.0	.7	.4	.0	.3	.0	.0	.0	.0	.9	.0	.8	.0	.0	.0
15.	* .0	.0	.6	.4	.0	.3	.0	.2	.0	.0	.6	.1	.8	.0	.0	.0
20.	* .0	.0	.4	.3	.0	.4	.0	.2	.0	.0	.4	.2	1.0	.0	.0	.0
25.	* .0	.0	.3	.2	.0	.4	.0	.3	.0	.0	.2	.3	1.0	.0	.0	.0
30.	* .0	.0	.2	.1	.0	.4	.0	.4	.0	.0	.2	.4	1.0	.0	.0	.0
35.	* .0	.0	.1	.1	.0	.5	.0	.4	.1	.0	.1	.5	1.1	.0	.0	.0
40.	* .0	.0	.1	.1	.0	.5	.0	.4	.2	.0	.1	.5	1.1	.0	.0	.0
45.	* .0	.0	.1	.1	.0	.5	.0	.4	.2	.1	.1	.5	1.0	.0	.0	.0
50.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.1	.0	.3	1.0	.0	.0	.0
55.	* .0	.0	.1	.1	.0	.3	.0	.4	.2	.1	.0	.2	1.0	.0	.0	.0
60.	* .0	.0	.1	.0	.0	.3	.0	.4	.2	.1	.0	.4	.9	.0	.0	.0
65.	* .0	.0	.1	.0	.0	.3	.0	.4	.3	.1	.0	.3	.9	.0	.0	.0
70.	* .0	.0	.0	.0	.0	.3	.0	.4	.3	.1	.0	.3	.8	.0	.0	.0
75.	* .0	.0	.0	.0	.0	.3	.0	.4	.3	.1	.0	.3	.8	.0	.0	.0
80.	* .0	.0	.0	.0	.0	.3	.0	.4	.4	.2	.0	.3	.6	.0	.0	.0
85.	* .0	.0	.0	.0	.0	.3	.2	.4	.4	.2	.0	.3	.5	.0	.0	.0

90.	*	.0	.0	.0	.0	.0	.3	.2	.4	.3	.2	.0	.3
.5	.0	.0	.0										
95.	*	.0	.0	.0	.0	.0	.3	.2	.5	.3	.2	.0	.3
.4	.0	.0	.0										
100.	*	.0	.0	.0	.0	.0	.3	.2	.5	.3	.2	.0	.3
.3	.0	.0	.0										
105.	*	.0	.0	.0	.0	.0	.3	.3	.5	.3	.3	.0	.2
.3	.0	.0	.0										
110.	*	.0	.0	.0	.0	.0	.3	.3	.4	.4	.2	.0	.2
.3	.0	.0	.0										
115.	*	.0	.0	.0	.0	.0	.3	.3	.4	.6	.3	.0	.2
.3	.0	.0	.0										
120.	*	.0	.0	.0	.0	.0	.3	.3	.4	.7	.7	.0	.2
.3	.0	.0	.0										
125.	*	.0	.0	.0	.0	.0	.3	.3	.6	.7	.5	.0	.2
.3	.0	.0	.0										
130.	*	.0	.0	.0	.0	.0	.3	.3	.6	.7	.4	.0	.3
.3	.0	.0	.0										
135.	*	.0	.0	.1	.0	.0	.3	.3	.4	.6	.4	.0	.2
.3	.0	.0	.0										
140.	*	.0	.0	.1	.0	.0	.3	.3	.4	.6	.3	.0	.2
.3	.0	.0	.0										
145.	*	.0	.0	.1	.1	.0	.5	.3	.5	.5	.2	.0	.3
.4	.0	.0	.0										
150.	*	.0	.0	.1	.1	.0	.5	.5	.5	.5	.2	.0	.3
.4	.0	.0	.0										
155.	*	.0	.0	.1	.1	.0	.6	.5	.6	.5	.2	.0	.3
.5	.0	.0	.0										
160.	*	.0	.0	.1	.1	.0	.7	.5	.7	.3	.1	.1	.2
.4	.0	.0	.0										
165.	*	.0	.0	.1	.1	.0	.7	.5	.8	.2	.1	.1	.0
.3	.0	.0	.0										
170.	*	.0	.0	.2	.2	.1	.7	.6	.7	.2	.2	.2	.0
.5	.0	.0	.0										
175.	*	.0	.0	.2	.2	.1	.8	.6	.7	.2	.2	.2	.0
.5	.0	.0	.0										
180.	*	.0	.0	.7	.3	.2	.7	.6	.6	.2	.2	.3	.0
.2	.0	.0	.0										
185.	*	.0	.0	.6	.5	.3	.9	.6	.5	.2	.2	.4	.0
.1	.0	.0	.0										
190.	*	.0	.0	.8	.8	.5	.5	.5	.5	.2	.2	.7	.0
.0	.0	.0	.0										
195.	*	.0	.0	.8	.9	.7	.3	.3	.5	.2	.2	.8	.0
.0	.0	.0	.0										
200.	*	.0	.0	.9	.8	.6	.1	.1	.5	.2	.2	.9	.0
.0	.1	.0	.0										
205.	*	.0	.0	1.0	.9	.7	.1	.1	.5	.2	.2	.8	.0
.0	.1	.0	.0										

JOB: CO 2015 AM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
210.	* .0	.0	.9	.9	.6	.1	.1	.4	.0	.2	.8	.0	.0	.1	.0	.0
215.	* .0	.0	1.1	.8	.4	.0	.0	.4	.0	.2	.8	.0	.0	.1	.0	.0
220.	* .0	.0	1.0	.5	.4	.0	.0	.4	.0	.2	.7	.0	.0	.1	.1	.0
225.	* .0	.0	.8	.5	.4	.0	.0	.4	.0	.2	.7	.0	.0	.0	.1	.0
230.	* .0	.0	.9	.4	.3	.0	.0	.4	.1	.2	.7	.0	.0	.1	.0	.0
235.	* .0	.1	.9	.4	.3	.0	.0	.3	.2	.2	.7	.0	.0	.1	.0	.0
240.	* .0	.1	.9	.4	.3	.0	.0	.3	.2	.2	.7	.0	.0	.1	.0	.0
245.	* .0	.1	.8	.4	.3	.0	.0	.2	.2	.2	.6	.0	.0	.1	.1	.0
250.	* .0	.0	.7	.4	.2	.0	.0	.1	.2	.2	.6	.0	.0	.2	.1	.0
255.	* .0	.1	.7	.4	.2	.0	.0	.1	.2	.2	.5	.0	.0	.2	.1	.0
260.	* .0	.1	.5	.3	.2	.0	.0	.1	.2	.2	.5	.0	.0	.2	.1	.0
265.	* .1	.1	.5	.3	.0	.0	.0	.1	.2	.2	.5	.0	.1	.2	.2	.0
270.	* .1	.1	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.1	.3	.2	.0
275.	* .1	.1	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.2	.3	.1	.0
280.	* .1	.1	.5	.3	.0	.0	.0	.1	.2	.2	.6	.0	.2	.3	.1	.0
285.	* .1	.1	.5	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.2	.1	.1
290.	* .1	.1	.5	.3	.0	.0	.0	.0	.1	.1	.8	.0	.6	.2	.1	.1
295.	* .1	.1	.5	.3	.0	.0	.0	.0	.1	.1	.9	.0	.6	.2	.1	.1
300.	* .1	.1	.5	.3	.0	.0	.0	.0	.1	.0	.9	.0	.6	.2	.1	.1
305.	* .1	.1	.5	.4	.0	.0	.0	.0	.0	.0	.9	.0	.5	.2	.1	.1
310.	* .0	.1	.5	.4	.0	.0	.0	.0	.0	.0	.8	.0	.7	.3	.1	.1
315.	* .0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.8	.1	.7	.3	.1	.1
320.	* .0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.1	.7	.3	.1	.0

325.	*	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.0
.7	.2	.1	.0										
330.	*	.0	.0	.7	.4	.0	.0	.0	.0	.0	.0	.7	.0
.7	.2	.1	.0										
335.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.9	.0
.6	.2	.1	.0										
340.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.9	.0
.6	.2	.0	.0										
345.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.6	.1	.0	.0										
350.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.9	.0
.6	.1	.0	.0										
355.	*	.0	.0	.8	.6	.0	.0	.0	.0	.0	.0	1.1	.0
.6	.1	.0	.0										
360.	*	.0	.0	.8	.6	.0	.1	.0	.0	.0	.0	1.2	.0
.6	.0	.0	.0										
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MAX	*	.1	.1	1.1	.9	.7	.9	.6	.8	.7	.7	1.2	.5
1.1	.3	.2	.1										
DEGR.	*	265	235	215	195	195	185	170	165	120	120	0	35
35	270	265	285										

THE HIGHEST CONCENTRATION OF 1.20 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2015 AM Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 2/28/ 6
TIME : 17: 7:37

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*			
	*	X1	Y1	X2	Y2	*			
	*	(FT)	(FT)	(FT)	(FT)	*	LENGTH (FT)	BRG (DEG)	TYPE
1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG
2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG
3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1759.3	950.3	*	17.	133.	AG
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1617.3	1104.1	*	36.	136.	AG
8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG
9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG
10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1750.4	891.6	*	56.	147.	AG
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1512.6	1288.9	*	58.	150.	AG
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG

LINK DESCRIPTION	VPH	EF	H	W	V/C	QUEUE
						(VEH)
1. L1 EDGEWATER ST NB 1	311.	4.9	.0	32.0		
2. L2 EDGEWATER ST NB 2	311.	4.9	.0	32.0		
3. L3 EDGEWATER ST NB 3	222.	4.9	.0	32.0		
4. L3Q EDGEWATER ST NB	103.	100.0	.0	30.0	.08	.9
5. L3a EDGEWATER ST NB	1.	4.9	.0	32.0		
6. L4a EDGEWATER ST SB	257.	4.9	.0	32.0		
7. L4Q EDGEWATER ST SB	192.	100.0	.0	30.0	.17	1.8
8. L4 EDGEWATER ST SB 4	283.	4.9	.0	32.0		
9. L5 EDGEWATER ST SB 5	233.	4.9	.0	32.0		
10. L6 EDGEWATER ST SB 6	233.	4.9	.0	32.0		
11. L7 BAY ST NB 1-2	702.	3.7	.0	32.0		
12. L8 BAY ST NB 2-4T	735.	8.1	.0	32.0		
13. L8Q BAY ST NB 3-2	103.	100.0	.0	30.0	.25	2.9
14. L9 BAY ST NB 4T-5	753.	4.2	.0	32.0		
15. L9Q BAY ST NB 5-4T	103.	100.0	.0	30.0	.25	2.9
16. L10 BAY ST NB 5-6	667.	3.4	.0	32.0		

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      17. L11 BAY ST NB 6-7    *   1264.0    1654.0    1049.0    2127.0 *
520.   336. AG     667.   3.8     .0 32.0
      18. L12 BAY ST SB 1-2    *   1030.0    2123.0    1244.0    1644.0 *
525.   156. AG     730.   3.8     .0 32.0
      19. L13 BAY ST SB 2-3    *   1244.0    1644.0    1445.0    1358.0 *
350.   145. AG     730.   6.2     .0 32.0
      20. L13Q BAY ST SB 3-2   *   1445.0    1358.0    1412.9    1403.7 *
56.    325. AG     103. 100.0     .0 30.0  .25   2.8
      21. L14 BAY ST SB 3-1T   *   1445.0    1358.0    1661.0     964.0 *
449.   151. AG     557.   4.9     .0 32.0
      22. L14Q BAY ST SB 1T-3  *   1661.0     964.0    1640.6    1001.3 *
42.    331. AG     103. 100.0     .0 30.0  .19   2.2
      23. L15 BAY ST SB 1T-2   *   1661.0     964.0    1830.0     731.0 *
288.   144. AG     610.   3.4     .0 32.0
      24. L16 BAY ST SB 2-3    *   1830.0     731.0    2218.0      32.0 *
799.   151. AG     532.   3.7     .0 32.0
      25. L18 GREENFIELD AVE W*   1645.0     963.0    1158.0     437.0 *
717.   223. AG     178.   4.9     .0 32.0
      26. L19 VANDERBILT AVE E*    885.0     932.0    1459.0    1322.0 *
694.    56. AG     181.   4.2     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0    1322.0    1437.8    1307.6 *
26.    236. AG     192. 100.0     .0 30.0  .12   1.3
      28. L22 VANDERBILT AVE W*   1458.0    1351.0     874.0     954.0 *
706.   236. AG     440.   4.2     .0 32.0
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JOB: CO 2015 AM Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Vanderbilt

DATE : 2/28/ 6
TIME : 17: 7:37

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	120	42	2.0	222	1600	36.74	1	3	
7. L4Q EDGEWATER ST SB	120	78	2.0	257	1600	36.74	1	3	
13. L8Q BAY ST NB 3-2	120	42	2.0	735	1600	36.74	1	3	
15. L9Q BAY ST NB 5-4T	120	42	2.0	753	1600	36.74	1	3	
20. L13Q BAY ST SB 3-2	120	42	2.0	730	1600	36.74	1	3	
22. L14Q BAY ST SB 1T-3	120	42	2.0	557	1600	36.74	1	3	
27. L19Q VANDERBILT AVE	120	78	2.0	181	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC Va1	1235.0	1630.0	6.0
2. REC Va2	1330.0	1496.0	6.0
3. REC Va3	1429.0	1355.0	6.0
4. REC Va4	1259.0	1234.0	6.0
5. REC Va5	1057.0	1096.0	6.0
6. REC Va6	867.0	977.0	6.0
7. REC Va7	904.0	917.0	6.0
8. REC Va8	1093.0	1047.0	6.0
9. REC Va9	1292.0	1184.0	6.0
10. REC Va10	1395.0	1252.0	6.0
11. REC Va11	1463.0	1303.0	6.0
12. REC Va12	1510.0	1239.0	6.0
13. REC Va13	1534.0	1171.0	6.0
14. REC Va14	1579.0	1205.0	6.0
15. REC Va15	1493.0	1344.0	6.0
16. REC Va16	1542.0	1372.0	6.0
17. REC Va17	1571.0	1396.0	6.0
18. REC Va18	1546.0	1460.0	6.0
19. REC Va19	1450.0	1416.0	6.0

20. REC	Va20	*	1371.0	1529.0	6.0	*

JOB: CO 2015 AM Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20				
0.	* .2	.3	.8	.0	.0	.0	.0	.0	.0	.1	.4	.4
	.3	.0	.0	.0	.0	.0	.0					
5.	* .2	.3	.7	.0	.0	.0	.0	.0	.0	.2	.4	.4
	.2	.0	.0	.0	.0	.0	.0					
10.	* .3	.3	.7	.0	.0	.0	.0	.0	.0	.2	.4	.3
	.2	.0	.0	.0	.0	.0	.0					
15.	* .3	.3	.7	.0	.0	.0	.0	.0	.0	.2	.4	.3
	.2	.0	.0	.0	.0	.0	.0					
20.	* .3	.3	.7	.0	.0	.0	.1	.1	.1	.2	.3	.2
	.2	.0	.0	.0	.0	.0	.0					
25.	* .3	.3	.7	.0	.0	.0	.1	.1	.1	.2	.3	.2
	.2	.0	.0	.0	.0	.0	.0					
30.	* .3	.3	.7	.0	.0	.0	.1	.1	.1	.1	.3	.2
	.2	.0	.0	.0	.0	.0	.0					
35.	* .2	.3	.6	.0	.0	.0	.1	.1	.1	.2	.5	.2
	.2	.0	.0	.0	.0	.0	.0					
40.	* .2	.2	.6	.0	.0	.0	.1	.1	.0	.2	.4	.2
	.2	.0	.0	.0	.0	.0	.0					
45.	* .1	.3	.6	.0	.1	.0	.1	.1	.0	.3	.4	.2
	.2	.0	.0	.0	.0	.0	.0					
50.	* .1	.3	.7	.1	.1	.0	.1	.0	.1	.2	.4	.2
	.2	.0	.0	.0	.0	.0	.0					
55.	* .1	.3	.6	.1	.1	.1	.0	.0	.0	.2	.5	.2
	.2	.0	.0	.0	.0	.0	.0					
60.	* .2	.3	.5	.1	.2	.1	.0	.0	.0	.2	.5	.2
	.2	.0	.0	.0	.0	.0	.0					
65.	* .1	.3	.5	.1	.2	.1	.0	.0	.0	.1	.5	.2
	.2	.0	.0	.0	.0	.0	.0					
70.	* .3	.2	.5	.1	.1	.1	.0	.0	.0	.1	.5	.2
	.2	.0	.0	.0	.0	.0	.0					
75.	* .3	.2	.4	.1	.1	.1	.0	.0	.0	.1	.5	.2
	.2	.0	.0	.0	.0	.0	.0					
80.	* .3	.3	.4	.1	.1	.1	.0	.0	.0	.0	.5	.2
	.2	.0	.0	.0	.0	.0	.0					
85.	* .3	.3	.5	.1	.1	.1	.0	.0	.0	.0	.5	.2
	.2	.0	.0	.0	.0	.0	.0					

90.	*	.3	.3	.4	.1	.1	.1	.0	.0	.0	.0	.5	.2
.2	.0	.0	.0	.0	.0	.0	.0						
95.	*	.3	.3	.5	.1	.1	.1	.0	.0	.0	.0	.4	.2
.2	.0	.1	.0	.0	.0	.0	.0						
100.	*	.3	.3	.4	.1	.1	.1	.0	.0	.0	.0	.4	.2
.2	.0	.1	.0	.0	.0	.0	.0						
105.	*	.3	.3	.4	.1	.1	.1	.0	.0	.0	.0	.4	.2
.2	.0	.1	.0	.0	.0	.0	.0						
110.	*	.3	.3	.7	.1	.1	.1	.0	.0	.0	.0	.3	.2
.3	.0	.1	.0	.0	.0	.0	.0						
115.	*	.3	.3	.6	.1	.1	.1	.0	.0	.0	.1	.3	.2
.3	.0	.1	.0	.0	.0	.0	.0						
120.	*	.4	.4	.6	.1	.1	.1	.0	.0	.0	.2	.3	.2
.4	.0	.1	.0	.0	.0	.0	.0						
125.	*	.4	.4	.7	.1	.1	.1	.0	.0	.0	.2	.3	.2
.5	.0	.2	.0	.0	.0	.0	.0						
130.	*	.4	.5	.8	.1	.1	.1	.0	.0	.0	.0	.3	.3
.6	.0	.3	.0	.0	.0	.0	.0						
135.	*	.5	.5	.8	.1	.1	.1	.0	.0	.0	.1	.3	.5
.7	.0	.3	.0	.0	.0	.0	.1						
140.	*	.4	.6	.8	.1	.1	.1	.0	.0	.0	.0	.4	.5
.5	.1	.5	.0	.0	.0	.3	.1						
145.	*	.3	.4	.7	.1	.1	.1	.0	.0	.0	.0	.5	.5
.5	.3	.6	.0	.0	.0	.3	.1						
150.	*	.2	.4	.7	.1	.1	.0	.0	.0	.0	.0	.3	.6
.3	.4	.9	.0	.0	.0	.4	.5						
155.	*	.1	.1	.5	.1	.1	.0	.0	.0	.0	.0	.2	.3
.2	.5	1.0	.0	.0	.0	.4	.5						
160.	*	.1	.1	.5	.1	.1	.0	.0	.0	.0	.0	.2	.2
.1	.6	.9	.1	.0	.0	.4	.4						
165.	*	.0	.0	.4	.1	.1	.0	.0	.0	.0	.0	.1	.2
.1	.5	.8	.1	.0	.0	.5	.3						
170.	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.1	.2
.1	.5	.8	.1	.0	.0	.5	.3						
175.	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.4	.8	.2	.1	.1	.4	.2						
180.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.4	.8	.2	.1	.1	.5	.2						
185.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.4	.7	.2	.1	.1	.5	.2						
190.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.6	.2	.1	.1	.5	.2						
195.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.6	.2	.1	.1	.5	.2						
200.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.5	.2	.0	.1	.5	.2						
205.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.5	.2	.1	.1	.5	.2						

JOB: CO 2015 AM Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	* .0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.6	.3	.1	.2	.6	.2
215.	* .0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.6	.3	.1	.1	.6	.2
220.	* .0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.7	.3	.1	.1	.5	.2
225.	* .0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.7	.4	.1	.2	.5	.2
230.	* .0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.7	.3	.2	.2	.4	.2
235.	* .0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.8	.3	.3	.1	.4	.2
240.	* .0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.1	.0	.2	.8	.3	.3	.1	.4	.2
245.	* .0	.0	.0	.1	.1	.0	.0	.0	.2	.1	.3	.1	.0	.2	.5	.3	.2	.2	.4	.2
250.	* .0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.4	.1	.0	.2	.5	.2	.0	.1	.3	.2
255.	* .0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.4	.1	.0	.2	.5	.0	.1	.1	.3	.2
260.	* .0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.4	.1	.0	.2	.5	.1	.1	.1	.3	.2
265.	* .0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.4	.1	.0	.2	.5	.1	.2	.1	.2	.2
270.	* .0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.4	.1	.0	.2	.3	.2	.2	.1	.2	.2
275.	* .0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.5	.1	.0	.2	.4	.2	.2	.1	.2	.2
280.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0	.2	.4	.2	.1	.1	.2	.2
285.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0	.2	.4	.2	.1	.1	.2	.2
290.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0	.2	.5	.3	.1	.1	.2	.2
295.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0	.3	.4	.2	.1	.1	.3	.2
300.	* .0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.1	.0	.3	.4	.2	.1	.0	.3	.2
305.	* .0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0	.4	.5	.2	.1	.0	.3	.2
310.	* .0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0	.5	.6	.2	.0	.0	.4	.2
315.	* .0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.8	.3	.1	.6	.5	.0	.0	.0	.3	.2
320.	* .0	.2	.4	.0	.0	.0	.0	.0	.0	.0	.9	.5	.1	.6	.4	.0	.0	.0	.3	.3

325.	*	.1	.2	.6	.0	.0	.0	.0	.0	.0	.0	1.0	.5
.3	.4	.3	.0	.0	.0	.2	.3						
330.	*	.1	.4	.7	.0	.0	.0	.0	.0	.0	.0	1.2	.7
.4	.3	.3	.0	.0	.0	.1	.2						
335.	*	.3	.5	.9	.0	.0	.0	.0	.0	.0	.0	1.1	.7
.5	.2	.1	.0	.0	.0	.1	.0						
340.	*	.3	.5	.8	.0	.0	.0	.0	.0	.0	.1	1.1	.8
.4	.1	.1	.0	.0	.0	.0	.0						
345.	*	.3	.4	.8	.0	.0	.0	.0	.0	.0	.1	.9	.5
.4	.0	.1	.0	.0	.0	.0	.0						
350.	*	.3	.4	.9	.0	.0	.0	.0	.0	.0	.1	.7	.4
.4	.0	.0	.0	.0	.0	.0	.0						
355.	*	.3	.3	.8	.0	.0	.0	.0	.0	.0	.1	.6	.4
.4	.0	.0	.0	.0	.0	.0	.0						
360.	*	.2	.3	.8	.0	.0	.0	.0	.0	.0	.1	.4	.4
.3	.0	.0	.0	.0	.0	.0	.0						
MAX	*	.5	.6	.9	.2	.2	.1	.1	.1	.2	.3	1.2	.8
.7	.6	1.0	.4	.3	.2	.6	.5						
DEGR.	*	135	140	335	225	60	55	20	20	245	45	330	340
135	160	155	225	235	210	210	150						

THE HIGHEST CONCENTRATION OF 1.20 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2005 AM Existing Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 12/29/ 5
TIME : 16:10:45

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
	*	(FT)	(FT)	(FT)	(FT)	*	LENGTH (FT)	BRG (DEG)	TYPE	VPH (G/MI)
1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	229.
2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	229.
3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	229.
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1759.7	950.0	*	17.	133.	AG	216.
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	35.
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	185.
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1610.2	1111.4	*	26.	136.	AG	401.
8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	185.
9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	185.
10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	185.
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	590.
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	549.
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1742.7	903.6	*	42.	147.	AG	216.
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	522.
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1503.8	1304.3	*	40.	150.	AG	216.
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	439.

LINK DESCRIPTION	EF	H	W	V/C	QUEUE
		(FT)	(FT)		(VEH)
1. L1 EDGEWATER ST NB 1	.0	32.0			
2. L2 EDGEWATER ST NB 2	.0	32.0			
3. L3 EDGEWATER ST NB 3	.0	32.0			
4. L3Q EDGEWATER ST NB	.0	30.0	.08	.9	
5. L3a EDGEWATER ST NB	.0	32.0			
6. L4a EDGEWATER ST SB	.0	32.0			
7. L4Q EDGEWATER ST SB	.0	30.0	.12	1.3	
8. L4 EDGEWATER ST SB 4	.0	32.0			
9. L5 EDGEWATER ST SB 5	.0	32.0			
10. L6 EDGEWATER ST SB 6	.0	32.0			
11. L7 BAY ST NB 1-2	.0	32.0			
12. L8 BAY ST NB 2-4T	.0	32.0			
13. L8Q BAY ST NB 3-2	.0	30.0	.19	2.1	
14. L9 BAY ST NB 4T-5	.0	32.0			
15. L9Q BAY ST NB 5-4T	.0	30.0	.18	2.0	
16. L10 BAY ST NB 5-6	.0	32.0			

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      17. L11 BAY ST NB 6-7    *    1264.0     1654.0     1049.0     2127.0 *
520.   336. AG     439.   7.4     .0 32.0
      18. L12 BAY ST SB 1-2    *    1030.0     2123.0     1244.0     1644.0 *
525.   156. AG     549.   7.3     .0 32.0
      19. L13 BAY ST SB 2-3    *    1244.0     1644.0     1445.0     1358.0 *
350.   145. AG     542.  10.6     .0 32.0
      20. L13Q BAY ST SB 3-2   *    1445.0     1358.0     1421.2     1391.8 *
41.    325. AG     216. 100.0     .0 30.0  .18   2.1
      21. L14 BAY ST SB 3-1T   *    1445.0     1358.0     1661.0      964.0 *
449.   151. AG     403.  13.8     .0 32.0
      22. L14Q BAY ST SB 1T-3  *    1661.0      964.0     1646.2      991.0 *
31.    331. AG     216. 100.0     .0 30.0  .14   1.6
      23. L15 BAY ST SB 1T-2   *    1661.0      964.0     1830.0      731.0 *
288.   144. AG     561.   6.7     .0 32.0
      24. L16 BAY ST SB 2-3    *    1830.0      731.0     2218.0       32.0 *
799.   151. AG     561.   6.7     .0 32.0
      25. L18 GREENFIELD AVE W*    1645.0      963.0     1158.0      437.0 *
717.   223. AG     137.  13.8     .0 32.0
      26. L19 VANDERBILT AVE E*     885.0      932.0     1459.0     1322.0 *
694.    56. AG     132.   7.8     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0     1322.0     1443.5     1311.5 *
19.    236. AG     401. 100.0     .0 30.0  .09   1.0
      28. L22 VANDERBILT AVE W*    1458.0     1351.0      874.0      954.0 *
706.   236. AG     370.   7.8     .0 32.0
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JOB: CO 2005 AM Existing Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 12/29/ 5
TIME : 16:10:45

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	120	42	2.0	229	1600	76.63	1	3
7. L4Q EDGEWATER ST SB	120	78	2.0	185	1600	76.63	1	3
13. L8Q BAY ST NB 3-2	120	42	2.0	549	1600	76.63	1	3
15. L9Q BAY ST NB 5-4T	120	42	2.0	522	1600	76.63	1	3
20. L13Q BAY ST SB 3-2	120	42	2.0	542	1600	76.63	1	3
22. L14Q BAY ST SB 1T-3	120	42	2.0	403	1600	76.63	1	3
27. L19Q VANDERBILT AVE	120	78	2.0	132	1600	76.63	1	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC G1	1570.0	1110.0	6.0
2. REC G2	1624.0	966.0	6.0
3. REC G3	1463.0	787.0	6.0
4. REC G4	1175.0	485.0	6.0
5. REC G5	1199.0	437.0	6.0
6. REC G6	1478.0	738.0	6.0
7. REC G7	1665.0	932.0	6.0
8. REC G8	1728.0	842.0	6.0
9. REC G9	1814.0	728.0	6.0
10. REC G10	1946.0	606.0	6.0
11. REC G11	1889.0	716.0	6.0
12. REC G12	1931.0	760.0	6.0
13. REC G13	2036.0	658.0	6.0
14. REC G14	2065.0	687.0	6.0
15. REC G15	1922.0	819.0	6.0
16. REC G16	1744.0	925.0	6.0
17. REC G17	1814.0	841.0	6.0
18. REC G18	1717.0	1010.0	6.0
19. REC G19	1691.0	1039.0	6.0

20. REC	G20	*	1577.0	1215.0	6.0	*

JOB: CO 2005 AM Existing Stapleton Ave & Bay ST Intersection RUN: Greenfield

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20						
0.	*	.4	.4	.0	.0	.1	.1	.6	.8	.5	.0	.3	.3
.3	.0	.0	.6	.3	.0	.0	.0						
5.	*	.4	.4	.0	.0	.1	.1	.6	.9	.5	.0	.1	.3
.3	.0	.0	.7	.3	.0	.0	.0						
10.	*	.3	.3	.1	.0	.1	.2	.6	.9	.5	.0	.1	.3
.3	.0	.0	.8	.3	.0	.0	.0						
15.	*	.3	.3	.1	.0	.1	.2	.4	.6	.5	.0	.1	.3
.3	.0	.0	.8	.3	.0	.0	.0						
20.	*	.3	.4	.1	.0	.1	.1	.4	.5	.4	.0	.1	.3
.3	.0	.0	.8	.3	.0	.0	.0						
25.	*	.4	.4	.1	.0	.1	.1	.3	.4	.4	.0	.1	.3
.3	.0	.0	.8	.3	.0	.0	.0						
30.	*	.4	.4	.0	.0	.1	.1	.3	.3	.4	.0	.1	.3
.3	.0	.0	.7	.3	.0	.0	.0						
35.	*	.5	.5	.1	.0	.1	.1	.3	.3	.4	.0	.1	.3
.3	.0	.0	.5	.3	.0	.0	.0						
40.	*	.6	.6	.1	.1	.1	.0	.3	.3	.3	.0	.1	.3
.3	.0	.0	.5	.3	.0	.0	.0						
45.	*	.8	.5	.1	.1	.1	.1	.3	.3	.3	.0	.1	.3
.3	.0	.0	.4	.3	.0	.0	.0						
50.	*	.9	.6	.1	.1	.0	.1	.3	.3	.3	.0	.1	.3
.3	.0	.0	.4	.3	.0	.0	.0						
55.	*	1.0	.7	.2	.1	.0	.2	.3	.3	.3	.0	.1	.3
.3	.0	.0	.3	.3	.0	.0	.0						
60.	*	1.2	.8	.3	.1	.0	.1	.4	.3	.3	.0	.1	.3
.3	.0	.0	.3	.3	.0	.0	.0						
65.	*	1.3	.7	.3	.1	.0	.1	.4	.3	.3	.0	.1	.3
.3	.0	.0	.3	.3	.0	.0	.0						
70.	*	1.3	.7	.2	.1	.0	.1	.5	.3	.3	.0	.1	.3
.3	.0	.0	.3	.3	.0	.0	.0						
75.	*	1.3	.7	.2	.1	.0	.1	.5	.3	.4	.0	.1	.3
.3	.0	.0	.3	.3	.0	.0	.0						
80.	*	1.2	.8	.2	.1	.0	.1	.6	.4	.5	.0	.1	.3
.3	.0	.0	.3	.3	.0	.0	.0						
85.	*	1.1	.8	.2	.1	.0	.1	.8	.4	.5	.0	.2	.3
.3	.0	.0	.3	.3	.0	.0	.0						

90.	*	1.0	.8	.2	.1	.0	.1	.8	.4	.5	.0	.2	.3
.3	.0	.0	.4	.3	.0	.0	.0						
95.	*	.9	.9	.2	.1	.0	.0	.9	.5	.4	.0	.2	.3
.4	.0	.0	.3	.3	.0	.0	.0						
100.	*	.8	.8	.1	.1	.0	.0	1.0	.7	.4	.1	.2	.3
.4	.0	.0	.4	.3	.0	.0	.0						
105.	*	.7	.9	.1	.1	.0	.0	1.1	.7	.3	.0	.0	.4
.5	.0	.0	.4	.3	.1	.0	.0						
110.	*	.6	.9	.1	.1	.0	.0	1.1	.7	.4	.0	.0	.5
.5	.0	.0	.5	.3	.1	.1	.0						
115.	*	.6	1.0	.1	.1	.0	.0	1.0	.5	.4	.0	.1	.6
.4	.0	.0	.6	.3	.1	.1	.0						
120.	*	.5	.8	.1	.1	.0	.0	.8	.5	.4	.0	.0	.6
.5	.0	.0	.7	.3	.1	.1	.0						
125.	*	.6	.7	.1	.1	.0	.0	.8	.5	.4	.0	.0	.7
.5	.1	.1	.6	.3	.4	.2	.0						
130.	*	.8	.6	.1	.1	.0	.0	.6	.4	.3	.0	.0	.6
.4	.1	.2	.7	.3	.4	.4	.0						
135.	*	1.1	.5	.1	.1	.0	.0	.5	.6	.5	.0	.0	.4
.4	.2	.4	.8	.1	.5	.5	.0						
140.	*	1.1	.5	.1	.1	.0	.0	.7	.5	.5	.1	.1	.4
.3	.3	.4	.8	.0	.8	.7	.3						
145.	*	.9	.5	.1	.1	.0	.0	.5	.4	.5	.1	.1	.2
.2	.3	.5	1.2	.2	.7	.8	.4						
150.	*	.7	.2	.1	.1	.0	.0	.4	.3	.4	.3	.3	.1
.0	.3	.5	1.4	.4	1.1	1.1	.5						
155.	*	.6	.1	.1	.1	.0	.0	.1	.2	.3	.4	.3	.2
.0	.3	.5	1.4	.4	1.1	1.1	.7						
160.	*	.4	.1	.1	.1	.0	.0	.1	.0	.1	.4	.4	.3
.0	.3	.5	1.3	.5	1.0	.9	.9						
165.	*	.2	.1	.1	.1	.0	.0	.0	.0	.1	.4	.4	.2
.1	.3	.6	1.3	.6	.9	.8	.8						
170.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.4	.3	.2
.2	.4	.5	1.2	.6	.8	.6	.7						
175.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.3	.5	1.1	.6	.8	.6	.6						
180.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.2	.5	1.2	.5	.7	.5	.6						
185.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.3	.5	1.2	.5	.7	.5	.5						
190.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.4	.5	1.1	.4	.6	.5	.3						
195.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.4	.5	1.2	.4	.6	.5	.3						
200.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.2	.2
.1	.3	.4	1.2	.4	.5	.6	.3						
205.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.2	.2
.1	.3	.5	1.2	.4	.5	.5	.2						

JOB: CO 2005 AM Existing Stapleton Ave & Bay ST Intersection RUN: Greenfield

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) *	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.0	.1	.2	.0	.0	.0	.0	.0	.0	.2	.2	.2	.1	.3	.4	1.1	.4	.4	.7	.2
215.	*	.0	.2	.2	.0	.0	.0	.0	.0	.0	.2	.2	.2	.1	.3	.4	1.1	.4	.4	.7	.2
220.	*	.0	.1	.2	.0	.0	.0	.0	.0	.0	.2	.2	.2	.1	.3	.4	1.1	.4	.6	.6	.2
225.	*	.0	.1	.1	.0	.0	.1	.1	.0	.0	.2	.2	.1	.1	.3	.4	1.1	.4	.5	.6	.2
230.	*	.0	.1	.1	.0	.0	.1	.1	.0	.0	.2	.2	.2	.1	.3	.4	1.1	.4	.6	.4	.2
235.	*	.0	.0	.1	.0	.0	.1	.1	.0	.0	.2	.2	.2	.1	.3	.4	1.1	.4	.7	.4	.2
240.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.2	.1	.1	.3	.4	1.1	.4	.6	.3	.2
245.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.3	.1	.1	.3	.4	1.1	.4	.7	.3	.2
250.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.3	.2	.1	.3	.4	1.1	.4	.6	.3	.2
255.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.4	.2	.1	.3	.4	1.2	.4	.5	.3	.2
260.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.3	.2	.1	.3	.4	1.2	.4	.4	.3	.2
265.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.3	.2	.1	.3	.5	1.2	.4	.4	.3	.2
270.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.4	.3	.1	.3	.5	1.3	.4	.3	.3	.2
275.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.4	.3	.1	.4	.5	1.3	.4	.3	.3	.2
280.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.3	.0	.4	.7	1.3	.4	.3	.3	.3
285.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.5	.4	.1	.5	.7	1.4	.4	.3	.3	.3
290.	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.3	.5	.4	.1	.5	.7	1.5	.5	.3	.3	.3
295.	*	.1	.0	.0	.0	.0	.1	.0	.0	.0	.3	.5	.4	.2	.5	.8	1.6	.6	.4	.5	.4
300.	*	.1	.0	.0	.0	.1	.1	.0	.0	.0	.3	.5	.4	.3	.5	.7	1.5	.6	.5	.6	.5
305.	*	.1	.0	.0	.0	.1	.1	.0	.0	.0	.3	.6	.7	.6	.5	.8	1.5	.7	.5	.7	.6
310.	*	.1	.0	.0	.0	.1	.1	.0	.0	.1	.4	.7	.8	.6	.5	.7	1.5	.9	.6	.7	.7
315.	*	.2	.0	.0	.0	.1	.1	.2	.1	.1	.6	.9	.8	.6	.3	.3	1.7	.9	.6	.7	.7
320.	*	.3	.0	.0	.0	.1	.1	.3	.3	.4	.6	.8	.8	.7	.2	.2	1.7	.9	.5	.7	.9

325.	*	.6	.1	.0	.0	.1	.1	.5	.3	.4	.5	.6	.6
.6	.0	.2	1.4	.8	.5	.4	.8						
330.	*	.7	.1	.0	.0	.1	.1	.9	.7	.8	.3	.5	.6
.6	.0	.0	1.3	.8	.2	.3	.4						
335.	*	1.0	.2	.0	.0	.1	.1	.9	.7	.9	.2	.4	.6
.6	.0	.0	.9	.5	.1	.2	.2						
340.	*	.7	.4	.0	.0	.1	.1	1.0	.9	.8	.2	.4	.5
.5	.0	.0	.7	.4	.1	.1	.0						
345.	*	.6	.4	.0	.0	.1	.1	1.0	.7	.7	.0	.3	.3
.3	.0	.0	.6	.3	.1	.0	.0						
350.	*	.5	.5	.0	.0	.1	.1	.9	.6	.6	.0	.3	.3
.3	.0	.0	.7	.3	.0	.0	.0						
355.	*	.4	.4	.0	.0	.1	.1	.8	.8	.5	.0	.3	.3
.3	.0	.0	.6	.3	.0	.0	.0						
360.	*	.4	.4	.0	.0	.1	.1	.6	.8	.5	.0	.3	.3
.3	.0	.0	.6	.3	.0	.0	.0						
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MAX	*	1.3	1.0	.3	.1	.1	.2	1.1	.9	.9	.6	.9	.8
.7	.5	.8	1.7	.9	1.1	1.1	.9						
DEGR.	*	65	115	60	40	0	10	105	5	335	315	315	310
320	285	305	320	310	150	150	320						

THE HIGHEST CONCENTRATION OF 1.70 PPM OCCURRED AT RECEPTOR REC16.

JOB: CO 2005 AM Existing Stapleton RUN: Hanna & Bay ST Intersection

DATE : 12/29/ 5
TIME : 16: 3:58

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
		*	X1	Y1	X2	Y2	*				
LENGTH (FT)	BRG TYPE VPH (DEG)	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)						
358.	1. L1 BAY ST NB UP 1-2	*	950.0	2917.0	1082.0	3250.0	*				
	22. AG	440.	7.1	.0	40.0						
203.	2. L2 BAY ST NB UP 2-3	*	1082.0	3250.0	1146.0	3443.0	*				
	18. AG	440.	7.1	.0	40.0						
314.	3. L3 BAY ST NB UP 3-4	*	1146.0	3443.0	1058.0	3744.0	*				
	344. AG	553.	7.3	.0	40.0						
63.	4. L3Q BAY ST NB UP 3-4	*	1058.0	3744.0	1075.8	3683.2	*				
	164. AG	144.	100.0	.0	20.0	.28	3.2				
185.	5. L4 BAY ST NB UP 4-5	*	1058.0	3744.0	982.0	3913.0	*				
	336. AG	731.	7.0	.0	40.0						
167.	6. L5 BAY ST NB UP 5-6	*	982.0	3913.0	1020.0	4076.0	*				
	13. AG	739.	7.0	.0	40.0						
85.	7. L5Q BAY ST NB UP 5-6	*	1020.0	4076.0	1000.8	3993.5	*				
	193. AG	144.	100.0	.0	20.0	.37	4.3				
323.	8. L6 BAY ST NB UP 6-7	*	1020.0	4076.0	1076.0	4394.0	*				
	10. AG	910.	7.0	.0	40.0						
320.	9. L7 BAY ST SB UP 1-2	*	1055.0	4396.0	1006.0	4080.0	*				
	189. AG	789.	7.4	.0	40.0						
90.	10. L7Q BAY ST SB UP 1-2	*	1006.0	4080.0	1019.9	4169.4	*				
	9. AG	144.	100.0	.0	20.0	.40	4.6				
188.	11. L8 BAY ST SB UP 2-3	*	1006.0	4080.0	952.0	3900.0	*				
	197. AG	668.	7.4	.0	40.0						
163.	12. L9 BAY ST SB UP 3-4	*	952.0	3900.0	1016.0	3750.0	*				
	157. AG	867.	7.4	.0	40.0						
99.	13. L9Q BAY ST SB UP 3-4	*	1016.0	3750.0	977.0	3841.5	*				
	337. AG	144.	100.0	.0	20.0	.44	5.1				
319.	14. L10 BAY ST SB UP 4-5	*	1016.0	3750.0	1113.0	3446.0	*				
	162. AG	597.	6.7	.0	40.0						
192.	15. L11 BAY ST SB UP 5-6	*	1113.0	3446.0	1075.0	3258.0	*				
	191. AG	607.	6.7	.0	40.0						
367.	16. L12 BAY ST SB UP 6-7	*	1075.0	3258.0	943.0	2916.0	*				
	201. AG	607.	6.7	.0	40.0						

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      17. L13 HANNAH ST 1-2 WB*    1120.0    3789.0    1035.0    3758.0 *
90.   250. AG     195.    7.0     .0 32.0
      18. L13Q HANNAH ST 1-2 W*    1035.0    3758.0    1113.1    3786.5 *
83.    70. AG     134. 100.0     .0 12.0  .39   4.2
      19. L14 HANNAH ST 2-3 WB*    1035.0    3758.0     885.0    3708.0 *
158.  252. AG     145.    7.0     .0 32.0
      20. L15 HANNAH ST 3-4 WB*     885.0    3708.0     703.0    3659.0 *
188.  255. AG     145.    7.0     .0 32.0
      21. L13a HANNAH ST 1-2 E*     709.0    3649.0     890.0    3698.0 *
188.   75. AG      65.    7.0     .0 32.0
      22. L14a HANNAH ST 2-3 E*     890.0    3698.0    1036.0    3748.0 *
154.   71. AG      65.    7.0     .0 32.0
      23. L14aQ HANNAH ST 2-3 *    1036.0    3748.0    1009.8    3739.0 *
28.   251. AG     134. 100.0     .0 12.0  .13   1.4
      24. L15a HANNAH ST 3-4 E*    1036.0    3748.0    1125.0    3779.0 *
94.    71. AG     287.    7.0     .0 32.0
      25. L16 VICTORY BLVD EB *     680.0    4164.0     860.0    4082.0 *
198.  114. AG     304.    7.0     .0 40.0
      26. L17 VICTORY BLVD EB *     860.0    4082.0     988.0    4068.0 *
129.   96. AG     304.    7.0     .0 40.0
      27. L17Q VICTORY BLVD EB*     988.0    4068.0     923.6    4075.0 *
65.   276. AG     267. 100.0     .0 20.0  .30   3.3
      28. L18 VICTORY BLVD EB *     988.0    4068.0    1373.0    4104.0 *
387.   85. AG      25.    7.0     .0 40.0
      29. L19 VICTORY BLVD WB *    1374.0    4136.0    1040.0    4091.0 *
337.  262. AG      18.    7.0     .0 40.0
      30. L19Q VICTORY BLVD WB*    1040.0    4091.0    1043.8    4091.5 *
4.    82. AG     267. 100.0     .0 20.0  .02    .2
      31. L20 VICTORY BLVD WB *    1040.0    4091.0     878.0    4101.0 *
162.  274. AG     247.    7.0     .0 40.0
      32. L21 VICTORY BLVD WB *     878.0    4101.0     677.0    4179.0 *
216.  291. AG     247.    7.0     .0 40.0
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JOB: CO 2005 AM Existing Stapleton RUN: Hanna & Bay ST Intersection

DATE : 12/29/ 5
TIME : 16: 3:58

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	553	1600	76.63	1	3
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	739	1600	76.63	1	3
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	789	1600	76.63	1	3
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	867	1600	76.63	1	3
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	195	1600	76.63	1	3
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	65	1600	76.63	1	3
27. L17Q VICTORY BLVD EB	*	120	78	2.0	304	1600	76.63	1	3
30. L19Q VICTORY BLVD WB	*	120	78	2.0	18	1600	76.63	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC H1	*	1133.0	3803.0	6.0	*
2. REC H2	*	1059.0	3786.0	6.0	*
3. REC H3	*	1023.0	3868.0	6.0	*
4. REC H4	*	926.0	3899.0	6.0	*
5. REC H5	*	978.0	3762.0	6.0	*
6. REC H6	*	899.0	3738.0	6.0	*
7. REC H7	*	857.0	3729.0	6.0	*
8. REC H8	*	716.0	3681.0	6.0	*
9. REC H9	*	711.0	3624.0	6.0	*
10. REC H10	*	788.0	3645.0	6.0	*
11. REC H11	*	873.0	3673.0	6.0	*
12. REC H12	*	916.0	3685.0	6.0	*
13. REC H13	*	1007.0	3720.0	6.0	*
14. REC H14	*	1025.0	3634.0	6.0	*
15. REC H15	*	955.0	3608.0	6.0	*
16. REC H16	*	1135.0	3620.0	6.0	*
17. REC H17	*	1099.0	3714.0	6.0	*

18. REC	H18	*	1085.0	3750.0	6.0	*
19. REC	H19	*	1148.0	3772.0	6.0	*

JOB: CO 2005 AM Existing Stapleton ST Intersection RUN: Hanna & Bay

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
0.	*	.0	.2	.5	.1	1.2	.0	.0	.0	.0	.0	.0	.1	1.6	.6	.2	.0	.2	.5	.0
5.	*	.0	.1	.5	.2	1.4	.1	.0	.0	.0	.0	.0	.1	1.3	.6	.2	.0	.1	.4	.0
10.	*	.0	.0	.3	.6	1.2	.2	.1	.0	.0	.0	.1	.4	1.1	.5	.3	.0	.1	.4	.0
15.	*	.0	.0	.0	.6	1.0	.5	.1	.0	.0	.0	.1	.6	.8	.5	.3	.0	.1	.4	.0
20.	*	.0	.0	.0	.8	.7	.5	.4	.0	.0	.0	.1	.2	.8	.6	.3	.0	.0	.4	.0
25.	*	.0	.0	.0	.8	.7	.4	.3	.0	.0	.0	.1	.3	.8	.5	.3	.0	.0	.4	.0
30.	*	.0	.0	.0	.7	.7	.1	.3	.1	.0	.0	.2	.3	.8	.5	.3	.0	.0	.4	.0
35.	*	.0	.0	.0	.5	.7	.3	.1	.0	.0	.0	.2	.4	.8	.5	.3	.0	.0	.3	.0
40.	*	.0	.0	.0	.4	.7	.3	.1	.0	.0	.0	.3	.4	.7	.4	.3	.0	.0	.3	.0
45.	*	.0	.0	.0	.4	.7	.3	.2	.0	.0	.2	.3	.3	.8	.3	.3	.0	.0	.2	.0
50.	*	.0	.0	.0	.3	.7	.4	.3	.0	.0	.2	.3	.4	.8	.3	.2	.0	.0	.2	.0
55.	*	.0	.0	.0	.3	.6	.4	.3	.0	.1	.1	.3	.5	.8	.3	.3	.0	.0	.1	.0
60.	*	.0	.0	.0	.3	.6	.4	.3	.1	.1	.1	.2	.3	.7	.2	.3	.0	.0	.1	.0
65.	*	.0	.0	.0	.2	.7	.4	.3	.1	.1	.2	.2	.3	.5	.2	.2	.0	.0	.1	.0
70.	*	.0	.0	.0	.2	.7	.5	.4	.1	.0	.0	.2	.3	.5	.2	.2	.0	.0	.1	.0
75.	*	.0	.1	.0	.3	.8	.4	.3	.1	.0	.0	.1	.2	.4	.2	.2	.0	.0	.0	.0
80.	*	.0	.1	.0	.3	.8	.3	.2	.1	.0	.0	.1	.2	.4	.2	.2	.0	.0	.0	.0
85.	*	.0	.2	.0	.3	.9	.4	.3	.1	.0	.0	.1	.2	.4	.2	.2	.0	.0	.0	.0

90.	*	.0	.4	.0	.3	.8	.4	.1	.1	.0	.0	.0	.2
.4	.2	.2	.0	.0	.0	.0							
95.	*	.0	.5	.0	.2	1.0	.1	.1	.1	.0	.0	.0	.1
.4	.2	.2	.0	.0	.0	.0							
100.	*	.0	.6	.0	.3	.8	.2	.1	.1	.0	.0	.0	.2
.4	.2	.2	.0	.0	.0	.0							
105.	*	.0	.6	.0	.3	.9	.2	.0	.1	.0	.0	.1	.2
.4	.2	.2	.0	.0	.0	.0							
110.	*	.0	.6	.0	.3	.9	.3	.1	.0	.0	.0	.0	.2
.5	.2	.2	.0	.0	.0	.0							
115.	*	.0	.6	.0	.3	.8	.2	.1	.0	.0	.0	.1	.2
.5	.2	.2	.0	.0	.0	.0							
120.	*	.0	.6	.0	.4	.8	.2	.1	.0	.0	.0	.1	.2
.4	.3	.2	.0	.0	.0	.0							
125.	*	.0	.5	.0	.6	.6	.2	.1	.0	.0	.0	.0	.2
.4	.3	.1	.0	.0	.0	.0							
130.	*	.0	.5	.1	.6	.4	.2	.0	.0	.0	.0	.0	.1
.4	.3	.1	.0	.0	.0	.0							
135.	*	.0	.5	.1	.8	.4	.1	.0	.0	.0	.0	.0	.1
.3	.3	.0	.0	.0	.0	.0							
140.	*	.0	.5	.2	.9	.3	.1	.0	.0	.0	.0	.0	.0
.3	.3	.0	.0	.0	.0	.0							
145.	*	.0	.6	.2	1.0	.3	.0	.0	.0	.0	.0	.0	.0
.4	.3	.0	.0	.0	.0	.0							
150.	*	.0	.8	.3	.8	.3	.0	.0	.0	.0	.0	.0	.0
.4	.3	.0	.0	.0	.0	.0							
155.	*	.0	.7	.5	.6	.3	.0	.0	.0	.0	.0	.0	.0
.4	.2	.0	.0	.0	.0	.0							
160.	*	.0	.9	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.1	.1	.0							
165.	*	.0	1.1	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0
.2	.1	.0	.0	.1	.1	.0							
170.	*	.0	1.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.1	.1	.3	.0							
175.	*	.0	1.3	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.1	.3	.4	.0							
180.	*	.1	1.3	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.1	.3	.5	.0							
185.	*	.1	1.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.2	.3	.5	.1							
190.	*	.2	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.3	.3	.6	.1							
195.	*	.2	1.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.2	.3	.7	.2							
200.	*	.3	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.2	.4	.7	.2							
205.	*	.3	.8	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.2	.3	.7	.2							

JOB: CO 2005 AM Existing Stapleton RUN: Hanna & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
210.	* .5	.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.6	.2
215.	* .6	.8	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.6	.3
220.	* .7	.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.6	.3
225.	* .6	.8	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.6	.3
230.	* .7	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.6	.4
235.	* 1.0	.7	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.6	.4
240.	* .9	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.5	.4
245.	* 1.0	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.5	.1
250.	* .8	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.7	.3
255.	* .6	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.7	.4
260.	* .5	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.7	.6
265.	* .4	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.8	.7
270.	* .3	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.7	.7
275.	* .3	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.6	.8	.7
280.	* .3	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.7	.8	.7
285.	* .3	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.8	.9	.7
290.	* .2	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.8	.9	.5
295.	* .2	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.8	1.0	.5
300.	* .1	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.0	.9	.3
305.	* .1	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.9	.9	.2
310.	* .0	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.8	.9	.1
315.	* .0	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.9	.8	.0
320.	* .3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.8	.8	.1

```
 325.  *    .3    .5    .4    .0    .0    .0    .0    .0    .0    .0    .0    .0
.1    .0    .0    .7    .6    .7    .2
 330.  *    .3    .5    .5    .0    .0    .0    .0    .0    .0    .0    .0    .0
.2    .0    .0    .7    .4    .8    .2
 335.  *    .3    .5    .4    .0    .1    .0    .0    .0    .0    .0    .0    .0
.5    .2    .0    .4    .4    .8    .2
 340.  *    .4    .6    .5    .0    .1    .0    .0    .0    .0    .0    .0    .0
.6    .2    .0    .3    .5    .9    .2
 345.  *    .2    .5    .5    .0    .3    .0    .0    .0    .0    .0    .0    .0
.9    .4    .0    .1    .3    .7    .2
 350.  *    .2    .7    .6    .0    .5    .0    .0    .0    .0    .0    .0    .0
1.2    .7    .0    .1    .4    .8    .1
 355.  *    .1    .5    .8    .1    .7    .0    .0    .0    .0    .0    .0    .0
1.5    .6    .0    .0    .3    .6    .0
 360.  *    .0    .2    .5    .1   1.2    .0    .0    .0    .0    .0    .0    .1
1.6    .6    .2    .0    .2    .5    .0
 ------*-------------------------------------------------------------------------
-----------------------------------------
 MAX   *   1.0   1.3   1.0   1.0   1.4    .5    .4    .1    .1    .2    .3    .6
1.6    .7    .3    .7   1.0   1.0    .7
 DEGR. *  235   175   175   145     5    15    20    30    55    45    40    15
0   350    10   325   300   295   265
```

THE HIGHEST CONCENTRATION OF 1.60 PPM OCCURRED AT RECEPTOR REC13.

JOB: CO 2005 AM Existing Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 12/29/ 5
TIME : 16: 9:34

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*					
	*	X1	Y1	X2	Y2	*					
	*	(FT)	(FT)	(FT)	(FT)	*	LENGTH	BRG	TYPE	VPH	EF
	*					*	(FT)	(DEG)			(G/MI)
1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	229.	13.8
2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	229.	13.8
3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	229.	13.8
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1759.7	950.0	*	17.	133.	AG	216.	100.0
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	35.	13.8
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	185.	13.8
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1610.2	1111.4	*	26.	136.	AG	401.	100.0
8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	185.	13.8
9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	185.	13.8
10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	185.	13.8
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	590.	6.9
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	549.	17.5
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1742.7	903.6	*	42.	147.	AG	216.	100.0
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	522.	7.8
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1503.8	1304.3	*	40.	150.	AG	216.	100.0
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	439.	6.7

*	H	W	V/C	QUEUE							
*	(FT)	(FT)		(VEH)							
*	32.0										
*	32.0										
*	32.0										
*	30.0	.08		.9							
*	32.0										
*	32.0										
*	30.0	.12		1.3							
*	32.0										
*	32.0										
*	32.0										
*	30.0	.19		2.1							
*	32.0										
*	32.0										
*	30.0	.18		2.0							
*	32.0										

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      17. L11 BAY ST NB 6-7    *   1264.0    1654.0    1049.0    2127.0 *
520.   336. AG    439.   7.4     .0 32.0
      18. L12 BAY ST SB 1-2    *   1030.0    2123.0    1244.0    1644.0 *
525.   156. AG    549.   7.3     .0 32.0
      19. L13 BAY ST SB 2-3    *   1244.0    1644.0    1445.0    1358.0 *
350.   145. AG    542.  10.6     .0 32.0
      20. L13Q BAY ST SB 3-2   *   1445.0    1358.0    1421.2    1391.8 *
41.    325. AG    216. 100.0     .0 30.0  .18   2.1
      21. L14 BAY ST SB 3-1T   *   1445.0    1358.0    1661.0     964.0 *
449.   151. AG    403.  13.8     .0 32.0
      22. L14Q BAY ST SB 1T-3  *   1661.0     964.0    1646.2     991.0 *
31.    331. AG    216. 100.0     .0 30.0  .14   1.6
      23. L15 BAY ST SB 1T-2   *   1661.0     964.0    1830.0     731.0 *
288.   144. AG    561.   6.7     .0 32.0
      24. L16 BAY ST SB 2-3    *   1830.0     731.0    2218.0      32.0 *
799.   151. AG    561.   6.7     .0 32.0
      25. L18 GREENFIELD AVE W*   1645.0     963.0    1158.0     437.0 *
717.   223. AG    137.  13.8     .0 32.0
      26. L19 VANDERBILT AVE E*    885.0     932.0    1459.0    1322.0 *
694.    56. AG    132.   7.8     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0    1322.0    1443.5    1311.5 *
19.    236. AG    401. 100.0     .0 30.0  .09   1.0
      28. L22 VANDERBILT AVE W*   1458.0    1351.0     874.0     954.0 *
706.   236. AG    370.   7.8     .0 32.0
```

JOB: CO 2005 AM Existing Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 12/29/ 5
TIME : 16: 9:34

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	229	1600	76.63	1	3
7. L4Q EDGEWATER ST SB	*	120	78	2.0	185	1600	76.63	1	3
13. L8Q BAY ST NB 3-2	*	120	42	2.0	549	1600	76.63	1	3
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	522	1600	76.63	1	3
20. L13Q BAY ST SB 3-2	*	120	42	2.0	542	1600	76.63	1	3
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	403	1600	76.63	1	3
27. L19Q VANDERBILT AVE	*	120	78	2.0	132	1600	76.63	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC Va1	*	1235.0	1630.0	6.0	*
2. REC Va2	*	1330.0	1496.0	6.0	*
3. REC Va3	*	1429.0	1355.0	6.0	*
4. REC Va4	*	1259.0	1234.0	6.0	*
5. REC Va5	*	1057.0	1096.0	6.0	*
6. REC Va6	*	867.0	977.0	6.0	*
7. REC Va7	*	904.0	917.0	6.0	*
8. REC Va8	*	1093.0	1047.0	6.0	*
9. REC Va9	*	1292.0	1184.0	6.0	*
10. REC Va10	*	1395.0	1252.0	6.0	*
11. REC Va11	*	1463.0	1303.0	6.0	*
12. REC Va12	*	1510.0	1239.0	6.0	*
13. REC Va13	*	1534.0	1171.0	6.0	*
14. REC Va14	*	1579.0	1205.0	6.0	*
15. REC Va15	*	1493.0	1344.0	6.0	*
16. REC Va16	*	1542.0	1372.0	6.0	*
17. REC Va17	*	1571.0	1396.0	6.0	*
18. REC Va18	*	1546.0	1460.0	6.0	*
19. REC Va19	*	1450.0	1416.0	6.0	*

20. REC	Va20		*	1371.0	1529.0	6.0	*

JOB: CO 2005 AM Existing Stapleton Ave & Bay ST Intersection RUN: Vanderbilt

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20						
0.	*	.4	.4	1.2	.0	.0	.0	.1	.1	.1	.3	1.0	.6
.5	.0	.0	.0	.0	.0	.0	.0						
5.	*	.4	.4	1.2	.0	.0	.0	.1	.1	.2	.3	.8	.5
.4	.0	.0	.0	.0	.0	.0	.0						
10.	*	.4	.3	1.1	.1	.0	.0	.1	.1	.2	.3	.7	.4
.4	.0	.0	.0	.0	.0	.0	.0						
15.	*	.3	.3	1.1	.1	.0	.0	.1	.1	.2	.4	.7	.3
.3	.0	.0	.0	.0	.0	.0	.0						
20.	*	.3	.3	1.1	.1	.0	.0	.1	.1	.2	.5	.7	.2
.3	.0	.0	.0	.0	.0	.0	.0						
25.	*	.3	.3	1.1	.1	.0	.0	.1	.1	.2	.3	.6	.2
.3	.0	.0	.0	.0	.0	.0	.0						
30.	*	.3	.3	1.0	.1	.0	.0	.2	.2	.3	.5	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
35.	*	.3	.3	1.0	.1	.0	.0	.2	.2	.3	.4	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
40.	*	.3	.3	1.0	.0	.1	.0	.2	.2	.3	.4	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
45.	*	.3	.3	1.0	.2	.1	.0	.2	.2	.4	.4	.9	.2
.3	.0	.0	.0	.0	.0	.0	.0						
50.	*	.2	.3	1.0	.2	.1	.1	.2	.2	.3	.5	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
55.	*	.2	.3	1.0	.3	.2	.1	.1	.0	.2	.4	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
60.	*	.3	.3	1.0	.4	.2	.2	.0	.0	.1	.4	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
65.	*	.3	.3	.9	.4	.2	.2	.0	.0	.1	.3	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
70.	*	.3	.3	.8	.4	.2	.2	.0	.0	.1	.3	.8	.2
.3	.0	.0	.0	.0	.0	.0	.0						
75.	*	.3	.3	.8	.4	.2	.2	.0	.0	.1	.2	.8	.2
.3	.0	.1	.0	.0	.0	.0	.0						
80.	*	.3	.3	.7	.3	.2	.1	.0	.0	.1	.2	.7	.2
.3	.0	.1	.0	.0	.0	.0	.0						
85.	*	.3	.3	.6	.3	.2	.1	.0	.0	.1	.2	.6	.2
.3	.0	.1	.0	.0	.0	.0	.0						

90.	*	.3	.3	.8	.2	.1	.1	.0	.0	.1	.2	.6	.2
.3	.0	.1	.0	.0	.0	.0	.0						
95.	*	.3	.3	.9	.2	.1	.1	.0	.0	.1	.2	.5	.2
.3	.0	.1	.0	.0	.0	.0	.0						
100.	*	.3	.3	1.0	.2	.1	.1	.0	.0	.2	.2	.4	.2
.3	.0	.1	.0	.0	.0	.0	.0						
105.	*	.4	.4	1.0	.2	.1	.1	.0	.0	.2	.2	.4	.2
.4	.0	.1	.0	.0	.0	.0	.0						
110.	*	.4	.4	1.0	.2	.1	.1	.0	.0	.1	.2	.4	.4
.5	.0	.2	.0	.0	.0	.0	.0						
115.	*	.4	.4	1.0	.2	.1	.1	.0	.0	.0	.3	.4	.4
.6	.0	.2	.0	.0	.0	.0	.0						
120.	*	.4	.4	1.2	.2	.1	.1	.0	.0	.1	.3	.4	.4
.8	.0	.2	.0	.0	.0	.0	.0						
125.	*	.5	.6	1.2	.2	.1	.1	.0	.0	.1	.3	.5	.4
.8	.0	.4	.0	.0	.0	.0	.0						
130.	*	.5	.7	1.0	.2	.1	.1	.0	.0	.1	.4	.6	.7
1.0	.0	.4	.0	.0	.0	.0	.0						
135.	*	.5	.9	1.3	.1	.1	.1	.0	.0	.0	.2	.7	.8
1.0	.2	.5	.0	.0	.0	.1	.1						
140.	*	.6	1.0	1.5	.1	.1	.1	.0	.0	.0	.2	.9	1.0
.9	.3	.8	.0	.0	.0	.3	.1						
145.	*	.6	.9	1.5	.1	.1	.1	.0	.0	.0	.1	.8	1.0
.9	.5	1.2	.0	.0	.0	.6	.6						
150.	*	.4	.5	1.4	.1	.1	.1	.0	.0	.0	.0	.8	.8
.7	.6	1.5	.1	.0	.0	.7	.8						
155.	*	.2	.3	1.0	.1	.1	.1	.0	.0	.0	.0	.4	.8
.5	.8	1.7	.1	.1	.1	.8	.8						
160.	*	.1	.1	.8	.1	.1	.1	.0	.0	.0	.0	.3	.4
.3	1.0	1.6	.4	.1	.1	.7	.7						
165.	*	.1	.1	.5	.1	.1	.0	.0	.0	.0	.0	.2	.4
.2	1.0	1.4	.4	.1	.1	.9	.7						
170.	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.1	.3
.1	.8	1.4	.3	.3	.3	.7	.5						
175.	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.1	.3
.1	.7	1.3	.3	.3	.2	.9	.4						
180.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.1	.2
.1	.6	1.3	.2	.3	.2	.8	.3						
185.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.1	.2
.0	.5	1.3	.2	.2	.3	.8	.3						
190.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.2
.0	.4	1.2	.2	.2	.3	.9	.3						
195.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	1.0	.3	.2	.3	.9	.3						
200.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	1.0	.3	.2	.2	.8	.3						
205.	*	.0	.0	.1	.2	.2	.0	.0	.0	.0	.0	.0	.1
.0	.3	1.1	.4	.2	.3	.8	.3						

JOB: CO 2005 AM Existing Stapleton Ave & Bay ST Intersection RUN: Vanderbilt

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.2	1.0	.4	.3	.3	.8	.2
215.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.2	1.1	.5	.3	.3	.8	.2
220.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.2	1.1	.6	.4	.3	.7	.2
225.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.2	1.2	.6	.4	.3	.6	.2
230.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.2	1.3	.6	.5	.2	.6	.2
235.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.2	.1	.0	.2	1.2	.8	.5	.3	.4	.2
240.	*	.0	.0	.1	.2	.1	.0	.0	.0	.2	.2	.3	.1	.0	.2	1.2	.6	.4	.2	.3	.2
245.	*	.0	.0	.1	.1	.1	.0	.0	.2	.2	.2	.3	.1	.0	.2	1.2	.5	.5	.2	.3	.2
250.	*	.0	.0	.0	.1	.1	.0	.0	.2	.2	.2	.4	.1	.0	.2	.9	.4	.3	.2	.2	.2
255.	*	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.4	.2	.0	.2	.8	.4	.1	.1	.2	.2
260.	*	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.5	.2	.0	.2	.6	.2	.2	.1	.3	.2
265.	*	.0	.0	.0	.0	.0	.0	.0	.1	.2	.1	.5	.1	.0	.2	.5	.4	.2	.1	.3	.3
270.	*	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.5	.1	.0	.2	.5	.4	.2	.1	.3	.3
275.	*	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.5	.1	.0	.3	.5	.4	.2	.1	.3	.3
280.	*	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.6	.1	.0	.3	.7	.4	.1	.1	.3	.3
285.	*	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.7	.1	.0	.3	.7	.3	.1	.1	.3	.3
290.	*	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.8	.2	.0	.4	.7	.3	.2	.1	.3	.3
295.	*	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.9	.2	.0	.4	.8	.2	.2	.1	.4	.4
300.	*	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1	1.1	.2	.0	.5	.9	.2	.2	.1	.4	.4
305.	*	.0	.1	.2	.0	.0	.0	.0	.1	.1	.1	1.2	.3	.1	.5	.7	.2	.1	.0	.4	.4
310.	*	.0	.1	.3	.0	.0	.0	.0	.1	.1	.1	1.4	.4	.1	.8	.7	.2	.0	.0	.4	.3
315.	*	.0	.2	.4	.0	.0	.0	.0	.1	.1	.1	1.6	.6	.1	.8	.7	.2	.0	.0	.4	.4
320.	*	.1	.2	.6	.0	.0	.0	.0	.1	.1	.1	1.8	.8	.3	.9	.6	.0	.0	.0	.3	.5

