# APPENDIX D AIR QUALITY AND NOISE TECHNICAL REPORT

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# Austin Bergstrom International Airport Expansion and Development Program (AEDP) Environmental Assessment Noise & Air Quality Technical Report

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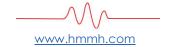
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### 1. Introduction

Harris Miller & Hanson Inc. (HMMH) is assisting KSA Engineers with aircraft noise and emissions evaluations for the Environmental Assessment (EA) related to the Airport Expansion and Development Program (AEDP) at Austin Bergstrom International Airport (ABIA, or AUS), pursuant to the National Environmental Policy Act (NEPA). The purpose of this technical memorandum is to present the noise and air quality assessment approach, input data, assumptions, and draft results. This memorandum will serve as Appendix D in the final EA document.

The Proposed Action for this EA, also known as the AEDP, is meant to meet the needs of airlines and passengers at AUS through improving the Barbara Jordan Terminal and enabling future airport expansion with utility and airfield infrastructure. Initial construction projects include:

- Optimizing the Barbara Jordan Terminal
- Building a midfield concourse and connecting underground tunnel
- Creating and relocating taxiways
- A new Central Utility Plant
- A new electrical substation
- Removing existing airfield structures

The EA will evaluate a total of six scenarios:

- 1. Existing Conditions (2019)
- 2. 2027 No-Action Alternative
- 3. 2027 Proposed Action (AEDP) Alternative
- 4. 2032 No-Action Alternative
- 5. 2032 Proposed Action (AEDP) Alternative
- 6. 2037 Forecast year<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The 2037 modeling year is for informational purposes only.



The subsequent sections provide the methodology and model inputs for the noise and air quality analyses. Upon review and approval of the information in this technical memorandum, HMMH ran the FAA approved AEDT software model to estimate air quality and noise results from aircraft operations for the six modeling scenarios.

### 2. Analysis

The noise analysis for this EA will be conducted in accordance with Federal Aviation Administration (FAA) Order 1050.1F and its associated Environmental Desk Reference. These documents specify several requirements for evaluating noise impacts, including:

- Acceptable noise models to be used and the circumstances under which their use is required.
- The metrics to be used for characterizing the noise environment and quantifying impacts; and
- Thresholds of significance for determining whether the effects of an action would constitute a significant impact under NEPA.

For an action occurring on, or in the vicinity of a single airport, the Environmental Desk Reference directs the use of the latest version of the Aviation Environmental Design Tool (AEDT) for detailed noise modeling or another model, as approved by FAA. In this case, it is AEDT Version 3d.<sup>2</sup> All AEDT modeling conducted for this study will adhere to "Guidance on Using the AEDT to Conduct Environmental modeling for FAA Actions Subject to NEPA".<sup>3</sup> The model must be used to produce Day-Night Average Sound Level (DNL) contours of 65 dB, 70 dB, and 75 dB, and others as needed. FAA considers a DNL of 65 dB as the threshold below which all land uses are compatible.

FAA Orders 1050.1F and 5050.4B determine a significant noise impact to be a DNL increase of 1.5 dB or more at a noise-sensitive location with a DNL of 65 dB or higher. For example, an increase from 63.5 dB to 65.0 dB DNL within the same timeframe due to the Proposed Project would be considered a significant impact. If a noise increase is determined to be a significant impact to any of the surrounding noise sensitive properties, as defined in FAA Order 1050.1F, mitigation would be required.

The FAA and NEPA guidance prescribes that aircraft noise studies should use DNL, this is the metric adopted by FAA and Environmental Protection Agency (EPA) as the most appropriate long-term measure of airport noise exposure. DNL is determined by adding up the noise energy from all modeled aircraft activity at every individual point of a large array of grid points around an airport. In the DNL calculation, a 10-decibel weighting is applied to nighttime<sup>4</sup> operations.

Computer-generated estimates of DNL are often depicted as noise contours reflecting lines of equal exposure around an airport (much as topographic maps indicate contours of equal elevation). The contours usually reflect long-term (annual average) operating conditions, accounting for the average flights per day, how often each runway is used throughout the year, and where over the surrounding communities the aircraft normally fly.

The FAA requires that the following information must be disclosed for each modeled scenario that is analyzed:

- The number of residences or people exposed to DNL between 65 dB and 70 dB, 70 dB and 75 dB and greater than or equal to 75 dB, and the net increase or decrease in the number of people or residences exposed to those levels of noise.
- The location and number of noise sensitive uses in addition to residences (e.g., schools, hospitals, parks, recreation areas) exposed to DNL 65 dB or greater.

<sup>&</sup>lt;sup>4</sup> Nighttime is defined as 10 pm to 7 am in DNL



<sup>&</sup>lt;sup>2</sup> Released March 29, 2021, <a href="https://aedt.faa.gov/3d\_information.aspx">https://aedt.faa.gov/3d\_information.aspx</a>

<sup>&</sup>lt;sup>3</sup> Published September 12, 2016

- The identification of noise sensitive areas exposed to DNL greater than or equal to 60 dB and are projected to experience a DNL increase of 3 dB or more, only when 1.5 dB DNL increases are predicted at noise sensitive areas with DNL of at least 65 dB.
- Discussion of the noise impact on noise sensitive areas exposed to DNL of at least 65 dB; and
- Mapping providing land use data, noise contours, and flight tracks for each scenario.
- If 1.5 dB DNL increases are predicted at noise sensitive areas with DNL of at least 65 dB, identification of noise sensitive areas exposed to DNL greater than or equal to 60 dB which may experience a DNL increase of 3 dB or more as a result of the Proposed Action.

### 3. Noise Modeling Methodology and Inputs

AEDT noise model inputs are developed under the following categories and are required to develop noise model results:

- Physical description of the airport layout
- Aircraft operations
- Aircraft noise and performance characteristics
- Runway utilization
- Aircraft maintenance runup activity
- Flight track geometry and usage
- Meteorological conditions
- Terrain data

### 3.1 Physical Description of the Airport Layout

AUS is located within Travis County, approximately five miles southeast of downtown Austin, TX. As shown in **Figure 1.** 

Runway length, runway width, instrumentation, and declared distances do not directly affect noise calculations. However, these parameters may affect which aircraft might use a particular runway and under what conditions, and therefore how often a runway would be used relative to the other runways at the airport.

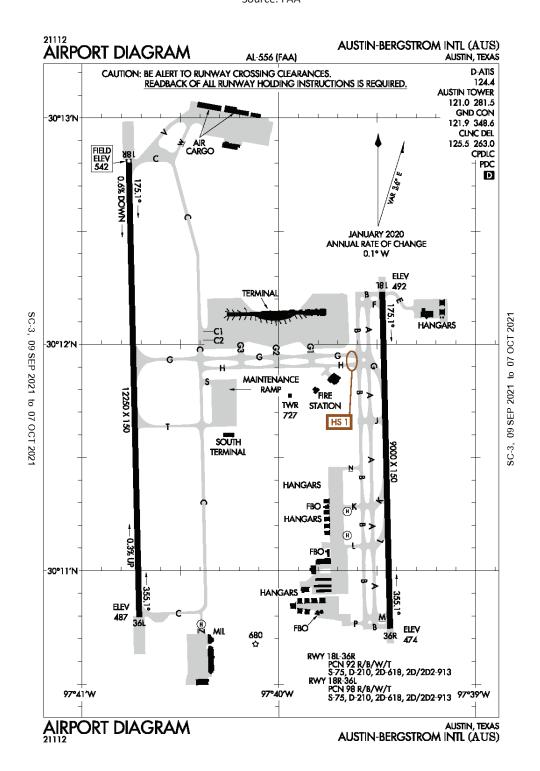
**Table 1** provides the detailed parameters for each runway end. The proposed action does not include any changes or modifications to the Runways. However, the proposed action includes the creation and relocation of taxiways, which alter the taxi times for aircraft in both action alternative years.

**Table 1. Runway Details** 

Sources: FAA Form 5010, accessed 8/1/2021

Runway End	Latitude (decimal degrees)	Longitude (decimal degrees)	Elevation (feet, MSL)	Displaced Landing Threshold (feet)	Glide Slope (degrees)	Threshold Crossing (feet, AGL)		
18L	30.203830	-97.657891	491.6	0	3	74		
18R	30.213616	-97.679365	541.4	0	3	60		
36L	30.179943	-97.678475	487.3	0	3	60		
36R	30.179091	-97.657243	473.6	0	3	59		
H1	30.185475	-97.661006	541.5					
H2	30.187672	-97.661067	541.5	N/A				
Н3	30.179486	-97.673208	479					

Figure 1. Existing AUS Airport Layout Source: FAA



### 3.2 Aircraft Operations

HMMH obtained flight track data from the AUS noise and operations monitoring system (NOMS) for calendar year 2019. The radar data was then scaled to the FAA reported tower counts for 2019<sup>5</sup>, and to the Terminal Area Forecast (TAF) for the EA forecast years 2027,2032, and 2037 as shown in **Table 2**.

**Table 2. Modeled Annual Aircraft Operations** 

Sources: FAA TAF, RS&H 2021

Modeling Scenario	Air Carrier	Air Taxi	General Aviation		Mili		
iviodeling Scenario	Air Carrier	All Taxi	Itinerant	Local	Itinerant	Local	Total
	180,504	15,895	43,971	685	4,782	239	246,076
2027 No Action	180,504	15,895	43,971	685	4,782	239	246,076
	209,788	16,801	44,755	690	4,782	240	277,056
2032 No Action	187,843	16,801	44,755	690	4,782	240	255,111
	241,106	17,761	45,553	803	4,782	134	310,139

Fleet changes provided by ABIA and RS&H were applied to account for retiring and new entrant aircraft through the future scenarios as provided in **Table 3** 

Table 3. Fleet Retirements and Phase Outs for EA Forecast Years

AEDT Type in Baseline	AEDT Type Replacement in Forecast	2027 and 2032 Changes
717200	A220-100	50% replaced in 2027 100% replaced in 2032
737400	737700	100% replaced in 2027
747400	A350	50% replaced in 2027 100% replaced in 2032
A320-211	A320-271N	10% replaced in 2027 15% replaced in 2032
DC1010	777 Freighter	100% replaced in 2027
DC1030	777 Freighter	100% replaced in 2027
MD11GE	777 Freighter	50% replaced 2032
MD11PW	777 Freighter	50% replaced 2032
MD83	A220-300	100% replaced in 2027

<sup>&</sup>lt;sup>5</sup> https://aspm.faa.gov/opsnet/sys/airport.asp



Operational changes, such as the addition of five new passenger international long-haul flights, were made based on the best available information. Other factors considered for growing baseline to the action scenarios also included:

- The FAA approved changes contained in the NEPA CATEX cargo expansions which are not included in the "planned growth" in the TAF. For the buildout year (2027) the aircraft listed in the CatEX were added. The proposed action calls for up to four (4) additional cargo operations to occur once the new cargo facility is constructed and fully operational. These operations are anticipated to be nighttime operations consisting of two 737-800s, one 767-300ER, and one 767-200.
- For the buildout year plus five (2032), all four of the additional cargo operations in 2027 are 767-300ER.
- By 2032, the existing airfield aircraft parking area cannot accommodate the unconstrained growth forecast in the 2032 TAF
  - To constrain the No Action alternative, RS&H calculated what the enplanements translates to flights. The difference between the Action and No Action in 2032, is about 1.3 million passengers higher in the TAF. This yields an Average of 122 enplanements, or 10,912 operations, which is 30 departures (60 operations) a day that cannot be accommodated.
  - The 2032 Action alternative was scaled down by 60 operations (30 arrivals / 30 departures);
     scaling was completed on only the air carrier flight to accommodate the TAF enplanements.
     No change to Air Taxi, General Aviation, or Military was applied to the 2032 Action Scenario.
- The 2037 Action alternative is the 2032 Action alternative scaled up to the 2037 TAF operations levels.

**Table 4 through Table 8** present the Future Action and No Action Conditions cases of average daily operations by aircraft type for arrivals and departures for each modeling scenario. Note that general aviation circuit operations are representative of both general aviation and military circuit operations.

Table 4. Modeled Average Daily Itinerant Aircraft Operations for 2027 Action Conditions Sources: AUS NOMS, HMMH

Category	AEDT Type	Arri	vals	Depai	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
Air Carrier	717200	305	81	325	60	0	0	772
	737400	0	0	0	0	0	0	0
	737700	20,359	5,403	21,729	4,033	0	0	51,524
	737800	15,141	4,418	16,160	3,463	0	0	39,245
	747400	108	29	115	21	0	0	274
	777200	25	7	26	5	0	0	62
	7378MAX	236	63	252	47	0	0	598
	757PW	23	6	24	4	0	0	57
	757RR	311	83	332	62	0	0	787
	7673ER	0	232	0	232	0	0	463
	767CF6	0	232	0	232	0	0	463
	7773ER	458	122	489	91	0	0	1,160
	7878R	103	27	110	20	0	0	260
	A300-622R	627	166	669	124	0	0	1,586
	A319-131	7,852	2,084	8,380	1,556	0	0	19,872
	A320-211	4,510	1,197	4,813	893	0	0	11,412
	A320-232	6,907	1,833	7,371	1,368	0	0	17,479
	A320-271N	1,957	519	2,089	388	0	0	4,952
	A321-232	4,991	1,324	5,327	989	0	0	12,631
	A330-343	174	46	186	34	0	0	440
	A350-941	29	115	21	0	0	274	108
	CRJ9-ER	756	201	807	150	0	0	1,914
	DC1010	0	0	0	0	0	0	0
	DC1030	0	0	0	0	0	0	0
	EMB170	1,682	446	1,795	333	0	0	4,256
	EMB175	2,643	701	2,821	524	0	0	6,690
	EMB190	1,069	284	1,141	212	0	0	2,705
	MD11GE	162	43	173	32	0	0	411
	MD11PW	86	23	92	17	0	0	217
	MD83	0	0	0	0	0	0	0
Sub	total	70,593	19,659	75,341	14,911	0	0	180,504
Air Taxi	BD-700-1A10	64	10	59	15	0	0	148
	BD-700-1A11	29	5	27	7	0	0	68

Category	AEDT Type	Arriv	vals	Depa	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	CIT3	26	4	24	6	0	0	59
	CL600	730	115	674	170	0	0	1,690
	CL601	166	26	154	39	0	0	385
	CNA172	35	6	32	8	0	0	81
	CNA208	1,312	207	1,212	306	0	0	3,037
	CNA510	100	16	93	23	0	0	233
	CNA525C	81	13	75	19	0	0	187
	CNA55B	645	102	596	151	0	0	1,493
	CNA560U	106	17	98	25	0	0	245
	CNA560XL	598	94	553	140	0	0	1,386
	CNA680	547	86	506	128	0	0	1,267
	CNA750	710	112	656	166	0	0	1,644
	DHC6	325	51	301	76	0	0	753
	EMB145	58	9	54	14	0	0	135
	EMB14L	174	28	161	41	0	0	404
	FAL900EX	156	25	144	36	0	0	361
	G650ER	35	6	32	8	0	0	81
	GASEPV	38	6	35	9	0	0	88
	GIV	139	22	129	33	0	0	323
	GV	34	5	31	8	0	0	79
	IA1125	33	5	30	8	0	0	75
	LEAR35	607	96	561	142	0	0	1,406
	MU3001	116	18	107	27	0	0	269
Sul	ototal	6,864	1,084	6,345	1,603	0	0	15,895
Itinerant	737700	23	1	23	1	0	0	49
General Aviation	BD-700-1A10	120	7	120	7	0	0	254
	BD-700-1A11	33	2	33	2	0	0	70
	BEC58P	507	28	505	30	0	0	1,070
	CIT3	242	13	241	14	0	0	510
	CL600	493	27	491	29	0	0	1,040
	CL601	498	28	496	29	0	0	1,052
	CNA172	3,409	189	3,396	202	0	0	7,196
	CNA182	240	13	239	14	0	0	507
	CNA206	144	8	144	9	0	0	305
	CNA208	1,088	60	1,084	64	0	0	2,297
	CNA441	237	13	236	14	0	0	500
	CNA500	109	6	109	6	0	0	230



Category	AEDT Type	Arri	vals	Depai	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	CNA510	381	21	379	23	0	0	804
	CNA525C	1,335	74	1,330	79	0	0	2,817
	CNA55B	634	35	631	37	0	0	1,338
	CNA560U	497	28	495	29	0	0	1,049
	CNA560XL	611	34	609	36	0	0	1,290
	CNA680	365	20	363	22	0	0	769
	CNA750	573	32	571	34	0	0	1,209
	COMSEP	634	35	632	38	0	0	1,339
	DHC6	2,237	124	2,228	132	0	0	4,720
	ECLIPSE500	84	5	83	5	0	0	176
	EMB145	45	2	44	3	0	0	94
	FAL900EX	548	30	546	32	0	0	1,157
	G650ER	39	2	39	2	0	0	82
	GASEPF	723	40	721	43	0	0	1,527
	GASEPV	1,567	87	1,561	93	0	0	3,308
	GIIB	25	1	25	2	0	0	54
	GIV	442	24	441	26	0	0	934
	GV	258	14	257	15	0	0	546
	HS748A	33	2	33	2	0	0	69
	IA1125	197	11	196	12	0	0	416
	LEAR35	1,369	76	1,364	81	0	0	2,890
	MU3001	374	21	372	22	0	0	789
	PA28	469	26	467	28	0	0	990
	PA30	41	2	41	2	0	0	87
	SA350D	193	11	192	11	0	0	407
	T-38A	15	1	15	1	0	0	32
Sul	btotal	20,833	1,153	20,754	1,232	0	0	43,971
Itinerant	CNA208	1,022	88	1,074	36	0	0	2,220
Military	T-38A	253	22	266	9	0	0	549
	CNA510	182	16	192	6	0	0	396
	MU3001	165	14	173	6	0	0	359
	S70	151	13	158	5	0	0	328
	B429	140	12	147	5	0	0	305
	DHC6	110	9	116	4	0	0	239
	A7D	92	8	97	3	0	0	200
	F18EF	48	4	51	2	0	0	105
	KC135R	38	3	40	1	0	0	82



