

Appendix A
Air Quality, Greenhouse Gases, and Energy Estimates

Project Traffic Operation Emissions Summary

Pounds per Day

| Pollutant Name | Emissions | | | Net Emissions | |
|----------------|-----------|---------------|------------|------------------|------------------|
| | Existing | 2023 No Build | 2023 Build | Build - No Build | Build - Existing |
| PM2.5* | 9 | 9 | 9 | 0 | 0 |
| PM10* | 45 | 46 | 46 | 0 | 2 |
| NOx | 44 | 24 | 24 | 0 | (20) |
| CO | 240 | 142 | 143 | 2 | (96) |
| HC | 21 | 13 | 14 | 0 | (7) |
| TOG | 23 | 15 | 15 | 0 | (8) |
| ROG | 19 | 13 | 13 | 0 | (7) |
| 1,3-Butadiene | 0 | 0 | 0 | 0 | (0) |
| Acetaldehyde | 0 | 0 | 0 | 0 | (0) |
| Acrolein | 0 | 0 | 0 | 0 | (0) |
| Benzene | 0 | 0 | 0 | 0 | (0) |
| Diesel PM | 0 | 0 | 0 | 0 | (0) |
| Ethylbenzene | 0 | 0 | 0 | 0 | (0) |
| Formaldehyde | 0 | 0 | 0 | 0 | (0) |
| Naphthalene | 0 | 0 | 0 | - | (0) |
| POM | 0 | 0 | 0 | - | (0) |
| DEOG | 1 | 1 | 1 | 0 | (1) |
| CO2 | 56,134 | 49,663 | 50,200 | 537 | (5,933) |
| N2O | 2 | 2 | 2 | 0 | (1) |
| CH4 | 4 | 3 | 3 | 0 | (1) |
| BC | 0 | 0 | 0 | 0 | (0) |
| HFC | 0 | 0 | 0 | 0 | (0) |

453.592 g/lb

Tons per Year

| Pollutant Name | Emissions | | | Net Emissions | |
|----------------|-----------|---------------|------------|------------------|------------------|
| | Existing | 2023 No Build | 2023 Build | Build - No Build | Build - Existing |
| PM2.5* | 2 | 2 | 2 | 0 | 0 |
| PM10* | 8 | 8 | 8 | 0 | 0 |
| NOx | 8 | 4 | 4 | 0 | (4) |
| CO | 44 | 26 | 26 | 0 | (18) |
| HC | 4 | 2 | 2 | 0 | (1) |
| TOG | 4 | 3 | 3 | 0 | (1) |
| ROG | 4 | 2 | 2 | 0 | (1) |
| 1,3-Butadiene | 0 | 0 | 0 | 0 | (0) |
| Acetaldehyde | 0 | 0 | 0 | 0 | (0) |
| Acrolein | 0 | 0 | 0 | 0 | (0) |
| Benzene | 0 | 0 | 0 | 0 | (0) |
| Diesel PM | 0 | 0 | 0 | 0 | (0) |
| Ethylbenzene | 0 | 0 | 0 | 0 | (0) |
| Formaldehyde | 0 | 0 | 0 | 0 | (0) |
| Naphthalene | 0 | 0 | 0 | - | (0) |
| POM | 0 | 0 | 0 | - | (0) |
| DEOG | 0 | 0 | 0 | 0 | (0) |
| CO2 | 9,294 | 8,222 | 8,311 | 89 | (982) |
| N2O | 0 | 0 | 0 | 0 | (0) |
| CH4 | 1 | 0 | 0 | 0 | (0) |
| CO2e | 9,425 | 8,316 | 8,406 | 90 | (1,019) |
| BC | 0 | 0 | 0 | 0 | (0) |
| HFC | 0 | 0 | 0 | 0 | (0) |

| | |
|---------|------------------|
| 2000 | lbs/ton |
| 2204.62 | lbs/metric ton |
| 25 | GWP of CH4 (AR4) |
| 298 | GWP of N2O (AR4) |

metric tons
metric tons
metric tons
metric tons

* includes re-entrained road dust

| Segment | Average Daily Traffic Volumes | | | | |
|----------------------|-------------------------------|---------------------|--------|---------------------|--------|
| | Existing (2017) | Opening Year (2023) | | Horizon Year (2045) | |
| | No Build | No Build | Build | No Build | Build |
| South of Limonite | 27,485 | 28,800 | 28,900 | 33,500 | 34,000 |
| Schleisman to Citrus | 22,499 | 23,700 | 24,000 | 27,900 | 29,500 |
| Over Santa Ana River | 29,782 | 31,300 | 31,800 | 36,500 | 39,000 |
| North of Sixth | 25,958 | 27,400 | 27,900 | 32,300 | 34,600 |

Source:

| Segment | Distance | Daily Vehicle Miles Traveled | | | | |
|----------------------|----------|------------------------------|---------------------|---------------|---------------------|---------------|
| | | Existing (2017) | Opening Year (2023) | | Horizon Year (2045) | |
| | | No Build | No Build | Build | No Build | Build |
| South of Limonite | 1 | 27,485 | 28,800 | 28,900 | 33,500 | 34,000 |
| Schleisman to Citrus | 0.62 | 13,949 | 14,694 | 14,880 | 17,298 | 18,290 |
| Over Santa Ana River | 0.67 | 19,954 | 20,971 | 21,306 | 24,455 | 26,130 |
| North of Sixth | 0.32 | 8,307 | 8,768 | 8,928 | 10,336 | 11,072 |
| TOTAL VMT | | 69,695 | 73,233 | 74,014 | 85,589 | 89,492 |
| VMT PER HR | | 2,904 | 3,051 | 3,084 | 3,566 | 3,729 |

| Segment | Distance | Annual Vehicle Miles Traveled | | | | |
|----------------------|----------|-------------------------------|---------------------|-------------------|---------------------|-------------------|
| | | Existing (2017) | Opening Year (2023) | | Horizon Year (2045) | |
| | | No Build | No Build | Build | No Build | Build |
| South of Limonite | 1 | 10,032,025 | 10,512,000 | 10,548,500 | 12,227,500 | 12,410,000 |
| Schleisman to Citrus | 0.62 | 5,091,524 | 5,363,310 | 5,431,200 | 6,313,770 | 6,675,850 |
| Over Santa Ana River | 0.67 | 7,283,188 | 7,654,415 | 7,776,690 | 8,926,075 | 9,537,450 |
| North of Sixth | 0.32 | 3,031,894 | 3,200,320 | 3,258,720 | 3,772,640 | 4,041,280 |
| TOTAL VMT | | 25,438,631 | 26,730,045 | 27,015,110 | 31,239,985 | 32,664,580 |

File Name: Riverside (SC) - 2017 - Annual.EM
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 1/15/2020 10:39
 Area: Riverside (SC)
 Analysis Year: 2017
 Season: Annual

| Vehicle Category | VTM Fraction Across Category | Diesel VMT Fraction Within Category | Gas VMT Fraction Within Category |
|------------------|---------------------------------|--|-------------------------------------|
| Truck 1 | 0.055 | 0.551 | 0.449 |
| Truck 2 | 0.008 | 0.972 | 0.02 |
| Non-Truck | 0.937 | 0.009 | 0.988 |

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.08 g/m2
 Precipitation Correction: None P = NA N = NA

Road Length: 1 miles
 Volume: 2,904 vehicles per hour
 Number of Hours: 24 hours

VMT Distribution by Speed Bin (mph):

| | |
|----------|---------|
| <= 5 mph | 0.00% |
| 10 mph | 0.00% |
| 15 mph | 0.00% |
| 20 mph | 0.00% |
| 25 mph | 0.00% |
| 30 mph | 100.00% |
| 35 mph | 0.00% |
| 40 mph | 0.00% |
| 45 mph | 0.00% |
| 50 mph | 0.00% |
| 55 mph | 0.00% |
| 60 mph | 0.00% |
| 65 mph | 0.00% |
| 70 mph | 0.00% |
| 75 mph | 0.00% |

Summary of Emissions and Consumption

| Pollutant Name | Running Exhaust (grams) | Running Loss (grams) | Tire Wear (grams) | Brake Wear (grams) | Road Dust (grams) | Total (grams) | Total (US tons) |
|----------------|----------------------------|-------------------------|----------------------|-----------------------|----------------------|------------------|--------------------|
| PM2.5 | 252.6 | - | 144.5 | 1,204.10 | 2,503.80 | 4,105.20 | 0.005 |
| PM10 | 269 | - | 578.2 | 2,809.60 | 16,692.30 | 20,349.10 | 0.022 |
| NOx | 20,138.00 | - | - | - | - | 20,138.00 | 0.022 |
| CO | 108,727.20 | - | - | - | - | 108,727.20 | 0.12 |
| HC | 4,752.70 | 4,650.50 | - | - | - | 9,403.20 | 0.01 |
| TOG | 5,251.50 | 4,972.00 | - | - | - | 10,223.50 | 0.011 |
| ROG | 3,785.40 | 4,972.00 | - | - | - | 8,757.40 | 0.01 |
| 1,3-Butadiene | 26.9 | 0 | - | - | - | 26.9 | < 0.001 |
| Acetaldehyde | 59.2 | - | - | - | - | 59.2 | < 0.001 |
| Acrolein | 6.2 | - | - | - | - | 6.2 | < 0.001 |
| Benzene | 123.8 | 49.7 | - | - | - | 173.6 | < 0.001 |
| Diesel PM | 141.3 | - | - | - | - | 141.3 | < 0.001 |
| Ethylbenzene | 50.7 | 81.5 | - | - | - | 132.3 | < 0.001 |
| Formaldehyde | 161.6 | - | - | - | - | 161.6 | < 0.001 |
| Naphthalene | 3.5 | 7 | - | - | - | 10.4 | < 0.001 |
| POM | 4.9 | - | - | - | - | 4.9 | < 0.001 |
| DEOG | 545.2 | - | - | - | - | 545.2 | < 0.001 |
| CO2 | 25,461,768.60 | - | - | - | - | 25,461,768.60 | 28.067 |
| N2O | 1,067.20 | - | - | - | - | 1,067.20 | 0.001 |
| CH4 | 962.9 | 695.1 | - | - | - | 1,658.00 | 0.002 |
| BC | 61.1 | - | - | - | - | 61.1 | < 0.001 |
| HFC | - | 74 | - | - | - | 74 | < 0.001 |