```
 325.   *     .1     .4     .8     .0     .0     .0     .0     .1     .1     .1    2.1    1.0
.6     .7     .4     .0     .0     .0     .4     .3
 330.   *     .2     .6    1.1     .0     .0     .0     .0     .1     .1     .1    2.1    1.0
.7     .5     .3     .0     .0     .0     .1     .3
 335.   *     .4     .7    1.2     .0     .0     .0     .1     .1     .1     .1    2.1    1.1
.9     .2     .2     .0     .0     .0     .1     .2
 340.   *     .4     .7    1.2     .0     .0     .0     .1     .1     .1     .2    2.0    1.1
1.0     .2     .1     .0     .0     .0     .0     .0
 345.   *     .4     .6    1.2     .0     .0     .0     .1     .1     .1     .2    1.7     .9
.6     .1     .1     .0     .0     .0     .0     .0
 350.   *     .4     .4    1.2     .0     .0     .0     .1     .1     .1     .2    1.4     .7
.6     .0     .0     .0     .0     .0     .0     .0
 355.   *     .4     .4    1.2     .0     .0     .0     .1     .1     .1     .2    1.3     .7
.5     .0     .0     .0     .0     .0     .0     .0
 360.   *     .4     .4    1.2     .0     .0     .0     .1     .1     .1     .3    1.0     .6
.5     .0     .0     .0     .0     .0     .0     .0
 ------*-------------------------------------------------------------------------------
-------------------------------------------------
 MAX    *     .6    1.0    1.5     .4     .2     .2     .2     .2     .4     .5    2.1    1.1
1.0    1.0    1.7     .8     .5     .3     .9     .8
 DEGR.  *   140    140    145     60     55     60     30     30     45     20   325    335
130    160    155    235    230    170    190    150
```

THE HIGHEST CONCENTRATION OF 2.10 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2005 AM Existing Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 12/29/ 5
TIME : 16: 3: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION	*	LINK COORDINATES (FT)						
		*	X1	Y1	X2	Y2			
LENGTH (FT)	BRG TYPE VPH EF (DEG) (G/MI)	*	H (FT)	W (FT)	V/C QUEUE (VEH)				
358.	1. L1 BAY ST NB UP 1-2	*	950.0	2917.0	1082.0	3250.0			
	22. AG 440. 7.1		.0	40.0					
203.	2. L2 BAY ST NB UP 2-3	*	1082.0	3250.0	1146.0	3443.0			
	18. AG 440. 7.1		.0	40.0					
314.	3. L3 BAY ST NB UP 3-4	*	1146.0	3443.0	1058.0	3744.0			
	344. AG 553. 7.3		.0	40.0					
63.	4. L3Q BAY ST NB UP 3-4	*	1058.0	3744.0	1075.8	3683.2			
	164. AG 144. 100.0		.0	20.0	.28	3.2			
185.	5. L4 BAY ST NB UP 4-5	*	1058.0	3744.0	982.0	3913.0			
	336. AG 731. 7.0		.0	40.0					
167.	6. L5 BAY ST NB UP 5-6	*	982.0	3913.0	1020.0	4076.0			
	13. AG 739. 7.0		.0	40.0					
85.	7. L5Q BAY ST NB UP 5-6	*	1020.0	4076.0	1000.8	3993.5			
	193. AG 144. 100.0		.0	20.0	.37	4.3			
323.	8. L6 BAY ST NB UP 6-7	*	1020.0	4076.0	1076.0	4394.0			
	10. AG 910. 7.0		.0	40.0					
320.	9. L7 BAY ST SB UP 1-2	*	1055.0	4396.0	1006.0	4080.0			
	189. AG 789. 7.4		.0	40.0					
90.	10. L7Q BAY ST SB UP 1-2	*	1006.0	4080.0	1019.9	4169.4			
	9. AG 144. 100.0		.0	20.0	.40	4.6			
188.	11. L8 BAY ST SB UP 2-3	*	1006.0	4080.0	952.0	3900.0			
	197. AG 668. 7.4		.0	40.0					
163.	12. L9 BAY ST SB UP 3-4	*	952.0	3900.0	1016.0	3750.0			
	157. AG 867. 7.4		.0	40.0					
99.	13. L9Q BAY ST SB UP 3-4	*	1016.0	3750.0	977.0	3841.5			
	337. AG 144. 100.0		.0	20.0	.44	5.1			
319.	14. L10 BAY ST SB UP 4-5	*	1016.0	3750.0	1113.0	3446.0			
	162. AG 597. 6.7		.0	40.0					
192.	15. L11 BAY ST SB UP 5-6	*	1113.0	3446.0	1075.0	3258.0			
	191. AG 607. 6.7		.0	40.0					
367.	16. L12 BAY ST SB UP 6-7	*	1075.0	3258.0	943.0	2916.0			
	201. AG 607. 6.7		.0	40.0					

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      17. L13 HANNAH ST 1-2 WB*    1120.0     3789.0     1035.0     3758.0 *
90.   250. AG     195.    7.0     .0 32.0
      18. L13Q HANNAH ST 1-2 W*    1035.0     3758.0     1113.1     3786.5 *
83.    70. AG     134. 100.0     .0 12.0  .39    4.2
      19. L14 HANNAH ST 2-3 WB*    1035.0     3758.0      885.0     3708.0 *
158.  252. AG     145.    7.0     .0 32.0
      20. L15 HANNAH ST 3-4 WB*     885.0     3708.0      703.0     3659.0 *
188.  255. AG     145.    7.0     .0 32.0
      21. L13a HANNAH ST 1-2 E*     709.0     3649.0      890.0     3698.0 *
188.   75. AG      65.    7.0     .0 32.0
      22. L14a HANNAH ST 2-3 E*     890.0     3698.0     1036.0     3748.0 *
154.   71. AG      65.    7.0     .0 32.0
      23. L14aQ HANNAH ST 2-3 *    1036.0     3748.0     1009.8     3739.0 *
28.   251. AG     134. 100.0     .0 12.0  .13    1.4
      24. L15a HANNAH ST 3-4 E*    1036.0     3748.0     1125.0     3779.0 *
94.    71. AG     287.    7.0     .0 32.0
      25. L16 VICTORY BLVD EB *     680.0     4164.0      860.0     4082.0 *
198.  114. AG     304.    7.0     .0 40.0
      26. L17 VICTORY BLVD EB *     860.0     4082.0      988.0     4068.0 *
129.   96. AG     304.    7.0     .0 40.0
      27. L17Q VICTORY BLVD EB*     988.0     4068.0      923.6     4075.0 *
65.   276. AG     267. 100.0     .0 20.0  .30    3.3
      28. L18 VICTORY BLVD EB *     988.0     4068.0     1373.0     4104.0 *
387.   85. AG      25.    7.0     .0 40.0
      29. L19 VICTORY BLVD WB *    1374.0     4136.0     1040.0     4091.0 *
337.  262. AG      18.    7.0     .0 40.0
      30. L19Q VICTORY BLVD WB*    1040.0     4091.0     1043.8     4091.5 *
4.    82. AG     267. 100.0     .0 20.0  .02     .2
      31. L20 VICTORY BLVD WB *    1040.0     4091.0      878.0     4101.0 *
162.  274. AG     247.    7.0     .0 40.0
      32. L21 VICTORY BLVD WB *     878.0     4101.0      677.0     4179.0 *
216.  291. AG     247.    7.0     .0 40.0
```

JOB: CO 2005 AM Existing Stapleton BLvd & Bay ST Intersection RUN: Victory

DATE : 12/29/ 5
TIME : 16: 3: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4	120	42	2.0	553	1600	76.63	1	3	
7. L5Q BAY ST NB UP 5-6	120	42	2.0	739	1600	76.63	1	3	
10. L7Q BAY ST SB UP 1-2	120	42	2.0	789	1600	76.63	1	3	
13. L9Q BAY ST SB UP 3-4	120	42	2.0	867	1600	76.63	1	3	
18. L13Q HANNAH ST 1-2 W	120	78	2.0	195	1600	76.63	1	3	
23. L14aQ HANNAH ST 2-3	120	78	2.0	65	1600	76.63	1	3	
27. L17Q VICTORY BLVD EB	120	78	2.0	304	1600	76.63	1	3	
30. L19Q VICTORY BLVD WB	120	78	2.0	18	1600	76.63	1	3	

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC V1	1328.0	4151.0	6.0
2. REC V2	1235.0	4141.0	6.0
3. REC V3	1041.0	4131.0	6.0
4. REC V4	1069.0	4277.0	6.0
5. REC V5	1094.0	4402.0	6.0
6. REC V6	1008.0	4231.0	6.0
7. REC V7	1040.0	4396.0	6.0
8. REC V8	966.0	4116.0	6.0
9. REC V9	888.0	4115.0	6.0
10. REC V10	839.0	4137.0	6.0
11. REC V11	1025.0	4034.0	6.0
12. REC V12	891.0	3999.0	6.0
13. REC V13	956.0	4055.0	6.0
14. REC V14	1133.0	4039.0	6.0
15. REC V15	1217.0	4050.0	6.0
16. REC V16	1337.0	4064.0	6.0

JOB: CO 2005 AM Existing Stapleton BLvd & Bay ST Intersection

RUN: Victory

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
0.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.5	.0	.9	.0	.0	.0
5.	* .0	.0	.7	.5	.0	.2	.0	.0	.0	.0	1.2	.0	.9	.0	.0	.0
10.	* .0	.0	.6	.3	.0	.2	.0	.1	.0	.0	1.0	.0	1.0	.0	.0	.0
15.	* .0	.0	.5	.3	.0	.4	.0	.2	.0	.0	.7	.1	1.1	.0	.0	.0
20.	* .0	.0	.3	.2	.0	.4	.0	.3	.0	.0	.5	.2	1.3	.0	.0	.0
25.	* .0	.0	.2	.2	.0	.5	.0	.3	.0	.0	.2	.4	1.5	.0	.0	.0
30.	* .0	.0	.2	.1	.0	.5	.0	.4	.1	.0	.1	.6	1.5	.0	.0	.0
35.	* .0	.0	.1	.1	.0	.5	.0	.5	.2	.0	.1	.6	1.7	.0	.0	.0
40.	* .0	.0	.1	.1	.0	.5	.0	.5	.2	.0	.0	.7	1.7	.0	.0	.0
45.	* .0	.0	.1	.1	.0	.5	.0	.6	.2	.1	.0	.6	1.6	.0	.0	.0
50.	* .0	.0	.1	.0	.0	.4	.0	.6	.2	.2	.0	.6	1.5	.0	.0	.0
55.	* .0	.0	.1	.0	.0	.4	.0	.7	.2	.2	.0	.6	1.5	.0	.0	.0
60.	* .0	.0	.1	.0	.0	.4	.0	.6	.2	.2	.0	.4	1.4	.0	.0	.0
65.	* .0	.0	.0	.0	.0	.4	.1	.6	.3	.2	.0	.4	1.4	.0	.0	.0
70.	* .0	.0	.0	.0	.0	.4	.1	.6	.3	.2	.0	.4	1.3	.0	.0	.0
75.	* .0	.0	.0	.0	.0	.4	.1	.5	.3	.2	.0	.4	1.2	.0	.0	.0
80.	* .0	.0	.0	.0	.0	.4	.1	.5	.3	.3	.0	.4	.9	.0	.0	.0
85.	* .0	.0	.0	.0	.0	.4	.1	.5	.5	.3	.0	.3	.8	.0	.0	.0

90.	*	.0	.0	.0	.0	.0	.4	.2	.5	.5	.3	.0	.3
.6	.0	.0	.0										
95.	*	.0	.0	.0	.0	.0	.4	.2	.5	.4	.3	.0	.3
.6	.0	.0	.0										
100.	*	.0	.0	.0	.0	.0	.4	.2	.6	.5	.4	.0	.2
.4	.0	.0	.0										
105.	*	.0	.0	.0	.0	.0	.4	.3	.6	.5	.3	.0	.2
.4	.0	.0	.0										
110.	*	.0	.0	.0	.0	.0	.4	.3	.6	.6	.5	.0	.2
.4	.0	.0	.0										
115.	*	.0	.0	.0	.0	.0	.4	.4	.6	.9	.5	.0	.2
.4	.0	.0	.0										
120.	*	.0	.0	.0	.0	.0	.4	.4	.6	1.0	.4	.0	.2
.4	.0	.0	.0										
125.	*	.0	.0	.0	.0	.0	.4	.4	.6	1.0	.6	.0	.2
.4	.0	.0	.0										
130.	*	.0	.0	.0	.0	.0	.4	.4	.9	1.0	.7	.0	.2
.4	.0	.0	.0										
135.	*	.0	.0	.0	.0	.0	.4	.4	.7	.9	.5	.0	.2
.4	.0	.0	.0										
140.	*	.0	.0	.1	.0	.0	.4	.4	.8	.8	.3	.0	.5
.4	.0	.0	.0										
145.	*	.0	.0	.1	.0	.0	.4	.4	.6	.6	.2	.0	.4
.3	.0	.0	.0										
150.	*	.0	.0	.1	.0	.0	.5	.5	.7	.6	.1	.0	.3
.3	.0	.0	.0										
155.	*	.0	.0	.1	.1	.0	.6	.5	.8	.7	.3	.0	.3
.5	.0	.0	.0										
160.	*	.0	.0	.1	.1	.0	.6	.5	.9	.6	.2	.0	.2
.4	.0	.0	.0										
165.	*	.0	.0	.2	.1	.0	.7	.6	1.0	.4	.1	.2	.2
.6	.0	.0	.0										
170.	*	.0	.0	.2	.1	.1	.9	.7	1.2	.2	.1	.2	.0
.6	.0	.0	.0										
175.	*	.0	.0	.3	.2	.1	1.0	.7	1.2	.2	.2	.3	.0
.5	.0	.0	.0										
180.	*	.0	.0	.5	.3	.2	1.1	.8	1.0	.2	.2	.4	.0
.3	.0	.0	.0										
185.	*	.0	.0	.8	.7	.4	1.0	.9	.8	.2	.2	.6	.0
.2	.0	.0	.0										
190.	*	.0	.0	1.2	.8	.6	.8	.7	.8	.2	.2	.7	.0
.1	.1	.0	.0										
195.	*	.0	.0	1.1	1.3	.8	.5	.6	.6	.1	.2	.8	.0
.0	.1	.0	.0										
200.	*	.0	.0	1.2	1.2	.8	.3	.3	.6	.1	.2	.8	.0
.0	.1	.0	.0										
205.	*	.0	.0	1.1	.9	.8	.2	.1	.7	.0	.2	.9	.0
.0	.2	.0	.0										

JOB: CO 2005 AM Existing Stapleton BLvd & Bay ST Intersection RUN: Victory

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
210.	*	.0	.0	1.2	.8	.6	.1	.1	.7	.0	.2	1.0	.0	.0	.3	.0	.0
215.	*	.0	.0	1.3	.8	.5	.1	.1	.7	.0	.2	1.0	.0	.0	.3	.1	.0
220.	*	.0	.0	1.2	.6	.5	.0	.1	.6	.0	.2	1.1	.0	.0	.1	.1	.0
225.	*	.0	.0	1.4	.5	.4	.0	.0	.5	.0	.2	1.1	.0	.0	.0	.1	.0
230.	*	.0	.0	1.2	.5	.4	.0	.0	.4	.0	.2	1.0	.0	.0	.0	.0	.0
235.	*	.0	.1	1.3	.4	.4	.0	.0	.3	.0	.2	1.0	.0	.0	.1	.0	.0
240.	*	.0	.1	1.2	.4	.3	.0	.0	.3	.2	.2	1.0	.0	.0	.2	.0	.0
245.	*	.0	.2	1.2	.4	.2	.0	.0	.1	.2	.2	.9	.0	.0	.3	.0	.0
250.	*	.1	.2	1.1	.4	.2	.0	.0	.1	.2	.2	.9	.0	.0	.3	.0	.0
255.	*	.1	.3	.9	.4	.2	.0	.0	.1	.2	.2	.9	.0	.0	.3	.2	.0
260.	*	.2	.3	.8	.4	.2	.0	.0	.1	.2	.2	.8	.0	.0	.3	.2	.0
265.	*	.2	.3	.8	.4	.1	.0	.0	.1	.2	.2	.8	.0	.0	.5	.2	.2
270.	*	.1	.3	.8	.4	.0	.0	.0	.1	.2	.2	.8	.0	.1	.5	.2	.1
275.	*	.1	.3	.8	.4	.0	.0	.0	.0	.2	.2	.9	.0	.2	.5	.2	.1
280.	*	.1	.2	.8	.4	.0	.0	.0	.0	.2	.1	1.0	.0	.2	.5	.2	.1
285.	*	.1	.2	.8	.4	.0	.0	.0	.0	.1	.1	1.2	.0	.4	.4	.3	.1
290.	*	.1	.2	.8	.4	.0	.0	.0	.0	.1	.1	1.3	.0	.6	.4	.3	.0
295.	*	.1	.2	.8	.4	.0	.0	.0	.0	.1	.1	1.4	.0	.6	.4	.3	.0
300.	*	.0	.2	.8	.4	.0	.0	.0	.0	.1	.0	1.5	.0	.8	.3	.3	.0
305.	*	.0	.2	.8	.4	.0	.0	.0	.0	.0	.0	1.4	.0	.9	.3	.2	.0
310.	*	.0	.2	.8	.4	.0	.0	.0	.0	.0	.0	1.2	.0	1.0	.3	.2	.0
315.	*	.0	.2	.8	.4	.0	.0	.0	.0	.0	.0	1.1	.0	1.0	.3	.2	.0
320.	*	.0	.1	.7	.4	.0	.0	.0	.0	.0	.0	1.0	.0	1.1	.3	.2	.0

325.	*	.0	.0	.7	.4	.0	.0	.0	.0	.0	.0	1.1	.0
1.1	.2	.2	.0										
330.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.2	.0
1.0	.2	.1	.0										
335.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.3	.0
1.0	.2	.0	.0										
340.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.4	.0
1.0	.2	.0	.0										
345.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.5	.0
.9	.2	.0	.0										
350.	*	.0	.0	.8	.6	.0	.0	.0	.0	.0	.0	1.6	.0
.9	.1	.0	.0										
355.	*	.0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.6	.0
.9	.0	.0	.0										
360.	*	.0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.5	.0
.9	.0	.0	.0										
------	*	----------											

MAX	*	.2	.3	1.4	1.3	.8	1.1	.9	1.2	1.0	.7	1.6	.7
1.7	.5	.3	.2										
DEGR.	*	260	255	225	195	195	180	185	170	120	130	350	40
35	265	285	265										

THE HIGHEST CONCENTRATION OF 1.70 PPM OCCURRED AT RECEPTOR REC13.

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 2/27/ 6
TIME : 15:57: 6

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
	*	(FT)	(FT)	(FT)	(FT)	*	LENGTH (FT)	BRG (DEG)	TYPE	VPH (VEH)	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE
1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	311.	8.4	.0	32.0		
2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	311.	8.4	.0	32.0		
3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	298.	8.4	.0	32.0		
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1763.5	946.4	*	23.	133.	AG	103.	100.0	.0	30.0	.10	1.2
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	66.	8.4	.0	32.0		
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	257.	8.4	.0	32.0		
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1617.3	1104.1	*	36.	136.	AG	192.	100.0	.0	30.0	.17	1.8
8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	251.	8.4	.0	32.0		
9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	233.	8.4	.0	32.0		
10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	233.	8.4	.0	32.0		
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	702.	3.7	.0	32.0		
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	620.	8.6	.0	32.0		
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1745.6	899.2	*	47.	147.	AG	103.	100.0	.0	30.0	.21	2.4
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	610.	4.0	.0	32.0		
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1507.1	1298.5	*	47.	150.	AG	103.	100.0	.0	30.0	.21	2.4
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	510.	3.4	.0	32.0		

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      17. L11 BAY ST NB 6-7    *    1264.0     1654.0     1049.0     2127.0 *
520.   336. AG     510.    3.8     .0 32.0
      18. L12 BAY ST SB 1-2    *    1030.0     2123.0     1244.0     1644.0 *
525.   156. AG     694.    3.7     .0 32.0
      19. L13 BAY ST SB 2-3    *    1244.0     1644.0     1445.0     1358.0 *
350.   145. AG     694.    5.9     .0 32.0
      20. L13Q BAY ST SB 3-2   *    1445.0     1358.0     1414.5     1401.4 *
53.    325. AG     103. 100.0     .0 30.0  .23    2.7
      21. L14 BAY ST SB 3-1T   *    1445.0     1358.0     1661.0      964.0 *
449.   151. AG     539.    8.4     .0 32.0
      22. L14Q BAY ST SB 1T-3  *    1661.0      964.0     1641.2     1000.0 *
41.    331. AG     103. 100.0     .0 30.0  .18    2.1
      23. L15 BAY ST SB 1T-2   *    1661.0      964.0     1830.0      731.0 *
288.   144. AG     610.    3.4     .0 32.0
      24. L16 BAY ST SB 2-3    *    1830.0      731.0     2218.0       32.0 *
799.   151. AG     532.    3.6     .0 32.0
      25. L18 GREENFIELD AVE W*    1645.0      963.0     1158.0      437.0 *
717.   223. AG     141.    8.4     .0 32.0
      26. L19 VANDERBILT AVE E*     885.0      932.0     1459.0     1322.0 *
694.    56. AG     167.    4.0     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0     1322.0     1439.6     1308.8 *
23.    236. AG     192. 100.0     .0 30.0  .11    1.2
      28. L22 VANDERBILT AVE W*    1458.0     1351.0      874.0      954.0 *
706.   236. AG     422.    4.0     .0 32.0
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JOB: CO 2015 AM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Greenfield

DATE : 2/27/ 6
TIME : 15:57: 6

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	298	1600	36.74	1	3	
7. L4Q EDGEWATER ST SB	*	120	78	2.0	257	1600	36.74	1	3	
13. L8Q BAY ST NB 3-2	*	120	42	2.0	620	1600	36.74	1	3	
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	610	1600	36.74	1	3	
20. L13Q BAY ST SB 3-2	*	120	42	2.0	694	1600	36.74	1	3	
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	539	1600	36.74	1	3	
27. L19Q VANDERBILT AVE	*	120	78	2.0	167	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC G1	*	1570.0	1110.0	6.0	*
2. REC G2	*	1624.0	966.0	6.0	*
3. REC G3	*	1463.0	787.0	6.0	*
4. REC G4	*	1175.0	485.0	6.0	*
5. REC G5	*	1199.0	437.0	6.0	*
6. REC G6	*	1478.0	738.0	6.0	*
7. REC G7	*	1665.0	932.0	6.0	*
8. REC G8	*	1728.0	842.0	6.0	*
9. REC G9	*	1814.0	728.0	6.0	*
10. REC G10	*	1946.0	606.0	6.0	*
11. REC G11	*	1889.0	716.0	6.0	*
12. REC G12	*	1931.0	760.0	6.0	*
13. REC G13	*	2036.0	658.0	6.0	*
14. REC G14	*	2065.0	687.0	6.0	*
15. REC G15	*	1922.0	819.0	6.0	*
16. REC G16	*	1744.0	925.0	6.0	*
17. REC G17	*	1814.0	841.0	6.0	*
18. REC G18	*	1717.0	1010.0	6.0	*
19. REC G19	*	1691.0	1039.0	6.0	*

20. REC	G20		*	1577.0	1215.0	6.0	*

JOB: CO 2015 AM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Greenfield

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)											
	* REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20					
0.	* .4	.4	.0	.0	.0	.0	.5	.4	.3	.0	.0	.3
.3	.0	.0	.4	.3	.0	.0	.0					
5.	* .3	.4	.0	.0	.0	.0	.4	.4	.3	.0	.0	.3
.3	.0	.0	.4	.3	.0	.0	.0					
10.	* .3	.4	.0	.0	.0	.0	.2	.5	.3	.0	.0	.3
.3	.0	.0	.5	.3	.0	.0	.0					
15.	* .3	.3	.0	.0	.0	.0	.3	.4	.3	.0	.0	.3
.3	.0	.0	.5	.3	.0	.0	.0					
20.	* .3	.3	.0	.0	.1	.0	.2	.3	.3	.0	.0	.3
.3	.0	.0	.5	.3	.0	.0	.0					
25.	* .3	.2	.0	.0	.1	.1	.2	.3	.3	.0	.0	.3
.3	.0	.0	.5	.3	.0	.0	.0					
30.	* .3	.3	.0	.0	.1	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.5	.3	.0	.0	.0					
35.	* .3	.3	.0	.0	.1	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.5	.2	.0	.0	.0					
40.	* .3	.3	.1	.0	.0	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.5	.2	.0	.0	.0					
45.	* .4	.4	.1	.1	.0	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.4	.2	.0	.0	.0					
50.	* .5	.4	.1	.1	.0	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.4	.2	.0	.0	.0					
55.	* .6	.4	.1	.1	.0	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.4	.2	.0	.0	.0					
60.	* .6	.4	.1	.1	.0	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0					
65.	* .8	.4	.1	.1	.0	.0	.2	.2	.2	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0					
70.	* .8	.5	.1	.1	.0	.0	.3	.2	.2	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0					
75.	* .8	.5	.1	.1	.0	.0	.4	.2	.1	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0					
80.	* .8	.4	.1	.1	.0	.0	.4	.2	.1	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0					
85.	* .8	.4	.1	.0	.0	.0	.4	.2	.1	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0					

90.	*	.9	.4	.0	.0	.0	.0	.4	.2	.1	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0						
95.	*	.8	.3	.0	.0	.0	.0	.4	.2	.2	.0	.0	.3
.3	.0	.0	.3	.3	.0	.0	.0						
100.	*	.7	.3	.0	.0	.0	.0	.6	.2	.2	.0	.0	.3
.4	.0	.0	.3	.3	.0	.0	.0						
105.	*	.7	.4	.0	.0	.0	.0	.6	.2	.2	.0	.0	.3
.4	.0	.0	.3	.3	.0	.0	.0						
110.	*	.6	.5	.0	.0	.0	.0	.5	.3	.2	.0	.0	.3
.4	.0	.0	.3	.3	.1	.1	.0						
115.	*	.5	.5	.0	.0	.0	.0	.6	.3	.3	.0	.0	.3
.4	.0	.0	.4	.3	.1	.1	.0						
120.	*	.5	.5	.0	.0	.0	.0	.5	.3	.2	.0	.0	.4
.4	.0	.0	.5	.3	.1	.1	.0						
125.	*	.5	.3	.0	.0	.0	.0	.4	.2	.2	.0	.0	.4
.4	.1	.1	.5	.3	.2	.1	.0						
130.	*	.6	.2	.0	.0	.0	.0	.4	.2	.2	.0	.0	.4
.4	.1	.2	.6	.1	.4	.3	.0						
135.	*	.6	.2	.0	.0	.0	.0	.3	.2	.2	.0	.0	.4
.4	.2	.2	.5	.0	.5	.4	.0						
140.	*	.5	.2	.0	.0	.0	.0	.2	.4	.3	.1	.0	.2
.3	.2	.4	.5	.0	.5	.5	.1						
145.	*	.6	.0	.0	.0	.0	.0	.2	.3	.3	.1	.1	.1
.0	.2	.4	.6	.2	.6	.6	.4						
150.	*	.5	.0	.0	.0	.0	.0	.1	.0	.2	.1	.1	.1
.0	.2	.4	.8	.2	.6	.5	.4						
155.	*	.4	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
.0	.3	.4	.7	.3	.7	.4	.5						
160.	*	.2	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
.0	.3	.3	.8	.4	.5	.4	.6						
165.	*	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1
.0	.3	.4	.8	.3	.4	.4	.5						
170.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1
.0	.1	.4	.7	.2	.4	.4	.4						
175.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.1	.4	.7	.2	.4	.3	.3						
180.	*	.1	.0	.1	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.1	.3	.7	.2	.4	.2	.3						
185.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.1	.3	.7	.2	.4	.2	.2						
190.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.1
.0	.1	.3	.7	.2	.4	.2	.2						
195.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.0
.0	.3	.3	.7	.2	.2	.4	.2						
200.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.1	.0
.0	.3	.3	.7	.2	.2	.3	.2						
205.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0
.0	.3	.3	.7	.2	.2	.4	.2						

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Greenfield Ave & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.3	.7	.2	.2	.4	.2
215.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.6	.2	.2	.5	.2
220.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.6	.1	.2	.5	.2
225.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.6	.1	.3	.4	.2
230.	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.5	.2	.3	.4	.2
235.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	.1	.1	.0	.3	.4	.6	.2	.4	.4	.2
240.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	.1	.1	.0	.3	.4	.6	.2	.4	.3	.2
245.	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1	.1	.0	.3	.4	.6	.1	.4	.3	.2
250.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.1	.0	.3	.4	.6	.1	.3	.3	.2
255.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.3	.4	.6	.2	.3	.3	.2
260.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.3	.4	.7	.2	.4	.3	.2
265.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.3	.4	.7	.2	.4	.3	.2
270.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.3	.4	.7	.2	.4	.3	.2
275.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.1	.0	.3	.4	.7	.2	.3	.3	.2
280.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.1	.0	.3	.4	.6	.3	.3	.3	.2
285.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1	.0	.4	.4	.6	.3	.3	.3	.2
290.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.1	.4	.4	.8	.3	.3	.3	.2
295.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.2	.2	.5	.5	.8	.3	.3	.4	.2
300.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.2	.3	.5	.5	.8	.4	.3	.4	.2
305.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.3	.3	.5	.6	.8	.3	.5	.5	.3
310.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.5	.5	.3	.3	.9	.4	.5	.6	.4
315.	*	.2	.0	.0	.0	.0	.0	.1	.0	.1	.2	.4	.6	.6	.2	.2	1.0	.4	.5	.5	.5
320.	*	.2	.0	.0	.0	.0	.0	.2	.2	.1	.2	.4	.5	.5	.1	.2	1.0	.5	.5	.4	.4

325.	*	.3	.1	.0	.0	.0	.0	.3	.3	.3	.2	.3	.6
.6	.0	.0	1.0	.5	.4	.4	.3						
330.	*	.5	.1	.0	.0	.0	.0	.4	.3	.4	.2	.1	.5
.6	.0	.0	.8	.3	.1	.2	.2						
335.	*	.4	.1	.0	.0	.0	.0	.7	.5	.5	.2	.2	.3
.4	.0	.0	.5	.3	.1	.1	.0						
340.	*	.5	.3	.0	.0	.0	.0	.8	.4	.4	.0	.1	.3
.3	.0	.0	.4	.3	.1	.1	.0						
345.	*	.5	.4	.0	.0	.0	.0	.7	.3	.3	.0	.1	.3
.3	.0	.0	.5	.3	.1	.0	.0						
350.	*	.4	.4	.0	.0	.0	.0	.7	.3	.3	.0	.0	.3
.3	.0	.0	.4	.3	.0	.0	.0						
355.	*	.4	.4	.0	.0	.0	.0	.5	.3	.3	.0	.0	.3
.3	.0	.0	.4	.3	.0	.0	.0						
360.	*	.4	.4	.0	.0	.0	.0	.5	.4	.3	.0	.0	.3
.3	.0	.0	.4	.3	.0	.0	.0						
------	*	----------											

MAX	*	.9	.5	.1	.1	.1	.1	.8	.5	.5	.3	.4	.6
.6	.5	.6	1.0	.5	.7	.6	.6						
DEGR.	*	90	70	40	45	20	25	340	10	335	155	305	315
315	295	305	315	320	155	145	160						

THE HIGHEST CONCENTRATION OF 1.00 PPM OCCURRED AT RECEPTOR REC16.

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Hanna & Bay ST Intersection

DATE : 2/27/ 6
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The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION				LINK COORDINATES (FT)				
					X1	Y1	X2	Y2	
LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C (VEH)	QUEUE	
358.	1. L1 BAY ST NB UP 1-2	AG	506.	3.6	.0	40.0	950.0 2917.0	1082.0 3250.0	
203.	2. L2 BAY ST NB UP 2-3	AG	506.	3.6	.0	40.0	1082.0 3250.0	1146.0 3443.0	
314.	3. L3 BAY ST NB UP 3-4	AG	629.	3.7	.0	40.0	1146.0 3443.0	1058.0 3744.0	
72.	4. L3Q BAY ST NB UP 3-4	AG	69.	100.0	.0	20.0	.32 3.7	1058.0 3744.0	1078.2 3674.8
185.	5. L4 BAY ST NB UP 4-5	AG	863.	5.1	.0	40.0	1058.0 3744.0	982.0 3913.0	
167.	6. L5 BAY ST NB UP 5-6	AG	868.	5.1	.0	40.0	982.0 3913.0	1020.0 4076.0	
100.	7. L5Q BAY ST NB UP 5-6	AG	69.	100.0	.0	20.0	.44 5.1	1020.0 4076.0	997.4 3978.9
323.	8. L6 BAY ST NB UP 6-7	AG	1050.	5.1	.0	40.0	1020.0 4076.0	1076.0 4394.0	
320.	9. L7 BAY ST SB UP 1-2	AG	976.	3.7	.0	40.0	1055.0 4396.0	1006.0 4080.0	
112.	10. L7Q BAY ST SB UP 1-2	AG	69.	100.0	.0	20.0	.49 5.7	1006.0 4080.0	1023.2 4190.7
188.	11. L8 BAY ST SB UP 2-3	AG	832.	3.7	.0	40.0	1006.0 4080.0	952.0 3900.0	
163.	12. L9 BAY ST SB UP 3-4	AG	1072.	3.7	.0	40.0	952.0 3900.0	1016.0 3750.0	
123.	13. L9Q BAY ST SB UP 3-4	AG	69.	100.0	.0	20.0	.54 6.3	1016.0 3750.0	967.7 3863.2
319.	14. L10 BAY ST SB UP 4-5	AG	723.	3.3	.0	40.0	1016.0 3750.0	1113.0 3446.0	
192.	15. L11 BAY ST SB UP 5-6	AG	738.	3.4	.0	40.0	1113.0 3446.0	1075.0 3258.0	
367.	16. L12 BAY ST SB UP 6-7	AG	738.	3.4	.0	40.0	1075.0 3258.0	943.0 2916.0	

```
      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG     348.   5.1     .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1174.4    3808.9 *
148.   70. AG      64. 100.0     .0 12.0  .69   7.5
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG     160.   5.1     .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG     160.   5.1     .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG      72.   5.1     .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG      72.   5.1     .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1006.9    3738.1 *
31.   251. AG      64. 100.0     .0 12.0  .14   1.6
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.    71. AG     375.   5.1     .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG     338.   5.1     .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG     338.   5.1     .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     916.3    4075.8 *
72.   276. AG     128. 100.0     .0 20.0  .33   3.7
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG      27.   5.1     .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG      20.   5.1     .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1044.2    4091.6 *
4.    82. AG     128. 100.0     .0 20.0  .02    .2
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG     293.   5.1     .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG     293.   5.1     .0 40.0
```

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Hanna & Bay ST Intersection

DATE : 2/27/ 6
TIME : 14:52:26

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE (gm/hr)
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	629	1600	36.74	1	3
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	868	1600	36.74	1	3
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	976	1600	36.74	1	3
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	1072	1600	36.74	1	3
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	348	1600	36.74	1	3
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	72	1600	36.74	1	3
27. L17Q VICTORY BLVD EB	*	120	78	2.0	338	1600	36.74	1	3
30. L19Q VICTORY BLVD WB	*	120	78	2.0	20	1600	36.74	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC H1	*	1133.0	3803.0	6.0	*
2. REC H2	*	1059.0	3786.0	6.0	*
3. REC H3	*	1023.0	3868.0	6.0	*
4. REC H4	*	926.0	3899.0	6.0	*
5. REC H5	*	978.0	3762.0	6.0	*
6. REC H6	*	899.0	3738.0	6.0	*
7. REC H7	*	857.0	3729.0	6.0	*
8. REC H8	*	716.0	3681.0	6.0	*
9. REC H9	*	711.0	3624.0	6.0	*
10. REC H10	*	788.0	3645.0	6.0	*
11. REC H11	*	873.0	3673.0	6.0	*
12. REC H12	*	916.0	3685.0	6.0	*
13. REC H13	*	1007.0	3720.0	6.0	*
14. REC H14	*	1025.0	3634.0	6.0	*
15. REC H15	*	955.0	3608.0	6.0	*
16. REC H16	*	1135.0	3620.0	6.0	*
17. REC H17	*	1099.0	3714.0	6.0	*

18. REC	H18	*	1085.0	3750.0	6.0	*
19. REC	H19	*	1148.0	3772.0	6.0	*

JOB: CO 2015 AM No-Build Alt-A Stapleton ST Intersection RUN: Hanna & Bay

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
0.	*	.0	.1	.4	.1	.7	.0	.0	.0	.0	.0	.0	.0	.7	.3	.0	.0	.1	.3	.1
5.	*	.0	.0	.4	.1	.7	.0	.0	.0	.0	.0	.0	.0	.7	.2	.2	.0	.1	.3	.1
10.	*	.0	.0	.1	.1	.7	.0	.0	.0	.0	.0	.0	.0	.6	.2	.2	.0	.1	.4	.1
15.	*	.0	.0	.0	.4	.4	.1	.0	.0	.0	.0	.0	.0	.5	.4	.2	.0	.1	.4	.1
20.	*	.0	.0	.0	.5	.4	.1	.0	.0	.0	.0	.0	.2	.6	.3	.2	.0	.1	.4	.1
25.	*	.0	.0	.0	.6	.4	.1	.0	.0	.0	.0	.0	.2	.6	.3	.1	.0	.1	.4	.1
30.	*	.0	.0	.0	.5	.4	.1	.0	.0	.0	.0	.0	.3	.5	.3	.0	.0	.1	.4	.1
35.	*	.0	.0	.0	.4	.4	.2	.0	.0	.0	.0	.1	.3	.5	.3	.1	.0	.1	.4	.1
40.	*	.0	.0	.0	.3	.4	.3	.0	.0	.0	.0	.1	.3	.5	.2	.1	.0	.1	.3	.1
45.	*	.0	.0	.0	.3	.4	.3	.0	.0	.0	.0	.1	.2	.5	.2	.2	.0	.0	.3	.0
50.	*	.0	.0	.0	.2	.4	.3	.1	.0	.0	.0	.1	.1	.7	.2	.1	.0	.0	.3	.0
55.	*	.0	.0	.0	.2	.4	.3	.1	.0	.0	.0	.0	.1	.6	.1	.1	.0	.0	.2	.0
60.	*	.0	.0	.0	.2	.4	.3	.1	.0	.0	.0	.1	.1	.5	.1	.0	.0	.0	.2	.0
65.	*	.1	.0	.0	.2	.4	.3	.1	.0	.0	.0	.1	.1	.4	.1	.0	.0	.0	.2	.0
70.	*	.1	.1	.0	.2	.5	.4	.1	.0	.0	.0	.1	.1	.3	.1	.0	.0	.0	.1	.0
75.	*	.2	.1	.0	.2	.5	.2	.2	.0	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0
80.	*	.2	.3	.0	.2	.6	.2	.1	.0	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0
85.	*	.3	.3	.0	.3	.6	.1	.0	.0	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0

90.	*	.3	.3	.0	.2	.5	.0	.0	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
95.	*	.3	.3	.0	.2	.4	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
100.	*	.3	.4	.0	.2	.5	.1	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
105.	*	.3	.4	.0	.2	.4	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
110.	*	.3	.4	.0	.2	.4	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
115.	*	.3	.4	.0	.2	.4	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
120.	*	.3	.4	.1	.4	.3	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
125.	*	.3	.4	.1	.5	.4	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
130.	*	.2	.4	.1	.4	.4	.0	.0	.0	.0	.0	.0	.0
.2	.2	.0	.0	.0	.0	.0							
135.	*	.2	.4	.1	.5	.3	.0	.0	.0	.0	.0	.0	.0
.2	.2	.0	.0	.0	.0	.0							
140.	*	.2	.4	.1	.5	.2	.0	.0	.0	.0	.0	.0	.0
.2	.2	.0	.0	.0	.0	.0							
145.	*	.2	.5	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
150.	*	.2	.5	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
155.	*	.2	.7	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0
.2	.1	.0	.0	.0	.0	.0							
160.	*	.2	.7	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0
.2	.1	.0	.0	.0	.0	.0							
165.	*	.2	.7	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.0	.1	.1	.0							
170.	*	.2	.8	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.0	.1	.1	.0							
175.	*	.2	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.1	.1	.2	.0							
180.	*	.2	.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.1	.3	.0							
185.	*	.2	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.2	.3	.0							
190.	*	.2	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.2	.4	.0							
195.	*	.3	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.2	.4	.0							
200.	*	.3	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.0							
205.	*	.4	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.0							

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Hanna & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
210.	*	.5	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.4	.0
215.	*	.5	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.3	.0
220.	*	.5	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
225.	*	.7	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
230.	*	.7	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
235.	*	.6	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
240.	*	.7	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1
245.	*	.6	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.2	.1
250.	*	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.2	.2
255.	*	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.4	.2
260.	*	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.4	.3
265.	*	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.4	.4
270.	*	.3	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.5	.6
275.	*	.3	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.6	.6
280.	*	.3	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.5	.7
285.	*	.3	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.6	.6
290.	*	.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.5	.6	.5
295.	*	.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.6	.8	.4
300.	*	.1	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.5	.8	.3
305.	*	.1	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.6	.7	.3
310.	*	.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.7	.2
315.	*	.0	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.7	.1
320.	*	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.5	.6	.1

325.	*	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.5	.4	.5	.1							
330.	*	.0	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
.2	.0	.0	.2	.2	.4	.1							
335.	*	.0	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
.2	.0	.0	.2	.2	.4	.1							
340.	*	.0	.3	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0
.3	.2	.0	.2	.2	.4	.1							
345.	*	.1	.2	.5	.0	.2	.0	.0	.0	.0	.0	.0	.0
.4	.2	.0	.1	.1	.3	.2							
350.	*	.1	.2	.4	.0	.2	.0	.0	.0	.0	.0	.0	.0
.6	.4	.0	.1	.1	.3	.1							
355.	*	.0	.1	.4	.1	.3	.0	.0	.0	.0	.0	.0	.0
.9	.4	.0	.1	.1	.4	.1							
360.	*	.0	.1	.4	.1	.7	.0	.0	.0	.0	.0	.0	.0
.7	.3	.0	.0	.1	.3	.1							
------	*	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
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MAX	*	.7	.9	.5	.6	.7	.4	.2	.1	.0	.0	.1	.3
.9	.4	.2	.5	.6	.8	.7							
DEGR.	*	225	175	160	25	0	70	75	90	0	0	35	30
355	15	5	325	295	295	280							

THE HIGHEST CONCENTRATION OF .90 PPM OCCURRED AT RECEPTOR REC13.

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 2/27/ 6
TIME : 15:55:59

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
	*	(FT)	(FT)			*	LENGTH (FT)	BRG (DEG)	TYPE	VPH
1. L1 EDGEWATER ST NB	1*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	311.
2. L2 EDGEWATER ST NB	2*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	311.
3. L3 EDGEWATER ST NB	3*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	298.
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1763.5	946.4	*	23.	133.	AG	103.
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	66.
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	257.
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1617.3	1104.1	*	36.	136.	AG	192.
8. L4 EDGEWATER ST SB	4*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	251.
9. L5 EDGEWATER ST SB	5*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	233.
10. L6 EDGEWATER ST SB	6*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	233.
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	702.
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	620.
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1745.6	899.2	*	47.	147.	AG	103.
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	610.
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1507.1	1298.5	*	47.	150.	AG	103.
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	510.

EF	H	W	V/C	QUEUE
(G/MI)				(VEH)
8.4	.0	32.0		
8.4	.0	32.0		
8.4	.0	32.0		
100.0	.0	30.0	.10	1.2
8.4	.0	32.0		
8.4	.0	32.0		
100.0	.0	30.0	.17	1.8
8.4	.0	32.0		
8.4	.0	32.0		
8.4	.0	32.0		
3.7	.0	32.0		
8.6	.0	32.0		
100.0	.0	30.0	.21	2.4
4.0	.0	32.0		
100.0	.0	30.0	.21	2.4
3.4	.0	32.0		

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      17. L11 BAY ST NB 6-7    *    1264.0     1654.0     1049.0     2127.0 *
520.   336. AG     510.   3.8     .0 32.0
      18. L12 BAY ST SB 1-2    *    1030.0     2123.0     1244.0     1644.0 *
525.   156. AG     694.   3.7     .0 32.0
      19. L13 BAY ST SB 2-3    *    1244.0     1644.0     1445.0     1358.0 *
350.   145. AG     694.   5.9     .0 32.0
      20. L13Q BAY ST SB 3-2   *    1445.0     1358.0     1414.5     1401.4 *
53.    325. AG    103. 100.0     .0 30.0  .23   2.7
      21. L14 BAY ST SB 3-1T   *    1445.0     1358.0     1661.0      964.0 *
449.   151. AG     539.   8.4     .0 32.0
      22. L14Q BAY ST SB 1T-3  *    1661.0      964.0     1641.2     1000.0 *
41.    331. AG    103. 100.0     .0 30.0  .18   2.1
      23. L15 BAY ST SB 1T-2   *    1661.0      964.0     1830.0      731.0 *
288.   144. AG     610.   3.4     .0 32.0
      24. L16 BAY ST SB 2-3    *    1830.0      731.0     2218.0       32.0 *
799.   151. AG     532.   3.6     .0 32.0
      25. L18 GREENFIELD AVE W*    1645.0      963.0     1158.0      437.0 *
717.   223. AG     141.   8.4     .0 32.0
      26. L19 VANDERBILT AVE E*     885.0      932.0     1459.0     1322.0 *
694.    56. AG     167.   4.0     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0     1322.0     1439.6     1308.8 *
23.    236. AG    192. 100.0     .0 30.0  .11   1.2
      28. L22 VANDERBILT AVE W*    1458.0     1351.0      874.0      954.0 *
706.   236. AG     422.   4.0     .0 32.0
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JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 2/27/ 6
TIME : 15:55:59

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION FLOW RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	298	1600	36.74	1	3	
7. L4Q EDGEWATER ST SB	*	120	78	2.0	257	1600	36.74	1	3	
13. L8Q BAY ST NB 3-2	*	120	42	2.0	620	1600	36.74	1	3	
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	610	1600	36.74	1	3	
20. L13Q BAY ST SB 3-2	*	120	42	2.0	694	1600	36.74	1	3	
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	539	1600	36.74	1	3	
27. L19Q VANDERBILT AVE	*	120	78	2.0	167	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC Va1	*	1235.0	1630.0	6.0	*
2. REC Va2	*	1330.0	1496.0	6.0	*
3. REC Va3	*	1429.0	1355.0	6.0	*
4. REC Va4	*	1259.0	1234.0	6.0	*
5. REC Va5	*	1057.0	1096.0	6.0	*
6. REC Va6	*	867.0	977.0	6.0	*
7. REC Va7	*	904.0	917.0	6.0	*
8. REC Va8	*	1093.0	1047.0	6.0	*
9. REC Va9	*	1292.0	1184.0	6.0	*
10. REC Va10	*	1395.0	1252.0	6.0	*
11. REC Va11	*	1463.0	1303.0	6.0	*
12. REC Va12	*	1510.0	1239.0	6.0	*
13. REC Va13	*	1534.0	1171.0	6.0	*
14. REC Va14	*	1579.0	1205.0	6.0	*
15. REC Va15	*	1493.0	1344.0	6.0	*
16. REC Va16	*	1542.0	1372.0	6.0	*
17. REC Va17	*	1571.0	1396.0	6.0	*
18. REC Va18	*	1546.0	1460.0	6.0	*
19. REC Va19	*	1450.0	1416.0	6.0	*

20.	REC	Va20	*	1371.0	1529.0	6.0	*

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20				
0.	* .2	.3	.8	.0	.0	.0	.0	.0	.0	.1	.5	.4
	.4	.0	.0	.0	.0	.0	.0	.0				
5.	* .2	.3	.7	.0	.0	.0	.0	.0	.0	.2	.4	.4
	.3	.0	.0	.0	.0	.0	.0	.0				
10.	* .2	.3	.7	.0	.0	.0	.0	.0	.0	.2	.4	.3
	.3	.0	.0	.0	.0	.0	.0	.0				
15.	* .3	.2	.6	.0	.0	.0	.0	.0	.0	.2	.4	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
20.	* .3	.2	.6	.0	.0	.0	.0	.0	.0	.1	.4	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
25.	* .3	.1	.5	.0	.0	.0	.0	.1	.0	.2	.4	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
30.	* .2	.1	.5	.0	.0	.0	.1	.1	.1	.1	.4	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
35.	* .1	.1	.4	.0	.0	.0	.1	.1	.0	.2	.5	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
40.	* .1	.1	.4	.0	.0	.0	.1	.1	.0	.3	.3	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
45.	* .1	.1	.4	.0	.1	.0	.1	.1	.0	.3	.4	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
50.	* .1	.1	.5	.1	.1	.0	.0	.0	.0	.3	.4	.2
	.2	.0	.0	.0	.0	.0	.0	.0				
55.	* .1	.1	.5	.1	.1	.1	.0	.0	.0	.3	.5	.2
	.2	.0	.0	.0	.0	.0	.0	.0				
60.	* .1	.1	.4	.1	.1	.1	.0	.0	.0	.3	.5	.2
	.2	.0	.0	.0	.0	.0	.0	.0				
65.	* .1	.1	.4	.1	.1	.1	.0	.0	.0	.2	.5	.2
	.2	.0	.0	.0	.0	.0	.0	.0				
70.	* .1	.1	.4	.1	.1	.1	.0	.0	.0	.2	.4	.2
	.2	.0	.0	.0	.0	.0	.0	.0				
75.	* .1	.1	.4	.1	.1	.1	.0	.0	.0	.1	.4	.2
	.2	.0	.0	.0	.0	.0	.0	.0				
80.	* .1	.1	.4	.1	.1	.1	.0	.0	.0	.1	.4	.2
	.3	.0	.0	.0	.0	.0	.0	.0				
85.	* .1	.1	.4	.1	.1	.1	.0	.0	.0	.1	.5	.2
	.3	.0	.0	.0	.0	.0	.0	.0				

90.	*	.2	.2	.3	.1	.1	.1	.0	.0	.0	.1	.5	.2
.3	.0	.0	.0	.0	.0	.0	.0						
95.	*	.2	.2	.4	.1	.1	.1	.0	.0	.0	.1	.5	.2
.3	.0	.1	.0	.0	.0	.0	.0						
100.	*	.3	.3	.4	.1	.1	.1	.0	.0	.0	.1	.4	.2
.3	.0	.1	.0	.0	.0	.0	.0						
105.	*	.3	.3	.4	.1	.1	.1	.0	.0	.0	.1	.4	.2
.3	.0	.1	.0	.0	.0	.0	.0						
110.	*	.3	.3	.4	.1	.1	.1	.0	.0	.0	.1	.4	.2
.4	.0	.1	.0	.0	.0	.0	.0						
115.	*	.3	.3	.7	.1	.1	.1	.0	.0	.0	.1	.3	.2
.4	.0	.1	.0	.0	.0	.0	.0						
120.	*	.3	.3	.7	.1	.1	.1	.0	.0	.0	.2	.3	.3
.6	.0	.1	.0	.0	.0	.0	.0						
125.	*	.4	.4	.8	.1	.1	.1	.0	.0	.0	.2	.4	.3
.7	.0	.1	.0	.0	.0	.0	.0						
130.	*	.4	.5	.8	.1	.1	.0	.0	.0	.0	.1	.4	.4
.7	.0	.3	.0	.0	.0	.0	.0						
135.	*	.4	.5	.9	.1	.1	.0	.0	.0	.0	.1	.4	.6
.8	.0	.3	.0	.0	.0	.0	.0						
140.	*	.3	.5	.9	.1	.1	.0	.0	.0	.0	.0	.6	.7
.8	.2	.4	.0	.0	.0	.1	.1						
145.	*	.4	.4	.8	.1	.1	.0	.0	.0	.0	.0	.6	.8
.6	.4	.6	.0	.0	.0	.4	.2						
150.	*	.2	.4	.7	.1	.1	.0	.0	.0	.0	.0	.4	.7
.4	.4	.7	.0	.0	.0	.4	.4						
155.	*	.1	.2	.6	.1	.1	.0	.0	.0	.0	.0	.3	.5
.3	.7	.8	.0	.0	.0	.4	.4						
160.	*	.1	.1	.5	.1	.1	.0	.0	.0	.0	.0	.3	.4
.2	.7	.9	.0	.0	.0	.5	.4						
165.	*	.0	.0	.4	.1	.1	.0	.0	.0	.0	.0	.2	.3
.1	.5	.9	.2	.0	.0	.5	.4						
170.	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.1	.3
.1	.5	.9	.2	.0	.1	.6	.2						
175.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.1	.2
.1	.3	.8	.2	.1	.1	.4	.2						
180.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.1	.2
.0	.3	.8	.2	.1	.1	.5	.2						
185.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	.8	.2	.1	.1	.6	.2						
190.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.6	.2	.1	.2	.6	.2						
195.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.6	.2	.1	.2	.5	.2						
200.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.5	.2	.1	.2	.5	.2						
205.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.2	.5	.2	.1	.2	.5	.2						

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.6	.2	.2	.3	.5	.2
215.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.6	.3	.2	.1	.6	.2
220.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.7	.3	.2	.0	.5	.2
225.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.7	.4	.2	.1	.4	.2
230.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.6	.3	.3	.1	.4	.2
235.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.7	.3	.3	.1	.4	.2
240.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.2	.1	.0	.2	.6	.4	.4	.1	.4	.2
245.	*	.0	.0	.0	.1	.1	.0	.0	.0	.1	.1	.3	.1	.0	.2	.5	.4	.2	.1	.3	.2
250.	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.3	.1	.0	.2	.5	.3	.0	.0	.3	.2
255.	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.3	.1	.0	.2	.4	.1	.1	.0	.3	.2
260.	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.3	.1	.0	.2	.4	.1	.1	.1	.2	.2
265.	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.4	.1	.0	.2	.4	.1	.1	.1	.2	.2
270.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0	.2	.3	.2	.2	.1	.2	.2
275.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0	.2	.4	.2	.2	.1	.2	.2
280.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0	.2	.4	.2	.1	.1	.2	.2
285.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0	.2	.5	.2	.1	.1	.2	.2
290.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0	.2	.6	.2	.1	.1	.2	.2
295.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.1	.0	.2	.4	.1	.1	.0	.2	.2
300.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0	.2	.4	.1	.1	.0	.2	.2
305.	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.7	.2	.1	.3	.5	.1	.0	.0	.3	.2
310.	*	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.7	.3	.1	.3	.5	.1	.0	.0	.2	.2
315.	*	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.8	.4	.1	.6	.4	.0	.0	.0	.2	.2
320.	*	.0	.2	.4	.0	.0	.0	.0	.0	.0	.0	.9	.6	.2	.5	.4	.0	.0	.0	.2	.2

```
 325.   *     .1     .2     .6     .0     .0     .0     .0     .0     .0     .0    1.1     .6
.4     .4     .2     .0     .0     .0     .2     .2
 330.   *     .1     .4     .6     .0     .0     .0     .0     .0     .0     .0    1.2     .7
.5     .2     .2     .0     .0     .0     .1     .1
 335.   *     .2     .4     .8     .0     .0     .0     .0     .0     .0     .0    1.2     .8
.5     .2     .1     .0     .0     .0     .0     .0
 340.   *     .3     .3     .8     .0     .0     .0     .0     .0     .0     .1    1.1     .6
.5     .1     .1     .0     .0     .0     .0     .0
 345.   *     .3     .4     .8     .0     .0     .0     .0     .0     .0     .1    1.0     .6
.5     .0     .0     .0     .0     .0     .0     .0
 350.   *     .3     .3     .7     .0     .0     .0     .0     .0     .0     .1     .8     .5
.5     .0     .0     .0     .0     .0     .0     .0
 355.   *     .3     .3     .8     .0     .0     .0     .0     .0     .0     .1     .7     .5
.5     .0     .0     .0     .0     .0     .0     .0
 360.   *     .2     .3     .8     .0     .0     .0     .0     .0     .0     .1     .5     .4
.4     .0     .0     .0     .0     .0     .0     .0
 ------*-------------------------------------------------------------------------------
-------------------------------------------------
 MAX    *     .4     .5     .9     .1     .1     .1     .1     .1     .1     .3    1.2     .8
.8     .7     .9     .4     .4     .3     .6     .4
 DEGR.  *   125    130    135     50     45     55     30     25     30     40    330    335
135    155    160    225    240    210    170    150
```

THE HIGHEST CONCENTRATION OF 1.20 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 2/27/ 6
TIME : 14:50:40

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)		
1. L1 BAY ST NB UP 1-2	*	950.0	2917.0	1082.0	3250.0	*				
358.	22.	AG	506.	3.6	.0	40.0				
2. L2 BAY ST NB UP 2-3	*	1082.0	3250.0	1146.0	3443.0	*				
203.	18.	AG	506.	3.6	.0	40.0				
3. L3 BAY ST NB UP 3-4	*	1146.0	3443.0	1058.0	3744.0	*				
314.	344.	AG	629.	3.7	.0	40.0				
4. L3Q BAY ST NB UP 3-4	*	1058.0	3744.0	1078.2	3674.8	*				
72.	164.	AG	69.	100.0	.0	20.0	.32	3.7		
5. L4 BAY ST NB UP 4-5	*	1058.0	3744.0	982.0	3913.0	*				
185.	336.	AG	863.	5.1	.0	40.0				
6. L5 BAY ST NB UP 5-6	*	982.0	3913.0	1020.0	4076.0	*				
167.	13.	AG	868.	5.1	.0	40.0				
7. L5Q BAY ST NB UP 5-6	*	1020.0	4076.0	997.4	3978.9	*				
100.	193.	AG	69.	100.0	.0	20.0	.44	5.1		
8. L6 BAY ST NB UP 6-7	*	1020.0	4076.0	1076.0	4394.0	*				
323.	10.	AG	1050.	5.1	.0	40.0				
9. L7 BAY ST SB UP 1-2	*	1055.0	4396.0	1006.0	4080.0	*				
320.	189.	AG	976.	3.7	.0	40.0				
10. L7Q BAY ST SB UP 1-2	*	1006.0	4080.0	1023.2	4190.7	*				
112.	9.	AG	69.	100.0	.0	20.0	.49	5.7		
11. L8 BAY ST SB UP 2-3	*	1006.0	4080.0	952.0	3900.0	*				
188.	197.	AG	832.	3.7	.0	40.0				
12. L9 BAY ST SB UP 3-4	*	952.0	3900.0	1016.0	3750.0	*				
163.	157.	AG	1072.	3.7	.0	40.0				
13. L9Q BAY ST SB UP 3-4	*	1016.0	3750.0	967.7	3863.2	*				
123.	337.	AG	69.	100.0	.0	20.0	.54	6.3		
14. L10 BAY ST SB UP 4-5	*	1016.0	3750.0	1113.0	3446.0	*				
319.	162.	AG	723.	3.3	.0	40.0				
15. L11 BAY ST SB UP 5-6	*	1113.0	3446.0	1075.0	3258.0	*				
192.	191.	AG	738.	3.4	.0	40.0				
16. L12 BAY ST SB UP 6-7	*	1075.0	3258.0	943.0	2916.0	*				
367.	201.	AG	738.	3.4	.0	40.0				

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      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG    348.   5.1    .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1174.4    3808.9 *
148.   70. AG     64. 100.0    .0 12.0  .69   7.5
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG    160.   5.1    .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG    160.   5.1    .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG     72.   5.1    .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG     72.   5.1    .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1006.9    3738.1 *
31.   251. AG     64. 100.0    .0 12.0  .14   1.6
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.   71. AG    375.   5.1    .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG    338.   5.1    .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG    338.   5.1    .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     916.3    4075.8 *
72.   276. AG    128. 100.0    .0 20.0  .33   3.7
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG     27.   5.1    .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG     20.   5.1    .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1044.2    4091.6 *
4.    82. AG    128. 100.0    .0 20.0  .02    .2
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG    293.   5.1    .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG    293.   5.1    .0 40.0
```

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 2/27/ 6
TIME : 14:50:40

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM RATE (gm/hr)	FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4	120	42	2.0	629	1600	36.74	1	3	
7. L5Q BAY ST NB UP 5-6	120	42	2.0	868	1600	36.74	1	3	
10. L7Q BAY ST SB UP 1-2	120	42	2.0	976	1600	36.74	1	3	
13. L9Q BAY ST SB UP 3-4	120	42	2.0	1072	1600	36.74	1	3	
18. L13Q HANNAH ST 1-2 W	120	78	2.0	348	1600	36.74	1	3	
23. L14aQ HANNAH ST 2-3	120	78	2.0	72	1600	36.74	1	3	
27. L17Q VICTORY BLVD EB	120	78	2.0	338	1600	36.74	1	3	
30. L19Q VICTORY BLVD WB	120	78	2.0	20	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC V1	1328.0	4151.0	6.0
2. REC V2	1235.0	4141.0	6.0
3. REC V3	1041.0	4131.0	6.0
4. REC V4	1069.0	4277.0	6.0
5. REC V5	1094.0	4402.0	6.0
6. REC V6	1008.0	4231.0	6.0
7. REC V7	1040.0	4396.0	6.0
8. REC V8	966.0	4116.0	6.0
9. REC V9	888.0	4115.0	6.0
10. REC V10	839.0	4137.0	6.0
11. REC V11	1025.0	4034.0	6.0
12. REC V12	891.0	3999.0	6.0
13. REC V13	956.0	4055.0	6.0
14. REC V14	1133.0	4039.0	6.0
15. REC V15	1217.0	4050.0	6.0
16. REC V16	1337.0	4064.0	6.0

JOB: CO 2015 AM No-Build Alt-A Stapleton BLvd & Bay ST Intersection RUN: Victory

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
0.	*	.0	.0	.6	.4	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
5.	*	.0	.0	.5	.3	.0	.1	.0	.0	.0	.0	.7	.0	.5	.0	.0	.0
10.	*	.0	.0	.5	.3	.0	.1	.0	.0	.0	.0	.7	.0	.6	.0	.0	.0
15.	*	.0	.0	.4	.2	.0	.3	.0	.2	.0	.0	.4	.1	.7	.0	.0	.0
20.	*	.0	.0	.3	.2	.0	.3	.0	.2	.0	.0	.2	.1	.8	.0	.0	.0
25.	*	.0	.0	.2	.1	.0	.3	.0	.2	.0	.0	.2	.3	.8	.0	.0	.0
30.	*	.0	.0	.1	.1	.0	.4	.0	.3	.0	.0	.1	.4	.9	.0	.0	.0
35.	*	.0	.0	.1	.1	.0	.4	.0	.3	.1	.0	.1	.5	.9	.0	.0	.0
40.	*	.0	.0	.1	.1	.0	.4	.0	.3	.2	.0	.0	.5	.9	.0	.0	.0
45.	*	.0	.0	.1	.0	.0	.4	.0	.3	.2	.0	.0	.5	.8	.0	.0	.0
50.	*	.0	.0	.0	.0	.0	.4	.0	.3	.2	.1	.0	.3	.8	.0	.0	.0
55.	*	.0	.0	.1	.0	.0	.3	.0	.3	.2	.1	.0	.2	.8	.0	.0	.0
60.	*	.0	.0	.0	.0	.0	.3	.0	.3	.2	.1	.0	.2	.8	.0	.0	.0
65.	*	.0	.0	.0	.0	.0	.3	.0	.3	.3	.1	.0	.2	.8	.0	.0	.0
70.	*	.0	.0	.0	.0	.0	.3	.0	.3	.3	.1	.0	.3	.7	.0	.0	.0
75.	*	.0	.0	.0	.0	.0	.2	.0	.3	.3	.1	.0	.3	.6	.0	.0	.0
80.	*	.0	.0	.0	.0	.0	.2	.0	.3	.2	.1	.0	.3	.5	.0	.0	.0
85.	*	.0	.0	.0	.0	.0	.2	.0	.3	.3	.2	.0	.3	.4	.0	.0	.0

90.	*	.0	.0	.0	.0	.0	.2	.2	.3	.3	.2	.0	.3
.4	.0	.0	.0										
95.	*	.0	.0	.0	.0	.0	.2	.2	.3	.3	.2	.0	.3
.3	.0	.0	.0										
100.	*	.0	.0	.0	.0	.0	.2	.2	.4	.3	.1	.0	.2
.3	.0	.0	.0										
105.	*	.0	.0	.0	.0	.0	.2	.2	.4	.2	.1	.0	.2
.3	.0	.0	.0										
110.	*	.0	.0	.0	.0	.0	.2	.2	.4	.3	.1	.0	.2
.3	.0	.0	.0										
115.	*	.0	.0	.0	.0	.0	.2	.2	.4	.4	.1	.0	.2
.3	.0	.0	.0										
120.	*	.0	.0	.0	.0	.0	.2	.2	.4	.5	.3	.0	.2
.3	.0	.0	.0										
125.	*	.0	.0	.0	.0	.0	.2	.2	.5	.7	.1	.0	.2
.3	.0	.0	.0										
130.	*	.0	.0	.0	.0	.0	.3	.3	.5	.7	.2	.0	.2
.3	.0	.0	.0										
135.	*	.0	.0	.0	.0	.0	.3	.3	.4	.6	.2	.0	.1
.3	.0	.0	.0										
140.	*	.0	.0	.0	.0	.0	.3	.3	.4	.5	.1	.0	.1
.3	.0	.0	.0										
145.	*	.0	.0	.1	.0	.0	.3	.3	.5	.5	.1	.0	.3
.3	.0	.0	.0										
150.	*	.0	.0	.0	.0	.0	.5	.4	.5	.3	.1	.0	.3
.3	.0	.0	.0										
155.	*	.0	.0	.1	.0	.0	.5	.4	.4	.4	.1	.0	.2
.3	.0	.0	.0										
160.	*	.0	.0	.1	.1	.0	.5	.4	.5	.1	.1	.0	.2
.3	.0	.0	.0										
165.	*	.0	.0	.1	.1	.0	.6	.4	.5	.1	.1	.0	.0
.3	.0	.0	.0										
170.	*	.0	.0	.1	.1	.0	.6	.4	.6	.0	.1	.1	.0
.5	.0	.0	.0										
175.	*	.0	.0	.1	.2	.1	.7	.5	.4	.0	.0	.2	.0
.4	.0	.0	.0										
180.	*	.0	.0	.5	.2	.2	.7	.5	.5	.0	.0	.2	.0
.1	.0	.0	.0										
185.	*	.0	.0	.4	.3	.2	.8	.6	.4	.0	.0	.4	.0
.1	.0	.0	.0										
190.	*	.0	.0	.4	.6	.4	.3	.3	.3	.0	.0	.6	.0
.0	.0	.0	.0										
195.	*	.0	.0	.6	.7	.5	.3	.3	.3	.0	.0	.7	.0
.0	.0	.0	.0										
200.	*	.0	.0	.7	.6	.5	.1	.1	.3	.0	.1	.5	.0
.0	.0	.0	.0										
205.	*	.0	.0	.7	.7	.4	.1	.1	.3	.0	.1	.6	.0
.0	.0	.0	.0										

JOB: CO 2015 AM No-Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
210.	.0	.0	.7	.7	.4	.1	.1	.2	.0	.0	.7	.0	.0	.0	.0	.0
215.	.0	.0	.9	.7	.3	.0	.0	.3	.0	.0	.7	.0	.0	.0	.0	.0
220.	.0	.0	.7	.4	.3	.0	.0	.3	.0	.0	.6	.0	.0	.0	.0	.0
225.	.0	.0	.6	.4	.3	.0	.0	.3	.0	.0	.6	.0	.0	.0	.0	.0
230.	.0	.0	.7	.3	.3	.0	.0	.3	.0	.1	.6	.0	.0	.0	.0	.0
235.	.0	.0	.7	.3	.2	.0	.0	.2	.0	.1	.6	.0	.0	.0	.0	.0
240.	.0	.0	.7	.3	.2	.0	.0	.2	.0	.1	.6	.0	.0	.1	.0	.0
245.	.0	.0	.6	.3	.2	.0	.0	.1	.0	.1	.6	.0	.0	.1	.0	.0
250.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.6	.0	.0	.2	.0	.0
255.	.0	.1	.6	.3	.2	.0	.0	.1	.2	.2	.5	.0	.0	.2	.0	.0
260.	.0	.0	.5	.3	.2	.0	.0	.1	.2	.2	.4	.0	.0	.2	.0	.0
265.	.0	.0	.5	.3	.0	.0	.0	.1	.2	.2	.4	.0	.0	.2	.0	.0
270.	.0	.1	.5	.3	.0	.0	.0	.0	.2	.2	.4	.0	.1	.3	.1	.0
275.	.0	.1	.5	.3	.0	.0	.0	.0	.2	.1	.4	.0	.2	.3	.1	.0
280.	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.5	.0	.2	.2	.1	.0
285.	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.6	.0	.3	.1	.0	.0
290.	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.7	.0	.4	.1	.0	.0
295.	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.2	.1	.0
300.	.0	.1	.5	.3	.0	.0	.0	.0	.0	.0	.7	.0	.5	.2	.1	.0
305.	.0	.1	.5	.3	.0	.0	.0	.0	.0	.0	.7	.0	.5	.2	.1	.0
310.	.0	.1	.5	.3	.0	.0	.0	.0	.0	.0	.7	.0	.6	.2	.1	.0
315.	.0	.1	.5	.3	.0	.0	.0	.0	.0	.0	.7	.0	.6	.3	.1	.0
320.	.0	.0	.5	.3	.0	.0	.0	.0	.0	.0	.7	.0	.6	.3	.1	.0

```
 325.   *     .0     .0     .5     .3     .0     .0     .0     .0     .0     .0     .7     .0
.6     .2     .1     .0
 330.   *     .0     .0     .5     .3     .0     .0     .0     .0     .0     .0     .7     .0
.6     .2     .1     .0
 335.   *     .0     .0     .6     .4     .0     .0     .0     .0     .0     .0     .8     .0
.5     .2     .0     .0
 340.   *     .0     .0     .7     .4     .0     .0     .0     .0     .0     .0     .9     .0
.5     .2     .0     .0
 345.   *     .0     .0     .6     .4     .0     .0     .0     .0     .0     .0    1.0     .0
.5     .1     .0     .0
 350.   *     .0     .0     .6     .4     .0     .0     .0     .0     .0     .0     .9     .0
.5     .1     .0     .0
 355.   *     .0     .0     .7     .4     .0     .0     .0     .0     .0     .0     .9     .0
.5     .0     .0     .0
 360.   *     .0     .0     .6     .4     .0     .1     .0     .0     .0     .0    1.0     .0
.5     .0     .0     .0
 -------*-------------------------------------------------------------------------------
-------------------------
 MAX    *     .0     .1     .9     .7     .5     .8     .6     .6     .7     .3    1.0     .5
.9     .3     .1     .0
 DEGR.  *      0    255    215    195    195    185    185    170    125    120      0     35
30    270    270      0

 THE HIGHEST CONCENTRATION OF    1.00 PPM OCCURRED AT RECEPTOR REC11.
```

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 2/28/ 6
TIME : 17:44:47

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
	*	(FT)	(FT)	(FT)	(FT)	*	LENGTH (FT)	BRG (DEG)	TYPE	VPH (G/MI)	EF	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	325.	6.1	.0	32.0		
2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	325.	6.1	.0	32.0		
3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	286.	6.1	.0	32.0		
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1762.8	947.0	*	22.	133.	AG	103.	100.0	.0	30.0	.10	1.1
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	1.	6.1	.0	32.0		
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	196.	6.1	.0	32.0		
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1611.4	1110.2	*	28.	136.	AG	192.	100.0	.0	30.0	.13	1.4
8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	167.	6.1	.0	32.0		
9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	240.	6.1	.0	32.0		
10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	240.	6.1	.0	32.0		
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	706.	6.4	.0	32.0		
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	910.	9.3	.0	32.0		
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1757.6	880.4	*	70.	147.	AG	103.	100.0	.0	30.0	.31	3.5
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	900.	9.3	.0	32.0		
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1518.1	1279.2	*	69.	150.	AG	103.	100.0	.0	30.0	.30	3.5
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	863.	5.6	.0	32.0		

