

# Appendix I

## Air Quality Emission Calculations



# **APPENDIX I**

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## **Air Quality Emission Calculations**

### **Introduction**

Appendix I provides additional detail on the URBEMIS 2002 Air Pollution Emission Model data used for the EIR air quality analysis.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Proposed GP.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 *** 2020 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		78.36	49.42	1,187.72	0.39	42.96
2.85	40.11					

PM10 *** 2021 ***	PM10 *** 2021 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		216,774.30	68.12	1,959.02	0.78	85.92
5.70	80.22					

AREA SOURCE EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
4,937.67	794.87	1,581.87	7.76	5.35	

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
1,154.04	785.00	10,871.32	33.27	5,710.01	

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
6,091.72	1,579.87	12,453.19	41.04	5,715.36	

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Proposed GP.urb  
 Project Name: Lincoln GP  
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Lincoln GP Proposed GP.txt  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		4.68	2.64	68.29	0.02	2.69
0.18	2.51					

PM10 *** 2021 ***	PM10 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		2,626.25	2.79	72.59	0.02	2.89
0.19	2.70					

AREA SOURCE EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	2,092.29	177.96	2,562.67	6.31	355.76

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	205.88	166.92	2,048.44	6.04	1,042.08

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	2,298.17	344.88	4,611.11	12.35	1,397.84

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078-Lincoln\URBEMIS Data\Lincoln GP - Proposed GP.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
 (Pounds/Day - Summer)

Construction Start Month and Year: June, 2020  
 Construction Duration: 12  
 Total Land Use Area to be Developed: 0 acres  
 Maximum Acreage Disturbed Per Day: 0 acres  
 Single Family Units: 38762 Multi-Family Units: 17344  
 Retail/Office/Institutional/Industrial Square Footage: 27595900  
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Lincoln GP Proposed GP.txt

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

PM10						PM10	PM10
Source		ROG	NOx	CO	S02	TOTAL	
EXHAUST	DUST						
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Bldg Const Worker Trips		78.36	49.42	1,187.72	0.39	42.96	
2.85	40.11						
Arch Coatings Off-Gas		0.00	-	-	-	-	
-	-						
Arch Coatings Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Off-Gas		0.00	-	-	-	-	
-	-						
Asphalt Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Asphalt On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		78.36	49.42	1,187.72	0.39	42.96	
2.85	40.11						
Max lbs/day all phases		78.36	49.42	1,187.72	0.39	42.96	
2.85	40.11						
*** 2021***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						

	Lincoln	GP	Proposed	GP.txt		
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00 0.00						
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00 0.00						
Phase 2 - Site Grading Emissions						
Fugitive Dust	-	-	-	-	-	0.00
- 0.00						
Off-Road Diesel	0.00	0.00	0.00	0.00	-	0.00
0.00 0.00						
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00 0.00						
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00 0.00						
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00 0.00						
Phase 3 - Building Construction						
Bldg Const Off-Road Diesel	0.00	0.00	0.00	0.00	-	0.00
0.00 0.00						
Bldg Const Worker Trips	78.36	49.42	1,187.72	0.39	42.96	
2.85 40.11						
Arch Coatings Off-Gas	216,633.17	-	-	-	-	
- -						
Arch Coatings Worker Trips	70.58	34.06	979.51	0.39	42.96	
2.85 40.11						
Asphalt Off-Gas	0.00	-	-	-	-	
- -						
Asphalt Off-Road Diesel	0.00	0.00	0.00	0.00	-	0.00
0.00 0.00						
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00 0.00						
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00 0.00						
Maximum lbs/day	216,774.33	68.12	1,959.02	0.78	85.92	
5.70 80.22						
Max lbs/day all phases	216,774.30	68.12	1,959.02	0.78	85.92	
5.70 80.22						

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions  
Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months

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Off-Road Equipment No.	Type	Horsepower	Load Factor	Hours/Day
Start Month/Year for SubPhase Architectural Coatings: Apr '21				
SubPhase Architectural Coatings Duration: 1.1 months				
Start Month/Year for SubPhase Asphalt: May '21				
SubPhase Asphalt Duration: 0.5 months				
Acres to be Paved: 0				
Off-Road Equipment No.	Type	Horsepower	Load Factor	Hours/Day

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AREA SOURCE	EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)	ROG	NOx	CO	S02	PM10
Natural Gas		59.15	775.43	395.84	0	1.47
Hearth - No summer emissions						
Landscaping		147.84	19.44	1,186.03	7.75	3.88
Consumer Prdcts		2,744.88	-	-	-	-
Architectural Coatings		1,985.80	-	-	-	-
TOTALS(lbs/day, unmitigated)		4,937.67	794.87	1,581.87	7.76	5.35

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UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	421.63	282.82	4,023.14	12.17	2,076.61
Multi-Family	90.30	55.92	795.48	2.41	410.60
Age-Restricted	36.88	18.01	256.20	0.78	132.24
K-12 Schools	84.20	20.61	280.01	0.87	149.12
Retail	265.79	218.04	2,868.19	8.91	1,543.45
Office	166.50	129.29	1,795.17	5.53	949.40
Industrial	88.74	60.32	853.14	2.62	448.59
TOTAL EMISSIONS (lbs/day)	1,154.04	785.00	10,871.32	33.27	5,710.01

Does not include correction for passby trips.  
Includes the following double counting adjustment for internal trips:  
Residential trips: 32.35 % reduction. Nonresidential trips: 26.14 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
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Single family housing	12,920.67	6.09 trips/dwelling unit	38,762.00	235,987.91
Multi-Family	663.25	4.40 trips/dwelling unit	10,612.00	46,660.74
Age-Restricted	420.75	2.23 trips/dwelling unit	6,732.00	15,027.93
K-12 Schools		0.74 trips/students	25,900.00	19,130.26
Retail		25.85 trips/1000 sq. ft.	8,657.00	223,798.16
Office		13.07 trips/1000 sq. ft.	8,500.00	111,125.38
Industrial		5.61 trips/1000 sq. ft.	8,600.00	48,276.20
			Sum of Total Trips	700,006.58
			Total Vehicle Miles Traveled	3,779,168.62

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Lite-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Lite-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00
Motor Home	3.70		0.00	91.90	8.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/12920.67 to 9/12920.67  
 The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/663.25 to 6.5/663.25  
 The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

Changes made to the default values for Construction

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Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The double counting option switch changed from off to on.  
The operational emission year changed from 2005 to 2040.