Fuel Consumption

| Fuel Type | (gallons) |
|-----------|-----------|
| Gasoline | 2,828.96 |
| Diesel | 214.803 |

END

File Name: Riverside (SC) - 2023 - Annual (No Build).EM
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 1/15/2020 10:33
 Area: Riverside (SC)
 Analysis Year: 2023
 Season: Annual

| Vehicle Category | VMT Fraction Across Category | Diesel VMT Frac Within Category | Gas VMT Fraction Within Category |
|------------------|---------------------------------|------------------------------------|-------------------------------------|
| Truck 1 | 0.055 | 0.564 | 0.436 |
| Truck 2 | 0.008 | 0.96 | 0.02 |
| Non-Truck | 0.937 | 0.012 | 0.972 |

| Road Type: | Major/Collector | Silt Loading Factor: | 0.08 g/m2 |
|---------------------------|-----------------|----------------------|-----------|
| Precipitation Correction: | None | P = NA | N = NA |

Road Length: 1 miles
 Volume: 3,051 vehicles per hour
 Number of Hours: 24 hours

VMT Distribution by Speed Bin (mph):

| | |
|----------|---------|
| <= 5 mph | 0.00% |
| 10 mph | 0.00% |
| 15 mph | 0.00% |
| 20 mph | 0.00% |
| 25 mph | 0.00% |
| 30 mph | 100.00% |
| 35 mph | 0.00% |
| 40 mph | 0.00% |
| 45 mph | 0.00% |
| 50 mph | 0.00% |
| 55 mph | 0.00% |
| 60 mph | 0.00% |
| 65 mph | 0.00% |
| 70 mph | 0.00% |
| 75 mph | 0.00% |

Summary of Emissions and Consumption

| Pollutant Name | Running Exhaust (grams) | Running Loss (grams) | Tire Wear (grams) | Brake W (grams) | Road Dust (grams) | Total (grams) | Total (US tons) |
|----------------|----------------------------|-------------------------|----------------------|--------------------|----------------------|------------------|--------------------|
| PM2.5 | 165.20 | - | 151.9 | 1,263.90 | 2,568.30 | 4,149.40 | 0.005 |
| PM10 | 177.10 | - | 607.8 | 2,949.20 | 17,122.10 | 20,856.20 | 0.023 |
| NOx | 10,847.90 | - | - | - | - | 10,847.90 | 0.012 |
| CO | 64,306.50 | - | - | - | - | 64,306.50 | 0.071 |
| HC | 2,530.60 | 3,566.90 | - | - | - | 6,097.60 | 0.007 |
| TOG | 2,786.50 | 3,813.50 | - | - | - | 6,600.00 | 0.007 |
| ROG | 1,920.90 | 3,813.50 | - | - | - | 5,734.40 | 0.006 |
| 1,3-Butadiene | 13 | 0 | - | - | - | 13 | < 0.001 |
| Acetaldehyde | 30.3 | - | - | - | - | 30.3 | < 0.001 |
| Acrolein | 2.9 | - | - | - | - | 2.9 | < 0.001 |
| Benzene | 60.6 | 38.1 | - | - | - | 98.8 | < 0.001 |
| Diesel PM | 62.2 | - | - | - | - | 62.2 | < 0.001 |
| Ethylbenzene | 24.7 | 62.5 | - | - | - | 87.3 | < 0.001 |
| Formaldehyde | 81.50 | - | - | - | - | 81.50 | < 0.001 |
| Naphthalene | 1.8 | 5.3 | - | - | - | 7.2 | < 0.001 |
| POM | 2.6 | - | - | - | - | 2.6 | < 0.001 |
| DEOG | 286 | - | - | - | - | 286 | < 0.001 |
| CO2 | 22,526,871.50 | - | - | - | - | 22,526,871.50 | 24.832 |
| N2O | 760.4 | - | - | - | - | 760.4 | < 0.001 |
| CH4 | 623.2 | 560.9 | - | - | - | 1,184.10 | 0.001 |
| BC | 41.6 | - | - | - | - | 41.6 | < 0.001 |
| HFC | - | 56.3 | - | - | - | 56.3 | < 0.001 |

Fuel Consumption

| Fuel Type | (gallons) |
|-----------|-----------|
| Gasoline | 2,468.97 |
| Diesel | 208.908 |

END

File Name: Riverside (SC) - 2023 - Annual (Build).EM
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 1/15/2020 10:37
 Area: Riverside (SC)
 Analysis Year: 2023
 Season: Annual

| Vehicle Category | VMT Fraction Across Category | Diesel VMT Frac Within Category | Gas VMT Fraction Within Category |
|------------------|---------------------------------|------------------------------------|-------------------------------------|
| Truck 1 | 0.055 | 0.564 | 0.436 |
| Truck 2 | 0.008 | 0.96 | 0.02 |
| Non-Truck | 0.937 | 0.012 | 0.972 |

| Road Type: | Major/Collector | Silt Loading Factor: | 0.08 g/m2 |
|---------------------------|-----------------|----------------------|-----------|
| Precipitation Correction: | None | P = NA | N = NA |

Road Length: 1 miles
 Volume: 3,084 vehicles per hour
 Number of Hours: 24 hours

VMT Distribution by Speed Bin (mph):

| | |
|----------|---------|
| <= 5 mph | 0.00% |
| 10 mph | 0.00% |
| 15 mph | 0.00% |
| 20 mph | 0.00% |
| 25 mph | 0.00% |
| 30 mph | 100.00% |
| 35 mph | 0.00% |
| 40 mph | 0.00% |
| 45 mph | 0.00% |
| 50 mph | 0.00% |
| 55 mph | 0.00% |
| 60 mph | 0.00% |
| 65 mph | 0.00% |
| 70 mph | 0.00% |
| 75 mph | 0.00% |

Summary of Emissions and Consumption

| Pollutant Name | Running Exhaust (grams) | Running Loss (grams) | Tire Wear (grams) | Brake W (grams) | Road Dust (grams) | Total (grams) | Total (US tons) |
|----------------|----------------------------|-------------------------|----------------------|--------------------|----------------------|------------------|--------------------|
| PM2.5 | 167.00 | - | 153.6 | 1,277.60 | 2,596.10 | 4,194.30 | 0.005 |
| PM10 | 179.00 | - | 614.4 | 2,981.10 | 17,307.30 | 21,081.80 | 0.023 |
| NOx | 10,965.20 | - | - | - | - | 10,965.20 | 0.012 |
| CO | 65,002.00 | - | - | - | - | 65,002.00 | 0.072 |
| HC | 2,558.00 | 3,605.50 | - | - | - | 6,163.50 | 0.007 |
| TOG | 2,816.60 | 3,854.80 | - | - | - | 6,671.40 | 0.007 |
| ROG | 1,941.70 | 3,854.80 | - | - | - | 5,796.40 | 0.006 |
| 1,3-Butadiene | 13.2 | 0 | - | - | - | 13.2 | < 0.001 |
| Acetaldehyde | 30.6 | - | - | - | - | 30.6 | < 0.001 |
| Acrolein | 3 | - | - | - | - | 3 | < 0.001 |
| Benzene | 61.3 | 38.5 | - | - | - | 99.8 | < 0.001 |
| Diesel PM | 62.9 | - | - | - | - | 62.9 | < 0.001 |
| Ethylbenzene | 25 | 63.2 | - | - | - | 88.2 | < 0.001 |
| Formaldehyde | 82.40 | - | - | - | - | 82.40 | < 0.001 |
| Naphthalene | 1.9 | 5.4 | - | - | - | 7.2 | < 0.001 |
| POM | 2.6 | - | - | - | - | 2.6 | < 0.001 |
| DEOG | 289.1 | - | - | - | - | 289.1 | < 0.001 |
| CO2 | 22,770,525.00 | - | - | - | - | 22,770,525.00 | 25.1 |
| N2O | 768.6 | - | - | - | - | 768.6 | < 0.001 |
| CH4 | 630 | 567 | - | - | - | 1,196.90 | 0.001 |
| BC | 42 | - | - | - | - | 42 | < 0.001 |
| HFC | - | 56.9 | - | - | - | 56.9 | < 0.001 |

