

APPENDIX A

PEAK EMISSION CALCULATIONS

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APPENDIX A
CSI Galvanizing Expansion Project
Total Project Component
Construction Emission Summary

Emissions from Equipment	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
VOC (lb/day)	0.00	0.00	0.00	0.20	0.82	1.02	1.02	1.02	1.02	0.85	0.85	0.85	0.79	0.79	1.16	0.77	0.77	0.77	0.74	0.74	0.74	0.00	0.00	0.00
CO (lb/day)	11.54	9.92	30.74	35.31	39.80	42.77	42.77	27.59	21.81	28.88	28.63	26.90	22.90	17.63	19.75	13.65	13.05	13.05	12.58	11.98	11.98	0.00	0.00	0.00
NOx (lb/day)	5.42	3.84	14.87	17.54	24.50	25.58	25.58	18.35	15.79	20.13	19.89	19.73	17.27	12.68	14.97	8.99	8.79	8.79	8.43	8.23	8.23	0.00	0.00	0.00
SOx (lb/day)	0.03	0.02	0.08	0.10	0.11	0.12	0.12	0.08	0.05	0.07	0.06	0.06	0.05	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00
PM10 (lb/day)	0.27	0.19	0.74	0.84	0.95	0.97	0.97	0.59	0.44	0.57	0.55	0.58	0.49	0.29	0.31	0.19	0.18	0.18	0.17	0.16	0.16	0.00	0.00	0.00
PM2.5 (lb/day)	0.27	0.19	0.72	0.81	0.91	0.92	0.92	0.56	0.42	0.53	0.51	0.55	0.46	0.27	0.29	0.18	0.17	0.17	0.17	0.16	0.16	0.00	0.00	0.00
CO ₂ (lb/day)	2818.07	2120.21	8705.78	10270.59	11161.94	11991.02	11991.02	7728.68	5025.69	6502.42	6039.98	6036.96	5322.10	3244.93	3458.11	2123.23	2016.59	2016.59	1938.16	1831.51	1831.51	0.00	0.00	0.00
CO ₂ (MT/yr)	922.54												242.72											

Emissions from Equipment - R	Year 1												Year 1											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
VOC (lb/day)	0.00	0.00	0.00	0.20	0.82	1.02	1.02	1.02	1.02	0.85	0.85	0.85	0.79	0.79	1.16	0.77	0.77	0.77	0.74	0.74	0.74	0.00	0.00	0.00
CO (lb/day)	11.54	9.92	30.74	35.31	39.80	42.77	42.77	27.59	21.81	28.88	28.63	26.90	22.90	17.63	19.75	13.65	13.05	13.05	12.58	11.98	11.98	0.00	0.00	0.00
APPENDIX A	5.42	3.84	14.87	17.54	24.50	25.58	25.58	18.35	15.79	20.13	19.89	19.73	17.27	12.68	14.97	8.99	8.79	8.79	8.43	8.23	8.23	0.00	0.00	0.00
SOx (lb/day)	0.03	0.02	0.08	0.10	0.11	0.12	0.12	0.08	0.05	0.07	0.06	0.06	0.05	0.03	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00
PM10 (lb/day)	0.27	0.19	0.74	0.84	0.95	0.97	0.97	0.59	0.44	0.57	0.55	0.58	0.49	0.29	0.31	0.19	0.18	0.18	0.17	0.16	0.16	0.00	0.00	0.00
PM2.5 (lb/day) ⁽¹⁾	0.27	0.19	0.72	0.81	0.91	0.92	0.92	0.56	0.42	0.53	0.51	0.55	0.46	0.27	0.29	0.18	0.17	0.17	0.17	0.16	0.16	0.00	0.00	0.00
CO ₂ (lb/day)	2818.07	2120.21	8705.78	10270.59	11161.94	11991.02	11991.02	7728.68	5025.69	6502.42	6039.98	6036.96	5322.10	3244.93	3458.11	2123.23	2016.59	2016.59	1938.16	1831.51	1831.51	0.00	0.00	0.00