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Proposed GP.urb  
Project Name: Lincoln GP  
Project Location: Lower Sacramento Valley Air Basin  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Tons/Year)

Construction Start Month and Year: June, 2020  
Construction Duration: 12  
Total Land Use Area to be Developed: 0 acres  
Maximum Acreage Disturbed Per Day: 0 acres  
Single Family Units: 38762 Multi-Family Units: 17344  
Retail/Office/Institutional/Industrial Square Footage: 27595900

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	PM10	ROG	NOx	CO	S02	PM10	PM10
EXHAUST DUST						TOTAL	
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	

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0.00	0.00					
Phase 3 - Building Construction						
Bldg Const	Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00	0.00					
Bldg Const	Worker Trips	4.68	2.64	68.29	0.02	2.69
0.18	2.51					
Arch Coatings	Off-Gas	0.00	-	-	-	-
-	-					
Arch Coatings	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Off-Gas	0.00	-	-	-	-
-	-					
Asphalt	Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00	0.00					
Asphalt	On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Total	tons/year	4.68	2.64	68.29	0.02	2.69
0.18	2.51					
Total	all phases tons/yr	4.68	2.64	68.29	0.02	2.69
0.18	2.51					

\*\*\* 2021\*\*\*

Phase 1 - Demolition Emissions						
Fugitive Dust		-	-	-	-	0.00
-	0.00					
Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Total	tons/year	0.00	0.00	0.00	0.00	0.00
0.00	0.00					

Phase 2 - Site Grading Emissions						
Fugitive Dust		-	-	-	-	0.00
-	0.00					
Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Total	tons/year	0.00	0.00	0.00	0.00	0.00
0.00	0.00					

Phase 3 - Building Construction						
Bldg Const	Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00	0.00					
Bldg Const	Worker Trips	4.14	2.38	60.74	0.02	2.36
0.16	2.21					
Arch Coatings	Off-Gas	2,621.26	-	-	-	-
-	-					
Arch Coatings	Worker Trips	0.85	0.41	11.85	0.00	0.52
0.03	0.49					
Asphalt	Off-Gas	0.00	-	-	-	-
-	-					
Asphalt	Off-Road Diesel	0.00	0.00	0.00	-	0.00

		Lincoln GP	Proposed GP	GP.txt		
0.00	0.00					
Asphalt	On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
	Total tons/year	2,626.25	2.79	72.59	0.02	2.89
0.19	2.70					
	Total all phases tons/yr	2,626.25	2.79	72.59	0.02	2.89
0.19	2.70					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Start Month/Year for SubPhase Architectural Coatings: Apr '21

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: May '21

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	S02	PM10
Natural Gas	10.80	141.52	72.24	0.00	0.27
Hearth	1,305.12	34.70	2,383.69	5.61	355.14
Landscaping	13.31	1.75	106.74	0.70	0.35
Consumer Prdcts	500.94	-	-	-	-
Architectural Coatings	262.13	-	-	-	-
TOTALS (tpy, unmitigated)	2,092.29	177.96	2,562.67	6.31	355.76

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	75.22	60.19	754.31	2.21	378.98
Multi-Family	15.72	11.90	149.15	0.44	74.93
Age-Restricted	6.01	3.83	48.03	0.14	24.13
K-12 Schools	11.94	4.38	52.92	0.16	27.21
Retail	50.28	46.26	548.31	1.62	281.68
Office	30.93	27.51	336.71	1.00	173.27
Industrial	15.78	12.85	159.00	0.48	81.87
<b>TOTAL EMISSIONS (tons/yr)</b>	<b>205.88</b>	<b>166.92</b>	<b>2,048.44</b>	<b>6.04</b>	<b>1,042.08</b>

Does not include correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 32.35 % reduction. Nonresidential trips: 26.14 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040

Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	12,920.67	6.09 trips/dwelling unit	38,762.00	235,987.91
Multi-Family	663.25	4.40 trips/dwelling unit	10,612.00	46,660.74
Age-Restricted	420.75	2.23 trips/dwelling unit	6,732.00	15,027.93
K-12 Schools		0.74 trips/students	25,900.00	19,130.26
Retail		25.85 trips/1000 sq. ft.	8,657.00	223,798.16
Office		13.07 trips/1000 sq. ft.	8,500.00	111,125.38
Industrial		5.61 trips/1000 sq. ft.	8,600.00	48,276.20
			<b>Sum of Total Trips</b>	<b>700,006.58</b>
			<b>Total Vehicle Miles Traveled</b>	<b>3,779,168.62</b>

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Li te-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Li te-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Li ne Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00

Lincoln GP Proposed GP.txt  
 Motor Home 3.70 0.00 91.90 8.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/12920.67 to 9/12920.67  
 The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/663.25 to 6.5/663.25  
 The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

Changes made to the default values for Construction

Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The double counting option switch changed from off to on.  
 The operational emission year changed from 2005 to 2040.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Existing GP.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		33.67	21.23	510.27	0.17	18.46
1.23	17.23					

PM10 *** 2021 ***	PM10 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		91,891.82	29.26	841.64	0.34	36.92
2.46	34.46					

AREA SOURCE EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
2,107.85	326.10	613.97	2.95	2.08	

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
519.80	359.08	4,971.24	15.22	2,612.68	

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
2,627.65	685.18	5,585.20	18.17	2,614.76	

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Existing GP.urb  
 Project Name: Lincoln GP  
 Page 1

Lincoln GP Existing.txt  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 *** 2020 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		2.01	1.14	29.34	0.01	1.16
0.08	1.08					

PM10 *** 2021 ***	PM10 *** 2021 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		1,113.31	1.20	31.19	0.01	1.24
0.08	1.16					

AREA SOURCE EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	900.54	73.81	1,099.54	2.69	153.60

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	93.17	76.36	936.59	2.76	476.81

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	993.71	150.17	2,036.12	5.45	630.42

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078-Lincoln\URBEMIS Data\Lincoln GP - Existing GP.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
 (Pounds/Day - Summer)

Construction Start Month and Year: June, 2020  
 Construction Duration: 12  
 Total Land Use Area to be Developed: 0 acres  
 Maximum Acreage Disturbed Per Day: 0 acres  
 Single Family Units: 14709 Multi-Family Units: 9519  
 Retail/Office/Institutional/Industrial Square Footage: 13396633  
 Page 2

Lincoln GP Existing.txt

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

PM10						PM10	PM10
Source		ROG	NOx	CO	S02	TOTAL	
EXHAUST	DUST						
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Bldg Const Worker Trips		33.67	21.23	510.27	0.17	18.46	
1.23	17.23						
Arch Coatings Off-Gas		0.00	-	-	-	-	
-	-						
Arch Coatings Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Off-Gas		0.00	-	-	-	-	
-	-						
Asphalt Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Asphalt On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		33.67	21.23	510.27	0.17	18.46	
1.23	17.23						
Max lbs/day all phases		33.67	21.23	510.27	0.17	18.46	
1.23	17.23						
*** 2021***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						

		Lincoln GP	Existing	txt		
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 2 - Site Grading Emissions						
Fugitive Dust		-	-	-	-	0.00
-	0.00					
Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 3 - Building Construction						
Bldg Const Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
Bldg Const Worker Trips		33.67	21.23	510.27	0.17	18.46
1.23	17.23					
Arch Coatings Off-Gas		91,831.18	-	-	-	-
-	-					
Arch Coatings Worker Trips		30.32	14.63	420.82	0.17	18.46
1.23	17.23					
Asphalt Off-Gas		0.00	-	-	-	-
-	-					
Asphalt Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
Asphalt On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day		91,891.82	29.26	841.64	0.34	36.92
2.46	34.46					
Max lbs/day all phases		91,891.82	29.26	841.64	0.34	36.92
2.46	34.46					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions  
Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months

Lincoln GP Existing.txt

Off-Road Equipment  
 No. Type Horsepower Load Factor Hours/Day  
 Start Month/Year for SubPhase Architectural Coatings: Apr '21  
 SubPhase Architectural Coatings Duration: 1.1 months  
 Start Month/Year for SubPhase Asphalt: May '21  
 SubPhase Asphalt Duration: 0.5 months  
 Acres to be Paved: 0  
 Off-Road Equipment  
 No. Type Horsepower Load Factor Hours/Day