Fuel Consumption

| Fuel Type | (gallons) |
|-----------|-----------|
| Gasoline | 2,495.67 |
| Diesel | 211.168 |

END

File Name: Riverside (SC) - 2017 - Annual.EF
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 1/13/2020 17:26
 Area: Riverside (SC)
 Analysis Year: 2017
 Season: Annual

| Vehicle Category | VMT Fraction Across Category | Diesel VMT Within Cat | Gas VMT Within Category |
|------------------|---------------------------------|--------------------------|----------------------------|
| Truck 1 | 0.055 | 0.551 | 0.449 |
| Truck 2 | 0.008 | 0.972 | 0.02 |
| Non-Truck | 0.937 | 0.009 | 0.988 |

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.08 g/m2
 Precipitation Correction: None P = NA N = NA

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

| Pollutant Name | <= 5 mph | 10 mph | 15 mph | 20 mph | 25 mph | 30 mph | 35 mph | 40 mph | 45 mph | 50 mph | 55 mph | 60 mph | 65 mph | 70 mph | 75 mph |
|----------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| PM2.5 | 0.016178 | 0.011262 | 0.007807 | 0.005624 | 0.004387 | 0.003625 | 0.003143 | 0.002865 | 0.002751 | 0.002779 | 0.002944 | 0.003175 | 0.003459 | 0.003652 | 0.003652 |
| PM10 | 0.017308 | 0.012024 | 0.008329 | 0.005998 | 0.004675 | 0.003859 | 0.003342 | 0.003045 | 0.002921 | 0.002949 | 0.003122 | 0.003366 | 0.00367 | 0.003875 | 0.003875 |
| NOx | 0.469079 | 0.411764 | 0.354475 | 0.320038 | 0.301283 | 0.28894 | 0.281154 | 0.277349 | 0.277176 | 0.280453 | 0.287142 | 0.297178 | 0.310588 | 0.317287 | 0.317287 |
| CO | 2.866247 | 2.460862 | 2.140312 | 1.89628 | 1.709916 | 1.56002 | 1.437248 | 1.336957 | 1.25652 | 1.194975 | 1.15308 | 1.133827 | 1.14336 | 1.162095 | 1.162217 |
| HC | 0.353708 | 0.233775 | 0.15757 | 0.111619 | 0.084946 | 0.068192 | 0.057404 | 0.050646 | 0.046827 | 0.045388 | 0.04614 | 0.049201 | 0.055006 | 0.059176 | 0.059185 |
| TOG | 0.395295 | 0.262239 | 0.175667 | 0.123532 | 0.093887 | 0.075349 | 0.063394 | 0.055893 | 0.051652 | 0.050053 | 0.050891 | 0.054286 | 0.060691 | 0.06529 | 0.065304 |
| ROG | 0.292453 | 0.194244 | 0.129069 | 0.089855 | 0.067938 | 0.054313 | 0.045553 | 0.040096 | 0.037066 | 0.036016 | 0.036799 | 0.03951 | 0.044485 | 0.048065 | 0.048076 |
| 1,3-Butadiene | 0.002039 | 0.00133 | 0.000897 | 0.00064 | 0.000484 | 0.000386 | 0.000324 | 0.000285 | 0.000263 | 0.000256 | 0.000262 | 0.000282 | 0.000316 | 0.000341 | 0.000341 |
| Acetaldehyde | 0.005356 | 0.003838 | 0.002309 | 0.001406 | 0.00105 | 0.000849 | 0.000713 | 0.000624 | 0.000572 | 0.000552 | 0.000561 | 0.000599 | 0.000663 | 0.000708 | 0.000708 |
| Acrolein | 0.000463 | 0.0003 | 0.000204 | 0.000147 | 0.000111 | 0.000089 | 0.000074 | 0.000065 | 0.00006 | 0.000059 | 0.00006 | 0.000065 | 0.000073 | 0.000078 | 0.000078 |
| Benzene | 0.009541 | 0.006278 | 0.004185 | 0.002946 | 0.002227 | 0.001777 | 0.001489 | 0.00131 | 0.001209 | 0.001176 | 0.001203 | 0.001292 | 0.001447 | 0.001559 | 0.001559 |
| Diesel PM | 0.006845 | 0.005366 | 0.003872 | 0.002856 | 0.002338 | 0.002028 | 0.001831 | 0.001731 | 0.001717 | 0.001785 | 0.001937 | 0.002095 | 0.002236 | 0.002323 | 0.002323 |
| Ethylbenzene | 0.00384 | 0.002502 | 0.001689 | 0.001206 | 0.000913 | 0.000728 | 0.00061 | 0.000537 | 0.000496 | 0.000483 | 0.000494 | 0.000531 | 0.000596 | 0.000643 | 0.000643 |
| Formaldehyde | 0.013974 | 0.009786 | 0.00605 | 0.003843 | 0.002881 | 0.002319 | 0.001946 | 0.001706 | 0.001566 | 0.001515 | 0.001543 | 0.00165 | 0.001833 | 0.001963 | 0.001963 |
| Naphthalene | 0.000263 | 0.000176 | 0.000117 | 0.000082 | 0.000062 | 0.00005 | 0.000042 | 0.000037 | 0.000035 | 0.000034 | 0.000034 | 0.000037 | 0.000041 | 0.000044 | 0.000044 |
| POM | 0.000397 | 0.000268 | 0.000173 | 0.000117 | 0.000088 | 0.000071 | 0.000059 | 0.000052 | 0.000048 | 0.000047 | 0.000048 | 0.000051 | 0.000057 | 0.000061 | 0.000061 |
| DEOG | 0.053681 | 0.039751 | 0.022904 | 0.012983 | 0.009627 | 0.007823 | 0.006569 | 0.005728 | 0.005221 | 0.005008 | 0.005073 | 0.005393 | 0.005906 | 0.006261 | 0.006261 |
| CO2 | 871.584066 | 710.8201 | 575.7802 | 479.5349 | 411.1012 | 365.3261 | 339.5738 | 328.2117 | 328.175 | 337.328 | 350.7468 | 364.3857 | 375.6056 | 378.7626 | 378.7626 |
| N2O | 0.029507 | 0.025344 | 0.020933 | 0.018417 | 0.016648 | 0.015312 | 0.014528 | 0.013934 | 0.013596 | 0.013551 | 0.013745 | 0.014115 | 0.014986 | 0.015476 | 0.015476 |
| CH4 | 0.051748 | 0.036413 | 0.026601 | 0.020381 | 0.016437 | 0.013816 | 0.012049 | 0.010879 | 0.010156 | 0.009801 | 0.009783 | 0.010117 | 0.010859 | 0.011368 | 0.011369 |
| BC | 0.003923 | 0.002712 | 0.001884 | 0.001363 | 0.001062 | 0.000876 | 0.000759 | 0.00069 | 0.000661 | 0.000666 | 0.000702 | 0.000757 | 0.000828 | 0.000878 | 0.000877 |

Fleet Average Fuel Consumption (gallons/veh-mile)

| Fuel Type | <= 5 mph | 10 mph | 15 mph | 20 mph | 25 mph | 30 mph | 35 mph | 40 mph | 45 mph | 50 mph | 55 mph | 60 mph | 65 mph | 70 mph | 75 mph |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Gasoline | 0.097432 | 0.07909 | 0.064284 | 0.053579 | 0.045727 | 0.04059 | 0.037625 | 0.036388 | 0.036398 | 0.037577 | 0.039203 | 0.040785 | 0.041368 | 0.041316 | 0.041316 |
| Diesel | 0.007269 | 0.006217 | 0.004526 | 0.003864 | 0.003417 | 0.003082 | 0.002948 | 0.002807 | 0.002704 | 0.002742 | 0.002817 | 0.002878 | 0.002977 | 0.002978 | 0.002978 |

Fleet Average Running Loss Emission Factors (grams/veh-hour)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| HC | 1.834954 |
| TOG | 1.961803 |
| ROG | 1.961803 |
| 1,3-Butadiene | 0 |
| Benzene | 0.019618 |
| Ethylbenzene | 0.032174 |
| Naphthalene | 0.002747 |
| CH4 | 0.274261 |
| HFC | 0.029209 |

Fleet Average Tire Wear Factors (grams/veh-mile)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| PM2.5 | 0.002074 |
| PM10 | 0.008296 |

Fleet Average Brake Wear Factors (grams/veh-mile)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| PM2.5 | 0.017277 |
| PM10 | 0.040312 |

Fleet Average Road Dust Factors (grams/veh-mile)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| PM2.5 | 0.035925 |
| PM10 | 0.239502 |

-----END-----

File Name: Riverside (SC) - 2023 - Annual.EF
 CT-EMFAC2017 Version: 1.0.2.27401
 Run Date: 1/13/2020 17:34
 Area: Riverside (SC)
 Analysis Year: 2023
 Season: Annual

| Vehicle Category | VMT Fraction | Diesel VMT Gas VMT Fraction | |
|------------------|-----------------|-----------------------------|-----------------|
| | Across Category | Within Cat | Within Category |
| Truck 1 | 0.055 | 0.564 | 0.436 |
| Truck 2 | 0.008 | 0.96 | 0.02 |
| Non-Truck | 0.937 | 0.012 | 0.972 |

Road Type: Major/Collector
 Silt Loading Factor: CARB 0.08 g/m2
 Precipitation Correction: None P = NA N = NA