```
      17. L11 BAY ST NB 6-7    *    1264.0     1654.0     1049.0     2127.0 *
520.   336. AG     863.    4.2     .0 32.0
      18. L12 BAY ST SB 1-2    *    1030.0     2123.0     1244.0     1644.0 *
525.   156. AG     711.    3.4     .0 32.0
      19. L13 BAY ST SB 2-3    *    1244.0     1644.0     1445.0     1358.0 *
350.   145. AG     711.    8.5     .0 32.0
      20. L13Q BAY ST SB 3-2   *    1445.0     1358.0     1413.7     1402.5 *
54.    325. AG     103. 100.0     .0 30.0  .24    2.8
      21. L14 BAY ST SB 3-1T   *    1445.0     1358.0     1661.0      964.0 *
449.   151. AG     572.    6.1     .0 32.0
      22. L14Q BAY ST SB 1T-3  *    1661.0      964.0     1640.0     1002.3 *
44.    331. AG     103. 100.0     .0 30.0  .19    2.2
      23. L15 BAY ST SB 1T-2   *    1661.0      964.0     1830.0      731.0 *
288.   144. AG     705.    3.5     .0 32.0
      24. L16 BAY ST SB 2-3    *    1830.0      731.0     2218.0       32.0 *
799.   151. AG     753.    4.6     .0 32.0
      25. L18 GREENFIELD AVE W*    1645.0      963.0     1158.0      437.0 *
717.   223. AG     221.    6.1     .0 32.0
      26. L19 VANDERBILT AVE E*     885.0      932.0     1459.0     1322.0 *
694.    56. AG     201.    9.3     .0 32.0
      27. L19Q VANDERBILT AVE  *    1459.0     1322.0     1435.4     1305.9 *
29.    236. AG     192. 100.0     .0 30.0  .13    1.5
      28. L22 VANDERBILT AVE W*    1458.0     1351.0      874.0      954.0 *
706.   236. AG     389.    9.3     .0 32.0
```

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 2/28/ 6
TIME : 17:44:47

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	286	1600	36.74	1	3	
7. L4Q EDGEWATER ST SB	*	120	78	2.0	196	1600	36.74	1	3	
13. L8Q BAY ST NB 3-2	*	120	42	2.0	910	1600	36.74	1	3	
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	900	1600	36.74	1	3	
20. L13Q BAY ST SB 3-2	*	120	42	2.0	711	1600	36.74	1	3	
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	572	1600	36.74	1	3	
27. L19Q VANDERBILT AVE	*	120	78	2.0	201	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC G1	*	1570.0	1110.0	6.0	*
2. REC G2	*	1624.0	966.0	6.0	*
3. REC G3	*	1463.0	787.0	6.0	*
4. REC G4	*	1175.0	485.0	6.0	*
5. REC G5	*	1199.0	437.0	6.0	*
6. REC G6	*	1478.0	738.0	6.0	*
7. REC G7	*	1665.0	932.0	6.0	*
8. REC G8	*	1728.0	842.0	6.0	*
9. REC G9	*	1814.0	728.0	6.0	*
10. REC G10	*	1946.0	606.0	6.0	*
11. REC G11	*	1889.0	716.0	6.0	*
12. REC G12	*	1931.0	760.0	6.0	*
13. REC G13	*	2036.0	658.0	6.0	*
14. REC G14	*	2065.0	687.0	6.0	*
15. REC G15	*	1922.0	819.0	6.0	*
16. REC G16	*	1744.0	925.0	6.0	*
17. REC G17	*	1814.0	841.0	6.0	*
18. REC G18	*	1717.0	1010.0	6.0	*
19. REC G19	*	1691.0	1039.0	6.0	*

20. REC	G20		*	1577.0	1215.0	6.0	*

JOB: CO 2015 PM Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Greenfield

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)											
	* REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20					
0.	* .5	.4	.0	.0	.0	.0	.6	.5	.4	.0	.0	.2
.1	.0	.0	.2	.0	.0	.0	.0					
5.	* .5	.4	.1	.0	.0	.1	.5	.5	.4	.0	.0	.1
.1	.0	.0	.2	.0	.0	.0	.0					
10.	* .5	.4	.1	.0	.1	.2	.5	.5	.4	.0	.0	.1
.1	.0	.0	.2	.0	.0	.0	.0					
15.	* .3	.4	.1	.0	.1	.2	.4	.6	.4	.0	.0	.1
.1	.0	.0	.2	.0	.0	.0	.0					
20.	* .3	.4	.1	.0	.1	.2	.3	.5	.3	.0	.0	.1
.1	.0	.0	.2	.0	.0	.0	.0					
25.	* .3	.5	.1	.0	.1	.2	.4	.5	.3	.0	.0	.1
.1	.0	.0	.2	.0	.0	.0	.0					
30.	* .3	.5	.1	.0	.1	.2	.3	.5	.3	.0	.0	.1
.1	.0	.0	.2	.0	.0	.0	.0					
35.	* .4	.5	.2	.0	.1	.0	.3	.4	.3	.0	.0	.1
.1	.0	.0	.2	.0	.0	.0	.0					
40.	* .4	.5	.2	.1	.1	.0	.3	.4	.3	.0	.0	.1
.1	.0	.0	.1	.0	.0	.0	.0					
45.	* .5	.6	.1	.1	.0	.0	.3	.4	.3	.0	.0	.1
.1	.0	.0	.1	.0	.0	.0	.0					
50.	* .6	.5	.1	.1	.0	.1	.3	.3	.3	.0	.0	.1
.1	.0	.0	.1	.0	.0	.0	.0					
55.	* .7	.5	.2	.1	.0	.1	.3	.3	.3	.0	.0	.1
.1	.0	.0	.0	.0	.0	.0	.0					
60.	* .7	.6	.2	.1	.0	.1	.3	.3	.3	.0	.0	.1
.1	.0	.0	.0	.0	.0	.0	.0					
65.	* .7	.6	.2	.1	.0	.1	.3	.3	.3	.0	.0	.1
.1	.0	.0	.0	.0	.0	.0	.0					
70.	* .8	.6	.2	.1	.0	.1	.4	.3	.3	.0	.0	.1
.1	.0	.0	.1	.0	.0	.0	.0					
75.	* .8	.5	.2	.1	.0	.1	.5	.3	.3	.0	.0	.1
.1	.0	.0	.1	.0	.0	.0	.0					
80.	* .7	.4	.2	.1	.0	.1	.5	.3	.3	.0	.0	.1
.1	.0	.0	.1	.0	.0	.0	.0					
85.	* .7	.5	.2	.1	.0	.1	.5	.3	.3	.0	.0	.1
.1	.0	.0	.1	.0	.0	.0	.0					

90.	*	.6	.5	.2	.1	.0	.0	.4	.3	.3	.0	.0	.1
.0	.0	.0	.1	.0	.0	.0	.0						
95.	*	.6	.3	.2	.0	.0	.0	.5	.3	.3	.0	.0	.2
.0	.0	.0	.1	.1	.0	.0	.0						
100.	*	.5	.5	.1	.0	.0	.0	.5	.3	.3	.0	.0	.2
.0	.0	.0	.3	.1	.0	.0	.0						
105.	*	.5	.5	.0	.0	.0	.0	.5	.3	.4	.0	.0	.3
.1	.0	.0	.3	.1	.0	.0	.0						
110.	*	.5	.5	.0	.0	.0	.0	.5	.3	.3	.0	.0	.3
.1	.0	.0	.3	.1	.0	.0	.0						
115.	*	.7	.4	.0	.0	.0	.0	.5	.3	.3	.0	.0	.3
.2	.0	.0	.3	.2	.0	.0	.0						
120.	*	.6	.4	.0	.0	.0	.0	.5	.3	.4	.0	.0	.3
.2	.0	.0	.4	.1	.1	.1	.0						
125.	*	.7	.4	.0	.0	.0	.0	.6	.3	.3	.0	.0	.3
.2	.0	.0	.4	.0	.1	.1	.0						
130.	*	.6	.4	.0	.0	.0	.0	.5	.4	.4	.0	.0	.3
.2	.1	.1	.4	.0	.3	.1	.0						
135.	*	.5	.3	.0	.0	.0	.0	.5	.5	.4	.0	.0	.2
.2	.1	.1	.5	.0	.3	.2	.1						
140.	*	.8	.4	.0	.0	.0	.0	.6	.4	.5	.1	.1	.1
.0	.2	.2	.6	.0	.3	.4	.2						
145.	*	.8	.4	.0	.0	.0	.0	.4	.4	.5	.2	.1	.1
.0	.2	.2	1.0	.2	.5	.5	.3						
150.	*	.5	.0	.0	.0	.0	.0	.3	.3	.4	.4	.3	.0
.0	.2	.2	1.2	.3	.8	.6	.5						
155.	*	.4	.0	.0	.0	.0	.0	.1	.1	.3	.4	.4	.1
.0	.2	.3	1.2	.4	.7	.7	.6						
160.	*	.2	.0	.0	.0	.0	.0	.0	.0	.1	.4	.4	.2
.0	.1	.3	1.3	.5	.8	.5	.8						
165.	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	.4	.4	.2
.1	.0	.4	1.1	.5	.6	.6	.7						
170.	*	.1	.1	.1	.0	.0	.0	.0	.0	.0	.4	.4	.2
.1	.1	.4	1.1	.4	.7	.6	.7						
175.	*	.1	.1	.1	.0	.0	.0	.0	.0	.0	.4	.3	.2
.2	.2	.4	1.1	.4	.6	.6	.7						
180.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.2	.3	1.0	.4	.5	.4	.6						
185.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.2	.3	1.0	.4	.5	.3	.5						
190.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.3	.9	.4	.3	.3	.5						
195.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.3	.9	.4	.2	.4	.4						
200.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.2	.8	.4	.2	.4	.4						
205.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.2	.8	.4	.2	.3	.4						

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Greenfield Ave & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)											
	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20						
210.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.2	.8	.4	.2	.5	.4						
215.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.2	.2
.1	.2	.2	.8	.3	.2	.6	.4						
220.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.2
.1	.2	.2	.8	.3	.2	.6	.4						
225.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.1
.1	.1	.2	.8	.3	.4	.4	.4						
230.	*	.0	.0	.1	.0	.0	.1	.1	.0	.0	.2	.2	.1
.1	.1	.2	.8	.3	.4	.4	.4						
235.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.2	.1
.1	.1	.2	.8	.3	.3	.4	.4						
240.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.2	.1
.1	.1	.2	.7	.3	.3	.4	.4						
245.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.3	.1
.1	.1	.2	.7	.3	.5	.3	.4						
250.	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.3	.1
.1	.1	.2	.8	.3	.5	.3	.4						
255.	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.3	.1
.1	.1	.2	.8	.3	.4	.3	.4						
260.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.1
.1	.1	.2	.8	.3	.4	.3	.4						
265.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.1
.1	.1	.2	.8	.4	.4	.3	.4						
270.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1
.1	.1	.2	.8	.4	.4	.3	.4						
275.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.1	.3	.8	.4	.3	.4	.4						
280.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.2
.1	.2	.3	.9	.4	.4	.5	.4						
285.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.3	.9	.4	.4	.5	.4						
290.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.2
.1	.3	.4	.9	.5	.4	.5	.5						
295.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.2
.1	.3	.4	.8	.5	.5	.5	.5						
300.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.3
.1	.3	.4	.9	.6	.5	.6	.6						
305.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.4
.3	.3	.5	1.1	.7	.6	.6	.7						
310.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.4	.6	.5
.4	.4	.4	1.1	.7	.6	.7	.9						
315.	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	.5	.6	.5
.5	.2	.3	1.2	.7	.6	.7	1.0						
320.	*	.2	.0	.0	.0	.0	.0	.2	.1	.2	.5	.8	.5
.4	.0	.2	1.1	.7	.6	.6	1.0						

```
 325.   *     .3     .0     .0     .0     .0     .0     .3     .4     .4     .5     .6     .4
.3     .0     .1    1.1     .6     .3     .7     .7
 330.   *     .6     .2     .0     .0     .0     .0     .6     .4     .7     .5     .3     .3
.3     .0     .0     .8     .3     .2     .3     .6
 335.   *     .7     .2     .0     .0     .0     .0     .7     .6     .7     .2     .2     .3
.3     .0     .0     .6     .1     .1     .1     .4
 340.   *     .7     .3     .0     .0     .0     .0     .9     .5     .7     .2     .1     .3
.3     .0     .0     .3     .0     .0     .0     .1
 345.   *     .7     .5     .0     .0     .0     .0    1.0     .5     .6     .0     .0     .2
.3     .0     .0     .3     .0     .0     .0     .0
 350.   *     .5     .5     .0     .0     .0     .0     .7     .5     .4     .0     .0     .2
.2     .0     .0     .3     .0     .0     .0     .0
 355.   *     .5     .4     .0     .0     .0     .0     .7     .5     .4     .0     .0     .2
.2     .0     .0     .2     .0     .0     .0     .0
 360.   *     .5     .4     .0     .0     .0     .0     .6     .5     .4     .0     .0     .2
.1     .0     .0     .2     .0     .0     .0     .0
 ------*-------------------------------------------------------------------------------
-------------------------------------------------
 MAX    *     .8     .6     .2     .1     .1     .2    1.0     .6     .7     .5     .8     .5
.5     .4     .5    1.3     .7     .8     .7    1.0
 DEGR.  *  140     45     35     40     10     10    345     15    330    315    320    310
315    310    305    160    305    150    155    315

 THE HIGHEST CONCENTRATION OF     1.30 PPM OCCURRED AT RECEPTOR REC16.
```

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Hanna & Bay ST Intersection

DATE : 2/28/ 6
TIME : 18: 8:13

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	*	X1 (FT)	Y1 (FT)	X2	Y2	*	H	W	V/C	QUEUE (VEH)
358.	1. L1 BAY ST NB UP 1-2	AG	730.	3.4	*	950.0	2917.0	1082.0	3250.0	*	.0	40.0		
203.	2. L2 BAY ST NB UP 2-3	AG	730.	3.4	*	1082.0	3250.0	1146.0	3443.0	*	.0	40.0		
314.	3. L3 BAY ST NB UP 3-4	AG	842.	3.4	*	1146.0	3443.0	1058.0	3744.0	*	.0	40.0		
97.	4. L3Q BAY ST NB UP 3-4	AG	69.	100.0	*	1058.0	3744.0	1085.1	3651.2	*	.0	20.0	.43	4.9
185.	5. L4 BAY ST NB UP 4-5	AG	1032.	6.9	*	1058.0	3744.0	982.0	3913.0	*	.0	40.0		
167.	6. L5 BAY ST NB UP 5-6	AG	1025.	6.9	*	982.0	3913.0	1020.0	4076.0	*	.0	40.0		
118.	7. L5Q BAY ST NB UP 5-6	AG	69.	100.0	*	1020.0	4076.0	993.3	3961.5	*	.0	20.0	.52	6.0
323.	8. L6 BAY ST NB UP 6-7	AG	996.	6.9	*	1020.0	4076.0	1076.0	4394.0	*	.0	40.0		
320.	9. L7 BAY ST SB UP 1-2	AG	1387.	3.7	*	1055.0	4396.0	1006.0	4080.0	*	.0	40.0		
159.	10. L7Q BAY ST SB UP 1-2	AG	69.	100.0	*	1006.0	4080.0	1030.4	4237.3	*	.0	20.0	.70	8.1
188.	11. L8 BAY ST SB UP 2-3	AG	1128.	3.7	*	1006.0	4080.0	952.0	3900.0	*	.0	40.0		
163.	12. L9 BAY ST SB UP 3-4	AG	1367.	3.7	*	952.0	3900.0	1016.0	3750.0	*	.0	40.0		
157.	13. L9Q BAY ST SB UP 3-4	AG	69.	100.0	*	1016.0	3750.0	954.4	3894.3	*	.0	20.0	.69	8.0
319.	14. L10 BAY ST SB UP 4-5	AG	788.	4.0	*	1016.0	3750.0	1113.0	3446.0	*	.0	40.0		
192.	15. L11 BAY ST SB UP 5-6	AG	768.	3.5	*	1113.0	3446.0	1075.0	3258.0	*	.0	40.0		
367.	16. L12 BAY ST SB UP 6-7	AG	768.	3.5	*	1075.0	3258.0	943.0	2916.0	*	.0	40.0		

```
      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG    357.   6.9    .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1178.0    3810.2 *
152.   70. AG     64. 100.0    .0 12.0  .71   7.7
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG    314.   6.9    .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG    314.   6.9    .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG     78.   6.9    .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG     78.   6.9    .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1004.5    3737.2 *
33.   251. AG     64. 100.0    .0 12.0  .15   1.7
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.    71. AG    519.   6.9    .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG    216.   6.9    .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG    216.   6.9    .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     942.2    4073.0 *
46.   276. AG    128. 100.0    .0 20.0  .21   2.3
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG      7.   6.9    .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG     26.   6.9    .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1045.5    4091.7 *
6.    82. AG    128. 100.0    .0 20.0  .03    .3
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG    523.   6.9    .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG    523.   6.9    .0 40.0
```

JOB: CO 2015 PM Build Alt-A Stapleton ST Intersection

RUN: Hanna & Bay

DATE : 2/28/ 6
TIME : 18: 8:13

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	842	1600	36.74	1	3	
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	1025	1600	36.74	1	3	
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	1387	1600	36.74	1	3	
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	1367	1600	36.74	1	3	
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	357	1600	36.74	1	3	
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	78	1600	36.74	1	3	
27. L17Q VICTORY BLVD EB	*	120	78	2.0	216	1600	36.74	1	3	
30. L19Q VICTORY BLVD WB	*	120	78	2.0	26	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC H1	*	1133.0	3803.0	6.0	*
2. REC H2	*	1059.0	3786.0	6.0	*
3. REC H3	*	1023.0	3868.0	6.0	*
4. REC H4	*	926.0	3899.0	6.0	*
5. REC H5	*	978.0	3762.0	6.0	*
6. REC H6	*	899.0	3738.0	6.0	*
7. REC H7	*	857.0	3729.0	6.0	*
8. REC H8	*	716.0	3681.0	6.0	*
9. REC H9	*	711.0	3624.0	6.0	*
10. REC H10	*	788.0	3645.0	6.0	*
11. REC H11	*	873.0	3673.0	6.0	*
12. REC H12	*	916.0	3685.0	6.0	*
13. REC H13	*	1007.0	3720.0	6.0	*
14. REC H14	*	1025.0	3634.0	6.0	*
15. REC H15	*	955.0	3608.0	6.0	*
16. REC H16	*	1135.0	3620.0	6.0	*
17. REC H17	*	1099.0	3714.0	6.0	*

18. REC	H18	*	1085.0	3750.0	6.0	*
19. REC	H19	*	1148.0	3772.0	6.0	*

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Hanna & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
0.	* .0	.3	.5	.0	.8	.0	.0	.0	.0	.1	.1	.1	1.2	.6	.2	.0	.2	.4	.1
5.	* .0	.1	.5	.1	1.0	.0	.0	.0	.1	.1	.1	.1	1.1	.2	.4	.0	.2	.3	.1
10.	* .0	.0	.1	.4	.9	.0	.0	.0	.1	.1	.0	.3	1.0	.2	.3	.0	.2	.4	.1
15.	* .0	.0	.1	.5	.8	.3	.0	.0	.1	.1	.1	.5	.8	.4	.3	.0	.2	.4	.1
20.	* .0	.0	.0	.6	.6	.3	.1	.0	.1	.1	.2	.5	.8	.4	.2	.0	.1	.4	.1
25.	* .0	.0	.0	.7	.6	.3	.3	.0	.1	.1	.2	.4	.8	.4	.1	.0	.1	.4	.1
30.	* .0	.0	.0	.6	.5	.4	.1	.0	.1	.1	.4	.4	.8	.4	.1	.0	.1	.5	.1
35.	* .0	.0	.0	.5	.5	.3	.1	.0	.1	.1	.4	.4	.6	.4	.2	.0	.1	.5	.1
40.	* .0	.0	.0	.5	.5	.3	.3	.0	.1	.1	.4	.4	.8	.3	.1	.0	.1	.5	.1
45.	* .0	.0	.0	.5	.4	.3	.3	.0	.1	.2	.4	.4	.7	.3	.2	.0	.0	.5	.1
50.	* .0	.0	.0	.5	.4	.3	.3	.0	.1	.2	.3	.4	.7	.3	.1	.0	.0	.4	.0
55.	* .0	.0	.0	.3	.4	.3	.3	.0	.1	.2	.2	.3	.7	.3	.1	.0	.0	.2	.0
60.	* .0	.0	.0	.2	.4	.3	.3	.0	.1	.0	.3	.2	.6	.3	.1	.0	.0	.2	.0
65.	* .1	.0	.0	.2	.5	.3	.3	.0	.1	.0	.2	.2	.5	.3	.1	.0	.0	.2	.0
70.	* .1	.1	.0	.2	.5	.4	.3	.1	.0	.0	.1	.1	.5	.3	.0	.0	.0	.1	.0
75.	* .2	.2	.0	.3	.5	.4	.3	.1	.0	.0	.0	.1	.3	.3	.0	.0	.0	.1	.0
80.	* .3	.3	.0	.3	.8	.4	.3	.1	.0	.0	.0	.1	.3	.2	.0	.0	.0	.1	.0
85.	* .3	.3	.0	.3	.8	.3	.1	.1	.0	.0	.0	.1	.3	.2	.0	.0	.0	.0	.0

90.	*	.3	.4	.0	.4	.8	.1	.1	.1	.0	.0	.0	.1
.3	.2	.0	.0	.0	.0	.0							
95.	*	.3	.4	.0	.3	.6	.2	.1	.1	.0	.0	.0	.1
.3	.2	.0	.0	.0	.0	.0							
100.	*	.3	.4	.0	.3	.7	.2	.1	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
105.	*	.3	.4	.0	.4	.7	.2	.1	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
110.	*	.3	.4	.0	.5	.6	.2	.1	.1	.0	.0	.0	.0
.3	.2	.1	.0	.0	.0	.0							
115.	*	.3	.4	.1	.6	.6	.2	.1	.1	.0	.0	.0	.0
.3	.2	.1	.0	.0	.0	.0							
120.	*	.3	.4	.1	.7	.6	.2	.0	.1	.0	.0	.0	.1
.3	.2	.1	.0	.0	.0	.0							
125.	*	.3	.4	.1	.7	.5	.2	.0	.1	.0	.0	.0	.1
.3	.2	.0	.0	.0	.0	.0							
130.	*	.2	.4	.1	.7	.5	.2	.0	.1	.0	.0	.0	.0
.4	.2	.0	.0	.0	.0	.0							
135.	*	.2	.4	.2	.7	.5	.1	.0	.1	.0	.0	.0	.0
.4	.2	.0	.0	.0	.0	.0							
140.	*	.2	.5	.2	.6	.4	.1	.1	.1	.0	.0	.0	.0
.3	.3	.0	.0	.0	.0	.0							
145.	*	.2	.5	.2	.5	.3	.1	.1	.1	.0	.0	.0	.0
.3	.3	.0	.0	.0	.0	.0							
150.	*	.2	.5	.3	.5	.3	.1	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
155.	*	.2	.7	.6	.3	.2	.1	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
160.	*	.2	.8	.6	.3	.2	.1	.1	.1	.0	.0	.0	.0
.2	.1	.0	.0	.0	.1	.0							
165.	*	.2	.9	.8	.1	.2	.1	.1	.1	.0	.0	.0	.0
.2	.1	.0	.0	.1	.1	.0							
170.	*	.2	1.0	.7	.0	.1	.1	.1	.1	.0	.0	.0	.0
.1	.0	.0	.0	.1	.2	.0							
175.	*	.2	1.0	.5	.0	.1	.1	.1	.1	.0	.0	.0	.0
.1	.0	.0	.1	.1	.3	.0							
180.	*	.2	1.0	.7	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.1	.2	.4	.0							
185.	*	.3	.9	.6	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.0							
190.	*	.3	.9	.5	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.1	.3	.4	.1							
195.	*	.5	.9	.5	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.3	.4	.1							
200.	*	.6	.8	.5	.0	.1	.0	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.4	.4	.1							
205.	*	.6	.8	.5	.0	.1	.0	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.4	.4	.1							

JOB: CO 2015 PM Build Alt-A Stapleton ST Intersection RUN: Hanna & Bay

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
210.	* .6	.9	.5	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.2
215.	* .6	.7	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.2
220.	* .6	.7	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1
225.	* .7	.6	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1
230.	* .8	.8	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1
235.	* .7	.7	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1
240.	* .7	.5	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.5	.1
245.	* .6	.5	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.2
250.	* .6	.5	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.5	.2
255.	* .6	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.7	.3
260.	* .5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.4	.5	.4
265.	* .3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.0	.2	.4	.5	.5
270.	* .3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.0	.2	.4	.8	.7
275.	* .3	.4	.4	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.2	.4	1.0	.7
280.	* .3	.5	.5	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.2	.4	.8	.7
285.	* .3	.5	.5	.0	.0	.0	.0	.0	.1	.1	.1	.1	.1	.0	.0	.2	.5	.8	.7
290.	* .3	.5	.5	.0	.0	.0	.0	.0	.1	.1	.1	.1	.1	.0	.0	.2	.5	.8	.7
295.	* .2	.5	.5	.0	.0	.0	.0	.0	.1	.1	.1	.1	.1	.0	.0	.2	.7	.8	.7
300.	* .1	.5	.4	.0	.0	.0	.0	.0	.1	.1	.0	.1	.1	.0	.0	.3	.5	.9	.5
305.	* .1	.6	.4	.0	.0	.0	.0	.0	.1	.1	.0	.1	.1	.0	.0	.3	.7	.8	.3
310.	* .2	.6	.4	.0	.0	.0	.0	.0	.1	.1	.0	.1	.1	.0	.0	.3	.8	.8	.2
315.	* .1	.6	.5	.0	.0	.0	.0	.0	.1	.1	.0	.1	.1	.0	.0	.3	.7	.8	.2
320.	* .1	.6	.5	.0	.0	.0	.0	.0	.1	.1	.0	.1	.1	.0	.0	.6	.7	.8	.2

```
 325.   *     .1     .4     .4     .0     .0     .0     .0     .0     .0     .1     .1     .1
.1     .0     .0     .5     .7     .6     .2
 330.   *     .1     .6     .4     .0     .0     .0     .0     .0     .0     .1     .1     .1
.3     .0     .0     .5     .4     .6     .2
 335.   *     .1     .5     .5     .0     .0     .0     .0     .0     .0     .1     .1     .1
.3     .0     .0     .2     .5     .6     .2
 340.   *     .1     .5     .5     .0     .2     .0     .0     .0     .0     .1     .1     .1
.6     .2     .0     .2     .4     .5     .2
 345.   *     .2     .4     .6     .0     .2     .0     .0     .0     .0     .1     .1     .1
.8     .4     .0     .1     .4     .4     .2
 350.   *     .1     .5     .5     .0     .4     .0     .0     .0     .0     .1     .1     .1
1.0     .4     .0     .1     .3     .5     .2
 355.   *     .1     .4     .7     .0     .7     .0     .0     .0     .0     .1     .1     .1
1.1     .5     .0     .1     .3     .4     .1
 360.   *     .0     .3     .5     .0     .8     .0     .0     .0     .0     .1     .1     .1
1.2     .6     .2     .0     .2     .4     .1
 -------*-------------------------------------------------------------------------------
----------------------------------------
 MAX    *     .8    1.0     .8     .7    1.0     .4     .3     .1     .1     .2     .4     .5
1.2     .6     .4     .6     .8    1.0     .7
 DEGR.  *   230    170    165    120      5     30     25     70      5     45     30     15
0       0      5    320    310    275    270

 THE HIGHEST CONCENTRATION OF    1.20 PPM OCCURRED AT RECEPTOR REC13.
```

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 2/28/ 6
TIME : 17:43: 9

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
	*	(FT)	(FT)			*	LENGTH	BRG	TYPE	VPH
	*					*	(FT)	(DEG)		(G/MI)
1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	325.
2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	325.
3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	286.
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1762.8	947.0	*	22.	133.	AG	103.
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	1.
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	196.
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1611.4	1110.2	*	28.	136.	AG	192.
8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	167.
9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	240.
10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	240.
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	706.
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	910.
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1757.6	880.4	*	70.	147.	AG	103.
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	900.
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1518.1	1279.2	*	69.	150.	AG	103.
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	863.

LINK DESCRIPTION	EF	H	W	V/C	QUEUE
		(FT)	(FT)		(VEH)
1. L1 EDGEWATER ST NB 1	6.1	.0	32.0		
2. L2 EDGEWATER ST NB 2	6.1	.0	32.0		
3. L3 EDGEWATER ST NB 3	6.1	.0	32.0		
4. L3Q EDGEWATER ST NB	100.0	.0	30.0	.10	1.1
5. L3a EDGEWATER ST NB	6.1	.0	32.0		
6. L4a EDGEWATER ST SB	6.1	.0	32.0		
7. L4Q EDGEWATER ST SB	100.0	.0	30.0	.13	1.4
8. L4 EDGEWATER ST SB 4	6.1	.0	32.0		
9. L5 EDGEWATER ST SB 5	6.1	.0	32.0		
10. L6 EDGEWATER ST SB 6	6.1	.0	32.0		
11. L7 BAY ST NB 1-2	6.4	.0	32.0		
12. L8 BAY ST NB 2-4T	9.3	.0	32.0		
13. L8Q BAY ST NB 3-2	100.0	.0	30.0	.31	3.5
14. L9 BAY ST NB 4T-5	9.3	.0	32.0		
15. L9Q BAY ST NB 5-4T	100.0	.0	30.0	.30	3.5
16. L10 BAY ST NB 5-6	5.6	.0	32.0		

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      17. L11 BAY ST NB 6-7    *   1264.0    1654.0    1049.0    2127.0 *
520.   336. AG     863.   4.2     .0 32.0
      18. L12 BAY ST SB 1-2    *   1030.0    2123.0    1244.0    1644.0 *
525.   156. AG     711.   3.4     .0 32.0
      19. L13 BAY ST SB 2-3    *   1244.0    1644.0    1445.0    1358.0 *
350.   145. AG     711.   8.5     .0 32.0
      20. L13Q BAY ST SB 3-2   *   1445.0    1358.0    1413.7    1402.5 *
54.    325. AG     103. 100.0     .0 30.0  .24   2.8
      21. L14 BAY ST SB 3-1T   *   1445.0    1358.0    1661.0     964.0 *
449.   151. AG     572.   6.1     .0 32.0
      22. L14Q BAY ST SB 1T-3  *   1661.0     964.0    1640.0    1002.3 *
44.    331. AG     103. 100.0     .0 30.0  .19   2.2
      23. L15 BAY ST SB 1T-2   *   1661.0     964.0    1830.0     731.0 *
288.   144. AG     705.   3.5     .0 32.0
      24. L16 BAY ST SB 2-3    *   1830.0     731.0    2218.0      32.0 *
799.   151. AG     753.   4.6     .0 32.0
      25. L18 GREENFIELD AVE W*   1645.0     963.0    1158.0     437.0 *
717.   223. AG     221.   6.1     .0 32.0
      26. L19 VANDERBILT AVE E*    885.0     932.0    1459.0    1322.0 *
694.    56. AG     201.   9.3     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0    1322.0    1435.4    1305.9 *
29.    236. AG     192. 100.0     .0 30.0  .13   1.5
      28. L22 VANDERBILT AVE W*   1458.0    1351.0     874.0     954.0 *
706.   236. AG     389.   9.3     .0 32.0
```

JOB: CO 2015 PM Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Vanderbilt

DATE : 2/28/ 6
TIME : 17:43: 9

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	EM FAC	IDLE TYPE	SIGNAL RATE	ARRIVAL
4. L3Q EDGEWATER ST NB	120	42	2.0	286	1600	36.74	1	3		
7. L4Q EDGEWATER ST SB	120	78	2.0	196	1600	36.74	1	3		
13. L8Q BAY ST NB 3-2	120	42	2.0	910	1600	36.74	1	3		
15. L9Q BAY ST NB 5-4T	120	42	2.0	900	1600	36.74	1	3		
20. L13Q BAY ST SB 3-2	120	42	2.0	711	1600	36.74	1	3		
22. L14Q BAY ST SB 1T-3	120	42	2.0	572	1600	36.74	1	3		
27. L19Q VANDERBILT AVE	120	78	2.0	201	1600	36.74	1	3		

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC Va1	1235.0	1630.0	6.0
2. REC Va2	1330.0	1496.0	6.0
3. REC Va3	1429.0	1355.0	6.0
4. REC Va4	1259.0	1234.0	6.0
5. REC Va5	1057.0	1096.0	6.0
6. REC Va6	867.0	977.0	6.0
7. REC Va7	904.0	917.0	6.0
8. REC Va8	1093.0	1047.0	6.0
9. REC Va9	1292.0	1184.0	6.0
10. REC Va10	1395.0	1252.0	6.0
11. REC Va11	1463.0	1303.0	6.0
12. REC Va12	1510.0	1239.0	6.0
13. REC Va13	1534.0	1171.0	6.0
14. REC Va14	1579.0	1205.0	6.0
15. REC Va15	1493.0	1344.0	6.0
16. REC Va16	1542.0	1372.0	6.0
17. REC Va17	1571.0	1396.0	6.0
18. REC Va18	1546.0	1460.0	6.0
19. REC Va19	1450.0	1416.0	6.0

20. REC	Va20	*	1371.0	1529.0	6.0	*

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20				
0.	* .3	.5	1.0	.0	.0	.0	.2	.2	.3	.4	.5	.7
	.6	.0	.0	.0	.0	.0	.0					
5.	* .3	.4	.8	.1	.0	.0	.2	.2	.3	.5	.5	.6
	.5	.0	.0	.0	.0	.0	.0					
10.	* .3	.4	.7	.1	.0	.0	.2	.2	.3	.5	.5	.6
	.4	.0	.0	.0	.0	.0	.0					
15.	* .3	.3	.7	.1	.0	.0	.2	.2	.3	.5	.4	.5
	.3	.0	.0	.0	.0	.0	.0					
20.	* .3	.3	.7	.1	.0	.0	.2	.2	.3	.6	.5	.5
	.3	.0	.0	.0	.0	.0	.0					
25.	* .3	.3	.7	.1	.0	.0	.2	.2	.3	.5	.5	.5
	.3	.0	.0	.0	.0	.0	.0					
30.	* .3	.3	.7	.1	.0	.0	.2	.2	.2	.4	.5	.4
	.3	.0	.0	.0	.0	.0	.0					
35.	* .2	.3	.6	.1	.0	.0	.2	.2	.2	.5	.5	.3
	.3	.0	.0	.0	.0	.0	.0					
40.	* .2	.3	.6	.2	.1	.0	.2	.2	.2	.3	.5	.3
	.3	.0	.0	.0	.0	.0	.0					
45.	* .3	.3	.6	.1	.1	.0	.2	.2	.3	.6	.5	.3
	.3	.0	.0	.0	.0	.0	.0					
50.	* .3	.3	.7	.1	.2	.1	.2	.2	.3	.4	.5	.3
	.3	.0	.0	.0	.0	.0	.0					
55.	* .3	.3	.7	.2	.3	.2	.2	.2	.2	.4	.6	.3
	.3	.0	.0	.0	.0	.0	.0					
60.	* .3	.3	.6	.2	.4	.2	.1	.1	.2	.4	.6	.3
	.3	.0	.0	.0	.0	.0	.0					
65.	* .3	.3	.6	.4	.4	.3	.0	.0	.1	.3	.6	.3
	.3	.0	.0	.0	.0	.0	.0					
70.	* .3	.3	.6	.5	.4	.3	.0	.0	.1	.3	.6	.3
	.3	.0	.0	.0	.0	.0	.0					
75.	* .3	.3	.4	.4	.4	.3	.0	.0	.1	.3	.6	.3
	.3	.0	.0	.0	.0	.0	.0					
80.	* .3	.3	.6	.4	.3	.3	.0	.0	.1	.3	.6	.3
	.3	.0	.0	.0	.0	.0	.0					
85.	* .3	.3	.6	.4	.3	.3	.0	.0	.1	.2	.6	.3
	.3	.0	.0	.0	.0	.0	.0					

90.	*	.3	.3	.5	.4	.3	.3	.0	.0	.1	.2	.6	.4
.3	.0	.0	.0	.0	.0	.0	.0						
95.	*	.3	.3	.6	.4	.3	.2	.0	.0	.1	.2	.6	.4
.3	.0	.1	.0	.0	.0	.0	.0						
100.	*	.3	.4	.7	.4	.3	.1	.0	.0	.1	.2	.6	.4
.3	.0	.2	.0	.0	.0	.0	.0						
105.	*	.4	.4	.7	.3	.2	.1	.0	.0	.1	.2	.6	.4
.3	.0	.2	.0	.0	.0	.0	.0						
110.	*	.5	.5	.8	.2	.2	.1	.0	.0	.1	.2	.7	.4
.5	.0	.2	.0	.0	.0	.0	.0						
115.	*	.5	.5	.8	.2	.1	.1	.0	.0	.0	.2	.7	.4
.6	.0	.2	.0	.0	.0	.0	.0						
120.	*	.6	.6	.9	.1	.1	.1	.0	.0	.1	.2	.6	.4
.7	.0	.2	.0	.0	.0	.0	.0						
125.	*	.6	.6	1.1	.2	.1	.1	.0	.0	.1	.2	.6	.5
.7	.0	.2	.0	.0	.0	.0	.0						
130.	*	.7	.8	1.0	.2	.1	.1	.0	.0	.0	.3	.5	.6
.9	.1	.4	.0	.0	.0	.0	.1						
135.	*	.8	.8	1.0	.1	.1	.1	.0	.0	.0	.2	.6	.7
.9	.1	.6	.0	.0	.0	.2	.1						
140.	*	.7	.9	1.2	.1	.1	.1	.0	.0	.0	.1	.7	.9
.7	.3	.7	.0	.0	.0	.3	.3						
145.	*	.6	.8	1.0	.1	.1	.1	.0	.0	.0	.0	.6	.8
.6	.4	1.1	.0	.0	.0	.5	.3						
150.	*	.4	.6	.9	.1	.1	.1	.0	.0	.0	.0	.6	.7
.5	.6	1.4	.1	.0	.0	.8	.8						
155.	*	.2	.2	.8	.1	.1	.1	.0	.0	.0	.0	.4	.5
.3	.7	1.6	.2	.1	.0	.9	.7						
160.	*	.1	.1	.5	.1	.1	.1	.0	.0	.0	.0	.2	.4
.2	1.0	1.4	.2	.2	.2	.7	.8						
165.	*	.1	.1	.5	.1	.1	.1	.0	.0	.0	.0	.1	.2
.1	.9	1.4	.2	.2	.1	.8	.6						
170.	*	.0	.0	.4	.1	.1	.0	.0	.0	.0	.0	.1	.2
.1	.9	1.3	.3	.1	.1	.7	.5						
175.	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.1	.2
.0	.7	1.1	.3	.1	.1	.6	.5						
180.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.6	1.0	.3	.3	.2	.6	.4						
185.	*	.0	.0	.2	.1	.2	.0	.0	.0	.0	.0	.0	.1
.0	.6	1.0	.4	.2	.3	.8	.4						
190.	*	.0	.0	.2	.3	.3	.0	.0	.0	.0	.0	.0	.1
.0	.5	.8	.4	.2	.3	.7	.4						
195.	*	.0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.1
.0	.5	.8	.4	.2	.2	.7	.4						
200.	*	.0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.1
.0	.4	.7	.4	.2	.2	.7	.4						
205.	*	.0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.1
.0	.4	.7	.5	.2	.2	.8	.4						

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)											
	* REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20					
210.	* .0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.1
.0	.4	.7	.5	.2	.2	.8	.4					
215.	* .0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.1
.0	.4	.7	.5	.2	.2	.7	.4					
220.	* .0	.0	.3	.4	.4	.0	.0	.0	.0	.0	.0	.1
.0	.4	.8	.5	.2	.3	.6	.3					
225.	* .0	.0	.4	.4	.3	.0	.0	.0	.0	.0	.0	.1
.0	.4	.9	.5	.3	.3	.6	.3					
230.	* .0	.0	.4	.4	.3	.0	.0	.0	.1	.0	.1	.1
.0	.4	1.0	.7	.4	.3	.6	.3					
235.	* .0	.0	.2	.3	.2	.0	.0	.1	.2	.2	.3	.1
.0	.4	1.1	.6	.5	.4	.6	.3					
240.	* .0	.0	.1	.2	.2	.0	.0	.1	.2	.2	.3	.1
.0	.4	1.1	.6	.4	.4	.5	.3					
245.	* .0	.0	.1	.1	.1	.0	.0	.2	.2	.2	.4	.1
.0	.4	1.0	.6	.3	.3	.5	.3					
250.	* .0	.0	.0	.1	.1	.0	.0	.2	.2	.2	.4	.2
.0	.4	.9	.3	.2	.2	.4	.3					
255.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.5	.2
.0	.4	.8	.3	.3	.2	.5	.4					
260.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.5	.2
.0	.4	.6	.3	.3	.2	.5	.4					
265.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.6	.2
.0	.4	.6	.3	.3	.2	.4	.4					
270.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.6	.2
.0	.4	.4	.3	.3	.2	.4	.4					
275.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.6	.2
.0	.4	.6	.3	.3	.2	.4	.4					
280.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.7	.2
.0	.4	.7	.3	.2	.2	.4	.4					
285.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.7	.2
.0	.5	.7	.3	.2	.2	.4	.4					
290.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.8	.2
.0	.5	.6	.3	.2	.2	.4	.4					
295.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.8	.2
.0	.5	.6	.2	.2	.2	.5	.4					
300.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.8	.1
.0	.5	.7	.2	.2	.2	.5	.5					
305.	* .0	.1	.2	.0	.0	.0	.0	.2	.2	.2	.8	.2
.0	.7	.7	.2	.2	.0	.5	.5					
310.	* .0	.1	.2	.0	.0	.0	.0	.2	.2	.2	.9	.3
.1	.9	.8	.2	.1	.0	.5	.5					
315.	* .0	.2	.3	.0	.0	.0	.0	.2	.2	.2	1.0	.4
.1	1.0	.7	.2	.0	.0	.6	.4					
320.	* .0	.2	.5	.0	.0	.0	.0	.2	.2	.2	1.2	.7
.3	.9	.7	.1	.0	.0	.4	.6					

```
 325.   *     .1     .3     .8     .0     .0     .0     .2     .2     .2     .2    1.3     .6
.5     .8     .5     .0     .0     .0     .5     .4
 330.   *     .1     .7     .9     .0     .0     .0     .2     .2     .2     .2    1.6     .9
.5     .7     .4     .0     .0     .0     .2     .3
 335.   *     .3     .7    1.1     .0     .0     .0     .2     .2     .2     .2    1.6     .9
.8     .5     .3     .0     .0     .0     .1     .2
 340.   *     .3     .6    1.1     .0     .0     .0     .2     .2     .2     .3    1.4     .9
.7     .2     .2     .0     .0     .0     .1     .1
 345.   *     .3     .6    1.0     .0     .0     .0     .2     .2     .2     .4    1.2     .7
.7     .1     .1     .0     .0     .0     .0     .0
 350.   *     .4     .5    1.0     .0     .0     .0     .2     .2     .2     .4    1.0     .9
.5     .1     .1     .0     .0     .0     .0     .0
 355.   *     .3     .5    1.0     .0     .0     .0     .2     .2     .2     .4     .9     .8
.6     .0     .1     .0     .0     .0     .0     .0
 360.   *     .3     .5    1.0     .0     .0     .0     .2     .2     .3     .4     .5     .7
.6     .0     .0     .0     .0     .0     .0     .0
 -------*-------------------------------------------------------------------------------
-----------------------------------------------

 MAX    *     .8     .9    1.2     .5     .4     .3     .2     .2     .3     .6    1.6     .9
.9    1.0    1.6     .7     .5     .4     .9     .8
 DEGR.  *   135    140    140     70     60     65      0      0      0     20    330    140
130    315    155    230    235    235    155    150

 THE HIGHEST CONCENTRATION OF     1.60 PPM OCCURRED AT RECEPTOR REC15.
```

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 2/28/ 6
TIME : 17:26:41

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*					
	*	X1		Y1		X2		Y2	*		
LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)			
1. L1 BAY ST NB UP 1-2	*	950.0		2917.0		1082.0		3250.0	*		
358.	22.	AG	730.	3.4	.0	40.0					
2. L2 BAY ST NB UP 2-3	*	1082.0		3250.0		1146.0		3443.0	*		
203.	18.	AG	730.	3.4	.0	40.0					
3. L3 BAY ST NB UP 3-4	*	1146.0		3443.0		1058.0		3744.0	*		
314.	344.	AG	842.	3.4	.0	40.0					
4. L3Q BAY ST NB UP 3-4	*	1058.0		3744.0		1085.1		3651.2	*		
97.	164.	AG	69.	100.0	.0	20.0	.43	4.9			
5. L4 BAY ST NB UP 4-5	*	1058.0		3744.0		982.0		3913.0	*		
185.	336.	AG	1032.	6.9	.0	40.0					
6. L5 BAY ST NB UP 5-6	*	982.0		3913.0		1020.0		4076.0	*		
167.	13.	AG	1025.	6.9	.0	40.0					
7. L5Q BAY ST NB UP 5-6	*	1020.0		4076.0		993.3		3961.5	*		
118.	193.	AG	69.	100.0	.0	20.0	.52	6.0			
8. L6 BAY ST NB UP 6-7	*	1020.0		4076.0		1076.0		4394.0	*		
323.	10.	AG	996.	6.9	.0	40.0					
9. L7 BAY ST SB UP 1-2	*	1055.0		4396.0		1006.0		4080.0	*		
320.	189.	AG	1387.	3.7	.0	40.0					
10. L7Q BAY ST SB UP 1-2	*	1006.0		4080.0		1030.4		4237.3	*		
159.	9.	AG	69.	100.0	.0	20.0	.70	8.1			
11. L8 BAY ST SB UP 2-3	*	1006.0		4080.0		952.0		3900.0	*		
188.	197.	AG	1128.	3.7	.0	40.0					
12. L9 BAY ST SB UP 3-4	*	952.0		3900.0		1016.0		3750.0	*		
163.	157.	AG	1367.	3.7	.0	40.0					
13. L9Q BAY ST SB UP 3-4	*	1016.0		3750.0		954.4		3894.3	*		
157.	337.	AG	69.	100.0	.0	20.0	.69	8.0			
14. L10 BAY ST SB UP 4-5	*	1016.0		3750.0		1113.0		3446.0	*		
319.	162.	AG	788.	4.0	.0	40.0					
15. L11 BAY ST SB UP 5-6	*	1113.0		3446.0		1075.0		3258.0	*		
192.	191.	AG	768.	3.5	.0	40.0					
16. L12 BAY ST SB UP 6-7	*	1075.0		3258.0		943.0		2916.0	*		
367.	201.	AG	768.	3.5	.0	40.0					

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      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG    357.   6.9    .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1178.0    3810.2 *
152.   70. AG     64. 100.0    .0 12.0  .71   7.7
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG    314.   6.9    .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG    314.   6.9    .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG     78.   6.9    .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG     78.   6.9    .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1004.5    3737.2 *
33.   251. AG     64. 100.0    .0 12.0  .15   1.7
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.    71. AG    519.   6.9    .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG    216.   6.9    .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG    216.   6.9    .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     942.2    4073.0 *
46.   276. AG    128. 100.0    .0 20.0  .21   2.3
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG      7.   6.9    .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG     26.   6.9    .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1045.5    4091.7 *
6.    82. AG    128. 100.0    .0 20.0  .03    .3
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG    523.   6.9    .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG    523.   6.9    .0 40.0
```

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 2/28/ 6
TIME : 17:26:41

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	842	1600	36.74	1	3
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	1025	1600	36.74	1	3
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	1387	1600	36.74	1	3
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	1367	1600	36.74	1	3
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	357	1600	36.74	1	3
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	78	1600	36.74	1	3
27. L17Q VICTORY BLVD EB	*	120	78	2.0	216	1600	36.74	1	3
30. L19Q VICTORY BLVD WB	*	120	78	2.0	26	1600	36.74	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC V1	*	1328.0	4151.0	6.0	*
2. REC V2	*	1235.0	4141.0	6.0	*
3. REC V3	*	1041.0	4131.0	6.0	*
4. REC V4	*	1069.0	4277.0	6.0	*
5. REC V5	*	1094.0	4402.0	6.0	*
6. REC V6	*	1008.0	4231.0	6.0	*
7. REC V7	*	1040.0	4396.0	6.0	*
8. REC V8	*	966.0	4116.0	6.0	*
9. REC V9	*	888.0	4115.0	6.0	*
10. REC V10	*	839.0	4137.0	6.0	*
11. REC V11	*	1025.0	4034.0	6.0	*
12. REC V12	*	891.0	3999.0	6.0	*
13. REC V13	*	956.0	4055.0	6.0	*
14. REC V14	*	1133.0	4039.0	6.0	*
15. REC V15	*	1217.0	4050.0	6.0	*
16. REC V16	*	1337.0	4064.0	6.0	*

JOB: CO 2015 PM Build Alt-A Stapleton BLvd & Bay ST Intersection RUN: Victory

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
0.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.2	.0	.5	.0	.0	.0
5.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
10.	* .0	.0	.6	.4	.0	.3	.0	.1	.0	.0	.8	.1	.6	.0	.0	.0
15.	* .0	.0	.5	.3	.0	.4	.0	.2	.0	.0	.5	.1	.8	.0	.0	.0
20.	* .0	.0	.3	.2	.0	.4	.0	.3	.0	.0	.4	.2	.9	.0	.0	.0
25.	* .0	.0	.3	.2	.0	.5	.0	.5	.0	.0	.2	.3	1.0	.0	.0	.0
30.	* .0	.0	.2	.1	.0	.5	.0	.5	.0	.0	.1	.5	1.1	.0	.0	.0
35.	* .0	.0	.1	.1	.0	.5	.0	.5	.2	.0	.1	.5	1.2	.0	.0	.0
40.	* .0	.0	.1	.1	.0	.4	.0	.6	.2	.0	.1	.5	1.0	.0	.0	.0
45.	* .0	.0	.1	.1	.0	.4	.0	.6	.2	.1	.1	.5	1.0	.0	.0	.0
50.	* .0	.0	.1	.1	.0	.4	.0	.5	.2	.2	.0	.5	1.0	.0	.0	.0
55.	* .0	.0	.1	.1	.0	.4	.0	.5	.3	.2	.0	.2	.9	.0	.0	.0
60.	* .0	.0	.1	.0	.0	.4	.0	.3	.3	.2	.0	.4	.9	.0	.0	.0
65.	* .0	.0	.0	.0	.0	.5	.0	.3	.3	.2	.0	.3	1.0	.0	.0	.0
70.	* .0	.0	.0	.0	.0	.5	.0	.3	.3	.3	.0	.3	.8	.0	.0	.0
75.	* .0	.0	.0	.0	.0	.5	.0	.3	.4	.3	.0	.3	.7	.0	.0	.0
80.	* .0	.0	.0	.0	.0	.5	.1	.3	.4	.3	.0	.3	.5	.0	.0	.0
85.	* .0	.0	.0	.0	.0	.6	.2	.3	.4	.3	.0	.3	.4	.0	.0	.0

90.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.3	.0	.3
.4	.0	.0	.0										
95.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.4	.0	.3
.3	.0	.0	.0										
100.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.3	.0	.3
.3	.0	.0	.0										
105.	*	.0	.0	.0	.0	.0	.6	.2	.4	.3	.2	.0	.3
.3	.0	.0	.0										
110.	*	.0	.0	.0	.0	.0	.6	.3	.4	.4	.3	.0	.2
.3	.0	.0	.0										
115.	*	.0	.0	.0	.0	.0	.6	.4	.5	.6	.4	.0	.2
.3	.0	.0	.0										
120.	*	.0	.0	.0	.0	.0	.6	.4	.5	.7	.5	.0	.2
.4	.0	.0	.0										
125.	*	.0	.0	.0	.0	.0	.6	.4	.7	.7	.5	.0	.3
.4	.0	.0	.0										
130.	*	.0	.0	.0	.0	.0	.6	.4	.7	.6	.4	.0	.3
.4	.0	.0	.0										
135.	*	.0	.0	.0	.0	.0	.6	.4	.6	.6	.2	.0	.2
.4	.0	.0	.0										
140.	*	.0	.0	.1	.0	.0	.6	.4	.4	.5	.2	.0	.4
.4	.0	.0	.0										
145.	*	.0	.0	.1	.1	.0	.6	.4	.5	.3	.3	.0	.3
.4	.0	.0	.0										
150.	*	.0	.0	.1	.1	.0	.7	.4	.6	.4	.2	.0	.3
.4	.0	.0	.0										
155.	*	.0	.0	.1	.1	.0	.7	.4	.6	.4	.2	.0	.3
.5	.0	.0	.0										
160.	*	.0	.0	.1	.1	.0	.7	.6	.8	.4	.1	.1	.2
.5	.0	.0	.0										
165.	*	.0	.0	.1	.1	.0	.8	.6	.8	.2	.1	.1	.0
.5	.0	.0	.0										
170.	*	.0	.0	.2	.1	.1	.9	.6	.7	.1	.1	.2	.0
.5	.0	.0	.0										
175.	*	.0	.0	.4	.2	.1	1.0	.8	.9	.1	.1	.2	.0
.5	.0	.0	.0										
180.	*	.0	.0	.6	.3	.2	1.0	.7	.7	.1	.1	.3	.0
.3	.0	.0	.0										
185.	*	.0	.0	.9	.5	.4	.8	.7	.4	.1	.1	.7	.0
.1	.0	.0	.0										
190.	*	.0	.0	1.1	.9	.6	.6	.5	.4	.1	.1	.7	.0
.0	.0	.0	.0										
195.	*	.0	.0	1.0	.9	.6	.3	.5	.3	.1	.1	.9	.0
.0	.0	.0	.0										
200.	*	.0	.0	1.0	1.0	.8	.2	.2	.3	.1	.1	1.0	.0
.0	.1	.0	.0										
205.	*	.0	.0	1.1	.9	.7	.0	.1	.3	.1	.1	.9	.0
.0	.1	.0	.0										

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
210.	* .0	.0	.9	.8	.6	.0	.1	.2	.1	.1	.8	.0	.0	.1	.0	.0
215.	* .0	.0	1.0	.8	.5	.0	.1	.2	.2	.1	.9	.0	.0	.2	.1	.0
220.	* .0	.0	1.1	.7	.5	.0	.0	.2	.2	.1	.9	.0	.0	.1	.1	.0
225.	* .0	.0	1.0	.6	.4	.0	.0	.1	.2	.1	.9	.0	.0	.1	.1	.0
230.	* .0	.1	.9	.6	.4	.0	.0	.1	.2	.1	.8	.0	.0	.1	.0	.0
235.	* .0	.1	.8	.5	.3	.0	.0	.2	.2	.1	.8	.0	.0	.1	.0	.0
240.	* .0	.1	.8	.5	.3	.0	.0	.2	.2	.1	.7	.0	.0	.1	.0	.0
245.	* .0	.1	.8	.4	.2	.0	.0	.2	.1	.1	.7	.0	.0	.3	.1	.0
250.	* .0	.0	.7	.4	.2	.0	.0	.2	.1	.2	.7	.0	.0	.3	.1	.0
255.	* .0	.0	.7	.3	.2	.0	.0	.2	.1	.2	.5	.0	.0	.3	.1	.0
260.	* .0	.1	.6	.3	.2	.0	.0	.3	.2	.2	.5	.0	.0	.3	.2	.0
265.	* .0	.1	.6	.3	.1	.0	.0	.2	.2	.2	.5	.0	.0	.3	.2	.0
270.	* .1	.2	.7	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.3	.1	.0
275.	* .1	.2	.7	.3	.0	.0	.0	.2	.2	.2	.5	.0	.1	.3	.0	.0
280.	* .1	.2	.6	.3	.0	.0	.0	.2	.2	.2	.6	.0	.1	.4	.0	.0
285.	* .1	.1	.6	.3	.0	.0	.0	.1	.2	.2	.6	.0	.2	.3	.1	.0
290.	* .1	.1	.5	.3	.0	.0	.0	.0	.2	.2	.8	.0	.2	.2	.2	.1
295.	* .1	.1	.5	.3	.0	.0	.0	.0	.2	.1	.9	.0	.4	.3	.2	.1
300.	* .1	.2	.5	.3	.0	.0	.0	.0	.1	.1	.9	.0	.4	.3	.3	.1
305.	* .0	.2	.6	.3	.0	.0	.0	.0	.1	.0	.8	.0	.4	.3	.3	.1
310.	* .0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.8	.0	.5	.3	.2	.1
315.	* .0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.8	.1	.4	.3	.2	.0
320.	* .0	.1	.6	.5	.0	.0	.0	.0	.0	.0	.8	.1	.4	.3	.2	.0

```
 325.   *     .0     .1     .6     .5     .0     .0     .0     .0     .0     .0     .8     .1
.5     .3     .1     .0
 330.   *     .0     .0     .7     .5     .0     .0     .0     .0     .0     .0    1.0     .1
.5     .3     .1     .0
 335.   *     .0     .0     .7     .5     .0     .0     .0     .0     .0     .0    1.1     .1
.5     .2     .1     .0
 340.   *     .0     .0     .8     .5     .0     .0     .0     .0     .0     .0    1.1     .1
.6     .2     .0     .0
 345.   *     .0     .0     .9     .6     .0     .0     .0     .0     .0     .0    1.3     .0
.5     .2     .0     .0
 350.   *     .0     .0     .9     .6     .0     .0     .0     .0     .0     .0    1.2     .0
.5     .1     .0     .0
 355.   *     .0     .0     .9     .5     .0     .0     .0     .0     .0     .0    1.2     .0
.5     .0     .0     .0
 360.   *     .0     .0     .8     .5     .0     .1     .0     .0     .0     .0    1.2     .0
.5     .0     .0     .0
 ------*-----------------------------------------------------------------------------------
-------------------------
 MAX    *     .1     .2    1.1    1.0     .8    1.0     .8     .9     .7     .5    1.3     .5
1.2     .4     .3     .1
 DEGR.  *   270    270    205    200    200    175    175    175    120    120    345     30
35     280    300    290
```

THE HIGHEST CONCENTRATION OF 1.30 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2005 PM Existing Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 12/ 8/ 5
TIME : 10:50:52

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
		*	X1	Y1	X2	Y2	*				
LENGTH (FT)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (FT)	W (FT)	V/C QUEUE (VEH)					
1.	L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*				
198.	299. AG	248.	15.2	.0	32.0						
2.	L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*				
321.	312. AG	248.	15.2	.0	32.0						
3.	L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*				
449.	313. AG	248.	15.2	.0	32.0						
4.	L3Q EDGEWATER ST NB	*	1747.0	962.0	1760.7	949.0	*				
19.	133. AG	216.	100.0	.0	30.0	.08	1.0				
5.	L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*				
224.	323. AG	80.	15.2	.0	32.0						
6.	L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*				
675.	316. AG	129.	15.2	.0	32.0						
7.	L4Q EDGEWATER ST SB	*	1592.0	1130.0	1604.8	1116.9	*				
18.	136. AG	401.	100.0	.0	30.0	.08	.9				
8.	L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*				
447.	133. AG	129.	15.2	.0	32.0						
9.	L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*				
324.	132. AG	129.	15.2	.0	32.0						
10.	L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*				
232.	122. AG	129.	15.2	.0	32.0						
11.	L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*				
792.	331. AG	567.	12.8	.0	32.0						
12.	L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*				
337.	327. AG	537.	18.8	.0	32.0						
13.	L8Q BAY ST NB 3-2	*	1720.0	939.0	1742.2	904.4	*				
41.	147. AG	216.	100.0	.0	30.0	.18	2.1				
14.	L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*				
400.	330. AG	500.	10.0	.0	32.0						
15.	L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1502.9	1305.9	*				
38.	150. AG	216.	100.0	.0	30.0	.17	1.9				
16.	L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*				
384.	325. AG	456.	8.4	.0	32.0						