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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)						
Source	ROG	NOx	CO	S02	PM10	
Natural Gas	24.32	318.69	161.56	0	0.60	
Hearth - No summer emissions						
Landscaping	56.43	7.41	452.41	2.94	1.48	
Consumer Prdcts	1,185.31	-	-	-	-	
Architectural Coatings	841.79	-	-	-	-	
TOTALS(lbs/day, unmitigated)	2,107.85	326.10	613.97	2.95	2.08	

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UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	171.03	116.76	1,660.97	5.03	857.34
Multi-Family	25.22	15.98	227.29	0.69	117.32
Age-Restricted	38.73	19.59	278.74	0.84	143.87
K-12 Schools	30.10	7.86	106.82	0.33	56.89
Retail	126.44	104.41	1,373.53	4.27	739.13
Office	60.50	47.47	659.10	2.03	348.57
Industrial	67.78	47.00	664.80	2.04	349.56
TOTAL EMISSIONS (lbs/day)	519.80	359.08	4,971.24	15.22	2,612.68

Does not include correction for passby trips.  
 Includes the following double counting adjustment for internal trips:  
 Residential trips: 26.40 % reduction. Nonresidential trips: 19.12 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
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Lincoln GP Existing.txt

Single family housing	4,903.00	6.62 trips/dwelling unit	14,709.00	97,428.57
Multi-Family	174.19	4.78 trips/dwelling unit	2,787.00	13,332.48
Age-Restricted	420.75	2.43 trips/dwelling unit	6,732.00	16,350.04
K-12 Schools		0.81 trips/students	9,023.00	7,297.74
Retail		28.31 trips/1000 sq. ft.	3,786.00	107,173.14
Office		14.32 trips/1000 sq. ft.	2,850.00	40,799.55
Industrial		6.15 trips/1000 sq. ft.	6,120.00	37,618.57
Sum of Total Trips			320,000.09	
Total Vehicle Miles Traveled			1,729,214.33	

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Lite-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Lite-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00
Motor Home	3.70		0.00	91.90	8.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/4903. to 9/4903.  
 The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/174.19 to 6.5/174.19  
 The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

Changes made to the default values for Construction

Lincoln GP Existing.txt

Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Existing GP.urb  
Project Name: Lincoln GP  
Project Location: Lower Sacramento Valley Air Basin  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Tons/Year)

Construction Start Month and Year: June, 2020  
Construction Duration: 12  
Total Land Use Area to be Developed: 0 acres  
Maximum Acreage Disturbed Per Day: 0 acres  
Single Family Units: 14709 Multi-Family Units: 9519  
Retail/Office/Institutional/Industrial Square Footage: 13396633

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source		ROG	NOx	CO	S02	PM10	PM10
EXHAUST	DUST					TOTAL	
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
- 0.00							
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00 0.00							
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00 0.00							
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00 0.00							
Total tons/year		0.00	0.00	0.00	0.00	0.00	
0.00 0.00							
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
- 0.00							
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00 0.00							
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00 0.00							
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00 0.00							
Total tons/year		0.00	0.00	0.00	0.00	0.00	

Lincoln GP Existing.txt

0.00	0.00					
Phase 3 - Building Construction						
Bldg Const	Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00	0.00					
Bldg Const	Worker Trips	2.01	1.14	29.34	0.01	1.16
0.08	1.08					
Arch Coatings	Off-Gas	0.00	-	-	-	-
-	-					
Arch Coatings	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Off-Gas	0.00	-	-	-	-
-	-					
Asphalt	Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00	0.00					
Asphalt	On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Total	tons/year	2.01	1.14	29.34	0.01	1.16
0.08	1.08					
Total	all phases tons/yr	2.01	1.14	29.34	0.01	1.16
0.08	1.08					

\*\*\* 2021\*\*\*

Phase 1 - Demolition Emissions						
Fugitive Dust		-	-	-	-	0.00
-	0.00					
Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Total	tons/year	0.00	0.00	0.00	0.00	0.00
0.00	0.00					

Phase 2 - Site Grading Emissions						
Fugitive Dust		-	-	-	-	0.00
-	0.00					
Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Total	tons/year	0.00	0.00	0.00	0.00	0.00
0.00	0.00					

Phase 3 - Building Construction						
Bldg Const	Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00	0.00					
Bldg Const	Worker Trips	1.78	1.02	26.10	0.01	1.02
0.07	0.95					
Arch Coatings	Off-Gas	1,111.16	-	-	-	-
-	-					
Arch Coatings	Worker Trips	0.37	0.18	5.09	0.00	0.22
0.01	0.21					
Asphalt	Off-Gas	0.00	-	-	-	-
-	-					
Asphalt	Off-Road Diesel	0.00	0.00	0.00	-	0.00

Lincoln GP Existing.txt

0.00	0.00					
Asphalt	On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
	Total tons/year	1,113.31	1.20	31.19	0.01	1.24
0.08	1.16					
	Total all phases tons/yr	1,113.31	1.20	31.19	0.01	1.24
0.08	1.16					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Start Month/Year for SubPhase Architectural Coatings: Apr '21

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: May '21

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	S02	PM10
Natural Gas	4.44	58.16	29.48	0.00	0.11
Hearth	563.58	14.98	1,029.34	2.42	153.36
Landscaping	5.08	0.67	40.72	0.26	0.13
Consumer Prdcts	216.32	-	-	-	-
Architectural Coatings	111.12	-	-	-	-
TOTALS (tpy, unmitigated)	900.54	73.81	1,099.54	2.69	153.60

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	30.69	24.85	311.42	0.91	156.46
Multi-Family	4.42	3.40	42.62	0.12	21.41
Age-Restricted	6.37	4.17	52.26	0.15	26.26
K-12 Schools	4.31	1.67	20.19	0.06	10.38
Retail	23.97	22.16	262.58	0.77	134.89
Office	11.28	10.10	123.62	0.37	63.61
Industrial	12.13	10.01	123.90	0.37	63.79
<b>TOTAL EMISSIONS (tons/yr)</b>	<b>93.17</b>	<b>76.36</b>	<b>936.59</b>	<b>2.76</b>	<b>476.81</b>

Does not include correction for passby trips.  
Includes the following double counting adjustment for internal trips:  
Residential trips: 26.40 % reduction. Nonresidential trips: 19.12 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040 Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	4,903.00	6.62 trips/dwelling unit	14,709.00	97,428.57
Multi-Family	174.19	4.78 trips/dwelling unit	2,787.00	13,332.48
Age-Restricted	420.75	2.43 trips/dwelling unit	6,732.00	16,350.04
K-12 Schools		0.81 trips/students	9,023.00	7,297.74
Retail		28.31 trips/1000 sq. ft.	3,786.00	107,173.14
Office		14.32 trips/1000 sq. ft.	2,850.00	40,799.55
Industrial		6.15 trips/1000 sq. ft.	6,120.00	37,618.57

Sum of Total Trips 320,000.09  
Total Vehicle Miles Traveled 1,729,214.33

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Li te-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Li te-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00

		Lincoln GP Existing.txt					
Motor Home		3.70	0.00	91.90	8.10		
Travel Conditions							
		Residential			Commercial		
		Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)		9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)		16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)		35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential		27.3	21.2	51.5			
% of Trips - Commercial (by land use)							
K-12 Schools					20.0	10.0	70.0
Retail					2.0	1.0	97.0
Office					35.0	17.5	47.5
Industrial					50.0	25.0	25.0

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#### Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/4903. to 9/4903.