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

| Pollutant Name | <= 5 mph | 10 mph | 15 mph | 20 mph | 25 mph | 30 mph | 35 mph | 40 mph | 45 mph | 50 mph | 55 mph | 60 mph | 65 mph | 70 mph | 75 mph |
|----------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| PM2.5 | 0.010896 | 0.007209 | 0.004991 | 0.00363 | 0.002785 | 0.002256 | 0.001925 | 0.001729 | 0.001632 | 0.001616 | 0.001675 | 0.001816 | 0.002054 | 0.002199 | 0.002199 |
| PM10 | 0.011744 | 0.007759 | 0.005365 | 0.003898 | 0.002988 | 0.002418 | 0.002062 | 0.00185 | 0.001745 | 0.001727 | 0.001789 | 0.00194 | 0.002194 | 0.00235 | 0.00235 |
| NOx | 0.26526 | 0.227403 | 0.192046 | 0.172229 | 0.158555 | 0.148147 | 0.140918 | 0.136577 | 0.134951 | 0.135945 | 0.139529 | 0.145753 | 0.154673 | 0.157851 | 0.157851 |
| CO | 1.60351 | 1.387569 | 1.201464 | 1.06195 | 0.960336 | 0.878216 | 0.809599 | 0.752131 | 0.704417 | 0.665803 | 0.63636 | 0.617211 | 0.610616 | 0.613158 | 0.613476 |
| HC | 0.180803 | 0.119397 | 0.080097 | 0.056483 | 0.042963 | 0.03456 | 0.02917 | 0.025788 | 0.023851 | 0.023073 | 0.023355 | 0.024784 | 0.027598 | 0.02962 | 0.029644 |
| TOG | 0.202695 | 0.134309 | 0.089379 | 0.062421 | 0.047349 | 0.038054 | 0.032096 | 0.028359 | 0.026223 | 0.025369 | 0.025689 | 0.027285 | 0.030418 | 0.032672 | 0.032707 |
| ROG | 0.148673 | 0.098177 | 0.064315 | 0.044052 | 0.032978 | 0.026233 | 0.021948 | 0.0193 | 0.017833 | 0.017314 | 0.017666 | 0.018972 | 0.021431 | 0.023215 | 0.023246 |
| 1,3-Butadiene | 0.000971 | 0.000631 | 0.000422 | 0.000299 | 0.000225 | 0.000178 | 0.000149 | 0.000131 | 0.000121 | 0.000118 | 0.000121 | 0.000121 | 0.000146 | 0.000158 | 0.000158 |
| Acetaldehyde | 0.002947 | 0.002095 | 0.001224 | 0.000711 | 0.000516 | 0.000414 | 0.000349 | 0.000308 | 0.000284 | 0.000275 | 0.000278 | 0.000298 | 0.000335 | 0.000363 | 0.000363 |
| Acrolein | 0.000212 | 0.000136 | 0.000092 | 0.000066 | 0.00005 | 0.00004 | 0.000033 | 0.000029 | 0.000027 | 0.000026 | 0.000027 | 0.000029 | 0.000032 | 0.000035 | 0.000035 |
| Benzene | 0.00463 | 0.003035 | 0.002002 | 0.00139 | 0.001042 | 0.000828 | 0.000693 | 0.000609 | 0.000562 | 0.000547 | 0.000559 | 0.000601 | 0.000676 | 0.000731 | 0.000731 |
| Diesel PM | 0.002587 | 0.001972 | 0.00151 | 0.001191 | 0.000982 | 0.00085 | 0.000769 | 0.000727 | 0.000716 | 0.000733 | 0.000776 | 0.000852 | 0.000964 | 0.001016 | 0.001016 |
| Ethylbenzene | 0.001838 | 0.001192 | 0.000799 | 0.000566 | 0.000426 | 0.000338 | 0.000283 | 0.000249 | 0.00023 | 0.000224 | 0.000229 | 0.000246 | 0.000277 | 0.0003 | 0.0003 |
| Formaldehyde | 0.007426 | 0.005175 | 0.003115 | 0.001899 | 0.001391 | 0.001113 | 0.000936 | 0.000824 | 0.000761 | 0.000737 | 0.000748 | 0.000802 | 0.000902 | 0.000975 | 0.000975 |
| Naphthalene | 0.000132 | 0.000089 | 0.000059 | 0.000041 | 0.000031 | 0.000025 | 0.000021 | 0.000019 | 0.000017 | 0.000017 | 0.000017 | 0.000018 | 0.00002 | 0.000022 | 0.00002 |
| POM | 0.000206 | 0.000137 | 0.000088 | 0.000059 | 0.000044 | 0.000035 | 0.000029 | 0.000026 | 0.000024 | 0.000023 | 0.000023 | 0.000025 | 0.000028 | 0.00003 | 0.00003 |
| DEOG | 0.03104 | 0.02265 | 0.012672 | 0.006805 | 0.004851 | 0.003906 | 0.003298 | 0.002911 | 0.002682 | 0.002583 | 0.002602 | 0.002773 | 0.003109 | 0.003355 | 0.003355 |
| CO2 | 736.338278 | 600.2027 | 485.1949 | 404.2176 | 346.4591 | 307.6433 | 285.8557 | 276.1314 | 275.9804 | 283.7657 | 295.2441 | 306.9703 | 316.8472 | 319.5215 | 319.5215 |
| N2O | 0.021189 | 0.018078 | 0.014497 | 0.01268 | 0.011389 | 0.010384 | 0.009832 | 0.009388 | 0.00912 | 0.009122 | 0.009316 | 0.009544 | 0.010131 | 0.01038 | 0.01038 |
| CH4 | 0.029691 | 0.021154 | 0.015684 | 0.01221 | 0.009996 | 0.008511 | 0.007494 | 0.006802 | 0.006352 | 0.0061 | 0.006028 | 0.006144 | 0.00648 | 0.006698 | 0.0067 |
| BC | 0.002747 | 0.001816 | 0.001258 | 0.000916 | 0.000702 | 0.000568 | 0.000483 | 0.000432 | 0.000405 | 0.000398 | 0.000409 | 0.000441 | 0.000497 | 0.000534 | 0.000533 |

Fleet Average Fuel Consumption (gallons/veh-mile)

| Fuel Type | <= 5 mph | 10 mph | 15 mph | 20 mph | 25 mph | 30 mph | 35 mph | 40 mph | 45 mph | 50 mph | 55 mph | 60 mph | 65 mph | 70 mph | 75 mph |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Gasoline | 0.080889 | 0.065704 | 0.053416 | 0.044552 | 0.03798 | 0.033718 | 0.031247 | 0.030226 | 0.030247 | 0.031222 | 0.032484 | 0.033953 | 0.034384 | 0.03435 | 0.03435 |
| Diesel | 0.006973 | 0.005894 | 0.004252 | 0.003634 | 0.003194 | 0.002853 | 0.002712 | 0.002572 | 0.002475 | 0.002524 | 0.002616 | 0.002701 | 0.002833 | 0.002839 | 0.002839 |

Fleet Average Running Loss Emission Factors (grams/veh-hour)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| HC | 1.339603 |
| TOG | 1.432209 |
| ROG | 1.432209 |
| 1,3-Butadiene | 0 |
| Benzene | 0.014322 |
| Ethylbenzene | 0.023488 |
| Naphthalene | 0.002005 |
| CH4 | 0.210654 |
| HFC | 0.021132 |

Fleet Average Tire Wear Factors (grams/veh-mile)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| PM2.5 | 0.002075 |
| PM10 | 0.008301 |

Fleet Average Brake Wear Factors (grams/veh-mile)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| PM2.5 | 0.017261 |
| PM10 | 0.040277 |

Fleet Average Road Dust Factors (grams/veh-mile)

| Pollutant Name | Emission Factor |
|----------------|-----------------|
| PM2.5 | 0.035075 |
| PM10 | 0.233832 |

=====-END=====

Hammer Avenue Widening Project
Energy Estimates

Operations: Project Area Transportation Energy Estimates

Source: CT-EMFAC2017 Outputs

| Daily Fuel Consumption | Annual Fuel Consumption | Energy Content by Fuel Type (Btu/gallon) | MMBTU/Year |
|------------------------|-------------------------|--|------------|
|------------------------|-------------------------|--|------------|

Source: CT-EMFAC2017 Outputs ARB annualization factor: 347
 Source: Transportation Energy Data Book, Edition 37.2, Table B.4

Existing (2017)

| | | | | |
|--------------------|---------|---------|---------|---------|
| Gasoline (gallons) | 2,829.0 | 981,649 | 125,000 | 122,706 |
| Diesel (gallons) | 214.8 | 74,537 | 138,700 | 10,338 |
| | | | | 133,044 |

No-Build Alternative (2023)

| | | | | |
|--------------------|---------|---------|---------|---------|
| Gasoline (gallons) | 2,469.0 | 856,732 | 125,000 | 107,091 |
| Diesel (gallons) | 208.9 | 72,491 | 138,700 | 10,055 |
| | | | | 117,146 |

Build Alternative (2023)

| | | | | |
|--------------------|---------|---------|---------|---------|
| Gasoline (gallons) | 2,495.7 | 865,998 | 125,000 | 108,250 |
| Diesel (gallons) | 211.2 | 73,275 | 138,700 | 10,163 |
| | | | | 118,413 |