Emission from Trips - Subtotal	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
VOC (lb/day)	0.04	0.04	0.10	0.12	0.12	0.16	0.16	0.17	0.22	0.26	0.22	0.21	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.12	0.09	0.00	0.00	0.00
CO (lb/day)	2.24	2.24	5.29	6.74	6.74	7.95	7.95	9.02	11.61	14.13	12.81	12.71	11.40	11.31	11.33	11.36	11.36	11.36	11.36	7.83	5.81	0.24	0.24	0.24
NOx (lb/day)	0.24	0.24	3.60	3.73	3.73	6.92	6.92	7.05	7.26	7.49	2.75	2.44	1.31	1.01	1.01	1.02	1.02	1.02	1.02	0.70	0.52	0.02	0.02	0.02
SOx (lb/day)	0.01	0.01	0.04	0.05	0.05	0.08	0.08	0.08	0.09	0.10	0.06	0.06	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.00
PM10 (lb/day)	0.06	0.06	0.39	0.43	0.43	0.72	0.72	0.75	0.81	0.88	0.46	0.44	0.67	0.62	0.62	0.62	0.62	0.62	0.62	0.43	0.32	0.01	0.01	0.01
Exhaust PM (lb/day)	0.01	0.01	0.06	0.06	0.06	0.11	0.11	0.11	0.12	0.12	0.05	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.01	0.00	0.00	0.00
Fugitive PM (lb/day)	0.06	0.06	0.34	0.37	0.37	0.61	0.61	0.64	0.69	0.75	0.41	0.39	0.64	0.60	0.60	0.60	0.60	0.60	0.60	0.41	0.31	0.01	0.01	0.01
PM2.5 (lb/day)	0.02	0.02	0.06	0.07	0.07	0.09	0.09	0.10	0.12	0.14	0.12	0.11	0.31	0.29	0.29	0.29	0.29	0.29	0.29	0.20	0.15	0.01	0.01	0.01
Exhaust PM (lb/day)	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.06	0.05	0.00	0.00	0.00
Fugitive PM (lb/day)	0.02	0.02	0.05	0.06	0.06	0.08	0.08	0.09	0.11	0.12	0.09	0.09	0.22	0.20	0.20	0.20	0.20	0.20	0.20	0.14	0.10	0.00	0.00	0.00
CO ₂ (lb/day)	53.37	53.37	192.82	208.97	208.97	351.11	351.11	372.37	344.48	355.24	146.06	129.43	4597.07	4309.38	4315.93	4329.01	4329.01	4329.01	4329.01	2982.57	2213.18	90.81	90.81	90.81
CO ₂ (MT/yr)	28.24												367.48											

Emission from Trips - Onsite	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
VOC (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO (lb/day)	0.08	0.08	0.12	0.16	0.16	0.21	0.21	0.20	0.20	0.22	0.16	0.15	0.11	0.10	0.12	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.14
NOx (lb/day)	0.04	0.04	0.19	0.19	0.19	0.34	0.34	0.37	0.34	0.34	0.12	0.10	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
SOx (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 (lb/day)	0.01	0.01	0.03	0.04	0.04	0.06	0.06	0.07	0.06	0.06	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
Exhaust PM (lb/day)	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive PM (lb/day)	0.01	0.01	0.03	0.03	0.03	0.06	0.06	0.06	0.06	0.06	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
PM2.5 (lb/day)	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exhaust PM (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive PM (lb/day)	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO ₂ (lb/day)	53.37	53.37	192.82	208.97	208.97	351.11	351.11	372.37	344.48	355.24	146.06	129.43	52.95	39.25	45.80	58.88	58.88	58.88	58.88	58.88	58.88	52.34	52.34	52.34

APPENDIX A
CSI Galvanizing Expansion Project
Total Project Component
Construction Emission Summary

Emission from Trips - Offsite	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
VOC (lb/day)	0.04	0.04	0.10	0.12	0.12	0.15	0.15	0.17	0.21	0.25	0.21	0.21	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.12	0.09	0.00	0.00	0.00
CO (lb/day)	2.16	2.16	5.17	6.57	6.57	7.74	7.74	8.82	11.41	13.90	12.64	12.56	11.29	11.21	11.21	11.21	11.21	11.21	11.21	7.67	5.65	0.10	0.10	0.10
NOx (lb/day)	0.20	0.20	3.41	3.54	3.54	6.58	6.58	6.68	6.92	7.15	2.64	2.34	1.29	1.00	1.00	1.00	1.00	1.00	1.00	0.69	0.51	0.01	0.01	0.01
SOx (lb/day)	0.01	0.01	0.04	0.05	0.05	0.07	0.07	0.08	0.09	0.09	0.06	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.00
PM10 (lb/day)	0.06	0.06	0.36	0.40	0.40	0.66	0.66	0.68	0.75	0.81	0.44	0.41	0.66	0.61	0.61	0.61	0.61	0.61	0.61	0.42	0.31	0.01	0.01	0.01
Exhaust PM (lb/day)	0.00	0.00	0.05	0.06	0.06	0.10	0.10	0.11	0.11	0.12	0.05	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
Fugitive PM (lb/day)	0.05	0.05	0.31	0.34	0.34	0.55	0.55	0.58	0.64	0.70	0.39	0.37	0.64	0.59	0.59	0.59	0.59	0.59	0.59	0.40	0.30	0.01	0.01	0.01
PM2.5 (lb/day)	0.02	0.02	0.05	0.06	0.06	0.07	0.07	0.08	0.10	0.12	0.11	0.11	0.30	0.28	0.28	0.28	0.28	0.28	0.28	0.19	0.14	0.00	0.00	0.00
Exhaust PM (lb/day)	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.06	0.04	0.00	0.00	0.00
Fugitive PM (lb/day)	0.01	0.01	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.10	0.08	0.08	0.21	0.20	0.20	0.20	0.20	0.20	0.20	0.14	0.10	0.00	0.00	0.00
CO ₂ (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4544.12	4270.13	4270.13	4270.13	4270.13	4270.13	4270.13	2923.69	2154.30	38.47	38.47	38.47