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/174.19 to 6.5/174.19

The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

#### Changes made to the default values for Construction

#### Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

#### Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Sphere of Influence.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 *** 2020 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		47.19	29.76	715.23	0.24	25.87
1.72	24.15					

PM10 *** 2021 ***	PM10 *** 2021 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		129,968.90	41.02	1,179.70	0.48	51.74
3.44	48.30					

AREA SOURCE EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
2,922.28	464.60	945.25	4.67	3.20	

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
704.98	484.03	6,709.76	20.54	3,523.47	

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (lbs/day, unmitigated)	ROG	NOx	CO	S02	PM10
3,627.26	948.63	7,655.01	25.21	3,526.67	

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Sphere of Influence.urb  
 Project Name: Lincoln GP  
 Page 1

Lincoln GP Sphere of Influence.txt  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 *** 2020 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		2.82	1.59	41.12	0.01	1.62
0.11	1.51					

PM10 *** 2021 ***	PM10 *** 2021 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		1,574.60	1.68	43.72	0.01	1.73
0.11	1.62					

AREA SOURCE EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
1,229.43	104.03	1,502.58	3.71	208.40	

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
126.14	102.93	1,263.81	3.72	643.03	

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
1,355.57	206.96	2,766.38	7.43	851.43	

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Sphere of Influence.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
 (Pounds/Day - Summer)

Construction Start Month and Year: June, 2020  
 Construction Duration: 12  
 Total Land Use Area to be Developed: 0 acres  
 Maximum Acreage Disturbed Per Day: 0 acres  
 Single Family Units: 23346 Multi-Family Units: 9519  
 Retail/Office/Institutional/Industrial Square Footage: 17297281  
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Lincoln GP Sphere of Influence.txt

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	PM10	ROG	NOx	CO	S02	PM10 TOTAL	PM10
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Bldg Const Worker Trips		47.19	29.76	715.23	0.24	25.87	
1.72	24.15						
Arch Coatings Off-Gas		0.00	-	-	-	-	
-	-						
Arch Coatings Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Off-Gas		0.00	-	-	-	-	
-	-						
Asphalt Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Asphalt On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		47.19	29.76	715.23	0.24	25.87	
1.72	24.15						
Max lbs/day all phases		47.19	29.76	715.23	0.24	25.87	
1.72	24.15						
*** 2021***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						

Lincoln GP Sphere of Influence.txt

Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 2 - Site Grading Emissions						
Fugitive Dust	-	-	-	-	-	0.00
-	0.00					
Off-Road Diesel	0.00	0.00	0.00	-	-	0.00
0.00	0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 3 - Building Construction						
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	-	0.00
0.00	0.00					
Bldg Const Worker Trips	47.19	29.76	715.23	0.24	0.24	25.87
1.72	24.15					
Arch Coatings Off-Gas	129,883.93	-	-	-	-	-
-	-					
Arch Coatings Worker Trips	42.50	20.51	589.85	0.24	0.24	25.87
1.72	24.15					
Asphalt Off-Gas	0.00	-	-	-	-	-
-	-					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	-	0.00
0.00	0.00					
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day	129,968.94	41.02	1,179.70	0.48	0.48	51.74
3.44	48.30					
Max lbs/day all phases	129,968.90	41.02	1,179.70	0.48	0.48	51.74
3.44	48.30					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions  
Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months

Lincoln GP Sphere of Influence.txt

Off-Road Equipment				
No.	Type	Horsepower	Load Factor	Hours/Day
Start Month/Year for SubPhase Architectural Coatings: Apr '21				
SubPhase Architectural Coatings Duration: 1.1 months				
Start Month/Year for SubPhase Asphalt: May '21				
SubPhase Asphalt Duration: 0.5 months				
Acres to be Paved: 0				
Off-Road Equipment				
No.	Type	Horsepower	Load Factor	Hours/Day

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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)						
Source	ROG	NOx	CO	S02	PM10	
Natural Gas	34.57	452.87	229.41	0	0.86	
Hearth - No summer emissions						
Landscaping	89.25	11.73	715.84	4.67	2.34	
Consumer Prdcts	1,607.86	-	-	-	-	
Architectural Coatings	1,190.60	-	-	-	-	
TOTALS(lbs/day, unmitigated)	2,922.28	464.60	945.25	4.67	3.20	

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UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	267.98	182.35	2,593.91	7.85	1,338.89
Multi-Family	24.92	15.72	223.64	0.68	115.44
Age-Restricted	38.36	19.28	274.26	0.83	141.56
K-12 Schools	47.95	12.24	166.21	0.51	88.52
Retail	156.79	129.18	1,699.31	5.28	914.44
Office	95.81	74.90	1,040.04	3.20	550.04
Industrial	73.15	50.37	712.39	2.19	374.58
TOTAL EMISSIONS (lbs/day)	704.98	484.03	6,709.76	20.54	3,523.47

Does not include correction for passby trips.  
Includes the following double counting adjustment for internal trips:  
Residential trips: 27.59 % reduction. Nonresidential trips: 21.74 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreeage	Trip Rate	No. Units	Total Trips
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Lincoln GP Sphere of Influence.txt

Single family housing	7,782.00	6.52 trips/dwelling unit	23,346.00	152,152.61
Multi-Family	174.19	4.71 trips/dwelling unit	2,787.00	13,118.22
Age-Restricted	420.75	2.39 trips/dwelling unit	6,732.00	16,087.27
K-12 Schools		0.78 trips/students	14,511.00	11,355.72
Retail		27.39 trips/1000 sq. ft.	4,841.00	132,592.98
Office		13.85 trips/1000 sq. ft.	4,648.00	64,380.86
Industrial		5.95 trips/1000 sq. ft.	6,778.00	40,311.83

Sum of Total Trips 429,999.50  
Total Vehicle Miles Traveled 2,332,000.47

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Lite-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Lite-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00
Motor Home	3.70		0.00	91.90	8.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
%						
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/7782. to 9/7782.  
The Trip Rate and/or Acreage values for Apartments Low rise have changed from the defaults 6.9/174.19 to 6.5/174.19  
The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

Changes made to the default values for Construction

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Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Sphere of Influence.urb  
Project Name: Lincoln GP  
Project Location: Lower Sacramento Valley Air Basin  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Tons/Year)

Construction Start Month and Year: June, 2020  
Construction Duration: 12  
Total Land Use Area to be Developed: 0 acres  
Maximum Acreage Disturbed Per Day: 0 acres  
Single Family Units: 23346 Multi-Family Units: 9519  
Retail/Office/Institutional/Industrial Square Footage: 17297281

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

PM10		ROG	NOx	CO	S02	PM10	PM10
Source	DUST					TOTAL	
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	

Lincoln GP Sphere of Influence.txt

0.00	0.00					
Phase 3 - Building Construction						
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	
0.00	0.00					
Bldg Const Worker Trips	2.82	1.59	41.12	0.01	1.62	
0.11	1.51					
Arch Coatings Off-Gas	0.00	-	-	-	-	
-	-					
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					
Asphalt Off-Gas	0.00	-	-	-	-	
-	-					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	
0.00	0.00					
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					
Total tons/year	2.82	1.59	41.12	0.01	1.62	
0.11	1.51					
Total all phases tons/yr	2.82	1.59	41.12	0.01	1.62	
0.11	1.51					