1,267 1.1%

Construction: Energy Estimates

Source: CalEEMod outputs

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----------------------|----------|----------------------------------|-------------------|--|-----------------------|------------------------|--------------|
| Total CO2 (MT) | | pounds CO2 per metric ton | pounds CO2 | pounds of CO2 per gallon diesel | gallons diesel | Btu/gal (gross) | MMBTU |
| | 244.7255 | 2204.62262 | 539,527 | 22.4 | 24,086.04 | 138,700 | 3,340.73 |

Source: CalEEMod outputs

Source: Energy Information Administration 2016 (https://www.eia.gov/environment/emissions/co2_vol_mass.php)
 =Col 1* Col 2
 =Col 3 / Col 4
 Source: Transportation Energy Data Book, Edition 37.2, Table B.4
 =Col 5*Col6/1 mill

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

Hamner Avenue Widening Project
Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------|-------|-------------------|-------------|--------------------|------------|
| User Defined Industrial | 11.00 | User Defined Unit | 11.00 | 0.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|-------|---------------------------------|-----|----------------------------------|------|
| Urbanization | Urban | Wind Speed (m/s) | 2.4 | Precipitation Freq (Days) | 28 |
| Climate Zone | 10 | | | Operational Year | 2023 |
| Utility Company | | | | | |
| CO2 Intensity (lb/MW hr) | 0 | CH4 Intensity (lb/MW hr) | 0 | N2O Intensity (lb/MW hr) | 0 |

1.3 User Entered Comments & Non-Default Data

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

Project Characteristics -

Land Use - 11-acre project area

Construction Phase - Four-month construction period assumed, with 10% of time fo site prep, 40% of time for grading/excavation, 35% for drainage/utilities/sub-grade, and 15% for roadway paving.

Off-road Equipment - no demo

Off-road Equipment - site prep equip

Off-road Equipment - grading equip

Off-road Equipment - drainage/utilities/sub-grade equip

Off-road Equipment - paving equip

Off-road Equipment - no equip

Grading - 830 cy of soil export

Trips and VMT - 722 cy of asphalt import and 100 cy of asphalt export = 822 cy during paving phase

Construction Off-road Equipment Mitigation -

| Table Name | Column Name | Default Value | New Value |
|----------------------|----------------|---------------|------------|
| tblConstructionPhase | NumDays | 20.00 | 0.00 |
| tblConstructionPhase | NumDays | 300.00 | 31.00 |
| tblConstructionPhase | NumDays | 20.00 | 0.00 |
| tblConstructionPhase | NumDays | 30.00 | 35.00 |
| tblConstructionPhase | NumDays | 20.00 | 14.00 |
| tblConstructionPhase | NumDays | 10.00 | 9.00 |
| tblConstructionPhase | PhaseEndDate | 7/14/2022 | 6/16/2022 |
| tblConstructionPhase | PhaseEndDate | 5/19/2022 | 4/15/2021 |
| tblConstructionPhase | PhaseEndDate | 1/28/2021 | 12/31/2020 |
| tblConstructionPhase | PhaseEndDate | 3/25/2021 | 3/3/2021 |
| tblConstructionPhase | PhaseEndDate | 6/16/2022 | 5/5/2021 |
| tblConstructionPhase | PhaseEndDate | 2/11/2021 | 1/13/2021 |
| tblConstructionPhase | PhaseStartDate | 3/26/2021 | 3/4/2021 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

| | | | |
|----------------------|----------------------|-----------|----------------------|
| tblConstructionPhase | PhaseStartDate | 2/12/2021 | 1/14/2021 |
| tblConstructionPhase | PhaseStartDate | 5/20/2022 | 4/16/2021 |
| tblConstructionPhase | PhaseStartDate | 1/29/2021 | 1/1/2021 |
| tblGrading | AcresOfGrading | 4.50 | 0.00 |
| tblGrading | MaterialExported | 0.00 | 830.00 |
| tblLandUse | LotAcreage | 0.00 | 11.00 |
| tblOffRoadEquipment | HorsePower | 78.00 | 212.00 |
| tblOffRoadEquipment | LoadFactor | 0.48 | 0.43 |
| tblOffRoadEquipment | LoadFactor | 0.43 | 0.43 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.43 | 0.43 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.36 | 0.36 |
| tblOffRoadEquipment | LoadFactor | 0.41 | 0.41 |
| tblOffRoadEquipment | LoadFactor | 0.40 | 0.40 |
| tblOffRoadEquipment | LoadFactor | 0.48 | 0.48 |
| tblOffRoadEquipment | LoadFactor | 0.37 | 0.37 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Air Compressors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Excavators |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Rollers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Rubber Tired Loaders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Air Compressors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Graders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Plate Compactors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Pumps |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

| | | | |
|---------------------|----------------------------|------|---------------------------|
| tblOffRoadEquipment | OffRoadEquipmentType | | Rough Terrain Forklifts |
| tblOffRoadEquipment | OffRoadEquipmentType | | Scrapers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Tractors/Loaders/Backhoes |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 3.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 4.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 103.00 |

2.0 Emissions Summary

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|--------------------|--------------------|--------------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | 0.0000 | 2.5700e-003 |

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|--------------------|--------------------|--------------------|---------------|--------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Area | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | 0.0000 | 2.5700e-003 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 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 |

3.0 Construction Detail

Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|------------------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 1/1/2021 | 12/31/2020 | 5 | 0 | |
| 2 | Site Preparation | Site Preparation | 1/1/2021 | 1/13/2021 | 5 | 9 | |
| 3 | Grading | Grading | 1/14/2021 | 3/3/2021 | 5 | 35 | |
| 4 | Drainage/Utilities/Sub-Grade | Building Construction | 3/4/2021 | 4/15/2021 | 5 | 31 | |
| 5 | Paving | Paving | 4/16/2021 | 5/5/2021 | 5 | 14 | |
| 6 | Architectural Coating | Architectural Coating | 6/17/2022 | 6/16/2022 | 5 | 0 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 122.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|-----------------------|--------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 0 | 6.00 | 78 | 0.48 |
| Demolition | Excavators | 0 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Grading | Excavators | 3 | 8.00 | 158 | 0.38 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

| | | | | | |
|------------------------------|---------------------------|---|------|-----|------|
| Drainage/Utilities/Sub-Grade | Cranes | 0 | 7.00 | 231 | 0.29 |
| Drainage/Utilities/Sub-Grade | Forklifts | 0 | 8.00 | 89 | 0.20 |
| Drainage/Utilities/Sub-Grade | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |
| Grading | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |
| Drainage/Utilities/Sub-Grade | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 2 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Drainage/Utilities/Sub-Grade | Welders | 0 | 8.00 | 46 | 0.45 |
| Demolition | Air Compressors | 0 | 8.00 | 212 | 0.43 |
| Site Preparation | Crawler Tractors | 1 | 8.00 | 212 | 0.43 |
| Site Preparation | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Crawler Tractors | 1 | 8.00 | 212 | 0.43 |
| Grading | Rollers | 2 | 8.00 | 80 | 0.38 |
| Grading | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Drainage/Utilities/Sub-Grade | Air Compressors | 1 | 8.00 | 78 | 0.48 |
| Drainage/Utilities/Sub-Grade | Graders | 1 | 8.00 | 187 | 0.41 |
| Drainage/Utilities/Sub-Grade | Plate Compactors | 1 | 8.00 | 8 | 0.43 |
| Drainage/Utilities/Sub-Grade | Pumps | 1 | 8.00 | 84 | 0.74 |
| Drainage/Utilities/Sub-Grade | Rough Terrain Forklifts | 1 | 8.00 | 100 | 0.40 |
| Drainage/Utilities/Sub-Grade | Scrapers | 1 | 8.00 | 367 | 0.48 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

| | | | | | |
|--------|---------------------------|---|------|----|------|
| Paving | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
|--------|---------------------------|---|------|----|------|

Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 3 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 15 | 38.00 | 0.00 | 104.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Drainage/Utilities/Sub-Grade | 10 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 103.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0101 | 11.2770 | 9.0046 | 0.0182 | | 0.4714 | 0.4714 | | 0.4336 | 0.4336 | | 1,763.6260 | 1,763.6260 | 0.5704 | | 1,777.8858 |
| Total | 1.0101 | 11.2770 | 9.0046 | 0.0182 | 0.0000 | 0.4714 | 0.4714 | 0.0000 | 0.4336 | 0.4336 | | 1,763.6260 | 1,763.6260 | 0.5704 | | 1,777.8858 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0379 | 0.0216 | 0.2958 | 8.5000e-004 | 0.0894 | 5.3000e-004 | 0.0900 | 0.0237 | 4.9000e-004 | 0.0242 | | 85.1801 | 85.1801 | 2.0300e-003 | | 85.2309 |
| Total | 0.0379 | 0.0216 | 0.2958 | 8.5000e-004 | 0.0894 | 5.3000e-004 | 0.0900 | 0.0237 | 4.9000e-004 | 0.0242 | | 85.1801 | 85.1801 | 2.0300e-003 | | 85.2309 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Off-Road | 1.0101 | 11.2770 | 9.0046 | 0.0182 | | 0.4714 | 0.4714 | | 0.4336 | 0.4336 | 0.0000 | 1,763.6260 | 1,763.6260 | 0.5704 | | 1,777.8858 |
| Total | 1.0101 | 11.2770 | 9.0046 | 0.0182 | 0.0000 | 0.4714 | 0.4714 | 0.0000 | 0.4336 | 0.4336 | 0.0000 | 1,763.6260 | 1,763.6260 | 0.5704 | | 1,777.8858 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|----------------|----------------|--------------------|-----|----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0379 | 0.0216 | 0.2958 | 8.5000e-004 | 0.0894 | 5.3000e-004 | 0.0900 | 0.0237 | 4.9000e-004 | 0.0242 | | 85.1801 | 85.1801 | 2.0300e-003 | | 85.2309 |
| Total | 0.0379 | 0.0216 | 0.2958 | 8.5000e-004 | 0.0894 | 5.3000e-004 | 0.0900 | 0.0237 | 4.9000e-004 | 0.0242 | | 85.1801 | 85.1801 | 2.0300e-003 | | 85.2309 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 3.7148 | 0.0000 | 3.7148 | 0.4012 | 0.0000 | 0.4012 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.4698 | 61.9297 | 44.1485 | 0.0908 | | 2.5918 | 2.5918 | | 2.3844 | 2.3844 | | 8,791.6186 | 8,791.6186 | 2.8434 | | 8,862.7033 |
| Total | 5.4698 | 61.9297 | 44.1485 | 0.0908 | 3.7148 | 2.5918 | 6.3065 | 0.4012 | 2.3844 | 2.7857 | | 8,791.6186 | 8,791.6186 | 2.8434 | | 8,862.7033 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0145 | 0.6459 | 0.0849 | 2.2400e-003 | 0.0520 | 1.9700e-003 | 0.0539 | 0.0143 | 1.8800e-003 | 0.0161 | | 237.5167 | 237.5167 | 0.0138 | | 237.8616 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1802 | 0.1026 | 1.4049 | 4.0600e-003 | 0.4248 | 2.5000e-003 | 0.4273 | 0.1127 | 2.3000e-003 | 0.1150 | | 404.6054 | 404.6054 | 9.6500e-003 | | 404.8465 |
| Total | 0.1946 | 0.7485 | 1.4898 | 6.3000e-003 | 0.4767 | 4.4700e-003 | 0.4812 | 0.1269 | 4.1800e-003 | 0.1311 | | 642.1221 | 642.1221 | 0.0235 | | 642.7081 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Fugitive Dust | | | | | 1.4488 | 0.0000 | 1.4488 | 0.1565 | 0.0000 | 0.1565 | | | 0.0000 | | | 0.0000 |
| Off-Road | 5.4698 | 61.9297 | 44.1485 | 0.0908 | | 2.5918 | 2.5918 | | 2.3844 | 2.3844 | 0.0000 | 8,791.6186 | 8,791.6186 | 2.8434 | | 8,862.7033 |
| Total | 5.4698 | 61.9297 | 44.1485 | 0.0908 | 1.4488 | 2.5918 | 4.0405 | 0.1565 | 2.3844 | 2.5409 | 0.0000 | 8,791.6186 | 8,791.6186 | 2.8434 | | 8,862.7033 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0145 | 0.6459 | 0.0849 | 2.2400e-003 | 0.0520 | 1.9700e-003 | 0.0539 | 0.0143 | 1.8800e-003 | 0.0161 | | 237.5167 | 237.5167 | 0.0138 | | 237.8616 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.1802 | 0.1026 | 1.4049 | 4.0600e-003 | 0.4248 | 2.5000e-003 | 0.4273 | 0.1127 | 2.3000e-003 | 0.1150 | | 404.6054 | 404.6054 | 9.6500e-003 | | 404.8465 |
| Total | 0.1946 | 0.7485 | 1.4898 | 6.3000e-003 | 0.4767 | 4.4700e-003 | 0.4812 | 0.1269 | 4.1800e-003 | 0.1311 | | 642.1221 | 642.1221 | 0.0235 | | 642.7081 |

3.5 Drainage/Utilities/Sub-Grade - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 3.0708 | 31.9222 | 27.0993 | 0.0511 | | 1.4423 | 1.4423 | | 1.3654 | 1.3654 | | 4,896.0151 | 4,896.0151 | 1.1431 | | 4,924.5915 |
| Total | 3.0708 | 31.9222 | 27.0993 | 0.0511 | | 1.4423 | 1.4423 | | 1.3654 | 1.3654 | | 4,896.0151 | 4,896.0151 | 1.1431 | | 4,924.5915 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.5 Drainage/Utilities/Sub-Grade - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|-----|---------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 3.0708 | 31.9222 | 27.0993 | 0.0511 | | 1.4423 | 1.4423 | | 1.3654 | 1.3654 | 0.0000 | 4,896.0151 | 4,896.0151 | 1.1431 | | 4,924.5915 |
| Total | 3.0708 | 31.9222 | 27.0993 | 0.0511 | | 1.4423 | 1.4423 | | 1.3654 | 1.3654 | 0.0000 | 4,896.0151 | 4,896.0151 | 1.1431 | | 4,924.5915 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.5 Drainage/Utilities/Sub-Grade - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|-----|---------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

3.6 Paving - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.3768 | 14.0482 | 15.9603 | 0.0233 | | 0.7905 | 0.7905 | | 0.7272 | 0.7272 | | 2,256.7349 | 2,256.7349 | 0.7299 | | 2,274.9818 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.3768 | 14.0482 | 15.9603 | 0.0233 | | 0.7905 | 0.7905 | | 0.7272 | 0.7272 | | 2,256.7349 | 2,256.7349 | 0.7299 | | 2,274.9818 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.6 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0358 | 1.5991 | 0.2103 | 5.5400e-003 | 0.1287 | 4.8700e-003 | 0.1336 | 0.0353 | 4.6600e-003 | 0.0399 | | 588.0822 | 588.0822 | 0.0342 | | 588.9362 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Worker | 0.0853 | 0.0486 | 0.6655 | 1.9200e-003 | 0.2012 | 1.1900e-003 | 0.2024 | 0.0534 | 1.0900e-003 | 0.0545 | | 191.6552 | 191.6552 | 4.5700e-003 | | 191.7694 |
| Total | 0.1212 | 1.6477 | 0.8758 | 7.4600e-003 | 0.3299 | 6.0600e-003 | 0.3359 | 0.0886 | 5.7500e-003 | 0.0944 | | 779.7374 | 779.7374 | 0.0387 | | 780.7056 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Off-Road | 1.3768 | 14.0482 | 15.9603 | 0.0233 | | 0.7905 | 0.7905 | | 0.7272 | 0.7272 | 0.0000 | 2,256.7349 | 2,256.7349 | 0.7299 | | 2,274.9818 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Total | 1.3768 | 14.0482 | 15.9603 | 0.0233 | | 0.7905 | 0.7905 | | 0.7272 | 0.7272 | 0.0000 | 2,256.7349 | 2,256.7349 | 0.7299 | | 2,274.9818 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|-----|--------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| User Defined Industrial | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| User Defined Industrial | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| User Defined Industrial | 0.548600 | 0.036250 | 0.186898 | 0.112544 | 0.014284 | 0.004806 | 0.017604 | 0.070134 | 0.001409 | 0.001147 | 0.004508 | 0.000918 | 0.000898 |

5.0 Energy Detail

Historical Energy Use: N

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| NaturalGas Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

5.2 Energy by Land Use - NaturalGas

Unmitigated

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| User Defined Industrial | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | lb/day | | | | | | | | | | lb/day | | | | | |
| User Defined Industrial | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|-------------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|-------------|-----|-------------|
| Category | lb/day | | | | | | | | | | lb/day | | | | | |
| Mitigated | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |
| Unmitigated | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |
| Total | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|--------------------|--------------------|--------------------|-----|--------------------|
| SubCategory | lb/day | | | | | | | | | | lb/day | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Landscaping | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |
| Total | 1.0000e-004 | 1.0000e-005 | 1.1200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 2.4100e-003 | 2.4100e-003 | 1.0000e-005 | | 2.5700e-003 |

7.0 Water Detail

Hamner Avenue Widening Project - Riverside-South Coast County, Summer

7.1 Mitigation Measures Water**8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation

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Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|-------------------------|-------|-------------------|-------------|--------------------|------------|
| User Defined Industrial | 11.00 | User Defined Unit | 11.00 | 0.00 | 0 |

1.2 Other Project Characteristics

| | | | | | |
|---------------------------------|-------|---------------------------------|-----|----------------------------------|------|
| Urbanization | Urban | Wind Speed (m/s) | 2.4 | Precipitation Freq (Days) | 28 |
| Climate Zone | 10 | | | Operational Year | 2023 |
| Utility Company | | | | | |
| CO2 Intensity (lb/MW hr) | 0 | CH4 Intensity (lb/MW hr) | 0 | N2O Intensity (lb/MW hr) | 0 |

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - 11-acre project area

Construction Phase - Four-month construction period assumed, with 10% of time fo site prep, 40% of time for grading/excavation, 35% for drainage/utilities/sub-grade, and 15% for roadway paving.