Fugitive Earthmoving PM - Pea	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
PM10 (lb/day) ⁽¹⁾	4.46	4.46	4.46	4.46	4.46	4.46	4.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM2.5 (lb/day) ⁽¹⁾⁽²⁾	1.29	1.29	1.29	1.29	1.29	1.29	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offroad Fugitive PM - Peak	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
PM10 (lb/day) ⁽¹⁾	2.08	2.08	2.08	2.08	2.08	2.08	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM2.5 (lb/day) ⁽¹⁾⁽²⁾	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paint	Year 1												Year 2											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
VOC (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total Emissions	Threshold	Year 1												Year 2											
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
VOC (lb/day)	75	0.04	0.04	0.10	0.33	0.95	1.18	1.18	1.20	1.24	1.11	1.06	1.06	0.97	0.97	1.34	0.95	0.95	0.95	0.92	0.86	0.83	0.00	0.00	0.00
CO (lb/day)	550	13.78	12.16	36.03	42.05	46.54	50.71	50.71	36.62	33.42	43.01	41.44	39.61	34.30	28.94	31.08	25.01	24.41	24.41	23.95	19.81	17.79	0.24	0.24	0.24
NOx (lb/day)	100	5.66	4.07	18.47	21.27	28.23	32.50	32.50	25.40	23.05	27.62	22.64	22.17	18.58	13.69	15.98	10.01	9.81	9.81	9.44	8.93	8.75	0.02	0.02	0.02
SOx (lb/day)	150	0.03	0.03	0.12	0.15	0.16	0.19	0.19	0.16	0.14	0.16	0.12	0.12	0.10	0.08	0.08	0.07	0.06	0.06	0.06	0.05	0.04	0.00	0.00	0.00
PM10 (lb/day) ⁽¹⁾	150	6.87	6.79	7.67	7.81	7.92	8.22	8.22	1.34	1.25	1.44	1.01	1.02	1.17	0.91	0.93	0.81	0.80	0.80	0.80	0.59	0.48	0.01	0.01	0.01
PM2.5 (lb/day) ⁽¹⁾⁽²⁾	55	2.02	1.94	2.51	2.61	2.72	2.75	2.75	0.66	0.54	0.67	0.63	0.66	0.77	0.56	0.58	0.47	0.46	0.46	0.45	0.36	0.30	0.01	0.01	0.01
CO ₂ (lb/day)	NA	2871.44	2173.58	8898.60	10479.56	11370.91	12342.14	12342.14	8101.05	5370.17	6857.66	6186.04	6166.38	9919.17	7554.31	7774.03	6452.24	6345.60	6345.60	6267.17	4814.09	4044.70	90.81	90.81	90.81
CO ₂ (MT/yr)	NA												950.78												610.21

(1) Mitigated PM.
(2) https://www.aqmd.gov/ceqa/handbook/PM2_5/pm2_5ratio.xls
Highlighted values are maximums.

APPENDIX A
CSI Galvanizing Expansion Project
Construction Equipment Emissions
Year 1

VOC	Emission Rate (lb/hr) 2024	Month													
		1	2	3	4	5	6	7	8	9	10	11	12		
Telehandler	0.00002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane, 25 ton	0.00002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tracked Loader	0.00002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Breaker	0.00001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	0.00002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roller Compactor	0.00002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	0.00001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Boom Pump	0.00002	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane, 100 ton	0.00004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lattice Boom Crane, 300t	0.00004	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	0.02645	0.00	0.00	0.00	0.00	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
Boom Lifts	0.00001	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressors	0.00611	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02
Welding Machines	0.02486	0.00	0.00	0.00	0.20	0.40	0.20	0.60	0.60	0.60	1.02	1.02	0.60	0.40	0.40
Total		0.00	0.00	0.00	0.20	0.82	0.20	1.02	1.02	1.02	1.02	0.85	0.85	0.85	0.85

APPENDIX A
CSI Galvanizing Expansion Project
Construction Equipment Emissions
Year 1