\*\*\* 2021\*\*\*

Phase 1 - Demolition Emissions						
Fugitive Dust	-	-	-	-	0.00	
-	0.00					
Off-Road Diesel	0.00	0.00	0.00	-	0.00	
0.00	0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					
Total tons/year	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					

Phase 2 - Site Grading Emissions						
Fugitive Dust	-	-	-	-	0.00	
-	0.00					
Off-Road Diesel	0.00	0.00	0.00	-	0.00	
0.00	0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					
Total tons/year	0.00	0.00	0.00	0.00	0.00	
0.00	0.00					

Phase 3 - Building Construction						
Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	
0.00	0.00					
Bldg Const Worker Trips	2.49	1.43	36.58	0.01	1.42	
0.09	1.33					
Arch Coatings Off-Gas	1,571.60	-	-	-	-	
-	-					
Arch Coatings Worker Trips	0.51	0.25	7.14	0.00	0.31	
0.02	0.29					
Asphalt Off-Gas	0.00	-	-	-	-	
-	-					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	

Lincoln GP Sphere of Influence.txt

0.00	0.00					
Asphalt	On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
	Total tons/year	1,574.60	1.68	43.72	0.01	1.73
0.11	1.62					
	Total all phases tons/yr	1,574.60	1.68	43.72	0.01	1.73
0.11	1.62					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Start Month/Year for SubPhase Architectural Coatings: Apr '21

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: May '21

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	S02	PM10
Natural Gas	6.31	82.65	41.87	0.00	0.16
Hearth	764.50	20.32	1,396.28	3.29	208.03
Landscaping	8.03	1.06	64.43	0.42	0.21
Consumer Prdcts	293.43	-	-	-	-
Architectural Coatings	157.16	-	-	-	-
TOTALS (tpy, unmitigated)	1,229.43	104.03	1,502.58	3.71	208.40

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	48.03	38.80	486.34	1.42	244.35
Multi-Family	4.36	3.35	41.93	0.12	21.07
Age-Restricted	6.30	4.10	51.42	0.15	25.84
K-12 Schools	6.84	2.60	31.41	0.09	16.15
Retail	29.70	27.41	324.86	0.96	166.89
Office	17.84	15.94	195.07	0.58	100.38
Industrial	13.06	10.73	132.77	0.40	68.36
<b>TOTAL EMISSIONS (tons/yr)</b>	<b>126.14</b>	<b>102.93</b>	<b>1,263.81</b>	<b>3.72</b>	<b>643.03</b>

Does not include correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 27.59 % reduction. Nonresidential trips: 21.74 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040

Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	7,782.00	6.52 trips/dwelling unit	23,346.00	152,152.61
Multi-Family	174.19	4.71 trips/dwelling unit	2,787.00	13,118.22
Age-Restricted	420.75	2.39 trips/dwelling unit	6,732.00	16,087.27
K-12 Schools		0.78 trips/students	14,511.00	11,355.72
Retail		27.39 trips/1000 sq. ft.	4,841.00	132,592.98
Office		13.85 trips/1000 sq. ft.	4,648.00	64,380.86
Industrial		5.95 trips/1000 sq. ft.	6,778.00	40,311.83
			<b>Sum of Total Trips</b>	<b>429,999.50</b>
			<b>Total Vehicle Miles Traveled</b>	<b>2,332,000.47</b>

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Li te-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Li te-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Li ne Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00

Motor Home 3.70 0.00 91.90 8.10

## Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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## Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/7782. to 9/7782.

The Trip Rate and/or Acreage values for Apartments Low rise have changed from the defaults 6.9/174.19 to 6.5/174.19

The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

## Changes made to the default values for Construction

## Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

## Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Highway 65 Corridor.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

PM10	PM10					PM10
*** 2020 ***	***	ROG	NOx	CO	S02	TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		58.01	36.58	879.24	0.29	31.80
2.11	29.69					

PM10	PM10					PM10
*** 2021 ***	***	ROG	NOx	CO	S02	TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		159,661.70	50.42	1,450.22	0.58	63.60
4.22	59.38					

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	S02	PM10
TOTALS (lbs/day, unmitigated)	3,671.19	580.99	1,122.85	5.45	3.80

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	S02	PM10
TOTALS (lbs/day, unmitigated)	873.03	595.17	8,249.92	25.25	4,331.91

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	S02	PM10
TOTALS (lbs/day, unmitigated)	4,544.22	1,176.16	9,372.78	30.70	4,335.72

URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Highway 65 Corridor.urb  
 Project Name: Lincoln GP  
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Lincoln GP Highway 65 Corridor.txt  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 *** 2020 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		3.47	1.96	50.55	0.02	1.99
0.13	1.86					

PM10 *** 2021 ***	PM10 *** 2021 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		1,934.33	2.07	53.74	0.02	2.14
0.15	1.99					

AREA SOURCE EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
1,566.59	130.82	1,917.79	4.71	267.14	

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
155.86	126.56	1,554.00	4.58	790.57	

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
1,722.46	257.39	3,471.79	9.29	1,057.71	

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078-Lincoln\URBEMIS Data\Lincoln GP - Highway 65 Corridor.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
 (Pounds/Day - Summer)

Construction Start Month and Year: June, 2020  
 Construction Duration: 12  
 Total Land Use Area to be Developed: 0 acres  
 Maximum Acreage Disturbed Per Day: 0 acres  
 Single Family Units: 27230 Multi-Family Units: 14903  
 Retail/Office/Institutional/Industrial Square Footage: 21088941  
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Lincoln GP Highway 65 Corridor.txt

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

PM10						PM10	PM10
Source	DUST	ROG	NOx	CO	S02	TOTAL	
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Bldg Const Worker Trips		58.01	36.58	879.24	0.29	31.80	
2.11	29.69						
Arch Coatings Off-Gas		0.00	-	-	-	-	
-	-						
Arch Coatings Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Off-Gas		0.00	-	-	-	-	
-	-						
Asphalt Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Asphalt On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		58.01	36.58	879.24	0.29	31.80	
2.11	29.69						
Max lbs/day all phases		58.01	36.58	879.24	0.29	31.80	
2.11	29.69						
*** 2021***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						

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Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 2 - Site Grading Emissions						
Fugitive Dust	-	-	-	-	-	0.00
-	0.00					
Off-Road Diesel	0.00	0.00	0.00	0.00	-	0.00
0.00	0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 3 - Building Construction						
Bldg Const Off-Road Diesel	0.00	0.00	0.00	0.00	-	0.00
0.00	0.00					
Bldg Const Worker Trips	58.01	36.58	879.24	0.29	31.80	
2.11	29.69					
Arch Coatings Off-Gas	159,557.20	-	-	-	-	
-	-					
Arch Coatings Worker Trips	52.25	25.21	725.11	0.29	31.80	
2.11	29.69					
Asphalt Off-Gas	0.00	-	-	-	-	
-	-					
Asphalt Off-Road Diesel	0.00	0.00	0.00	0.00	-	0.00
0.00	0.00					
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day	159,661.70	50.42	1,450.22	0.58	63.60	
4.22	59.38					
Max lbs/day all phases	159,661.70	50.42	1,450.22	0.58	63.60	
4.22	59.38					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions  
Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months

