APPENDIX A
AIR QUALITY CALCULATIONS

Material Removal Emissions

21,531 CY

1 Loader

	CO	NO_x	PM_{10}	ROG	$PM_{2.5}$	CO_2	CH_3
Emission per hour	0.5214	1.2255	0.068	0.153	96% of PM_{10}	109	0.014
Hours of Operation	x8	x8	x8	x8	x8	x8	x8
Total	**4.2**	**9.8**	**0.55**	**1.2**	(96% of PM_{10}) **0.53**	**872**	**0.110**

On-Road Heavy Heavy Duty Diesel Trucks: 20 Miles Round Trip

						Exhaust	
	CO	**NO_x**	**ROG**	**PM_{10}**	**$PM_{2.5}$**	**PM_{10}**	**$PM_{2.5}$**
Emission per mile	0.013	0.042	0.003	0.0020	0.0017	0.002	0.0017
Total Miles	x20	x20	x20	x20	x20	x20	x20
Sub Total	0.26	0.84	.060	.040	.034	.04	.034
Trips per hour	x4	x4	x4	x4	x4	x4	x4
Sub Total	1.0	3.4	0.24	0.16	0.136	0.16	0.136
Hours per day	x8	x8	x8	x8	x8	x8	x8
Total	**8.32**	**26.7**	**1.92**	**1.30**	**1.10**	**1.28**	**1.10**

Slover Avenue Improvements, Equipment Emissions

1 Water Truck

	CO	NO_x	PM_{10}	ROG	$PM_{2.5}$	CO_2	CH_3
Emission per hour	0.430	1.08	0.047	0.112	96% of PM_{10}	123	0.010
Hours of Operation	x3	x3	x3	x3	x3	x3	x3
Total	**1.3**	**3.3**	**0.14**	**0.33**	(96% of PM_{10}) **0.13**	**366**	**.0312**

1 Loaders/Backhoe

	CO	NO_x	PM_{10}	ROG	$PM_{2.5}$	CO_2	CH_3
Emission per hour	0.521	1.23	0.069	0.153	96% of PM_{10}	109	0.0138
Hours of Operation	x8	x8	x8	x8	x8	x8	x8
Total	**4.2**	**9.8**	**0.55**	**1.3**	(96% of PM_{10}) **0.53**	**872**	**0.11**

1 Roller

	CO	NO_x	PM_{10}	ROG	$PM_{2.5}$	CO_2	CH_3
Emission per hour	0.43	0.82	.057	0.125	96% of PM_{10}	67.1	0.0113
Hours of Operation	x4	x4	x4	x4	x4	x4	x4
Total	**1.72**	**3.28**	**0.23**	**0.50**	(96% of PM_{10}) **0.22**	**268.4**	**0.044**

1 Crane

	CO	NO_x	PM_{10}	ROG	$PM_{2.5}$	CO_2	CH_3
Emission per hour	0.571	1.53	0.68	0.168	96% of PM_{10}	129	0.0152
Hours of Operation	x3	x3	x3	x3	x3	x3	x3
Total	**1.73**	**4.6**	**0.204**	**0.504**	(96% of PM_{10}) **0.19**	**387**	**0.0456**

1 Dozer

	CO	NO_x	PM_{10}	ROG	$PM_{2.5}$	CO_2	CH_3
Emission per hour	1.50	3.12	0.13	0.350	96% of PM_{10}	239.0	0.032
Hours of Operation	x8	x8	x8	x8	x8	x8	x8
Total	**12**	**25**	**1.04**	**2.18**	(96% of PM_{10}) **1.0**	**1,912**	**0.256**

1 Scraper/Grader

	CO	NO_x	PM_{10}	ROG	$PM_{2.5}$	CO_2	CH_3
Emission per hour	1.34	3.06	0.14	0.132	96% of PM_{10}	263	0.0302
Hours of Operation	x8	x8	x8	x8	x8	x8	x8
Total	**10.7**	**24.5**	**1.12**	**1.1**	(96% of PM_{10}) **1.07**	**2,104**	**0.2416**