Category	AEDT Type	Arri	vals	Depai	rtures	Circuits		Total
		Day	Night	Day	Night	Day	Night	
Subt	otal	2,201	190	2,313	78	0	0	4,782
Local General	CNA172	0	0	0	0	641	45	685
Aviation and Military	GASEPV	0	0	0	0	150	10	161
,	GASEPF	0	0	0	0	73	5	78
Subtotal		0	0	0	0	864	60	924
То	Total		22,085	104,753	17,823	864	60	246,076

Table 5. Modeled Average Daily Itinerant Aircraft Operations for 2027 No Action Conditions Sources: AUS NOMS, HMMH

Category	AEDT Type	Arri	vals	Depa	rtures	Circ	Circuits	
		Day	Night	Day	Night	Day	Night	
Air Carrier	717200	305	81	325	60	0	0	772
	737400	0	0	0	0	0	0	0
	737700	20,359	5,403	21,729	4,033	0	0	51,524
	737800	15,141	4,481	16,160	3,463	0	0	39,245
	747400	108	29	115	21	0	0	274
	777200	25	7	26	5	0	0	62
	7378MAX	236	63	252	47	0	0	598
	757PW	23	6	24	4	0	0	57
	757RR	311	83	332	62	0	0	787
	7673ER	0	232	0	232	0	0	463
	767CF6	0	232	0	232	0	0	463
	7773ER	458	122	489	91	0	0	1,160
	7878R	103	27	110	20	0	0	260
	A300-622R	627	166	669	124	0	0	1,586
	A319-131	7,852	2,084	8,380	1,556	0	0	19,872
	A320-211	4,510	1,197	4,813	893	0	0	11,412
	A320-232	6,907	1,833	7,371	1,368	0	0	17,479
	A320-271N	1,957	519	2,089	388	0	0	4,952
	A321-232	4,991	1,324	5,327	989	0	0	12,631
	A330-343	174	46	186	34	0	0	440
	A350-941	29	115	21	0	0	274	108
	CRJ9-ER	756	201	807	150	0	0	1,914
	DC1010	0	0	0	0	0	0	0
	DC1030	0	0	0	0	0	0	0
	EMB170	1,682	446	1,795	333	0	0	4,256

Category	AEDT Type	Arriv	vals	Depar	tures	Circu	uits	Total
		Day	Night	Day	Night	Day	Night	
	EMB175	2,643	701	2,821	524	0	0	6,690
	EMB190	1,069	284	1,141	212	0	0	2,705
	MD11GE	162	43	173	32	0	0	411
	MD11PW	86	23	92	17	0	0	217
	MD83	0	0	0	0	0	0	0
Sul	btotal	70,593	19,659	75,341	14,911	0	0	180,504
Air Taxi	BD-700-1A10	64	10	59	15	0	0	148
	BD-700-1A11	29	5	27	7	0	0	68
	CIT3	26	4	24	6	0	0	59
	CL600	730	115	674	170	0	0	1,690
	CL601	166	26	154	39	0	0	385
	CNA172	35	6	32	8	0	0	81
	CNA208	1,312	207	1,212	306	0	0	3,037
	CNA510	100	16	93	23	0	0	233
	CNA525C	81	13	75	19	0	0	187
	CNA55B	645	102	596	151	0	0	1,493
	CNA560U	106	17	98	25	0	0	245
	CNA560XL	598	94	553	140	0	0	1,386
	CNA680	547	86	506	128	0	0	1,267
	CNA750	710	112	656	166	0	0	1,644
	DHC6	325	51	301	76	0	0	753
	EMB145	58	9	54	14	0	0	135
	EMB14L	174	28	161	41	0	0	404
	FAL900EX	156	25	144	36	0	0	361
	G650ER	35	6	32	8	0	0	81
	GASEPV	38	6	35	9	0	0	88
	GIV	139	22	129	33	0	0	323
	GV	34	5	31	8	0	0	79
	IA1125	33	5	30	8	0	0	75
	LEAR35	607	96	561	142	0	0	1,406
	MU3001	116	18	107	27	0	0	269
Sul	ototal	6,864	1,084	6,345	1,603	0	0	15,895
Itinerant	737700	23	1	23	1	0	0	49
General Aviation	BD-700-1A10	120	7	120	7	0	0	254
7111011	BD-700-1A11	33	2	33	2	0	0	70
	BEC58P	507	28	505	30	0	0	1,070
	CIT3	242	13	241	14	0	0	510



Category	AEDT Type	Arriv	vals	Depa	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	CL600	493	27	491	29	0	0	1,040
	CL601	498	28	496	29	0	0	1,052
	CNA172	3,409	189	3,396	202	0	0	7,196
	CNA182	240	13	239	14	0	0	507
	CNA206	144	8	144	9	0	0	305
	CNA208	1,088	60	1,084	64	0	0	2,297
	CNA441	237	13	236	14	0	0	500
	CNA500	109	6	109	6	0	0	230
	CNA510	381	21	379	23	0	0	804
	CNA525C	1,335	74	1,330	79	0	0	2,817
	CNA55B	634	35	631	37	0	0	1,338
	CNA560U	497	28	495	29	0	0	1,049
	CNA560XL	611	34	609	36	0	0	1,290
	CNA680	365	20	363	22	0	0	769
	CNA750	573	32	571	34	0	0	1,209
	COMSEP	634	35	632	38	0	0	1,339
	DHC6	2,237	124	2,228	132	0	0	4,720
	ECLIPSE500	84	5	83	5	0	0	176
	EMB145	45	2	44	3	0	0	94
	FAL900EX	548	30	546	32	0	0	1,157
	G650ER	39	2	39	2	0	0	82
	GASEPF	723	40	721	43	0	0	1,527
	GASEPV	1,567	87	1,561	93	0	0	3,308
	GIIB	25	1	25	2	0	0	54
	GIV	442	24	441	26	0	0	934
	GV	258	14	257	15	0	0	546
	HS748A	33	2	33	2	0	0	69
	IA1125	197	11	196	12	0	0	416
	LEAR35	1,369	76	1,364	81	0	0	2,890
	MU3001	374	21	372	22	0	0	789
	PA28	469	26	467	28	0	0	990
	PA30	41	2	41	2	0	0	87
	SA350D	193	11	192	11	0	0	407
	T-38A	15	1	15	1	0	0	32
Sul	btotal	20,833	1,153	20,754	1,232	0	0	43,971
Itinerant	CNA208	1,022	88	1,074	36	0	0	2,220
Military	T-38A	253	22	266	9	0	0	549



Category	AEDT Type	Arri	vals	Depai	tures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	CNA510	182	16	192	6	0	0	396
	MU3001	165	14	173	6	0	0	359
	S70	151	13	158	5	0	0	328
	B429	140	12	147	5	0	0	305
	DHC6	110	9	116	4	0	0	239
	A7D	92	8	97	3	0	0	200
	F18EF	48	4	51	2	0	0	105
	KC135R	38	3	40	1	0	0	82
Subt	total	2,201	190	2,313	78	0	0	4,782
Local General	CNA172	0	0	0	0	641	45	685
Aviation and Military	GASEPV	0	0	0	0	150	10	161
,	GASEPF	0	0	0	0	73	5	78
Subt	total	0	0	0	0	864	60	924
То	tal	100,491	22,085	104,753	17,823	864	60	246,076

Table 6. Modeled Average Daily Itinerant Aircraft Operations for 2032 Action Conditions

Sources: AUS NOMS, HMMH

Category	AEDT Type	Arri	vals	Depai	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
Air Carrier	717200	0	0	0	0	0	0	0
	737400	0	0	0	0	0	0	0
	737700	24,017	6,373	25,632	4,758	0	0	60,780
	737800	17,598	4,670	18,781	3,486	0	0	44,535
	747400	0	0	0	0	0	0	0
	777200	29	8	30	6	0	0	72
	7378MAX	275	73	293	54	0	0	695
	757PW	26	7	28	5	0	0	66
	757RR	361	96	386	72	0	0	915
	7673ER	0	1,077	0	1,077	0	0	2,154
	7773ER	677	180	723	134	0	0	1,713
	7878R	119	32	128	24	0	0	302
	A300-622R	729	193	778	144	0	0	1,844
	A319-131	9,126	2,422	9,740	1,808	0	0	23,096
	A320-211	4,368	1,159	4,661	865	0	0	11,053
	A320-232	8,027	2,130	8,567	1,590	0	0	20,315
	A320-271N	3,148	835	3,360	624	0	0	7,967
	A321-232	5,801	1,539	6,191	1,149	0	0	14,680



Category	AEDT Type	Arriv	vals	Depai	tures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	A330-343	202	54	216	40	0	0	512
	A350-941	251	67	268	50	0	0	636
	CRJ9-ER	879	233	938	174	0	0	2,224
	DC1010	0	0	0	0	0	0	0
	DC1030	0	0	0	0	0	0	0
	EMB170	1,954	519	2,086	387	0	0	4,946
	EMB175	3,072	815	3,279	609	0	0	7,775
	EMB190	1,242	330	1,326	246	0	0	3,143
	MD11GE	94	25	101	19	0	0	239
	MD11PW	50	13	53	10	0	0	126
	MD83	0	0	0	0	0	0	0
Sul	ototal	82,045	22,849	87,564	17,330	0	0	209,788
Air Taxi	BD-700-1A10	67	11	62	16	0	0	156
	BD-700-1A11	31	5	29	7	0	0	72
	CIT3	27	4	25	6	0	0	63
	CL600	771	122	713	180	0	0	1,786
	CL601	176	28	163	41	0	0	407
	CNA172	37	6	34	9	0	0	85
	CNA208	1,386	219	1,281	324	0	0	3,210
	CNA510	106	17	98	25	0	0	246
	CNA525C	85	13	79	20	0	0	198
	CNA55B	682	108	630	159	0	0	1,578
	CNA560U	112	18	104	26	0	0	259
	CNA560XL	633	100	585	148	0	0	1,465
	CNA680	578	91	535	135	0	0	1,339
	CNA750	750	118	694	175	0	0	1,738
	DHC6	344	54	318	80	0	0	796
	EMB145	62	10	57	14	0	0	143
	EMB14L	184	29	170	43	0	0	427
	FAL900EX	165	26	152	38	0	0	382
	G650ER	37	6	34	9	0	0	85
	GASEPV	40	6	37	9	0	0	93
	GIV	147	23	136	34	0	0	341
	GV	36	6	33	8	0	0	83
	IA1125	34	5	32	8	0	0	80
	LEAR35	642	101	593	150	0	0	1,486
	MU3001	123	19	113	29	0	0	284



Category	AEDT Type	Arriv	/als	Depai	tures	Circu	uits	Total
		Day	Night	Day	Night	Day	Night	
Sul	ototal	7,255	1,145	6,707	1,694	0	0	16,801
Itinerant	737700	24	1	23	1	0	0	50
General Aviation	BD-700-1A10	122	7	122	7	0	0	258
Aviation	BD-700-1A11	34	2	34	2	0	0	72
	BEC58P	516	29	514	30	0	0	1,089
	CIT3	246	14	245	15	0	0	519
	CL600	501	28	500	30	0	0	1,058
	CL601	507	28	505	30	0	0	1,071
	CNA172	3,470	192	3,457	205	0	0	7,324
	CNA182	245	14	244	14	0	0	516
	CNA206	147	8	146	9	0	0	310
	CNA208	1,107	61	1,103	65	0	0	2,337
	CNA441	241	13	240	14	0	0	509
	CNA500	111	6	110	7	0	0	234
	CNA510	388	21	386	23	0	0	818
	CNA525C	1,358	75	1,353	80	0	0	2,867
	CNA55B	645	36	643	38	0	0	1,362
	CNA560U	506	28	504	30	0	0	1,068
	CNA560XL	622	34	620	37	0	0	1,313
	CNA680	371	21	370	22	0	0	783
	CNA750	583	32	581	34	0	0	1,231
	COMSEP	646	36	643	38	0	0	1,363
	DHC6	2,276	126	2,268	135	0	0	4,805
	ECLIPSE500	85	5	85	5	0	0	179
	EMB145	45	3	45	3	0	0	96
	FAL900EX	558	31	556	33	0	0	1,177
	G650ER	40	2	39	2	0	0	84
	GASEPF	736	41	734	44	0	0	1,554
	GASEPV	1,595	88	1,589	94	0	0	3,367
	GIIB	26	1	26	2	0	0	55
	GIV	450	25	449	27	0	0	951
	GV	263	15	262	16	0	0	555
	HS748A	33	2	33	2	0	0	70
	IA1125	200	11	200	12	0	0	423
	LEAR35	1,394	77	1,388	82	0	0	2,942
	MU3001	380	21	379	22	0	0	803
	PA28	477	26	476	28	0	0	1,007



Category	AEDT Type	Arri	vals	Depai	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	PA30	42	2	42	2	0	0	89
	SA350D	196	11	196	12	0	0	415
	T-38A	16	1	15	1	0	0	33
Subt	total	21,204	1,173	21,124	1,254	0	0	44,755
Itinerant	CNA208	1,022	88	1,074	36	0	0	2,220
Military	T-38A	253	22	266	9	0	0	549
	CNA510	182	16	192	6	0	0	396
	MU3001	165	14	173	6	0	0	359
	S70	151	13	158	5	0	0	328
	B429	140	12	147	5	0	0	305
	DHC6	110	9	116	4	0	0	239
	A7D	92	8	97	3	0	0	200
	F18EF	48	4	51	2	0	0	105
	KC135R	38	3	40	1	0	0	82
Subt	total	2,201	190	2,313	78	0	0	4,782
Local General	CNA172	0	0	0	0	645	45	690
Aviation and Military	GASEPV	0	0	0	0	151	11	162
,	GASEPF	0	0	0	0	73	5	78
Subt	total	0	0	0	0	870	60	930
То	Total		25,357	117,707	20,356	870	60	277,056

Table 7. Modeled Average Daily Itinerant Aircraft Operations for 2032 No Action Conditions Sources: AUS NOMS, HMMH

Category	AEDT Type	Arri	vals	Depai	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
Air Carrier	717200	0	0	0	0	0	0	0
	737400	0	0	0	0	0	0	0
	737700	21,510	5,708	22,956	4,261	0	0	54,435
	737800	15,761	4,182	16,821	3,122	0	0	39,886
	747400	0	0	0	0	0	0	0
	777200	26	7	27	5	0	0	65
	7378MAX	246	65	262	49	0	0	622
	757PW	23	6	25	5	0	0	59
	757RR	324	86	345	64	0	0	819
	7673ER	0	964	0	964	0	0	1,929
	7773ER	606	161	647	120	0	0	1,534
	7878R	107	28	114	21	0	0	271



Category	AEDT Type	Arri	vals	Depa	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	A300-622R	653	173	696	129	0	0	1,651
	A319-131	8,173	2,169	8,723	1,619	0	0	20,685
	A320-211	3,912	1,038	4,175	775	0	0	9,899
	A320-232	7,189	1,908	7,673	1,424	0	0	18,194
	A320-271N	2,819	748	3,009	559	0	0	7,135
	A321-232	5,195	1,379	5,545	1,029	0	0	13,148
	A330-343	181	48	193	36	0	0	458
	A350-941	225	60	240	0	0	0	525
	CRJ9-ER	787	209	840	156	0	0	1,992
	DC1010	0	0	0	0	0	0	0
	DC1030	0	0	0	0	0	0	0
	EMB170	1,750	464	1,868	347	0	0	4,430
	EMB175	2,752	730	2,937	545	0	0	6,964
	EMB190	1,112	295	1,187	220	0	0	2,815
	MD11GE	85	22	90	17	0	0	214
	MD11PW	45	12	48	9	0	0	113
	MD83	0	0	0	0	0	0	0
Sub	total	73,481	20,463	78,423	15,477	0	0	187,843
Air Taxi	BD-700-1A10	67	11	62	16	0	0	156
	BD-700-1A11	31	5	29	7	0	0	72
	CIT3	27	4	25	6	0	0	63
	CL600	771	122	713	180	0	0	1,786
	CL601	176	28	163	41	0	0	407
	CNA172	37	6	34	9	0	0	85
	CNA208	1,386	219	1,281	324	0	0	3,210
	CNA510	106	17	98	25	0	0	246
	CNA525C	85	13	79	20	0	0	198
	CNA55B	682	108	630	159	0	0	1,578
	CNA560U	112	18	104	26	0	0	259
	CNA560XL	633	100	585	148	0	0	1,465
	CNA680	578	91	535	135	0	0	1,339
	CNA750	750	118	694	175	0	0	1,738
	DHC6	344	54	318	80	0	0	796
	EMB145	62	10	57	14	0	0	143
	EMB14L	184	29	170	43	0	0	427
	FAL900EX	165	26	152	38	0	0	382
	G650ER	37	6	34	9	0	0	85