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Off-Road Equipment				
No.	Type	Horsepower	Load Factor	Hours/Day
Start Month/Year for SubPhase Architectural Coatings: Apr '21				
SubPhase Architectural Coatings Duration: 1.1 months				
Start Month/Year for SubPhase Asphalt: May '21				
SubPhase Asphalt Duration: 0.5 months				
Acres to be Paved: 0				
Off-Road Equipment				
No.	Type	Horsepower	Load Factor	Hours/Day

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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)						
Source	ROG	NOx	CO	S02	PM10	
Natural Gas	43.29	567.32	288.55	0	1.07	
Hearth - No summer emissions						
Landscaping	104.01	13.67	834.30	5.45	2.73	
Consumer Prdcts	2,061.28	-	-	-	-	
Architectural Coatings	1,462.61	-	-	-	-	
TOTALS(lbs/day, unmitigated)	3,671.19	580.99	1,122.85	5.45	3.80	

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UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	305.84	206.93	2,943.63	8.91	1,519.41
Multi-Family	71.62	44.85	637.94	1.93	329.29
Age-Restricted	37.75	18.76	266.84	0.81	137.73
K-12 Schools	62.22	15.58	211.62	0.65	112.70
Retail	192.15	158.00	2,078.47	6.45	1,118.48
Office	124.25	96.83	1,344.54	4.14	711.08
Industrial	79.21	54.22	766.87	2.35	403.23
TOTAL EMISSIONS (lbs/day)	873.03	595.17	8,249.92	25.25	4,331.91

Does not include correction for passby trips.  
Includes the following double counting adjustment for internal trips:  
Residential trips: 29.54 % reduction. Nonresidential trips: 23.79 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
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Lincoln GP Highway 65 Corridor.txt

Single family housing	9,076.67	6.34 trips/dwelling unit	27,230.00	172,666.62
Multi-Family	510.69	4.58 trips/dwelling unit	8,171.00	37,420.26
Age-Restricted	420.75	2.33 trips/dwelling unit	6,732.00	15,652.23
K-12 Schools		0.76 trips/students	18,971.00	14,458.13
Retail		26.67 trips/1000 sq. ft.	6,080.00	162,178.61
Office		13.49 trips/1000 sq. ft.	6,170.00	83,230.09
Industrial		5.79 trips/1000 sq. ft.	7,492.00	43,394.36

Sum of Total Trips 529,000.30  
Total Vehicle Miles Traveled 2,867,064.06

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Lite-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Lite-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00
Motor Home	3.70		0.00	91.90	8.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
%						
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/9076.67 to 9/9076.67  
 The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/510.69 to 6.5/510.69  
 The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

Changes made to the default values for Construction

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Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Highway 65 Corridor.urb  
Project Name: Lincoln GP  
Project Location: Lower Sacramento Valley Air Basin  
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Tons/Year)

Construction Start Month and Year: June, 2020  
Construction Duration: 12  
Total Land Use Area to be Developed: 0 acres  
Maximum Acreage Disturbed Per Day: 0 acres  
Single Family Units: 27230 Multi-Family Units: 14903  
Retail/Office/Institutional/Industrial Square Footage: 21088941

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

PM10		ROG	NOx	CO	S02	PM10	PM10
Source	DUST					TOTAL	
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	

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0.00 0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
Bldg Const Worker Trips	3.47	1.96	50.55	0.02	1.99
0.13 1.86					
Arch Coatings Off-Gas	0.00	-	-	-	-
- -					
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Asphalt Off-Gas	0.00	-	-	-	-
- -					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Total tons/year	3.47	1.96	50.55	0.02	1.99
0.13 1.86					
Total all phases tons/yr	3.47	1.96	50.55	0.02	1.99
0.13 1.86					

\*\*\* 2021\*\*\*

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00
- 0.00					
Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Total tons/year	0.00	0.00	0.00	0.00	0.00
0.00 0.00					

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00
- 0.00					
Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Total tons/year	0.00	0.00	0.00	0.00	0.00
0.00 0.00					

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
Bldg Const Worker Trips	3.06	1.76	44.97	0.02	1.75
0.12 1.63					
Arch Coatings Off-Gas	1,930.64	-	-	-	-
- -					
Arch Coatings Worker Trips	0.63	0.31	8.77	0.00	0.38
0.03 0.36					
Asphalt Off-Gas	0.00	-	-	-	-
- -					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00

Lincoln GP Highway 65 Corridor.txt

0.00	0.00					
Asphalt	On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
	Total tons/year	1,934.33	2.07	53.74	0.02	2.14
0.15	1.99					
	Total all phases tons/yr	1,934.33	2.07	53.74	0.02	2.14
0.15	1.99					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
-----	------	------------	-------------	-----------

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
-----	------	------------	-------------	-----------

Start Month/Year for SubPhase Architectural Coatings: Apr '21

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: May '21

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
-----	------	------------	-------------	-----------

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AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	S02	PM10
Natural Gas	7.90	103.54	52.66	0.00	0.20
Hearth	980.09	26.06	1,790.04	4.22	266.70
Landscaping	9.36	1.23	75.09	0.49	0.25
Consumer Prdcts	376.18	-	-	-	-
Architectural Coatings	193.06	-	-	-	-
TOTALS (tpy, unmitigated)	1,566.59	130.82	1,917.79	4.71	267.14

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	54.71	44.04	551.91	1.62	277.29
Multi-Family	12.51	9.54	119.61	0.35	60.09
Age-Restricted	6.18	3.99	50.03	0.15	25.14
K-12 Schools	8.85	3.31	40.00	0.12	20.57
Retail	36.38	33.53	397.34	1.17	204.12
Office	23.11	20.60	252.19	0.75	129.77
Industrial	14.12	11.55	142.93	0.43	73.59
<b>TOTAL EMISSIONS (tons/yr)</b>	<b>155.86</b>	<b>126.56</b>	<b>1,554.00</b>	<b>4.58</b>	<b>790.57</b>

Does not include correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 29.54 % reduction. Nonresidential trips: 23.79 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040

Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	9,076.67	6.34 trips/dwelling unit	27,230.00	172,666.62
Multi-Family	510.69	4.58 trips/dwelling unit	8,171.00	37,420.26
Age-Restricted	420.75	2.33 trips/dwelling unit	6,732.00	15,652.23
K-12 Schools		0.76 trips/students	18,971.00	14,458.13
Retail		26.67 trips/1000 sq. ft.	6,080.00	162,178.61
Office		13.49 trips/1000 sq. ft.	6,170.00	83,230.09
Industrial		5.79 trips/1000 sq. ft.	7,492.00	43,394.36
			<b>Sum of Total Trips</b>	<b>529,000.30</b>
			<b>Total Vehicle Miles Traveled</b>	<b>2,867,064.06</b>

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Li te-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Li te-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Li ne Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00

Motor Home	3.70	0.00	91.90	8.10
------------	------	------	-------	------

## Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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## Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/9076.67 to 9/9076.67

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/510.69 to 6.5/510.69

The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

## Changes made to the default values for Construction

## Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

## Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.