```
      17. L11 BAY ST NB 6-7    *    1264.0     1654.0     1049.0     2127.0 *
520.   336. AG     456.    8.1     .0 32.0
      18. L12 BAY ST SB 1-2    *    1030.0     2123.0     1244.0     1644.0 *
525.   156. AG     563.    6.7     .0 32.0
      19. L13 BAY ST SB 2-3    *    1244.0     1644.0     1445.0     1358.0 *
350.   145. AG     569.   17.0     .0 32.0
      20. L13Q BAY ST SB 3-2   *    1445.0     1358.0     1420.0     1393.5 *
43.    325. AG     216.  100.0     .0 30.0  .19   2.2
      21. L14 BAY ST SB 3-1T   *    1445.0     1358.0     1661.0      964.0 *
449.   151. AG     471.   15.2     .0 32.0
      22. L14Q BAY ST SB 1T-3  *    1661.0      964.0     1643.7      995.6 *
36.    331. AG     216.  100.0     .0 30.0  .16   1.8
      23. L15 BAY ST SB 1T-2   *    1661.0      964.0     1830.0      731.0 *
288.   144. AG     598.    6.9     .0 32.0
      24. L16 BAY ST SB 2-3    *    1830.0      731.0     2218.0       32.0 *
799.   151. AG     598.    8.8     .0 32.0
      25. L18 GREENFIELD AVE W*    1645.0      963.0     1158.0      437.0 *
717.   223. AG     175.   15.2     .0 32.0
      26. L19 VANDERBILT AVE E*     885.0      932.0     1459.0     1322.0 *
694.    56. AG     132.   10.0     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0     1322.0     1443.5     1311.5 *
19.    236. AG     401.  100.0     .0 30.0  .09   1.0
      28. L22 VANDERBILT AVE W*    1458.0     1351.0      874.0      954.0 *
706.   236. AG     299.   10.0     .0 32.0
```

JOB: CO 2005 PM Existing Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 12/ 8/ 5
TIME : 10:50:52

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	248	1600	76.63	1	3
7. L4Q EDGEWATER ST SB	*	120	78	2.0	129	1600	76.63	1	3
13. L8Q BAY ST NB 3-2	*	120	42	2.0	537	1600	76.63	1	3
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	500	1600	76.63	1	3
20. L13Q BAY ST SB 3-2	*	120	42	2.0	569	1600	76.63	1	3
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	471	1600	76.63	1	3
27. L19Q VANDERBILT AVE	*	120	78	2.0	132	1600	76.63	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC G1	*	1570.0	1110.0	6.0	*
2. REC G2	*	1624.0	966.0	6.0	*
3. REC G3	*	1463.0	787.0	6.0	*
4. REC G4	*	1175.0	485.0	6.0	*
5. REC G5	*	1199.0	437.0	6.0	*
6. REC G6	*	1478.0	738.0	6.0	*
7. REC G7	*	1665.0	932.0	6.0	*
8. REC G8	*	1728.0	842.0	6.0	*
9. REC G9	*	1814.0	728.0	6.0	*
10. REC G10	*	1946.0	606.0	6.0	*
11. REC G11	*	1889.0	716.0	6.0	*
12. REC G12	*	1931.0	760.0	6.0	*
13. REC G13	*	2036.0	658.0	6.0	*
14. REC G14	*	2065.0	687.0	6.0	*
15. REC G15	*	1922.0	819.0	6.0	*
16. REC G16	*	1744.0	925.0	6.0	*
17. REC G17	*	1814.0	841.0	6.0	*
18. REC G18	*	1717.0	1010.0	6.0	*
19. REC G19	*	1691.0	1039.0	6.0	*

20. REC	G20	*	1577.0	1215.0	6.0	*

JOB: CO 2005 PM Existing Stapleton RUN: Greenfield Ave & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	.6	.5	.0	.0	.1	.1	.6	.8	.6	.1	.1	.3	.3	.0	.0	.7	.3	.0	.0	.0
5.	*	.6	.4	.1	.0	.1	.2	.6	.9	.6	.1	.1	.3	.3	.0	.0	.7	.3	.0	.0	.0
10.	*	.4	.4	.1	.0	.1	.2	.6	.9	.6	.1	.1	.3	.3	.0	.0	.8	.2	.0	.0	.0
15.	*	.4	.4	.1	.0	.1	.2	.4	.8	.6	.1	.1	.3	.3	.0	.0	.8	.2	.0	.0	.0
20.	*	.4	.4	.1	.0	.1	.2	.4	.6	.5	.1	.1	.3	.3	.0	.0	.8	.2	.0	.0	.0
25.	*	.5	.5	.1	.0	.1	.2	.3	.6	.4	.0	.1	.3	.3	.0	.0	.8	.2	.0	.0	.0
30.	*	.4	.6	.2	.0	.1	.2	.3	.4	.4	.0	.1	.3	.3	.0	.0	.8	.2	.0	.0	.0
35.	*	.5	.6	.2	.1	.1	.1	.3	.4	.4	.0	.1	.3	.3	.0	.0	.5	.2	.0	.0	.0
40.	*	.6	.7	.2	.1	.1	.1	.3	.4	.4	.0	.1	.3	.3	.0	.0	.5	.2	.0	.0	.0
45.	*	.8	.8	.3	.2	.1	.1	.3	.4	.4	.0	.1	.3	.3	.0	.0	.4	.2	.0	.0	.0
50.	*	.9	.8	.2	.2	.0	.1	.3	.4	.4	.0	.1	.3	.3	.0	.0	.4	.2	.0	.0	.0
55.	*	1.0	.8	.3	.2	.0	.1	.3	.4	.4	.0	.1	.3	.3	.0	.0	.2	.2	.0	.0	.0
60.	*	1.1	1.0	.3	.2	.0	.1	.4	.4	.4	.0	.1	.3	.3	.0	.0	.2	.2	.0	.0	.0
65.	*	1.1	.9	.4	.2	.0	.1	.4	.4	.4	.0	.1	.3	.3	.0	.0	.3	.2	.0	.0	.0
70.	*	1.2	.8	.3	.1	.0	.1	.5	.4	.6	.0	.1	.3	.3	.0	.0	.3	.2	.0	.0	.0
75.	*	1.1	.8	.2	.1	.0	.1	.5	.4	.6	.0	.1	.3	.3	.0	.0	.3	.2	.0	.0	.0
80.	*	1.0	.9	.2	.1	.0	.1	.7	.4	.6	.0	.1	.3	.3	.0	.0	.3	.2	.0	.0	.0
85.	*	.9	.8	.2	.1	.0	.1	.8	.4	.6	.1	.1	.3	.3	.0	.0	.3	.2	.0	.0	.0

90.	*	.7	.9	.2	.1	.0	.1	.9	.5	.6	.1	.1	.4
.3	.0	.0	.3	.3	.0	.0	.0						
95.	*	.8	1.0	.2	.1	.0	.0	.8	.5	.6	.1	.1	.4
.4	.0	.0	.3	.3	.0	.0	.0						
100.	*	.7	1.0	.1	.1	.0	.0	.9	.6	.6	.1	.1	.4
.4	.0	.0	.3	.3	.0	.0	.0						
105.	*	.6	1.1	.1	.1	.0	.1	1.0	.6	.6	.1	.1	.4
.4	.0	.0	.4	.3	.0	.0	.0						
110.	*	.6	.8	.2	.1	.0	.1	1.0	.6	.5	.0	.0	.4
.5	.0	.0	.5	.3	.1	.0	.0						
115.	*	.6	.9	.2	.1	.0	.1	.9	.6	.4	.0	.1	.4
.6	.0	.0	.6	.3	.1	.1	.0						
120.	*	.7	.9	.3	.1	.0	.1	.8	.5	.5	.0	.1	.4
.5	.0	.1	.7	.3	.1	.1	.0						
125.	*	.9	.8	.3	.1	.0	.1	.8	.5	.6	.0	.0	.6
.5	.1	.1	.7	.3	.3	.3	.0						
130.	*	.9	.6	.2	.1	.0	.0	.6	.6	.6	.0	.0	.5
.5	.1	.1	.7	.2	.5	.5	.0						
135.	*	1.2	.7	.1	.1	.0	.0	.8	.6	.7	.1	.0	.4
.4	.3	.4	.7	.0	.7	.5	.0						
140.	*	1.2	.5	.1	.1	.0	.0	.7	.6	.7	.1	.1	.3
.2	.3	.5	.9	.1	.9	.7	.3						
145.	*	1.4	.5	.1	.1	.0	.0	.5	.6	.7	.4	.3	.1
.0	.4	.5	1.2	.3	1.0	1.1	.4						
150.	*	1.0	.3	.1	.1	.0	.0	.5	.3	.6	.5	.4	.2
.0	.4	.5	1.5	.5	1.2	1.2	.7						
155.	*	.8	.1	.1	.1	.0	.0	.3	.3	.4	.7	.6	.3
.0	.3	.5	1.4	.6	1.1	1.2	.9						
160.	*	.5	.1	.1	.1	.0	.0	.1	.0	.3	.7	.7	.3
.1	.3	.6	1.4	.7	1.1	1.1	.8						
165.	*	.3	.1	.1	.1	.0	.0	.0	.0	.1	.7	.7	.3
.2	.4	.6	1.3	.7	1.0	.9	.9						
170.	*	.2	.1	.1	.1	.0	.0	.0	.0	.0	.7	.6	.3
.2	.4	.7	1.2	.7	1.0	.8	.7						
175.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.6	.6	.3
.2	.3	.6	1.2	.6	.9	.6	.7						
180.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.6	.5	.3
.2	.3	.6	1.1	.5	.7	.6	.5						
185.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.5	.5	.3
.2	.3	.5	1.2	.5	.7	.5	.5						
190.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.5	.4	.2
.2	.3	.5	1.1	.5	.6	.6	.4						
195.	*	.1	.1	.2	.1	.0	.0	.0	.0	.0	.4	.4	.2
.2	.3	.5	1.2	.4	.6	.5	.4						
200.	*	.1	.2	.2	.1	.0	.0	.0	.0	.0	.4	.4	.2
.2	.5	.5	1.2	.4	.5	.6	.4						
205.	*	.0	.2	.2	.1	.0	.0	.0	.0	.0	.4	.4	.2
.2	.5	.6	1.2	.4	.5	.6	.4						

JOB: CO 2005 PM Existing Stapleton RUN: Greenfield Ave & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20						
210.	*	.0	.2	.2	.1	.0	.0	.0	.0	.0	.4	.3	.2
.2	.5	.5	1.1	.4	.5	.7	.4						
215.	*	.0	.2	.2	.0	.0	.0	.0	.0	.0	.3	.3	.2
.2	.5	.5	1.1	.4	.5	.7	.4						
220.	*	.0	.2	.2	.0	.0	.1	.1	.0	.0	.3	.3	.2
.2	.5	.4	1.1	.4	.6	.7	.4						
225.	*	.0	.1	.2	.0	.0	.1	.1	.0	.0	.3	.3	.2
.2	.5	.4	1.1	.4	.6	.6	.4						
230.	*	.0	.1	.1	.0	.0	.1	.1	.0	.0	.3	.3	.3
.2	.5	.4	1.1	.4	.7	.6	.4						
235.	*	.0	.1	.1	.0	.0	.1	.1	.0	.0	.3	.3	.2
.2	.5	.4	1.3	.4	.7	.4	.4						
240.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.3	.2
.2	.5	.4	1.3	.4	.8	.4	.4						
245.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.2
.2	.5	.4	1.2	.4	.7	.3	.4						
250.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.3	.2
.2	.5	.5	1.2	.4	.7	.3	.4						
255.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.2
.2	.5	.5	1.3	.4	.5	.3	.4						
260.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.2
.2	.5	.5	1.2	.4	.5	.3	.4						
265.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.4	.3
.2	.5	.6	1.3	.4	.4	.3	.4						
270.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.5	.3
.2	.5	.7	1.3	.4	.4	.3	.4						
275.	*	.0	.0	.0	.0	.1	.1	.1	.0	.0	.4	.4	.3
.2	.5	.7	1.3	.4	.3	.4	.4						
280.	*	.0	.0	.0	.0	.1	.1	.1	.0	.0	.4	.4	.3
.2	.5	.7	1.3	.4	.3	.4	.4						
285.	*	.1	.0	.0	.0	.1	.1	.1	.0	.0	.4	.6	.3
.2	.5	.7	1.4	.5	.3	.5	.4						
290.	*	.1	.0	.0	.0	.1	.1	.1	.0	.0	.5	.6	.4
.1	.5	.8	1.6	.5	.5	.5	.4						
295.	*	.1	.0	.0	.0	.1	.1	.1	.0	.0	.5	.5	.4
.2	.5	.7	1.6	.6	.6	.6	.4						
300.	*	.1	.0	.0	.0	.1	.1	.1	.0	.0	.5	.6	.4
.5	.6	.8	1.6	.6	.6	.7	.5						
305.	*	.1	.0	.0	.0	.1	.1	.1	.0	.0	.6	.6	.7
.6	.6	.8	1.5	.8	.7	.7	.7						
310.	*	.2	.0	.0	.0	.1	.1	.1	.0	.1	.6	.7	.8
.5	.6	.6	1.6	.9	.8	.7	.9						
315.	*	.2	.0	.0	.0	.1	.1	.3	.1	.1	.8	.8	.9
.8	.4	.5	1.6	.9	.9	.8	1.1						
320.	*	.5	.0	.0	.0	.1	.1	.5	.3	.4	.9	.8	.9
.7	.1	.4	1.9	.7	.7	.7	1.0						

325.	*	.7	.2	.0	.0	.1	.1	.7	.6	.5	.9	.8	.6	.6	.1	.1	1.7	.9	.6	.7	.8
330.	*	1.1	.3	.0	.0	.1	.1	1.0	.8	.8	.5	.4	.5	.5	.0	.0	1.3	.8	.4	.5	.5
335.	*	1.2	.4	.0	.0	.1	.1	1.2	.7	.9	.3	.3	.4	.4	.0	.0	1.1	.5	.2	.3	.3
340.	*	.9	.6	.0	.0	.1	.1	1.2	.8	.8	.3	.2	.4	.4	.0	.0	.9	.4	.2	.1	.1
345.	*	.9	.5	.0	.0	.1	.1	1.3	.8	.8	.1	.1	.4	.4	.0	.0	.6	.3	.0	.1	.0
350.	*	.7	.5	.1	.0	.1	.1	1.1	.8	.6	.1	.1	.4	.4	.0	.0	.7	.3	.0	.0	.0
355.	*	.6	.5	.0	.0	.1	.1	.9	.8	.7	.1	.1	.4	.4	.0	.0	.6	.3	.0	.0	.0
360.	*	.6	.5	.0	.0	.1	.1	.6	.8	.6	.1	.1	.3	.3	.0	.0	.7	.3	.0	.0	.0
MAX	*	1.4	1.1	.4	.2	.1	.2	1.3	.9	.9	.9	.8	.9	.8	.6	.8	1.9	.9	1.2	1.2	1.1
DEGR.	*	145	105	65	45	0	5	345	5	335	320	315	315	315	300	290	320	310	150	150	315

THE HIGHEST CONCENTRATION OF 1.90 PPM OCCURRED AT RECEPTOR REC16.

JOB: CO 2005 PM Existing Stapleton RUN: Hanna & Bay ST Intersection

DATE : 12/ 6/ 5
TIME : 10:45: 2

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
	*	(FT)	(FT)			*	LENGTH (FT)	BRG (DEG)	TYPE	VPH (VEH)
1. L1 BAY ST NB UP 1-2	*	950.0	2917.0	1082.0	3250.0	*	358.	22.	AG	412.
2. L2 BAY ST NB UP 2-3	*	1082.0	3250.0	1146.0	3443.0	*	203.	18.	AG	412.
3. L3 BAY ST NB UP 3-4	*	1146.0	3443.0	1058.0	3744.0	*	314.	344.	AG	521.
4. L3Q BAY ST NB UP 3-4	*	1058.0	3744.0	1074.8	3686.7	*	60.	164.	AG	144.
5. L4 BAY ST NB UP 4-5	*	1058.0	3744.0	982.0	3913.0	*	185.	336.	AG	691.
6. L5 BAY ST NB UP 5-6	*	982.0	3913.0	1020.0	4076.0	*	167.	13.	AG	690.
7. L5Q BAY ST NB UP 5-6	*	1020.0	4076.0	1002.0	3998.8	*	79.	193.	AG	144.
8. L6 BAY ST NB UP 6-7	*	1020.0	4076.0	1076.0	4394.0	*	323.	10.	AG	693.
9. L7 BAY ST SB UP 1-2	*	1055.0	4396.0	1006.0	4080.0	*	320.	189.	AG	1074.
10. L7Q BAY ST SB UP 1-2	*	1006.0	4080.0	1024.9	4201.9	*	123.	9.	AG	144.
11. L8 BAY ST SB UP 2-3	*	1006.0	4080.0	952.0	3900.0	*	188.	197.	AG	858.
12. L9 BAY ST SB UP 3-4	*	952.0	3900.0	1016.0	3750.0	*	163.	157.	AG	1016.
13. L9Q BAY ST SB UP 3-4	*	1016.0	3750.0	970.2	3857.3	*	117.	337.	AG	144.
14. L10 BAY ST SB UP 4-5	*	1016.0	3750.0	1113.0	3446.0	*	319.	162.	AG	652.
15. L11 BAY ST SB UP 5-6	*	1113.0	3446.0	1075.0	3258.0	*	192.	191.	AG	628.
16. L12 BAY ST SB UP 6-7	*	1075.0	3258.0	943.0	2916.0	*	367.	201.	AG	628.

LINK DESCRIPTION	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE
1. L1 BAY ST NB UP 1-2	6.7	.0	40.0		
2. L2 BAY ST NB UP 2-3	6.7	.0	40.0		
3. L3 BAY ST NB UP 3-4	6.7	.0	40.0		
4. L3Q BAY ST NB UP 3-4	100.0	.0	20.0	.26	3.0
5. L4 BAY ST NB UP 4-5	10.9	.0	40.0		
6. L5 BAY ST NB UP 5-6	10.9	.0	40.0		
7. L5Q BAY ST NB UP 5-6	100.0	.0	20.0	.35	4.0
8. L6 BAY ST NB UP 6-7	10.9	.0	40.0		
9. L7 BAY ST SB UP 1-2	7.3	.0	40.0		
10. L7Q BAY ST SB UP 1-2	100.0	.0	20.0	.54	6.3
11. L8 BAY ST SB UP 2-3	7.3	.0	40.0		
12. L9 BAY ST SB UP 3-4	7.3	.0	40.0		
13. L9Q BAY ST SB UP 3-4	100.0	.0	20.0	.52	5.9
14. L10 BAY ST SB UP 4-5	7.9	.0	40.0		
15. L11 BAY ST SB UP 5-6	6.8	.0	40.0		
16. L12 BAY ST SB UP 6-7	6.8	.0	40.0		

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      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG    308.  10.9    .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1158.4    3803.0 *
131.   70. AG    134. 100.0    .0 12.0  .61   6.7
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG    284.  10.9    .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG    284.  10.9    .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG     71.  10.9    .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG     71.  10.9    .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1007.4    3738.2 *
30.   251. AG    134. 100.0    .0 12.0  .14   1.5
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.    71. AG    291.  10.9    .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG    179.  10.9    .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG    179.  10.9    .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     950.3    4072.1 *
38.   276. AG    267. 100.0    .0 20.0  .18   1.9
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG      7.  10.9    .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG     24.  10.9    .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1045.1    4091.7 *
5.    82. AG    267. 100.0    .0 20.0  .02    .3
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG    413.  10.9    .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG    413.  10.9    .0 40.0
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JOB: CO 2005 PM Existing Stapleton RUN: Hanna & Bay ST Intersection

DATE : 12/ 6/ 5
TIME : 10:45: 2

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM RATE (gm/hr)	SIGNAL FAC	ARRIVAL TYPE	RATE
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	521	1600	76.63	1		3
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	690	1600	76.63	1		3
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	1074	1600	76.63	1		3
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	1016	1600	76.63	1		3
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	308	1600	76.63	1		3
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	71	1600	76.63	1		3
27. L17Q VICTORY BLVD EB	*	120	78	2.0	179	1600	76.63	1		3
30. L19Q VICTORY BLVD WB	*	120	78	2.0	24	1600	76.63	1		3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC H1	*	1133.0	3803.0	6.0	*
2. REC H2	*	1059.0	3786.0	6.0	*
3. REC H3	*	1023.0	3868.0	6.0	*
4. REC H4	*	926.0	3899.0	6.0	*
5. REC H5	*	978.0	3762.0	6.0	*
6. REC H6	*	899.0	3738.0	6.0	*
7. REC H7	*	857.0	3729.0	6.0	*
8. REC H8	*	716.0	3681.0	6.0	*
9. REC H9	*	711.0	3624.0	6.0	*
10. REC H10	*	788.0	3645.0	6.0	*
11. REC H11	*	873.0	3673.0	6.0	*
12. REC H12	*	916.0	3685.0	6.0	*
13. REC H13	*	1007.0	3720.0	6.0	*
14. REC H14	*	1025.0	3634.0	6.0	*
15. REC H15	*	955.0	3608.0	6.0	*
16. REC H16	*	1135.0	3620.0	6.0	*
17. REC H17	*	1099.0	3714.0	6.0	*

18.	REC	H18	*	1085.0	3750.0	6.0	*
19.	REC	H19	*	1148.0	3772.0	6.0	*

JOB: CO 2005 PM Existing Stapleton RUN: Hanna & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
0.	* .0	.4	.6	.0	1.4	.0	.0	.0	.1	.1	.1	.1	2.0	.9	.3	.1	.5	.7	.3
5.	* .0	.2	.5	.2	1.4	.0	.0	.0	.1	.1	.1	.2	1.7	.9	.7	.1	.4	.5	.3
10.	* .0	.0	.5	.5	1.4	.3	.0	.0	.1	.1	.2	.7	1.5	.5	.6	.0	.3	.5	.2
15.	* .0	.0	.1	.5	1.2	.6	.2	.0	.1	.1	.5	.8	1.2	.5	.3	.0	.3	.5	.2
20.	* .0	.0	.0	.8	.9	.7	.5	.0	.1	.2	.5	.7	1.0	.7	.3	.0	.2	.5	.2
25.	* .0	.0	.0	.9	.9	.7	.6	.0	.1	.3	.5	.4	1.2	.6	.5	.0	.2	.6	.1
30.	* .0	.0	.0	.9	.8	.4	.3	.1	.1	.2	.4	.5	1.2	.6	.4	.0	.1	.6	.1
35.	* .0	.0	.0	.7	.8	.3	.3	.0	.1	.1	.4	.5	1.3	.6	.4	.0	.1	.6	.0
40.	* .0	.0	.0	.6	.8	.3	.3	.0	.1	.3	.4	.5	1.2	.6	.3	.0	.1	.6	.0
45.	* .0	.0	.0	.6	.8	.4	.3	.0	.1	.4	.4	.4	1.2	.4	.3	.0	.0	.6	.0
50.	* .0	.0	.0	.4	.7	.4	.3	.0	.2	.4	.4	.5	1.1	.4	.3	.0	.0	.5	.0
55.	* .0	.0	.0	.4	.6	.4	.3	.0	.2	.4	.5	.6	1.1	.2	.2	.0	.0	.3	.0
60.	* .0	.0	.0	.4	.6	.4	.3	.2	.2	.5	.4	.6	1.0	.2	.2	.0	.0	.3	.0
65.	* .1	.1	.0	.3	.7	.5	.3	.3	.3	.3	.4	.5	.8	.3	.1	.0	.0	.2	.0
70.	* .1	.2	.0	.3	.8	.5	.4	.2	.1	.1	.3	.4	.7	.3	.1	.0	.0	.1	.0
75.	* .2	.3	.0	.3	1.0	.5	.5	.3	.0	.0	.3	.3	.7	.3	.1	.0	.0	.1	.0
80.	* .3	.4	.0	.4	1.1	.7	.5	.3	.0	.0	.2	.2	.5	.3	.1	.0	.0	.1	.0
85.	* .4	.5	.0	.3	1.2	.7	.4	.2	.0	.0	.2	.2	.5	.2	.1	.0	.0	.0	.0

90.	*	.5	.7	.0	.3	1.2	.5	.3	.2	.0	.0	.1	.2
.5	.2	.1	.0	.0	.0	.0							
95.	*	.5	.7	.0	.5	1.3	.4	.3	.2	.0	.0	.1	.1
.5	.3	.1	.0	.0	.0	.0							
100.	*	.5	.7	.0	.4	1.2	.3	.3	.2	.0	.0	.1	.1
.5	.3	.1	.0	.0	.0	.0							
105.	*	.6	.7	.0	.4	1.0	.3	.2	.2	.0	.0	.1	.1
.5	.3	.1	.0	.0	.0	.0							
110.	*	.6	.6	.0	.5	1.0	.3	.2	.1	.0	.0	.1	.1
.5	.3	.1	.0	.0	.0	.0							
115.	*	.6	.6	.1	.5	.9	.2	.2	.1	.0	.0	.1	.1
.5	.3	.1	.0	.0	.0	.0							
120.	*	.5	.6	.1	.7	.9	.2	.2	.1	.0	.0	.1	.1
.4	.3	.1	.0	.0	.0	.0							
125.	*	.5	.6	.1	.7	.8	.2	.2	.1	.0	.0	.1	.1
.4	.3	.1	.0	.0	.0	.0							
130.	*	.5	.6	.1	.8	.7	.2	.2	.1	.0	.0	.0	.1
.4	.3	.1	.0	.0	.0	.0							
135.	*	.5	.6	.2	1.0	.6	.2	.2	.1	.0	.0	.0	.1
.4	.3	.1	.0	.0	.0	.0							
140.	*	.4	.7	.2	1.1	.5	.2	.1	.1	.0	.0	.0	.1
.4	.4	.0	.0	.0	.0	.0							
145.	*	.4	.7	.2	1.1	.4	.1	.1	.1	.0	.0	.0	.0
.4	.4	.0	.0	.0	.0	.0							
150.	*	.4	.9	.3	.9	.4	.1	.1	.1	.0	.0	.0	.0
.5	.2	.0	.0	.0	.0	.0							
155.	*	.5	.9	.6	.5	.3	.1	.1	.1	.0	.0	.0	.0
.5	.2	.0	.0	.0	.0	.0							
160.	*	.5	1.0	.8	.3	.2	.1	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.1	.0							
165.	*	.5	1.3	.8	.3	.2	.1	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.1	.1	.0							
170.	*	.4	1.3	.8	.0	.1	.1	.1	.1	.0	.0	.0	.0
.2	.0	.0	.1	.1	.3	.0							
175.	*	.4	1.5	1.1	.0	.1	.1	.1	.1	.0	.0	.0	.0
.1	.0	.0	.1	.2	.4	.0							
180.	*	.5	1.4	.8	.0	.1	.1	.1	.1	.0	.0	.0	.0
.1	.0	.0	.1	.3	.4	.0							
185.	*	.7	1.4	.9	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.3	.3	.5	.1							
190.	*	.7	1.4	.9	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.3	.3	.6	.2							
195.	*	.8	1.1	.8	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.3	.2	.5	.2							
200.	*	1.0	1.2	.8	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.2	.6	.2							
205.	*	1.0	1.1	.8	.0	.1	.2	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.3	.6	.2							

JOB: CO 2005 PM Existing Stapleton RUN: Hanna & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
210.	*	1.1	1.0	.8	.0	.1	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.3	.6	.2
215.	*	1.3	1.1	.8	.0	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.3	.6	.3
220.	*	1.2	1.1	.7	.0	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.6	.3
225.	*	1.2	1.1	.7	.0	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.6	.3
230.	*	1.3	.9	.7	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.6	.4
235.	*	1.5	.9	.7	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.6	.4
240.	*	1.3	.9	.6	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.6	.3
245.	*	1.4	.8	.7	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.7	.3
250.	*	1.1	.8	.7	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.9	.5
255.	*	.7	.8	.6	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	.5	.8	.7
260.	*	.6	.7	.5	.0	.0	.0	.0	.0	.0	.0	.1	.1	.2	.0	.0	.2	.5	.8	.8
265.	*	.6	.7	.5	.0	.0	.0	.0	.0	.0	.0	.1	.1	.2	.0	.0	.2	.5	1.0	.9
270.	*	.4	.7	.4	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.0	.2	.6	1.1	.9
275.	*	.4	.8	.5	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.0	.2	.7	1.1	.9
280.	*	.3	.8	.5	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.2	.8	1.1	1.0
285.	*	.3	.8	.4	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.2	.9	1.0	.9
290.	*	.3	.8	.4	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.2	.9	1.1	.9
295.	*	.2	.8	.5	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.2	1.1	1.3	.9
300.	*	.2	.9	.5	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.2	1.0	1.3	.7
305.	*	.1	.8	.4	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.0	.3	1.0	1.2	.5
310.	*	.3	.8	.5	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.4	1.1	1.2	.4
315.	*	.2	.6	.5	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.5	1.2	1.0	.6
320.	*	.2	.8	.5	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.7	1.1	1.1	.5

```
 325.   *     .3     .6     .5     .0     .0     .0     .0     .0     .0     .1     .1     .1
.2     .0     .0     .7     .9    1.0     .5
 330.   *     .4     .6     .4     .1     .0     .0     .0     .0     .0     .1     .1     .1
.4     .0     .0     .6     .8    1.0     .5
 335.   *     .4     .6     .6     .0     .1     .0     .0     .0     .0     .1     .1     .1
.6     .2     .0     .4     .8     .9     .6
 340.   *     .4     .7     .6     .0     .2     .0     .0     .0     .0     .1     .1     .1
.8     .3     .0     .3     .7     .9     .6
 345.   *     .3     .7     .6     .0     .4     .0     .0     .0     .0     .1     .1     .1
1.1     .5     .0     .2     .9    1.0     .6
 350.   *     .2     .7     .9     .0     .5     .0     .0     .0     .0     .1     .1     .1
1.4     .8     .0     .3     .7    1.0     .5
 355.   *     .2     .6     .9     .0     .9     .0     .0     .0     .1     .1     .1     .1
1.5    1.0     .1     .1     .6     .8     .4
 360.   *     .0     .4     .6     .0    1.4     .0     .0     .0     .1     .1     .1     .1
2.0     .9     .3     .1     .5     .7     .3
 ------*-------------------------------------------------------------------------------
-----------------------------------------
 MAX    *    1.5    1.5    1.1    1.1    1.4     .7     .6     .3     .3     .5     .5     .8
2.0    1.0     .7     .7    1.2    1.3    1.0
 DEGR.  *   235    175    175    140      0     20     25     65     65     60     15     15
0    355       5    320    315    295    280
```

THE HIGHEST CONCENTRATION OF 2.00 PPM OCCURRED AT RECEPTOR REC13.

JOB: CO 2005 PM Existing Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 12/ 8/ 5
TIME : 10:48:30

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG	TYPE	VPH	EF	H	W	V/C	QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)			(G/MI)	(FT)	(FT)		(VEH)
1. L1 EDGEWATER ST NB 1	*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	248.	15.2	.0	32.0		
2. L2 EDGEWATER ST NB 2	*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	248.	15.2	.0	32.0		
3. L3 EDGEWATER ST NB 3	*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	248.	15.2	.0	32.0		
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1760.7	949.0	*	19.	133.	AG	216.	100.0	.0	30.0	.08	1.0
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	80.	15.2	.0	32.0		
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	129.	15.2	.0	32.0		
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1604.8	1116.9	*	18.	136.	AG	401.	100.0	.0	30.0	.08	.9
8. L4 EDGEWATER ST SB 4	*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	129.	15.2	.0	32.0		
9. L5 EDGEWATER ST SB 5	*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	129.	15.2	.0	32.0		
10. L6 EDGEWATER ST SB 6	*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	129.	15.2	.0	32.0		
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	567.	12.8	.0	32.0		
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	537.	18.8	.0	32.0		
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1742.2	904.4	*	41.	147.	AG	216.	100.0	.0	30.0	.18	2.1
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	500.	10.0	.0	32.0		
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1502.9	1305.9	*	38.	150.	AG	216.	100.0	.0	30.0	.17	1.9
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	456.	8.4	.0	32.0		

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      17. L11 BAY ST NB 6-7    *    1264.0     1654.0     1049.0     2127.0 *
520.   336. AG     456.   8.1      .0 32.0
      18. L12 BAY ST SB 1-2    *    1030.0     2123.0     1244.0     1644.0 *
525.   156. AG     563.   6.7      .0 32.0
      19. L13 BAY ST SB 2-3    *    1244.0     1644.0     1445.0     1358.0 *
350.   145. AG     569.  17.0      .0 32.0
      20. L13Q BAY ST SB 3-2   *    1445.0     1358.0     1420.0     1393.5 *
43.    325. AG     216. 100.0      .0 30.0  .19   2.2
      21. L14 BAY ST SB 3-1T   *    1445.0     1358.0     1661.0      964.0 *
449.   151. AG     471.  15.2      .0 32.0
      22. L14Q BAY ST SB 1T-3  *    1661.0      964.0     1643.7      995.6 *
36.    331. AG     216. 100.0      .0 30.0  .16   1.8
      23. L15 BAY ST SB 1T-2   *    1661.0      964.0     1830.0      731.0 *
288.   144. AG     598.   6.9      .0 32.0
      24. L16 BAY ST SB 2-3    *    1830.0      731.0     2218.0       32.0 *
799.   151. AG     598.   8.8      .0 32.0
      25. L18 GREENFIELD AVE W*    1645.0      963.0     1158.0      437.0 *
717.   223. AG     175.  15.2      .0 32.0
      26. L19 VANDERBILT AVE E*     885.0      932.0     1459.0     1322.0 *
694.    56. AG     132.  10.0      .0 32.0
      27. L19Q VANDERBILT AVE  *    1459.0     1322.0     1443.5     1311.5 *
19.    236. AG     401. 100.0      .0 30.0  .09   1.0
      28. L22 VANDERBILT AVE W*    1458.0     1351.0      874.0      954.0 *
706.   236. AG     299.  10.0      .0 32.0
```

JOB: CO 2005 PM Existing Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 12/ 8/ 5
TIME : 10:48:30

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW RATE (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	120	42	2.0	248	1600	76.63	1	3	
7. L4Q EDGEWATER ST SB	120	78	2.0	129	1600	76.63	1	3	
13. L8Q BAY ST NB 3-2	120	42	2.0	537	1600	76.63	1	3	
15. L9Q BAY ST NB 5-4T	120	42	2.0	500	1600	76.63	1	3	
20. L13Q BAY ST SB 3-2	120	42	2.0	569	1600	76.63	1	3	
22. L14Q BAY ST SB 1T-3	120	42	2.0	471	1600	76.63	1	3	
27. L19Q VANDERBILT AVE	120	78	2.0	132	1600	76.63	1	3	

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC Va1	1235.0	1630.0	6.0
2. REC Va2	1330.0	1496.0	6.0
3. REC Va3	1429.0	1355.0	6.0
4. REC Va4	1259.0	1234.0	6.0
5. REC Va5	1057.0	1096.0	6.0
6. REC Va6	867.0	977.0	6.0
7. REC Va7	904.0	917.0	6.0
8. REC Va8	1093.0	1047.0	6.0
9. REC Va9	1292.0	1184.0	6.0
10. REC Va10	1395.0	1252.0	6.0
11. REC Va11	1463.0	1303.0	6.0
12. REC Va12	1510.0	1239.0	6.0
13. REC Va13	1534.0	1171.0	6.0
14. REC Va14	1579.0	1205.0	6.0
15. REC Va15	1493.0	1344.0	6.0
16. REC Va16	1542.0	1372.0	6.0
17. REC Va17	1571.0	1396.0	6.0
18. REC Va18	1546.0	1460.0	6.0
19. REC Va19	1450.0	1416.0	6.0

20. REC	Va20	*	1371.0	1529.0	6.0	*

JOB: CO 2005 PM Existing Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	.4	.6	1.5	.1	.0	.0	.1	.1	.2	.5	1.2	.7	.6	.0	.0	.0	.0	.0	.0	.0
5.	*	.4	.5	1.4	.1	.0	.0	.1	.1	.2	.5	.8	.5	.6	.0	.0	.0	.0	.0	.0	.0
10.	*	.3	.5	1.3	.1	.0	.0	.1	.2	.3	.4	.8	.5	.4	.0	.0	.0	.0	.0	.0	.0
15.	*	.3	.5	1.3	.1	.0	.0	.2	.2	.3	.6	.8	.4	.4	.0	.0	.0	.0	.0	.0	.0
20.	*	.3	.5	1.3	.1	.0	.0	.2	.2	.3	.7	.8	.4	.4	.0	.0	.0	.0	.0	.0	.0
25.	*	.3	.4	1.2	.1	.0	.0	.2	.3	.3	.7	.9	.4	.4	.0	.0	.0	.0	.0	.0	.0
30.	*	.4	.4	1.1	.1	.1	.0	.2	.3	.4	.6	1.0	.4	.4	.0	.0	.0	.0	.0	.0	.0
35.	*	.4	.4	1.1	.1	.1	.0	.2	.3	.4	.5	.8	.3	.4	.0	.0	.0	.0	.0	.0	.0
40.	*	.4	.4	1.1	.1	.2	.0	.2	.2	.3	.5	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0
45.	*	.4	.4	1.1	.3	.2	.0	.2	.2	.4	.4	.9	.2	.3	.0	.0	.0	.0	.0	.0	.0
50.	*	.3	.4	1.1	.3	.2	.1	.2	.2	.4	.5	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0
55.	*	.4	.4	1.1	.3	.2	.1	.2	.1	.3	.5	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0
60.	*	.4	.4	1.1	.4	.2	.2	.0	.0	.2	.4	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0
65.	*	.4	.4	1.0	.5	.3	.2	.0	.0	.1	.3	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0
70.	*	.4	.4	.9	.5	.3	.2	.0	.0	.1	.3	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0
75.	*	.4	.4	.9	.5	.3	.2	.0	.0	.1	.2	.7	.2	.3	.0	.1	.0	.0	.0	.0	.0
80.	*	.4	.4	.8	.3	.2	.2	.0	.0	.1	.2	.7	.2	.3	.0	.1	.0	.0	.0	.0	.0
85.	*	.4	.4	.8	.3	.2	.1	.0	.0	.1	.2	.6	.3	.3	.0	.1	.0	.0	.0	.0	.0

90.	*	.5	.5	.9	.3	.2	.1	.0	.0	.1	.2	.5	.4	
.4	.0	.1	.0	.0	.0	.0	.0							
95.	*	.5	.5	.9	.2	.1	.1	.0	.0	.1	.2	.6	.4	
.4	.0	.1	.0	.0	.0	.0	.0							
100.	*	.5	.5	1.0	.2	.1	.1	.0	.0	.1	.2	.5	.4	
.4	.0	.1	.0	.0	.0	.0	.0							
105.	*	.5	.5	1.0	.2	.1	.1	.0	.1	.1	.2	.5	.4	
.5	.0	.1	.0	.0	.0	.0	.0							
110.	*	.6	.6	1.2	.2	.1	.1	.0	.0	.1	.2	.5	.4	
.5	.0	.2	.0	.0	.0	.0	.0							
115.	*	.6	.6	1.1	.2	.1	.1	.0	.0	.1	.2	.6	.4	
.8	.0	.2	.0	.0	.0	.0	.0							
120.	*	.7	.7	1.2	.3	.1	.1	.0	.0	.1	.3	.6	.5	
.9	.0	.3	.0	.0	.0	.0	.0							
125.	*	.8	.8	1.5	.2	.1	.1	.0	.0	.1	.3	.6	.5	
1.0	.0	.4	.0	.0	.0	.0	.0							
130.	*	.8	1.0	1.3	.2	.1	.1	.0	.0	.1	.3	.7	.7	
1.1	.0	.4	.0	.0	.0	.0	.0							
135.	*	.9	1.2	1.5	.1	.1	.1	.0	.0	.1	.2	.8	1.0	
1.1	.1	.6	.0	.0	.0	.2	.1							
140.	*	.9	1.2	1.7	.1	.1	.1	.0	.0	.0	.3	1.0	1.0	
1.3	.4	.9	.0	.0	.0	.3	.2							
145.	*	.8	1.1	1.5	.1	.1	.1	.0	.0	.0	.2	1.0	1.2	
1.3	.6	1.3	.0	.0	.0	.6	.7							
150.	*	.5	.8	1.4	.1	.1	.1	.0	.0	.0	.0	1.0	1.1	
1.1	.8	1.6	.2	.0	.0	.9	.8							
155.	*	.3	.5	1.1	.1	.1	.1	.0	.0	.0	.0	.7	.9	
.7	1.2	1.7	.3	.2	.1	.9	1.1							
160.	*	.2	.2	.8	.1	.1	.1	.0	.0	.0	.0	.4	.6	
.3	1.0	1.6	.3	.1	.1	1.0	.9							
165.	*	.1	.1	.5	.1	.1	.0	.0	.0	.0	.0	.3	.5	
.2	1.0	1.6	.4	.3	.3	1.0	.8							
170.	*	.1	.1	.4	.1	.1	.0	.0	.0	.0	.0	.2	.4	
.1	.7	1.5	.3	.2	.2	1.1	.6							
175.	*	.0	.1	.3	.1	.1	.0	.0	.0	.0	.0	.1	.3	
.1	.7	1.5	.2	.3	.2	1.0	.5							
180.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.1	.3	
.1	.6	1.5	.2	.2	.2	1.0	.5							
185.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.1	.2	
.1	.5	1.3	.2	.2	.2	1.1	.5							
190.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.1	.2	
.0	.4	1.2	.2	.2	.3	1.1	.5							
195.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.1	.2	
.0	.4	1.1	.2	.2	.3	1.2	.5							
200.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.2	
.0	.4	1.1	.3	.2	.3	.9	.4							
205.	*	.0	.0	.1	.2	.2	.0	.0	.0	.0	.0	.0	.2	
.0	.4	1.2	.3	.2	.3	.9	.4							

JOB: CO 2005 PM Existing Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)											
	* REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12
REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20					
210.	* .0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.2
.0	.4	1.0	.4	.3	.3	.9	.4					
215.	* .0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1
.0	.4	1.1	.5	.3	.3	.9	.3					
220.	* .0	.0	.2	.3	.2	.0	.0	.0	.0	.0	.0	.1
.0	.4	1.2	.6	.4	.4	.8	.3					
225.	* .0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1
.0	.4	1.4	.6	.5	.4	.8	.3					
230.	* .0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.1	.1
.0	.4	1.4	.7	.6	.3	.7	.3					
235.	* .0	.0	.2	.2	.2	.0	.0	.0	.1	.1	.2	.1
.0	.4	1.3	.9	.5	.3	.5	.3					
240.	* .0	.0	.1	.2	.1	.0	.0	.1	.2	.2	.3	.1
.0	.4	1.4	.7	.4	.3	.5	.3					
245.	* .0	.0	.1	.1	.1	.0	.0	.2	.2	.2	.3	.1
.0	.4	1.4	.5	.5	.2	.4	.3					
250.	* .0	.0	.0	.1	.1	.0	.0	.2	.2	.2	.4	.1
.0	.4	1.0	.5	.4	.2	.3	.3					
255.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.4	.2
.0	.4	.9	.5	.2	.1	.3	.3					
260.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.5	.2
.0	.4	.7	.4	.4	.2	.4	.4					
265.	* .0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.5	.2
.0	.4	.6	.4	.3	.2	.4	.4					
270.	* .0	.0	.1	.0	.0	.0	.0	.2	.2	.2	.6	.2
.0	.4	.6	.4	.3	.2	.4	.4					
275.	* .0	.0	.1	.0	.0	.0	.0	.2	.2	.2	.6	.2
.0	.4	.7	.4	.3	.2	.5	.5					
280.	* .0	.0	.1	.0	.0	.0	.0	.2	.2	.2	.7	.2
.0	.4	.7	.5	.2	.2	.5	.5					
285.	* .0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.9	.2
.0	.4	.8	.4	.2	.2	.5	.5					
290.	* .0	.0	.1	.0	.0	.0	.0	.1	.1	.1	.9	.2
.0	.4	.9	.4	.2	.2	.5	.5					
295.	* .0	.1	.2	.0	.0	.0	.0	.1	.1	.1	1.0	.2
.1	.4	1.1	.3	.2	.2	.5	.5					
300.	* .0	.1	.2	.0	.0	.0	.0	.1	.1	.1	1.1	.2
.1	.6	1.1	.3	.2	.1	.5	.5					
305.	* .0	.1	.2	.0	.0	.0	.0	.1	.1	.1	1.2	.4
.1	.6	.9	.3	.2	.1	.6	.5					
310.	* .0	.2	.4	.0	.0	.0	.0	.1	.1	.1	1.5	.4
.1	.9	1.0	.2	.1	.0	.6	.4					
315.	* .0	.3	.5	.0	.0	.0	.0	.1	.1	.1	1.7	.8
.2	1.0	.9	.2	.0	.0	.6	.5					
320.	* .1	.4	.8	.0	.0	.0	.0	.1	.1	.1	2.0	1.0
.5	1.0	.7	.1	.0	.0	.5	.5					

325.	*	.1	.6	1.2	.0	.0	.0	.0	.1	.1	.1	2.4	1.1
.7	.9	.6	.0	.0	.0	.5	.5						
330.	*	.2	.9	1.5	.0	.0	.0	.1	.1	.1	.1	2.4	1.2
1.0	.5	.4	.0	.0	.0	.3	.3						
335.	*	.4	1.0	1.5	.0	.0	.0	.1	.1	.1	.2	2.3	1.3
1.2	.4	.3	.0	.0	.0	.1	.2						
340.	*	.5	1.0	1.5	.0	.0	.0	.1	.1	.1	.2	2.1	1.2
1.2	.1	.1	.0	.0	.0	.1	.0						
345.	*	.5	.8	1.4	.0	.0	.0	.1	.1	.1	.3	1.9	1.1
.9	.1	.1	.0	.0	.0	.0	.0						
350.	*	.6	.7	1.5	.0	.0	.0	.1	.1	.1	.4	1.6	1.0
.7	.0	.1	.0	.0	.0	.0	.0						
355.	*	.5	.6	1.4	.0	.0	.0	.1	.1	.2	.4	1.4	.7
.7	.0	.0	.0	.0	.0	.0	.0						
360.	*	.4	.6	1.5	.1	.0	.0	.1	.1	.2	.5	1.2	.7
.6	.0	.0	.0	.0	.0	.0	.0						
------	*	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------
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MAX	*	.9	1.2	1.7	.5	.3	.2	.2	.3	.4	.7	2.4	1.3
1.3	1.2	1.7	.9	.6	.4	1.2	1.1						
DEGR.	*	135	135	140	65	65	60	15	25	30	20	330	335
140	155	155	235	230	220	195	155						

THE HIGHEST CONCENTRATION OF 2.40 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2005 PM Existing Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 12/ 6/ 5
TIME : 10:43:49

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*					
	*	X1	Y1	X2	Y2	*					
	*	(FT)	(FT)			*	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. L1 BAY ST NB UP 1-2	*	950.0	2917.0	1082.0	3250.0	*	358.	22.	AG	412.	6.7	.0	40.0		
2. L2 BAY ST NB UP 2-3	*	1082.0	3250.0	1146.0	3443.0	*	203.	18.	AG	412.	6.7	.0	40.0		
3. L3 BAY ST NB UP 3-4	*	1146.0	3443.0	1058.0	3744.0	*	314.	344.	AG	521.	6.7	.0	40.0		
4. L3Q BAY ST NB UP 3-4	*	1058.0	3744.0	1074.8	3686.7	*	60.	164.	AG	144.	100.0	.0	20.0	.26	3.0
5. L4 BAY ST NB UP 4-5	*	1058.0	3744.0	982.0	3913.0	*	185.	336.	AG	691.	10.9	.0	40.0		
6. L5 BAY ST NB UP 5-6	*	982.0	3913.0	1020.0	4076.0	*	167.	13.	AG	690.	10.9	.0	40.0		
7. L5Q BAY ST NB UP 5-6	*	1020.0	4076.0	1002.0	3998.8	*	79.	193.	AG	144.	100.0	.0	20.0	.35	4.0
8. L6 BAY ST NB UP 6-7	*	1020.0	4076.0	1076.0	4394.0	*	323.	10.	AG	693.	10.9	.0	40.0		
9. L7 BAY ST SB UP 1-2	*	1055.0	4396.0	1006.0	4080.0	*	320.	189.	AG	1074.	7.3	.0	40.0		
10. L7Q BAY ST SB UP 1-2	*	1006.0	4080.0	1024.9	4201.9	*	123.	9.	AG	144.	100.0	.0	20.0	.54	6.3
11. L8 BAY ST SB UP 2-3	*	1006.0	4080.0	952.0	3900.0	*	188.	197.	AG	858.	7.3	.0	40.0		
12. L9 BAY ST SB UP 3-4	*	952.0	3900.0	1016.0	3750.0	*	163.	157.	AG	1016.	7.3	.0	40.0		
13. L9Q BAY ST SB UP 3-4	*	1016.0	3750.0	970.2	3857.3	*	117.	337.	AG	144.	100.0	.0	20.0	.52	5.9
14. L10 BAY ST SB UP 4-5	*	1016.0	3750.0	1113.0	3446.0	*	319.	162.	AG	652.	7.9	.0	40.0		
15. L11 BAY ST SB UP 5-6	*	1113.0	3446.0	1075.0	3258.0	*	192.	191.	AG	628.	6.8	.0	40.0		
16. L12 BAY ST SB UP 6-7	*	1075.0	3258.0	943.0	2916.0	*	367.	201.	AG	628.	6.8	.0	40.0		

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      17. L13 HANNAH ST 1-2 WB*   1120.0    3789.0    1035.0    3758.0 *
90.   250. AG    308.  10.9    .0 32.0
      18. L13Q HANNAH ST 1-2 W*   1035.0    3758.0    1158.4    3803.0 *
131.   70. AG    134. 100.0    .0 12.0  .61   6.7
      19. L14 HANNAH ST 2-3 WB*   1035.0    3758.0     885.0    3708.0 *
158.  252. AG    284.  10.9    .0 32.0
      20. L15 HANNAH ST 3-4 WB*    885.0    3708.0     703.0    3659.0 *
188.  255. AG    284.  10.9    .0 32.0
      21. L13a HANNAH ST 1-2 E*    709.0    3649.0     890.0    3698.0 *
188.   75. AG     71.  10.9    .0 32.0
      22. L14a HANNAH ST 2-3 E*    890.0    3698.0    1036.0    3748.0 *
154.   71. AG     71.  10.9    .0 32.0
      23. L14aQ HANNAH ST 2-3 *   1036.0    3748.0    1007.4    3738.2 *
30.   251. AG    134. 100.0    .0 12.0  .14   1.5
      24. L15a HANNAH ST 3-4 E*   1036.0    3748.0    1125.0    3779.0 *
94.    71. AG    291.  10.9    .0 32.0
      25. L16 VICTORY BLVD EB *    680.0    4164.0     860.0    4082.0 *
198.  114. AG    179.  10.9    .0 40.0
      26. L17 VICTORY BLVD EB *    860.0    4082.0     988.0    4068.0 *
129.   96. AG    179.  10.9    .0 40.0
      27. L17Q VICTORY BLVD EB*    988.0    4068.0     950.3    4072.1 *
38.   276. AG    267. 100.0    .0 20.0  .18   1.9
      28. L18 VICTORY BLVD EB *    988.0    4068.0    1373.0    4104.0 *
387.   85. AG      7.  10.9    .0 40.0
      29. L19 VICTORY BLVD WB *   1374.0    4136.0    1040.0    4091.0 *
337.  262. AG     24.  10.9    .0 40.0
      30. L19Q VICTORY BLVD WB*   1040.0    4091.0    1045.1    4091.7 *
5.    82. AG    267. 100.0    .0 20.0  .02    .3
      31. L20 VICTORY BLVD WB *   1040.0    4091.0     878.0    4101.0 *
162.  274. AG    413.  10.9    .0 40.0
      32. L21 VICTORY BLVD WB *    878.0    4101.0     677.0    4179.0 *
216.  291. AG    413.  10.9    .0 40.0
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JOB: CO 2005 PM Existing Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 12/ 6/ 5
TIME : 10:43:49

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW RATE (VPH)	SATURATION FLOW RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	521	1600	76.63	1	3	
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	690	1600	76.63	1	3	
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	1074	1600	76.63	1	3	
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	1016	1600	76.63	1	3	
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	308	1600	76.63	1	3	
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	71	1600	76.63	1	3	
27. L17Q VICTORY BLVD EB	*	120	78	2.0	179	1600	76.63	1	3	
30. L19Q VICTORY BLVD WB	*	120	78	2.0	24	1600	76.63	1	3	

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC V1	*	1328.0	4151.0	6.0	*
2. REC V2	*	1235.0	4141.0	6.0	*
3. REC V3	*	1041.0	4131.0	6.0	*
4. REC V4	*	1069.0	4277.0	6.0	*
5. REC V5	*	1094.0	4402.0	6.0	*
6. REC V6	*	1008.0	4231.0	6.0	*
7. REC V7	*	1040.0	4396.0	6.0	*
8. REC V8	*	966.0	4116.0	6.0	*
9. REC V9	*	888.0	4115.0	6.0	*
10. REC V10	*	839.0	4137.0	6.0	*
11. REC V11	*	1025.0	4034.0	6.0	*
12. REC V12	*	891.0	3999.0	6.0	*
13. REC V13	*	956.0	4055.0	6.0	*
14. REC V14	*	1133.0	4039.0	6.0	*
15. REC V15	*	1217.0	4050.0	6.0	*
16. REC V16	*	1337.0	4064.0	6.0	*

JOB: CO 2005 PM Existing Stapleton RUN: Victory BLvd & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
0.	* .0	.0	1.1	.5	.0	.1	.0	.0	.0	.0	1.7	.1	1.0	.0	.0	.0
5.	* .0	.0	1.0	.5	.0	.2	.0	.0	.0	.0	1.6	.1	1.1	.0	.0	.0
10.	* .0	.0	.8	.4	.0	.4	.0	.1	.0	.0	1.3	.1	1.2	.0	.0	.0
15.	* .0	.0	.6	.3	.0	.5	.0	.3	.0	.0	.9	.1	1.4	.0	.0	.0
20.	* .0	.0	.5	.3	.0	.6	.0	.3	.0	.0	.7	.3	1.5	.0	.0	.0
25.	* .0	.0	.3	.2	.0	.7	.0	.6	.0	.0	.3	.4	1.7	.0	.0	.0
30.	* .0	.0	.2	.1	.0	.6	.0	.6	.1	.0	.2	.5	1.8	.0	.0	.0
35.	* .0	.0	.1	.1	.0	.7	.0	.7	.2	.0	.1	.5	1.9	.0	.0	.0
40.	* .0	.0	.1	.1	.0	.7	.0	.7	.2	.1	.1	.7	1.8	.0	.0	.0
45.	* .0	.0	.1	.1	.0	.6	.1	.7	.2	.2	.1	.7	1.8	.0	.0	.0
50.	* .0	.0	.1	.1	.0	.5	.1	.7	.2	.2	.1	.6	1.9	.0	.0	.0
55.	* .0	.0	.1	.1	.0	.5	.1	.7	.3	.2	.0	.8	1.7	.0	.0	.0
60.	* .0	.0	.1	.0	.0	.5	.1	.7	.3	.2	.0	.6	1.5	.0	.0	.0
65.	* .0	.0	.1	.0	.0	.5	.1	.7	.3	.2	.0	.4	1.6	.0	.0	.0
70.	* .0	.0	.0	.0	.0	.5	.1	.7	.5	.3	.0	.4	1.5	.0	.0	.0
75.	* .0	.0	.0	.0	.0	.4	.1	.7	.5	.3	.0	.4	1.3	.0	.0	.0
80.	* .0	.0	.0	.0	.0	.4	.1	.7	.5	.3	.0	.3	.9	.0	.0	.0
85.	* .0	.0	.0	.0	.0	.4	.2	.8	.6	.3	.0	.3	.8	.0	.0	.0

90.	*	.0	.0	.0	.0	.0	.4	.2	.8	.6	.3	.0	.3
.6	.0	.0	.0										
95.	*	.0	.0	.0	.0	.0	.5	.3	.8	.6	.4	.0	.3
.7	.0	.0	.0										
100.	*	.0	.0	.0	.0	.0	.5	.3	.9	.7	.4	.0	.2
.6	.0	.0	.0										
105.	*	.0	.0	.0	.0	.0	.5	.4	.8	.8	.6	.0	.2
.6	.0	.0	.0										
110.	*	.0	.0	.0	.0	.0	.4	.4	.8	.9	.5	.0	.2
.6	.0	.0	.0										
115.	*	.0	.0	.0	.0	.0	.4	.4	.8	.9	.5	.0	.2
.6	.0	.0	.0										
120.	*	.0	.0	.0	.0	.0	.4	.4	.8	1.0	.6	.0	.2
.6	.0	.0	.0										
125.	*	.0	.0	.0	.0	.0	.5	.5	.8	.8	.6	.0	.3
.6	.0	.0	.0										
130.	*	.0	.0	.0	.0	.0	.5	.5	1.0	.8	.6	.0	.4
.6	.0	.0	.0										
135.	*	.0	.0	.1	.0	.0	.6	.5	.8	.7	.5	.0	.5
.6	.0	.0	.0										
140.	*	.0	.0	.1	.0	.0	.6	.5	.9	.7	.4	.0	.5
.5	.0	.0	.0										
145.	*	.0	.0	.1	.1	.0	.7	.5	.8	.5	.5	.0	.5
.6	.0	.0	.0										
150.	*	.0	.0	.1	.1	.0	.8	.6	.9	.6	.6	.0	.5
.6	.0	.0	.0										
155.	*	.0	.0	.1	.1	.0	.9	.7	1.1	.8	.5	.2	.4
.6	.0	.0	.0										
160.	*	.0	.0	.2	.1	.0	1.1	.7	1.3	.7	.4	.2	.3
.7	.0	.0	.0										
165.	*	.0	.0	.2	.1	.0	1.1	.8	1.1	.6	.2	.2	.2
.7	.0	.0	.0										
170.	*	.0	.0	.4	.1	.1	1.3	.8	1.4	.4	.2	.4	.0
.7	.0	.0	.0										
175.	*	.0	.0	.6	.2	.1	1.5	1.0	1.2	.2	.1	.5	.0
.6	.0	.0	.0										
180.	*	.0	.0	.9	.3	.2	1.6	1.0	1.3	.2	.1	.6	.0
.5	.1	.0	.0										
185.	*	.0	.0	1.3	.8	.5	1.3	1.0	1.0	.2	.1	.6	.0
.3	.1	.0	.0										
190.	*	.0	.0	1.3	1.0	.7	.9	.7	.6	.2	.1	.8	.0
.1	.2	.0	.0										
195.	*	.0	.0	1.7	1.2	.8	.6	.6	.4	.2	.1	.9	.0
.0	.2	.1	.0										
200.	*	.0	.1	1.3	1.5	.9	.3	.3	.4	.1	.2	1.0	.0
.0	.2	.1	.0										
205.	*	.0	.0	1.4	1.3	.9	.3	.2	.3	.1	.2	1.1	.0
.0	.3	.1	.0										

JOB: CO 2005 PM Existing Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
210.	* .0	.0	1.5	1.1	.7	.1	.1	.2	.2	.1	1.1	.0	.0	.3	.1	.0
215.	* .0	.1	1.4	1.0	.6	.1	.1	.4	.2	.1	1.1	.0	.0	.3	.2	.1
220.	* .0	.0	1.4	.8	.6	.0	.1	.3	.2	.1	1.2	.0	.0	.3	.2	.1
225.	* .0	.0	1.4	.8	.5	.0	.1	.3	.2	.1	1.2	.0	.0	.2	.3	.1
230.	* .0	.1	1.4	.6	.4	.0	.1	.3	.2	.3	1.2	.0	.0	.1	.2	.0
235.	* .0	.2	1.3	.6	.4	.0	.0	.3	.2	.3	1.1	.0	.0	.2	.0	.0
240.	* .0	.3	1.3	.6	.4	.0	.0	.2	.2	.3	1.1	.0	.0	.2	.0	.0
245.	* .1	.3	1.1	.5	.4	.1	.0	.2	.2	.3	1.0	.0	.0	.2	.1	.0
250.	* .1	.2	1.0	.5	.3	.1	.0	.2	.4	.3	1.0	.0	.0	.3	.2	.0
255.	* .0	.3	.9	.4	.2	.0	.0	.2	.3	.3	1.0	.0	.0	.3	.3	.0
260.	* .1	.5	.9	.4	.2	.0	.0	.3	.3	.3	.9	.0	.0	.3	.3	.0
265.	* .2	.3	1.0	.4	.1	.0	.0	.3	.3	.3	.9	.0	.0	.3	.3	.1
270.	* .3	.3	.9	.4	.1	.0	.0	.2	.3	.4	.9	.0	.1	.5	.3	.0
275.	* .3	.3	.9	.4	.0	.0	.0	.2	.4	.4	.9	.0	.1	.4	.3	.1
280.	* .2	.3	.8	.4	.0	.0	.0	.2	.4	.3	1.0	.0	.1	.5	.3	.1
285.	* .2	.3	.8	.4	.0	.0	.0	.1	.3	.2	1.3	.0	.2	.5	.4	.3
290.	* .2	.2	.8	.4	.0	.0	.0	.1	.3	.2	1.5	.0	.2	.6	.3	.3
295.	* .2	.2	.8	.4	.0	.0	.0	.0	.2	.2	1.5	.0	.3	.5	.3	.2
300.	* .2	.2	.8	.4	.0	.0	.0	.0	.1	.1	1.6	.0	.3	.4	.3	.2
305.	* .2	.2	.8	.4	.0	.0	.0	.0	.1	.1	1.4	.0	.4	.3	.3	.2
310.	* .0	.2	.9	.5	.0	.0	.0	.0	.1	.0	1.5	.1	.4	.4	.3	.2
315.	* .0	.2	1.0	.5	.0	.0	.0	.0	.0	.0	1.4	.1	.3	.3	.2	.0
320.	* .0	.2	1.0	.6	.0	.0	.0	.0	.0	.0	1.3	.1	.4	.3	.2	.0

325.	*	.0	.1	1.0	.6	.0	.0	.0	.0	.0	.0	1.5	.1	.4	.3	.2	.0
330.	*	.0	.0	1.0	.6	.0	.0	.0	.0	.0	.0	1.5	.1	.5	.3	.2	.0
335.	*	.0	.0	1.0	.7	.0	.0	.0	.0	.0	.0	1.5	.1	.5	.2	.1	.0
340.	*	.0	.0	1.2	.7	.0	.0	.0	.0	.0	.0	1.7	.1	.6	.2	.0	.0
345.	*	.0	.0	1.1	.7	.0	.0	.0	.0	.0	.0	1.9	.1	.7	.2	.0	.0
350.	*	.0	.0	1.1	.6	.0	.0	.0	.0	.0	.0	1.9	.0	.8	.2	.0	.0
355.	*	.0	.0	1.1	.6	.0	.1	.0	.0	.0	.0	1.8	.0	.9	.1	.0	.0
360.	*	.0	.0	1.1	.5	.0	.1	.0	.0	.0	.0	1.7	.1	1.0	.0	.0	.0
MAX	*	.3	.5	1.7	1.5	.9	1.6	1.0	1.4	1.0	.6	1.9	.8	1.9	.6	.4	.3
DEGR.	*	270	260	195	200	200	180	175	170	120	105	345	55	50	290	285	285

THE HIGHEST CONCENTRATION OF 1.90 PPM OCCURRED AT RECEPTOR REC13.

JOB: CO 2015 PM No-Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

DATE : 2/27/ 6
TIME : 17:21:19

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
		X1	Y1	X2	Y2					
1. L1 EDGEWATER ST NB	1*	2485.0	342.0	2312.0	439.0	*				
198.	299.	AG	325.	7.9	.0	32.0				
2. L2 EDGEWATER ST NB	2*	2312.0	439.0	2073.0	653.0	*				
321.	312.	AG	325.	7.9	.0	32.0				
3. L3 EDGEWATER ST NB	3*	2073.0	653.0	1747.0	962.0	*				
449.	313.	AG	453.	7.9	.0	32.0				
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1772.2	938.1	*				
35.	133.	AG	103.	100.0	.0	30.0	.15	1.8		
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*				
224.	323.	AG	206.	7.9	.0	32.0				
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*				
675.	316.	AG	151.	7.9	.0	32.0				
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1606.9	1114.7	*				
21.	136.	AG	192.	100.0	.0	30.0	.10	1.1		
8. L4 EDGEWATER ST SB	4*	1735.0	949.0	2064.0	647.0	*				
447.	133.	AG	167.	7.9	.0	32.0				
9. L5 EDGEWATER ST SB	5*	2064.0	647.0	2306.0	432.0	*				
324.	132.	AG	240.	7.9	.0	32.0				
10. L6 EDGEWATER ST SB	6*	2306.0	432.0	2503.0	310.0	*				
232.	122.	AG	240.	7.9	.0	32.0				
11. L7 BAY ST NB 1-2	*	2252.0	18.0	1867.0	710.0	*				
792.	331.	AG	706.	6.4	.0	32.0				
12. L8 BAY ST NB 2-4T	*	1867.0	710.0	1682.0	992.0	*				
337.	327.	AG	618.	9.6	.0	32.0				
13. L8Q BAY ST NB 3-2	*	1720.0	939.0	1745.6	899.2	*				
47.	147.	AG	103.	100.0	.0	30.0	.21	2.4		
14. L9 BAY ST NB 4T-5	*	1682.0	992.0	1484.0	1339.0	*				
400.	330.	AG	701.	6.8	.0	32.0				
15. L9Q BAY ST NB 5-4T	*	1484.0	1339.0	1510.5	1292.5	*				
54.	150.	AG	103.	100.0	.0	30.0	.24	2.7		
16. L10 BAY ST NB 5-6	*	1484.0	1339.0	1264.0	1654.0	*				
384.	325.	AG	628.	4.4	.0	32.0				

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      17. L11 BAY ST NB 6-7    *   1264.0    1654.0    1049.0    2127.0 *
520.   336. AG     628.   4.1     .0 32.0
      18. L12 BAY ST SB 1-2    *   1030.0    2123.0    1244.0    1644.0 *
525.   156. AG     676.   3.4     .0 32.0
      19. L13 BAY ST SB 2-3    *   1244.0    1644.0    1445.0    1358.0 *
350.   145. AG     676.   8.5     .0 32.0
      20. L13Q BAY ST SB 3-2   *   1445.0    1358.0    1415.3    1400.3 *
52.    325. AG    103. 100.0     .0 30.0  .23   2.6
      21. L14 BAY ST SB 3-1T   *   1445.0    1358.0    1661.0     964.0 *
449.   151. AG     560.   7.9     .0 32.0
      22. L14Q BAY ST SB 1T-3  *   1661.0     964.0    1640.5    1001.5 *
43.    331. AG    103. 100.0     .0 30.0  .19   2.2
      23. L15 BAY ST SB 1T-2   *   1661.0     964.0    1830.0     731.0 *
288.   144. AG     705.   3.5     .0 32.0
      24. L16 BAY ST SB 2-3    *   1830.0     731.0    2218.0      32.0 *
799.   151. AG     753.   4.5     .0 32.0
      25. L18 GREENFIELD AVE W*   1645.0     963.0    1158.0     437.0 *
717.   223. AG     177.   7.9     .0 32.0
      26. L19 VANDERBILT AVE E*    885.0     932.0    1459.0    1322.0 *
694.    56. AG     165.   6.8     .0 32.0
      27. L19Q VANDERBILT AVE  *   1459.0    1322.0    1439.6    1308.8 *
23.    236. AG    192. 100.0     .0 30.0  .11   1.2
      28. L22 VANDERBILT AVE W*   1458.0    1351.0     874.0     954.0 *
706.   236. AG     362.   6.8     .0 32.0
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JOB: CO 2015 PM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Vanderbilt

DATE : 2/27/ 6
TIME : 17:21:19

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	453	1600	36.74	1	3
7. L4Q EDGEWATER ST SB	*	120	78	2.0	151	1600	36.74	1	3
13. L8Q BAY ST NB 3-2	*	120	42	2.0	618	1600	36.74	1	3
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	701	1600	36.74	1	3
20. L13Q BAY ST SB 3-2	*	120	42	2.0	676	1600	36.74	1	3
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	560	1600	36.74	1	3
27. L19Q VANDERBILT AVE	*	120	78	2.0	165	1600	36.74	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC Va1	*	1235.0	1630.0	6.0	*
2. REC Va2	*	1330.0	1496.0	6.0	*
3. REC Va3	*	1429.0	1355.0	6.0	*
4. REC Va4	*	1259.0	1234.0	6.0	*
5. REC Va5	*	1057.0	1096.0	6.0	*
6. REC Va6	*	867.0	977.0	6.0	*
7. REC Va7	*	904.0	917.0	6.0	*
8. REC Va8	*	1093.0	1047.0	6.0	*
9. REC Va9	*	1292.0	1184.0	6.0	*
10. REC Va10	*	1395.0	1252.0	6.0	*
11. REC Va11	*	1463.0	1303.0	6.0	*
12. REC Va12	*	1510.0	1239.0	6.0	*
13. REC Va13	*	1534.0	1171.0	6.0	*
14. REC Va14	*	1579.0	1205.0	6.0	*
15. REC Va15	*	1493.0	1344.0	6.0	*
16. REC Va16	*	1542.0	1372.0	6.0	*
17. REC Va17	*	1571.0	1396.0	6.0	*
18. REC Va18	*	1546.0	1460.0	6.0	*
19. REC Va19	*	1450.0	1416.0	6.0	*

20. REC	Va20	*	1371.0	1529.0	6.0	*

JOB: CO 2015 PM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Vanderbilt

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	* .3	.4	.9	.0	.0	.0	.1	.1	.1	.2	.5	.6	.3	.0	.0	.0	.0	.0	.0	.0
5.	* .3	.4	.8	.0	.0	.0	.1	.1	.2	.3	.5	.4	.3	.0	.0	.0	.0	.0	.0	.0
10.	* .3	.3	.7	.1	.0	.0	.1	.1	.2	.3	.5	.4	.3	.0	.0	.0	.0	.0	.0	.0
15.	* .3	.3	.7	.1	.0	.0	.1	.1	.2	.3	.5	.4	.3	.0	.0	.0	.0	.0	.0	.0
20.	* .3	.3	.7	.1	.0	.0	.1	.1	.2	.3	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0
25.	* .3	.3	.7	.1	.0	.0	.2	.2	.3	.3	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0
30.	* .2	.3	.7	.1	.0	.0	.2	.2	.2	.1	.5	.2	.3	.0	.0	.0	.0	.0	.0	.0
35.	* .2	.3	.6	.1	.0	.0	.2	.2	.2	.2	.5	.2	.3	.0	.0	.0	.0	.0	.0	.0
40.	* .2	.3	.6	.0	.0	.0	.2	.2	.2	.3	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
45.	* .2	.3	.6	.1	.1	.0	.2	.2	.2	.3	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
50.	* .2	.3	.7	.1	.1	.1	.2	.2	.1	.3	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
55.	* .2	.3	.7	.1	.2	.1	.1	.0	.0	.3	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0
60.	* .3	.3	.6	.2	.2	.1	.0	.0	.0	.4	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0
65.	* .3	.3	.6	.2	.2	.2	.0	.0	.0	.3	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0
70.	* .3	.3	.5	.2	.2	.2	.0	.0	.0	.3	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0
75.	* .3	.3	.5	.2	.2	.1	.0	.0	.0	.2	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
80.	* .3	.3	.5	.1	.1	.1	.0	.0	.0	.2	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
85.	* .3	.3	.5	.1	.1	.1	.0	.0	.0	.2	.4	.2	.3	.0	.0	.0	.0	.0	.0	.0

90.	*	.3	.3	.4	.1	.1	.1	.0	.0	.0	.2	.5	.2
.3	.0	.0	.0	.0	.0	.0	.0						
95.	*	.3	.3	.6	.1	.1	.1	.0	.0	.0	.2	.5	.3
.3	.0	.1	.0	.0	.0	.0	.0						
100.	*	.3	.3	.6	.1	.1	.1	.0	.0	.0	.2	.5	.3
.3	.0	.1	.0	.0	.0	.0	.0						
105.	*	.4	.4	.7	.1	.1	.1	.0	.0	.0	.2	.4	.3
.3	.0	.1	.0	.0	.0	.0	.0						
110.	*	.4	.4	.8	.1	.1	.1	.0	.0	.0	.2	.4	.3
.4	.0	.1	.0	.0	.0	.0	.0						
115.	*	.4	.4	.8	.1	.1	.1	.0	.0	.0	.2	.5	.3
.4	.0	.1	.0	.0	.0	.0	.0						
120.	*	.4	.4	.8	.1	.1	.1	.0	.0	.0	.2	.4	.4
.5	.0	.2	.0	.0	.0	.0	.0						
125.	*	.5	.5	.8	.1	.1	.1	.0	.0	.0	.2	.5	.4
.6	.0	.2	.0	.0	.0	.0	.0						
130.	*	.5	.6	.9	.1	.1	.1	.0	.0	.0	.2	.5	.4
.7	.0	.3	.0	.0	.0	.0	.0						
135.	*	.5	.8	1.0	.1	.1	.1	.0	.0	.0	.2	.5	.6
.7	.1	.4	.0	.0	.0	.0	.1						
140.	*	.5	.8	1.0	.1	.1	.1	.0	.0	.0	.0	.6	.7
.7	.1	.5	.0	.0	.0	.3	.1						
145.	*	.5	.6	.8	.1	.1	.1	.0	.0	.0	.0	.6	.8
.7	.4	.7	.0	.0	.0	.4	.3						
150.	*	.3	.5	.8	.1	.1	.1	.0	.0	.0	.0	.5	.7
.4	.6	1.1	.0	.0	.0	.5	.6						
155.	*	.2	.3	.6	.1	.1	.1	.0	.0	.0	.0	.3	.5
.3	.6	1.0	.1	.0	.0	.5	.6						
160.	*	.1	.1	.5	.1	.1	.0	.0	.0	.0	.0	.2	.4
.2	.6	1.1	.1	.0	.0	.5	.6						
165.	*	.1	.1	.4	.1	.1	.0	.0	.0	.0	.0	.2	.3
.1	.5	1.1	.2	.1	.1	.6	.6						
170.	*	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.1	.2
.1	.5	1.0	.2	.1	.2	.7	.4						
175.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.1	.2
.1	.5	1.0	.2	.2	.2	.5	.3						
180.	*	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.1	.2
.0	.5	.9	.2	.2	.2	.5	.3						
185.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	.8	.2	.2	.2	.6	.3						
190.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	.7	.2	.2	.3	.6	.3						
195.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	.7	.3	.2	.3	.6	.3						
200.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	.6	.3	.2	.3	.6	.3						
205.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1
.0	.3	.5	.3	.2	.2	.6	.3						

JOB: CO 2015 PM No-Build Alt-A Stapleton RUN: Vanderbilt Ave & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.3	.6	.4	.3	.3	.6	.2
215.	*	.0	.0	.1	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.3	.6	.4	.3	.1	.6	.2
220.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.3	.7	.4	.3	.1	.5	.2
225.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.3	.7	.5	.3	.2	.5	.2
230.	*	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0	.1	.0	.3	.8	.4	.3	.2	.5	.2
235.	*	.0	.0	.1	.2	.2	.0	.0	.0	.0	.0	.1	.1	.0	.3	.9	.5	.4	.3	.4	.2
240.	*	.0	.0	.1	.1	.1	.0	.0	.0	.2	.2	.3	.1	.0	.3	.8	.4	.3	.2	.4	.2
245.	*	.0	.0	.1	.1	.1	.0	.0	.1	.2	.2	.3	.1	.0	.3	.8	.4	.2	.2	.3	.2
250.	*	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.4	.1	.0	.3	.6	.3	.1	.1	.3	.2
255.	*	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.4	.1	.0	.3	.5	.1	.1	.1	.3	.2
260.	*	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.4	.1	.0	.3	.5	.1	.2	.1	.3	.2
265.	*	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.5	.1	.0	.3	.5	.2	.2	.1	.3	.3
270.	*	.0	.0	.0	.0	.0	.0	.0	.1	.2	.1	.5	.1	.0	.3	.4	.3	.2	.1	.3	.3
275.	*	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.4	.1	.0	.3	.5	.3	.2	.1	.3	.3
280.	*	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.5	.1	.0	.3	.5	.3	.1	.1	.3	.3
285.	*	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.5	.1	.0	.3	.5	.3	.1	.1	.3	.3
290.	*	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.6	.1	.0	.3	.6	.2	.1	.1	.3	.3
295.	*	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.6	.1	.0	.3	.4	.2	.1	.1	.3	.3
300.	*	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.7	.2	.0	.3	.6	.2	.1	.1	.4	.4
305.	*	.0	.1	.2	.0	.0	.0	.0	.1	.1	.1	.8	.2	.1	.5	.6	.2	.1	.0	.4	.4
310.	*	.0	.1	.2	.0	.0	.0	.0	.1	.1	.1	.8	.3	.1	.6	.6	.2	.0	.0	.4	.3
315.	*	.0	.2	.3	.0	.0	.0	.0	.1	.1	.1	.9	.5	.1	.7	.5	.1	.0	.0	.4	.3
320.	*	.0	.2	.5	.0	.0	.0	.0	.1	.1	.1	1.0	.5	.2	.7	.5	.0	.0	.0	.3	.3

```
 325.   *     .1     .3     .7     .0     .0     .0     .0     .1     .1     .1    1.2     .7
.4     .7     .3     .0     .0     .0     .3     .2
 330.   *     .1     .5     .8     .0     .0     .0     .0     .1     .1     .1    1.4     .8
.5     .5     .3     .0     .0     .0     .1     .2
 335.   *     .2     .7    1.0     .0     .0     .0     .0     .1     .1     .1    1.3     .9
.8     .3     .1     .0     .0     .0     .1     .1
 340.   *     .3     .6     .9     .0     .0     .0     .1     .1     .1     .2    1.2     .8
.7     .1     .1     .0     .0     .0     .0     .0
 345.   *     .3     .5     .9     .0     .0     .0     .1     .1     .1     .2    1.0     .7
.5     .1     .1     .0     .0     .0     .0     .0
 350.   *     .3     .4     .8     .0     .0     .0     .1     .1     .1     .2     .8     .6
.5     .0     .0     .0     .0     .0     .0     .0
 355.   *     .3     .4     .8     .0     .0     .0     .1     .1     .1     .2     .8     .6
.5     .0     .0     .0     .0     .0     .0     .0
 360.   *     .3     .4     .9     .0     .0     .0     .1     .1     .1     .2     .5     .6
.3     .0     .0     .0     .0     .0     .0     .0
 ------*-------------------------------------------------------------------------------
-------------------------------------------------
 MAX    *     .5     .8    1.0     .2     .2     .2     .2     .2     .3     .4    1.4     .9
.8     .7    1.1     .5     .4     .3     .7     .6
 DEGR.  *   125    135    135     60     55     65     25     25     25     60    330    335
335    315    150    225    235    190    170    150
```

THE HIGHEST CONCENTRATION OF 1.40 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2015 PM No-Build Alt-A Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 2/27/ 6
TIME : 17:25:50

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*				
	*	X1	Y1	X2	Y2	*				
	*	(FT)	(FT)			*	LENGTH (FT)	BRG (DEG)	TYPE	VPH
1. L1 EDGEWATER ST NB	1*	2485.0	342.0	2312.0	439.0	*	198.	299.	AG	325.
2. L2 EDGEWATER ST NB	2*	2312.0	439.0	2073.0	653.0	*	321.	312.	AG	325.
3. L3 EDGEWATER ST NB	3*	2073.0	653.0	1747.0	962.0	*	449.	313.	AG	453.
4. L3Q EDGEWATER ST NB	*	1747.0	962.0	1772.2	938.1	*	35.	133.	AG	103.
5. L3a EDGEWATER ST NB	*	1747.0	962.0	1613.0	1141.0	*	224.	323.	AG	206.
6. L4a EDGEWATER ST SB	*	2064.0	647.0	1592.0	1130.0	*	675.	316.	AG	151.
7. L4Q EDGEWATER ST SB	*	1592.0	1130.0	1606.9	1114.7	*	21.	136.	AG	192.
8. L4 EDGEWATER ST SB	4*	1735.0	949.0	2064.0	647.0	*	447.	133.	AG	167.
9. L5 EDGEWATER ST SB	5*	2064.0	647.0	2306.0	432.0	*	324.	132.	AG	240.
10. L6 EDGEWATER ST SB	6*	2306.0	432.0	2503.0	310.0	*	232.	122.	AG	240.
11. L7 BAY ST NB	1-2 *	2252.0	18.0	1867.0	710.0	*	792.	331.	AG	706.
12. L8 BAY ST NB	2-4T *	1867.0	710.0	1682.0	992.0	*	337.	327.	AG	618.
13. L8Q BAY ST NB	3-2 *	1720.0	939.0	1745.6	899.2	*	47.	147.	AG	103.
14. L9 BAY ST NB	4T-5 *	1682.0	992.0	1484.0	1339.0	*	400.	330.	AG	701.
15. L9Q BAY ST NB	5-4T *	1484.0	1339.0	1510.5	1292.5	*	54.	150.	AG	103.
16. L10 BAY ST NB	5-6 *	1484.0	1339.0	1264.0	1654.0	*	384.	325.	AG	628.