Category	AEDT Type	Arriv	vals	Depai	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	GASEPV	40	6	37	9	0	0	93
	GIV	147	23	136	34	0	0	341
	GV	36	6	33	8	0	0	83
	IA1125	34	5	32	8	0	0	80
	LEAR35	642	101	593	150	0	0	1,486
	MU3001	123	19	113	29	0	0	284
Sul	ototal	7,255	1,145	6,707	1,694	0	0	16,801
Itinerant	737700	24	1	23	1	0	0	50
General Aviation	BD-700-1A10	122	7	122	7	0	0	258
7101011	BD-700-1A11	34	2	34	2	0	0	72
	BEC58P	516	29	514	30	0	0	1,089
	CIT3	246	14	245	15	0	0	519
	CL600	501	28	500	30	0	0	1,058
	CL601	507	28	505	30	0	0	1,071
	CNA172	3,470	192	3,457	205	0	0	7,324
	CNA182	245	14	244	14	0	0	516
	CNA206	147	8	146	9	0	0	310
	CNA208	1,107	61	1,103	65	0	0	2,337
	CNA441	241	13	240	14	0	0	509
	CNA500	111	6	110	7	0	0	234
	CNA510	388	21	386	23	0	0	818
	CNA525C	1,358	75	1,353	80	0	0	2,867
	CNA55B	645	36	643	38	0	0	1,362
	CNA560U	506	28	504	30	0	0	1,068
	CNA560XL	622	34	620	37	0	0	1,313
	CNA680	371	21	370	22	0	0	783
	CNA750	583	32	581	34	0	0	1,231
	COMSEP	646	36	643	38	0	0	1,363
	DHC6	2,276	126	2,268	135	0	0	4,805
	ECLIPSE500	85	5	85	5	0	0	179
	EMB145	45	3	45	3	0	0	96
	FAL900EX	558	31	556	33	0	0	1,177
	G650ER	40	2	39	2	0	0	84
	GASEPF	736	41	734	44	0	0	1,554
	GASEPV	1,595	88	1,589	94	0	0	3,367
	GIIB	26	1	26	2	0	0	55
	GIV	450	25	449	27	0	0	951



Category	AEDT Type	Arri	vals	Depa	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	GV	263	15	262	16	0	0	555
	HS748A	33	2	33	2	0	0	70
	IA1125	200	11	200	12	0	0	423
	LEAR35	1,394	77	1,388	82	0	0	2,941
	MU3001	380	21	379	22	0	0	803
	PA28	477	26	476	28	0	0	1,007
	PA30	42	2	42	2	0	0	89
	SA350D	196	11	196	12	0	0	415
	T-38A	16	1	15	1	0	0	33
Sub	total	21,204	1,173	21,124	1,254	0	0	44,755
Itinerant	CNA208	1,022	88	1,074	36	0	0	2,220
Military	T-38A	253	22	266	9	0	0	549
	CNA510	182	16	192	6	0	0	396
	MU3001	165	14	173	6	0	0	359
	S70	151	13	158	5	0	0	328
	B429	140	12	147	5	0	0	305
	DHC6	110	9	116	4	0	0	239
	A7D	92	8	97	3	0	0	200
	F18EF	48	4	51	2	0	0	105
	KC135R	38	3	40	1	0	0	82
Sub	total	2,201	190	2,313	78	0	0	4,782
Local General	CNA172	0	0	0	0	645	45	690
Aviation and Military	GASEPV	0	0	0	0	151	11	162
,	GASEPF	0	0	0	0	73	5	78
Sub	total	0	0	0	0	870	60	930
То	tal	104,141	22,972	108,566	08,566 18,502 870		60	255,111

Table 8. Modeled Average Daily Itinerant Aircraft Operations for 2037 Action Conditions Sources: AUS NOMS, HMMH

Category	AEDT Type	Arri	Arrivals		Departures		Circuits		
		Day	Night	Day	Night	Day	Night		
Air Carrier	717200	0	0	0	0	0	0	0	
	737400	0	0	0	0	0	0	0	
	737700	27,602	7,325	29,459	5,468	0	0	69,853	
	737800	20,225	5,367	21,585	4,007	0	0	51,183	
	747400	0	0	0	0	0	0	0	
	777200	33	9	35	7	0	0	83	



Category	AEDT Type	Arriv	/als	Depar	tures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	7378MAX	316	84	337	63	0	0	798
	757PW	30	8	32	6	0	0	76
	757RR	415	110	443	82	0	0	1,051
	7673ER	0	1,238	0	1,238	0	0	2,475
	7773ER	778	206	830	154	0	0	1,969
	7878R	137	36	147	27	0	0	348
	A300-622R	837	222	894	166	0	0	2,119
	A319-131	10,488	2,783	11,194	2,078	0	0	26,543
	A320-211	5,020	1,332	5,357	994	0	0	12,703
	A320-232	9,226	2,448	9,846	1,828	0	0	23,348
	A320-271N	3,618	960	3,861	717	0	0	9,156
	A321-232	6,667	1,769	7,115	1,321	0	0	16,872
	A330-343	232	62	248	46	0	0	588
	A350-941	289	77	308	57	0	0	731
	CRJ9-ER	1,010	268	1,078	200	0	0	2,557
	DC1010	0	0	0	0	0	0	0
	DC1030	0	0	0	0	0	0	0
	EMB170	2,246	596	2,397	445	0	0	5,684
	EMB175	3,531	937	3,768	700	0	0	8,936
	EMB190	1,428	379	1,524	283	0	0	3,613
	MD11GE	109	29	116	21	0	0	275
	MD11PW	57	15	61	11	0	0	145
	MD83	0	0	0	0	0	0	0
	Subtotal	94,293	26,260	100,636	19,917	0	0	241,106
Air Taxi	BD-700-1A10	71	11	66	17	0	0	165
	BD-700-1A11	33	5	30	8	0	0	76
	CIT3	29	5	27	7	0	0	66
	CL600	815	129	754	190	0	0	1,888
	CL601	186	29	172	43	0	0	431
	CNA172	39	6	36	9	0	0	90
	CNA208	1,466	231	1,355	342	0	0	3,394
	CNA510	112	18	104	26	0	0	260
	CNA525C	90	14	83	21	0	0	209
	CNA55B	720	114	666	168	0	0	1,668
	CNA560U	118	19	109	28	0	0	274
	CNA560XL	669	106	618	156	0	0	1,549
	CNA680	611	96	565	143	0	0	1,416



Category	AEDT Type	Arriv	vals	Depa	rtures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	CNA750	793	125	733	185	0	0	1,837
	DHC6	363	57	336	85	0	0	841
	EMB145	65	10	60	15	0	0	151
	EMB14L	195	31	180	45	0	0	451
	FAL900EX	174	28	161	41	0	0	403
	G650ER	39	6	36	9	0	0	90
	GASEPV	43	7	39	10	0	0	98
	GIV	156	25	144	36	0	0	36:
	GV	38	6	35	9	0	0	88
	IA1125	36	6	34	8	0	0	84
	LEAR35	678	107	627	158	0	0	1,571
	MU3001	130	20	120	30	0	0	300
	Subtotal	7,670	1,211	7,090	1,791	0	0	17,76
Itinerant	737700	24	1	24	1	0	0	51
General Aviation	BD-700-1A10	125	7	124	7	0	0	263
7.0.00.011	BD-700-1A11	34	2	34	2	0	0	73
	BEC58P	525	29	523	31	0	0	1,108
	CIT3	250	14	249	15	0	0	528
	CL600	510	28	508	30	0	0	1,07
	CL601	516	29	514	31	0	0	1,090
	CNA172	3,532	195	3,518	209	0	0	7,45
	CNA182	249	14	248	15	0	0	52
	CNA206	150	8	149	9	0	0	310
	CNA208	1,127	62	1,123	67	0	0	2,379
	CNA441	246	14	245	15	0	0	518
	CNA500	113	6	112	7	0	0	23
	CNA510	395	22	393	23	0	0	83
	CNA525C	1,383	77	1,377	82	0	0	2,91
	CNA55B	657	36	654	39	0	0	1,38
	CNA560U	515	28	513	30	0	0	1,08
	CNA560XL	633	35	631	37	0	0	1,33
	CNA680	378	21	376	22	0	0	79
	CNA750	593	33	591	35	0	0	1,25
	COMSEP	657	36	655	39	0	0	1,38
	DHC6	2,317	128	2,308	137	0	0	4,89
	ECLIPSE500	87	5	86	5	0	0	18
	EMB145	46	3	46	3	0	0	9



Category	AEDT Type	Arri	/als	Depar	tures	Circ	uits	Total
		Day	Night	Day	Night	Day	Night	
	FAL900EX	568	31	566	34	0	0	1,19
	G650ER	40	2	40	2	0	0	8
	GASEPF	750	41	747	44	0	0	1,58
	GASEPV	1,624	90	1,617	96	0	0	3,42
	GIIB	26	1	26	2	0	0	5
	GIV	458	25	457	27	0	0	96
	GV	268	15	267	16	0	0	56
	HS748A	34	2	34	2	0	0	7
	IA1125	204	11	203	12	0	0	43
	LEAR35	1,418	78	1,413	84	0	0	2,99
	MU3001	387	21	386	23	0	0	81
	PA28	486	27	484	29	0	0	1,02
	PA30	43	2	43	3	0	0	9
	SA350D	200	11	199	12	0	0	42
	T-38A	16	1	16	1	0	0	3
	Subtotal	21,582	1,194	21,501	1,276	0	0	45,55
Itinerant	CNA208	1,022	88	1,074	36	0	0	2,22
Military	T-38A	253	22	266	9	0	0	54
	CNA510	182	16	192	6	0	0	39
	MU3001	165	14	173	6	0	0	35
	S70	151	13	158	5	0	0	32
	B429	140	12	147	5	0	0	30
	DHC6	110	9	116	4	0	0	23
	A7D	92	8	97	3	0	0	20
	F18EF	48	4	51	2	0	0	10
	KC135R	38	3	40	1	0	0	8
	Subtotal	2,201	190	2,313	78	0	0	4,78
Local General	CNA172	0	0	0	0	650	45	69
Aviation and Military	GASEPV	0	0	0	0	153	11	16
	GASEPF	0	0	0	0	74	5	7
	Subtotal	0	0	0	0	876	61	93
	Total	125,747	28,854	131,539	23,062	876	61	310,13



### 3.3 Aircraft Noise and Performance Characteristics

AEDT requires the use of specific noise and performance data for each aircraft type operating at the Airport. Noise data are specified in the form of Sound Exposure Level (SEL) at a range of distances (from 200 feet to 25,000 feet) from a receiver on the ground to a particular aircraft with engines operating at a range of thrust levels. Performance data include thrust, speed and altitude profiles for takeoff and landing operations. The AEDT automatically accesses the noise and performance data for takeoff and landing operations by those aircraft types.

Within the AEDT database, aircraft departure profiles are defined by a range of trip distances identified as "stage lengths." Higher stage lengths (longer trip distances) are associated with heavier aircraft due to the increase in fuel requirements for the flight. For example, a departure aircraft with a trip distance less than 500 Nautical Miles (nmi) would be assigned a stagelength value of one, where a departure aircraft with a trip distance of 3,000 nmi would be assigned a stagelength value of five. The noise calculations presented in this document used the standard AEDT departure profiles. **Table 9** provides the stagelength classifications by their associated trip distances. **Table 10, Table 11 Table 12, Table 13**, and **Table 14** show the 2027, 2032, and 2037 Modeled Departure Stagelength Usage by Aircraft Type. Forecast year 2037 only consists of an action case for informational purposes.

**Table 9. Stagelengths by Trip Distance** 

Stagelength	Trip Distance (nmi)
1	0-500
2	501-1,000
3	1,001-1,500
4	1,501-2,500
5	2,501-3,500
6	3,501-4,500
7	4,501-5,500
8	5,501-6,500
9	6,501+

Table 10. 2027 Action Conditions Modeled Departure Stagelength Usage by Aircraft Type

AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
1900D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
717200	1%	99%	0%	0%	0%	0%	0%	0%	0%	100%
737700	37%	45%	18%	0%	0%	0%	0%	0%	0%	100%
737800	27%	38%	33%	2%	0%	0%	0%	0%	0%	100%
7378MAX	39%	34%	27%	0%	0%	0%	0%	0%	0%	100%
747400	0%	4%	0%	0%	0%	96%	0%	0%	0%	100%
757PW	74%	22%	4%	0%	0%	0%	0%	0%	0%	100%
757RR	80%	20%	0%	0%	0%	0%	0%	0%	0%	100%

AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
767300	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
7673ER	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
767CF6	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
777200	54%	0%	0%	0%	0%	46%	0%	0%	0%	100%
7773ER	2%	0%	0%	0%	0%	98%	0%	0%	0%	100%
7878R	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
A300-622R	56%	44%	0%	0%	0%	0%	0%	0%	0%	100%
A319-131	7%	65%	27%	1%	0%	0%	0%	0%	0%	100%
A320-211	2%	31%	53%	14%	0%	0%	0%	0%	0%	100%
A320-232	10%	50%	40%	0%	0%	0%	0%	0%	0%	100%
A320-271N	5%	58%	34%	3%	0%	0%	0%	0%	0%	100%
A321-232	35%	56%	8%	0%	0%	0%	0%	0%	0%	100%
A330-343	1%	1%	0%	0%	0%	0%	98%	0%	0%	100%
A350-941	0%	4%	0%	0%	0%	96%	0%	0%	0%	100%
BD-700-1A10	30%	26%	35%	3%	0%	4%	2%	0%	0%	100%
BD-700-1A11	33%	26%	36%	3%	0%	2%	0%	0%	0%	100%
BEC58P	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CIT3	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL600	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL601	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA172	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA182	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA206	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA208	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA441	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA500	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA510	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA525C	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA55B	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560U	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560XL	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA680	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA750	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
COMSEP	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CRJ9-ER	4%	60%	36%	0%	0%	0%	0%	0%	0%	100%
DHC6	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
DHC830	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%



AEDT Type				Stage	elength					Total
	1	2	3	4	5	6	7	8	9	
ECLIPSE500	66%	34%	0%	0%	0%	0%	0%	0%	0%	100%
EMB145	61%	24%	14%	0%	0%	0%	0%	0%	0%	100%
EMB14L	82%	17%	1%	0%	0%	0%	0%	0%	0%	100%
EMB170	23%	30%	46%	0%	0%	0%	0%	0%	0%	100%
EMB175	12%	12%	76%	0%	0%	0%	0%	0%	0%	100%
EMB190	1%	32%	68%	0%	0%	0%	0%	0%	0%	100%
FAL900EX	57%	20%	19%	4%	0%	0%	0%	0%	0%	100%
G650ER	31%	15%	43%	3%	3%	4%	0%	0%	0%	100%
GASEPF	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GASEPV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIIB	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
HS748A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
IA1125	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
LEAR35	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MD11GE	99%	1%	1%	0%	0%	0%	0%	0%	0%	100%
MD11PW	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MU3001	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA28	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA30	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
SA350D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
T-38A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%

Table 11. 2027 No Action Conditions Modeled Departure Stagelength Usage by Aircraft Type

AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
1900D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
717200	1%	99%	0%	0%	0%	0%	0%	0%	0%	100%
737700	37%	45%	18%	0%	0%	0%	0%	0%	0%	100%
737800	27%	38%	33%	2%	0%	0%	0%	0%	0%	100%
7378MAX	39%	34%	27%	0%	0%	0%	0%	0%	0%	100%
747400	0%	4%	0%	0%	0%	96%	0%	0%	0%	100%
757PW	74%	22%	4%	0%	0%	0%	0%	0%	0%	100%
757RR	80%	20%	0%	0%	0%	0%	0%	0%	0%	100%
767300	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%



AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
7673ER	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
767CF6	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
777200	54%	0%	0%	0%	0%	46%	0%	0%	0%	100%
7773ER	2%	0%	0%	0%	0%	98%	0%	0%	0%	100%
7878R	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
A300-622R	56%	44%	0%	0%	0%	0%	0%	0%	0%	100%
A319-131	7%	65%	27%	1%	0%	0%	0%	0%	0%	100%
A320-211	2%	31%	53%	14%	0%	0%	0%	0%	0%	100%
A320-232	10%	50%	40%	0%	0%	0%	0%	0%	0%	100%
A320-271N	5%	58%	34%	3%	0%	0%	0%	0%	0%	100%
A321-232	35%	56%	8%	0%	0%	0%	0%	0%	0%	100%
A330-343	1%	1%	0%	0%	0%	0%	98%	0%	0%	100%
A350-941	0%	4%	0%	0%	0%	96%	0%	0%	0%	100%
BD-700-1A10	30%	26%	35%	3%	0%	4%	2%	0%	0%	100%
BD-700-1A11	33%	26%	36%	3%	0%	2%	0%	0%	0%	100%
BEC58P	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CIT3	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL600	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL601	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA172	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA182	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA206	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA208	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA441	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA500	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA510	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA525C	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA55B	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560U	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560XL	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA680	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA750	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
COMSEP	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CRJ9-ER	4%	60%	36%	0%	0%	0%	0%	0%	0%	100%
DHC6	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
DHC830	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
ECLIPSE500	66%	34%	0%	0%	0%	0%	0%	0%	0%	100%



AEDT Type				Stage	elength					Total
	1	2	3	4	5	6	7	8	9	
EMB145	61%	24%	14%	0%	0%	0%	0%	0%	0%	100%
EMB14L	82%	17%	1%	0%	0%	0%	0%	0%	0%	100%
EMB170	23%	30%	46%	0%	0%	0%	0%	0%	0%	100%
EMB175	12%	12%	76%	0%	0%	0%	0%	0%	0%	100%
EMB190	1%	32%	68%	0%	0%	0%	0%	0%	0%	100%
FAL900EX	57%	20%	19%	4%	0%	0%	0%	0%	0%	100%
G650ER	31%	15%	43%	3%	3%	4%	0%	0%	0%	100%
GASEPF	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GASEPV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIIB	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
HS748A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
IA1125	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
LEAR35	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MD11GE	99%	1%	1%	0%	0%	0%	0%	0%	0%	100%
MD11PW	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MU3001	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA28	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA30	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
SA350D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
T-38A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%