Lincoln GP Increased Density.txt

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Increased Density.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

PM10	PM10					PM10
*** 2020 ***	***	ROG	NOx	CO	S02	TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		76.89	48.49	1,165.46	0.39	42.15
2.80	39.35					

PM10	PM10					PM10
*** 2021 ***	***	ROG	NOx	CO	S02	TOTAL
EXHAUST	DUST					
TOTALS (lbs/day, unmitigated)		212,158.50	66.84	1,922.32	0.78	84.30
5.60	78.70					

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	S02	PM10
TOTALS (lbs/day, unmitigated)	4,893.53	782.48	1,500.13	7.26	5.08

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	S02	PM10
TOTALS (lbs/day, unmitigated)	1,147.42	778.99	10,785.58	33.02	5,665.81

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	S02	PM10
TOTALS (lbs/day, unmitigated)	6,040.96	1,561.46	12,285.70	40.27	5,670.89

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Increased Density.urb  
 Project Name: Lincoln GP

Lincoln GP Increased Density.txt  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT  
 (Tons/Year)

CONSTRUCTION EMISSION ESTIMATES

PM10 *** 2020 ***	PM10 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		4.59	2.59	67.01	0.02	2.65
0.18	2.47					

PM10 *** 2021 ***	PM10 ***	ROG	NOx	CO	S02	PM10 TOTAL
EXHAUST	DUST					
TOTALS (tpy, unmitigated)		2,570.34	2.74	71.24	0.02	2.82
0.18	2.64					

AREA SOURCE EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	2,091.35	175.93	2,562.36	6.28	356.85

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	204.57	165.64	2,032.36	5.99	1,034.01

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

TOTALS (tpy, unmitigated)	ROG	NOx	CO	S02	PM10
	2,295.92	341.57	4,594.72	12.27	1,390.86

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Increased Density.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
 (Pounds/Day - Summer)

Construction Start Month and Year: June, 2020  
 Construction Duration: 12  
 Total Land Use Area to be Developed: 0 acres  
 Maximum Acreage Disturbed Per Day: 0 acres  
 Single Family Units: 36235 Multi-Family Units: 20047  
 Retail/Office/Institutional/Industrial Square Footage: 27617551  
 Page 2

Lincoln GP Increased Density.txt

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source	PM10	ROG	NOx	CO	S02	PM10 TOTAL	PM10
EXHAUST DUST							
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Bldg Const Worker Trips		76.89	48.49	1,165.46	0.39	42.15	
2.80	39.35						
Arch Coatings Off-Gas		0.00	-	-	-	-	
-	-						
Arch Coatings Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Off-Gas		0.00	-	-	-	-	
-	-						
Asphalt Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
Asphalt On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Asphalt Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Maximum lbs/day		76.89	48.49	1,165.46	0.39	42.15	
2.80	39.35						
Max lbs/day all phases		76.89	48.49	1,165.46	0.39	42.15	
2.80	39.35						
*** 2021***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						

		Lincoln GP	Increased	Density.txt		
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 2 - Site Grading Emissions						
Fugitive Dust		-	-	-	-	0.00
-	0.00					
Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Phase 3 - Building Construction						
Bldg Const Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
Bldg Const Worker Trips		76.89	48.49	1,165.46	0.39	42.15
2.80	39.35					
Arch Coatings Off-Gas		212,019.99	-	-	-	-
-	-					
Arch Coatings Worker Trips		69.26	33.42	961.16	0.39	42.15
2.80	39.35					
Asphalt Off-Gas		0.00	-	-	-	-
-	-					
Asphalt Off-Road Diesel		0.00	0.00	0.00	-	0.00
0.00	0.00					
Asphalt On-Road Diesel		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt Worker Trips		0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Maximum lbs/day		212,158.51	66.84	1,922.32	0.78	84.30
5.60	78.70					
Max lbs/day all phases		212,158.50	66.84	1,922.32	0.78	84.30
5.60	78.70					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
-----	------	------------	-------------	-----------

Phase 3 - Building Construction Assumptions  
Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months

Lincoln GP Increased Density.txt

Off-Road Equipment				
No.	Type	Horsepower	Load Factor	Hours/Day
Start Month/Year for SubPhase Architectural Coatings: Apr '21				
SubPhase Architectural Coatings Duration: 1.1 months				
Start Month/Year for SubPhase Asphalt: May '21				
SubPhase Asphalt Duration: 0.5 months				
Acres to be Paved: 0				
Off-Road Equipment				
No.	Type	Horsepower	Load Factor	Hours/Day

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AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	S02	PM10
Natural Gas	58.29	764.30	391.17	0	1.45
Hearth - No summer emissions					
Landscaping	138.23	18.17	1,108.95	7.25	3.63
Consumer Prdcts	2,753.49	-	-	-	-
Architectural Coatings	1,943.52	-	-	-	-
TOTALS(lbs/day, unmitigated)	4,893.53	782.48	1,500.13	7.26	5.08

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UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	392.25	262.76	3,737.76	11.31	1,929.31
Multi-Family	112.80	69.73	991.96	3.00	512.02
Age-Restricted	36.75	17.90	254.62	0.77	131.43
K-12 Schools	84.14	20.60	279.79	0.86	149.00
Retail	265.84	218.08	2,868.71	8.91	1,543.73
Office	166.93	129.62	1,799.73	5.54	951.81
Industrial	88.73	60.31	853.00	2.62	448.51
TOTAL EMISSIONS (lbs/day)	1,147.42	778.99	10,785.58	33.02	5,665.81

Does not include correction for passby trips.  
Includes the following double counting adjustment for internal trips:  
Residential trips: 32.77 % reduction. Nonresidential trips: 26.14 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040 Temperature (F): 85 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acres	Trip Rate	No. Units	Total Trips
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Lincoln GP Increased Density.txt

Single family housing	12,078.33	6.05 trips/dwelling unit	36,235.00	219,248.27
Multi-Family	832.19	4.37 trips/dwelling unit	13,315.00	58,186.19
Age-Restricted	420.75	2.22 trips/dwelling unit	6,732.00	14,935.63
K-12 Schools		0.74 trips/students	25,881.00	19,115.28
Retail		25.85 trips/1000 sq. ft.	8,659.00	223,838.83
Office		13.07 trips/1000 sq. ft.	8,522.00	111,407.50
Industrial		5.61 trips/1000 sq. ft.	8,599.00	48,268.21
Sum of Total Trips			694,999.91	
Total Vehicle Miles Traveled			3,749,925.19	

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Lite-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Lite-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Line Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00
Motor Home	3.70		0.00	91.90	8.10

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5			
% of Trips - Commercial (by land use)						
K-12 Schools				20.0	10.0	70.0
Retail				2.0	1.0	97.0
Office				35.0	17.5	47.5
Industrial				50.0	25.0	25.0

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Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/12078.33 to 9/12078.33  
 The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/832.19 to 6.5/832.19  
 The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

Changes made to the default values for Construction

Lincoln GP Increased Density.txt

Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.