LINK DESCRIPTION	EF	H	W	V/C	QUEUE
	(G/MI)	(FT)	(FT)		(VEH)
1. L1 EDGEWATER ST NB	7.9	.0	32.0		
2. L2 EDGEWATER ST NB	7.9	.0	32.0		
3. L3 EDGEWATER ST NB	7.9	.0	32.0		
4. L3Q EDGEWATER ST NB	100.0	.0	30.0	.15	1.8
5. L3a EDGEWATER ST NB	7.9	.0	32.0		
6. L4a EDGEWATER ST SB	7.9	.0	32.0		
7. L4Q EDGEWATER ST SB	100.0	.0	30.0	.10	1.1
8. L4 EDGEWATER ST SB	7.9	.0	32.0		
9. L5 EDGEWATER ST SB	7.9	.0	32.0		
10. L6 EDGEWATER ST SB	7.9	.0	32.0		
11. L7 BAY ST NB 1-2	6.4	.0	32.0		
12. L8 BAY ST NB 2-4T	9.6	.0	32.0		
13. L8Q BAY ST NB 3-2	100.0	.0	30.0	.21	2.4
14. L9 BAY ST NB 4T-5	6.8	.0	32.0		
15. L9Q BAY ST NB 5-4T	100.0	.0	30.0	.24	2.7
16. L10 BAY ST NB 5-6	4.4	.0	32.0		

```
      17. L11 BAY ST NB 6-7   *   1264.0    1654.0    1049.0    2127.0 *
520.   336. AG    628.   4.1     .0 32.0
      18. L12 BAY ST SB 1-2   *   1030.0    2123.0    1244.0    1644.0 *
525.   156. AG    676.   3.4     .0 32.0
      19. L13 BAY ST SB 2-3   *   1244.0    1644.0    1445.0    1358.0 *
350.   145. AG    676.   8.5     .0 32.0
      20. L13Q BAY ST SB 3-2  *   1445.0    1358.0    1415.3    1400.3 *
52.    325. AG    103. 100.0     .0 30.0  .23   2.6
      21. L14 BAY ST SB 3-1T  *   1445.0    1358.0    1661.0     964.0 *
449.   151. AG    560.   7.9     .0 32.0
      22. L14Q BAY ST SB 1T-3 *   1661.0     964.0    1640.5    1001.5 *
43.    331. AG    103. 100.0     .0 30.0  .19   2.2
      23. L15 BAY ST SB 1T-2  *   1661.0     964.0    1830.0     731.0 *
288.   144. AG    705.   3.5     .0 32.0
      24. L16 BAY ST SB 2-3   *   1830.0     731.0    2218.0      32.0 *
799.   151. AG    753.   4.5     .0 32.0
      25. L18 GREENFIELD AVE W*   1645.0     963.0    1158.0     437.0 *
717.   223. AG    177.   7.9     .0 32.0
      26. L19 VANDERBILT AVE E*    885.0     932.0    1459.0    1322.0 *
694.    56. AG    165.   6.8     .0 32.0
      27. L19Q VANDERBILT AVE *   1459.0    1322.0    1439.6    1308.8 *
23.    236. AG    192. 100.0     .0 30.0  .11   1.2
      28. L22 VANDERBILT AVE W*   1458.0    1351.0     874.0     954.0 *
706.   236. AG    362.   6.8     .0 32.0
```

JOB: CO 2015 PM No-Build Alt-A Stapleton RUN: Greenfield Ave & Bay ST Intersection

DATE : 2/27/ 6
TIME : 17:25:50

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. L3Q EDGEWATER ST NB	*	120	42	2.0	453	1600	36.74	1	3
7. L4Q EDGEWATER ST SB	*	120	78	2.0	151	1600	36.74	1	3
13. L8Q BAY ST NB 3-2	*	120	42	2.0	618	1600	36.74	1	3
15. L9Q BAY ST NB 5-4T	*	120	42	2.0	701	1600	36.74	1	3
20. L13Q BAY ST SB 3-2	*	120	42	2.0	676	1600	36.74	1	3
22. L14Q BAY ST SB 1T-3	*	120	42	2.0	560	1600	36.74	1	3
27. L19Q VANDERBILT AVE	*	120	78	2.0	165	1600	36.74	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC G1	*	1570.0	1110.0	6.0	*
2. REC G2	*	1624.0	966.0	6.0	*
3. REC G3	*	1463.0	787.0	6.0	*
4. REC G4	*	1175.0	485.0	6.0	*
5. REC G5	*	1199.0	437.0	6.0	*
6. REC G6	*	1478.0	738.0	6.0	*
7. REC G7	*	1665.0	932.0	6.0	*
8. REC G8	*	1728.0	842.0	6.0	*
9. REC G9	*	1814.0	728.0	6.0	*
10. REC G10	*	1946.0	606.0	6.0	*
11. REC G11	*	1889.0	716.0	6.0	*
12. REC G12	*	1931.0	760.0	6.0	*
13. REC G13	*	2036.0	658.0	6.0	*
14. REC G14	*	2065.0	687.0	6.0	*
15. REC G15	*	1922.0	819.0	6.0	*
16. REC G16	*	1744.0	925.0	6.0	*
17. REC G17	*	1814.0	841.0	6.0	*
18. REC G18	*	1717.0	1010.0	6.0	*
19. REC G19	*	1691.0	1039.0	6.0	*

20. REC	G20		*	1577.0	1215.0	6.0	*

JOB: CO 2015 PM No-Build Alt-A Stapleton Ave & Bay ST Intersection

RUN: Greenfield

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	* .4	.3	.0	.0	.0	.0	.5	.5	.3	.1	.1	.2	.2	.0	.0	.3	.1	.0	.0	.0
5.	* .3	.3	.0	.0	.0	.0	.4	.6	.3	.0	.1	.1	.2	.0	.0	.3	.1	.0	.0	.0
10.	* .3	.4	.0	.0	.1	.1	.4	.6	.3	.0	.1	.1	.1	.0	.0	.3	.1	.0	.0	.0
15.	* .3	.3	.0	.0	.1	.1	.4	.5	.3	.0	.1	.1	.1	.0	.0	.3	.1	.0	.0	.0
20.	* .3	.3	.0	.0	.1	.1	.2	.4	.3	.0	.1	.1	.1	.0	.0	.4	.1	.0	.0	.0
25.	* .3	.4	.0	.0	.1	.1	.2	.4	.3	.0	.1	.1	.1	.0	.0	.4	.1	.0	.0	.0
30.	* .4	.4	.0	.0	.1	.1	.2	.3	.3	.0	.1	.1	.1	.0	.0	.4	.1	.0	.0	.0
35.	* .3	.4	.1	.0	.1	.0	.2	.3	.3	.0	.1	.1	.1	.0	.0	.4	.1	.0	.0	.0
40.	* .3	.4	.1	.1	.1	.0	.2	.3	.3	.0	.1	.1	.1	.0	.0	.4	.1	.0	.0	.0
45.	* .4	.5	.1	.1	.0	.0	.2	.3	.3	.0	.1	.1	.1	.0	.0	.4	.1	.0	.0	.0
50.	* .5	.5	.1	.1	.0	.0	.2	.3	.3	.0	.1	.1	.1	.0	.0	.3	.1	.0	.0	.0
55.	* .6	.5	.1	.1	.0	.0	.2	.3	.3	.0	.1	.1	.1	.0	.0	.3	.1	.0	.0	.0
60.	* .6	.5	.1	.1	.0	.0	.2	.3	.3	.0	.1	.1	.1	.0	.0	.3	.1	.0	.0	.0
65.	* .6	.5	.1	.1	.0	.0	.3	.3	.2	.0	.1	.1	.1	.0	.0	.2	.1	.0	.0	.0
70.	* .6	.5	.1	.1	.0	.0	.3	.3	.2	.0	.1	.1	.1	.0	.0	.2	.1	.0	.0	.0
75.	* .6	.5	.1	.1	.0	.0	.4	.3	.3	.0	.1	.1	.1	.0	.0	.2	.1	.0	.0	.0
80.	* .5	.4	.1	.1	.0	.0	.5	.3	.3	.0	.1	.1	.1	.0	.0	.3	.1	.0	.0	.0
85.	* .5	.4	.1	.1	.0	.0	.5	.3	.4	.0	.1	.1	.1	.0	.0	.3	.1	.0	.0	.0

90.	*	.4	.5	.1	.1	.0	.0	.6	.3	.4	.0	.1	.1
.1	.0	.0	.2	.1	.0	.0	.0						
95.	*	.5	.4	.1	.1	.0	.0	.5	.3	.3	.0	.1	.4
.2	.0	.0	.2	.2	.0	.0	.0						
100.	*	.4	.6	.1	.0	.0	.0	.5	.4	.2	.0	.1	.4
.2	.0	.0	.2	.2	.0	.0	.0						
105.	*	.4	.5	.0	.0	.0	.0	.6	.4	.3	.0	.1	.4
.2	.0	.0	.2	.2	.0	.0	.0						
110.	*	.4	.5	.0	.0	.0	.0	.5	.4	.3	.0	.0	.4
.3	.0	.0	.3	.2	.0	.0	.0						
115.	*	.4	.4	.0	.0	.0	.0	.5	.4	.3	.0	.0	.4
.3	.0	.0	.3	.2	.0	.1	.0						
120.	*	.4	.5	.0	.0	.0	.0	.5	.3	.4	.0	.0	.4
.2	.0	.1	.4	.2	.1	.2	.0						
125.	*	.5	.5	.0	.0	.0	.0	.6	.3	.3	.0	.0	.4
.2	.1	.1	.5	.2	.4	.3	.0						
130.	*	.7	.2	.0	.0	.0	.0	.4	.3	.4	.0	.0	.3
.2	.1	.1	.4	.1	.4	.3	.0						
135.	*	.6	.2	.0	.0	.0	.0	.4	.4	.4	.0	.0	.3
.2	.2	.2	.4	.0	.5	.4	.0						
140.	*	.6	.4	.0	.0	.0	.0	.5	.4	.5	.1	.1	.2
.1	.2	.3	.5	.0	.5	.5	.1						
145.	*	.7	.3	.0	.0	.0	.0	.4	.3	.5	.2	.1	.1
.0	.3	.3	.8	.2	.7	.6	.2						
150.	*	.5	.0	.0	.0	.0	.0	.3	.3	.4	.4	.3	.1
.0	.3	.4	.8	.3	.7	.9	.3						
155.	*	.4	.0	.0	.0	.0	.0	.1	.1	.3	.4	.4	.1
.0	.3	.5	.9	.3	.9	.7	.5						
160.	*	.2	.0	.0	.0	.0	.0	.0	.0	.1	.4	.4	.2
.0	.3	.5	1.0	.4	.8	.5	.6						
165.	*	.2	.1	.1	.0	.0	.0	.0	.0	.1	.4	.4	.2
.1	.3	.5	.8	.4	.5	.6	.5						
170.	*	.1	.1	.1	.0	.0	.0	.0	.0	.0	.4	.4	.2
.1	.2	.5	.8	.3	.6	.6	.5						
175.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.4	.3	.2
.2	.2	.5	.7	.2	.5	.4	.5						
180.	*	.1	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.2	.2	.3	.7	.3	.5	.4	.4						
185.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.3	.7	.3	.5	.2	.3						
190.	*	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.3	.8	.3	.3	.2	.3						
195.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.3	.7	.3	.2	.3	.3						
200.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.2	.7	.3	.2	.2	.3						
205.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2
.1	.2	.1	.7	.3	.2	.3	.3						

JOB: CO 2015 PM No-Build Alt-A Stapleton Ave & Bay ST Intersection RUN: Greenfield

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3	.2	.1	.2	.2	.7	.3	.2	.3	.3
215.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.2	.2	.1	.2	.2	.7	.3	.1	.5	.3
220.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.1	.1	.2	.2	.7	.3	.1	.5	.2
225.	*	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2	.1	.1	.1	.2	.7	.3	.3	.3	.2
230.	*	.0	.0	.1	.0	.0	.1	.1	.0	.0	.2	.2	.0	.1	.1	.2	.6	.3	.3	.3	.2
235.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.2	.1	.1	.1	.2	.7	.3	.3	.3	.3
240.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.2	.1	.1	.1	.2	.7	.3	.3	.3	.3
245.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.2	.1	.1	.1	.2	.7	.3	.5	.2	.3
250.	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	.3	.1	.1	.1	.2	.7	.3	.3	.2	.3
255.	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.3	.1	.1	.1	.2	.7	.3	.3	.2	.2
260.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.1	.1	.1	.2	.7	.3	.3	.2	.2
265.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.1	.1	.1	.2	.7	.3	.3	.2	.3
270.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1	.1	.1	.3	.7	.3	.3	.2	.3
275.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1	.1	.2	.4	.7	.3	.2	.2	.3
280.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1	.1	.2	.4	.7	.3	.4	.3	.3
285.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.1	.0	.4	.5	.8	.3	.4	.5	.3
290.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.1	.1	.5	.5	.8	.3	.4	.5	.3
295.	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.2	.1	.5	.5	.8	.3	.4	.5	.3
300.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.2	.2	.5	.4	.8	.5	.5	.5	.3
305.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.3	.4	.5	.4	.8	.5	.5	.6	.4
310.	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	.4	.4	.3	.5	.9	.5	.6	.6	.7
315.	*	.1	.0	.0	.0	.0	.0	.1	.0	.1	.5	.4	.6	.5	.2	.4	.9	.5	.6	.6	.7
320.	*	.2	.0	.0	.0	.0	.0	.2	.2	.1	.4	.5	.5	.4	.1	.1	.9	.5	.5	.6	.6

```
 325.   *     .4     .1     .0     .0     .0     .0     .3     .3     .4     .3     .3     .4
.4     .1     .1     .9     .5     .4     .5     .5
 330.   *     .5     .1     .0     .0     .0     .0     .6     .4     .5     .3     .2     .4
.4     .0     .0     .7     .5     .3     .3     .5
 335.   *     .6     .2     .0     .0     .0     .0     .7     .5     .5     .2     .2     .4
.4     .0     .0     .5     .3     .1     .2     .2
 340.   *     .6     .3     .0     .0     .0     .0     .7     .4     .4     .2     .1     .4
.4     .0     .0     .4     .3     .1     .1     .1
 345.   *     .4     .4     .0     .0     .0     .0     .7     .4     .4     .1     .1     .4
.4     .0     .0     .4     .2     .1     .1     .0
 350.   *     .5     .4     .0     .0     .0     .0     .7     .4     .3     .1     .1     .4
.4     .0     .0     .3     .1     .0     .1     .0
 355.   *     .5     .4     .0     .0     .0     .0     .5     .4     .3     .1     .1     .2
.3     .0     .0     .2     .1     .0     .1     .0
 360.   *     .4     .3     .0     .0     .0     .0     .5     .5     .3     .1     .1     .2
.2     .0     .0     .3     .1     .0     .0     .0
 ------*-------------------------------------------------------------------------------
-------------------------------------------------
 MAX    *     .7     .6     .1     .1     .1     .1     .7     .6     .5     .5     .5     .6
.5     .5     .5    1.0     .5     .9     .9     .7
 DEGR.  *   130    100     35     40     10     10    335      5    140    315    320    315
315    290    155    160    300    155    150    310
```

THE HIGHEST CONCENTRATION OF 1.00 PPM OCCURRED AT RECEPTOR REC16.

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Hanna & Bay ST Intersection

DATE : 2/28/ 6
TIME : 17:51:51

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION	*	LINK COORDINATES (FT)				*			
LENGTH (FT)	BRG (DEG)	TYPE	VPH (G/MI)	EF	H (FT)	W (FT)	*	X1	Y1	X2	Y2	*	V/C	QUEUE (VEH)
358.	1. L1 BAY ST NB UP 1-2	*	950.0	2917.0	1082.0	3250.0	*							
	22. AG		538.	3.3	.0	40.0								
203.	2. L2 BAY ST NB UP 2-3	*	1082.0	3250.0	1146.0	3443.0	*							
	18. AG		538.	3.3	.0	40.0								
314.	3. L3 BAY ST NB UP 3-4	*	1146.0	3443.0	1058.0	3744.0	*							
	344. AG		653.	3.4	.0	40.0								
75.	4. L3Q BAY ST NB UP 3-4	*	1058.0	3744.0	1079.0	3672.1	*							
	164. AG		69.	100.0	.0	20.0	.33	3.8						
185.	5. L4 BAY ST NB UP 4-5	*	1058.0	3744.0	982.0	3913.0	*							
	336. AG		914.	6.9	.0	40.0								
167.	6. L5 BAY ST NB UP 5-6	*	982.0	3913.0	1020.0	4076.0	*							
	13. AG		908.	6.9	.0	40.0								
104.	7. L5Q BAY ST NB UP 5-6	*	1020.0	4076.0	996.3	3974.5	*							
	193. AG		69.	100.0	.0	20.0	.46	5.3						
323.	8. L6 BAY ST NB UP 6-7	*	1020.0	4076.0	1076.0	4394.0	*							
	10. AG		907.	6.9	.0	40.0								
320.	9. L7 BAY ST SB UP 1-2	*	1055.0	4396.0	1006.0	4080.0	*							
	189. AG		1254.	3.7	.0	40.0								
144.	10. L7Q BAY ST SB UP 1-2	*	1006.0	4080.0	1028.1	4222.3	*							
	9. AG		69.	100.0	.0	20.0	.64	7.3						
188.	11. L8 BAY ST SB UP 2-3	*	1006.0	4080.0	952.0	3900.0	*							
	197. AG		995.	3.7	.0	40.0								
163.	12. L9 BAY ST SB UP 3-4	*	952.0	3900.0	1016.0	3750.0	*							
	157. AG		1197.	3.7	.0	40.0								
137.	13. L9Q BAY ST SB UP 3-4	*	1016.0	3750.0	962.1	3876.3	*							
	337. AG		69.	100.0	.0	20.0	.61	7.0						
319.	14. L10 BAY ST SB UP 4-5	*	1016.0	3750.0	1113.0	3446.0	*							
	162. AG		770.	4.0	.0	40.0								
192.	15. L11 BAY ST SB UP 5-6	*	1113.0	3446.0	1075.0	3258.0	*							
	191. AG		745.	3.4	.0	40.0								
367.	16. L12 BAY ST SB UP 6-7	*	1075.0	3258.0	943.0	2916.0	*							
	201. AG		745.	3.4	.0	40.0								

	17. L13 HANNAH ST 1-2 WB*	1120.0	3789.0	1035.0	3758.0	*		
90.	250. AG	420.	6.9	.0	32.0			
	18. L13Q HANNAH ST 1-2 W*	1035.0	3758.0	1217.0	3824.4	*		
194.	70. AG	64.	100.0	.0	12.0	.83	9.8	
	19. L14 HANNAH ST 2-3 WB*	1035.0	3758.0	885.0	3708.0	*		
158.	252. AG	314.	6.9	.0	32.0			
	20. L15 HANNAH ST 3-4 WB*	885.0	3708.0	703.0	3659.0	*		
188.	255. AG	314.	6.9	.0	32.0			
	21. L13a HANNAH ST 1-2 E*	709.0	3649.0	890.0	3698.0	*		
188.	75. AG	78.	6.9	.0	32.0			
	22. L14a HANNAH ST 2-3 E*	890.0	3698.0	1036.0	3748.0	*		
154.	71. AG	78.	6.9	.0	32.0			
	23. L14aQ HANNAH ST 2-3 *	1036.0	3748.0	1004.5	3737.2	*		
33.	251. AG	64.	100.0	.0	12.0	.15	1.7	
	24. L15a HANNAH ST 3-4 E*	1036.0	3748.0	1125.0	3779.0	*		
94.	71. AG	358.	6.9	.0	32.0			
	25. L16 VICTORY BLVD EB *	680.0	4164.0	860.0	4082.0	*		
198.	114. AG	216.	6.9	.0	40.0			
	26. L17 VICTORY BLVD EB *	860.0	4082.0	988.0	4068.0	*		
129.	96. AG	216.	6.9	.0	40.0			
	27. L17Q VICTORY BLVD EB*	988.0	4068.0	942.2	4073.0	*		
46.	276. AG	128.	100.0	.0	20.0	.21	2.3	
	28. L18 VICTORY BLVD EB *	988.0	4068.0	1373.0	4104.0	*		
387.	85. AG	7.	6.9	.0	40.0			
	29. L19 VICTORY BLVD WB *	1374.0	4136.0	1040.0	4091.0	*		
337.	262. AG	26.	6.9	.0	40.0			
	30. L19Q VICTORY BLVD WB*	1040.0	4091.0	1045.5	4091.7	*		
6.	82. AG	128.	100.0	.0	20.0	.03	.3	
	31. L20 VICTORY BLVD WB *	1040.0	4091.0	878.0	4101.0	*		
162.	274. AG	495.	6.9	.0	40.0			
	32. L21 VICTORY BLVD WB *	878.0	4101.0	677.0	4179.0	*		
216.	291. AG	495.	6.9	.0	40.0			

JOB: CO 2015 PM Build Alt-A Stapleton ST Intersection

RUN: Hanna & Bay

DATE : 2/28/ 6
TIME : 17:51:51

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	FLOW (VPH)	SATURATION RATE (gm/hr)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	653	1600	36.74	1	3	
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	908	1600	36.74	1	3	
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	1254	1600	36.74	1	3	
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	1197	1600	36.74	1	3	
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	420	1600	36.74	1	3	
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	78	1600	36.74	1	3	
27. L17Q VICTORY BLVD EB	*	120	78	2.0	216	1600	36.74	1	3	
30. L19Q VICTORY BLVD WB	*	120	78	2.0	26	1600	36.74	1	3	

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC H1	*	1133.0	3803.0	6.0	*
2. REC H2	*	1059.0	3786.0	6.0	*
3. REC H3	*	1023.0	3868.0	6.0	*
4. REC H4	*	926.0	3899.0	6.0	*
5. REC H5	*	978.0	3762.0	6.0	*
6. REC H6	*	899.0	3738.0	6.0	*
7. REC H7	*	857.0	3729.0	6.0	*
8. REC H8	*	716.0	3681.0	6.0	*
9. REC H9	*	711.0	3624.0	6.0	*
10. REC H10	*	788.0	3645.0	6.0	*
11. REC H11	*	873.0	3673.0	6.0	*
12. REC H12	*	916.0	3685.0	6.0	*
13. REC H13	*	1007.0	3720.0	6.0	*
14. REC H14	*	1025.0	3634.0	6.0	*
15. REC H15	*	955.0	3608.0	6.0	*
16. REC H16	*	1135.0	3620.0	6.0	*
17. REC H17	*	1099.0	3714.0	6.0	*

18. REC	H18	*	1085.0	3750.0	6.0	*
19. REC	H19	*	1148.0	3772.0	6.0	*

JOB: CO 2015 PM Build Alt-A Stapleton ST Intersection RUN: Hanna & Bay

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
0.	*	.0	.1	.5	.0	.7	.0	.0	.0	.0	.1	.1	.1	1.0	.4	.1	.1	.3	.4	.1									
5.	*	.0	.1	.4	.1	.9	.0	.0	.0	.1	.1	.1	.1	1.0	.2	.2	.1	.1	.3	.1									
10.	*	.0	.0	.1	.3	.7	.0	.0	.0	.1	.1	.0	.2	.9	.2	.3	.1	.1	.4	.1									
15.	*	.0	.0	.0	.5	.7	.3	.0	.0	.1	.1	.0	.5	.8	.4	.3	.0	.1	.4	.2									
20.	*	.0	.0	.0	.6	.5	.3	.1	.0	.1	.1	.1	.5	.8	.4	.2	.0	.1	.4	.2									
25.	*	.0	.0	.0	.7	.4	.2	.2	.0	.1	.1	.1	.4	.7	.3	.1	.0	.1	.4	.2									
30.	*	.0	.0	.0	.5	.4	.4	.1	.0	.1	.1	.3	.4	.6	.3	.1	.0	.1	.4	.2									
35.	*	.0	.0	.0	.5	.4	.3	.1	.0	.1	.1	.4	.4	.5	.3	.1	.0	.1	.4	.2									
40.	*	.0	.0	.0	.5	.4	.3	.1	.0	.1	.1	.4	.4	.6	.3	.1	.0	.1	.4	.2									
45.	*	.0	.0	.0	.5	.4	.3	.2	.0	.1	.1	.3	.4	.7	.2	.2	.0	.1	.4	.2									
50.	*	.0	.0	.0	.3	.4	.3	.3	.0	.1	.1	.3	.3	.7	.2	.1	.0	.0	.4	.1									
55.	*	.0	.0	.0	.2	.4	.3	.3	.0	.1	.1	.2	.3	.7	.2	.1	.0	.0	.3	.1									
60.	*	.1	.0	.0	.2	.4	.3	.3	.0	.1	.0	.3	.2	.6	.1	.0	.0	.0	.2	.1									
65.	*	.1	.1	.0	.2	.5	.3	.3	.0	.1	.0	.2	.1	.6	.1	.0	.0	.0	.2	.0									
70.	*	.2	.2	.0	.2	.5	.4	.3	.1	.0	.0	.1	.1	.4	.1	.0	.0	.0	.2	.0									
75.	*	.3	.3	.0	.3	.7	.4	.3	.1	.0	.0	.0	.1	.2	.1	.0	.0	.0	.1	.0									
80.	*	.4	.3	.0	.3	.7	.4	.2	.1	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0									
85.	*	.4	.4	.0	.3	.8	.2	.2	.1	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0									

90.	*	.4	.4	.0	.3	.8	.1	.1	.1	.0	.0	.0	.0
.2	.1	.0	.0	.0	.0	.0							
95.	*	.4	.4	.0	.2	.7	.1	.1	.1	.0	.0	.0	.0
.2	.1	.0	.0	.0	.0	.0							
100.	*	.3	.4	.0	.2	.6	.2	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
105.	*	.3	.4	.1	.2	.6	.1	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
110.	*	.3	.4	.1	.2	.6	.1	.1	.1	.0	.0	.0	.0
.3	.1	.1	.0	.0	.0	.0							
115.	*	.3	.4	.1	.5	.6	.1	.1	.1	.0	.0	.0	.0
.3	.1	.1	.0	.0	.0	.0							
120.	*	.3	.4	.1	.6	.5	.2	.0	.1	.0	.0	.0	.0
.3	.2	.1	.0	.0	.0	.0							
125.	*	.3	.4	.1	.6	.4	.2	.0	.1	.0	.0	.0	.1
.3	.2	.0	.0	.0	.0	.0							
130.	*	.2	.4	.1	.6	.5	.2	.0	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
135.	*	.2	.4	.1	.5	.5	.1	.0	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
140.	*	.2	.5	.2	.5	.3	.1	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
145.	*	.2	.5	.2	.5	.3	.1	.1	.1	.0	.0	.0	.0
.3	.2	.0	.0	.0	.0	.0							
150.	*	.2	.5	.3	.5	.2	.1	.1	.1	.0	.0	.0	.0
.3	.1	.0	.0	.0	.0	.0							
155.	*	.2	.7	.3	.3	.2	.1	.1	.1	.0	.0	.0	.0
.2	.1	.0	.0	.0	.0	.0							
160.	*	.2	.8	.6	.3	.2	.1	.1	.1	.0	.0	.0	.0
.2	.1	.0	.0	.0	.0	.0							
165.	*	.2	.8	.7	.0	.2	.1	.1	.1	.0	.0	.0	.0
.2	.1	.0	.0	.1	.1	.0							
170.	*	.2	1.0	.6	.0	.1	.1	.1	.1	.0	.0	.0	.0
.1	.0	.0	.0	.1	.1	.0							
175.	*	.2	1.0	.5	.0	.1	.1	.1	.1	.0	.0	.0	.0
.1	.0	.0	.0	.1	.3	.0							
180.	*	.2	1.0	.6	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.1	.2	.3	.0							
185.	*	.2	.9	.5	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.1	.2	.3	.0							
190.	*	.2	.8	.5	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.1	.2	.4	.0							
195.	*	.3	.8	.5	.0	.1	.1	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.2	.4	.0							
200.	*	.3	.7	.5	.0	.1	.0	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.3	.4	.0							
205.	*	.5	.7	.4	.0	.1	.0	.1	.1	.0	.0	.0	.0
.0	.0	.0	.2	.3	.4	.0							

JOB: CO 2015 PM Build Alt-A Stapleton ST Intersection RUN: Hanna & Bay

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19
210.	* .6	.8	.4	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.3	.4	.0	
215.	* .6	.6	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.3	.4	.1	
220.	* .6	.6	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1	
225.	* .7	.6	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1	
230.	* .7	.7	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1	
235.	* .7	.7	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1	
240.	* .7	.6	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.1	
245.	* .6	.5	.4	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.2	
250.	* .6	.5	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.2	
255.	* .5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.6	.4	
260.	* .5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	.4	.5	.4	
265.	* .4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.2	.4	.5	.4	
270.	* .3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.2	.4	.7	.6	
275.	* .3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.2	.4	.9	.7	
280.	* .3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.2	.4	.7	.7	
285.	* .3	.4	.3	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.2	.4	.7	.7	
290.	* .3	.5	.3	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.2	.5	.7	.7	
295.	* .1	.5	.4	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.2	.7	.8	.6	
300.	* .1	.5	.3	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.2	.5	.8	.4	
305.	* .1	.5	.4	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.2	.5	.8	.3	
310.	* .0	.5	.4	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.3	.6	.8	.2	
315.	* .1	.6	.4	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.3	.7	.8	.1	
320.	* .1	.5	.4	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.5	.7	.8	.2	

```
 325.   *     .1     .4     .4     .0     .0     .0     .0     .0     .0     .1     .1     .1
.1     .0     .0     .5     .7     .6     .2
 330.   *     .1     .4     .4     .0     .0     .0     .0     .0     .0     .1     .1     .1
.3     .0     .0     .3     .5     .6     .2
 335.   *     .1     .4     .4     .0     .0     .0     .0     .0     .0     .1     .1     .1
.3     .0     .0     .2     .6     .5     .1
 340.   *     .1     .3     .4     .0     .1     .0     .0     .0     .0     .1     .1     .1
.6     .2     .0     .2     .5     .5     .1
 345.   *     .1     .3     .6     .0     .2     .0     .0     .0     .0     .1     .1     .1
.8     .4     .0     .1     .5     .4     .2
 350.   *     .1     .3     .5     .0     .2     .0     .0     .0     .0     .1     .1     .1
1.0     .4     .0     .1     .4     .4     .2
 355.   *     .1     .4     .7     .0     .7     .0     .0     .0     .0     .1     .1     .1
1.0     .5     .0     .1     .4     .4     .1
 360.   *     .0     .1     .5     .0     .7     .0     .0     .0     .0     .1     .1     .1
1.0     .4     .1     .1     .3     .4     .1
 ------*-------------------------------------------------------------------------------
-----------------------------------------
 MAX    *     .7    1.0     .7     .7     .9     .4     .3     .1     .1     .1     .4     .5
1.0     .5     .3     .5     .7     .9     .7
 DEGR.  *   225    170    165     25      5     30     50     70      5      0     35     15
350    355     10    320    295    275    275
```

THE HIGHEST CONCENTRATION OF 1.00 PPM OCCURRED AT RECEPTOR REC13.

JOB: CO 2015 PM No-Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 2/27/ 6
TIME : 16:52:47

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 5 (E) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)	LINK COORDINATES (FT) X1	Y1	X2	Y2
1. L1 BAY ST NB UP 1-2	358.	22.	AG	538.	3.3	.0	40.0			950.0	2917.0	1082.0	3250.0
2. L2 BAY ST NB UP 2-3	203.	18.	AG	538.	3.3	.0	40.0			1082.0	3250.0	1146.0	3443.0
3. L3 BAY ST NB UP 3-4	314.	344.	AG	653.	3.4	.0	40.0			1146.0	3443.0	1058.0	3744.0
4. L3Q BAY ST NB UP 3-4	75.	164.	AG	69.	100.0	.0	20.0	.33	3.8	1058.0	3744.0	1079.0	3672.1
5. L4 BAY ST NB UP 4-5	185.	336.	AG	914.	6.9	.0	40.0			1058.0	3744.0	982.0	3913.0
6. L5 BAY ST NB UP 5-6	167.	13.	AG	908.	6.9	.0	40.0			982.0	3913.0	1020.0	4076.0
7. L5Q BAY ST NB UP 5-6	104.	193.	AG	69.	100.0	.0	20.0	.46	5.3	1020.0	4076.0	996.3	3974.5
8. L6 BAY ST NB UP 6-7	323.	10.	AG	907.	6.9	.0	40.0			1020.0	4076.0	1076.0	4394.0
9. L7 BAY ST SB UP 1-2	320.	189.	AG	1254.	3.7	.0	40.0			1055.0	4396.0	1006.0	4080.0
10. L7Q BAY ST SB UP 1-2	144.	9.	AG	69.	100.0	.0	20.0	.64	7.3	1006.0	4080.0	1028.1	4222.3
11. L8 BAY ST SB UP 2-3	188.	197.	AG	995.	3.7	.0	40.0			1006.0	4080.0	952.0	3900.0
12. L9 BAY ST SB UP 3-4	163.	157.	AG	1197.	3.7	.0	40.0			952.0	3900.0	1016.0	3750.0
13. L9Q BAY ST SB UP 3-4	137.	337.	AG	69.	100.0	.0	20.0	.61	7.0	1016.0	3750.0	962.1	3876.3
14. L10 BAY ST SB UP 4-5	319.	162.	AG	770.	4.0	.0	40.0			1016.0	3750.0	1113.0	3446.0
15. L11 BAY ST SB UP 5-6	192.	191.	AG	745.	3.4	.0	40.0			1113.0	3446.0	1075.0	3258.0
16. L12 BAY ST SB UP 6-7	367.	201.	AG	745.	3.4	.0	40.0			1075.0	3258.0	943.0	2916.0

```
      17. L13 HANNAH ST 1-2 WB*    1120.0     3789.0     1035.0     3758.0 *
90.   250. AG     420.   6.9     .0 32.0
      18. L13Q HANNAH ST 1-2 W*    1035.0     3758.0     1217.0     3824.4 *
194.   70. AG      64. 100.0     .0 12.0  .83   9.8
      19. L14 HANNAH ST 2-3 WB*    1035.0     3758.0      885.0     3708.0 *
158.  252. AG     314.   6.9     .0 32.0
      20. L15 HANNAH ST 3-4 WB*     885.0     3708.0      703.0     3659.0 *
188.  255. AG     314.   6.9     .0 32.0
      21. L13a HANNAH ST 1-2 E*     709.0     3649.0      890.0     3698.0 *
188.   75. AG      78.   6.9     .0 32.0
      22. L14a HANNAH ST 2-3 E*     890.0     3698.0     1036.0     3748.0 *
154.   71. AG      78.   6.9     .0 32.0
      23. L14aQ HANNAH ST 2-3 *    1036.0     3748.0     1004.5     3737.2 *
33.   251. AG      64. 100.0     .0 12.0  .15   1.7
      24. L15a HANNAH ST 3-4 E*    1036.0     3748.0     1125.0     3779.0 *
94.    71. AG     358.   6.9     .0 32.0
      25. L16 VICTORY BLVD EB *     680.0     4164.0      860.0     4082.0 *
198.  114. AG     216.   6.9     .0 40.0
      26. L17 VICTORY BLVD EB *     860.0     4082.0      988.0     4068.0 *
129.   96. AG     216.   6.9     .0 40.0
      27. L17Q VICTORY BLVD EB*     988.0     4068.0      942.2     4073.0 *
46.   276. AG     128. 100.0     .0 20.0  .21   2.3
      28. L18 VICTORY BLVD EB *     988.0     4068.0     1373.0     4104.0 *
387.   85. AG       7.   6.9     .0 40.0
      29. L19 VICTORY BLVD WB *    1374.0     4136.0     1040.0     4091.0 *
337.  262. AG      26.   6.9     .0 40.0
      30. L19Q VICTORY BLVD WB*    1040.0     4091.0     1045.5     4091.7 *
6.    82. AG     128. 100.0     .0 20.0  .03     .3
      31. L20 VICTORY BLVD WB *    1040.0     4091.0      878.0     4101.0 *
162.  274. AG     495.   6.9     .0 40.0
      32. L21 VICTORY BLVD WB *     878.0     4101.0      677.0     4179.0 *
216.  291. AG     495.   6.9     .0 40.0
```

JOB: CO 2015 PM No-Build Alt-A Stapleton BLvd & Bay ST Intersection RUN: Victory

DATE : 2/27/ 6
TIME : 16:52:47

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE	RATE (gm/hr)
4. L3Q BAY ST NB UP 3-4	120	42	2.0	653	1600	1	3		36.74
7. L5Q BAY ST NB UP 5-6	120	42	2.0	908	1600	1	3		36.74
10. L7Q BAY ST SB UP 1-2	120	42	2.0	1254	1600	1	3		36.74
13. L9Q BAY ST SB UP 3-4	120	42	2.0	1197	1600	1	3		36.74
18. L13Q HANNAH ST 1-2 W	120	78	2.0	420	1600	1	3		36.74
23. L14aQ HANNAH ST 2-3	120	78	2.0	78	1600	1	3		36.74
27. L17Q VICTORY BLVD EB	120	78	2.0	216	1600	1	3		36.74
30. L19Q VICTORY BLVD WB	120	78	2.0	26	1600	1	3		36.74

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC V1	1328.0	4151.0	6.0
2. REC V2	1235.0	4141.0	6.0
3. REC V3	1041.0	4131.0	6.0
4. REC V4	1069.0	4277.0	6.0
5. REC V5	1094.0	4402.0	6.0
6. REC V6	1008.0	4231.0	6.0
7. REC V7	1040.0	4396.0	6.0
8. REC V8	966.0	4116.0	6.0
9. REC V9	888.0	4115.0	6.0
10. REC V10	839.0	4137.0	6.0
11. REC V11	1025.0	4034.0	6.0
12. REC V12	891.0	3999.0	6.0
13. REC V13	956.0	4055.0	6.0
14. REC V14	1133.0	4039.0	6.0
15. REC V15	1217.0	4050.0	6.0
16. REC V16	1337.0	4064.0	6.0

JOB: CO 2015 PM No-Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
0.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.2	.0	.5	.0	.0	.0
5.	* .0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
10.	* .0	.0	.6	.3	.0	.2	.0	.1	.0	.0	.8	.0	.6	.0	.0	.0
15.	* .0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.5	.1	.8	.0	.0	.0
20.	* .0	.0	.3	.2	.0	.4	.0	.2	.0	.0	.3	.1	.8	.0	.0	.0
25.	* .0	.0	.2	.2	.0	.5	.0	.3	.0	.0	.2	.3	1.0	.0	.0	.0
30.	* .0	.0	.2	.1	.0	.5	.0	.5	.0	.0	.1	.5	1.1	.0	.0	.0
35.	* .0	.0	.1	.1	.0	.4	.0	.5	.2	.0	.1	.5	1.1	.0	.0	.0
40.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.5	1.0	.0	.0	.0
45.	* .0	.0	.1	.1	.0	.4	.0	.5	.2	.0	.0	.5	1.0	.0	.0	.0
50.	* .0	.0	.1	.0	.0	.4	.0	.5	.2	.2	.0	.4	.9	.0	.0	.0
55.	* .0	.0	.1	.0	.0	.4	.0	.4	.3	.2	.0	.2	.9	.0	.0	.0
60.	* .0	.0	.0	.0	.0	.4	.0	.3	.3	.2	.0	.3	.9	.0	.0	.0
65.	* .0	.0	.0	.0	.0	.4	.0	.3	.3	.2	.0	.3	.9	.0	.0	.0
70.	* .0	.0	.0	.0	.0	.4	.0	.3	.3	.2	.0	.3	.8	.0	.0	.0
75.	* .0	.0	.0	.0	.0	.3	.0	.3	.4	.3	.0	.3	.7	.0	.0	.0
80.	* .0	.0	.0	.0	.0	.3	.1	.3	.4	.2	.0	.3	.5	.0	.0	.0
85.	* .0	.0	.0	.0	.0	.3	.1	.3	.4	.2	.0	.3	.4	.0	.0	.0

90.	*	.0	.0	.0	.0	.0	.3	.2	.4	.5	.2	.0	.3
.4	.0	.0	.0										
95.	*	.0	.0	.0	.0	.0	.4	.2	.4	.5	.3	.0	.3
.3	.0	.0	.0										
100.	*	.0	.0	.0	.0	.0	.4	.2	.4	.4	.3	.0	.3
.3	.0	.0	.0										
105.	*	.0	.0	.0	.0	.0	.4	.2	.4	.3	.1	.0	.2
.3	.0	.0	.0										
110.	*	.0	.0	.0	.0	.0	.4	.2	.4	.4	.3	.0	.2
.3	.0	.0	.0										
115.	*	.0	.0	.0	.0	.0	.4	.3	.4	.6	.3	.0	.2
.3	.0	.0	.0										
120.	*	.0	.0	.0	.0	.0	.4	.3	.5	.6	.5	.0	.2
.3	.0	.0	.0										
125.	*	.0	.0	.0	.0	.0	.5	.3	.7	.6	.5	.0	.2
.3	.0	.0	.0										
130.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.3	.0	.3
.3	.0	.0	.0										
135.	*	.0	.0	.0	.0	.0	.6	.4	.6	.6	.2	.0	.2
.3	.0	.0	.0										
140.	*	.0	.0	.0	.0	.0	.6	.4	.4	.4	.2	.0	.3
.3	.0	.0	.0										
145.	*	.0	.0	.1	.0	.0	.6	.4	.5	.3	.2	.0	.3
.3	.0	.0	.0										
150.	*	.0	.0	.1	.0	.0	.6	.4	.5	.4	.2	.0	.3
.3	.0	.0	.0										
155.	*	.0	.0	.1	.1	.0	.7	.4	.5	.2	.1	.0	.3
.4	.0	.0	.0										
160.	*	.0	.0	.1	.1	.0	.7	.4	.6	.2	.1	.1	.2
.3	.0	.0	.0										
165.	*	.0	.0	.1	.1	.0	.7	.5	.7	.1	.1	.1	.0
.4	.0	.0	.0										
170.	*	.0	.0	.2	.1	.1	.9	.6	.7	.1	.1	.2	.0
.5	.0	.0	.0										
175.	*	.0	.0	.3	.2	.1	1.0	.6	.7	.1	.1	.2	.0
.5	.0	.0	.0										
180.	*	.0	.0	.6	.3	.2	.8	.7	.5	.1	.1	.3	.0
.3	.0	.0	.0										
185.	*	.0	.0	.7	.3	.3	.8	.7	.4	.1	.1	.5	.0
.1	.0	.0	.0										
190.	*	.0	.0	.9	.7	.6	.5	.5	.3	.1	.1	.7	.0
.0	.0	.0	.0										
195.	*	.0	.0	1.0	.7	.6	.3	.3	.3	.1	.1	.8	.0
.0	.0	.0	.0										
200.	*	.0	.0	1.0	.9	.7	.2	.2	.3	.1	.1	1.0	.0
.0	.1	.0	.0										
205.	*	.0	.0	1.0	.8	.7	.0	.1	.3	.1	.1	.8	.0
.0	.1	.0	.0										

JOB: CO 2015 PM No-Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
210.	.0	.0	.9	.8	.5	.0	.1	.2	.1	.1	.8	.0	.0	.1	.0	.0
215.	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
220.	.0	.0	.9	.6	.4	.0	.0	.2	.2	.1	.7	.0	.0	.1	.0	.0
225.	.0	.0	.9	.6	.3	.0	.0	.1	.2	.1	.7	.0	.0	.0	.1	.0
230.	.0	.0	.8	.5	.3	.0	.0	.1	.2	.1	.7	.0	.0	.1	.0	.0
235.	.0	.1	.8	.4	.3	.0	.0	.1	.2	.1	.7	.0	.0	.1	.0	.0
240.	.0	.1	.8	.3	.2	.0	.0	.2	.1	.1	.6	.0	.0	.1	.0	.0
245.	.0	.0	.7	.3	.2	.0	.0	.2	.1	.1	.6	.0	.0	.1	.1	.0
250.	.0	.0	.6	.3	.2	.0	.0	.2	.1	.1	.6	.0	.0	.3	.1	.0
255.	.0	.0	.6	.3	.2	.0	.0	.2	.1	.2	.5	.0	.0	.3	.1	.0
260.	.0	.0	.6	.3	.2	.0	.0	.2	.2	.2	.5	.0	.0	.2	.1	.0
265.	.0	.1	.6	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.2	.0
270.	.0	.2	.6	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
275.	.0	.2	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.1	.3	.0	.0
280.	.1	.1	.5	.3	.0	.0	.0	.2	.2	.2	.6	.0	.1	.3	.0	.0
285.	.1	.1	.5	.3	.0	.0	.0	.1	.2	.2	.6	.0	.2	.3	.0	.0
290.	.1	.1	.5	.3	.0	.0	.0	.0	.2	.2	.8	.0	.2	.2	.2	.0
295.	.0	.1	.5	.3	.0	.0	.0	.0	.2	.1	.9	.0	.3	.3	.2	.0
300.	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.3	.2	.0
305.	.0	.1	.5	.3	.0	.0	.0	.0	.1	.0	.8	.0	.4	.3	.1	.0
310.	.0	.1	.5	.3	.0	.0	.0	.0	.0	.0	.8	.0	.4	.3	.1	.0
315.	.0	.1	.6	.3	.0	.0	.0	.0	.0	.0	.8	.1	.4	.3	.1	.0
320.	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.8	.1	.4	.3	.1	.0

325.	*	.0	.0	.6	.4	.0	.0	.0	.0	.0	.0	.8	.1
.5	.3	.1	.0										
330.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	.9	.1
.5	.2	.1	.0										
335.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.0	.1
.5	.2	.0	.0										
340.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.0	.1
.6	.2	.0	.0										
345.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.5	.2	.0	.0										
350.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.5	.1	.0	.0										
355.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.5	.0	.0	.0										
360.	*	.0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.2	.0
.5	.0	.0	.0										
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MAX	*	.1	.2	1.0	.9	.7	1.0	.7	.7	.6	.5	1.2	.5
1.1	.3	.2	.0										
DEGR.	*	280	270	195	200	200	175	180	165	115	120	0	30
30	250	265	0										

THE HIGHEST CONCENTRATION OF 1.20 PPM OCCURRED AT RECEPTOR REC11.

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 8/ 8/ 6
TIME : 14: 0: 7

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 108. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (FT)				*	LENGTH	BRG	TYPE	VPH	EF	H	W	V/C	QUEUE
	*	X1	Y1	X2	Y2	*	(FT)	(DEG)		(G/MI)	(FT)	(FT)		(VEH)	
1. L1 BAY ST NB UP 1-2	*	950.0	2917.0	1082.0	3250.0	*	358.	22.	AG	730.	3.4	.0	40.0		
2. L2 BAY ST NB UP 2-3	*	1082.0	3250.0	1146.0	3443.0	*	203.	18.	AG	730.	3.4	.0	40.0		
3. L3 BAY ST NB UP 3-4	*	1146.0	3443.0	1058.0	3744.0	*	314.	344.	AG	842.	3.4	.0	40.0		
4. L3Q BAY ST NB UP 3-4	*	1058.0	3744.0	1085.1	3651.2	*	97.	164.	AG	69.	100.0	.0	20.0	.43	4.9
5. L4 BAY ST NB UP 4-5	*	1058.0	3744.0	982.0	3913.0	*	185.	336.	AG	1032.	6.9	.0	40.0		
6. L5 BAY ST NB UP 5-6	*	982.0	3913.0	1020.0	4076.0	*	167.	13.	AG	1025.	6.9	.0	40.0		
7. L5Q BAY ST NB UP 5-6	*	1020.0	4076.0	993.3	3961.5	*	118.	193.	AG	69.	100.0	.0	20.0	.52	6.0
8. L6 BAY ST NB UP 6-7	*	1020.0	4076.0	1076.0	4394.0	*	323.	10.	AG	996.	6.9	.0	40.0		
9. L7 BAY ST SB UP 1-2	*	1055.0	4396.0	1006.0	4080.0	*	320.	189.	AG	1387.	3.7	.0	40.0		
10. L7Q BAY ST SB UP 1-2	*	1006.0	4080.0	1030.4	4237.3	*	159.	9.	AG	69.	100.0	.0	20.0	.70	8.1
11. L8 BAY ST SB UP 2-3	*	1006.0	4080.0	952.0	3900.0	*	188.	197.	AG	1128.	3.7	.0	40.0		
12. L9 BAY ST SB UP 3-4	*	952.0	3900.0	1016.0	3750.0	*	163.	157.	AG	1367.	3.7	.0	40.0		
13. L9Q BAY ST SB UP 3-4	*	1016.0	3750.0	954.4	3894.3	*	157.	337.	AG	69.	100.0	.0	20.0	.69	8.0
14. L10 BAY ST SB UP 4-5	*	1016.0	3750.0	1113.0	3446.0	*	319.	162.	AG	788.	4.0	.0	40.0		
15. L11 BAY ST SB UP 5-6	*	1113.0	3446.0	1075.0	3258.0	*	192.	191.	AG	768.	3.5	.0	40.0		
16. L12 BAY ST SB UP 6-7	*	1075.0	3258.0	943.0	2916.0	*	367.	201.	AG	768.	3.5	.0	40.0		

17. L13 HANNAH ST 1-2 WB* 1120.0 3789.0 1035.0 3758.0 *
90. 250. AG 357. 6.9 .0 32.0
18. L13Q HANNAH ST 1-2 W* 1035.0 3758.0 1178.0 3810.2 *
152. 70. AG 64. 100.0 .0 12.0 .71 7.7
19. L14 HANNAH ST 2-3 WB* 1035.0 3758.0 885.0 3708.0 *
158. 252. AG 314. 6.9 .0 32.0
20. L15 HANNAH ST 3-4 WB* 885.0 3708.0 703.0 3659.0 *
188. 255. AG 314. 6.9 .0 32.0
21. L13a HANNAH ST 1-2 E* 709.0 3649.0 890.0 3698.0 *
188. 75. AG 78. 6.9 .0 32.0
22. L14a HANNAH ST 2-3 E* 890.0 3698.0 1036.0 3748.0 *
154. 71. AG 78. 6.9 .0 32.0
23. L14aQ HANNAH ST 2-3 * 1036.0 3748.0 1004.5 3737.2 *
33. 251. AG 64. 100.0 .0 12.0 .15 1.7
24. L15a HANNAH ST 3-4 E* 1036.0 3748.0 1125.0 3779.0 *
94. 71. AG 519. 6.9 .0 32.0
25. L16 VICTORY BLVD EB * 680.0 4164.0 860.0 4082.0 *
198. 114. AG 216. 6.9 .0 40.0
26. L17 VICTORY BLVD EB * 860.0 4082.0 988.0 4068.0 *
129. 96. AG 216. 6.9 .0 40.0
27. L17Q VICTORY BLVD EB* 988.0 4068.0 942.2 4073.0 *
46. 276. AG 128. 100.0 .0 20.0 .21 2.3
28. L18 VICTORY BLVD EB * 988.0 4068.0 1373.0 4104.0 *
387. 85. AG 7. 6.9 .0 40.0
29. L19 VICTORY BLVD WB * 1374.0 4136.0 1040.0 4091.0 *
337. 262. AG 26. 6.9 .0 40.0
30. L19Q VICTORY BLVD WB* 1040.0 4091.0 1045.5 4091.7 *
6. 82. AG 128. 100.0 .0 20.0 .03 .3
31. L20 VICTORY BLVD WB * 1040.0 4091.0 878.0 4101.0 *
162. 274. AG 523. 6.9 .0 40.0
32. L21 VICTORY BLVD WB * 878.0 4101.0 677.0 4179.0 *
216. 291. AG 523. 6.9 .0 40.0

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

DATE : 8/ 8/ 6
TIME : 14: 0: 7

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW (VPH)	IDLE EM FAC	SIGNAL TYPE	ARRIVAL RATE (gm/hr)
4. L3Q BAY ST NB UP 3-4	*	120	42	2.0	842	1600	36.74	1	3
7. L5Q BAY ST NB UP 5-6	*	120	42	2.0	1025	1600	36.74	1	3
10. L7Q BAY ST SB UP 1-2	*	120	42	2.0	1387	1600	36.74	1	3
13. L9Q BAY ST SB UP 3-4	*	120	42	2.0	1367	1600	36.74	1	3
18. L13Q HANNAH ST 1-2 W	*	120	78	2.0	357	1600	36.74	1	3
23. L14aQ HANNAH ST 2-3	*	120	78	2.0	78	1600	36.74	1	3
27. L17Q VICTORY BLVD EB	*	120	78	2.0	216	1600	36.74	1	3
30. L19Q VICTORY BLVD WB	*	120	78	2.0	26	1600	36.74	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. REC V1	*	1328.0	4151.0	6.0	*
2. REC V2	*	1235.0	4141.0	6.0	*
3. REC V3	*	1041.0	4131.0	6.0	*
4. REC V4	*	1069.0	4277.0	6.0	*
5. REC V5	*	1094.0	4402.0	6.0	*
6. REC V6	*	1008.0	4231.0	6.0	*
7. REC V7	*	1040.0	4396.0	6.0	*
8. REC V8	*	966.0	4116.0	6.0	*
9. REC V9	*	888.0	4115.0	6.0	*
10. REC V10	*	839.0	4137.0	6.0	*
11. REC V11	*	1025.0	4034.0	6.0	*
12. REC V12	*	891.0	3999.0	6.0	*
13. REC V13	*	956.0	4055.0	6.0	*
14. REC V14	*	1133.0	4039.0	6.0	*
15. REC V15	*	1217.0	4050.0	6.0	*
16. REC V16	*	1337.0	4064.0	6.0	*

JOB: CO 2015 PM Build Alt-A Stapleton BLvd & Bay ST Intersection

RUN: Victory

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
0.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
1.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0
2.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0
3.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
4.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
5.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	.9	.0	.5	.0	.0	.0
6.	* .0	.0	.8	.4	.0	.1	.0	.0	.0	.0	.9	.0	.5	.0	.0	.0
7.	* .0	.0	.7	.4	.0	.2	.0	.0	.0	.0	.8	.0	.6	.0	.0	.0
8.	* .0	.0	.6	.3	.0	.2	.0	.1	.0	.0	.8	.0	.6	.0	.0	.0
9.	* .0	.0	.5	.3	.0	.3	.0	.1	.0	.0	.7	.0	.6	.0	.0	.0
10.	* .0	.0	.5	.3	.0	.3	.0	.1	.0	.0	.7	.0	.7	.0	.0	.0
11.	* .0	.0	.5	.3	.0	.3	.0	.1	.0	.0	.7	.0	.7	.0	.0	.0
12.	* .0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.7	.0	.7	.0	.0	.0
13.	* .0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.7	.0	.7	.0	.0	.0
14.	* .0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.7	.0	.8	.0	.0	.0
15.	* .0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.7	.0	.8	.0	.0	.0
16.	* .0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.6	.0	.8	.0	.0	.0
17.	* .0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.6	.0	.8	.0	.0	.0

18.	*	.0	.0	.5	.3	.0	.3	.0	.2	.0	.0	.5	.0
.8	.0	.0	.0										
19.	*	.0	.0	.4	.2	.0	.3	.0	.2	.0	.0	.5	.0
.8	.0	.0	.0										
20.	*	.0	.0	.3	.2	.0	.3	.0	.3	.0	.0	.5	.0
.8	.0	.0	.0										
21.	*	.0	.0	.3	.2	.0	.3	.0	.3	.0	.0	.3	.0
.8	.0	.0	.0										
22.	*	.0	.0	.3	.2	.0	.3	.0	.3	.0	.0	.3	.0
.8	.0	.0	.0										
23.	*	.0	.0	.3	.2	.0	.3	.0	.3	.0	.0	.2	.2
.8	.0	.0	.0										
24.	*	.0	.0	.3	.2	.0	.4	.0	.3	.0	.0	.2	.2
.8	.0	.0	.0										
25.	*	.0	.0	.3	.2	.0	.5	.0	.3	.0	.0	.2	.2
.8	.0	.0	.0										
26.	*	.0	.0	.2	.2	.0	.5	.0	.3	.0	.0	.2	.2
.8	.0	.0	.0										
27.	*	.0	.0	.2	.2	.0	.5	.0	.3	.0	.0	.2	.2
.8	.0	.0	.0										
28.	*	.0	.0	.2	.2	.0	.5	.0	.3	.0	.0	.2	.3
.8	.0	.0	.0										
29.	*	.0	.0	.2	.1	.0	.4	.0	.3	.0	.0	.2	.3
.9	.0	.0	.0										
30.	*	.0	.0	.2	.1	.0	.4	.0	.3	.0	.0	.2	.3
.9	.0	.0	.0										
31.	*	.0	.0	.2	.1	.0	.4	.0	.3	.0	.0	.2	.3
.9	.0	.0	.0										
32.	*	.0	.0	.2	.1	.0	.4	.0	.3	.0	.0	.2	.4
.9	.0	.0	.0										
33.	*	.0	.0	.2	.1	.0	.4	.0	.3	.0	.0	.1	.4
.9	.0	.0	.0										
34.	*	.0	.0	.2	.1	.0	.4	.0	.3	.0	.0	.1	.4
.9	.0	.0	.0										
35.	*	.0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4
.9	.0	.0	.0										
36.	*	.0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4
.9	.0	.0	.0										
37.	*	.0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4
.9	.0	.0	.0										
38.	*	.0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4
.9	.0	.0	.0										
39.	*	.0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4
.9	.0	.0	.0										
40.	*	.0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4
.9	.0	.0	.0										
41.	*	.0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4
.9	.0	.0	.0										

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
42.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4	.9	.0	.0	.0
43.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4	.8	.0	.0	.0
44.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4	.8	.0	.0	.0
45.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4	.8	.0	.0	.0
46.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4	.8	.0	.0	.0
47.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4	.8	.0	.0	.0
48.	* .0	.0	.1	.1	.0	.4	.0	.4	.2	.0	.1	.4	.8	.0	.0	.0
49.	* .0	.0	.1	.1	.0	.4	.0	.3	.2	.0	.1	.4	.9	.0	.0	.0
50.	* .0	.0	.1	.1	.0	.4	.0	.3	.2	.1	.1	.3	.9	.0	.0	.0
51.	* .0	.0	.1	.1	.0	.4	.0	.3	.2	.1	.0	.2	.9	.0	.0	.0
52.	* .0	.0	.1	.1	.0	.4	.0	.3	.2	.1	.0	.2	.8	.0	.0	.0
53.	* .0	.0	.1	.0	.0	.4	.0	.3	.2	.1	.0	.2	.8	.0	.0	.0
54.	* .0	.0	.1	.0	.0	.4	.0	.3	.2	.1	.0	.2	.8	.0	.0	.0
55.	* .0	.0	.1	.0	.0	.4	.0	.3	.2	.1	.0	.2	.8	.0	.0	.0
56.	* .0	.0	.1	.0	.0	.4	.0	.3	.3	.1	.0	.2	.8	.0	.0	.0
57.	* .0	.0	.1	.0	.0	.4	.0	.3	.3	.1	.0	.2	.9	.0	.0	.0
58.	* .0	.0	.1	.0	.0	.4	.0	.3	.3	.1	.0	.1	.9	.0	.0	.0
59.	* .0	.0	.1	.0	.0	.4	.0	.3	.3	.1	.0	.2	.9	.0	.0	.0
60.	* .0	.0	.1	.0	.0	.4	.0	.3	.3	.1	.0	.2	.9	.0	.0	.0
61.	* .0	.0	.1	.0	.0	.5	.0	.3	.3	.1	.0	.2	.9	.0	.0	.0
62.	* .0	.0	.1	.0	.0	.5	.0	.3	.3	.1	.0	.2	.9	.0	.0	.0
63.	* .0	.0	.0	.0	.0	.5	.0	.3	.3	.1	.0	.2	.8	.0	.0	.0
64.	* .0	.0	.0	.0	.0	.5	.0	.3	.3	.1	.0	.2	.9	.0	.0	.0

65.	*	.0	.0	.0	.0	.0	.5	.0	.3	.3	.1	.0	.3
.9	.0	.0	.0										
66.	*	.0	.0	.0	.0	.0	.5	.0	.3	.3	.1	.0	.3
.9	.0	.0	.0										
67.	*	.0	.0	.0	.0	.0	.5	.0	.3	.3	.1	.0	.3
.8	.0	.0	.0										
68.	*	.0	.0	.0	.0	.0	.5	.0	.3	.3	.1	.0	.3
.8	.0	.0	.0										
69.	*	.0	.0	.0	.0	.0	.5	.0	.3	.4	.1	.0	.3
.7	.0	.0	.0										
70.	*	.0	.0	.0	.0	.0	.5	.0	.3	.4	.1	.0	.3
.8	.0	.0	.0										
71.	*	.0	.0	.0	.0	.0	.5	.0	.3	.4	.1	.0	.3
.8	.0	.0	.0										
72.	*	.0	.0	.0	.0	.0	.5	.0	.3	.4	.1	.0	.3
.7	.0	.0	.0										
73.	*	.0	.0	.0	.0	.0	.5	.0	.3	.4	.1	.0	.3
.7	.0	.0	.0										
74.	*	.0	.0	.0	.0	.0	.5	.0	.3	.4	.1	.0	.3
.7	.0	.0	.0										
75.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.6	.0	.0	.0										
76.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.6	.0	.0	.0										
77.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.5	.0	.0	.0										
78.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.5	.0	.0	.0										
79.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.5	.0	.0	.0										
80.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.5	.0	.0	.0										
81.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.5	.0	.0	.0										
82.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.5	.0	.0	.0										
83.	*	.0	.0	.0	.0	.0	.5	.1	.3	.4	.1	.0	.3
.5	.0	.0	.0										
84.	*	.0	.0	.0	.0	.0	.5	.2	.3	.4	.1	.0	.3
.5	.0	.0	.0										
85.	*	.0	.0	.0	.0	.0	.5	.2	.4	.4	.1	.0	.3
.4	.0	.0	.0										
86.	*	.0	.0	.0	.0	.0	.5	.2	.4	.4	.1	.0	.3
.4	.0	.0	.0										
87.	*	.0	.0	.0	.0	.0	.5	.2	.4	.4	.1	.0	.3
.4	.0	.0	.0										
88.	*	.0	.0	.0	.0	.0	.5	.2	.4	.5	.1	.0	.3
.4	.0	.0	.0										
89.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.1	.0	.3
.4	.0	.0	.0										
90.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.1	.0	.3
.4	.0	.0	.0										
91.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.1	.0	.3
.4	.0	.0	.0										
92.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.1	.0	.3
.4	.0	.0	.0										

93.	*	.0	.0	.0	.0	.0	.6	.2	.4	.5	.1	.0	.3
.4	.0	.0	.0										

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
94.	* .0	.0	.0	.0	.0	.6	.2	.4	.5	.1	.0	.3	.4	.0	.0	.0
95.	* .0	.0	.0	.0	.0	.6	.2	.4	.4	.2	.0	.3	.4	.0	.0	.0
96.	* .0	.0	.0	.0	.0	.6	.2	.4	.4	.2	.0	.3	.3	.0	.0	.0
97.	* .0	.0	.0	.0	.0	.6	.2	.4	.4	.2	.0	.3	.3	.0	.0	.0
98.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.1	.0	.3	.3	.0	.0	.0
99.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.1	.0	.3	.3	.0	.0	.0
100.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.1	.0	.3	.3	.0	.0	.0
101.	* .0	.0	.0	.0	.0	.6	.2	.4	.4	.1	.0	.3	.3	.0	.0	.0
102.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.1	.0	.3	.3	.0	.0	.0
103.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.1	.0	.2	.3	.0	.0	.0
104.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.2	.0	.2	.3	.0	.0	.0
105.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.2	.0	.2	.3	.0	.0	.0
106.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.2	.0	.2	.3	.0	.0	.0
107.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.2	.0	.2	.3	.0	.0	.0
108.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.2	.0	.2	.3	.0	.0	.0
109.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.2	.0	.2	.3	.0	.0	.0
110.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.3	.0	.2	.3	.0	.0	.0
111.	* .0	.0	.0	.0	.0	.6	.2	.4	.3	.3	.0	.2	.3	.0	.0	.0
112.	* .0	.0	.0	.0	.0	.6	.3	.4	.4	.3	.0	.2	.3	.0	.0	.0
113.	* .0	.0	.0	.0	.0	.6	.3	.4	.4	.3	.0	.2	.3	.0	.0	.0
114.	* .0	.0	.0	.0	.0	.6	.3	.4	.4	.3	.0	.2	.3	.0	.0	.0
115.	* .0	.0	.0	.0	.0	.6	.3	.4	.4	.3	.0	.2	.3	.0	.0	.0
116.	* .0	.0	.0	.0	.0	.6	.3	.4	.4	.3	.0	.2	.3	.0	.0	.0

117.	*	.0	.0	.0	.0	.0	.6	.4	.4	.4	.3	.0	.2
.3	.0	.0	.0										
118.	*	.0	.0	.0	.0	.0	.6	.4	.4	.4	.3	.0	.2
.3	.0	.0	.0										
119.	*	.0	.0	.0	.0	.0	.6	.4	.4	.4	.3	.0	.2
.3	.0	.0	.0										
120.	*	.0	.0	.0	.0	.0	.6	.4	.4	.5	.3	.0	.2
.3	.0	.0	.0										
121.	*	.0	.0	.0	.0	.0	.6	.4	.4	.5	.3	.0	.2
.3	.0	.0	.0										
122.	*	.0	.0	.0	.0	.0	.6	.4	.5	.5	.4	.0	.2
.3	.0	.0	.0										
123.	*	.0	.0	.0	.0	.0	.6	.4	.5	.5	.4	.0	.2
.3	.0	.0	.0										
124.	*	.0	.0	.0	.0	.0	.6	.4	.5	.5	.4	.0	.2
.3	.0	.0	.0										
125.	*	.0	.0	.0	.0	.0	.6	.4	.5	.5	.4	.0	.2
.3	.0	.0	.0										
126.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.4	.0	.3
.3	.0	.0	.0										
127.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.3	.0	.3
.3	.0	.0	.0										
128.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.3	.0	.3
.3	.0	.0	.0										
129.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.3	.0	.3
.3	.0	.0	.0										
130.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.3	.0	.3
.3	.0	.0	.0										
131.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.3	.0	.3
.3	.0	.0	.0										
132.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.3	.0	.3
.3	.0	.0	.0										
133.	*	.0	.0	.0	.0	.0	.6	.4	.5	.5	.2	.0	.2
.3	.0	.0	.0										
134.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.2	.0	.2
.3	.0	.0	.0										
135.	*	.0	.0	.0	.0	.0	.6	.4	.6	.5	.2	.0	.2
.3	.0	.0	.0										
136.	*	.0	.0	.0	.0	.0	.6	.4	.6	.4	.2	.0	.2
.3	.0	.0	.0										
137.	*	.0	.0	.0	.0	.0	.6	.4	.6	.3	.2	.0	.2
.3	.0	.0	.0										
138.	*	.0	.0	.0	.0	.0	.6	.4	.4	.4	.2	.0	.2
.3	.0	.0	.0										
139.	*	.0	.0	.1	.0	.0	.6	.4	.4	.4	.2	.0	.1
.3	.0	.0	.0										
140.	*	.0	.0	.1	.0	.0	.6	.4	.4	.4	.1	.0	.2
.3	.0	.0	.0										
141.	*	.0	.0	.1	.0	.0	.6	.4	.4	.4	.1	.0	.3
.3	.0	.0	.0										
142.	*	.0	.0	.1	.0	.0	.6	.4	.5	.3	.1	.0	.3
.3	.0	.0	.0										
143.	*	.0	.0	.1	.0	.0	.6	.4	.5	.3	.1	.0	.3
.3	.0	.0	.0										
144.	*	.0	.0	.1	.0	.0	.6	.4	.5	.3	.1	.0	.3
.3	.0	.0	.0										

145.	*	.0	.0	.1	.0	.0	.6	.4	.5	.3	.1	.0	.3	
.3	.0	.0	.0											

JOB: CO 2015 PM Build Alt-A Stapleton BLvd & Bay ST Intersection RUN: Victory

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
146.	.0	.0	.1	.0	.0	.6	.4	.5	.2	.1	.0	.3	.3	.0	.0	.0
147.	.0	.0	.1	.0	.0	.6	.4	.5	.2	.1	.0	.3	.3	.0	.0	.0
148.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.0	.3	.3	.0	.0	.0
149.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.0	.3	.3	.0	.0	.0
150.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.0	.3	.3	.0	.0	.0
151.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.0	.3	.3	.0	.0	.0
152.	.0	.0	.1	.1	.0	.6	.4	.5	.3	.1	.0	.3	.4	.0	.0	.0
153.	.0	.0	.1	.1	.0	.6	.4	.5	.3	.1	.0	.3	.4	.0	.0	.0
154.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.1	.3	.4	.0	.0	.0
155.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.1	.3	.4	.0	.0	.0
156.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.1	.3	.4	.0	.0	.0
157.	.0	.0	.1	.1	.0	.6	.4	.5	.2	.1	.1	.2	.4	.0	.0	.0
158.	.0	.0	.1	.1	.0	.6	.5	.5	.2	.1	.1	.2	.4	.0	.0	.0
159.	.0	.0	.1	.1	.0	.6	.5	.5	.2	.1	.1	.2	.4	.0	.0	.0
160.	.0	.0	.1	.1	.0	.6	.5	.5	.1	.1	.1	.2	.4	.0	.0	.0
161.	.0	.0	.1	.1	.0	.6	.5	.6	.1	.1	.1	.2	.4	.0	.0	.0
162.	.0	.0	.1	.1	.0	.6	.5	.6	.1	.1	.1	.2	.4	.0	.0	.0
163.	.0	.0	.1	.1	.0	.6	.5	.6	.1	.1	.1	.1	.3	.0	.0	.0
164.	.0	.0	.1	.1	.0	.6	.5	.7	.1	.1	.1	.0	.3	.0	.0	.0
165.	.0	.0	.1	.1	.1	.6	.5	.7	.1	.1	.1	.0	.3	.0	.0	.0
166.	.0	.0	.1	.1	.1	.6	.5	.7	.1	.1	.1	.0	.3	.0	.0	.0
167.	.0	.0	.1	.1	.1	.6	.5	.7	.1	.1	.1	.0	.3	.0	.0	.0
168.	.0	.0	.1	.1	.1	.6	.5	.7	.1	.1	.1	.0	.3	.0	.0	.0

169.	*	.0	.0	.1	.1	.1	.6	.5	.7	.1	.1	.2	.0
.4	.0	.0	.0										
170.	*	.0	.0	.1	.2	.1	.7	.5	.7	.1	.1	.2	.0
.4	.0	.0	.0										
171.	*	.0	.0	.2	.2	.1	.7	.5	.7	.1	.1	.2	.0
.4	.0	.0	.0										
172.	*	.0	.0	.2	.2	.1	.7	.5	.7	.1	.1	.2	.0
.4	.0	.0	.0										
173.	*	.0	.0	.3	.2	.1	.7	.5	.7	.1	.1	.2	.0
.5	.0	.0	.0										
174.	*	.0	.0	.3	.2	.1	.7	.5	.7	.1	.1	.2	.0
.5	.0	.0	.0										
175.	*	.0	.0	.3	.2	.1	.6	.5	.6	.1	.1	.2	.0
.5	.0	.0	.0										
176.	*	.0	.0	.3	.2	.2	.6	.5	.5	.1	.1	.3	.0
.5	.0	.0	.0										
177.	*	.0	.0	.3	.2	.2	.6	.5	.5	.1	.1	.3	.0
.4	.0	.0	.0										
178.	*	.0	.0	.4	.2	.2	.6	.5	.5	.1	.1	.3	.0
.4	.0	.0	.0										
179.	*	.0	.0	.4	.3	.2	.6	.6	.5	.1	.1	.3	.0
.2	.0	.0	.0										
180.	*	.0	.0	.4	.3	.2	.6	.6	.5	.1	.1	.3	.0
.1	.0	.0	.0										
181.	*	.0	.0	.4	.3	.2	.6	.6	.5	.1	.1	.3	.0
.1	.0	.0	.0										
182.	*	.0	.0	.4	.3	.2	.6	.6	.5	.1	.1	.4	.0
.1	.0	.0	.0										
183.	*	.0	.0	.4	.3	.2	.6	.6	.5	.1	.1	.4	.0
.1	.0	.0	.0										
184.	*	.0	.0	.5	.4	.4	.6	.6	.5	.1	.1	.4	.0
.1	.0	.0	.0										
185.	*	.0	.0	.6	.4	.4	.5	.6	.4	.1	.1	.5	.0
.1	.0	.0	.0										
186.	*	.0	.0	.6	.6	.4	.5	.6	.4	.1	.1	.5	.0
.1	.0	.0	.0										
187.	*	.0	.0	.6	.6	.4	.5	.5	.4	.1	.1	.6	.0
.1	.0	.0	.0										
188.	*	.0	.0	.7	.6	.4	.5	.5	.4	.1	.1	.6	.0
.1	.0	.0	.0										
189.	*	.0	.0	.8	.6	.4	.5	.5	.4	.1	.1	.6	.0
.1	.0	.0	.0										
190.	*	.0	.0	.8	.7	.4	.5	.5	.3	.1	.1	.6	.0
.0	.0	.0	.0										
191.	*	.0	.0	.8	.7	.4	.3	.5	.3	.1	.1	.7	.0
.0	.0	.0	.0										
192.	*	.0	.0	.9	.7	.4	.3	.4	.3	.1	.1	.7	.0
.0	.0	.0	.0										
193.	*	.0	.0	.9	.7	.4	.2	.4	.3	.1	.1	.7	.0
.0	.0	.0	.0										
194.	*	.0	.0	.9	.7	.5	.2	.4	.3	.1	.1	.7	.0
.0	.0	.0	.0										
195.	*	.0	.0	.9	.7	.5	.2	.3	.3	.1	.1	.7	.0
.0	.0	.0	.0										
196.	*	.0	.0	.9	.7	.5	.2	.3	.3	.1	.1	.8	.0
.0	.0	.0	.0										

197.	*	.0	.0	.9	.7	.6	.2	.3	.3	.1	.1	.9	.0
.0	.0	.0	.0										

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
198.	*	.0	.0	.9	.7	.6	.1	.3	.3	.1	.1	.9	.0	.0	.0	.0	.0
199.	*	.0	.0	.9	.6	.6	.1	.2	.3	.1	.1	.8	.0	.0	.0	.0	.0
200.	*	.0	.0	.9	.7	.5	.1	.2	.3	.1	.1	.8	.0	.0	.0	.0	.0
201.	*	.0	.0	1.0	.7	.6	.1	.2	.3	.1	.1	.8	.0	.0	.1	.0	.0
202.	*	.0	.0	1.0	.7	.6	.1	.2	.3	.1	.1	.7	.0	.0	.1	.0	.0
203.	*	.0	.0	1.0	.7	.6	.1	.2	.2	.1	.1	.7	.0	.0	.1	.0	.0
204.	*	.0	.0	1.0	.7	.6	.1	.1	.2	.1	.1	.7	.0	.0	.1	.0	.0
205.	*	.0	.0	1.0	.7	.6	.1	.1	.2	.1	.1	.7	.0	.0	.1	.0	.0
206.	*	.0	.0	1.0	.7	.6	.0	.1	.2	.1	.1	.8	.0	.0	.1	.0	.0
207.	*	.0	.0	.9	.7	.5	.0	.1	.2	.1	.1	.8	.0	.0	.1	.0	.0
208.	*	.0	.0	.9	.7	.5	.0	.1	.2	.1	.1	.8	.0	.0	.1	.0	.0
209.	*	.0	.0	.9	.7	.5	.0	.1	.2	.1	.1	.8	.0	.0	.1	.0	.0
210.	*	.0	.0	.9	.7	.5	.0	.1	.2	.1	.1	.8	.0	.0	.1	.0	.0
211.	*	.0	.0	.9	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
212.	*	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
213.	*	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
214.	*	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
215.	*	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
216.	*	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
217.	*	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
218.	*	.0	.0	1.0	.7	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
219.	*	.0	.0	.9	.6	.5	.0	.1	.2	.2	.1	.8	.0	.0	.1	.0	.0
220.	*	.0	.0	.9	.6	.5	.0	.1	.2	.2	.1	.7	.0	.0	.1	.0	.0