Table 12. 2032 Action Conditions Modeled Departure Stagelength Usage by Aircraft Type

AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
1900D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
717200	1%	99%	0%	0%	0%	0%	0%	0%	0%	100%
737700	37%	45%	18%	0%	0%	0%	0%	0%	0%	100%
737800	27%	38%	33%	2%	0%	0%	0%	0%	0%	100%
7378MAX	39%	34%	27%	0%	0%	0%	0%	0%	0%	100%
757PW	74%	22%	4%	0%	0%	0%	0%	0%	0%	100%
757RR	80%	20%	0%	0%	0%	0%	0%	0%	0%	100%
767300	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
7673ER	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
777200	54%	0%	0%	0%	0%	46%	0%	0%	0%	100%



AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
7773ER	2%	0%	0%	0%	0%	98%	0%	0%	0%	100%
7878R	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
A300-622R	56%	44%	0%	0%	0%	0%	0%	0%	0%	100%
A319-131	7%	65%	27%	1%	0%	0%	0%	0%	0%	100%
A320-211	2%	31%	53%	14%	0%	0%	0%	0%	0%	100%
A320-232	10%	50%	40%	0%	0%	0%	0%	0%	0%	100%
A320-271N	5%	58%	34%	3%	0%	0%	0%	0%	0%	100%
A321-232	35%	56%	8%	0%	0%	0%	0%	0%	0%	100%
A330-343	1%	1%	0%	0%	0%	0%	98%	0%	0%	100%
A350-941	0%	4%	0%	0%	0%	96%	0%	0%	0%	100%
BD-700-1A10	30%	26%	35%	3%	0%	4%	2%	0%	0%	100%
BD-700-1A11	33%	26%	36%	3%	0%	2%	0%	0%	0%	100%
BEC58P	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CIT3	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL600	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL601	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA172	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA182	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA206	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA208	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA441	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA500	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA510	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA525C	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA55B	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560U	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560XL	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA680	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA750	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
COMSEP	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CRJ9-ER	4%	60%	36%	0%	0%	0%	0%	0%	0%	100%
DHC6	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
DHC830	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
ECLIPSE500	66%	34%	0%	0%	0%	0%	0%	0%	0%	100%
EMB145	61%	24%	14%	0%	0%	0%	0%	0%	0%	100%
EMB14L	82%	17%	1%	0%	0%	0%	0%	0%	0%	100%
EMB170	23%	30%	46%	0%	0%	0%	0%	0%	0%	100%



AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
EMB175	12%	12%	76%	0%	0%	0%	0%	0%	0%	100%
EMB190	1%	32%	68%	0%	0%	0%	0%	0%	0%	100%
FAL900EX	57%	20%	19%	4%	0%	0%	0%	0%	0%	100%
G650ER	31%	15%	43%	3%	3%	4%	0%	0%	0%	100%
GASEPF	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GASEPV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIIB	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
HS748A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
IA1125	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
LEAR35	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MD11GE	99%	1%	1%	0%	0%	0%	0%	0%	0%	100%
MD11PW	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MU3001	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA28	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA30	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
SA350D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
T-38A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%

Table 13. 2032 No Action Conditions Modeled Departure Stagelength Usage by Aircraft Type

AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
1900D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
717200	1%	99%	0%	0%	0%	0%	0%	0%	0%	100%
737700	37%	45%	18%	0%	0%	0%	0%	0%	0%	100%
737800	27%	38%	33%	2%	0%	0%	0%	0%	0%	100%
7378MAX	39%	34%	27%	0%	0%	0%	0%	0%	0%	100%
757PW	74%	22%	4%	0%	0%	0%	0%	0%	0%	100%
757RR	80%	20%	0%	0%	0%	0%	0%	0%	0%	100%
767300	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
7673ER	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
777200	54%	0%	0%	0%	0%	46%	0%	0%	0%	100%
7773ER	2%	0%	0%	0%	0%	98%	0%	0%	0%	100%
7878R	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
A300-622R	56%	44%	0%	0%	0%	0%	0%	0%	0%	100%



AEDT Type				Stage	elength					Total
	1	2	3	4	5	6	7	8	9	
A319-131	7%	65%	27%	1%	0%	0%	0%	0%	0%	100%
A320-211	2%	31%	53%	14%	0%	0%	0%	0%	0%	100%
A320-232	10%	50%	40%	0%	0%	0%	0%	0%	0%	100%
A320-271N	5%	58%	34%	3%	0%	0%	0%	0%	0%	100%
A321-232	35%	56%	8%	0%	0%	0%	0%	0%	0%	100%
A330-343	1%	1%	0%	0%	0%	0%	98%	0%	0%	100%
A350-941	0%	4%	0%	0%	0%	96%	0%	0%	0%	100%
BD-700-1A10	30%	26%	35%	3%	0%	4%	2%	0%	0%	100%
BD-700-1A11	33%	26%	36%	3%	0%	2%	0%	0%	0%	100%
BEC58P	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CIT3	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL600	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL601	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA172	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA182	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA206	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA208	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA441	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA500	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA510	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA525C	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA55B	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560U	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560XL	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA680	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA750	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
COMSEP	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CRJ9-ER	4%	60%	36%	0%	0%	0%	0%	0%	0%	100%
DHC6	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
DHC830	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
ECLIPSE500	66%	34%	0%	0%	0%	0%	0%	0%	0%	100%
EMB145	61%	24%	14%	0%	0%	0%	0%	0%	0%	100%
EMB14L	82%	17%	1%	0%	0%	0%	0%	0%	0%	100%
EMB170	23%	30%	46%	0%	0%	0%	0%	0%	0%	100%
EMB175	12%	12%	76%	0%	0%	0%	0%	0%	0%	100%
EMB190	1%	32%	68%	0%	0%	0%	0%	0%	0%	100%
FAL900EX	57%	20%	19%	4%	0%	0%	0%	0%	0%	100%



AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
G650ER	31%	15%	43%	3%	3%	4%	0%	0%	0%	100%
GASEPF	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GASEPV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIIB	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
HS748A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
IA1125	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
LEAR35	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MD11GE	99%	1%	1%	0%	0%	0%	0%	0%	0%	100%
MD11PW	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MU3001	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA28	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA30	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
SA350D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
T-38A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%

Table 14. 2037 Action Conditions Modeled Departure Stagelength Usage by Aircraft Type

AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
1900D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
717200	1%	99%	0%	0%	0%	0%	0%	0%	0%	100%
737700	37%	45%	18%	0%	0%	0%	0%	0%	0%	100%
737800	27%	38%	33%	2%	0%	0%	0%	0%	0%	100%
7378MAX	39%	34%	27%	0%	0%	0%	0%	0%	0%	100%
757PW	74%	22%	4%	0%	0%	0%	0%	0%	0%	100%
757RR	80%	20%	0%	0%	0%	0%	0%	0%	0%	100%
767300	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
7673ER	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
777200	54%	0%	0%	0%	0%	46%	0%	0%	0%	100%
7773ER	2%	0%	0%	0%	0%	98%	0%	0%	0%	100%
7878R	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
A300-622R	56%	44%	0%	0%	0%	0%	0%	0%	0%	100%
A319-131	7%	65%	27%	1%	0%	0%	0%	0%	0%	100%
A320-211	2%	31%	53%	14%	0%	0%	0%	0%	0%	100%
A320-232	10%	50%	40%	0%	0%	0%	0%	0%	0%	100%



AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
A320-271N	5%	58%	34%	3%	0%	0%	0%	0%	0%	100%
A321-232	35%	56%	8%	0%	0%	0%	0%	0%	0%	100%
A330-343	1%	1%	0%	0%	0%	0%	98%	0%	0%	100%
A350-941	0%	4%	0%	0%	0%	96%	0%	0%	0%	100%
BD-700-1A10	30%	26%	35%	3%	0%	4%	2%	0%	0%	100%
BD-700-1A11	33%	26%	36%	3%	0%	2%	0%	0%	0%	100%
BEC58P	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CIT3	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL600	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CL601	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA172	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA182	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA206	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA208	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA441	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA500	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA510	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA525C	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA55B	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560U	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA560XL	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA680	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CNA750	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
COMSEP	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
CRJ9-ER	4%	60%	36%	0%	0%	0%	0%	0%	0%	100%
DHC6	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
DHC830	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
ECLIPSE500	66%	34%	0%	0%	0%	0%	0%	0%	0%	100%
EMB145	61%	24%	14%	0%	0%	0%	0%	0%	0%	100%
EMB14L	82%	17%	1%	0%	0%	0%	0%	0%	0%	100%
EMB170	23%	30%	46%	0%	0%	0%	0%	0%	0%	100%
EMB175	12%	12%	76%	0%	0%	0%	0%	0%	0%	100%
EMB190	1%	32%	68%	0%	0%	0%	0%	0%	0%	100%
FAL900EX	57%	20%	19%	4%	0%	0%	0%	0%	0%	100%
G650ER	31%	15%	43%	3%	3%	4%	0%	0%	0%	100%
GASEPF	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GASEPV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%



AEDT Type				Stag	elength					Total
	1	2	3	4	5	6	7	8	9	
GIIB	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GIV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
GV	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
HS748A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
IA1125	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
LEAR35	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MD11GE	99%	1%	1%	0%	0%	0%	0%	0%	0%	100%
MD11PW	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
MU3001	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA28	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
PA30	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
SA350D	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
T-38A	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%

# 3.4 Runway Utilization

The primary factor affecting runway use at airports is weather; specifically, the wind direction and wind speed. An additional factor that may affect runway use includes the position of the facility or ramp relative to the runway.

HMMH utilized 2019 data obtained from the AUS NOMS to compile runway use tables and categorized this information by arrival, departure, or circuits, as well as day and night. In 2019, the two runways were designated as: Runway 17L/35R and Runway 17R/35L, due to a shift in magnetic heading in 2020 the Runways were renamed to the current Runway 18L/36R and Runway 18R/36L. The current magnetic headings of the Runways are used for the 2027, 2032, and 2037 modeling scenarios. HMMH separated the data into jet and non-jet categories since these categories of aircraft types may use the runways differently due to the performance characteristics of the aircraft. Runway utilization remains the same from baseline for all modeling scenarios as shown in **Table 15.** 



Table 15. 2027, 2032, and 2037 Runway Utilization

Source: AUS NOMS, HMMH

Aircraft	Runway	Arr	ival	Depa	rture
Category		Day	Night	Day	Night
Jet	36R	19%	15%	19%	13%
	36L	16%	18%	16%	18%
	18R	35%	44%	27%	32%
	18L	30%	24%	39%	37%
	Total	100%	100%	100%	100%
Non-Jet	36R	33%	15%	34%	11%
	36L	4%	10%	2%	20%
	18R	7%	39%	3%	49%
	18L	56%	36%	61%	20%
	Total	100%	100%	100%	100%
All Aircraft	36R	21%	15%	21%	13%
	36L	15%	17%	15%	18%
	18R	31%	43%	23%	34%
	18L	33%	24%	41%	35%
	Total	100%	100%	100%	100%
Note: The thr	ee helipads a	re assumed to	have equal	use.	

Table 16. 2027, 2032, and 2037 Runway Utilization for Fixed-Wing Aircraft (Circuits)

Aircraft Category	Runway	Day	Night
Non-Jet	35R	18%	14%
	35L	22%	18%
	17R	28%	25%
	17L	32%	43%
	Total	100%	100%

## 3.5 Flight Track Geometry and Use

In addition to runway usage, radar data from the AUS NOMS provided an ideal source of information for identifying where aircraft fly and how often they use specific flight corridors in the vicinity of the airport. In the development of the AUS EA, sets of prototypical flight tracks were defined for noise modeling. Known as "backbones," these tracks follow the central tendency of more dispersed paths flown by aircraft along each major flight corridor. Additional model tracks were created to either side of the backbones to account for the

dispersion within each corridor, and traffic is distributed normally<sup>6</sup> onto each track group to reflect the spreading of noise along the corridor.

Aircraft are assigned to specific modeling tracks based on historical averages determined through analysis of the radar data. Knowledge of destinations for departures from the airport or points of origin for arrivals to the airport are also considered. The standard procedure for model track development entails separating tracks by operation type, (e.g., arrival or departure), propulsion type (e.g., jet, or non-jet), and runway end. HMMH analyzed flight tracks with the same operation type, runway end, and propulsion type for similar geometry and this resulted in the final flight track bundles used to create model tracks.

Model flight tracks are labeled with a number following the designations distinguishing tracks that take different routes from the same runway end. For example, flight track A17LJ01 identifies an arrival flight track (A, as opposed to D if it were a departure) from Runway 17L (17L), the primary aircraft type, (J for jet, NJ for non-jet), and finally the number at the end of the track name differentiates it from others in its group (or bundle). As mentioned in Section 3.4, 2019 radar data utilized the old naming convention for the Runways. This is reflected in the bundling and flight track development but does not impact or change noise modeling as these flight tracks will be modeled on the current Runway name, and geographic coordinates for the 2027, 2032, and 2037 scenarios

All fixed-wing aircraft flight tracks start or end at runway ends. Helicopter tracks generally start and end at a defined helipad and thus are modeled as flights to and from the helipad. Due to the limited amount of helicopter and circuit flight track data contained in the NOMS, circuit tracks will be represented by generic pattern tracks on each runway, and helicopter tracks will be represented by north, south, east, and west straight-in and straight-out tracks from each helipad.

**Table 17** presents the modeled flight track usage rates by runway end and aircraft type category, for fixed-wing arrivals and departures. There are no known changes to flight procedures expected at AUS as of February 2022, therefore the same flight track utilization will be used through all the future scenarios.

**Figure 2** through **Figure 9** present the modeled flight track geometry, jet, and non-jet flight activity based on Runway end operation in both north flow (aircraft arrive from the south and depart to the north), and south flow (aircraft arrive from the north and depart to the south) conditions. These tracks were developed using calendar year 2019 data from the AUS NOMS. Underlaying the modeled flight tracks are the radar tracks from the NOMS.

Table 17. Modeled Fixed-wing Flight Track Utilization
Source: AUS NOMS, HMMH

Aircraft Type	Operation Type	Runway	Bundle Name	Percent
			A17LJ01	1.2%
			A17LJ02	1.0%
			A17LJ03	40.0%
			A17LJ04	1.4%
Jet	Arrivals	17L	A17LJ05	1.8%
			A17LJ06	14.5%
			A17LJ07	19.1%
			A17LJ08	8.3%
			A17LJ09	8.2%

<sup>&</sup>lt;sup>6</sup> According to a statistical normal (Gaussian) distribution



Aircraft Type	Operation Type	Runway	Bundle Name	Percent
			A17LJ10	1.4%
			A17LJ11	2.5%
			A17LJ12	0.6%
			Total	100.0%
			A17LNJ01	11.7%
			A17LNJ02	8.8%
			A17LNJ03	12.5%
			A17LNJ04	7.3%
			A17LNJ05	5.3%
Non-lat			A17LNJ06	15.9%
Non-Jet			A17LNJ07	13.1%
			A17LNJ08	10.1%
			A17LNJ09	6.1%
			A17LNJ10	6.2%
			A17LNJ11	2.8%
			Total	100.0%
			D17LJ01	0.5%
			D17LJ02	9.4%
			D17LJ03	46.9%
			D17LJ04	5.5%
			D17LJ05	0.2%
Jet			D17LJ06	3.2%
Jet			D17LJ07	6.5%
			D17LJ08	2.8%
			D17LJ09	3.4%
			D17LJ10	9.9%
	Departures		D17LJ11	11.7%
	Departures		Total	100.0%
			D17LNJ01	6.8%
			D17LNJ02	10.8%
			D17LNJ03	3.6%
			D17LNJ04	2.8%
Non-Jet			D17LNJ05	15.6%
MOII-JEL			D17LNJ06	11.0%
			D17LNJ07	2.2%
			D17LNJ08	8.0%
			D17LNJ09	4.2%
			D17LNJ10	5.7%



			D17LNJ11	17.2%
			D17LNJ12	12.2%
			Total	100.0%
			A17RJ01	2.3%
			A17RJ02	2.8%
			A17RJ03	3.6%
			A17RJ04	36.8%
			A17RJ05	5.1%
			A17RJ06	2.5%
Jet			A17RJ07	30.7%
			A17RJ08	1.7%
			A17RJ09	0.7%
			A17RJ10	13.5%
	Arrivals		A17RJ11	0.2%
			A17RJ12	0.2%
			Total	100.0%
			A17RNJ01	2.8%
			A17RNJ02	31.7%
		17R	A17RNJ03	13.0%
Non-Jet			A17RNJ04	7.7%
			A17RNJ05	13.5%
			A17RNJ06	31.3%
			Total	100.0%
	Departures		D17RJ01	0.3%
			D17RJ02	12.1%
			D17RJ03	1.0%
			D17RJ04	0.2%
			D17RJ05	3.2%
lat			D17RJ06	0.6%
Jet			D17RJ07	32.7%
			D17RJ08	7.0%
			D17RJ09	8.7%
			D17RJ10	33.5%
			D17RJ11	0.7%
			Total	100.0%
			D17RNJ01	2.3%
Non-Jet			D17RNJ02	41.5%
			D17RNJ03	17.1%