SOx	Emission Rate (lb/hr)	Month																	
		1	2	3	4	5	6	7	8	9	10	11	12						
Telehandler	0.00042	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Forklift	0.00016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane, 25 ton	0.00072	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tracked Loader	0.00083	0.01	0.00	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
Backhoe	0.00030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Breaker	0.00050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	0.00087	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00068	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roller Compactor	0.00093	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	0.00060	0.00	0.00	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
Concrete Boom Pump	0.00080	0.00	0.00	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.01
Hydraulic Crane, 100 ton	0.00133	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Lattice Boom Crane, 300t	0.00133	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Towers	0.00053	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Boom Lifts	0.00025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressors	0.00018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machines	0.00034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total		0.03	0.02	0.08	0.10	0.11	0.12	0.12	0.12	0.11	0.12	0.12	0.12	0.08	0.05	0.07	0.06	0.06	0.06

APPENDIX A
CSI Galvanizing Expansion Project

Onsite Construction Vehicle Trip Emissions
Year 1

Vehicle	Miles per Day	Month (Vehicles per day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Cars	2	2	2	2	4	4	6	6	8	8	6	6	4
Pickup Trucks	10	2	2	2	4	4	4	4	4	4	6	6	6
Total Light Vehicle Miles		24	24	24	48	48	52	52	56	56	72	72	68
Water Truck	10	1	1	1	1	1	1	1					
Delivery Truck	2												
1 Ton Truck	2												
Misc. MD Truck	5												
Total Medium Truck Miles		10	10	10	10	10	10	10	0	0	0	0	0
Truck, Dump Ford LT8000	4	2	2	2	2	2	2	2	2				
Concrete Truck	2			20	20	20	40	40	40	40	40	10	8
Semi-Tractor, Diesel 20 Ton	2								4	4	4	4	4
Misc. HD Truck	2												
Total Heavy Truck Miles		8	8	48	48	48	88	88	96	88	88	28	24

2024 VOC	Emission Rate (lb/mi)(1)	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0000303	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty	0.0000457	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000326	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00

CO	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.0018399	0.04	0.04	0.04	0.09	0.09	0.10	0.10	0.10	0.10	0.13
Medium Duty	0.0024647	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0010481	0.01	0.01	0.05	0.05	0.05	0.09	0.09	0.10	0.09	0.09	0.03	0.03
Total		0.08	0.08	0.12	0.16	0.16	0.21	0.21	0.20	0.20	0.22	0.16	0.15

NOx	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.0001705	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Medium Duty	0.0002512	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0037601	0.03	0.03	0.18	0.18	0.18	0.33	0.33	0.36	0.33	0.33	0.11	0.09
Total		0.04	0.04	0.19	0.19	0.19	0.34	0.34	0.37	0.34	0.34	0.12	0.10

SOx	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.0000066	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty	0.0000092	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000313	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PM10	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty Exhaust	0.0000040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Exhaust	0.0000035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000564	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Total Exhaust PM		0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Light Duty Fugitive(2)	0.000043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(2)	0.000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.000256	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Light Duty Fugitive(3)	0.000043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(3)	0.000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.000256	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Total Fugitive PM		0.01	0.01	0.03	0.03	0.03	0.06	0.06	0.06	0.06	0.06	0.02	0.02

PM2.5	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty Exhaust	0.0000037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Exhaust	0.0000032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000540	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Total Exhaust PM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Light Duty Fugitive(2)	0.000013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(2)	0.000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.000082	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Light Duty Fugitive(3)	0.000013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(3)	0.000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.000082	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Total Fugitive PM		0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01
Total		0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01

CO2EQ	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.673	16.15	16.15	16.15	32.30	32.30	34.99	34.99	37.68	37.68	48.45
Medium Duty	0.933	9.33	9.33	9.33	9.33	9.33	9.33	9.33	0.00	0.00	0.00	0.00	0.00
Heavy Duty	3.486	27.89	27.89	167.34	167.34	167.34	306.80	306.80	334.69	306.80	306.80	97.62	83.67
Total		53.37	53.37	192.82	208.97	208.97	351.11	351.11	372.37	344.48	355.24	146.06	129.43

(1) Emface2021 emission factors for the South Coast Air District.

(2) Emission Calculations for travel on paved roads from EPA AP-42 Section 13.2.1, January 2011

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

Where: k = 0.0022 lb/VMT for PM10 and k=0.00054 for PM2.5, sL = road silt loading (gms/m2) (0.03 for major/collector roads), W = weight of vehicles (2.5 tons for light; 5.5 for medium trucks, and 24 for heavy trucks) and brake and tire wear from EMFAC2021

**APPENDIX A
CSI Galvanizing Expansion Project**

**Offsite Construction Vehicle Trip Emissions
Year 1**

Vehicle	Miles per Day	Month (Vehicles per day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Tradesmen	29.4	38	38	78	102	102	108	108	128	176	220	220	220
Construction Staff	29.4	2	2	4	4	4	4	4	4	4	6	6	6
Total Light Vehicle Miles		1176	1176	2352	3116.4	3116.4	3292.8	3292.8	3880.8	5292	6644.4	6644.4	6644.4
Water Truck	40												
Delivery Truck	40												
1 Ton Truck	40												
Misc. MD Truck	40												
Total Medium Truck Miles		0	0	0	0	0	0	0	0	0	0	0	0
Truck, Dump Ford LT8000	40			20	20	20	40	40	40	40	40	10	8
Hazardous Dump Trucks	400												
Non-Haz Dump Trucks*	200												
Misc. HD Truck	40												
Total Heavy Truck Miles		0	0	800	800	800	1600	1600	1600	1600	1600	400	320