221.	*	.0	.0	.9	.6	.5	.0	.0	.2	.2	.1	.7	.0
.0	.0	.0	.0										
222.	*	.0	.0	.9	.6	.4	.0	.0	.2	.2	.1	.7	.0
.0	.0	.0	.0										
223.	*	.0	.0	.8	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.0	.0	.0										
224.	*	.0	.0	1.0	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.0	.0	.0										
225.	*	.0	.0	1.0	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.0	.0	.0										
226.	*	.0	.0	.9	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.0	.0	.0										
227.	*	.0	.0	.9	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.0	.0	.0										
228.	*	.0	.0	.9	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.0	.0	.0										
229.	*	.0	.0	.9	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.0	.0	.0										
230.	*	.0	.0	.9	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
231.	*	.0	.0	.9	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
232.	*	.0	.0	.8	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
233.	*	.0	.0	.8	.6	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
234.	*	.0	.0	.8	.5	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
235.	*	.0	.0	.8	.5	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
236.	*	.0	.0	.8	.5	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
237.	*	.0	.0	.8	.5	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
238.	*	.0	.0	.8	.5	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
239.	*	.0	.0	.8	.5	.3	.0	.0	.1	.2	.1	.7	.0
.0	.1	.0	.0										
240.	*	.0	.0	.8	.4	.3	.0	.0	.1	.1	.1	.7	.0
.0	.1	.0	.0										
241.	*	.0	.0	.8	.4	.3	.0	.0	.2	.1	.1	.7	.0
.0	.1	.0	.0										
242.	*	.0	.0	.8	.4	.2	.0	.0	.2	.1	.1	.7	.0
.0	.1	.0	.0										
243.	*	.0	.0	.8	.4	.2	.0	.0	.2	.1	.1	.7	.0
.0	.1	.0	.0										
244.	*	.0	.0	.8	.4	.2	.0	.0	.2	.1	.1	.7	.0
.0	.1	.0	.0										
245.	*	.0	.0	.8	.3	.2	.0	.0	.2	.1	.1	.6	.0
.0	.1	.0	.0										
246.	*	.0	.0	.8	.3	.2	.0	.0	.2	.1	.1	.6	.0
.0	.1	.0	.0										
247.	*	.0	.0	.8	.3	.2	.0	.0	.2	.1	.1	.6	.0
.0	.1	.0	.0										
248.	*	.0	.0	.8	.3	.2	.0	.0	.2	.1	.1	.6	.0
.0	.2	.0	.0										

249.	*	.0	.0	.8	.3	.2	.0	.0	.2	.1	.1	.6	.0
.0	.2	.1	.0										

JOB: CO 2015 PM Build Alt-A Stapleton BLvd & Bay ST Intersection RUN: Victory

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
250.	.0	.0	.7	.3	.2	.0	.0	.1	.1	.1	.5	.0	.0	.2	.1	.0
251.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
252.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
253.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
254.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
255.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
256.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
257.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
258.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
259.	.0	.0	.6	.3	.2	.0	.0	.1	.1	.2	.5	.0	.0	.2	.1	.0
260.	.0	.0	.6	.3	.2	.0	.0	.1	.2	.2	.5	.0	.0	.2	.1	.0
261.	.0	.0	.6	.3	.2	.0	.0	.1	.2	.2	.5	.0	.0	.2	.1	.0
262.	.0	.0	.6	.3	.2	.0	.0	.2	.2	.2	.5	.0	.0	.2	.1	.0
263.	.0	.0	.6	.3	.2	.0	.0	.2	.2	.2	.5	.0	.0	.2	.1	.0
264.	.0	.0	.6	.3	.2	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
265.	.0	.0	.6	.3	.1	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
266.	.0	.0	.5	.3	.1	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
267.	.0	.1	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
268.	.0	.1	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
269.	.0	.1	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
270.	.0	.1	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
271.	.0	.1	.5	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0
272.	.0	.1	.6	.3	.0	.0	.0	.2	.2	.2	.5	.0	.0	.2	.0	.0

273. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .5 .0
.1 .2 .0 .0
274. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .5 .0
.1 .2 .0 .0
275. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .5 .0
.1 .2 .0 .0
276. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .5 .0
.1 .2 .0 .0
277. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .5 .0
.1 .2 .0 .0
278. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .6 .0
.1 .2 .0 .0
279. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .6 .0
.1 .2 .0 .0
280. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .6 .0
.1 .1 .0 .0
281. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .6 .0
.1 .1 .0 .0
282. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .6 .0
.1 .1 .0 .0
283. * .0 .1 .6 .3 .0 .0 .0 .2 .2 .2 .6 .0
.1 .1 .0 .0
284. * .0 .1 .6 .3 .0 .0 .0 .1 .2 .2 .6 .0
.1 .1 .0 .0
285. * .0 .1 .6 .3 .0 .0 .0 .1 .2 .2 .6 .0
.2 .1 .0 .0
286. * .0 .1 .6 .3 .0 .0 .0 .1 .2 .2 .6 .0
.2 .1 .0 .0
287. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .2 .6 .0
.2 .1 .0 .0
288. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .2 .6 .0
.2 .1 .0 .0
289. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .2 .6 .0
.2 .1 .0 .0
290. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .1 .6 .0
.3 .1 .0 .0
291. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .1 .6 .0
.3 .1 .0 .0
292. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .1 .6 .0
.3 .2 .1 .0
293. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .1 .6 .0
.3 .2 .1 .0
294. * .0 .1 .5 .3 .0 .0 .0 .0 .2 .1 .6 .0
.3 .1 .1 .0
295. * .0 .1 .5 .3 .0 .0 .0 .0 .1 .1 .8 .0
.3 .1 .1 .0
296. * .0 .1 .5 .3 .0 .0 .0 .0 .1 .1 .8 .0
.4 .1 .1 .0
297. * .0 .1 .5 .3 .0 .0 .0 .0 .1 .1 .8 .0
.4 .1 .1 .0
298. * .0 .1 .5 .3 .0 .0 .0 .0 .1 .1 .8 .0
.4 .1 .1 .0
299. * .0 .1 .5 .3 .0 .0 .0 .0 .1 .1 .8 .0
.4 .2 .1 .0
300. * .0 .1 .5 .3 .0 .0 .0 .0 .1 .1 .8 .0
.4 .2 .1 .0

301.	*	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.8	.0
.4	.2	.1	.0										

JOB: CO 2015 PM Build Alt-A Stapleton RUN: Victory BLvd & Bay ST Intersection

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
302.	*	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.2	.1	.0
303.	*	.0	.1	.5	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.3	.1	.0
304.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.3	.1	.0
305.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.3	.1	.0
306.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.1	.8	.0	.4	.3	.1	.0
307.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.0	.8	.0	.4	.3	.1	.0
308.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.0	.8	.0	.5	.3	.1	.0
309.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.0	.8	.0	.4	.3	.1	.0
310.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.0	.7	.0	.4	.3	.1	.0
311.	*	.0	.1	.6	.3	.0	.0	.0	.0	.1	.0	.7	.0	.4	.3	.1	.0
312.	*	.0	.1	.6	.3	.0	.0	.0	.0	.0	.0	.7	.0	.4	.3	.1	.0
313.	*	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.0	.4	.3	.1	.0
314.	*	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.0	.4	.3	.1	.0
315.	*	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.0	.4	.3	.1	.0
316.	*	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.0	.4	.3	.1	.0
317.	*	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.0	.4	.3	.1	.0
318.	*	.0	.1	.6	.4	.0	.0	.0	.0	.0	.0	.7	.0	.4	.3	.1	.0
319.	*	.0	.0	.6	.4	.0	.0	.0	.0	.0	.0	.7	.1	.4	.3	.1	.0
320.	*	.0	.0	.6	.4	.0	.0	.0	.0	.0	.0	.7	.1	.4	.3	.1	.0
321.	*	.0	.0	.6	.4	.0	.0	.0	.0	.0	.0	.7	.1	.4	.3	.1	.0
322.	*	.0	.0	.6	.5	.0	.0	.0	.0	.0	.0	.7	.1	.4	.3	.1	.0
323.	*	.0	.0	.6	.5	.0	.0	.0	.0	.0	.0	.7	.1	.4	.3	.1	.0
324.	*	.0	.0	.6	.5	.0	.0	.0	.0	.0	.0	.8	.1	.5	.3	.1	.0

353.	*	.0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.1	.0
.5	.0	.0	.0										

325.	*	.0	.0	.6	.5	.0	.0	.0	.0	.0	.0	.8	.1
.5	.3	.1	.0										
326.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	.8	.1
.5	.3	.1	.0										
327.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	.9	.1
.5	.2	.1	.0										
328.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.0	.1
.5	.2	.1	.0										
329.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	.9	.1
.5	.2	.1	.0										
330.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	.9	.1
.5	.2	.1	.0										
331.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	.9	.1
.5	.2	.0	.0										
332.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.0	.1
.5	.2	.0	.0										
333.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.0	.1
.5	.2	.0	.0										
334.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.1
.5	.2	.0	.0										
335.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.1
.5	.2	.0	.0										
336.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.5	.2	.0	.0										
337.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.5	.2	.0	.0										
338.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.5	.2	.0	.0										
339.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.1	.0
.5	.2	.0	.0										
340.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.0	.0
.5	.2	.0	.0										
341.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.0	.0
.4	.2	.0	.0										
342.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.0	.0
.4	.2	.0	.0										
343.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.0	.0
.4	.1	.0	.0										
344.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.9	.0
.4	.1	.0	.0										
345.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.9	.0
.5	.1	.0	.0										
346.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.9	.0
.5	.1	.0	.0										
347.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.9	.0
.5	.1	.0	.0										
348.	*	.0	.0	.8	.4	.0	.0	.0	.0	.0	.0	1.0	.0
.5	.1	.0	.0										
349.	*	.0	.0	.8	.4	.0	.0	.0	.0	.0	.0	1.2	.0
.5	.1	.0	.0										
350.	*	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	1.2	.0
.5	.1	.0	.0										
351.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.2	.0
.5	.1	.0	.0										
352.	*	.0	.0	.7	.5	.0	.0	.0	.0	.0	.0	1.2	.0
.5	.1	.0	.0										

JOB: CO 2015 PM Build Alt-A Stapleton BLvd & Bay ST Intersection RUN: Victory

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) * REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16
354.	* .0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0
355.	* .0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0
356.	* .0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0
357.	* .0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0
358.	* .0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0
359.	* .0	.0	.7	.5	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
360.	* .0	.0	.8	.5	.0	.1	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0
MAX	* .0	.1	1.0	.7	.6	.7	.6	.7	.5	.4	1.2	.4	.9	.3	.1	.0
DEGR.	* 0	267	201	190	197	170	179	164	88	122	349	32	29	303	249	0

THE HIGHEST CONCENTRATION OF 1.20 PPM OCCURRED AT RECEPTOR REC11.

Appendix E-6
CAL3QHCR for PM Analysis

Delta Analysis

Air Quality: The Worst Case Microscale and Neighborhood-scale Maximum Results

Site : Victory and Bay

Scenario: 2015 Incremental

Pollutant: PM 2.5

Description	2015 Incremental CAL3QHCR 24 Hr Microscale $\mu g/m^3$	2015 Incremental CAL3QHCR Annual Neighborhood Scale $\mu g/m^3$
2015 Build	3.390	0.430
2015 No-Build	3.140	0.390
Incremental	0.250	0.040
NYCDEP maximum incremental threshold	5.00	0.10

DRAFT

Background for NO_2, SO_2 (1998-2002)
PM_{10} (1996-1998) or (2000-2002)

	SO2					PM_{10}			NO_2
	Annual	24-hour		3-hour		Annual	24-hour		Annual
	(ug/m^3)	(ug/m^3)		(ug/m^3)		(ug/m^3)	(ug/m^3)		(ug/m^3)
NAAQS	80	365	365	1300	1300	50	150	150	100
		1st	2nd	1st	2nd		1st	2nd	
		Max	Max	Max	Max		Max	Max	
Manhattan									
Mabel Dean	37	139	118	246	212	21 [c]	61 [c]	49 [c]	71
PS 59	34	139	121	265	228	34	88	74	77
Queens									
Queensboro Comm. College	18	107	86	186	165	---	---	---	51
College Point Post Office	---	---	---	---	---	---	---	---	56
Bronx									
IS 155	---	---	---	---	---	24	75	55	---
Morrisania	31 [a]	136	110	325	212	25	73	55	68
Botanical Garden	26	139	121	204	183	---	---	---	58
IS 52	---	136	126	254	233	21	91	45	60
Brooklyn									
Greenpoint	21 [a]	86 [a]	84 [a]	189 [a]	147 [a]	24 [a]	57 [a]	50 [a]	---
PS 321	24 [a]	94 [a]	89 [a]	152 [a]	144 [a]	22	82	48	---
PS 314	---	---	---	---	---	27	91	57	---
JHS 126	---	---	---	---	---	21 [b]	---	---	
Staten Island									
Susan Wagner	21	89	73	128	121	17	90	51	
PS 26	---	---	---	---	---	23	89	57	---
Port Richmond	---	---	---	---	---	---	84	55	---

[a] - **Based on data collection from 1997-1999**
[b] - **Annual data is based on 2 years 2001-2002**
[c] - **Based on data collection from 1999-2001**

~~11/11/06~~ 9/1/06 revised

Stapleton Fugitive Road Dust Emission Calculation

Based on U.S. EPA, AP-42, Chapter 13.2.1 and NYCDEP Guidance, a silt loading (sL) of 0.10 g/m^2 for arterials and an average vehicle weight (W) of 6000 lbs (3 tons) are utilized in the following EPA Format.

$$E = K \left[\frac{sL}{2}\right]^{0.65} \times \left[\frac{W}{3}\right]^{1.5} - C$$

where E = particulate emission factor (g/VMT)

C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear.

From EPA, AP-42, Chapter 13.2.1

For $PM_{2.5}$ { K = 1.8 g/VMT (Table 13.2-1.1)
C = 0.1617 g/VMT (Table 13.2.1-2)

and For PM_{10} { K = 7.3 g/VMT
C = 0.2119 g/VMT

Thus, $PM_{2.5}$ emission factor $E_{2.5}$ (fugitive dust)

$$= 1.8 \times \left[\frac{0.10}{2}\right]^{0.65} \times \left\{\frac{3}{3}\right]^{1.5} - 0.1619$$

$$= 0.2574 - 0.1619$$

$$= \boxed{0.0957 \text{ g/VMT}} = PM_{2.5}$$

And PM_{10} emission factor E_{10} (fugitive dust)

$$= 2.3 \times \left[\frac{0.10}{2}\right]^{0.65} \times \left[\frac{3}{3}\right]^{1.5} - 0.2119$$

$$= \boxed{0.83 \text{ g/VMT}} \quad PM\text{-}10$$

These factors will be used in microscale analysis in addition to idling, engine exhaust, brake-wear, and tired-wear emissions

```
'Stapleton PM25 BD Micro-scale Receptors with Max Fugitive'  60. 321. 0. 0. 49
0.3048 1
 1 1 03  12 31 03
 14732  03  94703 03
 0 0 'U'
'REC M1'    5596. 5193. 6.0
'REC M2'    5559. 5287. 6.0
'REC M3'    5528. 5384. 6.0
'REC M4'    5507. 5428. 6.0
'REC M5'    5485. 5489. 6.0
'REC M6'    5501. 5550. 6.0
'REC M7'    5521. 5637. 6.0
'REC M8'    5534. 5690. 6.0
'REC M9'    5551. 5753. 6.0
'REC M10'   5629. 5756. 6.0
'REC M11'   5703. 5764. 6.0
'REC M12'   5779. 5771. 6.0
'REC M13'   5739. 5833. 6.0
'REC M14'   5660. 5837. 6.0
'REC M15'   5565. 5829. 6.0
'REC M16'   5588. 5904. 6.0
'REC M17'   5610. 5991. 6.0
'REC M18'   5639. 6101. 6.0
'REC M19'   5676. 6222. 6.0
'REC M20'   5707. 6340. 6.0
'REC M21'   5736. 6452. 6.0
'REC M22'   5764. 6536. 6.0
'REC M23'   5754. 6660. 6.0
'REC M24'   5670. 6663. 6.0
'REC M25'   5680. 6556. 6.0
'REC M26'   5662. 6464. 6.0
'REC M27'   5627. 6354. 6.0
'REC M28'   5600. 6242. 6.0
'REC M29'   5546. 6123. 6.0
'REC M30'   5438. 6308. 6.0
'REC M31'   5460. 6130. 6.0
'REC M32'   5471. 6043. 6.0
'REC M33'   5479. 5960. 6.0
'REC M34'   5491. 5861. 6.0
'REC M35'   5386. 5860. 6.0
'REC M36'   5271. 5872. 6.0
'REC M37'   5349. 5792. 6.0
'REC M38'   5413. 5788. 6.0
'REC M39'   5475. 5781. 6.0
'REC M40'   5467. 5719. 6.0
'REC M41'   5453. 5658. 6.0
'REC M42'   5425. 5565. 6.0
'REC M43'   5331. 5597. 6.0
'REC M44'   5348. 5542. 6.0
'REC M45'   5366. 5481. 6.0
'REC M46'   5392. 5406. 6.0
'REC M47'   5423. 5326. 6.0
'REC M48'   5459. 5234. 6.0
'REC M49'   5483. 5148. 6.0
2  'P'
1 1 1 1 1 1 1
'Bay st and Victory Intersection'   53
```

```
      1     1
'NB BAY ST Link1 NB1-NB2' 'AG' 5713. 4788. 5580. 5132. 0. 40.
      2     2
'NB BAY ST Link2 NB1-NB2' 'AG' 5713. 4788. 5580. 5132. 0. 20.0 2
      3     1
'NB BAY ST Link3 NB2-NB3' 'AG' 5580. 5132. 5489. 5366. 0. 40.
      4     1
'NB BAY ST Link4 NB3-NB4' 'AG' 5489. 5366. 5464. 5452. 0. 40.
      5     1
'NB BAY ST Link5 NB4-NB5' 'AG' 5464. 5452. 5465. 5519. 0. 40.
      6     1
'NB BAY ST Link6 NB5-NB6' 'AG' 5465. 5519. 5518. 5750. 0. 40.
      7     2
'NB BAY ST Link7 NB5-NB6' 'AG' 5465. 5519. 5518. 5750. 0. 20.0 2
      8     1
'NB BAY ST Link8 NB6-NB7' 'AG' 5518. 5750. 5589. 6026. 0. 40.
      9     1
'NB BAY ST Link9 NB7-NB8' 'AG' 5589. 6026. 5650. 6239. 0. 40.
     10     1
'NB BAY ST Link10 NB8-NB9' 'AG' 5650. 6239. 5713. 6461. 0. 40.
     11     2
'NB BAY ST Link11 NB8-NB9' 'AG' 5650. 6239. 5713. 6461. 0. 20.0 2
     12     1
'NB BAY ST Link12 NB9-NB10' 'AG' 5713. 6461. 5738. 6578. 0. 40.
     13     1
'NB BAY ST Link13 NB10-NB11' 'AG' 5738. 6578. 5717. 6862. 0. 40.
     14     1
'NB BAY ST-LEFT TURN Link14 NBL1-NBL2' 'AG' 5649. 6240. 5660. 6320. 0. 32.
     15     1
'NB BAY ST-LEFT TURN Link15 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 32.
     16     2
'NB BAY ST-LEFT TURN Link16 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 12.0 1
     17     1
'SB BAY ST Link17 SB1-SB2' 'AG' 5683. 6865. 5701. 6581. 0. 40.
     18     1
'SB BAY ST Link18 SB2-SB3' 'AG' 5701. 6581. 5700. 6542. 0. 38.
     19     2
'SB BAY ST Link19 SB2-SB3' 'AG' 5701. 6581. 5700. 6542. 0. 20.0 2
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      20    1

'SB BAY ST Link20 SB3-SB4' 'AG' 5700. 6542. 5640. 6322. 0. 40.
      21    1

'SB BAY ST Link21 SB4-SB5' 'AG' 5640. 6322. 5620. 6211. 0. 40.
      22    1

'SB BAY ST Link22 SB5-SB6' 'AG' 5620. 6211. 5521. 5868. 0. 40.
      23    2

'SB BAY ST Link23 SB5-SB6' 'AG' 5620. 6211. 5521. 5868. 0. 20.0 2
      24    1

'SB BAY ST Link24 SB6-SB7' 'AG' 5521. 5868. 5451. 5555. 0. 40.
      25    1

'SB BAY ST Link25 SB7-SB8' 'AG' 5451. 5555. 5436. 5481. 0. 40.
      26    1

'SB BAY ST Link26 SB8-SB9' 'AG' 5436. 5481. 5442. 5406. 0. 40.
      27    1

'SB BAY ST Link27 SB9-SB10' 'AG' 5442. 5406. 5472. 5320. 0. 40.
      28    1

'SB BAY ST Link28 SB10-SB11' 'AG' 5472. 5320. 5527. 5174. 0. 50.
      29    2

'SB BAY ST Link29 SB10-SB11' 'AG' 5472. 5320. 5527. 5174. 0. 30.0 3
      30    1

'SB BAY ST Link30 SB11-SB12' 'AG' 5527. 5174. 5681. 4776. 0. 40.
      31    1

'SB BAY ST-RIGHT TURN LANE Link31 SBR1-SBR2' 'AG' 5640. 6322. 5607. 6215. 0. 32.
      32    1

'SB BAY ST-RIGHT TURN LANE Link32 SBR2-SBR3' 'AG' 5607. 6215. 5507. 5888. 0. 32.
      33    2

'SB BAY ST-RIGHT TURN LANE Link33 SBR2-SBR3' 'AG' 5607. 6215. 5507. 5888. 0.
12.0 1
      34    1

'EB VICTORY BLVD Link34 EB1-EB2' 'AG' 5005. 5957. 5222. 5851. 0. 32.
      35    1

'EB VICTORY BLVD Link35 EB2-EB3' 'AG' 5222. 5851. 5320. 5817. 0. 32.
      36    1

'EB VICTORY BLVD Link36 EB3-EB4' 'AG' 5320. 5817. 5471. 5810. 0. 40.
      37    2

'EB VICTORY BLVD Link37 EB3-EB4' 'AG' 5320. 5817. 5471. 5810. 0. 20.0 2
      38    1
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'EB VICTORY BLVD Link38 EB4-EB5' 'AG' 5471. 5810. 5561. 5780. 0. 32.
      39    1

'EB VICTORY BLVD Link39 EB5-EB6' 'AG' 5561. 5780. 5747. 5791. 0. 32.
      40    1

'WB VICTORY BLVD Link40 WB1-WB2' 'AG' 5745. 5811. 5567. 5806. 0. 32.
      41    2

'WB VICTORY BLVD Link41 WB1-WB2' 'AG' 5745. 5811. 5567. 5806. 0. 12.0 1
      42    1

'WB VICTORY BLVD Link42 WB2-WB3' 'AG' 5567. 5806. 5473. 5832. 0. 32.
      43    1

'WB VICTORY BLVD Link43 WB3-WB4' 'AG' 5473. 5832. 5303. 5839. 0. 40.
      44    1

'WB VICTORY BLVD Link44 WB4-WB5' 'AG' 5303. 5839. 5212. 5874. 0. 32.
      45    1

'WB VICTORY BLVD Link45 WB5-WB6' 'AG' 5212. 5874. 5006. 5981. 0. 32.
      46    1

'SB BAY ST right movement Link46 NB6-EB5' 'AG' 5518. 5750. 5561. 5780. 0. 32.
      47    1
'SB BAY ST left movement Link47 NB6-WB3' 'AG' 5518. 5750. 5473. 5832. 0. 32.
      48    1

'SB BAY ST right movement Link48 SB6-WB3' 'AG' 5521. 5868. 5473. 5832. 0. 32.
      49    1

'SB BAY ST left movement Link49 SB6-EB5' 'AG' 5521. 5868. 5561. 5780. 0. 32.
      50    1

'EB Victory right movement Link50 ' 'AG' 5471. 5810. 5503. 5789. 0. 32.
      51    1
'EB Victory left movement Link51 ' 'AG' 5471. 5810. 5537. 5825. 0. 32.
      52    1

'WB Victory left movement Link52 ' 'AG' 5566. 5806. 5504. 5789. 0. 32.
      53    1

'WB Victory right movement Link53 ' 'AG' 5566. 5806. 5537. 5825. 0. 32.
  1   0.0
1     93    0.1177
2     90    33    3     93    0.043 1600  1     3
3     93    0.1177
4     93    0.1177
5     93    0.1177
6     93    0.1177
7     90    33    3     93    0.043 1600  1     3
8     129   0.1177
9     129   0.1177
10    129   0.1177
11    90    33    3     129   0.043 1600  1     3
12    129   0.1177
```

```
13      129     0.1177
14      16      0.1177
15      16      0.1177
16      90      33      3       16      0.043 1600  1       3
17      99      0.1177
18      99      0.1177
19      90      33      3       99      0.043 1600  1       3
20      99      0.1177
21      99      0.1177
22      99      0.1177
23      90      33      3       99      0.043 1600  1       3
24      102     0.1177
25      102     0.1177
26      102     0.1177
27      102     0.1177
28      102     0.1177
29      90      33      3       102     0.043 1600  1       3
30      102     0.1177
31      19      0.1177
32      19      0.1177
33      90      33      3       19      0.043 1600  1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600  1       3
38      3       0.1177
39      3       0.1177
40      2       0.1177
41      90      51      3       2       0.043 1600  1       3
42      36      0.1177
43      36      0.1177
44      36      0.1177
45      36      0.1177
46      2       0.1177
47      16      0.1177
48      19      0.1177
49      0       0.1177
50      2       0.1177
51      36      0.1177
52      2       0.1177
53      0       0.1177
        2       0.0
1       67      0.1177
2       90      33      3       67      0.043 1600  1       3
3       67      0.1177
4       67      0.1177
5       67      0.1177
6       67      0.1177
7       90      33      3       67      0.043 1600  1       3
8       93      0.1177
9       93      0.1177
10      93      0.1177
11      90      33      3       93      0.043 1600  1       3
12      93      0.1177
13      93      0.1177
14      12      0.1177
15      12      0.1177
```

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16      90      33      3       12      0.043 1600    1       3
17      72      0.1177
18      72      0.1177
19      90      33      3       72      0.043 1600    1       3
20      72      0.1177
21      72      0.1177
22      72      0.1177
23      90      33      3       72      0.043 1600    1       3
24      74      0.1177
25      74      0.1177
26      74      0.1177
27      74      0.1177
28      74      0.1177
29      90      33      3       74      0.043 1600    1       3
30      74      0.1177
31      14      0.1177
32      14      0.1177
33      90      33      3       14      0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      2       0.1177
41      90      51      3       2       0.043 1600    1       3
42      26      0.1177
43      26      0.1177
44      26      0.1177
45      26      0.1177
46      2       0.1177
47      12      0.1177
48      14      0.1177
49      0       0.1177
50      2       0.1177
51      26      0.1177
52      2       0.1177
53      0       0.1177
        3       0.0
1       51      0.1177
2       90      33      3       51      0.043 1600    1       3
3       51      0.1177
4       51      0.1177
5       51      0.1177
6       51      0.1177
7       90      33      3       51      0.043 1600    1       3
8       71      0.1177
9       71      0.1177
10      71      0.1177
11      90      33      3       71      0.043 1600    1       3
12      71      0.1177
13      71      0.1177
14      9       0.1177
15      9       0.1177
16      90      33      3       9       0.043 1600    1       3
17      55      0.1177
18      55      0.1177
```

```
19      90      33      3       55      0.043 1600    1       3
20      55      0.1177
21      55      0.1177
22      55      0.1177
23      90      33      3       55      0.043 1600    1       3
24      56      0.1177
25      56      0.1177
26      56      0.1177
27      56      0.1177
28      56      0.1177
29      90      33      3       56      0.043 1600    1       3
30      56      0.1177
31      11      0.1177
32      11      0.1177
33      90      33      3       11      0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      0       0.1177
41      90      51      3       0       0.043 1600    1       3
42      20      0.1177
43      20      0.1177
44      20      0.1177
45      20      0.1177
46      2       0.1177
47      9       0.1177
48      11      0.1177
49      0       0.1177
50      2       0.1177
51      20      0.1177
52      2       0.1177
53      0       0.1177
        4       0.0
1       67      0.1177
2       90      33      3       67      0.043 1600    1       3
3       67      0.1177
4       67      0.1177
5       67      0.1177
6       67      0.1177
7       90      33      3       67      0.043 1600    1       3
8       94      0.1177
9       94      0.1177
10      94      0.1177
11      90      33      3       94      0.043 1600    1       3
12      94      0.1177
13      94      0.1177
14      12      0.1177
15      12      0.1177
16      90      33      3       12      0.043 1600    1       3
17      72      0.1177
18      72      0.1177
19      90      33      3       72      0.043 1600    1       3
20      72      0.1177
21      72      0.1177
```

```
22    72    0.1177
23    90    33    3    72    0.043 1600  1    3
24    74    0.1177
25    74    0.1177
26    74    0.1177
27    74    0.1177
28    74    0.1177
29    90    33    3    74    0.043 1600  1    3
30    74    0.1177
31    14    0.1177
32    14    0.1177
33    90    33    3    14    0.043 1600  1    3
34    2     0.1177
35    2     0.1177
36    2     0.1177
37    90    51    3    2     0.043 1600  1    3
38    2     0.1177
39    2     0.1177
40    2     0.1177
41    90    51    3    2     0.043 1600  1    3
42    26    0.1177
43    26    0.1177
44    26    0.1177
45    26    0.1177
46    1     0.1177
47    12    0.1177
48    14    0.1177
49    0     0.1177
50    2     0.1177
51    26    0.1177
52    2     0.1177
53    0     0.1177
      5     0.0
1     123   0.1177
2     90    33    3    123   0.043 1600  1    3
3     123   0.1177
4     123   0.1177
5     123   0.1177
6     123   0.1177
7     90    33    3    123   0.043 1600  1    3
8     172   0.1177
9     172   0.1177
10    172   0.1177
11    90    33    3    172   0.043 1600  1    3
12    172   0.1177
13    172   0.1177
14    21    0.1177
15    21    0.1177
16    90    33    3    21    0.043 1600  1    3
17    132   0.1177
18    132   0.1177
19    90    33    3    132   0.043 1600  1    3
20    132   0.1177
21    132   0.1177
22    132   0.1177
23    90    33    3    132   0.043 1600  1    3
24    136   0.1177
```

```
25      136     0.1177
26      136     0.1177
27      136     0.1177
28      136     0.1177
29      90      33      3       136     0.043 1600    1       3
30      136     0.1177
31      25      0.1177
32      25      0.1177
33      90      33      3       25      0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      4       0.1177
39      4       0.1177
40      2       0.1177
41      90      51      3       2       0.043 1600    1       3
42      48      0.1177
43      48      0.1177
44      48      0.1177
45      48      0.1177
46      2       0.1177
47      21      0.1177
48      25      0.1177
49      2       0.1177
50      2       0.1177
51      48      0.1177
52      2       0.1177
53      0       0.1177
        6       0.0
1       388     0.1177
2       90      33      3       388     0.043 1600    1       3
3       388     0.1177
4       388     0.1177
5       388     0.1177
6       388     0.1177
7       90      33      3       388     0.043 1600    1       3
8       540     0.1177
9       540     0.1177
10      540     0.1177
11      90      33      3       540     0.043 1600    1       3
12      540     0.1177
13      540     0.1177
14      67      0.1177
15      67      0.1177
16      90      33      3       67      0.043 1600    1       3
17      415     0.1177
18      415     0.1177
19      90      33      3       415     0.043 1600    1       3
20      415     0.1177
21      415     0.1177
22      415     0.1177
23      90      33      3       415     0.043 1600    1       3
24      427     0.1177
25      427     0.1177
26      427     0.1177
27      427     0.1177
```

```
28      427     0.1177
29      90      33      3       427     0.043 1600    1       3
30      427     0.1177
31      80      0.1177
32      80      0.1177
33      90      33      3       80      0.043 1600    1       3
34      6       0.1177
35      6       0.1177
36      6       0.1177
37      90      51      3       6       0.043 1600    1       3
38      13      0.1177
39      13      0.1177
40      3       0.1177
41      90      51      3       3       0.043 1600    1       3
42      150     0.1177
43      150     0.1177
44      150     0.1177
45      150     0.1177
46      5       0.1177
47      67      0.1177
48      80      0.1177
49      2       0.1177
50      6       0.1177
51      151     0.1177
52      6       0.1177
53      0       0.1177
        7       0.0
1       802     0.1177
2       90      33      3       802     0.043 1600    1       3
3       802     0.1177
4       802     0.1177
5       802     0.1177
6       802     0.1177
7       90      33      3       802     0.043 1600    1       3
8       1116    0.1177
9       1116    0.1177
10      1116    0.1177
11      90      33      3       1116    0.043 1600    1       3
12      1116    0.1177
13      1116    0.1177
14      139     0.1177
15      139     0.1177
16      90      33      3       139     0.043 1600    1       3
17      858     0.1177
18      858     0.1177
19      90      33      3       858     0.043 1600    1       3
20      858     0.1177
21      858     0.1177
22      858     0.1177
23      90      33      3       858     0.043 1600    1       3
24      883     0.1177
25      883     0.1177
26      883     0.1177
27      883     0.1177
28      883     0.1177
29      90      33      3       883     0.043 1600    1       3
30      883     0.1177
```

```
31    165   0.1177
32    165   0.1177
33    90    33    3     165   0.043 1600  1     3
34    13    0.1177
35    13    0.1177
36    13    0.1177
37    90    51    3     13    0.043 1600  1     3
38    27    0.1177
39    27    0.1177
40    6     0.1177
41    90    51    3     6     0.043 1600  1     3
42    310   0.1177
43    310   0.1177
44    310   0.1177
45    310   0.1177
46    10    0.1177
47    139   0.1177
48    165   0.1177
49    4     0.1177
50    12    0.1177
51    313   0.1177
52    13    0.1177
53    2     0.1177
      8     0.0
1     802   0.1177
2     90    33    3     802   0.043 1600  1     3
3     802   0.1177
4     802   0.1177
5     802   0.1177
6     802   0.1177
7     90    33    3     802   0.043 1600  1     3
8     1116  0.1177
9     1116  0.1177
10    1116  0.1177
11    90    33    3     1116  0.043 1600  1     3
12    1116  0.1177
13    1116  0.1177
14    139   0.1177
15    139   0.1177
16    90    33    3     139   0.043 1600  1     3
17    858   0.1177
18    858   0.1177
19    90    33    3     858   0.043 1600  1     3
20    858   0.1177
21    858   0.1177
22    858   0.1177
23    90    33    3     858   0.043 1600  1     3
24    883   0.1177
25    883   0.1177
26    883   0.1177
27    883   0.1177
28    883   0.1177
29    90    33    3     883   0.043 1600  1     3
30    883   0.1177
31    165   0.1177
32    165   0.1177
33    90    33    3     165   0.043 1600  1     3
```

```
34      13      0.1177
35      13      0.1177
36      13      0.1177
37      90      51    3       13      0.043 1600  1       3
38      27      0.1177
39      27      0.1177
40      6       0.1177
41      90      51    3       6       0.043 1600  1       3
42      310     0.1177
43      310     0.1177
44      310     0.1177
45      310     0.1177
46      10      0.1177
47      139     0.1177
48      165     0.1177
49      4       0.1177
50      12      0.1177
51      313     0.1177
52      13      0.1177
53      2       0.1177
        9       0.0
1       663     0.1177
2       90      33    3       663     0.043 1600  1       3
3       663     0.1177
4       663     0.1177
5       663     0.1177
6       663     0.1177
7       90      33    3       663     0.043 1600  1       3
8       922     0.1177
9       922     0.1177
10      922     0.1177
11      90      33    3       922     0.043 1600  1       3
12      922     0.1177
13      922     0.1177
14      115     0.1177
15      115     0.1177
16      90      33    3       115     0.043 1600  1       3
17      709     0.1177
18      709     0.1177
19      90      33    3       709     0.043 1600  1       3
20      709     0.1177
21      709     0.1177
22      709     0.1177
23      90      33    3       709     0.043 1600  1       3
24      730     0.1177
25      730     0.1177
26      730     0.1177
27      730     0.1177
28      730     0.1177
29      90      33    3       730     0.043 1600  1       3
30      730     0.1177
31      136     0.1177
32      136     0.1177
33      90      33    3       136     0.043 1600  1       3
34      11      0.1177
35      11      0.1177
36      11      0.1177
```

```
37    90    51    3     11    0.043 1600  1     3
38    22    0.1177
39    22    0.1177
40    5     0.1177
41    90    51    3     5     0.043 1600  1     3
42    256   0.1177
43    256   0.1177
44    256   0.1177
45    256   0.1177
46    8     0.1177
47    115   0.1177
48    136   0.1177
49    3     0.1177
50    10    0.1177
51    259   0.1177
52    11    0.1177
53    2     0.1177
      10    0.0
1     617   0.1177
2     90    33    3     617   0.043 1600  1     3
3     617   0.1177
4     617   0.1177
5     617   0.1177
6     617   0.1177
7     90    33    3     617   0.043 1600  1     3
8     859   0.1177
9     859   0.1177
10    859   0.1177
11    90    33    3     859   0.043 1600  1     3
12    859   0.1177
13    859   0.1177
14    107   0.1177
15    107   0.1177
16    90    33    3     107   0.043 1600  1     3
17    661   0.1177
18    661   0.1177
19    90    33    3     661   0.043 1600  1     3
20    661   0.1177
21    661   0.1177
22    661   0.1177
23    90    33    3     661   0.043 1600  1     3
24    680   0.1177
25    680   0.1177
26    680   0.1177
27    680   0.1177
28    680   0.1177
29    90    33    3     680   0.043 1600  1     3
30    680   0.1177
31    127   0.1177
32    127   0.1177
33    90    33    3     127   0.043 1600  1     3
34    10    0.1177
35    10    0.1177
36    10    0.1177
37    90    51    3     10    0.043 1600  1     3
38    21    0.1177
39    21    0.1177
```

```
40    5     0.1177
41    90    51    3     5     0.043 1600  1     3
42    239   0.1177
43    239   0.1177
44    239   0.1177
45    239   0.1177
46    8     0.1177
47    107   0.1177
48    127   0.1177
49    3     0.1177
50    9     0.1177
51    241   0.1177
52    10    0.1177
53    2     0.1177
      11    0.0
1     641   0.1177
2     90    33    3     641   0.043 1600  1     3
3     641   0.1177
4     641   0.1177
5     641   0.1177
6     641   0.1177
7     90    33    3     641   0.043 1600  1     3
8     892   0.1177
9     892   0.1177
10    892   0.1177
11    90    33    3     892   0.043 1600  1     3
12    892   0.1177
13    892   0.1177
14    111   0.1177
15    111   0.1177
16    90    33    3     111   0.043 1600  1     3
17    686   0.1177
18    686   0.1177
19    90    33    3     686   0.043 1600  1     3
20    686   0.1177
21    686   0.1177
22    686   0.1177
23    90    33    3     686   0.043 1600  1     3
24    706   0.1177
25    706   0.1177
26    706   0.1177
27    706   0.1177
28    706   0.1177
29    90    33    3     706   0.043 1600  1     3
30    706   0.1177
31    132   0.1177
32    132   0.1177
33    90    33    3     132   0.043 1600  1     3
34    10    0.1177
35    10    0.1177
36    10    0.1177
37    90    51    3     10    0.043 1600  1     3
38    22    0.1177
39    22    0.1177
40    5     0.1177
41    90    51    3     5     0.043 1600  1     3
42    248   0.1177
```

```
43      248     0.1177
44      248     0.1177
45      248     0.1177
46      8       0.1177
47      111     0.1177
48      132     0.1177
49      3       0.1177
50      10      0.1177
51      250     0.1177
52      10      0.1177
53      2       0.1177
        12      0.0
1       724     0.1177
2       90      33      3       724     0.043 1600    1       3
3       724     0.1177
4       724     0.1177
5       724     0.1177
6       724     0.1177
7       90      33      3       724     0.043 1600    1       3
8       896     0.1177
9       896     0.1177
10      896     0.1177
11      90      33      3       896     0.043 1600    1       3
12      896     0.1177
13      896     0.1177
14      235     0.1177
15      235     0.1177
16      90      33      3       235     0.043 1600    1       3
17      905     0.1177
18      905     0.1177
19      90      33      3       905     0.043 1600    1       3
20      905     0.1177
21      905     0.1177
22      905     0.1177
23      90      33      3       905     0.043 1600    1       3
24      921     0.1177
25      921     0.1177
26      921     0.1177
27      921     0.1177
28      921     0.1177
29      90      33      3       921     0.043 1600    1       3
30      921     0.1177
31      189     0.1177
32      189     0.1177
33      90      33      3       189     0.043 1600    1       3
34      3       0.1177
35      3       0.1177
36      3       0.1177
37      90      51      3       3       0.043 1600    1       3
38      7       0.1177
39      7       0.1177
40      1       0.1177
41      90      51      3       2       0.043 1600    1       3
42      425     0.1177
43      425     0.1177
44      425     0.1177
45      425     0.1177
```

```
46      3       0.1177
47      235     0.1177
48      189     0.1177
49      1       0.1177
50      10      0.1177
51      166     0.1177
52      6       0.1177
53      6       0.1177
        13      0.0
1       724     0.1177
2       90      33      3       724     0.043 1600    1       3
3       724     0.1177
4       724     0.1177
5       724     0.1177
6       724     0.1177
7       90      33      3       724     0.043 1600    1       3
8       896     0.1177
9       896     0.1177
10      896     0.1177
11      90      33      3       896     0.043 1600    1       3
12      896     0.1177
13      896     0.1177
14      235     0.1177
15      235     0.1177
16      90      33      3       235     0.043 1600    1       3
17      905     0.1177
18      905     0.1177
19      90      33      3       905     0.043 1600    1       3
20      905     0.1177
21      905     0.1177
22      905     0.1177
23      90      33      3       905     0.043 1600    1       3
24      921     0.1177
25      921     0.1177
26      921     0.1177
27      921     0.1177
28      921     0.1177
29      90      33      3       921     0.043 1600    1       3
30      921     0.1177
31      189     0.1177
32      189     0.1177
33      90      33      3       189     0.043 1600    1       3
34      3       0.1177
35      3       0.1177
36      3       0.1177
37      90      51      3       3       0.043 1600    1       3
38      7       0.1177
39      7       0.1177
40      1       0.1177
41      90      51      3       2       0.043 1600    1       3
42      425     0.1177
43      425     0.1177
44      425     0.1177
45      425     0.1177
46      3       0.1177
47      235     0.1177
48      189     0.1177
```

```
49      1       0.1177
50      10      0.1177
51      166     0.1177
52      6       0.1177
53      6       0.1177
        14      0.0
1       652     0.1177
2       90      33      3       652     0.043 1600    1       3
3       652     0.1177
4       652     0.1177
5       652     0.1177
6       652     0.1177
7       90      33      3       652     0.043 1600    1       3
8       822     0.1177
9       822     0.1177
10      822     0.1177
11      90      33      3       822     0.043 1600    1       3
12      822     0.1177
13      822     0.1177
14      193     0.1177
15      193     0.1177
16      90      33      3       193     0.043 1600    1       3
17      913     0.1177
18      913     0.1177
19      90      33      3       913     0.043 1600    1       3
20      913     0.1177
21      913     0.1177
22      913     0.1177
23      90      33      3       913     0.043 1600    1       3
24      931     0.1177
25      931     0.1177
26      931     0.1177
27      931     0.1177
28      931     0.1177
29      90      33      3       931     0.043 1600    1       3
30      931     0.1177
31      229     0.1177
32      229     0.1177
33      90      33      3       229     0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      6       0.1177
39      6       0.1177
40      9       0.1177
41      90      51      3       9       0.043 1600    1       3
42      432     0.1177
43      432     0.1177
44      432     0.1177
45      432     0.1177
46      1       0.1177
47      193     0.1177
48      229     0.1177
49      2       0.1177
50      9       0.1177
51      167     0.1177
```

```
52      9       0.1177
53      3       0.1177
        15      0.0
1       759     0.1177
2       90      33      3       759     0.043 1600    1       3
3       759     0.1177
4       759     0.1177
5       759     0.1177
6       759     0.1177
7       90      33      3       759     0.043 1600    1       3
8       957     0.1177
9       957     0.1177
10      957     0.1177
11      90      33      3       957     0.043 1600    1       3
12      957     0.1177
13      957     0.1177
14      225     0.1177
15      225     0.1177
16      90      33      3       225     0.043 1600    1       3
17      1063    0.1177
18      1063    0.1177
19      90      33      3       1063    0.043 1600    1       3
20      1063    0.1177
21      1063    0.1177
22      1063    0.1177
23      90      33      3       1063    0.043 1600    1       3
24      1084    0.1177
25      1084    0.1177
26      1084    0.1177
27      1084    0.1177
28      1084    0.1177
29      90      33      3       1084    0.043 1600    1       3
30      1084    0.1177
31      267     0.1177
32      267     0.1177
33      90      33      3       267     0.043 1600    1       3
34      3       0.1177
35      3       0.1177
36      3       0.1177
37      90      51      3       3       0.043 1600    1       3
38      7       0.1177
39      7       0.1177
40      11      0.1177
41      90      51      3       11      0.043 1600    1       3
42      503     0.1177
43      503     0.1177
44      503     0.1177
45      503     0.1177
46      1       0.1177
47      225     0.1177
48      267     0.1177
49      3       0.1177
50      11      0.1177
51      194     0.1177
52      11      0.1177
53      4       0.1177
        16      0.0
```

```
1     790   0.1177
2     90    33    3     790   0.043 1600  1     3
3     790   0.1177
4     790   0.1177
5     790   0.1177
6     790   0.1177
7     90    33    3     790   0.043 1600  1     3
8     996   0.1177
9     996   0.1177
10    996   0.1177
11    90    33    3     996   0.043 1600  1     3
12    996   0.1177
13    996   0.1177
14    234   0.1177
15    234   0.1177
16    90    33    3     234   0.043 1600  1     3
17    1106  0.1177
18    1106  0.1177
19    90    33    3     1106  0.043 1600  1     3
20    1106  0.1177
21    1106  0.1177
22    1106  0.1177
23    90    33    3     1106  0.043 1600  1     3
24    1128  0.1177
25    1128  0.1177
26    1128  0.1177
27    1128  0.1177
28    1128  0.1177
29    90    33    3     1128  0.043 1600  1     3
30    1128  0.1177
31    278   0.1177
32    278   0.1177
33    90    33    3     278   0.043 1600  1     3
34    3     0.1177
35    3     0.1177
36    3     0.1177
37    90    51    3     3     0.043 1600  1     3
38    7     0.1177
39    7     0.1177
40    11    0.1177
41    90    51    3     11    0.043 1600  1     3
42    523   0.1177
43    523   0.1177
44    523   0.1177
45    523   0.1177
46    1     0.1177
47    234   0.1177
48    278   0.1177
49    3     0.1177
50    11    0.1177
51    202   0.1177
52    11    0.1177
53    4     0.1177
      17    0.0
1     790   0.1177
2     90    33    3     790   0.043 1600  1     3
3     790   0.1177
```

```
4       790     0.1177
5       790     0.1177
6       790     0.1177
7       90      33      3       790     0.043 1600    1       3
8       996     0.1177
9       996     0.1177
10      996     0.1177
11      90      33      3       996     0.043 1600    1       3
12      996     0.1177
13      996     0.1177
14      234     0.1177
15      234     0.1177
16      90      33      3       234     0.043 1600    1       3
17      1106    0.1177
18      1106    0.1177
19      90      33      3       1106    0.043 1600    1       3
20      1106    0.1177
21      1106    0.1177
22      1106    0.1177
23      90      33      3       1106    0.043 1600    1       3
24      1128    0.1177
25      1128    0.1177
26      1128    0.1177
27      1128    0.1177
28      1128    0.1177
29      90      33      3       1128    0.043 1600    1       3
30      1128    0.1177
31      278     0.1177
32      278     0.1177
33      90      33      3       278     0.043 1600    1       3
34      3       0.1177
35      3       0.1177
36      3       0.1177
37      90      51      3       3       0.043 1600    1       3
38      7       0.1177
39      7       0.1177
40      11      0.1177
41      90      51      3       11      0.043 1600    1       3
42      523     0.1177
43      523     0.1177
44      523     0.1177
45      523     0.1177
46      1       0.1177
47      234     0.1177
48      278     0.1177
49      3       0.1177
50      11      0.1177
51      202     0.1177
52      11      0.1177
53      4       0.1177
        18      0.0
1       601     0.1177
2       90      33      3       601     0.043 1600    1       3
3       601     0.1177
4       601     0.1177
5       601     0.1177
6       601     0.1177
```

```
7       90      33      3       601     0.043 1600    1       3
8       758     0.1177
9       758     0.1177
10      758     0.1177
11      90      33      3       758     0.043 1600    1       3
12      758     0.1177
13      758     0.1177
14      178     0.1177
15      178     0.1177
16      90      33      3       178     0.043 1600    1       3
17      842     0.1177
18      842     0.1177
19      90      33      3       842     0.043 1600    1       3
20      842     0.1177
21      842     0.1177
22      842     0.1177
23      90      33      3       842     0.043 1600    1       3
24      859     0.1177
25      859     0.1177
26      859     0.1177
27      859     0.1177
28      859     0.1177
29      90      33      3       859     0.043 1600    1       3
30      859     0.1177
31      212     0.1177
32      212     0.1177
33      90      33      3       212     0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      5       0.1177
39      5       0.1177
40      8       0.1177
41      90      51      3       8       0.043 1600    1       3
42      398     0.1177
43      398     0.1177
44      398     0.1177
45      398     0.1177
46      1       0.1177
47      178     0.1177
48      212     0.1177
49      2       0.1177
50      8       0.1177
51      154     0.1177
52      8       0.1177
53      3       0.1177
        19      0.0
1       459     0.1177
2       90      33      3       459     0.043 1600    1       3
3       459     0.1177
4       459     0.1177
5       459     0.1177
6       459     0.1177
7       90      33      3       459     0.043 1600    1       3
8       579     0.1177
9       579     0.1177
```

```
10      579     0.1177
11      90      33      3       579     0.043 1600    1       3
12      579     0.1177
13      579     0.1177
14      136     0.1177
15      136     0.1177
16      90      33      3       136     0.043 1600    1       3
17      642     0.1177
18      642     0.1177
19      90      33      3       642     0.043 1600    1       3
20      642     0.1177
21      642     0.1177
22      642     0.1177
23      90      33      3       642     0.043 1600    1       3
24      655     0.1177
25      655     0.1177
26      655     0.1177
27      655     0.1177
28      655     0.1177
29      90      33      3       655     0.043 1600    1       3
30      655     0.1177
31      161     0.1177
32      161     0.1177
33      90      33      3       161     0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      4       0.1177
39      4       0.1177
40      6       0.1177
41      90      51      3       6       0.043 1600    1       3
42      304     0.1177
43      304     0.1177
44      304     0.1177
45      304     0.1177
46      1       0.1177
47      136     0.1177
48      161     0.1177
49      2       0.1177
50      6       0.1177
51      117     0.1177
52      6       0.1177
53      2       0.1177
        20      0.0
1       353     0.1177
2       90      33      3       353     0.043 1600    1       3
3       353     0.1177
4       353     0.1177
5       353     0.1177
6       353     0.1177
7       90      33      3       353     0.043 1600    1       3
8       446     0.1177
9       446     0.1177
10      446     0.1177
11      90      33      3       446     0.043 1600    1       3
12      446     0.1177
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13      446     0.1177
14      105     0.1177
15      105     0.1177
16      90      33      3       105     0.043 1600    1       3
17      495     0.1177
18      495     0.1177
19      90      33      3       495     0.043 1600    1       3
20      495     0.1177
21      495     0.1177
22      495     0.1177
23      90      33      3       495     0.043 1600    1       3
24      505     0.1177
25      505     0.1177
26      505     0.1177
27      505     0.1177
28      505     0.1177
29      90      33      3       505     0.043 1600    1       3
30      505     0.1177
31      124     0.1177
32      124     0.1177
33      90      33      3       124     0.043 1600    1       3
34      1       0.1177
35      1       0.1177
36      1       0.1177
37      90      51      3       2       0.043 1600    1       3
38      3       0.1177
39      3       0.1177
40      5       0.1177
41      90      51      3       5       0.043 1600    1       3
42      234     0.1177
43      234     0.1177
44      234     0.1177
45      234     0.1177
46      0       0.1177
47      105     0.1177
48      124     0.1177
49      1       0.1177
50      5       0.1177
51      90      0.1177
52      5       0.1177
53      2       0.1177
        21      0.0
1       300     0.1177
2       90      33      3       300     0.043 1600    1       3
3       300     0.1177
4       300     0.1177
5       300     0.1177
6       300     0.1177
7       90      33      3       300     0.043 1600    1       3
8       378     0.1177
9       378     0.1177
10      378     0.1177
11      90      33      3       378     0.043 1600    1       3
12      378     0.1177
13      378     0.1177
14      89      0.1177
15      89      0.1177
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16      90      33      3       89      0.043 1600    1       3
17      420     0.1177
18      420     0.1177
19      90      33      3       420     0.043 1600    1       3
20      420     0.1177
21      420     0.1177
22      420     0.1177
23      90      33      3       420     0.043 1600    1       3
24      428     0.1177
25      428     0.1177
26      428     0.1177
27      428     0.1177
28      428     0.1177
29      90      33      3       428     0.043 1600    1       3
30      428     0.1177
31      105     0.1177
32      105     0.1177
33      90      33      3       105     0.043 1600    1       3
34      1       0.1177
35      1       0.1177
36      1       0.1177
37      90      51      3       2       0.043 1600    1       3
38      3       0.1177
39      3       0.1177
40      4       0.1177
41      90      51      3       4       0.043 1600    1       3
42      198     0.1177
43      198     0.1177
44      198     0.1177
45      198     0.1177
46      0       0.1177
47      89      0.1177
48      105     0.1177
49      1       0.1177
50      4       0.1177
51      77      0.1177
52      4       0.1177
53      2       0.1177
        22      0.0
1       240     0.1177
2       90      33      3       240     0.043 1600    1       3
3       240     0.1177
4       240     0.1177
5       240     0.1177
6       240     0.1177
7       90      33      3       240     0.043 1600    1       3
8       303     0.1177
9       303     0.1177
10      303     0.1177
11      90      33      3       303     0.043 1600    1       3
12      303     0.1177
13      303     0.1177
14      71      0.1177
15      71      0.1177
16      90      33      3       71      0.043 1600    1       3
17      336     0.1177
18      336     0.1177
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19      90      33      3       336     0.043 1600    1       3
20      336     0.1177
21      336     0.1177
22      336     0.1177
23      90      33      3       336     0.043 1600    1       3
24      343     0.1177
25      343     0.1177
26      343     0.1177
27      343     0.1177
28      343     0.1177
29      90      33      3       343     0.043 1600    1       3
30      343     0.1177
31      85      0.1177
32      85      0.1177
33      90      33      3       85      0.043 1600    1       3
34      1       0.1177
35      1       0.1177
36      1       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      3       0.1177
41      90      51      3       3       0.043 1600    1       3
42      159     0.1177
43      159     0.1177
44      159     0.1177
45      159     0.1177
46      0       0.1177
47      71      0.1177
48      85      0.1177
49      1       0.1177
50      3       0.1177
51      61      0.1177
52      3       0.1177
53      1       0.1177
        23      0.0
1       195     0.1177
2       90      33      3       195     0.043 1600    1       3
3       195     0.1177
4       195     0.1177
5       195     0.1177
6       195     0.1177
7       90      33      3       195     0.043 1600    1       3
8       245     0.1177
9       245     0.1177
10      245     0.1177
11      90      33      3       245     0.043 1600    1       3
12      245     0.1177
13      245     0.1177
14      58      0.1177
15      58      0.1177
16      90      33      3       58      0.043 1600    1       3
17      272     0.1177
18      272     0.1177
19      90      33      3       272     0.043 1600    1       3
20      272     0.1177
21      272     0.1177
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22      272     0.1177
23      90      33      3       272     0.043 1600    1       3
24      278     0.1177
25      278     0.1177
26      278     0.1177
27      278     0.1177
28      278     0.1177
29      90      33      3       278     0.043 1600    1       3
30      278     0.1177
31      68      0.1177
32      68      0.1177
33      90      33      3       68      0.043 1600    1       3
34      1       0.1177
35      1       0.1177
36      1       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      3       0.1177
41      90      51      3       3       0.043 1600    1       3
42      129     0.1177
43      129     0.1177
44      129     0.1177
45      129     0.1177
46      0       0.1177
47      58      0.1177
48      68      0.1177
49      1       0.1177
50      3       0.1177
51      50      0.1177
52      3       0.1177
53      1       0.1177
        24      0.0
1       129     0.1177
2       90      33      3       129     0.043 1600    1       3
3       129     0.1177
4       129     0.1177
5       129     0.1177
6       129     0.1177
7       90      33      3       129     0.043 1600    1       3
8       180     0.1177
9       180     0.1177
10      180     0.1177
11      90      33      3       180     0.043 1600    1       3
12      180     0.1177
13      180     0.1177
14      22      0.1177
15      22      0.1177
16      90      33      3       22      0.043 1600    1       3
17      138     0.1177
18      138     0.1177
19      90      33      3       138     0.043 1600    1       3
20      138     0.1177
21      138     0.1177
22      138     0.1177
23      90      33      3       138     0.043 1600    1       3
24      142     0.1177
```

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25    142   0.1177
26    142   0.1177
27    142   0.1177
28    142   0.1177
29    90    33    3     142   0.043 1600  1     3
30    142   0.1177
31    27    0.1177
32    27    0.1177
33    90    33    3     27    0.043 1600  1     3
34    2     0.1177
35    2     0.1177
36    2     0.1177
37    90    51    3     2     0.043 1600  1     3
38    4     0.1177
39    4     0.1177
40    2     0.1177
41    90    51    3     2     0.043 1600  1     3
42    50    0.1177
43    50    0.1177
44    50    0.1177
45    50    0.1177
46    2     0.1177
47    22    0.1177
48    27    0.1177
49    2     0.1177
50    2     0.1177
51    50    0.1177
52    2     0.1177
53    0     0.1177
```

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay
st and Victory Intersection

General Information

Run start date: 1/ 1/ 3 Julian: 1
end date: 12/31/ 3 Julian: 365

A Tier 2 approach was used for input data preparation.

The MODE flag has been set to P for calculating PM averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 321. CM ATIM =
60.

Met. Sfc. Sta. Id & Yr = 14732 3
Upper Air Sta. Id & Yr = 94703 3

Urban mixing heights were processed.

In 2003, Julian day 1 is a Wednesday.

The patterns from the input file
have been assigned as follows:

Pattern # 1 is assigned to Monday.
Pattern # 1 is assigned to Tuesday.
Pattern # 1 is assigned to Wednesday.
Pattern # 1 is assigned to Thursday.
Pattern # 1 is assigned to Friday.
Pattern # 1 is assigned to Saturday.
Pattern # 1 is assigned to Sunday.

Link Data Constants - (Variable data in *.LNK file)

LINK DESCRIPTION					*	LINK COORDINATES (FT)				*
LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES *	X1	Y1	X2	Y2	*

```
            1. NB BAY ST Link1 NB1-*    5713.0     4788.0     5580.0     5132.0 *
369.    339.   AG     0.0   40.0
            2. NB BAY ST Link2 NB1-*    5713.0     4788.0     5580.0     5132.0 *
369.    339.   AG     0.0   20.0     2
            3. NB BAY ST Link3 NB2-*    5580.0     5132.0     5489.0     5366.0 *
251.    339.   AG     0.0   40.0
            4. NB BAY ST Link4 NB3-*    5489.0     5366.0     5464.0     5452.0 *
90.     344.   AG     0.0   40.0
            5. NB BAY ST Link5 NB4-*    5464.0     5452.0     5465.0     5519.0 *
67.       1.   AG     0.0   40.0
            6. NB BAY ST Link6 NB5-*    5465.0     5519.0     5518.0     5750.0 *
237.     13.   AG     0.0   40.0
            7. NB BAY ST Link7 NB5-*    5465.0     5519.0     5518.0     5750.0 *
237.     13.   AG     0.0   20.0     2
```

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay st and Victory Intersection

Link Data Constants - (Variable data in *.LNK file)

LINK DESCRIPTION						LINK COORDINATES (FT)				
	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES	X1	Y1	X2	Y2
8.	285.	14.	NB BAY ST Link8 NB6-	AG	0.0	40.0	5518.0	5750.0	5589.0	6026.0
9.	222.	16.	NB BAY ST Link9 NB7-	AG	0.0	40.0	5589.0	6026.0	5650.0	6239.0
10.	231.	16.	NB BAY ST Link10 NB8	AG	0.0	40.0	5650.0	6239.0	5713.0	6461.0
11.	231.	16.	NB BAY ST Link11 NB8	AG	0.0	20.0	2	5650.0	6239.0	5713.0	6461.0
12.	120.	12.	NB BAY ST Link12 NB9	AG	0.0	40.0	5713.0	6461.0	5738.0	6578.0
13.	285.	356.	NB BAY ST Link13 NB1	AG	0.0	40.0	5738.0	6578.0	5717.0	6862.0
14.	81.	8.	NB BAY ST-LEFT TURN	AG	0.0	32.0	5649.0	6240.0	5660.0	6320.0
15.	151.	15.	NB BAY ST-LEFT TURN	AG	0.0	32.0	5660.0	6320.0	5698.0	6466.0
16.	151.	15.	NB BAY ST-LEFT TURN	AG	0.0	12.0	1	5660.0	6320.0	5698.0	6466.0
17.	285.	176.	SB BAY ST Link17 SB1	AG	0.0	40.0	5683.0	6865.0	5701.0	6581.0
18.	39.	181.	SB BAY ST Link18 SB2	AG	0.0	38.0	5701.0	6581.0	5700.0	6542.0
19.	39.	181.	SB BAY ST Link19 SB2	AG	0.0	20.0	2	5701.0	6581.0	5700.0	6542.0
20.	228.	195.	SB BAY ST Link20 SB3	AG	0.0	40.0	5700.0	6542.0	5640.0	6322.0
21.	113.	190.	SB BAY ST Link21 SB4	AG	0.0	40.0	5640.0	6322.0	5620.0	6211.0
22.	357.	196.	SB BAY ST Link22 SB5	AG	0.0	40.0	5620.0	6211.0	5521.0	5868.0
23.	357.	196.	SB BAY ST Link23 SB5	AG	0.0	20.0	2	5620.0	6211.0	5521.0	5868.0
24.	321.	193.	SB BAY ST Link24 SB6	AG	0.0	40.0	5521.0	5868.0	5451.0	5555.0
25.	76.	191.	SB BAY ST Link25 SB7	AG	0.0	40.0	5451.0	5555.0	5436.0	5481.0
26.	75.	175.	SB BAY ST Link26 SB8	AG	0.0	40.0	5436.0	5481.0	5442.0	5406.0