Aircraft Type	Operation Type	Runway	Bundle Name	Percent
			D17RNJ04	25.9%
			D17RNJ05	10.8%
			D17RNJ06	2.4%
			Total	100.0%
			A35LJ01	27.1%
			A35LJ02	28.1%
			A35LJ03	2.6%
			A35LJ04	1.6%
			A35LJ05	1.3%
l-A			A35LJ06	20.7%
Jet			A35LJ07	2.0%
			A35LJ08	15.5%
			A35LJ09	0.6%
	Arrivals		A35LJ10	0.2%
			A35LJ11	0.3%
			Total	100.0%
			A35LNJ01	12.6%
			A35LNJ02	6.5%
			A35LNJ03	5.0%
Non-Jet		35L	A35LNJ04	29.1%
			A35LNJ05	44.0%
			A35LNJ06	2.7%
			Total	100.0%
	Departures		D35LJ01	0.5%
			D35LJ02	0.4%
			D35LJ03	11.3%
			D35LJ04	0.3%
Jet			D35LJ05	2.9%
			D35LJ06	38.5%
			D35LJ07	6.4%
			D35LJ08	39.5%
			Total	100.0%
Non-Jet			D35LNJ01	3.5%
			D35LNJ02	41.8%
			D35LNJ03	14.2%
			D35LNJ04	36.9%
			D35LNJ05	3.5%
			Total	100.0%



Aircraft Type	Operation Type	Runway	Bundle Name	Percent
			A35RJ01	7.9%
			A35RJ02	1.6%
			A35RJ03	1.0%
			A35RJ04	2.7%
			A35RJ05	47.1%
			A35RJ06	2.8%
			A35RJ07	2.0%
Jet			A35RJ08	33.4%
			A35RJ09	0.6%
			A35RJ10	0.3%
			A35RJ11	0.3%
			A35RJ12	0.1%
			A35RJ13	0.1%
	Arrivals		Total	100.0%
			A35RNJ01	2.3%
			A35RNJ02	12.0%
			A35RNJ03	7.4%
			A35RNJ04	7.1%
		250	A35RNJ05	4.8%
Non-lat		35R	A35RNJ06	9.7%
Non-Jet			A35RNJ07	12.2%
			A35RNJ08	12.8%
			A35RNJ09	7.8%
			A35RNJ10	6.7%
			A35RNJ11	17.4%
			Total	100.0%
	Departures		D35RJ01	0.5%
			D35RJ02	10.9%
			D35RJ03	1.2%
			D35RJ04	66.0%
			D35RJ05	1.8%
Jet			D35RJ06	3.5%
			D35RJ07	3.2%
			D35RJ08	2.4%
			D35RJ09	0.4%
			D35RJ10	9.8%
			D35RJ11	0.2%
			Total	100.0%



Aircraft Type	Operation Type	Runway	Bundle Name	Percent
			D35RNJ01	5.1%
			D35RNJ02	6.6%
			D35RNJ03	6.7%
			D35RNJ04	10.4%
			D35RNJ05	5.9%
			D35RNJ06	7.4%
Non let			D35RNJ07	4.9%
Non-Jet			D35RNJ08	9.8%
			D35RNJ09	11.6%
			D35RNJ10	15.4%
			D35RNJ11	6.1%
			D35RNJ12	6.9%
			D35RNJ13	3.3%
			Total	100.0%

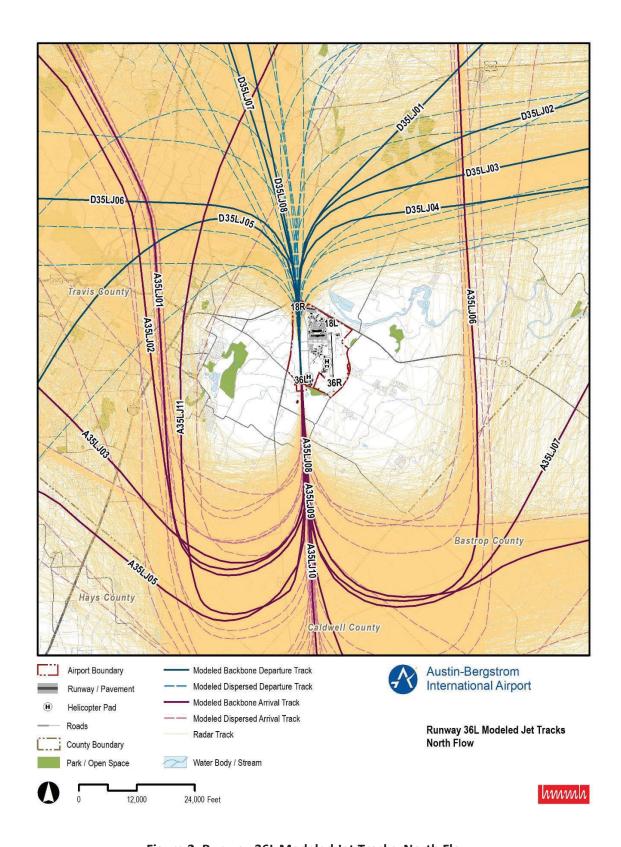


Figure 2. Runway 36L Modeled Jet Tracks, North Flow



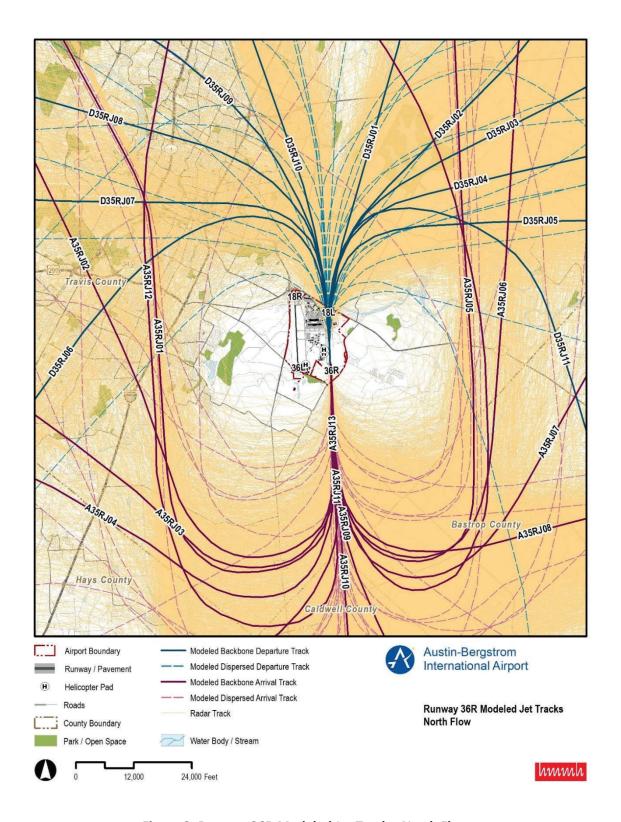


Figure 3: Runway 36R Modeled Jet Tracks, North Flow



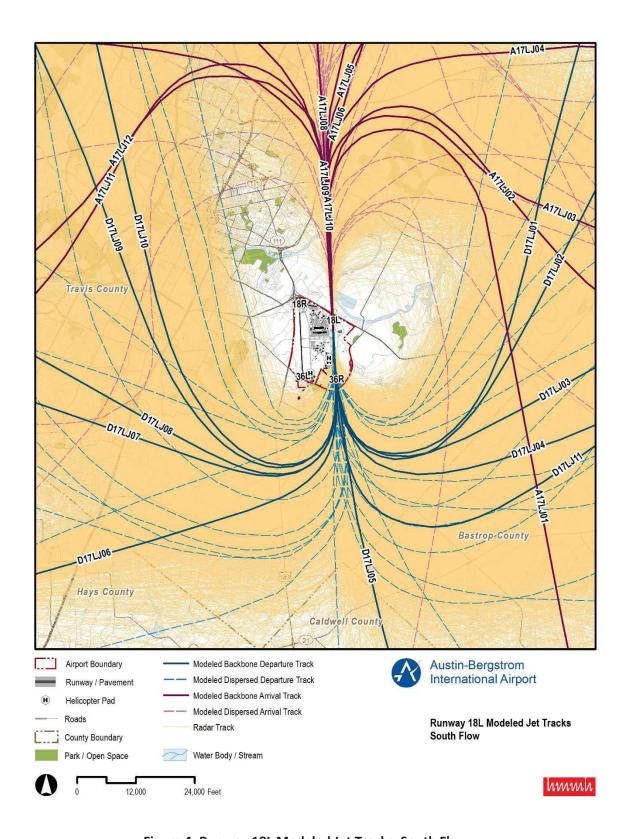


Figure 4: Runway 18L Modeled Jet Tracks, South Flow



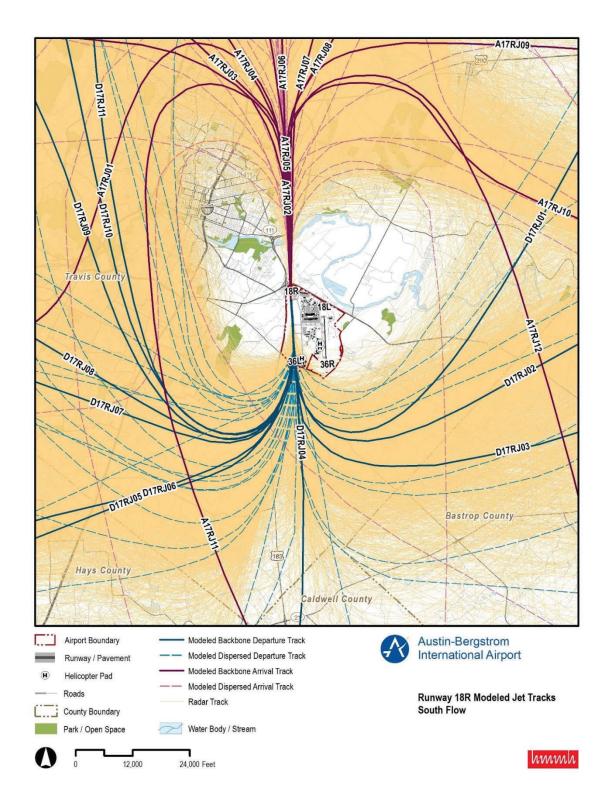


Figure 5: Runway 18R Modeled Jet Tracks, South Flow



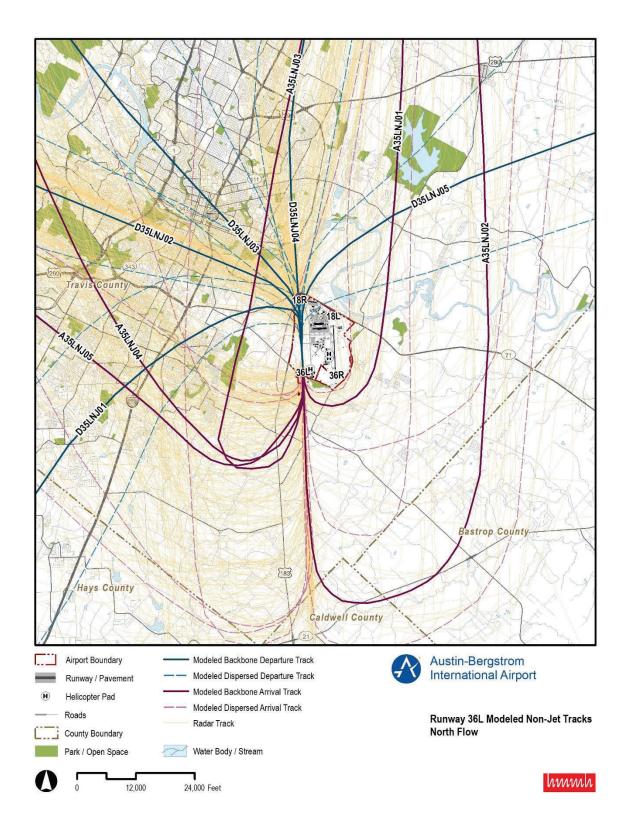


Figure 6: Runway 36L Modeled Non-Jet Tracks, North Flow



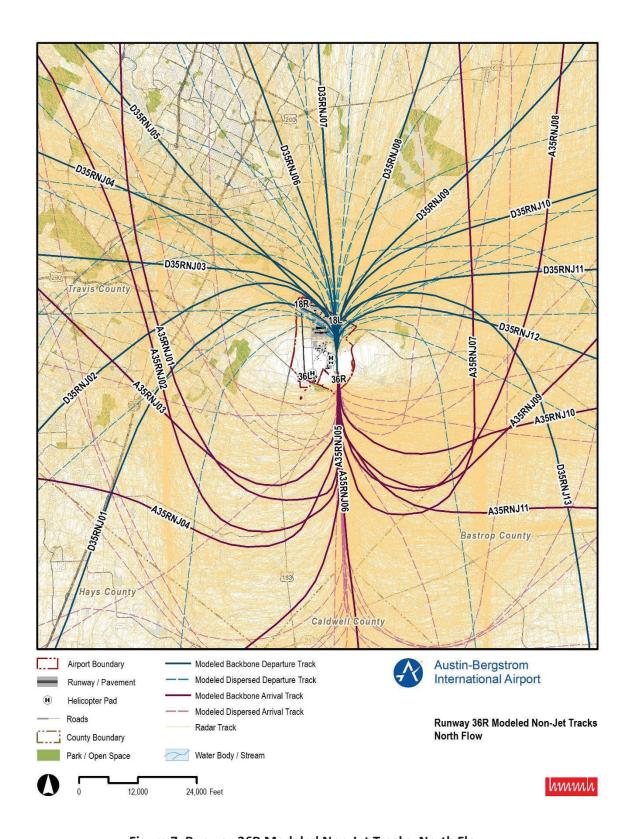


Figure 7: Runway 36R Modeled Non-Jet Tracks, North Flow



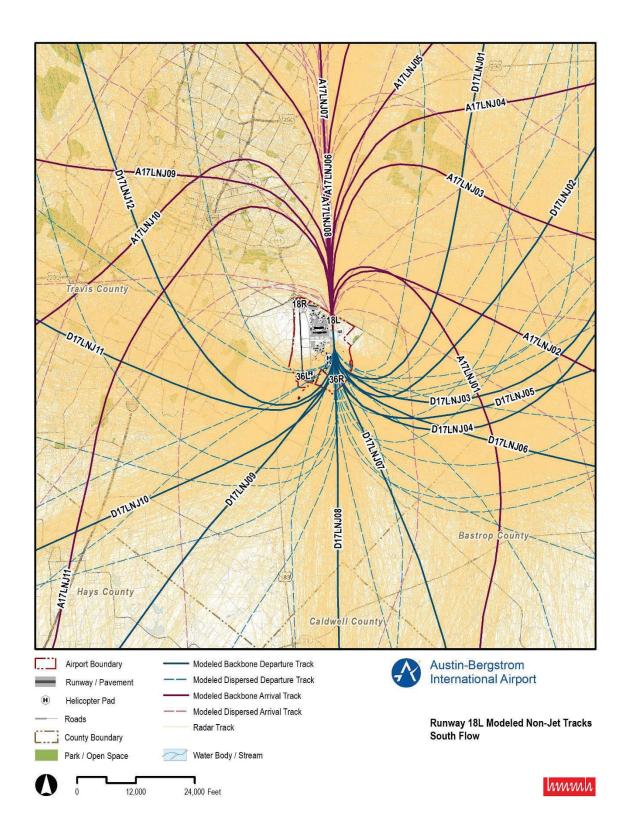


Figure 8: Runway 18L Modeled Non-Jet Tracks, South Flow



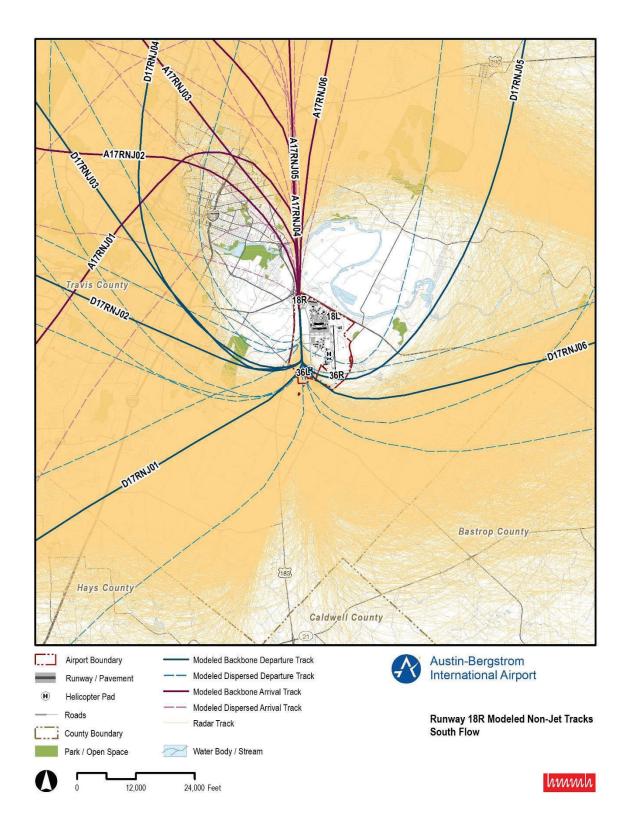


Figure 9: Runway 18R Modeled Non-Jet Tracks, South Flow



### 3.6 Meteorological Data

Meteorological settings within the AEDT affect its calculation of aircraft performance profiles and sound propagation. These settings include average annual temperature, barometric pressure, relative humidity, and average headwind speed. The AEDT contains standard reference climatological data for airports throughout the US.