* for transport assumes 50% is hazardous

2024 VOC	Emission Rate (lb/mi)(1) Month	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0000303	0.04	0.04	0.07	0.09	0.09	0.10	0.10	0.12	0.16	0.20	0.20	0.20
Medium Duty	0.0000457	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000326	0.00	0.00	0.03	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.01	0.01
Total		0.04	0.04	0.10	0.12	0.12	0.15	0.15	0.17	0.21	0.25	0.21	0.21

CO	Month	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0018399	2.16	2.16	4.33	5.73	5.73	6.06	6.06	7.14	9.74	12.23	12.23	12.23
Medium Duty	0.0024647	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0010481	0.00	0.00	0.84	0.84	0.84	1.68	1.68	1.68	1.68	1.68	0.42	0.34
Total		2.16	2.16	5.17	6.57	6.57	7.74	7.74	8.82	11.41	13.90	12.64	12.56

NOx	Month	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0001705	0.20	0.20	0.40	0.53	0.53	0.56	0.56	0.66	0.90	1.13	1.13	1.13
Medium Duty	0.0002512	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0037601	0.00	0.00	3.01	3.01	3.01	6.02	6.02	6.02	6.02	6.02	1.50	1.20
Total		0.20	0.20	3.41	3.54	3.54	6.58	6.58	6.68	6.92	7.15	2.64	2.34

SOx	Month	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0000066	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.04	0.04	0.04	0.04
Medium Duty	0.0000092	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000313	0.00	0.00	0.03	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.01	0.01
Total		0.01	0.01	0.04	0.05	0.05	0.07	0.07	0.08	0.09	0.09	0.06	0.05

PM10	Month	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty Exhaust	0.0000040	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03
Medium Duty Exhaust	0.0000035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000564	0.00	0.00	0.05	0.05	0.05	0.09	0.09	0.09	0.09	0.09	0.02	0.02
Total Exhaust PM		0.00	0.00	0.05	0.06	0.06	0.10	0.10	0.11	0.11	0.12	0.05	0.04
Light Duty Fugitive(2)	0.000043	0.05	0.05	0.10	0.13	0.13	0.14	0.14	0.17	0.23	0.29	0.29	0.29
Medium Duty Fugitive(2)	0.000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.000256	0.00	0.00	0.20	0.20	0.20	0.41	0.41	0.41	0.41	0.41	0.10	0.08
Light Duty Fugitive(3)	0.000043	0.05	0.05	0.10	0.13	0.13	0.14	0.14	0.17	0.23	0.29	0.29	0.29
Medium Duty Fugitive(3)	0.000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.000256	0.00	0.00	0.20	0.20	0.20	0.41	0.41	0.41	0.41	0.41	0.10	0.08
Total Fugitive PM		0.05	0.05	0.31	0.34	0.34	0.55	0.55	0.58	0.64	0.70	0.39	0.37
Total		0.06	0.06	0.36	0.40	0.40	0.66	0.66	0.68	0.75	0.81	0.44	0.41

PM2.5	Month	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty Exhaust	0.0000037	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
Medium Duty Exhaust	0.0000032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000540	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Exhaust PM		0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
Light Duty Fugitive(2)	0.000013	0.01	0.01	0.03	0.04	0.04	0.04	0.04	0.05	0.06	0.08	0.08	0.08
Medium Duty Fugitive(2)	0.000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.000082	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.00
Light Duty Fugitive(3)	0.000013	0.01	0.01	0.03	0.04	0.04	0.04	0.04	0.05	0.06	0.08	0.08	0.08
Medium Duty Fugitive(3)	0.000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.000082	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Fugitive PM		0.01	0.01	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.10	0.08	0.08
Total		0.02	0.02	0.05	0.06	0.06	0.07	0.07	0.08	0.10	0.12	0.11	0.11

CO2EQ	Month	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.673	791.27	1097.22	2194.44	2907.63	2907.63	3072.22	3072.22	3620.83	4937.49	6199.30	6199.30	6199.30
Medium Duty	0.933	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	3.486	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		791.27	1097.22	2194.44	2907.63	2907.63	3072.22	3072.22	3620.83	4937.49	6199.30	6199.30	6199.30

APPENDIX A
CSI Galvanizing Expansion Project
Construction Equipment Emissions
Year 2