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URBEMIS 2002 For Windows 8.7.0

File Name: C:\Documents and Settings\mxm\Desktop\Projects\202078- Lincoln\URBEMIS Data\Lincoln GP - Increased Density.urb  
 Project Name: Lincoln GP  
 Project Location: Lower Sacramento Valley Air Basin  
 On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT  
(Tons/Year)

Construction Start Month and Year: June, 2020

Construction Duration: 12

Total Land Use Area to be Developed: 0 acres

Maximum Acreage Disturbed Per Day: 0 acres

Single Family Units: 36235 Multi-Family Units: 20047

Retail/Office/Institutional/Industrial Square Footage: 27617551

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (tons/year)

Source	PM10	ROG	NOx	CO	S02	PM10	PM10
EXHAUST DUST						TOTAL	
*** 2020***							
Phase 1 - Demolition Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Phase 2 - Site Grading Emissions							
Fugitive Dust		-	-	-	-	0.00	
-	0.00						
Off-Road Diesel		0.00	0.00	0.00	-	0.00	
0.00	0.00						
On-Road Diesel		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Worker Trips		0.00	0.00	0.00	0.00	0.00	
0.00	0.00						
Total tons/year		0.00	0.00	0.00	0.00	0.00	

Lincoln GP Increased Density.txt

0.00 0.00

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
Bldg Const Worker Trips	4.59	2.59	67.01	0.02	2.64
0.18 2.47					
Arch Coatings Off-Gas	0.00	-	-	-	-
- -					
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Asphalt Off-Gas	0.00	-	-	-	-
- -					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Asphalt Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Total tons/year	4.59	2.59	67.01	0.02	2.65
0.18 2.47					
Total all phases tons/yr	4.59	2.59	67.01	0.02	2.65
0.18 2.47					

\*\*\* 2021\*\*\*

Phase 1 - Demolition Emissions

Fugitive Dust	-	-	-	-	0.00
- 0.00					
Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Total tons/year	0.00	0.00	0.00	0.00	0.00
0.00 0.00					

Phase 2 - Site Grading Emissions

Fugitive Dust	-	-	-	-	0.00
- 0.00					
Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00 0.00					
Total tons/year	0.00	0.00	0.00	0.00	0.00
0.00 0.00					

Phase 3 - Building Construction

Bldg Const Off-Road Diesel	0.00	0.00	0.00	-	0.00
0.00 0.00					
Bldg Const Worker Trips	4.06	2.34	59.61	0.02	2.32
0.15 2.16					
Arch Coatings Off-Gas	2,565.44	-	-	-	-
- -					
Arch Coatings Worker Trips	0.84	0.40	11.63	0.00	0.51
0.03 0.48					
Asphalt Off-Gas	0.00	-	-	-	-
- -					
Asphalt Off-Road Diesel	0.00	0.00	0.00	-	0.00

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0.00	0.00					
Asphalt	On-Road Diesel	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Asphalt	Worker Trips	0.00	0.00	0.00	0.00	0.00
0.00	0.00					
Total	tons/year	2,570.34	2.74	71.24	0.02	2.82
0.18	2.64					
Total	all phases tons/yr	2,570.34	2.74	71.24	0.02	2.82
0.18	2.64					

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Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions  
Start Month/Year for Phase 2: Jun '20  
Phase 2 Duration: 1.3 months  
On-Road Truck Travel (VMT): 0  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Jul '20  
Phase 3 Duration: 10.7 months  
Start Month/Year for SubPhase Building: Jul '20  
SubPhase Building Duration: 10.7 months  
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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Start Month/Year for SubPhase Architectural Coatings: Apr '21

SubPhase Architectural Coatings Duration: 1.1 months

Start Month/Year for SubPhase Asphalt: May '21

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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AREA SOURCE EMISSION ESTIMATES (Tons per Year, Unmitigated)

Source	ROG	NOx	CO	S02	PM10
Natural Gas	10.64	139.49	71.39	0.00	0.26
Hearth	1,309.22	34.81	2,391.16	5.63	356.26
Landscaping	12.44	1.64	99.81	0.65	0.33
Consumer Prdcts	502.51	-	-	-	-
Architectural Coatings	256.54	-	-	-	-
TOTALS (tpy, unmitigated)	2,091.35	175.93	2,562.36	6.28	356.85

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UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	S02	PM10
Single family housing	69.95	55.92	700.80	2.05	352.10
Multi-Family	19.62	14.84	185.99	0.54	93.44
Age-Restricted	5.99	3.81	47.74	0.14	23.99
K-12 Schools	11.93	4.38	52.88	0.16	27.19
Retail	50.29	46.27	548.41	1.62	281.73
Office	31.01	27.58	337.57	1.01	173.71
Industrial	15.78	12.85	158.98	0.47	81.85
<b>TOTAL EMISSIONS (tons/yr)</b>	<b>204.57</b>	<b>165.64</b>	<b>2,032.36</b>	<b>5.99</b>	<b>1,034.01</b>

Does not include correction for passby trips.

Includes the following double counting adjustment for internal trips:

Residential trips: 32.77 % reduction. Nonresidential trips: 26.14 % reduction.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2040

Season: Annual

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	12,078.33	6.05 trips/dwelling unit	36,235.00	219,248.27
Multi-Family	832.19	4.37 trips/dwelling unit	13,315.00	58,186.19
Age-Restricted	420.75	2.22 trips/dwelling unit	6,732.00	14,935.63
K-12 Schools		0.74 trips/students	25,881.00	19,115.28
Retail		25.85 trips/1000 sq. ft.	8,659.00	223,838.83
Office		13.07 trips/1000 sq. ft.	8,522.00	111,407.50
Industrial		5.61 trips/1000 sq. ft.	8,599.00	48,268.21
Sum of Total Trips				694,999.91
Total Vehicle Miles Traveled				3,749,925.19

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.90		0.00	100.00	0.00
Light Truck < 3,750 lbs	16.40		0.00	100.00	0.00
Light Truck 3,751- 5,750	17.20		0.00	100.00	0.00
Med Truck 5,751- 8,500	7.80		0.00	100.00	0.00
Li te-Heavy 8,501-10,000	0.90		0.00	77.80	22.20
Li te-Heavy 10,001-14,000	0.30		0.00	66.70	33.30
Med-Heavy 14,001-33,000	0.80		0.00	25.00	75.00
Heavy-Heavy 33,001-60,000	0.70		0.00	0.00	100.00
Li ne Haul > 60,000 lbs	0.00		0.00	0.00	100.00
Urban Bus	0.20		0.00	50.00	50.00
Motorcycle	2.00		35.00	65.00	0.00
School Bus	0.10		0.00	0.00	100.00

Motor Home	3.70	0.00	91.90	8.10	
Travel Conditions					
	Residential			Commercial	
	Home- Work	Home- Shop	Home- Other	Commute	Non-Work Customer
Urban Trip Length (miles)	9.7	3.8	4.6	7.8	4.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6
Trip Speeds (mph)	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	27.3	21.2	51.5		
% of Trips - Commercial (by land use)					
K-12 Schools				20.0	10.0
Retail				2.0	1.0
Office				35.0	17.5
Industrial				50.0	25.0

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#### Changes made to the default values for Land Use Trip Percentages

The Trip Rate and/or Acreage values for Single family housing have changed from the defaults 9.57/12078.33 to 9/12078.33

The Trip Rate and/or Acreage values for Apartments low rise have changed from the defaults 6.9/832.19 to 6.5/832.19

The Trip Rate and/or Acreage values for Congregate care (Assisted Living) Facility have changed from the defaults 2.02/420.75 to 3.3/420.75

#### Changes made to the default values for Construction

#### Changes made to the default values for Area

The Landscape year changed from 2005 to 2020.

#### Changes made to the default values for Operations

The double counting option switch changed from off to on.

The operational emission year changed from 2005 to 2040.