The noise modeling will utilize the following average data for AUS from the AEDT database:

• Temperature: 68.58 F

Station Pressure: 998.08 mbarSea Level Pressure: 1016.02 mbar

Dew point: 57.52° FRelative humidity: 67.93%

The headwind speed will be set to the AEDT default of 6.81 knots.



### 3.7 Aircraft Maintenance Run-up Activity

HMMH was provided a maintenance run-up log from ABIA staff. This log showed that 22 Run-ups were logged by ABIA operations staff in 2019. Aircraft run-ups all occur on the Maintenance Ramp located to the East of Taxiway C, South of Taxiway H, between Taxiway S and Taxiway T. This location is roughly centered between the two Runways and is centrally located South of the main terminal complex. As such, run-up activity will likely not have any influence on the 65 DNL contour. Because of this, run-ups will not be modeled for this EA.

#### 3.8 Terrain

Terrain data describes the elevation of the ground surrounding the airport, and on airport property. The AEDT uses terrain data to adjust the ground level under the flight paths. The terrain data does not affect the aircraft's performance or noise levels but does affect the vertical distance between the aircraft and a "receiver" on the ground. This in turn affects assumptions about how noise propagates over ground. The National Elevation Dataset (NED) 1/3 arc second terrain data were obtained from the United States Geological Survey (USGS). The NED data set has a resolution of 10 meters or approximately 33 feet.

### 4. Noise Analysis Results

DNL contours are the primary mechanism for evaluating airport noise in this EA. A supplemental grid point analysis investigates precisely where and to what extent noise exposure changes would be expected to occur. An inventory of the acreage, population, and housing units within the various bands of noise exposure provides additional information.

#### 4.1 DNL Contours

Noise modeling for this EA was conducted using the FAA's AEDT Version 3d. **Figures 10 through 14** present the required DNL contours of 65 dB, 70 dB, and 75 dB, and for informational purposes only, the 60 dB DNL contour is depicted as a dashed line on each figure. FAA considers a DNL of 65 dB as the threshold below which all land uses are compatible.

**Figure 10** depicts the Existing Conditions noise environment, based on actual 2019 aircraft operations, and also shows the underlying land use types. As shown, The 65 DNL noise contour extends primarily north and south of the runways, along the aircraft approach and departure paths to and from Runways 18L-36R and 18R-36L. The figure also shows individual noise sensitive locations such as schools and places of worship. The FAA's guidelines for land use compatibility presented in Appendix A of 14 CFR Part 150

<sup>&</sup>lt;sup>7</sup> Data downloaded from https://viewer.nationalmap.gov/basic/?howTo=true in 1/3 Arc second GeoTIFF format.



state that all land uses are generally compatible with aircraft noise below 65 dB DNL. The 65 dB DNL noise contour for Runway 18R-36L extends into mostly vacant land to the north and south. A small portion to the north of Runway 18R-36L falls within single family residential mobile home land use. A small portion to the west of Runway 18R-36L encompasses a small area of possible single family and multi-family residential land use area. The 65 DNL noise contour for Runway 18L-36R extends to the north and south into commercial, industrial, recreation, and public land uses. The Proposed Action would not result in a DNL 1.5 dB increase over any noise sensitive sites, therefore, there would be no significant noise impact on the surrounding community. Therefore, no mitigation is required. However, the Airport will assess the introduction of the twenty-three additional residential housing units in the 2032 proposed action as compared to the 2019 baseline, in relation to their Noise Compatibility Program to determine whether the units qualify for noise mitigation under 14 CFR Part 150.

**Figure 11** shows the 65+ DNL contours for the 2027 Action and No Action, including individual noise sensitive locations such as schools and places of worship. The 65 dB DNL noise contour for Runway 18R-36L extends into mostly vacant land to the north and south. A small portion to the north of Runway 18R-36L falls within single family residential and mobile home land use. A small portion to the west of Runway 18R-36L encompasses a small area of possible single family and multi-family residential land use area. The 65 DNL noise contour for Runway 18L-36R extends to the north and south into commercial, industrial, recreation, and public land uses.

**Figure 12** shows the DNL contours for the 2027 Proposed Action. The 65 dB DNL noise contour for Runway 18R-36L extends into mostly vacant land to the north and south. A small portion to the north of Runway 18R-36L falls within single family residential mobile home land use. A small portion to the west of Runway 18R-36L encompasses a small area of possible single family and multi-family residential land use area. The 65 DNL noise contour for Runway 18L-36R extends to the north and south into commercial, industrial, recreation, and public land uses.

**Figure 13** and **Figure 14** portray the DNL contours for the No-Action Alternative and Proposed Action Alternative, respectively, for 2032, representing the forecast five years beyond the target design year. The 2032 Proposed Action 65 DNL noise contour encompasses a slightly larger area compared to the No Action case. The difference in size of the noise exposure contours are a result of the expected increase in passenger aircraft operations related to the expansion. The shape of the contours are essentially the same, as runway usage, flight track geometry, and flight track usage assumptions were held constant.

**Figure 13** shows the 65+ dB DNL noise contours for the 2032 No Action Alternative, including individual noise sensitive locations such as schools and places of worship. The 65 dB DNL noise contour for Runway 18R-36L extends into mostly vacant land to the north and south. A small portion to the north of Runway 18R-36L falls within mobile home land use. A small portion to the west of Runway 18R-36L encompasses a small area of single family and multi-family residential land use area. The 65 DNL noise contour for Runway 18L-36R extends to the north and south into commercial, industrial, recreation, and public land uses. No individual noise sensitive locations such as schools or houses of worship lie within the 65+ dB DNL noise contours for the 2032 No Action Alternative.

**Figure 14** shows the 2032 Proposed Action DNL noise contours. The 65 dB DNL noise contour for Runway 18R-36L extends into mostly vacant land to the north and south. A small portion to the north of Runway 18R-36L falls within mobile home land use. A small portion to the west of Runway 18R-36L encompasses a small area of single family and multi-family residential land use area. The 65 DNL noise contour for Runway 18L-36R extends to the north and south into commercial, industrial, recreation, and public land uses. No individual noise sensitive locations such as schools or houses of worship lie within the 65+ dB DNL noise contours for the 2032 Proposed Action.

Figure 15 shows the 2037 Proposed Action DNL noise contours for informational purposes only.



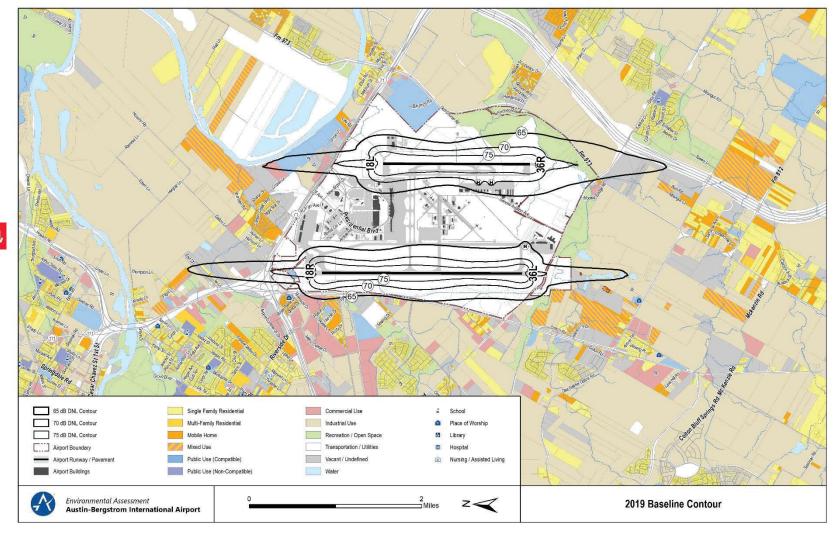


Figure 10. Existing Conditions (2019) DNL Contours





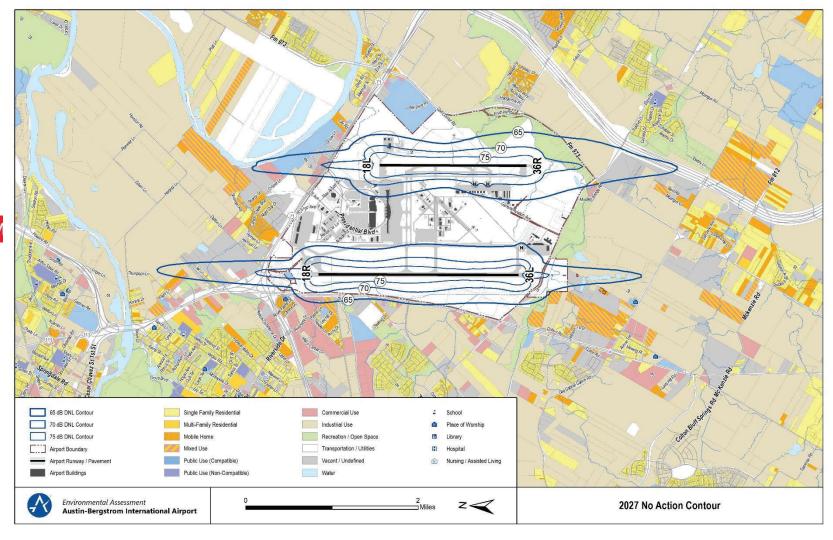


Figure 11. 2027 No-Action Alternative DNL Contours





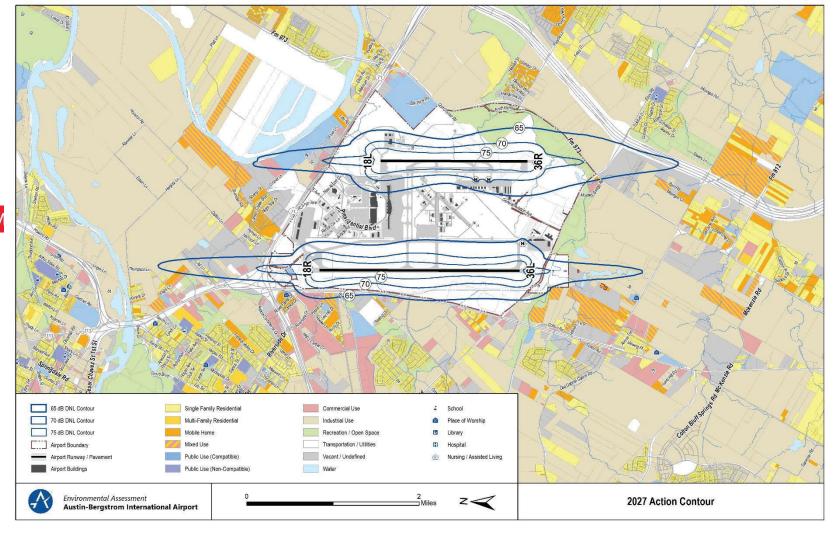


Figure 12. 2027 Proposed Action DNL Contours





65 dB DNL Contour Commercial Use Single Family Residential School 70 dB DNL Contour Multi-Family Residential Industrial Use 75 dB DNL Contour Mobile Home Recreation / Open Space Transportation / Utilities Airport Boundary Mixed Use Public Use (Compatible) Vacant / Undefined Airport Runway / Pavement Nursing / Assisted Living Airport Buildings Public Use (Non-Compatible) Water Environmental Assessment
Austin-Bergstrom International Airport z < 12032 No Action Contour

Figure 13. 2032 No-Action Alternative DNL Contours





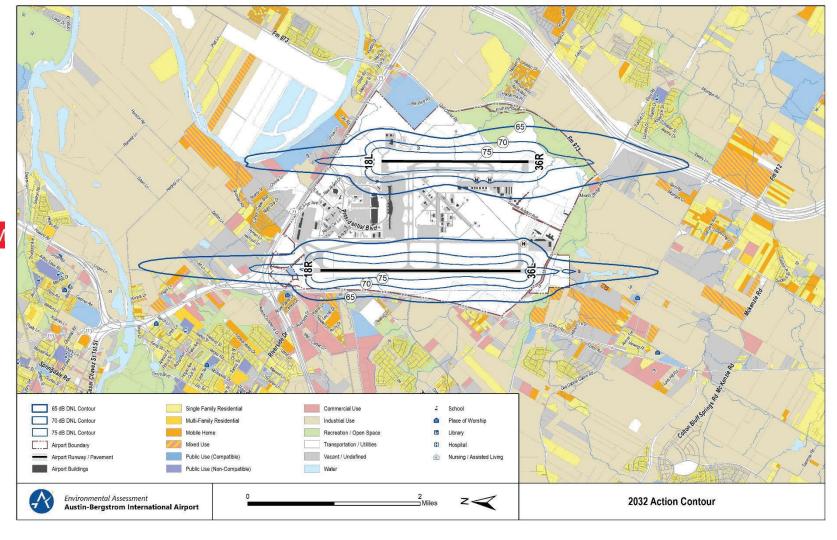
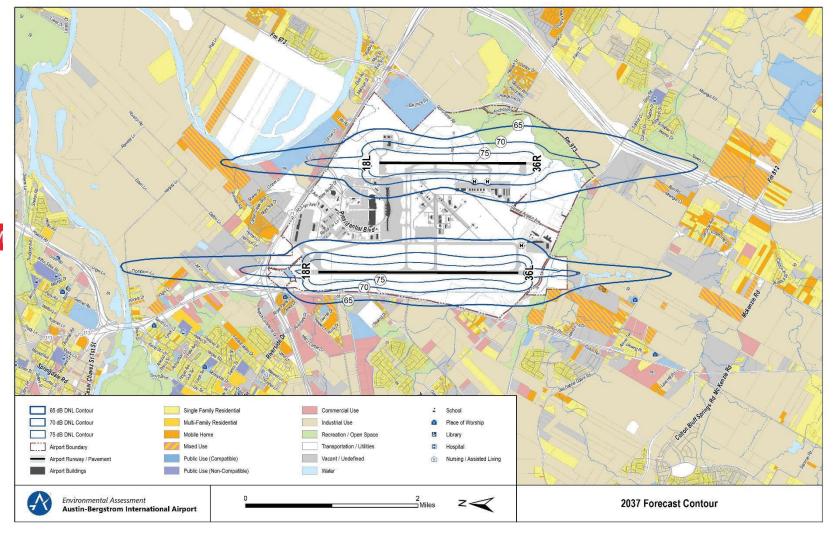


Figure 14. 2032 Proposed Action DNL Contours







**Figure 15. 2037 Proposed Action DNL Contours** 





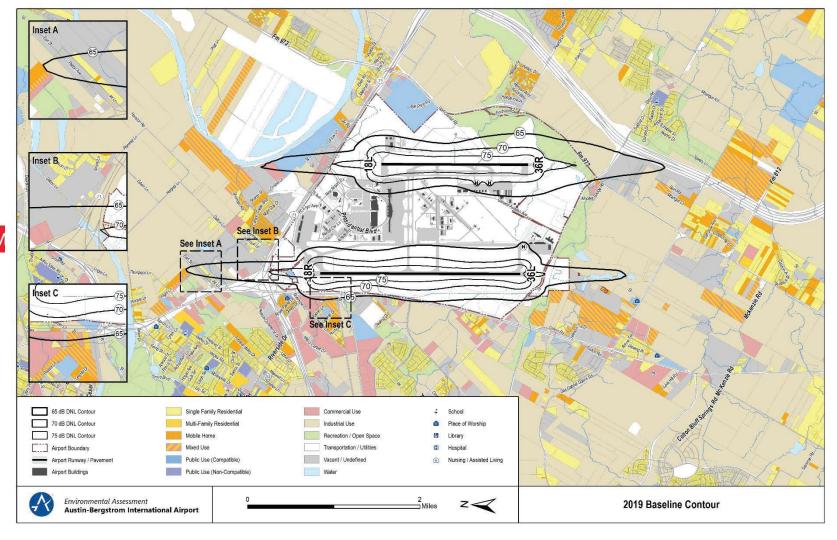


Figure 16. 2019 Existing Conditions DNL Contours w/ Inset





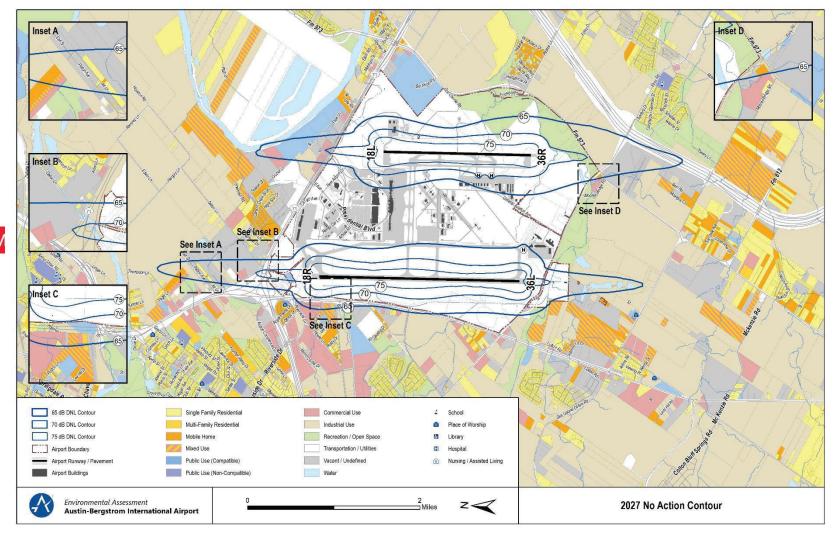


Figure 17. 2027 No Action DNL Contours w/ Inset





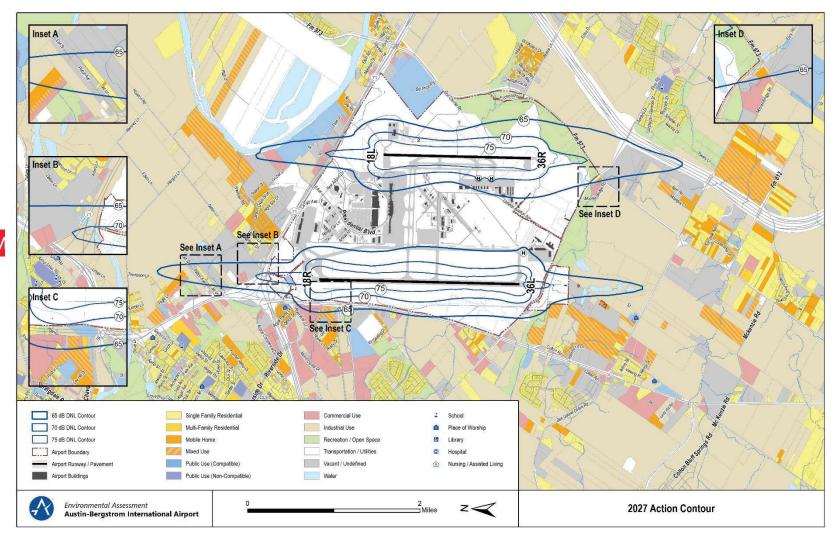
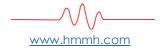