Equipment	Hours (hr/day)	Month												
		1	2	3	4	5	6	7	8	9	10	11	12	
Telehandler	8	2	2	2	2	2	2	2	2	2	2	2	2	2
Forklift	8	2	2	2	2	2	2	2	2	2	2	2	2	2
Hydraulic Crane, 25 ton	8													
Tracked Loader	8													
Backhoe	8													
Breaker	8													
Front End Loader	8													
Grader	8													
Roller Compactor	8													
Excavator	8													
Concrete Boom Pump	8	1												
Hydraulic Crane, 100 ton	5	2												
Lattice Boom Crane, 300t	5	1	1											
Light Towers	4	4	4	4										
Boom Lifts	4	4	4	2	2	1	1	1	1					
Air Compressors	4	1	1	1	1	1	1	1	1	1	1	1	1	1
Welding Machines	8	2	2	4	4	4	4	4	4	4	4	4	4	4

APPENDIX A
CSI Galvanizing Expansion Project
Construction Equipment Emissions
Year 2

SOx	Emission Rate (lb/hr)	Month															
		1	2	3	4	5	6	7	8	9	10	11	12				
Telehandler	0.00042	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
Forklift	0.00016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane, 25 ton	0.00072	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tracked Loader	0.00083	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Breaker	0.00050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	0.00087	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00068	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roller Compactor	0.00093	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	0.00060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Boom Pump	0.00080	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane, 100 ton	0.00133	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lattice Boom Crane, 300t	0.00133	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
Light Towers	0.00053	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
Boom Lifts	0.00025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Compressors	0.00018	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machines	0.00034	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
Total		0.05	0.03	0.04	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

**APPENDIX A
CSI Galvanizing Expansion Project**

**Onsite Construction Vehicle Trip Emissions
Year 2**

Vehicle	Miles per Day	Month (Vehicles per day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Cars	10	4	4	4	4	4	4	4	4	4	4	4	4
Pickup Trucks	10	2	2	3	5	5	5	5	5	5	4	4	4
Total Light Vehicle Miles		60	60	70	90	90	90	90	90	90	80	80	80
Water Truck	2												
Delivery Truck	2												
1 Ton Truck	2												
Misc. MD Truck	5												
Total Medium Truck Miles		0	0	0	0	0	0	0	0	0	0	0	0
Truck, Dump Ford LT8000	2												
Concrete Truck	2	2											
Semi-Tractor, Diesel 20 Ton	2												
Misc. HD Truck	2												
Total Heavy Truck Miles		4	0	0	0	0	0	0	0	0	0	0	0

2025 VOC	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0000272	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty	0.0000398	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000312	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CO	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.0017173	0.10	0.10	0.12	0.15	0.15	0.15	0.15	0.15	0.15	0.14
Medium Duty	0.0022563	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0010096	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.11	0.10	0.12	0.15	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.14

NOx	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.0001534	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Medium Duty	0.0002186	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0036032	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

SOx	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.0000064	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty	0.0000089	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000307	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

PM10	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty Exhaust	0.0000038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Exhaust	0.0000033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000556	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Exhaust PM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Duty Fugitive(2)	0.0000043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(2)	0.0000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.0000256	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Duty Fugitive(3)	0.0000043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(3)	0.0000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.0000256	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Fugitive PM		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

PM2.5	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty Exhaust	0.0000035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Exhaust	0.0000031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000532	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Exhaust PM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Duty Fugitive(2)	0.0000013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(2)	0.0000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.0000082	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Duty Fugitive(3)	0.0000013	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Duty Fugitive(3)	0.0000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.0000082	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Fugitive PM		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CO2EQ	Month	1	2	3	4	5	6	7	8	9	10	11	12
		Light Duty	0.654	39.25	39.25	45.80	58.88	58.88	58.88	58.88	58.88	58.88	52.34
Medium Duty	0.906	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	3.425	13.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		52.95	39.25	45.80	58.88	58.88	58.88	58.88	58.88	58.88	52.34	52.34	52.34

(1) Emface2021 emission factors for the South Coast Air District.

(2) Emission Calculations for travel on paved roads from EPA AP-42 Section 13.2.1, January 2011

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

Where: k = 0.0022 lb/VMT for PM10 and k=0.00054 for PM2.5, sL = road silt loading (gms/m2) (0.03 for major/collector roads), W = weight of vehicles (2.5 tons for light; 5.5 for medium trucks, and 24 for heavy trucks) and brake and tire wear from EMFAC2021