Off-road Equipment - no demo

Off-road Equipment - site prep equip

Off-road Equipment - grading equip

Off-road Equipment - drainage/utilities/sub-grade equip

Off-road Equipment - paving equip

Off-road Equipment - no equip

Grading - 830 cy of soil export

Trips and VMT - 722 cy of asphalt import and 100 cy of asphalt export = 822 cy during paving phase

Construction Off-road Equipment Mitigation -

| Table Name | Column Name | Default Value | New Value |
|----------------------|----------------|---------------|------------|
| tblConstructionPhase | NumDays | 20.00 | 0.00 |
| tblConstructionPhase | NumDays | 300.00 | 31.00 |
| tblConstructionPhase | NumDays | 20.00 | 0.00 |
| tblConstructionPhase | NumDays | 30.00 | 35.00 |
| tblConstructionPhase | NumDays | 20.00 | 14.00 |
| tblConstructionPhase | NumDays | 10.00 | 9.00 |
| tblConstructionPhase | PhaseEndDate | 7/14/2022 | 6/16/2022 |
| tblConstructionPhase | PhaseEndDate | 5/19/2022 | 4/15/2021 |
| tblConstructionPhase | PhaseEndDate | 1/28/2021 | 12/31/2020 |
| tblConstructionPhase | PhaseEndDate | 3/25/2021 | 3/3/2021 |
| tblConstructionPhase | PhaseEndDate | 6/16/2022 | 5/5/2021 |
| tblConstructionPhase | PhaseEndDate | 2/11/2021 | 1/13/2021 |
| tblConstructionPhase | PhaseStartDate | 3/26/2021 | 3/4/2021 |

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| | | | |
|----------------------|----------------------|-----------|----------------------|
| tblConstructionPhase | PhaseStartDate | 2/12/2021 | 1/14/2021 |
| tblConstructionPhase | PhaseStartDate | 5/20/2022 | 4/16/2021 |
| tblConstructionPhase | PhaseStartDate | 1/29/2021 | 1/1/2021 |
| tblGrading | AcresOfGrading | 4.50 | 0.00 |
| tblGrading | MaterialExported | 0.00 | 830.00 |
| tblLandUse | LotAcreage | 0.00 | 11.00 |
| tblOffRoadEquipment | HorsePower | 78.00 | 212.00 |
| tblOffRoadEquipment | LoadFactor | 0.48 | 0.43 |
| tblOffRoadEquipment | LoadFactor | 0.43 | 0.43 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.43 | 0.43 |
| tblOffRoadEquipment | LoadFactor | 0.38 | 0.38 |
| tblOffRoadEquipment | LoadFactor | 0.36 | 0.36 |
| tblOffRoadEquipment | LoadFactor | 0.41 | 0.41 |
| tblOffRoadEquipment | LoadFactor | 0.40 | 0.40 |
| tblOffRoadEquipment | LoadFactor | 0.48 | 0.48 |
| tblOffRoadEquipment | LoadFactor | 0.37 | 0.37 |
| tblOffRoadEquipment | OffRoadEquipmentType | | Air Compressors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Excavators |
| tblOffRoadEquipment | OffRoadEquipmentType | | Crawler Tractors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Rollers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Rubber Tired Loaders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Air Compressors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Graders |
| tblOffRoadEquipment | OffRoadEquipmentType | | Plate Compactors |
| tblOffRoadEquipment | OffRoadEquipmentType | | Pumps |

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| | | | |
|---------------------|----------------------------|------|---------------------------|
| tblOffRoadEquipment | OffRoadEquipmentType | | Rough Terrain Forklifts |
| tblOffRoadEquipment | OffRoadEquipmentType | | Scrapers |
| tblOffRoadEquipment | OffRoadEquipmentType | | Tractors/Loaders/Backhoes |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 3.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 4.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 103.00 |

2.0 Emissions Summary

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| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|-----------|--|--|
| 1 | 1-1-2021 | 3-31-2021 | 1.6033 | 1.6033 |
| 2 | 4-1-2021 | 6-30-2021 | 0.3103 | 0.3103 |
| | | Highest | 1.6033 | 1.6033 |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |

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2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |
| Energy | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Mobile | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|------|------|------|
| Percent Reduction | 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 |

3.0 Construction Detail

Construction Phase

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| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|------------------------------|-----------------------|------------|------------|---------------|----------|-------------------|
| 1 | Demolition | Demolition | 1/1/2021 | 12/31/2020 | 5 | 0 | |
| 2 | Site Preparation | Site Preparation | 1/1/2021 | 1/13/2021 | 5 | 9 | |
| 3 | Grading | Grading | 1/14/2021 | 3/3/2021 | 5 | 35 | |
| 4 | Drainage/Utilities/Sub-Grade | Building Construction | 3/4/2021 | 4/15/2021 | 5 | 31 | |
| 5 | Paving | Paving | 4/16/2021 | 5/5/2021 | 5 | 14 | |
| 6 | Architectural Coating | Architectural Coating | 6/17/2022 | 6/16/2022 | 5 | 0 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 122.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------------------------|--------------------------|--------|-------------|-------------|-------------|
| Architectural Coating | Air Compressors | 0 | 6.00 | 78 | 0.48 |
| Demolition | Excavators | 0 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Grading | Excavators | 3 | 8.00 | 158 | 0.38 |
| Drainage/Utilities/Sub-Grade | Cranes | 0 | 7.00 | 231 | 0.29 |
| Drainage/Utilities/Sub-Grade | Forklifts | 0 | 8.00 | 89 | 0.20 |
| Drainage/Utilities/Sub-Grade | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Paving | Pavers | 1 | 8.00 | 130 | 0.42 |
| Paving | Rollers | 2 | 8.00 | 80 | 0.38 |
| Demolition | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |

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| | | | | | |
|------------------------------|---------------------------|---|------|-----|------|
| Grading | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |
| Drainage/Utilities/Sub-Grade | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Grading | Graders | 2 | 8.00 | 187 | 0.41 |
| Grading | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Site Preparation | Tractors/Loaders/Backhoes | 0 | 8.00 | 97 | 0.37 |
| Site Preparation | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |
| Grading | Scrapers | 2 | 8.00 | 367 | 0.48 |
| Drainage/Utilities/Sub-Grade | Welders | 0 | 8.00 | 46 | 0.45 |
| Demolition | Air Compressors | 0 | 8.00 | 212 | 0.43 |
| Site Preparation | Crawler Tractors | 1 | 8.00 | 212 | 0.43 |
| Site Preparation | Excavators | 2 | 8.00 | 158 | 0.38 |
| Grading | Crawler Tractors | 1 | 8.00 | 212 | 0.43 |
| Grading | Rollers | 2 | 8.00 | 80 | 0.38 |
| Grading | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Drainage/Utilities/Sub-Grade | Air Compressors | 1 | 8.00 | 78 | 0.48 |
| Drainage/Utilities/Sub-Grade | Graders | 1 | 8.00 | 187 | 0.41 |
| Drainage/Utilities/Sub-Grade | Plate Compactors | 1 | 8.00 | 8 | 0.43 |
| Drainage/Utilities/Sub-Grade | Pumps | 1 | 8.00 | 84 | 0.74 |
| Drainage/Utilities/Sub-Grade | Rough Terrain Forklifts | 1 | 8.00 | 100 | 0.40 |
| Drainage/Utilities/Sub-Grade | Scrapers | 1 | 8.00 | 367 | 0.48 |
| Paving | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |

Trips and VMT

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| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------------------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 3 | 8.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 15 | 38.00 | 0.00 | 104.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Drainage/Utilities/Sub-Grade | 10 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 103.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

Water Exposed Area

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.5500e-003 | 0.0508 | 0.0405 | 8.0000e-005 | | 2.1200e-003 | 2.1200e-003 | | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.1997 | 7.1997 | 2.3300e-003 | 0.0000 | 7.2579 |
| Total | 4.5500e-003 | 0.0508 | 0.0405 | 8.0000e-005 | 0.0000 | 2.1200e-003 | 2.1200e-003 | 0.0000 | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.1997 | 7.1997 | 2.3300e-003 | 0.0000 | 7.2579 |

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3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.5000e-004 | 1.0000e-004 | 1.1300e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3200 | 0.3200 | 1.0000e-005 | 0.0000 | 0.3202 |
| Total | 1.5000e-004 | 1.0000e-004 | 1.1300e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3200 | 0.3200 | 1.0000e-005 | 0.0000 | 0.3202 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 4.5500e-003 | 0.0508 | 0.0405 | 8.0000e-005 | | 2.1200e-003 | 2.1200e-003 | | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.1997 | 7.1997 | 2.3300e-003 | 0.0000 | 7.2579 |
| Total | 4.5500e-003 | 0.0508 | 0.0405 | 8.0000e-005 | 0.0000 | 2.1200e-003 | 2.1200e-003 | 0.0000 | 1.9500e-003 | 1.9500e-003 | 0.0000 | 7.1997 | 7.1997 | 2.3300e-003 | 0.0000 | 7.2579 |

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3.3 Site Preparation - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.5000e-004 | 1.0000e-004 | 1.1300e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3200 | 0.3200 | 1.0000e-005 | 0.0000 | 0.3202 |
| Total | 1.5000e-004 | 1.0000e-004 | 1.1300e-003 | 0.0000 | 4.0000e-004 | 0.0000 | 4.0000e-004 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 0.3200 | 0.3200 | 1.0000e-005 | 0.0000 | 0.3202 |