Figure 18. 2027 Proposed Action DNL Contours w/ Inset





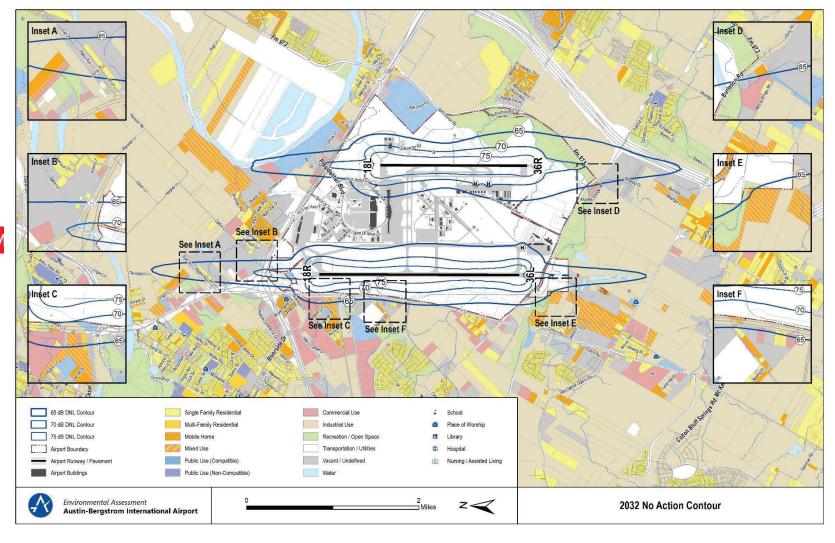


Figure 19. 2032 No Action DNL Contours w/ Inset





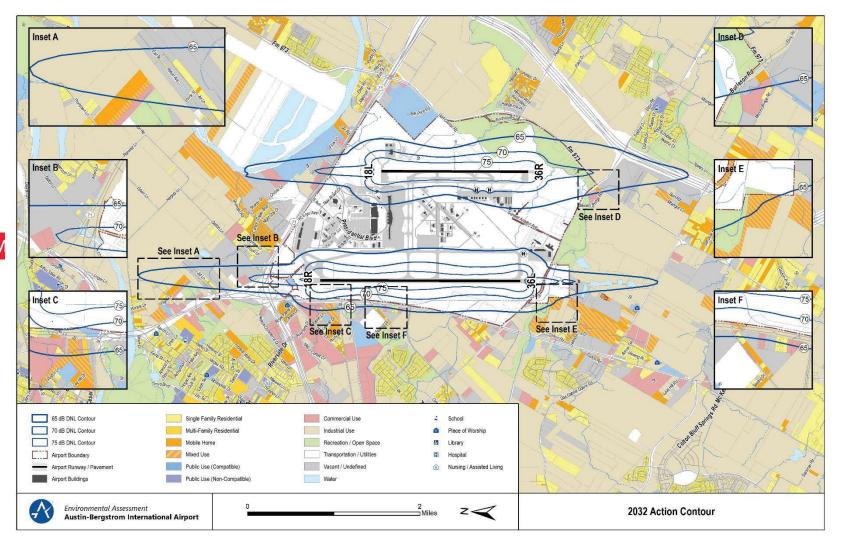


Figure 20. 2032 Proposed Action DNL Contours w/ Inset





# 4.2 Grid Point Analysis

The focus of the grid point analysis is to compare the No-Action and Proposed Action Alternatives, using FAA's thresholds of significance. **Table 18** defines the significance threshold for changes in noise in accordance with FAA Order 1050.1F. When an action (compared to the No-Action alternative for the same timeframe) would cause noise-sensitive areas to have a DNL greater than or equal to 65 dB and experience a noise increase of at least 1.5 dB, the impact is considered significant. **Table 18** also lists FAA-defined reportable changes of noise levels.

Table 18. FAA Thresholds for Significant or Reportable Changes in Noise

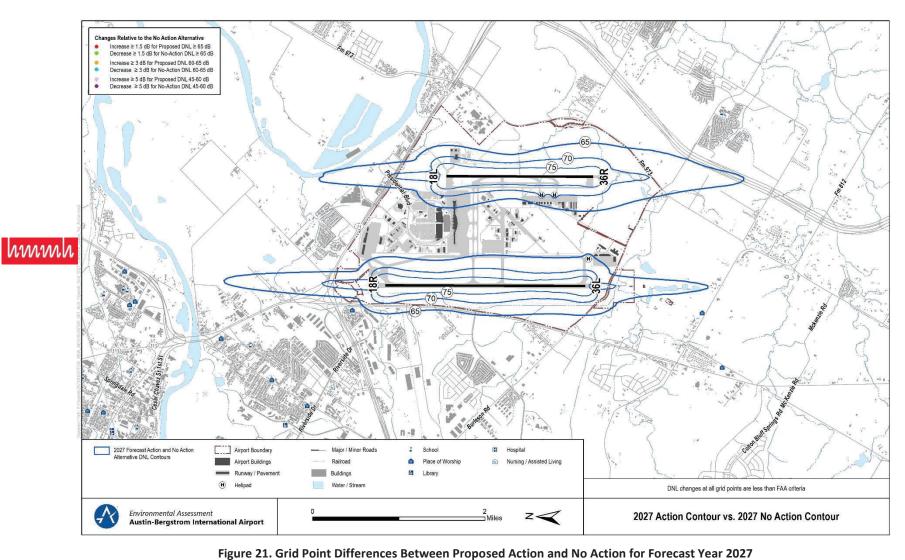
Source: FAA Order 1050.1F Desk Reference, Chapter 11

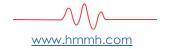
	65 DNL or Greater	Greater than or equal to 60 DNL but less than 65 DNL	Greater than or equal to 45 DNL but less than 60 DNL
Minimum Change in DNL with Alternative	1.5 dB	3.0 dB	5.0 dB
Level of Impact	Significant	Reportable	Reportable



To identify any regions meeting the FAA criteria for significant or reportable changes in noise because of the Proposed Action, HMMH compared the underlying noise exposure grids that inform the contours. **Figure 21** and **Figure 22**and present the No-Action to Proposed Action contour comparisons again, with grid differences color-coded according to the criteria listed in **Table 18**. There are no grid points with significant impacts between the no-action to proposed action contours in 2027 or 2032.







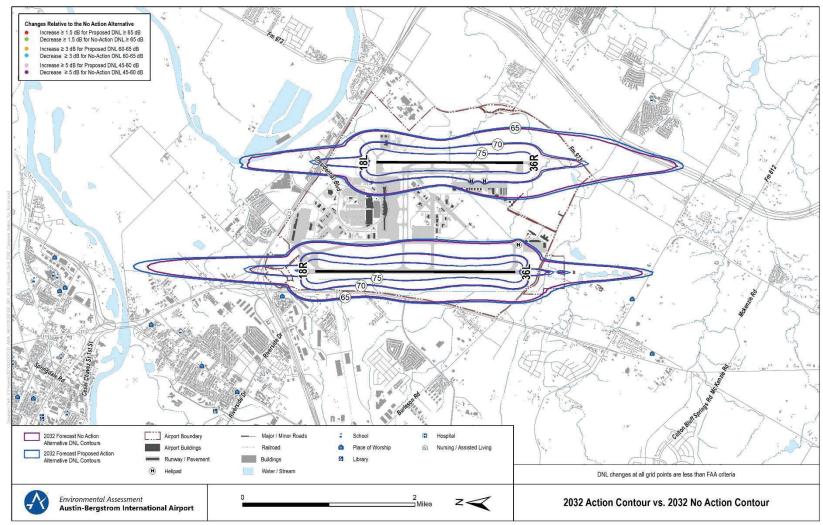


Figure 22. Grid Point Differences Between Proposed Action and No Action for Forecast Year 2032





## 4.3 Population Inventory

For each of the five sets of DNL contours prepared for this EA, HMMH prepared an inventory of housing units and population<sup>8</sup> in the residential land use areas exposed to 65 dB DNL or higher. In order to estimate the number of people residing within the noise contours, existing parcel boundary land use maps were overlaid on 2020 US Census TIGER file maps that depict the smallest census enumeration unit. "Populated Area" data polygons were then created by combining census blocks with the residential land use, concentrating population and housing unit values into the residential portion of the census block where people actually live. For example, in some areas the population is concentrated along the road rather than over several square miles of open or undeveloped land. Using Geographic Information Systems (GIS) tools, the noise contours were intersected with the residential census data. The resultant wholly or partially encompassed residential census areas were then identified for each DNL contour interval; the proportion of total residential area was calculated to estimate the residential population and housing unit counts ascribed to that DNL interval. Figure 16 through Figure 20 show all DNL contour scenarios with insets that show areas of residential land uses that fall within the contours.



**Table 19** presents the estimated population, housing, and land area within the given DNL contour intervals. None of the five scenarios would include residential land use at 70 dB DNL or greater. **Table 19** shows a comparison of noise exposure for the modeled scenarios.

A total of 90 residents and 19 housing units would be within the 65+ dB DNL noise contours in 2027, which is an increase of 60 residents and 12 housing units compared to 2019 conditions. The total area of the 65+ DNL noise contours under the 2027 No Action Alternative is 3,083.85 acres, which is an increase of 428.12 acres. No individual noise sensitive locations such as schools or house of worship would be within the 65+ dB DNL noise contours for the 2027 No Action Alternative.

A total of 100 residents and 21 housing units would be within the 65+ dB DNL 2032 No Action noise contours as a result of no action, which is an increase of 10 residents and 2 housing unit compared to the 2027 No Action Alternative. The total area of the 65+ DNL noise contours under the 2032 No Action Alternative is 3,162.81 acres, which is an increase of 78.96 acres compared to the 2027 No Action Alternative. No individual noise sensitive locations such as schools or house of worship would be within the 65+ dB DNL noise contours for the 2027 No Action Alternative.

A total of 126 residents and 30 housing units would be within the 65+ dB DNL noise contours in 2032 as a result of the Proposed Action, which is an increase of 26 residents and 9 housing units compared to the 2032 No Action Alternative. The total area for the 2032 Proposed Action DNL noise contours is 3,434.57 acres, which is 271.76 acres greater than the area for the 2027 No Action Alternative DNL noise contours. As with the 2032 No Action Alternative, no individual noise sensitive locations such as schools or houses of worship lie within the 65+ dB DNL noise contours for the 2032 Proposed Action.

There were no identified non-residential noise sensitive sites or places of worship, in the 65+ dB DNL interval for all five scenarios.

As noted in the introduction to this document, this noise analysis focused exclusively on airport-related noise sources. The Proposed Action is not expected to change non-airport noise sources such as commercial activity, highway traffic, or noise from local roadways. However, ambient noise levels from those sources do contribute to the overall acoustic environment. Residential locations within the aircraft noise 60 DNL or 65 DNL contours that are also in close proximity to busy streets or highways could experience actual DNL values higher than depicted on the contour map.

<sup>&</sup>lt;sup>8</sup> Population estimates are based on 2020 U. S. census data.



## **Table 19. Comparison of Noise Exposure**

Sources: HMMH analysis, 2022

			ources. Hilvilvii i	, ,					
Noise Exposure	Existing Conditions	De	esign Year (2027	7)	5-Ye	ear Forecast (20	32)		
Interval	(2019)	No-Action Alternative	Proposed Action Alternative	increase (or decrease)	No-Action Alternative	Proposed Action Alternative	increase (or decrease)		
	Population Inventory								
70 DNL or greater	0	0	0	-	0	0	-		
65-70 DNL	30	90	90	0	100	126	26		
			Housing Unit	Inventory					
70 DNL or greater	0	0	0	-	0	0	-		
65-70 DNL	7	19	19	0	21	30	9		
			Acreage In	ventory					
75 DNL or greater	520.21	543.29	543.29	0	555.98	587.21	31.23		
70-75 DNL	561.56	654.33	654.33	0	671.62	731.79	60.17		
65-70 DNL	1,573.96	1,886.23	1,886.23	0	1,935.21	2,115.57	180.36		
total 65 DNL or greater	2,655.73	3,083.85	3,083.85	0	3,162.81	3,434.57	271.76		
Note: acreage e	estimation includ	les airport land							



## 5. Air Quality Analysis

This section presents and discusses the potential air quality impacts from the Proposed Action associated with (1) the construction and demolition activities of the projects, and (2) additional aircraft and associated auxiliary operations along with other direct and indirect emissions associated with operation of the Proposed Action. For this analysis, the inventory of air pollutant emissions associated with each of those items to the General Conformity *de minimis* thresholds for significance is the basis for evaluating the potential for significant impacts for NEPA compliance with the CAA.

#### 5.1 Affected Environment

### 5.1.1 National Ambient Air Quality Standards

Under the National Environmental Policy Act (NEPA), federal agencies must consider the impact their actions will have on the environment compared to a no-action alternative. According to FAA NEPA implementing guidance (FAA Order 1050.1F and Desk Reference, and FAA Order 5050.4B), impacts to air quality must be considered as part of the environmental analysis under NEPA. Potential effects of the proposed action are evaluated against the National Ambient Air Quality Standards (NAAQS), as promulgated by the EPA under the Federal Clean Air Act (CAA).

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The EPA currently regulates six criteria pollutants: ozone  $(O_3)$ , carbon monoxide (CO), nitrogen dioxide  $(NO_2)$ , sulfur dioxide  $(SO_2)$ , particulate matter (PM), and lead (Pb). Particulate matter is divided into two particle size categories: coarse particles with a diameter less than 10 micrometers  $(PM_{10})$  and fine particles with a diameter of less than 2.5 micrometers  $(PM_{2.5})$ . The NAAQS are expressed in terms of pollutant concentration measured (or averaged) over a defined period of time and are two-tiered. The first tier (the "primary standard") is intended to protect public health; the second tier (the "secondary standard") is intended to protect public welfare and prevent further degradation of the environment.

**Table 20** shows the primary and secondary NAAQS for the criteria pollutants. Section 176(c) of the CAA states that federal agencies cannot engage, support, or provide financial assistance for licensing, permitting, or approving any project that could cause or contribute to the severity and/or number of violations of the NAAQS, or could inhibit the expeditious attainment of these standards.

The standards in **Table 20** apply to the concentration of a pollutant in outdoor ambient air. If the air quality in a geographic area is equal to or better than the national standard, the EPA will typically designate the region as an "attainment area." An area where air quality does not meet the national standard is typically designated by the EPA as a "non-attainment area." Once the air quality in a non-attainment area improves to the point where it meets the standards and the additional requirements outlined in the CAA, the EPA can re-designate the area to attainment upon approval of a Maintenance Plan, and these areas are then referred to as "maintenance areas." Each state is required to prepare a State Implementation Plan (SIP) that outlines measures that regions within the state will implement to attain the applicable air quality standard in non-attainment areas for applicable criteria air pollutant, and to maintain compliance with the applicable air quality standard in maintenance areas. The status and severity of pollutant concentrations in a particular area will impact the types of measures a state must take to reach attainment with the NAAQS. The EPA must review and approve each state's SIP to ensure the proposed measures are sufficient to either attain or maintain compliance with the NAAQS within a set period of time.

The Clean Air Act Amendments (CAAA) of 1990 require states to make recommendations to the EPA regarding the attainment status of all areas within their borders when the EPA finalizes an update to any NAAQS. Under its CAAA authority, the EPA further classifies non-attainment areas for some pollutants – such as ozone – based on the severity of the NAAQS violation as marginal, moderate, serious, severe, and extreme. To further improve the nation's air quality, the EPA lowered the ozone standard in 2015 to 0.070 parts per million (ppm).