APPENDIX A
CSI Galvanizing Expansion Project

Offsite Construction Vehicle Trip Emissions
Year 2

Vehicle	Miles per Day	Month (Vehicles per day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Tradesmen	29.4	220	220	220	220	220	220	200	150	110	0	0	0
Construction Staff	29.4	2	2	2	2	2	2	2	2	2	2	2	2
Total Light Vehicle Miles		6526.8	6526.8	6526.8	6526.8	6526.8	6526.8	5938.8	4468.8	3292.8	58.8	58.8	58.8
Water Truck	40												
Delivery Truck	40												
1 Ton Truck	40												
Misc. MD Truck	40												
Total Medium Truck Miles		0	0	0	0	0	0	0	0	0	0	0	0
Truck, Dump Ford LT8000	40	2											
Hazardous Dump Trucks	400												
Non-Haz Dump Trucks*	200												
Misc. HD Truck	40												
Total Heavy Truck Miles		80	0	0	0	0	0	0	0	0	0	0	0

* for transport assumes all is hazardous

2025 VOC	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0000272	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.12	0.09	0.00	0.00	0.00
Medium Duty	0.0000398	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000312	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.12	0.09	0.00	0.00	0.00

CO	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0017173	11.21	11.21	11.21	11.21	11.21	11.21	10.20	7.67	5.65	0.10	0.10	0.10
Medium Duty	0.0022563	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0010096	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		11.29	11.21	11.21	11.21	11.21	11.21	10.20	7.67	5.65	0.10	0.10	0.10

NOx	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0001534	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.69	0.51	0.01	0.01	0.01
Medium Duty	0.0002186	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0036032	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.29	1.00	1.00	1.00	1.00	1.00	0.91	0.69	0.51	0.01	0.01	0.01

SOx	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.0000064	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.00
Medium Duty	0.0000089	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	0.0000307	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.02	0.00	0.00	0.00

PM10	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty Exhaust	0.0000038	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
Medium Duty Exhaust	0.0000033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000556	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Exhaust PM		0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
Light Duty Fugitive(2)	0.000043	0.28	0.28	0.28	0.28	0.28	0.28	0.26	0.19	0.14	0.00	0.00	0.00
Medium Duty Fugitive(2)	0.000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.000256	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Duty Fugitive(3)	0.000043	0.28	0.28	0.28	0.28	0.28	0.28	0.26	0.19	0.14	0.00	0.00	0.00
Medium Duty Fugitive(3)	0.000039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.000256	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Fugitive PM		0.64	0.59	0.59	0.59	0.59	0.59	0.54	0.40	0.30	0.01	0.01	0.01

PM2.5	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty Exhaust	0.0000035	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
Medium Duty Exhaust	0.0000031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Exhaust	0.0000532	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Exhaust PM		0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
Light Duty Fugitive(2)	0.000013	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.06	0.04	0.00	0.00	0.00
Medium Duty Fugitive(2)	0.000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(2)	0.000082	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Light Duty Fugitive(3)	0.000013	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.06	0.04	0.00	0.00	0.00
Medium Duty Fugitive(3)	0.000012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty Fugitive(3)	0.000082	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Fugitive PM		0.19	0.17	0.17	0.17	0.17	0.17	0.16	0.12	0.09	0.00	0.00	0.00
Total		0.21	0.20	0.20	0.20	0.20	0.20	0.18	0.14	0.10	0.00	0.00	0.00

CO2EQ	Emission Rate (lb/mi) ⁽¹⁾	Month (lb/day)											
		1	2	3	4	5	6	7	8	9	10	11	12
Light Duty	0.654	4270.13	4270.13	4270.13	4270.13	4270.13	4270.13	3885.43	2923.69	2154.30	38.47	38.47	38.47
Medium Duty	0.906	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Heavy Duty	3.425	273.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		4544.12	4270.13	4270.13	4270.13	4270.13	4270.13	3885.43	2923.69	2154.30	38.47	38.47	38.47

(1) Emface2021 emission factors for the South Coast Air District.

(2) Emission Calculations for travel on paved roads from EPA AP-42 Section 13.2.1, January 2011

$$E = k(sL)^{0.91} \times (W)^{1.02}$$

Where: k = 0.0022 lb/MT for PM10 and k=0.00054 for PM2.5, sL = road silt loading (gms/m2) (0.03 for major/collector roads), W = weight of vehicles (2.5 tons for light; 5.5 for medium trucks, and 24 for heavy trucks) and brake and tire wear from EMFAC2021

APPENDIX A
CSI Galvanizing Expansion Project

Offroad Construction Vehicle Dust Emissions

Vehicle	Miles/Trip	Trips/Day
Light Vehicles	0.05	2
Total Light Vehicle Miles		0.1
Delivey Trucks	0.05	
Water Trucks	0.1	1
Total Medium Truck Miles		0.1
Concrete Truck	0.05	40
Dump Trucks	0.05	2
Total Heavy Truck Miles		2.1
Tractors	0.05	
Fork Lifts	0.05	2
Loader/Backhoe	0.05	2
Total Heavy-Heavy Duty Miles		0.2

PM10	Emission Rate (lb/mi) ⁽¹⁾	Emissions (lb/day)
Light Duty	0.9021196	0.09
Medium Duty	1.2863357	0.13
Heavy Duty	2.1931267	4.61
Heavy Heavy Duty	2.4962390	0.50
Uncontrolled Total		5.32
Controlled Total ⁽²⁾		2.08

(1) Based on Section 13.2.2 of EPA's Compilation of Air Pollutant Emission Factors (AP-42).

$$\text{Emission Rate} = 1.5((s/12)^{.9})*((W/3)^{.45})$$

s = silt content = 8.5%

W = Vehicle Weight (ton) =2.5 for light, 5.5 for medium, 15 for heavy,
and 24 for heavy heavy (EMFAC2007).