3.4 Grading - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0650 | 0.0000 | 0.0650 | 7.0200e-003 | 0.0000 | 7.0200e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0957 | 1.0838 | 0.7726 | 1.5900e-003 | | 0.0454 | 0.0454 | | 0.0417 | 0.0417 | 0.0000 | 139.5734 | 139.5734 | 0.0451 | 0.0000 | 140.7019 |
| Total | 0.0957 | 1.0838 | 0.7726 | 1.5900e-003 | 0.0650 | 0.0454 | 0.1104 | 7.0200e-003 | 0.0417 | 0.0488 | 0.0000 | 139.5734 | 139.5734 | 0.0451 | 0.0000 | 140.7019 |

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3.4 Grading - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.6000e-004 | 0.0116 | 1.5900e-003 | 4.0000e-005 | 9.0000e-004 | 3.0000e-005 | 9.3000e-004 | 2.5000e-004 | 3.0000e-005 | 2.8000e-004 | 0.0000 | 3.7310 | 3.7310 | 2.3000e-004 | 0.0000 | 3.7367 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8500e-003 | 1.9200e-003 | 0.0209 | 7.0000e-005 | 7.3100e-003 | 4.0000e-005 | 7.3500e-003 | 1.9400e-003 | 4.0000e-005 | 1.9800e-003 | 0.0000 | 5.9108 | 5.9108 | 1.4000e-004 | 0.0000 | 5.9143 |
| Total | 3.1100e-003 | 0.0135 | 0.0225 | 1.1000e-004 | 8.2100e-003 | 7.0000e-005 | 8.2800e-003 | 2.1900e-003 | 7.0000e-005 | 2.2600e-003 | 0.0000 | 9.6418 | 9.6418 | 3.7000e-004 | 0.0000 | 9.6509 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0254 | 0.0000 | 0.0254 | 2.7400e-003 | 0.0000 | 2.7400e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0957 | 1.0838 | 0.7726 | 1.5900e-003 | | 0.0454 | 0.0454 | | 0.0417 | 0.0417 | 0.0000 | 139.5732 | 139.5732 | 0.0451 | 0.0000 | 140.7017 |
| Total | 0.0957 | 1.0838 | 0.7726 | 1.5900e-003 | 0.0254 | 0.0454 | 0.0707 | 2.7400e-003 | 0.0417 | 0.0445 | 0.0000 | 139.5732 | 139.5732 | 0.0451 | 0.0000 | 140.7017 |

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3.4 Grading - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.6000e-004 | 0.0116 | 1.5900e-003 | 4.0000e-005 | 9.0000e-004 | 3.0000e-005 | 9.3000e-004 | 2.5000e-004 | 3.0000e-005 | 2.8000e-004 | 0.0000 | 3.7310 | 3.7310 | 2.3000e-004 | 0.0000 | 3.7367 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.8500e-003 | 1.9200e-003 | 0.0209 | 7.0000e-005 | 7.3100e-003 | 4.0000e-005 | 7.3500e-003 | 1.9400e-003 | 4.0000e-005 | 1.9800e-003 | 0.0000 | 5.9108 | 5.9108 | 1.4000e-004 | 0.0000 | 5.9143 |
| Total | 3.1100e-003 | 0.0135 | 0.0225 | 1.1000e-004 | 8.2100e-003 | 7.0000e-005 | 8.2800e-003 | 2.1900e-003 | 7.0000e-005 | 2.2600e-003 | 0.0000 | 9.6418 | 9.6418 | 3.7000e-004 | 0.0000 | 9.6509 |

3.5 Drainage/Utilities/Sub-Grade - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0476 | 0.4948 | 0.4200 | 7.9000e-004 | | 0.0224 | 0.0224 | | 0.0212 | 0.0212 | 0.0000 | 68.8447 | 68.8447 | 0.0161 | 0.0000 | 69.2465 |
| Total | 0.0476 | 0.4948 | 0.4200 | 7.9000e-004 | | 0.0224 | 0.0224 | | 0.0212 | 0.0212 | 0.0000 | 68.8447 | 68.8447 | 0.0161 | 0.0000 | 69.2465 |

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3.5 Drainage/Utilities/Sub-Grade - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0476 | 0.4948 | 0.4200 | 7.9000e-004 | | 0.0224 | 0.0224 | | 0.0212 | 0.0212 | 0.0000 | 68.8446 | 68.8446 | 0.0161 | 0.0000 | 69.2464 |
| Total | 0.0476 | 0.4948 | 0.4200 | 7.9000e-004 | | 0.0224 | 0.0224 | | 0.0212 | 0.0212 | 0.0000 | 68.8446 | 68.8446 | 0.0161 | 0.0000 | 69.2464 |

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3.5 Drainage/Utilities/Sub-Grade - 2021

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

3.6 Paving - 2021

Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 9.6400e-003 | 0.0983 | 0.1117 | 1.6000e-004 | | 5.5300e-003 | 5.5300e-003 | | 5.0900e-003 | 5.0900e-003 | 0.0000 | 14.3309 | 14.3309 | 4.6300e-003 | 0.0000 | 14.4468 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 9.6400e-003 | 0.0983 | 0.1117 | 1.6000e-004 | | 5.5300e-003 | 5.5300e-003 | | 5.0900e-003 | 5.0900e-003 | 0.0000 | 14.3309 | 14.3309 | 4.6300e-003 | 0.0000 | 14.4468 |

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3.6 Paving - 2021

Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 2.6000e-004 | 0.0114 | 1.5800e-003 | 4.0000e-005 | 8.9000e-004 | 3.0000e-005 | 9.2000e-004 | 2.4000e-004 | 3.0000e-005 | 2.8000e-004 | 0.0000 | 3.6951 | 3.6951 | 2.3000e-004 | 0.0000 | 3.7007 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.4000e-004 | 3.6000e-004 | 3.9700e-003 | 1.0000e-005 | 1.3800e-003 | 1.0000e-005 | 1.3900e-003 | 3.7000e-004 | 1.0000e-005 | 3.8000e-004 | 0.0000 | 1.1200 | 1.1200 | 3.0000e-005 | 0.0000 | 1.1206 |
| Total | 8.0000e-004 | 0.0118 | 5.5500e-003 | 5.0000e-005 | 2.2700e-003 | 4.0000e-005 | 2.3100e-003 | 6.1000e-004 | 4.0000e-005 | 6.6000e-004 | 0.0000 | 4.8150 | 4.8150 | 2.6000e-004 | 0.0000 | 4.8213 |

Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|--------------------|----------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 9.6400e-003 | 0.0983 | 0.1117 | 1.6000e-004 | | 5.5300e-003 | 5.5300e-003 | | 5.0900e-003 | 5.0900e-003 | 0.0000 | 14.3309 | 14.3309 | 4.6300e-003 | 0.0000 | 14.4468 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 9.6400e-003 | 0.0983 | 0.1117 | 1.6000e-004 | | 5.5300e-003 | 5.5300e-003 | | 5.0900e-003 | 5.0900e-003 | 0.0000 | 14.3309 | 14.3309 | 4.6300e-003 | 0.0000 | 14.4468 |

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3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|---------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

4.2 Trip Summary Information

| Land Use | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|-------------------------|-------------------------|----------|--------|-------------|------------|
| | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| User Defined Industrial | 0.00 | 0.00 | 0.00 | | |
| Total | 0.00 | 0.00 | 0.00 | | |

4.3 Trip Type Information

| Land Use | Miles | | | Trip % | | | Trip Purpose % | | |
|-------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
| | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| User Defined Industrial | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| User Defined Industrial | 0.548600 | 0.036250 | 0.186898 | 0.112544 | 0.014284 | 0.004806 | 0.017604 | 0.070134 | 0.001409 | 0.001147 | 0.004508 | 0.000918 | 0.000898 |

5.0 Energy Detail

Historical Energy Use: N

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5.2 Energy by Land Use - Natural Gas

Mitigated

| | Natural Gas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| User Defined Industrial | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

5.3 Energy by Land Use - Electricity

Unmitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use | kWh/yr | MT/yr | | | |
| User Defined Industrial | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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5.3 Energy by Land Use - Electricity

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use | kWh/yr | MT/yr | | | |
| User Defined Industrial | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

6.0 Area Detail

6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-------------|-------------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |
| Unmitigated | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |

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6.2 Area by SubCategory

Unmitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |
| Total | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |

Mitigated

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|-----------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |
| Total | 1.0000e-005 | 0.0000 | 1.4000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.7000e-004 | 2.7000e-004 | 0.0000 | 0.0000 | 2.9000e-004 |

7.0 Water Detail

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7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|--------|
| Category | MT/yr | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

7.2 Water by Land Use

Unmitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| User Defined Industrial | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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7.2 Water by Land Use

Mitigated

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use | Mgal | MT/yr | | | |
| User Defined Industrial | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------------|-----------|--------|--------|--------|
| | MT/yr | | | |
| Mitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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8.2 Waste by Land Use

Unmitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| User Defined Industrial | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use | tons | MT/yr | | | |
| User Defined Industrial | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Total | | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|------------|-------------|-------------|-----------|
|----------------|--------|-----------|------------|-------------|-------------|-----------|

Boilers

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|----------------|--------|----------------|-----------------|---------------|-----------|
|----------------|--------|----------------|-----------------|---------------|-----------|

User Defined Equipment

| Equipment Type | Number |
|----------------|--------|
|----------------|--------|

11.0 Vegetation