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          27. SB BAY ST Link27 SB9*   5442.0    5406.0    5472.0    5320.0 *
91.   161.  AG     0.0  40.0
          28. SB BAY ST Link28 SB1*   5472.0    5320.0    5527.0    5174.0 *
156.  159.  AG     0.0  50.0
          29. SB BAY ST Link29 SB1*   5472.0    5320.0    5527.0    5174.0 *
156.  159.  AG     0.0  30.0    3
          30. SB BAY ST Link30 SB1*   5527.0    5174.0    5681.0    4776.0 *
427.  159.  AG     0.0  40.0
          31. SB BAY ST-RIGHT TURN*   5640.0    6322.0    5607.0    6215.0 *
112.  197.  AG     0.0  32.0
          32. SB BAY ST-RIGHT TURN*   5607.0    6215.0    5507.0    5888.0 *
342.  197.  AG     0.0  32.0
          33. SB BAY ST-RIGHT TURN*   5607.0    6215.0    5507.0    5888.0 *
342.  197.  AG     0.0  12.0    1
          34. EB VICTORY BLVD Link*   5005.0    5957.0    5222.0    5851.0 *
242.  116.  AG     0.0  32.0
          35. EB VICTORY BLVD Link*   5222.0    5851.0    5320.0    5817.0 *
104.  109.  AG     0.0  32.0
          36. EB VICTORY BLVD Link*   5320.0    5817.0    5471.0    5810.0 *
151.   93.  AG     0.0  40.0
          37. EB VICTORY BLVD Link*   5320.0    5817.0    5471.0    5810.0 *
151.   93.  AG     0.0  20.0    2
          38. EB VICTORY BLVD Link*   5471.0    5810.0    5561.0    5780.0 *
95.   108.  AG     0.0  32.0
          39. EB VICTORY BLVD Link*   5561.0    5780.0    5747.0    5791.0 *
186.   87.  AG     0.0  32.0
          40. WB VICTORY BLVD Link*   5745.0    5811.0    5567.0    5806.0 *
178.  268.  AG     0.0  32.0
          41. WB VICTORY BLVD Link*   5745.0    5811.0    5567.0    5806.0 *
178.  268.  AG     0.0  12.0    1
          42. WB VICTORY BLVD Link*   5567.0    5806.0    5473.0    5832.0 *
98.   285.  AG     0.0  32.0
          43. WB VICTORY BLVD Link*   5473.0    5832.0    5303.0    5839.0 *
170.  272.  AG     0.0  40.0
          44. WB VICTORY BLVD Link*   5303.0    5839.0    5212.0    5874.0 *
97.   291.  AG     0.0  32.0
          45. WB VICTORY BLVD Link*   5212.0    5874.0    5006.0    5981.0 *
232.  297.  AG     0.0  32.0
          46. SB BAY ST right move*   5518.0    5750.0    5561.0    5780.0 *
52.    55.  AG     0.0  32.0
          47. SB BAY ST left movem*   5518.0    5750.0    5473.0    5832.0 *
94.   331.  AG     0.0  32.0
          48. SB BAY ST right move*   5521.0    5868.0    5473.0    5832.0 *
60.   233.  AG     0.0  32.0
```

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay
st and Victory Intersection

Link Data Constants - (Variable data in *.LNK file)

LINK DESCRIPTION	LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES	LINK COORDINATES (FT) X1	Y1	X2	Y2
49. SB BAY ST left movem	97.	156.	AG	0.0	32.0		5521.0	5868.0	5561.0	5780.0
50. EB Victory right mov	38.	123.	AG	0.0	32.0		5471.0	5810.0	5503.0	5789.0
51. EB Victory left move	68.	77.	AG	0.0	32.0		5471.0	5810.0	5537.0	5825.0
52. WB Victory left move	64.	255.	AG	0.0	32.0		5566.0	5806.0	5504.0	5789.0
53. WB Victory right mov	35.	303.	AG	0.0	32.0		5566.0	5806.0	5537.0	5825.0

Receptor Data

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC M1	5596.0	5193.0	6.0
2. REC M2	5559.0	5287.0	6.0
3. REC M3	5528.0	5384.0	6.0
4. REC M4	5507.0	5428.0	6.0
5. REC M5	5485.0	5489.0	6.0
6. REC M6	5501.0	5550.0	6.0
7. REC M7	5521.0	5637.0	6.0
8. REC M8	5534.0	5690.0	6.0
9. REC M9	5551.0	5753.0	6.0
10. REC M10	5629.0	5756.0	6.0
11. REC M11	5703.0	5764.0	6.0
12. REC M12	5779.0	5771.0	6.0
13. REC M13	5739.0	5833.0	6.0
14. REC M14	5660.0	5837.0	6.0
15. REC M15	5565.0	5829.0	6.0
16. REC M16	5588.0	5904.0	6.0
17. REC M17	5610.0	5991.0	6.0
18. REC M18	5639.0	6101.0	6.0
19. REC M19	5676.0	6222.0	6.0
20. REC M20	5707.0	6340.0	6.0
21. REC M21	5736.0	6452.0	6.0

22. REC M22	*	5764.0	6536.0	6.0
23. REC M23	*	5754.0	6660.0	6.0
24. REC M24	*	5670.0	6663.0	6.0
25. REC M25	*	5680.0	6556.0	6.0
26. REC M26	*	5662.0	6464.0	6.0
27. REC M27	*	5627.0	6354.0	6.0
28. REC M28	*	5600.0	6242.0	6.0
29. REC M29	*	5546.0	6123.0	6.0

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bayst and Victory Intersection

Receptor Data

RECEPTOR	*	COORDINATES (FT) X	Y	Z
30. REC M30	*	5438.0	6308.0	6.0
31. REC M31	*	5460.0	6130.0	6.0
32. REC M32	*	5471.0	6043.0	6.0
33. REC M33	*	5479.0	5960.0	6.0
34. REC M34	*	5491.0	5861.0	6.0
35. REC M35	*	5386.0	5860.0	6.0
36. REC M36	*	5271.0	5872.0	6.0
37. REC M37	*	5349.0	5792.0	6.0
38. REC M38	*	5413.0	5788.0	6.0
39. REC M39	*	5475.0	5781.0	6.0
40. REC M40	*	5467.0	5719.0	6.0
41. REC M41	*	5453.0	5658.0	6.0
42. REC M42	*	5425.0	5565.0	6.0
43. REC M43	*	5331.0	5597.0	6.0
44. REC M44	*	5348.0	5542.0	6.0
45. REC M45	*	5366.0	5481.0	6.0
46. REC M46	*	5392.0	5406.0	6.0
47. REC M47	*	5423.0	5326.0	6.0
48. REC M48	*	5459.0	5234.0	6.0
49. REC M49	*	5483.0	5148.0	6.0

Model Results

Remarks : In search of the wind direction corresponding to the maximum concentration, only the first direction, of the directions with the same maximum concentrations, is indicated as the maximum.

* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED

	* (MICROGRAMS/M**3) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG *	4.6	4.1	3.7	4.3	7.5	7.0	7.2	7.4	7.6	3.4
- BKG *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MAX	*	4.6	4.1	3.7	4.3	7.5	7.0	7.2	7.4	7.6	3.4
	WIND DIR	*	322	311	171	1	1	1	1	356	1	311
	JULIAN	*	172	220	160	172	172	172	172	280	172	220
	HOUR	*	16	15	8	15	15	15	15	7	15	15

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay st and Victory Intersection

* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED
* (MICROGRAMS/M**3)

	*	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
MAX+BKG	*	2.3	1.8	1.9	2.9	8.3	7.4	7.3	7.8	7.3	7.8
- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	*	2.3	1.8	1.9	2.9	8.3	7.4	7.3	7.8	7.3	7.8
WIND DIR	*	278	278	278	278	221	221	1	1	221	221
JULIAN	*	67	67	67	67	316	316	172	172	316	316
HOUR	*	7	7	7	7	17	17	15	15	17	17

	*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30
MAX+BKG	*	7.8	6.3	9.1	5.2	6.9	7.9	8.0	7.7	5.7	2.0
- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	*	7.8	6.3	9.1	5.2	6.9	7.9	8.0	7.7	5.7	2.0
WIND DIR	*	221	221	201	20	171	171	171	171	171	171
JULIAN	*	316	316	281	5	160	160	160	160	160	160
HOUR	*	17	17	7	14	8	8	8	8	8	8

	*	REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
MAX+BKG	*	3.1	3.9	5.1	8.8	3.8	3.0	3.0	4.4	9.6	9.4

- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	*	3.1	3.9	5.1	8.8	3.8	3.0	3.0	4.4	9.6	9.4
WIND DIR	*	171	171	171	171	93	122	45	37	27	27
JULIAN	*	160	160	160	160	141	192	5	83	140	140
HOUR	*	8	8	8	8	16	16	15	7	7	7

		REC41	REC42	REC43	REC44	REC45	REC46	REC47	REC48	REC49
MAX+BKG	*	8.6	7.0	2.8	3.3	3.8	5.0	5.6	6.6	6.0
- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	*	8.6	7.0	2.8	3.3	3.8	5.0	5.6	6.6	6.0
WIND DIR	*	27	27	37	27	27	20	20	1	1
JULIAN	*	140	140	83	140	140	5	5	172	172
HOUR	*	7	7	7	7	7	14	14	15	15

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay st and Victory Intersection

THE HIGHEST CONCENTRATION OF 9.60 UG/M**3 OCCURRED AT RECEPTOR REC39.

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay st and Victory Intersection

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Output Section
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NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*).
FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AND SECONDARY AVERAGES.

FIVE HIGHEST 24-HOUR END-TO-END AVERAGE CONCENTRATIONS IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Ending Conc Day Hr Calm	Second Highest Ending Conc Day Hr Calm	Third Highest Ending Conc Day Hr Calm	Fourth Highest Ending Conc Day Hr Calm	Fifth Highest Ending Conc Day Hr Calm
1	1.53 (247,24) C 6	1.36 (316,24) C 1	1.27 (330,24) C 4	1.22 (357,24) C 1	1.18 (129,24) C 0
2	1.52 (247,24) C 6	1.42 (316,24) C 1	1.34 (330,24) C 4	1.27 (357,24) C 1	1.23 (307,24) C 2
3	1.38 (247,24) C 6	1.29 (316,24) C 1	1.19 (330,24) C 4	1.14 (357,24) C 1	1.12 (52,24) C 2
4	1.46 (247,24) C 6	1.39 (316,24) C 1	1.33 (357,24) C 1	1.31 (330,24) C 4	1.23 (52,24) C 2
5	1.86 (247,24) C 6	1.78 (316,24) C 1	1.73 (49,24) C 1	1.70 (280,24) C 4	1.66 (330,24) C 4
6	1.61 (247,24) C 6	1.58 (49,24) C 1	1.55 (330,24) C 4	1.52 (316,24) C 1	1.49 (206,24) C 1
7	1.65 (330,24) C 4	1.65 (49,24) C 1	1.58 (247,24) C 6	1.55 (291,24) C 1	1.53 (280,24) C 4
8	1.75 (49,24) C 1	1.66 (291,24) C 1	1.65 (330,24) C 4	1.61 (279,24) C 1	1.58 (247,24) C 6

	9	2.06	(49,24)	C 1	1.87	(291,24)	C 1	1.83	(247,24)	C 6	
1.80	(279,24)	C 1	1.79	(175,24)	C 6						
	10	0.94	(49,24)	C 1	0.87	(247,24)	C 6	0.81	(263,24)	C 3	
0.79	(250,24)	C 1	0.76	(274,24)	C 0						
	11	0.57	(49,24)	C 1	0.51	(247,24)	C 6	0.50	(263,24)	C 3	
0.50	(232,24)	C 1	0.49	(291,24)	C 1						
	12	0.43	(49,24)	C 1	0.38	(247,24)	C 6	0.36	(274,24)	C 0	
0.33	(291,24)	C 1	0.33	(250,24)	C 1						
	13	0.52	(49,24)	C 1	0.49	(338,24)	C 1	0.47	(247,24)	C 6	
0.44	(291,24)	C 1	0.43	(274,24)	C 0						
	14	0.78	(247,24)	C 6	0.73	(49,24)	C 1	0.73	(338,24)	C 1	
0.70	(228,24)	C 2	0.70	(206,24)	C 1						
	15	2.48	(330,24)	C 4	2.40	(316,24)	C 1	2.33	(247,24)	C 6	
2.32	(129,24)	C 0	2.31	(314,24)	C 5						
	16	2.17	(330,24)	C 4	1.96	(316,24)	C 1	1.88	(247,24)	C 6	
1.87	(314,24)	C 5	1.87	(129,24)	C 0						
	17	2.16	(330,24)	C 4	1.96	(316,24)	C 1	1.91	(314,24)	C 5	
1.88	(247,24)	C 6	1.84	(129,24)	C 0						
	18	2.28	(330,24)	C 4	2.02	(316,24)	C 1	1.97	(314,24)	C 5	
1.95	(129,24)	C 0	1.93	(247,24)	C 6						
	19	2.18	(330,24)	C 4	1.93	(316,24)	C 1	1.89	(49,24)	C 1	
1.86	(247,24)	C 6	1.85	(314,24)	C 5						
	20	2.35	(330,24)	C 4	2.05	(316,24)	C 1	1.95	(247,24)	C 6	
1.94	(314,24)	C 5	1.89	(129,24)	C 0						
	21	2.32	(330,24)	C 4	2.05	(316,24)	C 1	1.92	(314,24)	C 5	
1.92	(247,24)	C 6	1.90	(129,24)	C 0						
	22	1.95	(330,24)	C 4	1.69	(316,24)	C 1	1.67	(247,24)	C 6	
1.59	(314,24)	C 5	1.58	(129,24)	C 0						
	23	2.18	(247,24)	C 6	2.16	(316,24)	C 1	2.14	(330,24)	C 4	
1.91	(315,24)	C 1	1.89	(357,24)	C 1						
	24	2.38	(170,24)	C 6	1.60	(253,24)	C 4	1.58	(195,24)	C 0	
1.58	(169,24)	C 0	1.56	(320,24)	C 7						
	25	3.02	(170,24)	C 6	2.06	(145,24)	C 3	1.92	(253,24)	C 4	
1.90	(169,24)	C 0	1.86	(195,24)	C 0						
	26	3.32	(170,24)	C 6	2.34	(145,24)	C 3	2.30	(357,24)	C 1	
2.13	(213,24)	C 1	2.09	(140,24)	C 5						

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay st and Victory Intersection

FIVE HIGHEST 24-HOUR END-TO-END AVERAGE CONCENTRATIONS IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Conc	Day Hr	Calm	Second Highest Conc	Day Hr	Calm	Third Highest Conc	Day Hr	Calm	Fourth Highest Conc	Day Hr	Calm	Fifth Highest Ending Conc	Day Hr	Calm
27	3.23	(170,24)	C 6	2.31	(145,24)	C 3	2.09	(357,24)	C 1	2.08	(169,24)	C 0	2.07	(195,24)	C 0
28	3.29	(170,24)	C 6	2.31	(145,24)	C 3	2.29	(169,24)	C 0	2.25	(320,24)	C 7	2.12	(331,24)	C 3
29	2.19	(170,24)	C 6	1.63	(169,24)	C 0	1.57	(320,24)	C 7	1.56	(145,24)	C 3	1.46	(195,24)	C 0
30	0.59	(170,24)	C 6	0.49	(169,24)	C 0	0.48	(327,24)	C 2	0.44	(195,24)	C 0	0.43	(343,24)	C 1
31	0.93	(170,24)	C 6	0.73	(169,24)	C 0	0.69	(327,24)	C 2	0.68	(195,24)	C 0	0.68	(320,24)	C 7
32	1.25	(170,24)	C 6	0.95	(169,24)	C 0	0.90	(320,24)	C 7	0.87	(145,24)	C 3	0.86	(195,24)	C 0
33	1.73	(170,24)	C 6	1.25	(145,24)	C 3	1.23	(169,24)	C 0	1.21	(320,24)	C 7	1.19	(195,24)	C 0
34	3.39*	(170,24)	C 6	2.42	(145,24)	C 3	2.29	(195,24)	C 0	2.18	(357,24)	C 1	2.14	(331,24)	C 3
35	1.34	(170,24)	C 6	0.99	(195,24)	C 0	0.89	(327,24)	C 2	0.87	(169,24)	C 0	0.86	(141,24)	C 6
36	0.96	(170,24)	C 6	0.71	(195,24)	C 0	0.63	(141,24)	C 6	0.59	(258,24)	C 1	0.56	(327,24)	C 2
37	0.95	(169,24)	C 0	0.93	(320,24)	C 7	0.91	(343,24)	C 1	0.88	(170,24)	C 6	0.84	(29,24)	C 4
38	1.34	(169,24)	C 0	1.33	(170,24)	C 6	1.30	(320,24)	C 7	1.20	(343,24)	C 1	1.16	(309,24)	C 4
39	3.01	(170,24)	C 6	2.47*	(253,24)	C 4	2.42	(320,24)	C 7	2.38	(169,24)	C 0	2.13	(343,24)	C 1
40	3.07	(170,24)	C 6	2.17	(253,24)	C 4	2.16	(320,24)	C 7	2.12	(145,24)	C 3	2.05	(169,24)	C 0
41	2.95	(170,24)	C 6	2.04	(145,24)	C 3	1.97	(320,24)	C 7	1.97	(253,24)	C 4	1.91	(331,24)	C 3
42	2.42	(170,24)	C 6	1.73	(320,24)	C 7	1.67	(253,24)	C 4	1.67	(195,24)	C 0	1.65	(169,24)	C 0
43	0.77	(170,24)	C 6	0.74	(320,24)	C 7	0.69	(169,24)	C 0	0.68	(327,24)	C 2	0.60	(343,24)	C 1
44	0.84	(320,24)	C 7	0.84	(170,24)	C 6	0.78	(169,24)	C 0	0.75	(327,24)	C 2	0.70	(343,24)	C 1

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             45   1.03 (320,24) C 7   0.99 (170,24) C 6   0.95 (169,24) C 0
0.93 (327,24) C 2   0.89 (253,24) C 4
             46   1.26 (320,24) C 7   1.19 (170,24) C 6   1.19 (253,24) C 4
1.11 (169,24) C 0   1.08 (327,24) C 2
             47   1.35 (253,24) C 4   1.34 (170,24) C 6   1.24 (320,24) C 7
1.22 (  6,24) C 3   1.22 (310,24) C 2
             48   1.45 (253,24) C 4   1.42 (310,24) C 2   1.39 (170,24) C 6
1.39 (  6,24) C 3   1.28 (320,24) C 7
             49   1.25 (310,24) C 2   1.22 (253,24) C 4   1.21 (  6,24) C 3
1.11 (170,24) C 6   1.09 (320,24) C 7
```

THE HIGHEST ANNUAL AVERAGE CONCENTRATIONS
IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Maximum Conc	Ending Day Hr	Calm
1	0.51	(365,24)	C 400
2	0.53	(365,24)	C 400
3	0.49	(365,24)	C 400
4	0.56	(365,24)	C 400
5	0.77	(365,24)	C 400
6	0.65	(365,24)	C 400
7	0.64	(365,24)	C 400
8	0.65	(365,24)	C 400
9	0.71	(365,24)	C 400
10	0.28	(365,24)	C 400
11	0.17	(365,24)	C 400

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay st and Victory Intersection

THE HIGHEST ANNUAL AVERAGE CONCENTRATIONS
IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Maximum Conc	Ending Day Hr	Calm
12	0.11	(365,24)	C 400
13	0.15	(365,24)	C 400
14	0.25	(365,24)	C 400
15	0.88*	(365,24)	C 400
16	0.73	(365,24)	C 400
17	0.73	(365,24)	C 400
18	0.76	(365,24)	C 400
19	0.73	(365,24)	C 400
20	0.74	(365,24)	C 400
21	0.74	(365,24)	C 400
22	0.59	(365,24)	C 400
23	0.78	(365,24)	C 400
24	0.57	(365,24)	C 400
25	0.74	(365,24)	C 400
26	0.82	(365,24)	C 400
27	0.78	(365,24)	C 400
28	0.80	(365,24)	C 400
29	0.51	(365,24)	C 400
30	0.12	(365,24)	C 400
31	0.20	(365,24)	C 400
32	0.28	(365,24)	C 400
33	0.39	(365,24)	C 400
34	0.84	(365,24)	C 400
35	0.33	(365,24)	C 400
36	0.26	(365,24)	C 400
37	0.27	(365,24)	C 400
38	0.39	(365,24)	C 400
39	0.83	(365,24)	C 400
40	0.79	(365,24)	C 400
41	0.74	(365,24)	C 400
42	0.57	(365,24)	C 400
43	0.17	(365,24)	C 400
44	0.19	(365,24)	C 400
45	0.24	(365,24)	C 400
46	0.31	(365,24)	C 400
47	0.35	(365,24)	C 400
48	0.39	(365,24)	C 400
49	0.33	(365,24)	C 400

JOB: Stapleton PM25 BD Micro-scale Receptors RUN: Bay st and Victory Intersection

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	157	(5,13)(5,19)(5,23)(6, 4)(29,10)(41,19)(49,19)(52, 8)(52,12)(59,18) (61,13)(63, 2)(63,24)(64,11)(67,13)(73,17)(75, 1)(75,22)(76,16)(76,23) (82,20)(83,14)(85, 5)(86,13)(87, 1)(88, 6)(92, 5)(109,21)(110, 1)(110, 3) (118, 7)(118, 9)(122, 7)(124,23)(126,21)(126,23)(127, 8)(131, 4)(135, 7)(139, 5) (139,16)(140, 6)(141, 4)(141, 8)(145, 4)(145, 6)(146,21)(147, 7)(147,13)(148, 2) (148, 8)(148,10)(150,21)(150,23)(154, 4)(154,18)(156, 5)(156,11)(156,15)(157,16) (158, 7)(160, 7)(160,11)(162,12)(162,22)(163, 2)(164, 5)(165, 2)(165,16)(165,22) (166,13)(170, 1)(170,15)(173, 1)(174, 4)(174,11)(174,14)(174,22)(175, 2)(175,16) (176, 7)(177,22)(180, 5)(182,24)(183, 5)(184, 4)(185, 8)(185,10)(188, 1)(190, 9) (194,21)(196, 3)(199, 2)(200, 2)(200,18)(200,23)(201, 1)(206, 3)(213,24)(216,10) (218,22)(219, 4)(224, 6)(225, 4)(226, 7)(227,17)(227,19)(227,21)(232, 5)(233, 6) (236,12)(238, 5)(247, 1)(247,11)(247,20)(249,16)(249,18)(249,20)(250,11)(253,10) (253,14)(257, 6)(258,22)(263,11)(264,24)(265, 2)(267, 5)(273,10)(275, 6)(281, 2) (281, 5)(282, 2)(282, 7)(282,15)(285,22)(286,23)(291, 6)(297,22)(298, 4)(298, 9) (305,23)(307, 4)(307,11)(308, 5)(310, 3)(315, 3)(316,16)(320,16)(326, 1)(326,17) (326,22)(330, 6)(338,24)(343,13)(350,14)(357, 4)(358, 4)
2	42	(6, 2)(26,13)(26,16)(34,15)(37,14)(50, 6)(66,24)(75, 4)(76,21)(83, 6) (95,22)(117,23)(124, 5)(125, 3)(127,12)(131, 1)(132, 7)(138, 1)(147, 5)(154, 9) (174, 2)(175, 5)(175, 8)(179,12)(190, 7)(196, 6)(197,17)(198, 5)(202,23)(211, 5)

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                                        (228,  3)(253,22)(259,  2)(263,
5)(267,11)(279,  1)(293,  9)(310,  1)(314,  4)(326,14)
                                        (327,  2)(350,12)
                3               16      ( 29,  6)( 64,15)( 77,  3)(118,  4)(145,
1)(165,  8)(201,  6)(247,24)(282,12)(298,  2)
                                        (309,22)(314,  8)(320,  7)(320,11)(331,
7)(351,  5)
                4               6       (  1,  9)(115,  7)(141,13)(170,  6)(231,
7)(280,  5)
                5               3       (139,  2)(330,  3)(362,13)
                6               3       (163,10)(225,13)(359,22)
                7               1       (140,  4)
                8               1       ( 54,14)
               16               1       ( 48,12)
               23               1       ( 13,18)

     Program terminated normally
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'Stapleton PM25 BD Neighbor-scale Receptors with fugutive'  60. 321. 0. 0. 47
0.3048 1
 1 1 03  12 31 03
 14732  03  94703 03
 0 0 'U'
'REC N1'     5622. 5244. 6.0
'REC N2'     5600. 5300. 6.0
'REC N3'     5578. 5356. 6.0
'REC N4'     5534. 5480. 6.0
'REC N5'     5547. 5540. 6.0
'REC N6'     5565. 5626. 6.0
'REC N7'     5577. 5680. 6.0
'REC N8'     5630. 5720. 6.0
'REC N9'     5709. 5722. 6.0
'REC N10'    5726. 5878. 6.0
'REC N11'    5675. 5873. 6.0
'REC N12'    5622. 5875. 6.0
'REC N13'    5627. 5918. 6.0
'REC N14'    5638. 5961. 6.0
'REC N15'    5653. 6013. 6.0
'REC N16'    5676. 6089. 6.0
'REC N17'    5690. 6135. 6.0
'REC N18'    5700. 6177. 6.0
'REC N19'    5708. 6213. 6.0
'REC N20'    5593. 6573. 6.0
'REC N21'    5643. 6575. 6.0
'REC N22'    5613. 6434. 6.0
'REC N23'    5594. 6381. 6.0
'REC N24'    5584. 6337. 6.0
'REC N25'    5576. 6283. 6.0
'REC N26'    5563. 6238. 6.0
'REC N27'    5550. 6188. 6.0
'REC N28'    5540. 6144. 6.0
'REC N29'    5414. 6129. 6.0
'REC N30'    5421. 6082. 6.0
'REC N31'    5427. 6043. 6.0
'REC N32'    5435. 5997. 6.0
'REC N33'    5441. 5953. 6.0
'REC N34'    5449. 5904. 6.0
'REC N35'    5398. 5903. 6.0
'REC N36'    5352. 5907. 6.0
'REC N37'    5302. 5910. 6.0
'REC N38'    5428. 5731. 6.0
'REC N39'    5411. 5673. 6.0
'REC N40'    5399. 5628. 6.0
'REC N41'    5290. 5589. 6.0
'REC N42'    5313. 5536. 6.0
'REC N43'    5334. 5470. 6.0
'REC N44'    5359. 5395. 6.0
'REC N45'    5389. 5318. 6.0
'REC N46'    5421. 5222. 6.0
'REC N47'    5435. 5178. 6.0
2  'P'
1 1 1 1 1 1 1
'Bay st and Victory Intersection'   53
      1    1
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'NB BAY ST Link1 NB1-NB2' 'AG' 5713. 4788. 5580. 5132. 0. 40.
      2    2

'NB BAY ST Link2 NB1-NB2' 'AG' 5713. 4788. 5580. 5132. 0. 20.0 2
      3    1

'NB BAY ST Link3 NB2-NB3' 'AG' 5580. 5132. 5489. 5366. 0. 40.
      4    1

'NB BAY ST Link4 NB3-NB4' 'AG' 5489. 5366. 5464. 5452. 0. 40.
      5    1

'NB BAY ST Link5 NB4-NB5' 'AG' 5464. 5452. 5465. 5519. 0. 40.
      6    1

'NB BAY ST Link6 NB5-NB6' 'AG' 5465. 5519. 5518. 5750. 0. 40.
      7    2

'NB BAY ST Link7 NB5-NB6' 'AG' 5465. 5519. 5518. 5750. 0. 20.0 2
      8    1

'NB BAY ST Link8 NB6-NB7' 'AG' 5518. 5750. 5589. 6026. 0. 40.
      9    1

'NB BAY ST Link9 NB7-NB8' 'AG' 5589. 6026. 5650. 6239. 0. 40.
      10    1

'NB BAY ST Link10 NB8-NB9' 'AG' 5650. 6239. 5713. 6461. 0. 40.
      11    2

'NB BAY ST Link11 NB8-NB9' 'AG' 5650. 6239. 5713. 6461. 0. 20.0 2
      12    1

'NB BAY ST Link12 NB9-NB10' 'AG' 5713. 6461. 5738. 6578. 0. 40.
      13    1

'NB BAY ST Link13 NB10-NB11' 'AG' 5738. 6578. 5717. 6862. 0. 40.
      14    1

'NB BAY ST-LEFT TURN Link14 NBL1-NBL2' 'AG' 5649. 6240. 5660. 6320. 0. 32.
      15    1

'NB BAY ST-LEFT TURN Link15 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 32.
      16    2

'NB BAY ST-LEFT TURN Link16 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 12.0 1
      17    1

'SB BAY ST Link17 SB1-SB2' 'AG' 5683. 6865. 5701. 6581. 0. 40.
      18    1

'SB BAY ST Link18 SB2-SB3' 'AG' 5701. 6581. 5700. 6542. 0. 38.
      19    2

'SB BAY ST Link19 SB2-SB3' 'AG' 5701. 6581. 5700. 6542. 0. 20.0 2
      20    1
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'SB BAY ST Link20 SB3-SB4' 'AG' 5700. 6542. 5640. 6322. 0. 40.
      21    1

'SB BAY ST Link21 SB4-SB5' 'AG' 5640. 6322. 5620. 6211. 0. 40.
      22    1

'SB BAY ST Link22 SB5-SB6' 'AG' 5620. 6211. 5521. 5868. 0. 40.
      23    2

'SB BAY ST Link23 SB5-SB6' 'AG' 5620. 6211. 5521. 5868. 0. 20.0 2
      24    1

'SB BAY ST Link24 SB6-SB7' 'AG' 5521. 5868. 5451. 5555. 0. 40.
      25    1

'SB BAY ST Link25 SB7-SB8' 'AG' 5451. 5555. 5436. 5481. 0. 40.
      26    1

'SB BAY ST Link26 SB8-SB9' 'AG' 5436. 5481. 5442. 5406. 0. 40.
      27    1

'SB BAY ST Link27 SB9-SB10' 'AG' 5442. 5406. 5472. 5320. 0. 40.
      28    1

'SB BAY ST Link28 SB10-SB11' 'AG' 5472. 5320. 5527. 5174. 0. 50.
      29    2

'SB BAY ST Link29 SB10-SB11' 'AG' 5472. 5320. 5527. 5174. 0. 30.0 3
      30    1

'SB BAY ST Link30 SB11-SB12' 'AG' 5527. 5174. 5681. 4776. 0. 40.
      31    1

'SB BAY ST-RIGHT TURN LANE Link31 SBR1-SBR2' 'AG' 5640. 6322. 5607. 6215. 0. 32.
      32    1

'SB BAY ST-RIGHT TURN LANE Link32 SBR2-SBR3' 'AG' 5607. 6215. 5507. 5888. 0. 32.
      33    2

'SB BAY ST-RIGHT TURN LANE Link33 SBR2-SBR3' 'AG' 5607. 6215. 5507. 5888. 0.
12.0 1
      34    1

'EB VICTORY BLVD Link34 EB1-EB2' 'AG' 5005. 5957. 5222. 5851. 0. 32.
      35    1

'EB VICTORY BLVD Link35 EB2-EB3' 'AG' 5222. 5851. 5320. 5817. 0. 32.
      36    1

'EB VICTORY BLVD Link36 EB3-EB4' 'AG' 5320. 5817. 5471. 5810. 0. 40.
      37    2

'EB VICTORY BLVD Link37 EB3-EB4' 'AG' 5320. 5817. 5471. 5810. 0. 20.0 2
      38    1

'EB VICTORY BLVD Link38 EB4-EB5' 'AG' 5471. 5810. 5561. 5780. 0. 32.
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      39    1

'EB VICTORY BLVD Link39 EB5-EB6' 'AG' 5561. 5780. 5747. 5791. 0. 32.
      40    1

'WB VICTORY BLVD Link40 WB1-WB2' 'AG' 5745. 5811. 5567. 5806. 0. 32.
      41    2

'WB VICTORY BLVD Link41 WB1-WB2' 'AG' 5745. 5811. 5567. 5806. 0. 12.0 1
      42    1

'WB VICTORY BLVD Link42 WB2-WB3' 'AG' 5567. 5806. 5473. 5832. 0. 32.
      43    1

'WB VICTORY BLVD Link43 WB3-WB4' 'AG' 5473. 5832. 5303. 5839. 0. 40.
      44    1

'WB VICTORY BLVD Link44 WB4-WB5' 'AG' 5303. 5839. 5212. 5874. 0. 32.
      45    1

'WB VICTORY BLVD Link45 WB5-WB6' 'AG' 5212. 5874. 5006. 5981. 0. 32.
      46    1

'SB BAY ST right movement Link46 NB6-EB5' 'AG' 5518. 5750. 5561. 5780. 0. 32.
      47    1
'SB BAY ST left movement Link47 NB6-WB3' 'AG' 5518. 5750. 5473. 5832. 0. 32.
      48    1

'SB BAY ST right movement Link48 SB6-WB3' 'AG' 5521. 5868. 5473. 5832. 0. 32.
      49    1

'SB BAY ST left movement Link49 SB6-EB5' 'AG' 5521. 5868. 5561. 5780. 0. 32.
      50    1

'EB Victory right movement Link50 ' 'AG' 5471. 5810. 5503. 5789. 0. 32.
      51    1
'EB Victory left movement Link51 ' 'AG' 5471. 5810. 5537. 5825. 0. 32.
      52    1

'WB Victory left movement Link52 ' 'AG' 5566. 5806. 5504. 5789. 0. 32.
      53    1

'WB Victory right movement Link53 ' 'AG' 5566. 5806. 5537. 5825. 0. 32.
  1   0.0
1     93    0.1177
2     90    33    3     93    0.043 1600  1     3
3     93    0.1177
4     93    0.1177
5     93    0.1177
6     93    0.1177
7     90    33    3     93    0.043 1600  1     3
8     129   0.1177
9     129   0.1177
10    129   0.1177
11    90    33    3     129   0.043 1600  1     3
12    129   0.1177
13    129   0.1177
```

```
14      16      0.1177
15      16      0.1177
16      90      33      3       16      0.043 1600    1       3
17      99      0.1177
18      99      0.1177
19      90      33      3       99      0.043 1600    1       3
20      99      0.1177
21      99      0.1177
22      99      0.1177
23      90      33      3       99      0.043 1600    1       3
24      102     0.1177
25      102     0.1177
26      102     0.1177
27      102     0.1177
28      102     0.1177
29      90      33      3       102     0.043 1600    1       3
30      102     0.1177
31      19      0.1177
32      19      0.1177
33      90      33      3       19      0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      3       0.1177
39      3       0.1177
40      2       0.1177
41      90      51      3       2       0.043 1600    1       3
42      36      0.1177
43      36      0.1177
44      36      0.1177
45      36      0.1177
46      2       0.1177
47      16      0.1177
48      19      0.1177
49      0       0.1177
50      2       0.1177
51      36      0.1177
52      2       0.1177
53      0       0.1177
        2       0.0
1       67      0.1177
2       90      33      3       67      0.043 1600    1       3
3       67      0.1177
4       67      0.1177
5       67      0.1177
6       67      0.1177
7       90      33      3       67      0.043 1600    1       3
8       93      0.1177
9       93      0.1177
10      93      0.1177
11      90      33      3       93      0.043 1600    1       3
12      93      0.1177
13      93      0.1177
14      12      0.1177
15      12      0.1177
16      90      33      3       12      0.043 1600    1       3
```

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17      72      0.1177
18      72      0.1177
19      90      33      3       72      0.043 1600  1       3
20      72      0.1177
21      72      0.1177
22      72      0.1177
23      90      33      3       72      0.043 1600  1       3
24      74      0.1177
25      74      0.1177
26      74      0.1177
27      74      0.1177
28      74      0.1177
29      90      33      3       74      0.043 1600  1       3
30      74      0.1177
31      14      0.1177
32      14      0.1177
33      90      33      3       14      0.043 1600  1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600  1       3
38      2       0.1177
39      2       0.1177
40      2       0.1177
41      90      51      3       2       0.043 1600  1       3
42      26      0.1177
43      26      0.1177
44      26      0.1177
45      26      0.1177
46      2       0.1177
47      12      0.1177
48      14      0.1177
49      0       0.1177
50      2       0.1177
51      26      0.1177
52      2       0.1177
53      0       0.1177
        3       0.0
1       51      0.1177
2       90      33      3       51      0.043 1600  1       3
3       51      0.1177
4       51      0.1177
5       51      0.1177
6       51      0.1177
7       90      33      3       51      0.043 1600  1       3
8       71      0.1177
9       71      0.1177
10      71      0.1177
11      90      33      3       71      0.043 1600  1       3
12      71      0.1177
13      71      0.1177
14      9       0.1177
15      9       0.1177
16      90      33      3       9       0.043 1600  1       3
17      55      0.1177
18      55      0.1177
19      90      33      3       55      0.043 1600  1       3
```

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20      55      0.1177
21      55      0.1177
22      55      0.1177
23      90      33      3       55      0.043 1600    1       3
24      56      0.1177
25      56      0.1177
26      56      0.1177
27      56      0.1177
28      56      0.1177
29      90      33      3       56      0.043 1600    1       3
30      56      0.1177
31      11      0.1177
32      11      0.1177
33      90      33      3       11      0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      0       0.1177
41      90      51      3       0       0.043 1600    1       3
42      20      0.1177
43      20      0.1177
44      20      0.1177
45      20      0.1177
46      2       0.1177
47      9       0.1177
48      11      0.1177
49      0       0.1177
50      2       0.1177
51      20      0.1177
52      2       0.1177
53      0       0.1177
        4       0.0
1       67      0.1177
2       90      33      3       67      0.043 1600    1       3
3       67      0.1177
4       67      0.1177
5       67      0.1177
6       67      0.1177
7       90      33      3       67      0.043 1600    1       3
8       94      0.1177
9       94      0.1177
10      94      0.1177
11      90      33      3       94      0.043 1600    1       3
12      94      0.1177
13      94      0.1177
14      12      0.1177
15      12      0.1177
16      90      33      3       12      0.043 1600    1       3
17      72      0.1177
18      72      0.1177
19      90      33      3       72      0.043 1600    1       3
20      72      0.1177
21      72      0.1177
22      72      0.1177
```

```
23      90      33      3       72      0.043 1600    1       3
24      74      0.1177
25      74      0.1177
26      74      0.1177
27      74      0.1177
28      74      0.1177
29      90      33      3       74      0.043 1600    1       3
30      74      0.1177
31      14      0.1177
32      14      0.1177
33      90      33      3       14      0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      2       0.1177
41      90      51      3       2       0.043 1600    1       3
42      26      0.1177
43      26      0.1177
44      26      0.1177
45      26      0.1177
46      1       0.1177
47      12      0.1177
48      14      0.1177
49      0       0.1177
50      2       0.1177
51      26      0.1177
52      2       0.1177
53      0       0.1177
        5       0.0
1       123     0.1177
2       90      33      3       123     0.043 1600    1       3
3       123     0.1177
4       123     0.1177
5       123     0.1177
6       123     0.1177
7       90      33      3       123     0.043 1600    1       3
8       172     0.1177
9       172     0.1177
10      172     0.1177
11      90      33      3       172     0.043 1600    1       3
12      172     0.1177
13      172     0.1177
14      21      0.1177
15      21      0.1177
16      90      33      3       21      0.043 1600    1       3
17      132     0.1177
18      132     0.1177
19      90      33      3       132     0.043 1600    1       3
20      132     0.1177
21      132     0.1177
22      132     0.1177
23      90      33      3       132     0.043 1600    1       3
24      136     0.1177
25      136     0.1177
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26    136   0.1177
27    136   0.1177
28    136   0.1177
29    90    33    3     136   0.043 1600  1     3
30    136   0.1177
31    25    0.1177
32    25    0.1177
33    90    33    3     25    0.043 1600  1     3
34    2     0.1177
35    2     0.1177
36    2     0.1177
37    90    51    3     2     0.043 1600  1     3
38    4     0.1177
39    4     0.1177
40    2     0.1177
41    90    51    3     2     0.043 1600  1     3
42    48    0.1177
43    48    0.1177
44    48    0.1177
45    48    0.1177
46    2     0.1177
47    21    0.1177
48    25    0.1177
49    2     0.1177
50    2     0.1177
51    48    0.1177
52    2     0.1177
53    0     0.1177
      6     0.0
1     388   0.1177
2     90    33    3     388   0.043 1600  1     3
3     388   0.1177
4     388   0.1177
5     388   0.1177
6     388   0.1177
7     90    33    3     388   0.043 1600  1     3
8     540   0.1177
9     540   0.1177
10    540   0.1177
11    90    33    3     540   0.043 1600  1     3
12    540   0.1177
13    540   0.1177
14    67    0.1177
15    67    0.1177
16    90    33    3     67    0.043 1600  1     3
17    415   0.1177
18    415   0.1177
19    90    33    3     415   0.043 1600  1     3
20    415   0.1177
21    415   0.1177
22    415   0.1177
23    90    33    3     415   0.043 1600  1     3
24    427   0.1177
25    427   0.1177
26    427   0.1177
27    427   0.1177
28    427   0.1177
```

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29      90      33      3       427     0.043 1600  1       3
30      427     0.1177
31      80      0.1177
32      80      0.1177
33      90      33      3       80      0.043 1600  1       3
34      6       0.1177
35      6       0.1177
36      6       0.1177
37      90      51      3       6       0.043 1600  1       3
38      13      0.1177
39      13      0.1177
40      3       0.1177
41      90      51      3       3       0.043 1600  1       3
42      150     0.1177
43      150     0.1177
44      150     0.1177
45      150     0.1177
46      5       0.1177
47      67      0.1177
48      80      0.1177
49      2       0.1177
50      6       0.1177
51      151     0.1177
52      6       0.1177
53      0       0.1177
        7       0.0
1       802     0.1177
2       90      33      3       802     0.043 1600  1       3
3       802     0.1177
4       802     0.1177
5       802     0.1177
6       802     0.1177
7       90      33      3       802     0.043 1600  1       3
8       1116    0.1177
9       1116    0.1177
10      1116    0.1177
11      90      33      3       1116    0.043 1600  1       3
12      1116    0.1177
13      1116    0.1177
14      139     0.1177
15      139     0.1177
16      90      33      3       139     0.043 1600  1       3
17      858     0.1177
18      858     0.1177
19      90      33      3       858     0.043 1600  1       3
20      858     0.1177
21      858     0.1177
22      858     0.1177
23      90      33      3       858     0.043 1600  1       3
24      883     0.1177
25      883     0.1177
26      883     0.1177
27      883     0.1177
28      883     0.1177
29      90      33      3       883     0.043 1600  1       3
30      883     0.1177
31      165     0.1177
```

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38      22      0.1177
39      22      0.1177
40      5       0.1177
41      90      51      3       5       0.043 1600    1       3
42      256     0.1177
43      256     0.1177
44      256     0.1177
45      256     0.1177
46      8       0.1177
47      115     0.1177
48      136     0.1177
49      3       0.1177
50      10      0.1177
51      259     0.1177
52      11      0.1177
53      2       0.1177
        10      0.0
1       617     0.1177
2       90      33      3       617     0.043 1600    1       3
3       617     0.1177
4       617     0.1177
5       617     0.1177
6       617     0.1177
7       90      33      3       617     0.043 1600    1       3
8       859     0.1177
9       859     0.1177
10      859     0.1177
11      90      33      3       859     0.043 1600    1       3
12      859     0.1177
13      859     0.1177
14      107     0.1177
15      107     0.1177
16      90      33      3       107     0.043 1600    1       3
17      661     0.1177
18      661     0.1177
19      90      33      3       661     0.043 1600    1       3
20      661     0.1177
21      661     0.1177
22      661     0.1177
23      90      33      3       661     0.043 1600    1       3
24      680     0.1177
25      680     0.1177
26      680     0.1177
27      680     0.1177
28      680     0.1177
29      90      33      3       680     0.043 1600    1       3
30      680     0.1177
31      127     0.1177
32      127     0.1177
33      90      33      3       127     0.043 1600    1       3
34      10      0.1177
35      10      0.1177
36      10      0.1177
37      90      51      3       10      0.043 1600    1       3
38      21      0.1177
39      21      0.1177
40      5       0.1177
```

```
41    90    51    3     5     0.043 1600  1     3
42    239   0.1177
43    239   0.1177
44    239   0.1177
45    239   0.1177
46    8     0.1177
47    107   0.1177
48    127   0.1177
49    3     0.1177
50    9     0.1177
51    241   0.1177
52    10    0.1177
53    2     0.1177
      11    0.0
1     641   0.1177
2     90    33    3     641   0.043 1600  1     3
3     641   0.1177
4     641   0.1177
5     641   0.1177
6     641   0.1177
7     90    33    3     641   0.043 1600  1     3
8     892   0.1177
9     892   0.1177
10    892   0.1177
11    90    33    3     892   0.043 1600  1     3
12    892   0.1177
13    892   0.1177
14    111   0.1177
15    111   0.1177
16    90    33    3     111   0.043 1600  1     3
17    686   0.1177
18    686   0.1177
19    90    33    3     686   0.043 1600  1     3
20    686   0.1177
21    686   0.1177
22    686   0.1177
23    90    33    3     686   0.043 1600  1     3
24    706   0.1177
25    706   0.1177
26    706   0.1177
27    706   0.1177
28    706   0.1177
29    90    33    3     706   0.043 1600  1     3
30    706   0.1177
31    132   0.1177
32    132   0.1177
33    90    33    3     132   0.043 1600  1     3
34    10    0.1177
35    10    0.1177
36    10    0.1177
37    90    51    3     10    0.043 1600  1     3
38    22    0.1177
39    22    0.1177
40    5     0.1177
41    90    51    3     5     0.043 1600  1     3
42    248   0.1177
43    248   0.1177
```

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2       90      33      3       790     0.043 1600    1       3
3       790     0.1177
4       790     0.1177
5       790     0.1177
6       790     0.1177
7       90      33      3       790     0.043 1600    1       3
8       996     0.1177
9       996     0.1177
10      996     0.1177
11      90      33      3       996     0.043 1600    1       3
12      996     0.1177
13      996     0.1177
14      234     0.1177
15      234     0.1177
16      90      33      3       234     0.043 1600    1       3
17      1106    0.1177
18      1106    0.1177
19      90      33      3       1106    0.043 1600    1       3
20      1106    0.1177
21      1106    0.1177
22      1106    0.1177
23      90      33      3       1106    0.043 1600    1       3
24      1128    0.1177
25      1128    0.1177
26      1128    0.1177
27      1128    0.1177
28      1128    0.1177
29      90      33      3       1128    0.043 1600    1       3
30      1128    0.1177
31      278     0.1177
32      278     0.1177
33      90      33      3       278     0.043 1600    1       3
34      3       0.1177
35      3       0.1177
36      3       0.1177
37      90      51      3       3       0.043 1600    1       3
38      7       0.1177
39      7       0.1177
40      11      0.1177
41      90      51      3       11      0.043 1600    1       3
42      523     0.1177
43      523     0.1177
44      523     0.1177
45      523     0.1177
46      1       0.1177
47      234     0.1177
48      278     0.1177
49      3       0.1177
50      11      0.1177
51      202     0.1177
52      11      0.1177
53      4       0.1177
        17      0.0
1       790     0.1177
2       90      33      3       790     0.043 1600    1       3
3       790     0.1177
4       790     0.1177
```

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5       790     0.1177
6       790     0.1177
7       90      33      3       790     0.043 1600    1       3
8       996     0.1177
9       996     0.1177
10      996     0.1177
11      90      33      3       996     0.043 1600    1       3
12      996     0.1177
13      996     0.1177
14      234     0.1177
15      234     0.1177
16      90      33      3       234     0.043 1600    1       3
17      1106    0.1177
18      1106    0.1177
19      90      33      3       1106    0.043 1600    1       3
20      1106    0.1177
21      1106    0.1177
22      1106    0.1177
23      90      33      3       1106    0.043 1600    1       3
24      1128    0.1177
25      1128    0.1177
26      1128    0.1177
27      1128    0.1177
28      1128    0.1177
29      90      33      3       1128    0.043 1600    1       3
30      1128    0.1177
31      278     0.1177
32      278     0.1177
33      90      33      3       278     0.043 1600    1       3
34      3       0.1177
35      3       0.1177
36      3       0.1177
37      90      51      3       3       0.043 1600    1       3
38      7       0.1177
39      7       0.1177
40      11      0.1177
41      90      51      3       11      0.043 1600    1       3
42      523     0.1177
43      523     0.1177
44      523     0.1177
45      523     0.1177
46      1       0.1177
47      234     0.1177
48      278     0.1177
49      3       0.1177
50      11      0.1177
51      202     0.1177
52      11      0.1177
53      4       0.1177
        18      0.0
1       601     0.1177
2       90      33      3       601     0.043 1600    1       3
3       601     0.1177
4       601     0.1177
5       601     0.1177
6       601     0.1177
7       90      33      3       601     0.043 1600    1       3
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8       758     0.1177
9       758     0.1177
10      758     0.1177
11      90      33      3       758     0.043   1600    1       3
12      758     0.1177
13      758     0.1177
14      178     0.1177
15      178     0.1177
16      90      33      3       178     0.043   1600    1       3
17      842     0.1177
18      842     0.1177
19      90      33      3       842     0.043   1600    1       3
20      842     0.1177
21      842     0.1177
22      842     0.1177
23      90      33      3       842     0.043   1600    1       3
24      859     0.1177
25      859     0.1177
26      859     0.1177
27      859     0.1177
28      859     0.1177
29      90      33      3       859     0.043   1600    1       3
30      859     0.1177
31      212     0.1177
32      212     0.1177
33      90      33      3       212     0.043   1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043   1600    1       3
38      5       0.1177
39      5       0.1177
40      8       0.1177
41      90      51      3       8       0.043   1600    1       3
42      398     0.1177
43      398     0.1177
44      398     0.1177
45      398     0.1177
46      1       0.1177
47      178     0.1177
48      212     0.1177
49      2       0.1177
50      8       0.1177
51      154     0.1177
52      8       0.1177
53      3       0.1177
        19      0.0
1       459     0.1177
2       90      33      3       459     0.043   1600    1       3
3       459     0.1177
4       459     0.1177
5       459     0.1177
6       459     0.1177
7       90      33      3       459     0.043   1600    1       3
8       579     0.1177
9       579     0.1177
10      579     0.1177
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11      90      33      3       579     0.043 1600  1       3
12      579     0.1177
13      579     0.1177
14      136     0.1177
15      136     0.1177
16      90      33      3       136     0.043 1600  1       3
17      642     0.1177
18      642     0.1177
19      90      33      3       642     0.043 1600  1       3
20      642     0.1177
21      642     0.1177
22      642     0.1177
23      90      33      3       642     0.043 1600  1       3
24      655     0.1177
25      655     0.1177
26      655     0.1177
27      655     0.1177
28      655     0.1177
29      90      33      3       655     0.043 1600  1       3
30      655     0.1177
31      161     0.1177
32      161     0.1177
33      90      33      3       161     0.043 1600  1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600  1       3
38      4       0.1177
39      4       0.1177
40      6       0.1177
41      90      51      3       6       0.043 1600  1       3
42      304     0.1177
43      304     0.1177
44      304     0.1177
45      304     0.1177
46      1       0.1177
47      136     0.1177
48      161     0.1177
49      2       0.1177
50      6       0.1177
51      117     0.1177
52      6       0.1177
53      2       0.1177
        20      0.0
1       353     0.1177
2       90      33      3       353     0.043 1600  1       3
3       353     0.1177
4       353     0.1177
5       353     0.1177
6       353     0.1177
7       90      33      3       353     0.043 1600  1       3
8       446     0.1177
9       446     0.1177
10      446     0.1177
11      90      33      3       446     0.043 1600  1       3
12      446     0.1177
13      446     0.1177
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14      105     0.1177
15      105     0.1177
16      90      33      3       105     0.043 1600    1       3
17      495     0.1177
18      495     0.1177
19      90      33      3       495     0.043 1600    1       3
20      495     0.1177
21      495     0.1177
22      495     0.1177
23      90      33      3       495     0.043 1600    1       3
24      505     0.1177
25      505     0.1177
26      505     0.1177
27      505     0.1177
28      505     0.1177
29      90      33      3       505     0.043 1600    1       3
30      505     0.1177
31      124     0.1177
32      124     0.1177
33      90      33      3       124     0.043 1600    1       3
34      1       0.1177
35      1       0.1177
36      1       0.1177
37      90      51      3       2       0.043 1600    1       3
38      3       0.1177
39      3       0.1177
40      5       0.1177
41      90      51      3       5       0.043 1600    1       3
42      234     0.1177
43      234     0.1177
44      234     0.1177
45      234     0.1177
46      0       0.1177
47      105     0.1177
48      124     0.1177
49      1       0.1177
50      5       0.1177
51      90      0.1177
52      5       0.1177
53      2       0.1177
        21      0.0
1       300     0.1177
2       90      33      3       300     0.043 1600    1       3
3       300     0.1177
4       300     0.1177
5       300     0.1177
6       300     0.1177
7       90      33      3       300     0.043 1600    1       3
8       378     0.1177
9       378     0.1177
10      378     0.1177
11      90      33      3       378     0.043 1600    1       3
12      378     0.1177
13      378     0.1177
14      89      0.1177
15      89      0.1177
16      90      33      3       89      0.043 1600    1       3
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17    420   0.1177
18    420   0.1177
19    90    33    3     420   0.043 1600  1     3
20    420   0.1177
21    420   0.1177
22    420   0.1177
23    90    33    3     420   0.043 1600  1     3
24    428   0.1177
25    428   0.1177
26    428   0.1177
27    428   0.1177
28    428   0.1177
29    90    33    3     428   0.043 1600  1     3
30    428   0.1177
31    105   0.1177
32    105   0.1177
33    90    33    3     105   0.043 1600  1     3
34    1     0.1177
35    1     0.1177
36    1     0.1177
37    90    51    3     2     0.043 1600  1     3
38    3     0.1177
39    3     0.1177
40    4     0.1177
41    90    51    3     4     0.043 1600  1     3
42    198   0.1177
43    198   0.1177
44    198   0.1177
45    198   0.1177
46    0     0.1177
47    89    0.1177
48    105   0.1177
49    1     0.1177
50    4     0.1177
51    77    0.1177
52    4     0.1177
53    2     0.1177
      22    0.0
1     240   0.1177
2     90    33    3     240   0.043 1600  1     3
3     240   0.1177
4     240   0.1177
5     240   0.1177
6     240   0.1177
7     90    33    3     240   0.043 1600  1     3
8     303   0.1177
9     303   0.1177
10    303   0.1177
11    90    33    3     303   0.043 1600  1     3
12    303   0.1177
13    303   0.1177
14    71    0.1177
15    71    0.1177
16    90    33    3     71    0.043 1600  1     3
17    336   0.1177
18    336   0.1177
19    90    33    3     336   0.043 1600  1     3
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20      336     0.1177
21      336     0.1177
22      336     0.1177
23      90      33      3       336     0.043 1600    1       3
24      343     0.1177
25      343     0.1177
26      343     0.1177
27      343     0.1177
28      343     0.1177
29      90      33      3       343     0.043 1600    1       3
30      343     0.1177
31      85      0.1177
32      85      0.1177
33      90      33      3       85      0.043 1600    1       3
34      1       0.1177
35      1       0.1177
36      1       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      3       0.1177
41      90      51      3       3       0.043 1600    1       3
42      159     0.1177
43      159     0.1177
44      159     0.1177
45      159     0.1177
46      0       0.1177
47      71      0.1177
48      85      0.1177
49      1       0.1177
50      3       0.1177
51      61      0.1177
52      3       0.1177
53      1       0.1177
        23      0.0
1       195     0.1177
2       90      33      3       195     0.043 1600    1       3
3       195     0.1177
4       195     0.1177
5       195     0.1177
6       195     0.1177
7       90      33      3       195     0.043 1600    1       3
8       245     0.1177
9       245     0.1177
10      245     0.1177
11      90      33      3       245     0.043 1600    1       3
12      245     0.1177
13      245     0.1177
14      58      0.1177
15      58      0.1177
16      90      33      3       58      0.043 1600    1       3
17      272     0.1177
18      272     0.1177
19      90      33      3       272     0.043 1600    1       3
20      272     0.1177
21      272     0.1177
22      272     0.1177
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23      90      33      3       272     0.043 1600    1       3
24      278     0.1177
25      278     0.1177
26      278     0.1177
27      278     0.1177
28      278     0.1177
29      90      33      3       278     0.043 1600    1       3
30      278     0.1177
31      68      0.1177
32      68      0.1177
33      90      33      3       68      0.043 1600    1       3
34      1       0.1177
35      1       0.1177
36      1       0.1177
37      90      51      3       2       0.043 1600    1       3
38      2       0.1177
39      2       0.1177
40      3       0.1177
41      90      51      3       3       0.043 1600    1       3
42      129     0.1177
43      129     0.1177
44      129     0.1177
45      129     0.1177
46      0       0.1177
47      58      0.1177
48      68      0.1177
49      1       0.1177
50      3       0.1177
51      50      0.1177
52      3       0.1177
53      1       0.1177
        24      0.0
1       129     0.1177
2       90      33      3       129     0.043 1600    1       3
3       129     0.1177
4       129     0.1177
5       129     0.1177
6       129     0.1177
7       90      33      3       129     0.043 1600    1       3
8       180     0.1177
9       180     0.1177
10      180     0.1177
11      90      33      3       180     0.043 1600    1       3
12      180     0.1177
13      180     0.1177
14      22      0.1177
15      22      0.1177
16      90      33      3       22      0.043 1600    1       3
17      138     0.1177
18      138     0.1177
19      90      33      3       138     0.043 1600    1       3
20      138     0.1177
21      138     0.1177
22      138     0.1177
23      90      33      3       138     0.043 1600    1       3
24      142     0.1177
25      142     0.1177
```

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26      142     0.1177
27      142     0.1177
28      142     0.1177
29      90      33      3       142     0.043 1600    1       3
30      142     0.1177
31      27      0.1177
32      27      0.1177
33      90      33      3       27      0.043 1600    1       3
34      2       0.1177
35      2       0.1177
36      2       0.1177
37      90      51      3       2       0.043 1600    1       3
38      4       0.1177
39      4       0.1177
40      2       0.1177
41      90      51      3       2       0.043 1600    1       3
42      50      0.1177
43      50      0.1177
44      50      0.1177
45      50      0.1177
46      2       0.1177
47      22      0.1177
48      27      0.1177
49      2       0.1177
50      2       0.1177
51      50      0.1177
52      2       0.1177
53      0       0.1177
```

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

General Information

Run start date: 1/ 1/ 3 Julian: 1
end date: 12/31/ 3 Julian: 365

A Tier 2 approach was used for input data preparation.

The MODE flag has been set to P for calculating PM averages.

Ambient background concentrations are excluded from the averages below.

Site & Meteorological Constants

VS = 0.0 CM/S VD = 0.0 CM/S Z0 = 321. CM ATIM = 60.

Met. Sfc. Sta. Id & Yr = 14732 3
Upper Air Sta. Id & Yr = 94703 3

Urban mixing heights were processed.

In 2003, Julian day 1 is a Wednesday.

The patterns from the input file have been assigned as follows:

Pattern # 1 is assigned to Monday.
Pattern # 1 is assigned to Tuesday.
Pattern # 1 is assigned to Wednesday.
Pattern # 1 is assigned to Thursday.
Pattern # 1 is assigned to Friday.
Pattern # 1 is assigned to Saturday.
Pattern # 1 is assigned to Sunday.

Link Data Constants - (Variable data in *.LNK file)

LINK DESCRIPTION					* LINK COORDINATES (FT)				*
LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES *	X1	Y1	X2	Y2 *

		1. NB BAY ST Link1	NB1-*	5713.0	4788.0	5580.0	5132.0	*	
369.	339.	AG	0.0	40.0					
		2. NB BAY ST Link2	NB1-*	5713.0	4788.0	5580.0	5132.0	*	
369.	339.	AG	0.0	20.0	2				
		3. NB BAY ST Link3	NB2-*	5580.0	5132.0	5489.0	5366.0	*	
251.	339.	AG	0.0	40.0					
		4. NB BAY ST Link4	NB3-*	5489.0	5366.0	5464.0	5452.0	*	
90.	344.	AG	0.0	40.0					
		5. NB BAY ST Link5	NB4-*	5464.0	5452.0	5465.0	5519.0	*	
67.	1.	AG	0.0	40.0					
		6. NB BAY ST Link6	NB5-*	5465.0	5519.0	5518.0	5750.0	*	
237.	13.	AG	0.0	40.0					
		7. NB BAY ST Link7	NB5-*	5465.0	5519.0	5518.0	5750.0	*	
237.	13.	AG	0.0	20.0	2				

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

Link Data Constants - (Variable data in *.LNK file)

	LINK DESCRIPTION				LINK COORDINATES (FT)				
					X1	Y1	X2	Y2	
LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES				
8.	NB BAY ST Link8 NB6-				5518.0	5750.0	5589.0	6026.0	
285.	14.	AG	0.0	40.0					
9.	NB BAY ST Link9 NB7-				5589.0	6026.0	5650.0	6239.0	
222.	16.	AG	0.0	40.0					
10.	NB BAY ST Link10 NB8				5650.0	6239.0	5713.0	6461.0	
231.	16.	AG	0.0	40.0					
11.	NB BAY ST Link11 NB8				5650.0	6239.0	5713.0	6461.0	
231.	16.	AG	0.0	20.0	2				
12.	NB BAY ST Link12 NB9				5713.0	6461.0	5738.0	6578.0	
120.	12.	AG	0.0	40.0					
13.	NB BAY ST Link13 NB1				5738.0	6578.0	5717.0	6862.0	
285.	356.	AG	0.0	40.0					
14.	NB BAY ST-LEFT TURN				5649.0	6240.0	5660.0	6320.0	
81.	8.	AG	0.0	32.0					
15.	NB BAY ST-LEFT TURN				5660.0	6320.0	5698.0	6466.0	
151.	15.	AG	0.0	32.0					
16.	NB BAY ST-LEFT TURN				5660.0	6320.0	5698.0	6466.0	
151.	15.	AG	0.0	12.0	1				
17.	SB BAY ST Link17 SB1				5683.0	6865.0	5701.0	6581.0	
285.	176.	AG	0.0	40.0					
18.	SB BAY ST Link18 SB2				5701.0	6581.0	5700.0	6542.0	
39.	181.	AG	0.0	38.0					
19.	SB BAY ST Link19 SB2				5701.0	6581.0	5700.0	6542.0	
39.	181.	AG	0.0	20.0	2				
20.	SB BAY ST Link20 SB3				5700.0	6542.0	5640.0	6322.0	
228.	195.	AG	0.0	40.0					
21.	SB BAY ST Link21 SB4				5640.0	6322.0	5620.0	6211.0	
113.	190.	AG	0.0	40.0					
22.	SB BAY ST Link22 SB5				5620.0	6211.0	5521.0	5868.0	
357.	196.	AG	0.0	40.0					
23.	SB BAY ST Link23 SB5				5620.0	6211.0	5521.0	5868.0	
357.	196.	AG	0.0	20.0	2				
24.	SB BAY ST Link24 SB6				5521.0	5868.0	5451.0	5555.0	
321.	193.	AG	0.0	40.0					
25.	SB BAY ST Link25 SB7				5451.0	5555.0	5436.0	5481.0	
76.	191.	AG	0.0	40.0					
26.	SB BAY ST Link26 SB8				5436.0	5481.0	5442.0	5406.0	
75.	175.	AG	0.0	40.0					

```
          27. SB BAY ST Link27 SB9*   5442.0    5406.0    5472.0    5320.0 *
91.   161.  AG     0.0  40.0
          28. SB BAY ST Link28 SB1*   5472.0    5320.0    5527.0    5174.0 *
156.  159.  AG     0.0  50.0
          29. SB BAY ST Link29 SB1*   5472.0    5320.0    5527.0    5174.0 *
156.  159.  AG     0.0  30.0    3
          30. SB BAY ST Link30 SB1*   5527.0    5174.0    5681.0    4776.0 *
427.  159.  AG     0.0  40.0
          31. SB BAY ST-RIGHT TURN*   5640.0    6322.0    5607.0    6215.0 *
112.  197.  AG     0.0  32.0
          32. SB BAY ST-RIGHT TURN*   5607.0    6215.0    5507.0    5888.0 *
342.  197.  AG     0.0  32.0
          33. SB BAY ST-RIGHT TURN*   5607.0    6215.0    5507.0    5888.0 *
342.  197.  AG     0.0  12.0    1
          34. EB VICTORY BLVD Link*   5005.0    5957.0    5222.0    5851.0 *
242.  116.  AG     0.0  32.0
          35. EB VICTORY BLVD Link*   5222.0    5851.0    5320.0    5817.0 *
104.  109.  AG     0.0  32.0
          36. EB VICTORY BLVD Link*   5320.0    5817.0    5471.0    5810.0 *
151.   93.  AG     0.0  40.0
          37. EB VICTORY BLVD Link*   5320.0    5817.0    5471.0    5810.0 *
151.   93.  AG     0.0  20.0    2
          38. EB VICTORY BLVD Link*   5471.0    5810.0    5561.0    5780.0 *
95.   108.  AG     0.0  32.0
          39. EB VICTORY BLVD Link*   5561.0    5780.0    5747.0    5791.0 *
186.   87.  AG     0.0  32.0
          40. WB VICTORY BLVD Link*   5745.0    5811.0    5567.0    5806.0 *
178.  268.  AG     0.0  32.0
          41. WB VICTORY BLVD Link*   5745.0    5811.0    5567.0    5806.0 *
178.  268.  AG     0.0  12.0    1
          42. WB VICTORY BLVD Link*   5567.0    5806.0    5473.0    5832.0 *
98.   285.  AG     0.0  32.0
          43. WB VICTORY BLVD Link*   5473.0    5832.0    5303.0    5839.0 *
170.  272.  AG     0.0  40.0
          44. WB VICTORY BLVD Link*   5303.0    5839.0    5212.0    5874.0 *
97.   291.  AG     0.0  32.0
          45. WB VICTORY BLVD Link*   5212.0    5874.0    5006.0    5981.0 *
232.  297.  AG     0.0  32.0
          46. SB BAY ST right move*   5518.0    5750.0    5561.0    5780.0 *
52.    55.  AG     0.0  32.0
          47. SB BAY ST left movem*   5518.0    5750.0    5473.0    5832.0 *
94.   331.  AG     0.0  32.0
          48. SB BAY ST right move*   5521.0    5868.0    5473.0    5832.0 *
60.   233.  AG     0.0  32.0
```

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

Link Data Constants - (Variable data in *.LNK file)

	LINK DESCRIPTION				LINK COORDINATES (FT)				
					X1	Y1	X2	Y2	
LENGTH (FT)	BRG (DEG)	TYPE	H (FT)	W (FT)	NLANES				
49.	SB BAY ST left movem				5521.0	5868.0	5561.0	5780.0	
97.	156.	AG	0.0	32.0					
50.	EB Victory right mov				5471.0	5810.0	5503.0	5789.0	
38.	123.	AG	0.0	32.0					
51.	EB Victory left move				5471.0	5810.0	5537.0	5825.0	
68.	77.	AG	0.0	32.0					
52.	WB Victory left move				5566.0	5806.0	5504.0	5789.0	
64.	255.	AG	0.0	32.0					
53.	WB Victory right mov				5566.0	5806.0	5537.0	5825.0	
35.	303.	AG	0.0	32.0					

Receptor Data

RECEPTOR	COORDINATES (FT) X	Y	Z
1. REC N1	5622.0	5244.0	6.0
2. REC N2	5600.0	5300.0	6.0
3. REC N3	5578.0	5356.0	6.0
4. REC N4	5534.0	5480.0	6.0
5. REC N5	5547.0	5540.0	6.0
6. REC N6	5565.0	5626.0	6.0
7. REC N7	5577.0	5680.0	6.0
8. REC N8	5630.0	5720.0	6.0
9. REC N9	5709.0	5722.0	6.0
10. REC N10	5726.0	5878.0	6.0
11. REC N11	5675.0	5873.0	6.0
12. REC N12	5622.0	5875.0	6.0
13. REC N13	5627.0	5918.0	6.0
14. REC N14	5638.0	5961.0	6.0
15. REC N15	5653.0	6013.0	6.0
16. REC N16	5676.0	6089.0	6.0
17. REC N17	5690.0	6135.0	6.0
18. REC N18	5700.0	6177.0	6.0
19. REC N19	5708.0	6213.0	6.0
20. REC N20	5593.0	6573.0	6.0
21. REC N21	5643.0	6575.0	6.0

22. REC N22	*	5613.0	6434.0	6.0
23. REC N23	*	5594.0	6381.0	6.0
24. REC N24	*	5584.0	6337.0	6.0
25. REC N25	*	5576.0	6283.0	6.0
26. REC N26	*	5563.0	6238.0	6.0
27. REC N27	*	5550.0	6188.0	6.0
28. REC N28	*	5540.0	6144.0	6.0
29. REC N29	*	5414.0	6129.0	6.0

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

Receptor Data

RECEPTOR	COORDINATES (FT) X	Y	Z
30. REC N30	5421.0	6082.0	6.0
31. REC N31	5427.0	6043.0	6.0
32. REC N32	5435.0	5997.0	6.0
33. REC N33	5441.0	5953.0	6.0
34. REC N34	5449.0	5904.0	6.0
35. REC N35	5398.0	5903.0	6.0
36. REC N36	5352.0	5907.0	6.0
37. REC N37	5302.0	5910.0	6.0
38. REC N38	5428.0	5731.0	6.0
39. REC N39	5411.0	5673.0	6.0
40. REC N40	5399.0	5628.0	6.0
41. REC N41	5290.0	5589.0	6.0
42. REC N42	5313.0	5536.0	6.0
43. REC N43	5334.0	5470.0	6.0
44. REC N44	5359.0	5395.0	6.0
45. REC N45	5389.0	5318.0	6.0
46. REC N46	5421.0	5222.0	6.0
47. REC N47	5435.0	5178.0	6.0

Model Results

Remarks : In search of the wind direction corresponding to the maximum concentration, only the first direction, of the directions with the same maximum concentrations, is indicated as the maximum.

* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED

(MICROGRAMS/M**3)

	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10
MAX+BKG	2.6	2.7	2.8	3.8	3.8	3.9	4.1	3.3	2.2	2.1
- BKG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	MAX	*	2.6	2.7	2.8	3.8	3.8	3.9	4.1	3.3	2.2	2.1
	WIND DIR	*	221	221	221	1	356	356	322	322	311	322
	JULIAN	*	316	316	316	172	280	280	172	172	220	172
	HOUR	*	17	17	17	15	7	7	16	16	15	16

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

* MAXIMUM HOURLY CONCENTRATIONS WITH ANY AMBIENT BACKGROUND CONCENTRATIONS (BKG) ADDED
* (MICROGRAMS/M**3)

		REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
MAX+BKG	*	2.6	4.0	4.5	4.5	4.5	4.3	4.5	4.5	4.5	3.1
- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	*	2.6	4.0	4.5	4.5	4.5	4.3	4.5	4.5	4.5	3.1
WIND DIR	*	356	221	221	221	221	221	221	221	221	171
JULIAN	*	280	316	316	316	316	316	316	316	316	160
HOUR	*	7	17	17	17	17	17	17	17	17	8

		REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28	REC29	REC30
MAX+BKG	*	4.0	4.6	4.4	4.4	4.6	4.6	4.5	5.0	2.6	2.7
- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	*	4.0	4.6	4.4	4.4	4.6	4.6	4.5	5.0	2.6	2.7
WIND DIR	*	171	171	171	171	93	171	171	171	171	171
JULIAN	*	160	160	160	160	141	160	160	160	160	160
HOUR	*	8	8	8	8	16	8	8	8	8	8

		REC31	REC32	REC33	REC34	REC35	REC36	REC37	REC38	REC39	REC40
MAX+BKG	*	2.9	3.6	3.7	4.4	2.9	2.4	2.1	5.1	4.7	4.4

	- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0										
	MAX	*	2.9	3.6	3.7	4.4	2.9	2.4	2.1	5.1
4.7	4.4									
	WIND DIR	*	171	171	171	171	126	126	126	37
27	27									
	JULIAN	*	160	160	160	160	320	320	320	83
140	140									
	HOUR	*	8	8	8	8	8	8	8	7
7	7									

	*	REC41	REC42	REC43	REC44	REC45	REC46	REC47
MAX+BKG	*	2.5	2.7	3.2	3.7	4.0	3.8	4.0
- BKG	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	*	2.5	2.7	3.2	3.7	4.0	3.8	4.0
WIND DIR	*	36	27	27	27	27	1	1
JULIAN	*	170	140	140	140	140	172	172
HOUR	*	8	7	7	7	7	15	15

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

THE HIGHEST CONCENTRATION OF 5.10 UG/M**3 OCCURRED AT RECEPTOR REC38.

JOB: Stapleton PM25 BD Neighbor-scale Recepto st and Victory Intersection RUN: Bay

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Output Section
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NOTES PERTAINING TO THE REPORT

1. THE HIGHEST AVERAGE IN EACH OF THE FIRST TWO COLUMNS OF EACH TABLE BELOW ARE SUFFIXED BY AN ASTERISK (*).
FOR PM OUTPUT, THERE IS ONLY ONE COLUMN AND ASTERISK FOR THE ANNUAL AVERAGE/PERIOD OF CONCERN TABLE.

2. THE NUMBERS IN PARENTHESES ARE THE JULIAN DAY AND ENDING HOUR FOR THE PRECEDING AVERAGE.

3. THE NUMBER OF CALM HOURS USED IN PRODUCING EACH AVERAGE ARE PREFIXED BY A C.

PRIMARY AND SECONDARY AVERAGES.

FIVE HIGHEST 24-HOUR END-TO-END AVERAGE CONCENTRATIONS IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Conc	Day	Hr	Calm	Second Highest Conc	Day	Hr	Calm	Third Highest Conc	Day	Hr	Calm	Fourth Highest Conc	Day	Hr	Calm	Fifth Highest Conc	Day	Hr	Calm
1	0.93	(247	24)	C 6	0.84	(316	24)	C 1	0.84	(330	24)	C 4	0.75	(129	24)	C 0	0.74	(307	24)	C 2
2	0.89	(247	24)	C 6	0.86	(330	24)	C 4	0.86	(316	24)	C 1	0.80	(129	24)	C 0	0.74	(50	24)	C 2
3	0.92	(247	24)	C 6	0.87	(316	24)	C 1	0.87	(330	24)	C 4	0.78	(307	24)	C 2	0.77	(129	24)	C 0
4	0.98	(247	24)	C 6	0.90	(316	24)	C 1	0.89	(49	24)	C 1	0.87	(330	24)	C 4	0.86	(280	24)	C 4
5	0.90	(247	24)	C 6	0.89	(49	24)	C 1	0.81	(280	24)	C 4	0.81	(206	24)	C 1	0.81	(291	24)	C 1
6	1.01	(49	24)	C 1	0.93	(247	24)	C 6	0.92	(291	24)	C 1	0.85	(330	24)	C 4	0.85	(206	24)	C 1
7	1.08	(49	24)	C 1	0.99	(291	24)	C 1	0.96	(247	24)	C 6	0.90	(51	24)	C 0	0.90	(279	24)	C 1
8	0.85	(49	24)	C 1	0.76	(247	24)	C 6	0.74	(263	24)	C 3	0.71	(291	24)	C 1	0.67	(250	24)	C 1

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              9   0.53 ( 49,24) C 1   0.51 (247,24) C 6   0.44 (291,24) C 1
0.44 (250,24) C 1   0.43 (232,24) C 1
             10   0.58 ( 49,24) C 1   0.56 (247,24) C 6   0.54 (338,24) C 1
0.49 (228,24) C 2   0.48 (232,24) C 1
             11   0.74 (247,24) C 6   0.73 ( 49,24) C 1   0.69 (338,24) C 1
0.67 (291,24) C 1   0.66 (228,24) C 2
             12   1.14 (247,24) C 6   1.10 (330,24) C 4   1.09 ( 49,24) C 1
1.07 (316,24) C 1   1.06 (129,24) C 0
             13   1.21 (330,24) C 4   1.16 (314,24) C 5   1.16 (247,24) C 6
1.15 ( 49,24) C 1   1.12 (316,24) C 1
             14   1.25 (330,24) C 4   1.18 (314,24) C 5   1.17 ( 49,24) C 1
1.13 (247,24) C 6   1.12 (316,24) C 1
             15   1.23 (330,24) C 4   1.13 ( 49,24) C 1   1.13 (247,24) C 6
1.13 (314,24) C 5   1.12 (316,24) C 1
             16   1.20 (330,24) C 4   1.16 ( 49,24) C 1   1.12 (314,24) C 5
1.10 (247,24) C 6   1.09 (316,24) C 1
             17   1.22 (330,24) C 4   1.14 (314,24) C 5   1.14 ( 49,24) C 1
1.12 (316,24) C 1   1.11 (247,24) C 6
             18   1.28 (330,24) C 4   1.14 (316,24) C 1   1.13 ( 49,24) C 1
1.13 (314,24) C 5   1.12 (247,24) C 6
             19   1.31 (330,24) C 4   1.23 ( 49,24) C 1   1.19 (314,24) C 5
1.18 (247,24) C 6   1.15 (316,24) C 1
             20   1.01 (170,24) C 6   0.70 (327,24) C 2   0.70 (169,24) C 0
0.70 (145,24) C 3   0.69 (320,24) C 7
             21   1.57 (170,24) C 6   1.09 (145,24) C 3   1.09 (169,24) C 0
1.02 (320,24) C 7   1.01 (327,24) C 2
             22   1.71 (170,24) C 6   1.21 (145,24) C 3   1.17 (169,24) C 0
1.16 (195,24) C 0   1.11 (327,24) C 2
             23   1.64 (170,24) C 6   1.17 (169,24) C 0   1.16 (145,24) C 3
1.13 (195,24) C 0   1.09 (327,24) C 2
             24   1.67 (170,24) C 6   1.24 (169,24) C 0   1.20 (145,24) C 3
1.19 (195,24) C 0   1.17 (320,24) C 7
             25   1.83 (170,24) C 6   1.39*(169,24) C 0   1.32 (320,24) C 7
1.29 (145,24) C 3   1.27 (327,24) C 2
             26   1.75 (170,24) C 6   1.35 (169,24) C 0   1.30 (320,24) C 7
1.29 (145,24) C 3   1.20 (195,24) C 0
```

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

FIVE HIGHEST 24-HOUR END-TO-END AVERAGE CONCENTRATIONS IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Rcptr No.	Highest Ending Conc Day Hr Calm	Second Highest Ending Conc Day Hr Calm	Third Highest Ending Conc Day Hr Calm	Fourth Highest Ending Conc Day Hr Calm	Fifth Highest Ending Conc Day Hr Calm
27	1.82 (170,24) C 6	1.35 (169,24) C 0	1.32 (320,24) C 7	1.25 (145,24) C 3	1.22 (327,24) C 2
28	1.87*(170,24) C 6	1.39 (169,24) C 0	1.32 (320,24) C 7	1.30 (145,24) C 3	1.26 (195,24) C 0
29	0.73 (170,24) C 6	0.57 (169,24) C 0	0.53 (195,24) C 0	0.53 (327,24) C 2	0.53 (320,24) C 7
30	0.81 (170,24) C 6	0.63 (169,24) C 0	0.60 (327,24) C 2	0.59 (320,24) C 7	0.58 (195,24) C 0
31	0.95 (170,24) C 6	0.76 (169,24) C 0	0.69 (327,24) C 2	0.66 (320,24) C 7	0.65 (343,24) C 1
32	1.07 (170,24) C 6	0.83 (169,24) C 0	0.78 (320,24) C 7	0.77 (195,24) C 0	0.76 (327,24) C 2
33	1.27 (170,24) C 6	0.93 (169,24) C 0	0.89 (195,24) C 0	0.87 (320,24) C 7	0.86 (331,24) C 3
34	1.61 (170,24) C 6	1.11 (169,24) C 0	1.11 (195,24) C 0	1.09 (320,24) C 7	1.09 (145,24) C 3
35	1.13 (170,24) C 6	0.80 (195,24) C 0	0.80 (320,24) C 7	0.76 (169,24) C 0	0.75 (327,24) C 2
36	0.86 (170,24) C 6	0.64 (195,24) C 0	0.61 (169,24) C 0	0.60 (320,24) C 7	0.56 (327,24) C 2
37	0.73 (170,24) C 6	0.53 (195,24) C 0	0.51 (169,24) C 0	0.50 (327,24) C 2	0.49 (141,24) C 6
38	1.54 (170,24) C 6	1.35 (320,24) C 7	1.29 (169,24) C 0	1.23 (253,24) C 4	1.17 (331,24) C 3
39	1.40 (170,24) C 6	1.15 (320,24) C 7	1.10 (169,24) C 0	1.02 (253,24) C 4	1.01 (331,24) C 3
40	1.36 (170,24) C 6	1.07 (320,24) C 7	1.02 (169,24) C 0	1.00 (327,24) C 2	0.99 (195,24) C 0
41	0.63 (320,24) C 7	0.60 (170,24) C 6	0.55 (169,24) C 0	0.52 (327,24) C 2	0.49 (29,24) C 4
42	0.68 (320,24) C 7	0.67 (170,24) C 6	0.63 (327,24) C 2	0.62 (169,24) C 0	0.57 (343,24) C 1
43	0.79 (320,24) C 7	0.72 (170,24) C 6	0.72 (169,24) C 0	0.69 (327,24) C 2	0.66 (343,24) C 1
44	0.92 (320,24) C 7	0.82 (169,24) C 0	0.81 (253,24) C 4	0.77 (343,24) C 1	0.77 (170,24) C 6

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              45   0.90 (320,24) C 7    0.89 (253,24) C 4    0.85 (170,24) C 6
0.85 (169,24) C 0    0.80 (343,24) C 1
              46   0.93 (253,24) C 4    0.87 (320,24) C 7    0.84 (  6,24) C 3
0.83 (169,24) C 0    0.80 (343,24) C 1
              47   0.88 (253,24) C 4    0.84 (310,24) C 2    0.83 (  6,24) C 3
0.82 (320,24) C 7    0.80 (169,24) C 0
```

THE HIGHEST ANNUAL AVERAGE CONCENTRATIONS
IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Maximum Conc	Ending Day Hr	Calm
1	0.30	(365,24)	C 400
2	0.30	(365,24)	C 400
3	0.31	(365,24)	C 400
4	0.37	(365,24)	C 400
5	0.34	(365,24)	C 400
6	0.34	(365,24)	C 400
7	0.35	(365,24)	C 400
8	0.25	(365,24)	C 400
9	0.15	(365,24)	C 400
10	0.17	(365,24)	C 400
11	0.24	(365,24)	C 400
12	0.40	(365,24)	C 400
13	0.42	(365,24)	C 400

THE HIGHEST ANNUAL AVERAGE CONCENTRATIONS
IN MICROGRAMS/M**3
EXCLUDING AMBIENT BACKGROUND CONCENTRATIONS.