(2) Controlled Emissions assume that watering 3 times per day reduces emissions by 61 percent (Uncontrolled Emissions x 0.39)

**APPENDIX A
CSI Galvanizing Expansion Project
Peak Monthly Fugitive PM Construction Emissions**

Average Pieces of Equipment Operating	Peak Pieces of Equipment Operating	Hours of Operation	PM10 Emission Factor (lb/hour)	Water Control Factor ⁽⁵⁾	Controlled Emissions		Uncontrolled Emissions		SCAQMD Emission Factor Source
					Average PM10 Emissions (lbs/day)	Peak PM10 Emissions (lbs/day)	Average PM10 Emissions (lbs/day)	Peak PM10 Emissions (lbs/day)	
4	4	8	0.348	0.39	4.34	4.34	11.1243687	11.1243687	Table A9-9-F

Average Tons of Materials Handled Per Day	Peak Tons of Materials Handled Per Day	PM10 Emission Factor (lb/ton)	Water Control Factor ⁽⁵⁾	Controlled Emissions		Uncontrolled Emissions		SCAQMD Emission Factor Source
				Average PM10 Emissions Pounds/day	Peak PM10 Emissions Pounds/day	Average PM10 Emissions Pounds/day	Peak PM10 Emissions Pounds/day	
50	50	0.00005	0.39	0.0010049	0.0010049	0.00257668	0.00257668	Table A9-9-G

Assumptions: 1cubic yard trench spoils = 1 ton

Days of Earth Moving	Average Acreage Disturbed Per Day	Peak Acreage Disturbed Per Day	PM10 Emission Factor (lb/day/acre)	Controlled Emissions		Uncontrolled Emissions		SCAQMD Emission Factor Source
				Average PM10 Emissions Pounds/day	Peak PM10 Emissions Pounds/day	Average PM10 Emissions Tons/Year	Peak PM10 Emissions Tons/Year	
180	1	1	0.120	0.120	0.120	0.011	0.011	Table A9-9-E

Estimated Materials Handled Per Day (tons)	Peak Tons of Materials Handled Per Day	PM10 Emission Factor (lb/ton)	Water Control Factor ⁽⁵⁾	Controlled Emissions		Uncontrolled Emissions		SCAQMD Emission Factor Source
				Average PM10 Emissions Pounds/day	Peak PM10 Emissions Pounds/day	Average PM10 Emissions Pounds/day	Peak PM10 Emissions Pounds/day	
50.0	50.0	5.15E-05	0.39	0.0010049	0.0010049	0.00257668	0.00257668	Table A9-9
50.0	50.0	5.15E-05	0.39	0.0010049	0.0010049	0.00257668	0.00257668	Table A9-9

TOTAL PM10 Pounds/day	Average	Peak
(Controlled Emissions)	4.4612	4.46124
(Uncontrolled Emissions)	11.143	11.143

- (1) Emissions (lbs/hr) = $[0.75 \times (G^{1.5}) / (H^{1.4})] \times J$
where G = silt content (7.5%), H = moisture content (15.0%) and J = hrs of operation (EPA AP-42 Table 11.9-1 for bulldozing overburden).
- (2) Emissions (lbs/ton) = $0.00112 \times [(G/5)^{0.9} / (H/2)^{1.4}] \times IJ$
where G=mean wind speed (4.1 mph), H=moisture content of surface material (15%); I=lbs of dirt handled per day; and J=2,000 lbs/ton. Wind speed data acquired from Long Beach 2005-2007 SCAQMD meteorological file.
- (3) Emissions (lbs/day/acre) = $1.7 \times [(G/1.5) \times (365-H)/235] \times I/15 \times J$
where G = silt content (7.5%); H = days with >0.01 inch of rain (34); I = percentage of time wind speed exceeds 12 mph (0.3%) and J= fraction of TSP (0.5). Wind speed data acquired from Long Beach 2005-2007 SCAQMD meteorological file.
- (4) Used SCAQMD Table 9-9 Default emission factors.
- (5) Mitigated Emissions assume that watering 3 times per day controls emissions by 61 percent (Uncontrolled Emissions x 0.39). www.AQMD.gov/CEQA/handbook/mitigation/fugitive/Table XI-A.doc