Receptor Number	Maximum Conc	Ending Day Hr	Calm
14	0.42	(365,24)	C 400
15	0.41	(365,24)	C 400
16	0.41	(365,24)	C 400
17	0.41	(365,24)	C 400
18	0.41	(365,24)	C 400
19	0.42	(365,24)	C 400
20	0.22	(365,24)	C 400
21	0.36	(365,24)	C 400
22	0.38	(365,24)	C 400
23	0.37	(365,24)	C 400
24	0.39	(365,24)	C 400
25	0.43	(365,24)	C 400
26	0.42	(365,24)	C 400
27	0.41	(365,24)	C 400
28	0.43*	(365,24)	C 400
29	0.15	(365,24)	C 400
30	0.17	(365,24)	C 400
31	0.20	(365,24)	C 400
32	0.23	(365,24)	C 400
33	0.28	(365,24)	C 400
34	0.36	(365,24)	C 400
35	0.25	(365,24)	C 400
36	0.19	(365,24)	C 400
37	0.16	(365,24)	C 400
38	0.40	(365,24)	C 400
39	0.33	(365,24)	C 400
40	0.31	(365,24)	C 400
41	0.13	(365,24)	C 400
42	0.15	(365,24)	C 400
43	0.18	(365,24)	C 400
44	0.20	(365,24)	C 400
45	0.22	(365,24)	C 400
46	0.23	(365,24)	C 400
47	0.22	(365,24)	C 400

JOB: Stapleton PM25 BD Neighbor-scale Recepto RUN: Bay st and Victory Intersection

CALM DURATION FREQUENCY

Hours of Consecutive Calm Winds	Frequency of Occurrence	(Julian day/hour ending) of Significant Occurrences
1	157	(5,13)(5,19)(5,23)(6, 4)(29,10)(41,19)(49,19)(52, 8)(52,12)(59,18) (61,13)(63, 2)(63,24)(64,11)(67,13)(73,17)(75, 1)(75,22)(76,16)(76,23) (82,20)(83,14)(85, 5)(86,13)(87, 1)(88, 6)(92, 5)(109,21)(110, 1)(110, 3) (118, 7)(118, 9)(122, 7)(124,23)(126,21)(126,23)(127, 8)(131, 4)(135, 7)(139, 5) (139,16)(140, 6)(141, 4)(141, 8)(145, 4)(145, 6)(146,21)(147, 7)(147,13)(148, 2) (148, 8)(148,10)(150,21)(150,23)(154, 4)(154,18)(156, 5)(156,11)(156,15)(157,16) (158, 7)(160, 7)(160,11)(162,12)(162,22)(163, 2)(164, 5)(165, 2)(165,16)(165,22) (166,13)(170, 1)(170,15)(173, 1)(174, 4)(174,11)(174,14)(174,22)(175, 2)(175,16) (176, 7)(177,22)(180, 5)(182,24)(183, 5)(184, 4)(185, 8)(185,10)(188, 1)(190, 9) (194,21)(196, 3)(199, 2)(200, 2)(200,18)(200,23)(201, 1)(206, 3)(213,24)(216,10) (218,22)(219, 4)(224, 6)(225, 4)(226, 7)(227,17)(227,19)(227,21)(232, 5)(233, 6) (236,12)(238, 5)(247, 1)(247,11)(247,20)(249,16)(249,18)(249,20)(250,11)(253,10) (253,14)(257, 6)(258,22)(263,11)(264,24)(265, 2)(267, 5)(273,10)(275, 6)(281, 2) (281, 5)(282, 2)(282, 7)(282,15)(285,22)(286,23)(291, 6)(297,22)(298, 4)(298, 9) (305,23)(307, 4)(307,11)(308, 5)(310, 3)(315, 3)(316,16)(320,16)(326, 1)(326,17) (326,22)(330, 6)(338,24)(343,13)(350,14)(357, 4)(358, 4)
2	42	(6, 2)(26,13)(26,16)(34,15)(37,14)(50, 6)(66,24)(75, 4)(76,21)(83, 6) (95,22)(117,23)(124, 5)(125, 3)(127,12)(131, 1)(132, 7)(138, 1)(147, 5)(154, 9) (174, 2)(175, 5)(175, 8)(179,12)(190, 7)(196, 6)(197,17)(198, 5)(202,23)(211, 5)

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                                        (228,  3)(253,22)(259,  2)(263,
5)(267,11)(279,  1)(293,  9)(310,  1)(314,  4)(326,14)
                                        (327,  2)(350,12)
                3              16       ( 29,  6)( 64,15)( 77,  3)(118,  4)(145,
1)(165,  8)(201,  6)(247,24)(282,12)(298,  2)
                                        (309,22)(314,  8)(320,  7)(320,11)(331,
7)(351,  5)
                4               6       (  1,  9)(115,  7)(141,13)(170,  6)(231,
7)(280,  5)
                5               3       (139,  2)(330,  3)(362,13)
                6               3       (163,10)(225,13)(359,22)
                7               1       (140,  4)
                8               1       ( 54,14)
               16               1       ( 48,12)
               23               1       ( 13,18)

     Program terminated normally
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'Stapleton PM25 NB Neighbor-scale Receptors with Max Fugutive'  60. 321. 0. 0.
47 0.3048 1
 1 1 03  12 31 03
 14732  03  94703 03
 0 0 'U'
'REC N1'    5622. 5244. 6.0
'REC N2'    5600. 5300. 6.0
'REC N3'    5578. 5356. 6.0
'REC N4'    5534. 5480. 6.0
'REC N5'    5547. 5540. 6.0
'REC N6'    5565. 5626. 6.0
'REC N7'    5577. 5680. 6.0
'REC N8'    5630. 5720. 6.0
'REC N9'    5709. 5722. 6.0
'REC N10'   5726. 5878. 6.0
'REC N11'   5675. 5873. 6.0
'REC N12'   5622. 5875. 6.0
'REC N13'   5627. 5918. 6.0
'REC N14'   5638. 5961. 6.0
'REC N15'   5653. 6013. 6.0
'REC N16'   5676. 6089. 6.0
'REC N17'   5690. 6135. 6.0
'REC N18'   5700. 6177. 6.0
'REC N19'   5708. 6213. 6.0
'REC N20'   5593. 6573. 6.0
'REC N21'   5643. 6575. 6.0
'REC N22'   5613. 6434. 6.0
'REC N23'   5594. 6381. 6.0
'REC N24'   5584. 6337. 6.0
'REC N25'   5576. 6283. 6.0
'REC N26'   5563. 6238. 6.0
'REC N27'   5550. 6188. 6.0
'REC N28'   5540. 6144. 6.0
'REC N29'   5414. 6129. 6.0
'REC N30'   5421. 6082. 6.0
'REC N31'   5427. 6043. 6.0
'REC N32'   5435. 5997. 6.0
'REC N33'   5441. 5953. 6.0
'REC N34'   5449. 5904. 6.0
'REC N35'   5398. 5903. 6.0
'REC N36'   5352. 5907. 6.0
'REC N37'   5302. 5910. 6.0
'REC N38'   5428. 5731. 6.0
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'REC N42'   5313. 5536. 6.0
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'REC N47'   5435. 5178. 6.0
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'NB BAY ST-LEFT TURN Link14 NBL1-NBL2' 'AG' 5649. 6240. 5660. 6320. 0. 32.
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'NB BAY ST-LEFT TURN Link15 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 32.
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'NB BAY ST-LEFT TURN Link16 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 12.0 1
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'SB BAY ST Link18 SB2-SB3' 'AG' 5701. 6581. 5700. 6542. 0. 38.
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'SB BAY ST left movement Link49 SB6-EB5' 'AG' 5521. 5868. 5561. 5780. 0. 32.
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6 85  0.1177
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11 90 33 3 122 0.043 1600 1 3
12 12 0.1177
13 12 0.1177
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45 34  0.1177
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39 3  0.1177
40 1  0.1177
41 90 51    3 2 0.043 1600 1 3
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43 25 0.1177
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45 25 0.1177
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19 90 33    3 52 0.043 1600 1 3
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22 68 0.1177
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45 25 0.1177
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50 1  0.1177
51 26 0.1177
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53 1  0.1177
  5   0.0
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39 4  0.1177
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4 736 0.1177
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6 736 0.1177
7 120 39    3 736 0.043 1600 1 3
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10 1050 0.1177
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13 1050 0.1177
14 122 0.1177
15 122 0.1177
16 120      39     3 122 0.043 1600 1 3
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18 807 0.1177
19 120      39     3 807 0.043 1600 1 3
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37 120       75     3 11 0.043 1600 1 3
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39 22 0.1177
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9 839 0.1177
10 839       0.1177
11 90 33     3 839 0.043 1600 1 3
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22 645       0.1177
23 90 33     3 645 0.043 1600 1 3
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32 132       0.1177
33 90 33     3 132 0.043 1600 1 3
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35 10  0.1177
36 10  0.1177
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43 234       0.1177
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32 189       0.1177
33 90 33     3 189 0.043 1600 1 3
34 3   0.1177
35 3   0.1177
36 3   0.1177
37 90 51     3 3 0.043 1600 1 3
38 7   0.1177
39 7   0.1177
40 1   0.1177
41 90 51     3 2 0.043 1600 1 3
42 396       0.1177
43 396       0.1177
44 396       0.1177
45 396       0.1177
46 3   0.1177
```

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47 206       0.1177
48 189       0.1177
49 1  0.1177
50 10 0.1177
51 166       0.1177
52 6  0.1177
53 6  0.1177
  13   0.0
1 629 0.1177
2 90  33     3 629 0.043 1600 1 3
3 629 0.1177
4 629 0.1177
5 629 0.1177
6 629 0.1177
7 90  33     3 629 0.043 1600 1 3
8 801 0.1177
9 801 0.1177
10 801       0.1177
11 90 33     3 801 0.043 1600 1 3
12 801       0.1177
13 801       0.1177
14 206       0.1177
15 206       0.1177
16 90 33     3 206 0.043 1600 1 3
17 798       0.1177
18 798       0.1177
19 90 33     3 798 0.043 1600 1 3
20 798       0.1177
21 798       0.1177
22 798       0.1177
23 90 33     3 798 0.043 1600 1 3
24 814       0.1177
25 814       0.1177
26 814       0.1177
27 814       0.1177
28 814       0.1177
29 90 33     3 814 0.043 1600 1 3
30 814       0.1177
31 189       0.1177
32 189       0.1177
33 90 33     3 189 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 90 51     3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 1  0.1177
41 90 51     3 2 0.043 1600 1 3
42 396       0.1177
43 396       0.1177
44 396       0.1177
45 396       0.1177
46 3  0.1177
47 206       0.1177
48 189       0.1177
49 1  0.1177
```

```
50 10 0.1177
51 166      0.1177
52 6  0.1177
53 6  0.1177
  14   0.0
1 578 0.1177
2 90  33    3 578 0.043 1600 1 3
3 578 0.1177
4 578 0.1177
5 578 0.1177
6 578 0.1177
7 90  33    3 578 0.043 1600 1 3
8 748 0.1177
9 748 0.1177
10 748      0.1177
11 90 33    3 748 0.043 1600 1 3
12 748      0.1177
13 748      0.1177
14 170      0.1177
15 170      0.1177
16 90 33    3 170 0.043 1600 1 3
17 803      0.1177
18 803      0.1177
19 90 33    3 803 0.043 1600 1 3
20 803      0.1177
21 803      0.1177
22 803      0.1177
23 90 33    3 803 0.043 1600 1 3
24 821      0.1177
25 821      0.1177
26 821      0.1177
27 821      0.1177
28 821      0.1177
29 90 33    3 821 0.043 1600 1 3
30 821      0.1177
31 229      0.1177
32 229      0.1177
33 90 33    3 229 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 90 51    3 2 0.043 1600 1 3
38 6  0.1177
39 6  0.1177
40 9  0.1177
41 90 51    3 9 0.043 1600 1 3
42 408      0.1177
43 408      0.1177
44 408      0.1177
45 408      0.1177
46 1  0.1177
47 170      0.1177
48 229      0.1177
49 2  0.1177
50 9  0.1177
51 167      0.1177
52 9  0.1177
```

```
53 3  0.1177
  15  0.0
1 674 0.1177
2 90  33    3 674 0.043 1600 1 3
3 674 0.1177
4 674 0.1177
5 674 0.1177
6 674 0.1177
7 90  33    3 674 0.043 1600 1 3
8 872 0.1177
9 872 0.1177
10 872      0.1177
11 90 33    3 872 0.043 1600 1 3
12 872      0.1177
13 872      0.1177
14 198      0.1177
15 198      0.1177
16 90 33    3 198 0.043 1600 1 3
17 935      0.1177
18 935      0.1177
19 90 33    3 935 0.043 1600 1 3
20 935      0.1177
21 935      0.1177
22 935      0.1177
23 90 33    3 935 0.043 1600 1 3
24 956      0.1177
25 956      0.1177
26 956      0.1177
27 956      0.1177
28 956      0.1177
29 90 33    3 956 0.043 1600 1 3
30 956      0.1177
31 267      0.1177
32 267      0.1177
33 90 33    3 267 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 90 51    3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 11 0.1177
41 90 51    3 11 0.043 1600 1 3
42 476      0.1177
43 476      0.1177
44 476      0.1177
45 476      0.1177
46 1  0.1177
47 198      0.1177
48 267      0.1177
49 3  0.1177
50 11 0.1177
51 194      0.1177
52 11 0.1177
53 4  0.1177
  16  0.0
1 701 0.1177
```

```
2 120 39    3 701 0.043 1600 1 3
3 701 0.1177
4 701 0.1177
5 701 0.1177
6 701 0.1177
7 120 39    3 701 0.043 1600 1 3
8 907 0.1177
9 907 0.1177
10 907      0.1177
11 120      39    3 907 0.043 1600 1 3
12 907      0.1177
13 907      0.1177
14 206      0.1177
15 206      0.1177
16 120      39    3 206 0.043 1600 1 3
17 973      0.1177
18 973      0.1177
19 120      39    3 973 0.043 1600 1 3
20 973      0.1177
21 973      0.1177
22 973      0.1177
23 120      39    3 973 0.043 1600 1 3
24 995      0.1177
25 995      0.1177
26 995      0.1177
27 995      0.1177
28 995      0.1177
29 120      39    3 995 0.043 1600 1 3
30 995      0.1177
31 278      0.1177
32 278      0.1177
33 120      39    3 278 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 120      75    3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 11 0.1177
41 120      75    3 11 0.043 1600 1 3
42 495      0.1177
43 495      0.1177
44 495      0.1177
45 495      0.1177
46 1  0.1177
47 206      0.1177
48 278      0.1177
49 3  0.1177
50 11 0.1177
51 202      0.1177
52 11 0.1177
53 4  0.1177
  17  0.0
1 701 0.1177
2 120 39    3 701 0.043 1600 1 3
3 701 0.1177
4 701 0.1177
```

```
5 701 0.1177
6 701 0.1177
7 120 39    3 701 0.043 1600 1 3
8 907 0.1177
9 907 0.1177
10 907      0.1177
11 120      39    3 907 0.043 1600 1 3
12 907      0.1177
13 907      0.1177
14 206      0.1177
15 206      0.1177
16 120      39    3 206 0.043 1600 1 3
17 973      0.1177
18 973      0.1177
19 120      39    3 973 0.043 1600 1 3
20 973      0.1177
21 973      0.1177
22 973      0.1177
23 120      39    3 973 0.043 1600 1 3
24 995      0.1177
25 995      0.1177
26 995      0.1177
27 995      0.1177
28 995      0.1177
29 120      39    3 995 0.043 1600 1 3
30 995      0.1177
31 278      0.1177
32 278      0.1177
33 120      39    3 278 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 120      75    3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 11 0.1177
41 120      75    3 11 0.043 1600 1 3
42 495      0.1177
43 495      0.1177
44 495      0.1177
45 495      0.1177
46 1  0.1177
47 206      0.1177
48 278      0.1177
49 3  0.1177
50 11 0.1177
51 202      0.1177
52 11 0.1177
53 4  0.1177
  18  0.0
1 534 0.1177
2 120 39    3 534 0.043 1600 1 3
3 534 0.1177
4 534 0.1177
5 534 0.1177
6 534 0.1177
7 120 39    3 534 0.043 1600 1 3
```

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8 690 0.1177
9 690 0.1177
10 690      0.1177
11 120      39    3 690 0.043 1600 1 3
12 690      0.1177
13 690      0.1177
14 157      0.1177
15 157      0.1177
16 120      39    3 157 0.043 1600 1 3
17 741      0.1177
18 741      0.1177
19 120      39    3 741 0.043 1600 1 3
20 741      0.1177
21 741      0.1177
22 741      0.1177
23 120      39    3 741 0.043 1600 1 3
24 757      0.1177
25 757      0.1177
26 757      0.1177
27 757      0.1177
28 757      0.1177
29 120      39    3 757 0.043 1600 1 3
30 757      0.1177
31 212      0.1177
32 212      0.1177
33 120      39    3 212 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 120      75    3 2 0.043 1600 1 3
38 5  0.1177
39 5  0.1177
40 8  0.1177
41 120      75    3 8 0.043 1600 1 3
42 377      0.1177
43 377      0.1177
44 377      0.1177
45 377      0.1177
46 1  0.1177
47 157      0.1177
48 212      0.1177
49 2  0.1177
50 8  0.1177
51 154      0.1177
52 8  0.1177
53 3  0.1177
  19  0.0
1 407 0.1177
2 120 39    3 407 0.043 1600 1 3
3 407 0.1177
4 407 0.1177
5 407 0.1177
6 407 0.1177
7 120 39    3 407 0.043 1600 1 3
8 527 0.1177
9 527 0.1177
10 527      0.1177
```

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11 120      39    3 527 0.043 1600 1 3
12 527      0.1177
13 527      0.1177
14 120      0.1177
15 120      0.1177
16 120      39    3 120 0.043 1600 1 3
17 565      0.1177
18 565      0.1177
19 120      39    3 565 0.043 1600 1 3
20 565      0.1177
21 565      0.1177
22 565      0.1177
23 120      39    3 565 0.043 1600 1 3
24 578      0.1177
25 578      0.1177
26 578      0.1177
27 578      0.1177
28 578      0.1177
29 120      39    3 578 0.043 1600 1 3
30 578      0.1177
31 161      0.1177
32 161      0.1177
33 120      39    3 161 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 120      75    3 2 0.043 1600 1 3
38 4  0.1177
39 4  0.1177
40 6  0.1177
41 120      75    3 6 0.043 1600 1 3
42 288      0.1177
43 288      0.1177
44 288      0.1177
45 288      0.1177
46 1  0.1177
47 120      0.1177
48 161      0.1177
49 2  0.1177
50 6  0.1177
51 117      0.1177
52 6  0.1177
53 2  0.1177
  20  0.0
1 314 0.1177
2 90  33    3 314 0.043 1600 1 3
3 314 0.1177
4 314 0.1177
5 314 0.1177
6 314 0.1177
7 90  33    3 314 0.043 1600 1 3
8 406 0.1177
9 406 0.1177
10 406      0.1177
11 90 33    3 406 0.043 1600 1 3
12 406      0.1177
13 406      0.1177
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15 92 0.1177
16 90 33     3 92 0.043 1600 1 3
17 435       0.1177
18 435       0.1177
19 90 33     3 435 0.043 1600 1 3
20 435       0.1177
21 435       0.1177
22 435       0.1177
23 90 33     3 435 0.043 1600 1 3
24 445       0.1177
25 445       0.1177
26 445       0.1177
27 445       0.1177
28 445       0.1177
29 90 33     3 445 0.043 1600 1 3
30 445       0.1177
31 124       0.1177
32 124       0.1177
33 90 33     3 124 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 4  0.1177
39 4  0.1177
40 5  0.1177
41 90 51     3 5 0.043 1600 1 3
42 221       0.1177
43 221       0.1177
44 221       0.1177
45 221       0.1177
46 1  0.1177
47 92 0.1177
48 124       0.1177
49 1  0.1177
50 5  0.1177
51 90 0.1177
52 5  0.1177
53 2  0.1177
  21   0.0
1 266 0.1177
2 90  33     3 266 0.043 1600 1 3
3 266 0.1177
4 266 0.1177
5 266 0.1177
6 266 0.1177
7 90  33     3 266 0.043 1600 1 3
8 344 0.1177
9 344 0.1177
10 344       0.1177
11 90 33     3 344 0.043 1600 1 3
12 344       0.1177
13 344       0.1177
14 78 0.1177
15 78 0.1177
16 90 33     3 78 0.043 1600 1 3
```

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17 369       0.1177
18 369       0.1177
19 90 33     3 369 0.043 1600 1 3
20 369       0.1177
21 369       0.1177
22 369       0.1177
23 90 33     3 369 0.043 1600 1 3
24 378       0.1177
25 378       0.1177
26 378       0.1177
27 378       0.1177
28 378       0.1177
29 90 33     3 378 0.043 1600 1 3
30 378       0.1177
31 105       0.1177
32 105       0.1177
33 90 33     3 105 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 3  0.1177
39 3  0.1177
40 4  0.1177
41 90 51     3 4 0.043 1600 1 3
42 188       0.1177
43 188       0.1177
44 188       0.1177
45 188       0.1177
46 1  0.1177
47 78 0.1177
48 105       0.1177
49 1  0.1177
50 4  0.1177
51 77 0.1177
52 4  0.1177
53 2  0.1177
  22   0.0
1 213 0.1177
2 90  33     3 213 0.043 1600 1 3
3 213 0.1177
4 213 0.1177
5 213 0.1177
6 213 0.1177
7 90  33     3 213 0.043 1600 1 3
8 276 0.1177
9 276 0.1177
10 276       0.1177
11 90 33     3 276 0.043 1600 1 3
12 276       0.1177
13 276       0.1177
14 63 0.1177
15 63 0.1177
16 90 33     3 63 0.043 1600 1 3
17 296       0.1177
18 296       0.1177
19 90 33     3 296 0.043 1600 1 3
```

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20 296       0.1177
21 296       0.1177
22 296       0.1177
23 90 33     3 296 0.043 1600 1 3
24 303       0.1177
25 303       0.1177
26 303       0.1177
27 303       0.1177
28 303       0.1177
29 90 33     3 303 0.043 1600 1 3
30 303       0.1177
31 85 0.1177
32 85 0.1177
33 90 33     3 85 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 3  0.1177
39 3  0.1177
40 3  0.1177
41 90 51     3 3 0.043 1600 1 3
42 151       0.1177
43 151       0.1177
44 151       0.1177
45 151       0.1177
46 1  0.1177
47 63 0.1177
48 85 0.1177
49 1  0.1177
50 3  0.1177
51 61 0.1177
52 3  0.1177
53 1  0.1177
  23    0.0
1 173 0.1177
2 90  33     3 173 0.043 1600 1 3
3 173 0.1177
4 173 0.1177
5 173 0.1177
6 173 0.1177
7 90  33     3 173 0.043 1600 1 3
8 223 0.1177
9 223 0.1177
10 223       0.1177
11 90 33     3 223 0.043 1600 1 3
12 223       0.1177
13 223       0.1177
14 51 0.1177
15 51 0.1177
16 90 33     3 51 0.043 1600 1 3
17 240       0.1177
18 240       0.1177
19 90 33     3 240 0.043 1600 1 3
20 240       0.1177
21 240       0.1177
22 240       0.1177
```

```
23 90 33     3 240 0.043 1600 1 3
24 245       0.1177
25 245       0.1177
26 245       0.1177
27 245       0.1177
28 245       0.1177
29 90 33     3 245 0.043 1600 1 3
30 245       0.1177
31 68 0.1177
32 68 0.1177
33 90 33     3 68 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 2  0.1177
39 2  0.1177
40 3  0.1177
41 90 51     3 3 0.043 1600 1 3
42 122       0.1177
43 122       0.1177
44 122       0.1177
45 122       0.1177
46 1  0.1177
47 51 0.1177
48 68 0.1177
49 1  0.1177
50 3  0.1177
51 50 0.1177
52 3  0.1177
53 1  0.1177
  24    0.0
1 119 0.1177
2 90  33     3 119 0.043 1600 1 3
3 119 0.1177
4 119 0.1177
5 119 0.1177
6 119 0.1177
7 90  33     3 119 0.043 1600 1 3
8 170 0.1177
9 170 0.1177
10 170       0.1177
11 90 33     3 170 0.043 1600 1 3
12 170       0.1177
13 170       0.1177
14 20 0.1177
15 20 0.1177
16 90 33     3 20 0.043 1600 1 3
17 130       0.1177
18 130       0.1177
19 90 33     3 130 0.043 1600 1 3
20 130       0.1177
21 130       0.1177
22 130       0.1177
23 90 33     3 130 0.043 1600 1 3
24 134       0.1177
25 134       0.1177
```

```
26 134       0.1177
27 134       0.1177
28 134       0.1177
29 90 33     3 134 0.043 1600 1 3
30 134       0.1177
31 27 0.1177
32 27 0.1177
33 90 33     3 27 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 90 51     3 2 0.043 1600 1 3
38 4  0.1177
39 4  0.1177
40 1  0.1177
41 90 51     3 2 0.043 1600 1 3
42 47 0.1177
43 47 0.1177
44 47 0.1177
45 47 0.1177
46 2  0.1177
47 20 0.1177
48 27 0.1177
49 1  0.1177
50 2  0.1177
51 50 0.1177
52 2  0.1177
53 1  0.1177
```

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'Stapleton PM25 NB Neighbor-scale Receptors with Max Fugutive'  60. 321. 0. 0.
47 0.3048 1
 1 1 03  12 31 03
 14732  03  94703 03
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'REC N1'     5622. 5244. 6.0
'REC N2'     5600. 5300. 6.0
'REC N3'     5578. 5356. 6.0
'REC N4'     5534. 5480. 6.0
'REC N5'     5547. 5540. 6.0
'REC N6'     5565. 5626. 6.0
'REC N7'     5577. 5680. 6.0
'REC N8'     5630. 5720. 6.0
'REC N9'     5709. 5722. 6.0
'REC N10'    5726. 5878. 6.0
'REC N11'    5675. 5873. 6.0
'REC N12'    5622. 5875. 6.0
'REC N13'    5627. 5918. 6.0
'REC N14'    5638. 5961. 6.0
'REC N15'    5653. 6013. 6.0
'REC N16'    5676. 6089. 6.0
'REC N17'    5690. 6135. 6.0
'REC N18'    5700. 6177. 6.0
'REC N19'    5708. 6213. 6.0
'REC N20'    5593. 6573. 6.0
'REC N21'    5643. 6575. 6.0
'REC N22'    5613. 6434. 6.0
'REC N23'    5594. 6381. 6.0
'REC N24'    5584. 6337. 6.0
'REC N25'    5576. 6283. 6.0
'REC N26'    5563. 6238. 6.0
'REC N27'    5550. 6188. 6.0
'REC N28'    5540. 6144. 6.0
'REC N29'    5414. 6129. 6.0
'REC N30'    5421. 6082. 6.0
'REC N31'    5427. 6043. 6.0
'REC N32'    5435. 5997. 6.0
'REC N33'    5441. 5953. 6.0
'REC N34'    5449. 5904. 6.0
'REC N35'    5398. 5903. 6.0
'REC N36'    5352. 5907. 6.0
'REC N37'    5302. 5910. 6.0
'REC N38'    5428. 5731. 6.0
'REC N39'    5411. 5673. 6.0
'REC N40'    5399. 5628. 6.0
'REC N41'    5290. 5589. 6.0
'REC N42'    5313. 5536. 6.0
'REC N43'    5334. 5470. 6.0
'REC N44'    5359. 5395. 6.0
'REC N45'    5389. 5318. 6.0
'REC N46'    5421. 5222. 6.0
'REC N47'    5435. 5178. 6.0
2  'P'
1 1 1 1 1 1 1
'Bay st and Victory Intersection'   53
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'NB BAY ST Link1 NB1-NB2' 'AG' 5713. 4788. 5580. 5132. 0. 40.
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'NB BAY ST Link2 NB1-NB2' 'AG' 5713. 4788. 5580. 5132. 0. 20.0 2
      3     1

'NB BAY ST Link3 NB2-NB3' 'AG' 5580. 5132. 5489. 5366. 0. 40.
      4     1

'NB BAY ST Link4 NB3-NB4' 'AG' 5489. 5366. 5464. 5452. 0. 40.
      5     1

'NB BAY ST Link5 NB4-NB5' 'AG' 5464. 5452. 5465. 5519. 0. 40.
      6     1

'NB BAY ST Link6 NB5-NB6' 'AG' 5465. 5519. 5518. 5750. 0. 40.
      7     2

'NB BAY ST Link7 NB5-NB6' 'AG' 5465. 5519. 5518. 5750. 0. 20.0 2
      8     1

'NB BAY ST Link8 NB6-NB7' 'AG' 5518. 5750. 5589. 6026. 0. 40.
      9     1

'NB BAY ST Link9 NB7-NB8' 'AG' 5589. 6026. 5650. 6239. 0. 40.
      10    1

'NB BAY ST Link10 NB8-NB9' 'AG' 5650. 6239. 5713. 6461. 0. 40.
      11    2

'NB BAY ST Link11 NB8-NB9' 'AG' 5650. 6239. 5713. 6461. 0. 20.0 2
      12    1

'NB BAY ST Link12 NB9-NB10' 'AG' 5713. 6461. 5738. 6578. 0. 40.
      13    1

'NB BAY ST Link13 NB10-NB11' 'AG' 5738. 6578. 5717. 6862. 0. 40.
      14    1

'NB BAY ST-LEFT TURN Link14 NBL1-NBL2' 'AG' 5649. 6240. 5660. 6320. 0. 32.
      15    1

'NB BAY ST-LEFT TURN Link15 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 32.
      16    2

'NB BAY ST-LEFT TURN Link16 NBL2-NBL3' 'AG' 5660. 6320. 5698. 6466. 0. 12.0 1
      17    1

'SB BAY ST Link17 SB1-SB2' 'AG' 5683. 6865. 5701. 6581. 0. 40.
      18    1

'SB BAY ST Link18 SB2-SB3' 'AG' 5701. 6581. 5700. 6542. 0. 38.
      19    2

'SB BAY ST Link19 SB2-SB3' 'AG' 5701. 6581. 5700. 6542. 0. 20.0 2
      20    1
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'SB BAY ST Link20 SB3-SB4' 'AG' 5700. 6542. 5640. 6322. 0. 40.
      21    1

'SB BAY ST Link21 SB4-SB5' 'AG' 5640. 6322. 5620. 6211. 0. 40.
      22    1

'SB BAY ST Link22 SB5-SB6' 'AG' 5620. 6211. 5521. 5868. 0. 40.
      23    2

'SB BAY ST Link23 SB5-SB6' 'AG' 5620. 6211. 5521. 5868. 0. 20.0 2
      24    1

'SB BAY ST Link24 SB6-SB7' 'AG' 5521. 5868. 5451. 5555. 0. 40.
      25    1

'SB BAY ST Link25 SB7-SB8' 'AG' 5451. 5555. 5436. 5481. 0. 40.
      26    1

'SB BAY ST Link26 SB8-SB9' 'AG' 5436. 5481. 5442. 5406. 0. 40.
      27    1

'SB BAY ST Link27 SB9-SB10' 'AG' 5442. 5406. 5472. 5320. 0. 40.
      28    1

'SB BAY ST Link28 SB10-SB11' 'AG' 5472. 5320. 5527. 5174. 0. 50.
      29    2

'SB BAY ST Link29 SB10-SB11' 'AG' 5472. 5320. 5527. 5174. 0. 30.0 3
      30    1

'SB BAY ST Link30 SB11-SB12' 'AG' 5527. 5174. 5681. 4776. 0. 40.
      31    1

'SB BAY ST-RIGHT TURN LANE Link31 SBR1-SBR2' 'AG' 5640. 6322. 5607. 6215. 0. 32.
      32    1

'SB BAY ST-RIGHT TURN LANE Link32 SBR2-SBR3' 'AG' 5607. 6215. 5507. 5888. 0. 32.
      33    2

'SB BAY ST-RIGHT TURN LANE Link33 SBR2-SBR3' 'AG' 5607. 6215. 5507. 5888. 0.
12.0 1
      34    1

'EB VICTORY BLVD Link34 EB1-EB2' 'AG' 5005. 5957. 5222. 5851. 0. 32.
      35    1

'EB VICTORY BLVD Link35 EB2-EB3' 'AG' 5222. 5851. 5320. 5817. 0. 32.
      36    1

'EB VICTORY BLVD Link36 EB3-EB4' 'AG' 5320. 5817. 5471. 5810. 0. 40.
      37    2

'EB VICTORY BLVD Link37 EB3-EB4' 'AG' 5320. 5817. 5471. 5810. 0. 20.0 2
      38    1

'EB VICTORY BLVD Link38 EB4-EB5' 'AG' 5471. 5810. 5561. 5780. 0. 32.
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      39    1

'EB VICTORY BLVD Link39 EB5-EB6' 'AG' 5561. 5780. 5747. 5791. 0. 32.
      40    1

'WB VICTORY BLVD Link40 WB1-WB2' 'AG' 5745. 5811. 5567. 5806. 0. 32.
      41    2

'WB VICTORY BLVD Link41 WB1-WB2' 'AG' 5745. 5811. 5567. 5806. 0. 12.0 1
      42    1

'WB VICTORY BLVD Link42 WB2-WB3' 'AG' 5567. 5806. 5473. 5832. 0. 32.
      43    1

'WB VICTORY BLVD Link43 WB3-WB4' 'AG' 5473. 5832. 5303. 5839. 0. 40.
      44    1

'WB VICTORY BLVD Link44 WB4-WB5' 'AG' 5303. 5839. 5212. 5874. 0. 32.
      45    1

'WB VICTORY BLVD Link45 WB5-WB6' 'AG' 5212. 5874. 5006. 5981. 0. 32.
      46    1

'SB BAY ST right movement Link46 NB6-EB5' 'AG' 5518. 5750. 5561. 5780. 0. 32.
      47    1
'SB BAY ST left movement Link47 NB6-WB3' 'AG' 5518. 5750. 5473. 5832. 0. 32.
      48    1

'SB BAY ST right movement Link48 SB6-WB3' 'AG' 5521. 5868. 5473. 5832. 0. 32.
      49    1

'SB BAY ST left movement Link49 SB6-EB5' 'AG' 5521. 5868. 5561. 5780. 0. 32.
      50    1

'EB Victory right movement Link50 ' 'AG' 5471. 5810. 5503. 5789. 0. 32.
      51    1
'EB Victory left movement Link51 ' 'AG' 5471. 5810. 5537. 5825. 0. 32.
      52    1

'WB Victory left movement Link52 ' 'AG' 5566. 5806. 5504. 5789. 0. 32.
      53    1

'WB Victory right movement Link53 ' 'AG' 5566. 5806. 5537. 5825. 0. 32.
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2 90 33 3 85 0.043 1600 1 3
3 85  0.1177
4 85  0.1177
5 85  0.1177
6 85  0.1177
7 90 33 3 85 0.043 1600 1 3
8 12  0.1177
9 12  0.1177
10 12 0.1177
11 90 33 3 122 0.043 1600 1 3
12 12 0.1177
13 12 0.1177
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14 14   0.1177
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16 90 33  3 14 0.043 1600 1 3
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18 93   0.1177
19 90 33  3 93 0.043 1600 1 3
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21 93   0.1177
22 93   0.1177
23 90 33  3 93 0.043 1600 1 3
24 96   0.1177
25 96   0.1177
26 96   0.1177
27 96   0.1177
28 96   0.1177
29 90 33  3 96 0.043 1600 1 3
30 96   0.1177
31 19   0.1177
32 19   0.1177
33 90 33  3 19 0.043 1600 1 3
34 2    0.1177
35 2    0.1177
36 2    0.1177
37 90 51  3 2 0.043 1600 1 3
38 4    0.1177
39 4    0.1177
40 1    0.1177
41 90 51  3 2 0.043 1600 1 3
42 34   0.1177
43 34   0.1177
44 34   0.1177
45 34   0.1177
46 1    0.1177
47 14 0.1177
48 19 0.1177
49 1    0.1177
50 1    0.1177
51 36 0.1177
52 2    0.1177
53 1    0.1177
  2     0.0
1 62    0.1177
2 90    33     3 62 0.043 1600 1 3
3 62    0.1177
4 62    0.1177
5 62    0.1177
6 62    0.1177
7 90    33     3 62 0.043 1600 1 3
8 89    0.1177
9 89    0.1177
10 89 0.1177
11 90 33     3 89 0.043 1600 1 3
12 89 0.1177
13 89 0.1177
14 10 0.1177
15 10 0.1177
16 90 33     3 10 0.043 1600 1 3
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17 68 0.1177
18 68 0.1177
19 90 33    3 68 0.043 1600 1 3
20 68 0.1177
21 68 0.1177
22 68 0.1177
23 90 33    3 68 0.043 1600 1 3
24 70 0.1177
25 70 0.1177
26 70 0.1177
27 70 0.1177
28 70 0.1177
29 90 33    3 70 0.043 1600 1 3
30 70 0.1177
31 14 0.1177
32 14 0.1177
33 90 33    3 14 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51    3 2 0.043 1600 1 3
38 3  0.1177
39 3  0.1177
40 1  0.1177
41 90 51    3 2 0.043 1600 1 3
42 25 0.1177
43 25 0.1177
44 25 0.1177
45 25 0.1177
46 1  0.1177
47 10 0.1177
48 14 0.1177
49 1  0.1177
50 1  0.1177
51 26 0.1177
52 1  0.1177
53 1  0.1177
  3   0.0
1 47  0.1177
2 90  33    3 47 0.043 1600 1 3
3 47  0.1177
4 47  0.1177
5 47  0.1177
6 47  0.1177
7 90  33    3 47 0.043 1600 1 3
8 68  0.1177
9 68  0.1177
10 68 0.1177
11 90 33    3 68 0.043 1600 1 3
12 68 0.1177
13 68 0.1177
14 8  0.1177
15 8  0.1177
16 90 33    3 8 0.043 1600 1 3
17 52 0.1177
18 52 0.1177
19 90 33    3 52 0.043 1600 1 3
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20 52 0.1177
21 52 0.1177
22 52 0.1177
23 90 33    3 52 0.043 1600 1 3
24 53 0.1177
25 53 0.1177
26 53 0.1177
27 53 0.1177
28 53 0.1177
29 90 33    3 53 0.043 1600 1 3
30 53 0.1177
31 11 0.1177
32 11 0.1177
33 90 33    3 11 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51    3 2 0.043 1600 1 3
38 2  0.1177
39 2  0.1177
40 1  0.1177
41 90 51    3 2 0.043 1600 1 3
42 19 0.1177
43 19 0.1177
44 19 0.1177
45 19 0.1177
46 1  0.1177
47 8  0.1177
48 11 0.1177
49 1  0.1177
50 1  0.1177
51 20 0.1177
52 1  0.1177
53 1  0.1177
  4   0.0
1 62  0.1177
2 90  33    3 62 0.043 1600 1 3
3 62  0.1177
4 62  0.1177
5 62  0.1177
6 62  0.1177
7 90  33    3 62 0.043 1600 1 3
8 89  0.1177
9 89  0.1177
10 89 0.1177
11 90 33    3 89 0.043 1600 1 3
12 89 0.1177
13 89 0.1177
14 10 0.1177
15 10 0.1177
16 90 33    3 10 0.043 1600 1 3
17 68 0.1177
18 68 0.1177
19 90 33    3 68 0.043 1600 1 3
20 68 0.1177
21 68 0.1177
22 68 0.1177
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23 90 33    3 68 0.043 1600 1 3
24 70 0.1177
25 70 0.1177
26 70 0.1177
27 70 0.1177
28 70 0.1177
29 90 33    3 70 0.043 1600 1 3
30 70 0.1177
31 14 0.1177
32 14 0.1177
33 90 33    3 14 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51    3 2 0.043 1600 1 3
38 3  0.1177
39 3  0.1177
40 1  0.1177
41 90 51    3 2 0.043 1600 1 3
42 25 0.1177
43 25 0.1177
44 25 0.1177
45 25 0.1177
46 1  0.1177
47 10 0.1177
48 14 0.1177
49 1  0.1177
50 1  0.1177
51 26 0.1177
52 1  0.1177
53 1  0.1177
  5   0.0
1 113 0.1177
2 90  33    3 113 0.043 1600 1 3
3 113 0.1177
4 113 0.1177
5 113 0.1177
6 113 0.1177
7 90  33    3 113 0.043 1600 1 3
8 162 0.1177
9 162 0.1177
10 162  0.1177
11 90 33    3 162 0.043 1600 1 3
12 162  0.1177
13 162  0.1177
14 19 0.1177
15 19 0.1177
16 90 33    3 19 0.043 1600 1 3
17 124  0.1177
18 124  0.1177
19 90 33    3 124 0.043 1600 1 3
20 124  0.1177
21 124  0.1177
22 124  0.1177
23 90 33    3 124 0.043 1600 1 3
24 128  0.1177
25 128  0.1177
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26 128  0.1177
27 128  0.1177
28 128  0.1177
29 90 33    3 128 0.043 1600 1 3
30 128  0.1177
31 25 0.1177
32 25 0.1177
33 90 33    3 25 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 90 51    3 2 0.043 1600 1 3
38 4  0.1177
39 4  0.1177
40 1  0.1177
41 90 51    3 2 0.043 1600 1 3
42 45 0.1177
43 45 0.1177
44 45 0.1177
45 45 0.1177
46 2  0.1177
47 19 0.1177
48 25 0.1177
49 1  0.1177
50 2  0.1177
51 48 0.1177
52 2  0.1177
53 1  0.1177
  6   0.0
1 356 0.1177
2 120 39    3 356 0.043 1600 1 3
3 356 0.1177
4 356 0.1177
5 356 0.1177
6 356 0.1177
7 120 39    3 356 0.043 1600 1 3
8 509 0.1177
9 509 0.1177
10 509  0.1177
11 120      39    3 509 0.043 1600 1 3
12 509  0.1177
13 509  0.1177
14 59 0.1177
15 59 0.1177
16 120      39    3 59 0.043 1600 1 3
17 391  0.1177
18 391  0.1177
19 120      39    3 391 0.043 1600 1 3
20 391  0.1177
21 391  0.1177
22 391  0.1177
23 120      39    3 391 0.043 1600 1 3
24 403  0.1177
25 403  0.1177
26 403  0.1177
27 403  0.1177
28 403  0.1177
```

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29 120      39    3 403 0.043 1600 1 3
30 403  0.1177
31 80 0.1177
32 80 0.1177
33 120      39    3 80 0.043 1600 1 3
34 6  0.1177
35 6  0.1177
36 6  0.1177
37 120      75    3 6 0.043 1600 1 3
38 13 0.1177
39 13 0.1177
40 3  0.1177
41 120      75    3 3 0.043 1600 1 3
42 142  0.1177
43 142  0.1177
44 142  0.1177
45 142  0.1177
46 5    0.1177
47 59 0.1177
48 80 0.1177
49 2    0.1177
50 6    0.1177
51 151  0.1177
52 6    0.1177
53 1    0.1177
  7    0.0
1 736 0.1177
2 120 39    3 736 0.043 1600 1 3
3 736 0.1177
4 736 0.1177
5 736 0.1177
6 736 0.1177
7 120 39    3 736 0.043 1600 1 3
8 1050 0.1177
9 1050 0.1177
10 1050 0.1177
11 120      39    3 1050 0.043 1600 1 3
12 1050 0.1177
13 1050 0.1177
14 122 0.1177
15 122 0.1177
16 120      39    3 122 0.043 1600 1 3
17 807 0.1177
18 807 0.1177
19 120      39    3 807 0.043 1600 1 3
20 807 0.1177
21 807 0.1177
22 807 0.1177
23 120      39    3 807 0.043 1600 1 3
24 832 0.1177
25 832 0.1177
26 832 0.1177
27 832 0.1177
28 832 0.1177
29 120      39    3 832 0.043 1600 1 3
30 832 0.1177
31 165 0.1177
```

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32 165 0.1177
33 120      39     3 165 0.043 1600 1 3
34 13 0.1177
35 13 0.1177
36 13 0.1177
37 120      75     3 13 0.043 1600 1 3
38 27 0.1177
39 27 0.1177
40 6  0.1177
41 120      75     3 6 0.043 1600 1 3
42 293 0.1177
43 293 0.1177
44 293 0.1177
45 293 0.1177
46 10 0.1177
47 122 0.1177
48 165 0.1177
49 4  0.1177
50 12 0.1177
51 313 0.1177
52 13 0.1177
53 1  0.1177
  8     0.0
1 736 0.1177
2 120 39    3 736 0.043 1600 1 3
3 736 0.1177
4 736 0.1177
5 736 0.1177
6 736 0.1177
7 120 39    3 736 0.043 1600 1 3
8 1050 0.1177
9 1050 0.1177
10 1050 0.1177
11 120      39     3 1050 0.043 1600 1 3
12 1050 0.1177
13 1050 0.1177
14 122 0.1177
15 122 0.1177
16 120      39     3 122 0.043 1600 1 3
17 807 0.1177
18 807 0.1177
19 120      39     3 807 0.043 1600 1 3
20 807 0.1177
21 807 0.1177
22 807 0.1177
23 120      39     3 807 0.043 1600 1 3
24 832 0.1177
25 832 0.1177
26 832 0.1177
27 832 0.1177
28 832 0.1177
29 120      39     3 832 0.043 1600 1 3
30 832 0.1177
31 165 0.1177
32 165 0.1177
33 120      39     3 165 0.043 1600 1 3
34 13 0.1177
```

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35 13 0.1177
36 13 0.1177
37 120      75    3 13 0.043 1600 1 3
38 27 0.1177
39 27 0.1177
40 6  0.1177
41 120      75    3 6 0.043 1600 1 3
42 293 0.1177
43 293 0.1177
44 293 0.1177
45 293 0.1177
46 10 0.1177
47 122 0.1177
48 165 0.1177
49 4  0.1177
50 12 0.1177
51 313 0.1177
52 13 0.1177
53 1  0.1177
  9    0.0
1 608 0.1177
2 120 39    3 608 0.043 1600 1 3
3 608 0.1177
4 608 0.1177
5 608 0.1177
6 608 0.1177
7 120 39    3 608 0.043 1600 1 3
8 868 0.1177
9 868 0.1177
10 868 0.1177
11 120      39    3 868 0.043 1600 1 3
12 868 0.1177
13 868 0.1177
14 101 0.1177
15 101  0.1177
16 120      39    3 101 0.043 1600 1 3
17 667 0.1177
18 667 0.1177
19 120      39    3 667 0.043 1600 1 3
20 667 0.1177
21 667 0.1177
22 667 0.1177
23 120      39    3 667 0.043 1600 1 3
24 687 0.1177
25 687 0.1177
26 687 0.1177
27 687 0.1177
28 687 0.1177
29 120      39    3 687 0.043 1600 1 3
30 687 0.1177
31 136 0.1177
32 136 0.1177
33 120      39    3 136 0.043 1600 1 3
34 11 0.1177
35 11 0.1177
36 11 0.1177
37 120      75    3 11 0.043 1600 1 3
```

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38 22 0.1177
39 22 0.1177
40 5  0.1177
41 120       75    3 5 0.043 1600 1 3
42 242  0.1177
43 242  0.1177
44 242  0.1177
45 242  0.1177
46 8  0.1177
47 101  0.1177
48 136  0.1177
49 3  0.1177
50 10 0.1177
51 259  0.1177
52 11 0.1177
53 1  0.1177
  10   0.0
1 567 0.1177
2 90  33    3 567 0.043 1600 1 3
3 567 0.1177
4 567 0.1177
5 567 0.1177
6 567 0.1177
7 90  33    3 567 0.043 1600 1 3
8 808 0.1177
9 808 0.1177
10 808  0.1177
11 90 33    3 808 0.043 1600 1 3
12 808  0.1177
13 808  0.1177
14 94 0.1177
15 94 0.1177
16 90 33    3 94 0.043 1600 1 3
17 621  0.1177
18 621  0.1177
19 90 33    3 621 0.043 1600 1 3
20 621      0.1177
21 621      0.1177
22 621      0.1177
23 90 33    3 621 0.043 1600 1 3
24 641      0.1177
25 641      0.1177
26 641      0.1177
27 641      0.1177
28 641      0.1177
29 90 33    3 641 0.043 1600 1 3
30 641      0.1177
31 127      0.1177
32 127      0.1177
33 90 33    3 127 0.043 1600 1 3
34 10 0.1177
35 10 0.1177
36 10 0.1177
37 90 51    3 10 0.043 1600 1 3
38 21 0.1177
39 21 0.1177
40 5  0.1177
```

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41 90 51    3 5 0.043 1600 1 3
42 226      0.1177
43 226      0.1177
44 226      0.1177
45 226      0.1177
46 8  0.1177
47 94 0.1177
48 127      0.1177
49 3  0.1177
50 9  0.1177
51 241      0.1177
52 10 0.1177
53 1  0.1177
  11   0.0
1 588 0.1177
2 90  33    3 588 0.043 1600 1 3
3 588 0.1177
4 588 0.1177
5 588 0.1177
6 588 0.1177
7 90  33    3 588 0.043 1600 1 3
8 839 0.1177
9 839 0.1177
10 839      0.1177
11 90 33    3 839 0.043 1600 1 3
12 839      0.1177
13 839      0.1177
14 97 0.1177
15 97 0.1177
16 90 33    3 97 0.043 1600 1 3
17 645      0.1177
18 645      0.1177
19 90 33    3 645 0.043 1600 1 3
20 645      0.1177
21 645      0.1177
22 645      0.1177
23 90 33    3 645 0.043 1600 1 3
24 665      0.1177
25 665      0.1177
26 665      0.1177
27 665      0.1177
28 665      0.1177
29 90 33    3 665 0.043 1600 1 3
30 665      0.1177
31 132      0.1177
32 132      0.1177
33 90 33    3 132 0.043 1600 1 3
34 10 0.1177
35 10 0.1177
36 10 0.1177
37 90 51    3 10 0.043 1600 1 3
38 22 0.1177
39 22 0.1177
40 5  0.1177
41 90 51    3 5 0.043 1600 1 3
42 234      0.1177
43 234      0.1177
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44 234       0.1177
45 234       0.1177
46 8  0.1177
47 97 0.1177
48 132       0.1177
49 3  0.1177
50 10 0.1177
51 250       0.1177
52 10 0.1177
53 1  0.1177
  12   0.0
1 629 0.1177
2 90  33    3 629 0.043 1600 1 3
3 629 0.1177
4 629 0.1177
5 629 0.1177
6 629 0.1177
7 90  33    3 629 0.043 1600 1 3
8 801 0.1177
9 801 0.1177
10 801       0.1177
11 90 33    3 801 0.043 1600 1 3
12 801       0.1177
13 801       0.1177
14 206       0.1177
15 206       0.1177
16 90 33    3 206 0.043 1600 1 3
17 798       0.1177
18 798       0.1177
19 90 33    3 798 0.043 1600 1 3
20 798       0.1177
21 798       0.1177
22 798       0.1177
23 90 33    3 798 0.043 1600 1 3
24 814       0.1177
25 814       0.1177
26 814       0.1177
27 814       0.1177
28 814       0.1177
29 90 33    3 814 0.043 1600 1 3
30 814       0.1177
31 189       0.1177
32 189       0.1177
33 90 33    3 189 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 90 51    3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 1  0.1177
41 90 51    3 2 0.043 1600 1 3
42 396       0.1177
43 396       0.1177
44 396       0.1177
45 396       0.1177
46 3  0.1177
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47 206       0.1177
48 189       0.1177
49 1   0.1177
50 10  0.1177
51 166       0.1177
52 6   0.1177
53 6   0.1177
  13    0.0
1 629 0.1177
2 90   33     3 629 0.043 1600 1 3
3 629 0.1177
4 629 0.1177
5 629 0.1177
6 629 0.1177
7 90   33     3 629 0.043 1600 1 3
8 801 0.1177
9 801 0.1177
10 801       0.1177
11 90 33     3 801 0.043 1600 1 3
12 801       0.1177
13 801       0.1177
14 206       0.1177
15 206       0.1177
16 90 33     3 206 0.043 1600 1 3
17 798       0.1177
18 798       0.1177
19 90 33     3 798 0.043 1600 1 3
20 798       0.1177
21 798       0.1177
22 798       0.1177
23 90 33     3 798 0.043 1600 1 3
24 814       0.1177
25 814       0.1177
26 814       0.1177
27 814       0.1177
28 814       0.1177
29 90 33     3 814 0.043 1600 1 3
30 814       0.1177
31 189       0.1177
32 189       0.1177
33 90 33     3 189 0.043 1600 1 3
34 3   0.1177
35 3   0.1177
36 3   0.1177
37 90 51     3 3 0.043 1600 1 3
38 7   0.1177
39 7   0.1177
40 1   0.1177
41 90 51     3 2 0.043 1600 1 3
42 396       0.1177
43 396       0.1177
44 396       0.1177
45 396       0.1177
46 3   0.1177
47 206       0.1177
48 189       0.1177
49 1   0.1177
```

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50 10 0.1177
51 166      0.1177
52 6  0.1177
53 6  0.1177
  14   0.0
1 578 0.1177
2 90  33    3 578 0.043 1600 1 3
3 578 0.1177
4 578 0.1177
5 578 0.1177
6 578 0.1177
7 90  33    3 578 0.043 1600 1 3
8 748 0.1177
9 748 0.1177
10 748      0.1177
11 90 33    3 748 0.043 1600 1 3
12 748      0.1177
13 748      0.1177
14 170      0.1177
15 170      0.1177
16 90 33    3 170 0.043 1600 1 3
17 803      0.1177
18 803      0.1177
19 90 33    3 803 0.043 1600 1 3
20 803      0.1177
21 803      0.1177
22 803      0.1177
23 90 33    3 803 0.043 1600 1 3
24 821      0.1177
25 821      0.1177
26 821      0.1177
27 821      0.1177
28 821      0.1177
29 90 33    3 821 0.043 1600 1 3
30 821      0.1177
31 229      0.1177
32 229      0.1177
33 90 33    3 229 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 90 51    3 2 0.043 1600 1 3
38 6  0.1177
39 6  0.1177
40 9  0.1177
41 90 51    3 9 0.043 1600 1 3
42 408      0.1177
43 408      0.1177
44 408      0.1177
45 408      0.1177
46 1  0.1177
47 170      0.1177
48 229      0.1177
49 2  0.1177
50 9  0.1177
51 167      0.1177
52 9  0.1177
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53 3  0.1177
  15  0.0
1 674 0.1177
2 90  33    3 674 0.043 1600 1 3
3 674 0.1177
4 674 0.1177
5 674 0.1177
6 674 0.1177
7 90  33    3 674 0.043 1600 1 3
8 872 0.1177
9 872 0.1177
10 872      0.1177
11 90 33    3 872 0.043 1600 1 3
12 872      0.1177
13 872      0.1177
14 198      0.1177
15 198      0.1177
16 90 33    3 198 0.043 1600 1 3
17 935      0.1177
18 935      0.1177
19 90 33    3 935 0.043 1600 1 3
20 935      0.1177
21 935      0.1177
22 935      0.1177
23 90 33    3 935 0.043 1600 1 3
24 956      0.1177
25 956      0.1177
26 956      0.1177
27 956      0.1177
28 956      0.1177
29 90 33    3 956 0.043 1600 1 3
30 956      0.1177
31 267      0.1177
32 267      0.1177
33 90 33    3 267 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 90 51    3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 11 0.1177
41 90 51    3 11 0.043 1600 1 3
42 476      0.1177
43 476      0.1177
44 476      0.1177
45 476      0.1177
46 1  0.1177
47 198      0.1177
48 267      0.1177
49 3  0.1177
50 11 0.1177
51 194      0.1177
52 11 0.1177
53 4  0.1177
  16  0.0
1 701 0.1177
```

```
2 120 39    3 701 0.043 1600 1 3
3 701 0.1177
4 701 0.1177
5 701 0.1177
6 701 0.1177
7 120 39    3 701 0.043 1600 1 3
8 907 0.1177
9 907 0.1177
10 907      0.1177
11 120      39    3 907 0.043 1600 1 3
12 907      0.1177
13 907      0.1177
14 206      0.1177
15 206      0.1177
16 120      39    3 206 0.043 1600 1 3
17 973      0.1177
18 973      0.1177
19 120      39    3 973 0.043 1600 1 3
20 973      0.1177
21 973      0.1177
22 973      0.1177
23 120      39    3 973 0.043 1600 1 3
24 995      0.1177
25 995      0.1177
26 995      0.1177
27 995      0.1177
28 995      0.1177
29 120      39    3 995 0.043 1600 1 3
30 995      0.1177
31 278      0.1177
32 278      0.1177
33 120      39    3 278 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 120      75    3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 11 0.1177
41 120      75    3 11 0.043 1600 1 3
42 495      0.1177
43 495      0.1177
44 495      0.1177
45 495      0.1177
46 1  0.1177
47 206      0.1177
48 278      0.1177
49 3  0.1177
50 11 0.1177
51 202      0.1177
52 11 0.1177
53 4  0.1177
  17  0.0
1 701 0.1177
2 120 39    3 701 0.043 1600 1 3
3 701 0.1177
4 701 0.1177
```

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5 701 0.1177
6 701 0.1177
7 120 39    3 701 0.043 1600 1 3
8 907 0.1177
9 907 0.1177
10 907      0.1177
11 120      39    3 907 0.043 1600 1 3
12 907      0.1177
13 907      0.1177
14 206      0.1177
15 206      0.1177
16 120      39    3 206 0.043 1600 1 3
17 973      0.1177
18 973      0.1177
19 120      39    3 973 0.043 1600 1 3
20 973      0.1177
21 973      0.1177
22 973      0.1177
23 120      39    3 973 0.043 1600 1 3
24 995      0.1177
25 995      0.1177
26 995      0.1177
27 995      0.1177
28 995      0.1177
29 120      39    3 995 0.043 1600 1 3
30 995      0.1177
31 278      0.1177
32 278      0.1177
33 120      39    3 278 0.043 1600 1 3
34 3  0.1177
35 3  0.1177
36 3  0.1177
37 120      75    3 3 0.043 1600 1 3
38 7  0.1177
39 7  0.1177
40 11 0.1177
41 120      75    3 11 0.043 1600 1 3
42 495      0.1177
43 495      0.1177
44 495      0.1177
45 495      0.1177
46 1  0.1177
47 206      0.1177
48 278      0.1177
49 3  0.1177
50 11 0.1177
51 202      0.1177
52 11 0.1177
53 4  0.1177
  18  0.0
1 534 0.1177
2 120 39    3 534 0.043 1600 1 3
3 534 0.1177
4 534 0.1177
5 534 0.1177
6 534 0.1177
7 120 39    3 534 0.043 1600 1 3
```

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8 690 0.1177
9 690 0.1177
10 690       0.1177
11 120       39    3 690 0.043 1600 1 3
12 690       0.1177
13 690       0.1177
14 157       0.1177
15 157       0.1177
16 120       39    3 157 0.043 1600 1 3
17 741       0.1177
18 741       0.1177
19 120       39    3 741 0.043 1600 1 3
20 741       0.1177
21 741       0.1177
22 741       0.1177
23 120       39    3 741 0.043 1600 1 3
24 757       0.1177
25 757       0.1177
26 757       0.1177
27 757       0.1177
28 757       0.1177
29 120       39    3 757 0.043 1600 1 3
30 757       0.1177
31 212       0.1177
32 212       0.1177
33 120       39    3 212 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 120       75    3 2 0.043 1600 1 3
38 5  0.1177
39 5  0.1177
40 8  0.1177
41 120       75    3 8 0.043 1600 1 3
42 377       0.1177
43 377       0.1177
44 377       0.1177
45 377       0.1177
46 1  0.1177
47 157       0.1177
48 212       0.1177
49 2  0.1177
50 8  0.1177
51 154       0.1177
52 8  0.1177
53 3  0.1177
  19  0.0
1 407 0.1177
2 120 39    3 407 0.043 1600 1 3
3 407 0.1177
4 407 0.1177
5 407 0.1177
6 407 0.1177
7 120 39    3 407 0.043 1600 1 3
8 527 0.1177
9 527 0.1177
10 527       0.1177
```

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11 120      39    3 527 0.043 1600 1 3
12 527      0.1177
13 527      0.1177
14 120      0.1177
15 120      0.1177
16 120      39    3 120 0.043 1600 1 3
17 565      0.1177
18 565      0.1177
19 120      39    3 565 0.043 1600 1 3
20 565      0.1177
21 565      0.1177
22 565      0.1177
23 120      39    3 565 0.043 1600 1 3
24 578      0.1177
25 578      0.1177
26 578      0.1177
27 578      0.1177
28 578      0.1177
29 120      39    3 578 0.043 1600 1 3
30 578      0.1177
31 161      0.1177
32 161      0.1177
33 120      39    3 161 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 120      75    3 2 0.043 1600 1 3
38 4  0.1177
39 4  0.1177
40 6  0.1177
41 120      75    3 6 0.043 1600 1 3
42 288      0.1177
43 288      0.1177
44 288      0.1177
45 288      0.1177
46 1  0.1177
47 120      0.1177
48 161      0.1177
49 2  0.1177
50 6  0.1177
51 117      0.1177
52 6  0.1177
53 2  0.1177
  20  0.0
1 314 0.1177
2 90  33    3 314 0.043 1600 1 3
3 314 0.1177
4 314 0.1177
5 314 0.1177
6 314 0.1177
7 90  33    3 314 0.043 1600 1 3
8 406 0.1177
9 406 0.1177
10 406      0.1177
11 90 33    3 406 0.043 1600 1 3
12 406      0.1177
13 406      0.1177
```

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14 92 0.1177
15 92 0.1177
16 90 33     3 92 0.043 1600 1 3
17 435       0.1177
18 435       0.1177
19 90 33     3 435 0.043 1600 1 3
20 435       0.1177
21 435       0.1177
22 435       0.1177
23 90 33     3 435 0.043 1600 1 3
24 445       0.1177
25 445       0.1177
26 445       0.1177
27 445       0.1177
28 445       0.1177
29 90 33     3 445 0.043 1600 1 3
30 445       0.1177
31 124       0.1177
32 124       0.1177
33 90 33     3 124 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 4  0.1177
39 4  0.1177
40 5  0.1177
41 90 51     3 5 0.043 1600 1 3
42 221       0.1177
43 221       0.1177
44 221       0.1177
45 221       0.1177
46 1  0.1177
47 92 0.1177
48 124       0.1177
49 1  0.1177
50 5  0.1177
51 90 0.1177
52 5  0.1177
53 2  0.1177
  21   0.0
1 266 0.1177
2 90  33     3 266 0.043 1600 1 3
3 266 0.1177
4 266 0.1177
5 266 0.1177
6 266 0.1177
7 90  33     3 266 0.043 1600 1 3
8 344 0.1177
9 344 0.1177
10 344       0.1177
11 90 33     3 344 0.043 1600 1 3
12 344       0.1177
13 344       0.1177
14 78 0.1177
15 78 0.1177
16 90 33     3 78 0.043 1600 1 3
```

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17 369       0.1177
18 369       0.1177
19 90 33     3 369 0.043 1600 1 3
20 369       0.1177
21 369       0.1177
22 369       0.1177
23 90 33     3 369 0.043 1600 1 3
24 378       0.1177
25 378       0.1177
26 378       0.1177
27 378       0.1177
28 378       0.1177
29 90 33     3 378 0.043 1600 1 3
30 378       0.1177
31 105       0.1177
32 105       0.1177
33 90 33     3 105 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 3  0.1177
39 3  0.1177
40 4  0.1177
41 90 51     3 4 0.043 1600 1 3
42 188       0.1177
43 188       0.1177
44 188       0.1177
45 188       0.1177
46 1  0.1177
47 78 0.1177
48 105       0.1177
49 1  0.1177
50 4  0.1177
51 77 0.1177
52 4  0.1177
53 2  0.1177
  22   0.0
1 213 0.1177
2 90  33     3 213 0.043 1600 1 3
3 213 0.1177
4 213 0.1177
5 213 0.1177
6 213 0.1177
7 90  33     3 213 0.043 1600 1 3
8 276 0.1177
9 276 0.1177
10 276       0.1177
11 90 33     3 276 0.043 1600 1 3
12 276       0.1177
13 276       0.1177
14 63 0.1177
15 63 0.1177
16 90 33     3 63 0.043 1600 1 3
17 296       0.1177
18 296       0.1177
19 90 33     3 296 0.043 1600 1 3
```

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20 296       0.1177
21 296       0.1177
22 296       0.1177
23 90 33     3 296 0.043 1600 1 3
24 303       0.1177
25 303       0.1177
26 303       0.1177
27 303       0.1177
28 303       0.1177
29 90 33     3 303 0.043 1600 1 3
30 303       0.1177
31 85 0.1177
32 85 0.1177
33 90 33     3 85 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 3  0.1177
39 3  0.1177
40 3  0.1177
41 90 51     3 3 0.043 1600 1 3
42 151       0.1177
43 151       0.1177
44 151       0.1177
45 151       0.1177
46 1  0.1177
47 63 0.1177
48 85 0.1177
49 1  0.1177
50 3  0.1177
51 61 0.1177
52 3  0.1177
53 1  0.1177
  23    0.0
1 173 0.1177
2 90  33     3 173 0.043 1600 1 3
3 173 0.1177
4 173 0.1177
5 173 0.1177
6 173 0.1177
7 90  33     3 173 0.043 1600 1 3
8 223 0.1177
9 223 0.1177
10 223       0.1177
11 90 33     3 223 0.043 1600 1 3
12 223       0.1177
13 223       0.1177
14 51 0.1177
15 51 0.1177
16 90 33     3 51 0.043 1600 1 3
17 240       0.1177
18 240       0.1177
19 90 33     3 240 0.043 1600 1 3
20 240       0.1177
21 240       0.1177
22 240       0.1177
```

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23 90 33     3 240 0.043 1600 1 3
24 245       0.1177
25 245       0.1177
26 245       0.1177
27 245       0.1177
28 245       0.1177
29 90 33     3 245 0.043 1600 1 3
30 245       0.1177
31 68 0.1177
32 68 0.1177
33 90 33     3 68 0.043 1600 1 3
34 1  0.1177
35 1  0.1177
36 1  0.1177
37 90 51     3 2 0.043 1600 1 3
38 2  0.1177
39 2  0.1177
40 3  0.1177
41 90 51     3 3 0.043 1600 1 3
42 122       0.1177
43 122       0.1177
44 122       0.1177
45 122       0.1177
46 1  0.1177
47 51 0.1177
48 68 0.1177
49 1  0.1177
50 3  0.1177
51 50 0.1177
52 3  0.1177
53 1  0.1177
  24    0.0
1 119 0.1177
2 90  33     3 119 0.043 1600 1 3
3 119 0.1177
4 119 0.1177
5 119 0.1177
6 119 0.1177
7 90  33     3 119 0.043 1600 1 3
8 170 0.1177
9 170 0.1177
10 170       0.1177
11 90 33     3 170 0.043 1600 1 3
12 170       0.1177
13 170       0.1177
14 20 0.1177
15 20 0.1177
16 90 33     3 20 0.043 1600 1 3
17 130       0.1177
18 130       0.1177
19 90 33     3 130 0.043 1600 1 3
20 130       0.1177
21 130       0.1177
22 130       0.1177
23 90 33     3 130 0.043 1600 1 3
24 134       0.1177
25 134       0.1177
```

```
26 134       0.1177
27 134       0.1177
28 134       0.1177
29 90 33     3 134 0.043 1600 1 3
30 134       0.1177
31 27 0.1177
32 27 0.1177
33 90 33     3 27 0.043 1600 1 3
34 2  0.1177
35 2  0.1177
36 2  0.1177
37 90 51     3 2 0.043 1600 1 3
38 4  0.1177
39 4  0.1177
40 1  0.1177
41 90 51     3 2 0.043 1600 1 3
42 47 0.1177
43 47 0.1177
44 47 0.1177
45 47 0.1177
46 2  0.1177
47 20 0.1177
48 27 0.1177
49 1  0.1177
50 2  0.1177
51 50 0.1177
52 2  0.1177
53 1  0.1177
```