### **Table 20. National Ambient Air Quality Standards**

Source: U.S. EPA NAAQS https://www.epa.gov/criteria-air-pollutants/naags-table as accessed on January, 2022

Pollutant	Averaging Time	Primary Standards	Secondary Standards
со	Eight-hour	9 parts per million (ppm)	None
	One-hour	35 ppm	None
Pb	Rolling Three-Month Average	0.15 micrograms (μg) /cubic meter of air (m³)	Same as Primary
NO	Annual Arithmetic Mean	0.053 ppm (100 μg/m³)	Same as Primary
NO <sub>2</sub>	One-hour	0.100 ppm Note 2	None
O <sub>3</sub>	Eight-hour (2015 standard)Note 4	0.070 ppm	Same as Primary
DNA	Annual Arithmetic Mean	12 μg/m <sup>3 Note 1</sup>	15 μg/m³
PM <sub>2.5</sub>	24-hour	35 μg/m <sup>3</sup>	Same as Primary
PM <sub>10</sub>	24-Hour	150 μg/m <sup>3 Note 1</sup>	Same as Primary
50.	One-hour	75 parts per billion (ppb) Note 3	None
SO <sub>2</sub>	Three-hour	None	0.5 ppm

### Table Notes:

- 1. For  $PM_{10}$ , the 24-hour standard not to be exceeded more than once per year on average over three years. For  $PM_{2.5}$ , the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or are less than the standard.
- 2. To attain this standard, the three-year average of the 98<sup>th</sup> percentile of the daily maximum one-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).
- 3. Final rule signed June 2, 2010. To attain this standard, the three-year average of the 99<sup>th</sup> percentile of the daily maximum one-hour average at each monitor within an area must not exceed 75 ppb.
- 4. EPA updated the NAAQS for  $O_3$  to strengthen the primary eight-hour standard to 0.07 ppm on October 1, 2015. An area will meet the standard if the fourth-highest maximum daily eight-hour ozone concentration per year, averaged over three years is equal to or less than 70 ppb.

### 5.1.2 Attainment Status

Air quality in the Austin area (i.e., Travis County) is designated by EPA Greenbook as being in attainment for all criteria pollutants<sup>9</sup>. Since the area is designated as attainment with the current EPA air quality standards, the General Conformity Rule does not apply. Under NEPA, a project's impact on air quality is assessed by evaluating whether it would cause a new violation of a NAAQS or contribute to a new violation in a manner that would increase the frequency or severity of a new violation<sup>10</sup> For this analysis, the net change in air emissions was still compared to the applicable U.S. EPA *de minimis* levels for determining significant impacts<sup>11</sup> under NEPA.

## 5.1.3 General Conformity Rule

The General Conformity Rule defines a federal action as any activity engaged in by a department, agency, or instrumentality of the federal government, or any activity that a department, agency, or instrumentality of the federal government supports in any way, provides financial assistance for, licenses, permits, or approves. General Conformity is defined as demonstrating that a project or action conforms to the SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. Federally funded and approved actions at airports are subject to the U.S. EPA's

<sup>&</sup>lt;sup>11</sup> emissions below the *de minimis* levels are considered not significant





<sup>&</sup>lt;sup>9</sup> https://www3.epa.gov/airquality/greenbook/anayo\_tx.html

 $<sup>^{10}\,\</sup>underline{\text{https://www.faa.gov/sites/faa.gov/files/about/office}}\,\, \text{org/headquarters}\,\, \text{offices/apl/1-air-quality.pdf}$ 

general conformity regulations. The General Conformity Rule<sup>12</sup> applies to all federal actions except for certain highway and transit programs which must comply with the Transportation Conformity Plans.<sup>13</sup>

The General Conformity Rule includes annual emissions thresholds for nonattainment and maintenance areas that trigger the need for a General Conformity determination and defines projects that are typically excluded from General Conformity requirements. Since the General Conformity Rule applies to federally funded projects in EPA-designated non-attainment and maintenance areas, the General Conformity requirements *do not* apply to projects at Austin<sup>14</sup>.

### 5.2 Environmental Consequences of Proposed Action

Potential air quality impacts associated with construction and demolition of the Proposed Action are discussed in this section. After construction, the Proposed Action would induce additional aircraft operations compared to the No Build which as well as additional passenger trips, parking facilities and new Central Utility Plant. Therefore, both direct (i.e. additional aircraft operation emissions and combustion boiler emissions) and indirect (i.e. additional vehicle trips and parking structure) were also inventoried and evaluated.



### 5.2.1 Methodology

The methods used to calculate emissions of carbon monoxide (CO), volatile organic compounds (VOCs), oxides of nitrogen (NOX), sulfur oxides (SOX), particulate matter less than 10 microns (PM10), greenhouse gases (GHG) and fine particulate matter (PM2.5) from construction and demolition-related sources along with operational impacts of air pollutant emissions at AUS are documented in this section. The emissions analysis was conducted to develop emissions inventories pursuant to the National Environmental Policy Act of 1969 (NEPA), as well as to determine whether emissions associated with the Proposed Action would exceed applicable *de minimis* thresholds as documented in the U.S. Environmental Protection Agency's (EPA's) general conformity regulations to determine significance.

Estimates of construction and demolition-related emissions were developed for the Proposed Action using standard industry methodologies and techniques. Construction activities associated with the Proposed Action are anticipated to begin in 2022 and be completed in 2030.

Airport operational emissions inventories were developed for the existing (2019), future years (2027 and 2032) for those activities associated with the Proposed Action where additional emission are expected over the No Build. Both direct and indirect operational emissions were inventoried and compared to appropriate *de minimis* thresholds for determining significant impacts.

### 5.2.2 Construction Demolition and Construction Activities

Pollutant emissions resulting from construction and demolition activities associated with Proposed Action were estimated using standard industry methodologies and techniques. Construction and demolition emissions were not estimated for the No Action Alternative, because no demolition or construction activity would be associated with the No Action Alternative.

The demolition and construction associated with the Proposed Action would result in short-term changes in air emissions from sources such as exhaust from nonroad construction equipment such as:

haul trucks, site clearing, and grading.

On-road vehicles include those associated with:

<sup>&</sup>lt;sup>14</sup> Austin is located in an EPA designated attainment area for all pollutants



<sup>&</sup>lt;sup>12</sup> Revisions to the General Conformity Rule are codified under 40 CFR Parts 51 and 93, Subpart W, Revisions to the General Conformity Regulations, Final Rule (April 2010).

<sup>13 40</sup> CFR Part 93, Subpart A

transport and delivery of supplies, materials and equipment to and from the site, and construction worker trips.

Additionally, fugitive dust emissions sources include:

site preparation,

land clearing,

material handling,

equipment movement on unpaved roads and

evaporative emissions from the application of asphalt paving.

Demolition and construction activities associated with the Proposed Action are expected to begin in the fourth quarter of 2022 and be completed in the second quarter of 2030. **Table 21** presents the primary components of the Proposed Action, including estimated activity costs, area estimates (square feet) and anticipated start and end dates of construction. These costs and area estimates were used for deriving construction activity emission estimates with the Airport Cooperative Research Board's (ACRP) Airport Construction Emissions Inventory Tool (ACEIT)<sup>15</sup>. Construction emission analyses generally require a detail construction schedule such as the type of equipment, the amount of time of operation of such equipment, estimates of construction material and trips, employee activity, etc. This detailed construction data was not available for this analysis for each activity. To address this, the ACRP ACEIT model was used to estimate construction emissions.



Source: AUS, December 2021

Project Action Component	Estimated Project Costs (\$)	Area (Square Feet)	Construction Start	Construction End
New Taxiway H and J	113.6M	890,300	2024: QTR 1	2026: QTR 2
New RON Apron	15.0M	1,789,000	2024: QTR 1	2026: QTR 2
Concourse B Apron	85.0M	1,943,000	2024: QTR 1	2026: QTR 2
Concourse B Taxiway Connections	28.5M	652,000	2024: QTR 1	2026: QTR 2
Runway 18R-36L Rapid Exit Taxiways	20.7M	400,500	2026: QTR 3	2028: QTR 3
New Taxiway D	73.0M	1,410,200	2026: QTR 3	2028: QTR 3
Demolition of Airfield Pavement	28.4M	464,000	2026: QTR 3	2028: QTR 3
New Airfield Pavement	19.9M	385,000	2026: QTR 3	2028: QTR 3
New Concourse B and Loading Bridges	423.7M	342,000	2023: QTR 3	2026: QTR 2
Connector to Concourse B	444.0M	52,000	2024: QTR 2	2025: QTR 4
New Expanded Arrival Departure Hall	423.7M	342,000	2027: QTR 3	2030: QTR 2
Pedestrian Bridge to CONRAC Parking	3.2M	36,000	2029: QTR 3	2030: QTR 2
Demolition of South Buildings	0.7M	406,000	2022: QTR 4	2023: QTR 2
Demolition of Existing Parking Garage	105.9M	414,000	2024: QTR 1	2024: QTR 3
Demolition of Existing Terminal	5.0M	46,000	2022: QTR 4	2023: QTR 2
Demolition of Existing Roadway	8.0M	190,000	2025: QTR 2	2026: QTR 2
Upgrade Existing Access Roadway Network	9.0M	173,000	2025: QTR 2	2027: QTR 3

<sup>&</sup>lt;sup>15</sup> ACRP, 2014 <a href="https://crp.trb.org/acrp0267/acrp-report-102-guidance-for-estimating-airport-construction-emissions/">https://crp.trb.org/acrp0267/acrp-report-102-guidance-for-estimating-airport-construction-emissions/</a>





New Terminal Curbside Roadway	209.9M	177,000	2028: QTR 2	2030: QTR 2
New Emma Browning Road	15.0M	106,000	2023: QTR 1	2025: QTR 1
New Employee Parking Lot	24.6M	1,225,000	2025: QTR 1	2026: QTR 2
New Hydrant Fueling System	3.0M	10 new tanks	2025: QTR 2	2026: QTR 1
New Catering Facility	20.0M	25,500	2025: QTR 2	2026: QTR 1
New Central Utility Plant	65.0M	72,000	2024: QTR 2	2026: QTR 1
Site Infrastructure	200M	-	2024: QTR 3	2025: QTR 4
West Concourse Gate Expansion	85.2M	33,000	2022: QTR 2	2024: QTR 2

The ACRP ACEIT model was used to estimate the construction schedule of equipment for each project component based on the project dimensions and project costs for each activity. The model has the ability to generate construction schedules for a variety of standard airport construction projects including the associated activity types and the equipment used for this project.

ACEIT can also produce emission factors for nonroad and on-road construction equipment, as well as for fugitive emission sources using EPA and industry standard models and methodologies. *However, the current version of ACEIT includes an older version of the U.S EPA's Motor Vehicle Emission Simulator (MOVES) emission model, MOVES2010a and NONROADs, which have both been updated over the years.* For this analysis, the current version of MOVES (Version MOVES3.0.2) which includes the latest version of the NONROAD model was used to develop on-road and nonroad emission factors. These emission factors were applied to estimates of vehicle miles traveled (VMT) and construction equipment (hours, horsepower, load factor), respectively, as generated in ACEIT for each construction activity and year. Emission factors generated in NONROAD assume the phasing of Tier 1, Tier 2, Tier 3, and Tier 4 engines over time based on EPA regulations <sup>16</sup>. ACEIT and MOVE3 calculations for construction and demolition are presented in **Appendix A**.

#### **Off-Road Construction Equipment**

Off-road equipment emission factors for each construction year were estimated using the EPA NONROADs within MOVES3 representative of equipment used in Travis County<sup>17</sup> for both criteria pollutants/precursors and greenhouse gases. Emission factors in grams per horsepower (hp-hr) for each off-road equipment type were applied to the equipment size (in hp), load factor, and anticipated activity levels (in hours per year) of expected equipment use as generated in in the construction equipment inventory by ACEIT. The annual emissions for off-road construction equipment were computed using the following equation:

Off-road Vehicle Construction emissions (tons per year) = emission factor (grams per hp-hr) x size (hp) x load factor x hours per year x (1 pound/453.6 grams) x (1 ton /2000 pounds)

### On-Road Construction Passenger/Truck Delivery Vehicles

Vehicle miles traveled (VMT) data for each on-road employee trip and truck delivery vehicles were derived from round trip distances and the number of employee hours from the activity specific construction schedule. It is assumed that all on-road equipment will use gasoline for passenger vehicles and diesel fuel for truck deliveries. Emission factors in grams per mile (g/mile) for each on-road vehicle type were applied to the anticipated VMT. Similar to the offroad equipment, the MOVES3 model vehicle data representative of vehicles used in Travis County for both criteria pollutants/precursors and greenhouse gases was used to estimate emissions factors in grams per mile.

<sup>&</sup>lt;sup>17</sup> Construction emissions used in MOVES3 assumed a blend of Tier 1, Tier 2, Tier 3, and Tier 4 for Davidson County based on EPA phasing ratios of older equipment in future years and does not reflect the primary use of either Tier 1 thru 4 engines. MOVES emission factors are specific to Travis County as generated within MOVES for each year.





<sup>&</sup>lt;sup>16</sup> Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b (PDF) (177 pp, 15.4 MB, EPA-420-R-18-009, July 2018)

The annual emissions for on-road construction equipment and passenger/delivery vehicles were computed for each year using the following equation:

On-road construction vehicles emissions (tons per year) = emission factor (g/mile) x annual vehicle miles traveled (VMT) x (1 pound/453.6 grams) x (1 ton/2000 pounds)

### **Fugitive Dust Emissions**

Fugitive dust emissions from site preparation, land clearing, equipment movement on unpaved areas, material handling, along with evaporative emissions from asphalt paving activities, were calculated using EPA emission factors and included in the total construction emissions. ACEIT default assumptions were used for each activity to estimate fugitive PM and VOC emissions.

## 5.2.3 Summary of Construction-Related Emissions

Construction-related emissions of criteria pollutants during the construction period 2022 to 2030 under the Proposed Action are summarized in **Table 22.** For this analysis, GHG emissions associated with the Proposed Action were prepared for disclosure purposes as carbon dioxide equivalent (CO<sub>2E</sub>) in metric tons per year relevant to their global warming potential.<sup>18</sup>



Table 22. Construction Emission Inventory - Proposed Action

Source: HMMH, 2022, Based on ACEIT, MOVES3.0.2 results using construction information provided by AUS, December 2021

Year	Year         CO         N           2022         8.1         2023         31.7           2024         57.9         2025         55.4           2026         35.5         35.5	Releva	elevant Criteria Pollutant Emissions (tons per year)						
	со	VOCNote 1	NO <sub>2</sub> Note 1	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub> e <sup>Note 2</sup>		
2022	8.1	0.4	3.5	0.015	0.28	0.23	4,613		
2023	31.7	2.1	11.4	0.060	1.17	0.83	17,907		
2024	57.9	2.8	17.7	0.132	3.17	1.20	32,940		
2025	55.4	2.5	9.8	0.114	3.75	0.51	20,702		
2026	35.5	0.9	4.2	0.058	1.57	0.22	8,654		
2027	20.8	0.8	2.4	0.039	1.12	0.12	7,061		
2028	28.7	0.9	1.9	0.038	0.79	0.09	6,955		
2029	22.7	0.6	1.2	0.022	0.28	0.05	4,051		
2030	7.2	0.2	0.7	0.009	0.15	0.03	1,870		

#### Notes:

### 5.2.4 Direct and Indirect Operational Emissions

Both direct and indirect operational emissions were evaluated for the Proposed Action. Direct emissions included additional aircraft operational activities and new Central Utility Plant combustion emissions, while indirect emissions included emissions associated with ground access vehicles and parking trips associated with the Proposed Action. Operational emissions were estimated for the Proposed Action for 2027 and 2032 and the net change in emissions from the Proposed Action compared to the No Action were compared to the EPA *de minimis* thresholds for significance.

<sup>&</sup>lt;sup>18</sup> Global warming potentials are based on the latest Intergovernmental Panel on Climate Change (IPCC), *Fifth Assessment Report (AR5)*, November 2014.



Following standard industry practice, ozone was evaluated by evaluating emissions of VOC and NO<sub>x</sub>, which are
precursors in the formation of ozone.

<sup>2.</sup>  $CO_2e$  emissions are in metric tons per year equivalent relevant to their GWP.

## 5.2.5 Aircraft Operational Activities

As discussed above, implementation of the Proposed Action would increase the number of aircraft operations and related equipment compared to the No Action alternatives, therefore aircraft operational emissions were estimated for the 2027 and 2032 for each Alternative. It should be noted that for 2027, the Proposed Action are similar and due to the No Action ground loading operations and being able to meet the TAF. The AEDT emission estimates for both the No Action and the Proposed Action cases were estimated for 2027 and 2032 using the same set of model inputs and forecast operations that were used for the noise calculations, as documented in the noise section of this memorandum. More specific, the 2032 No Action includes constrained forecast operations and AEDT default taxi times, AEDT default GSE equipment and AEDT default APU times (26 minutes). The 2032 Proposed Action assumes unconstrained forecast operations, slight changes in taxi times between the No Build and Build Action and default GSE equipment and default APU times (26 minutes). The aircraft operational emissions include emissions from the ground support equipment and auxiliary power units associated with the Proposed Action and No Action. Aircraft operations estimated for this analysis includes emissions below the default 3,000 mixing height and include:



- Start up
- Taxi Out
- Climb below the mixing height
- Descend below the mixing height
- Taxi In
- Ground Service Equipment (GSE) landing and take off (LTO); and
- Auxiliary Power Units (APU)

**Table 23** provides the existing 2019 and the forecast No Action and Proposed Action operational emissions for 2027 and 2032 as calculated by the AEDT. The net change in emissions is provided in bold.



Table 23. Operational Emissions Inventory of the Forecast No Action and Proposed Action Cases

Source: HMMH. 2022

Aircraft Operations Case	Relevant Criteria Pollutant Emissions (tons per year) <sup>Note 2</sup>							
	СО	VOCNote 1	NO <sub>2</sub> Note 1	SO₂	PM <sub>10</sub>	PM <sub>2.5</sub>		
2019 Existing	965.1	145.373.5	732.2	67.7	11.0	10.9		
2027 No Action	1,056.9	159.6	915.1	84.2	13.1	13.0		
2027 Proposed Action	1,056.9	159.6	915.1	84.2	13.1	13.0		
2027 Net Change	0	0	0	0	0	0		
(Proposed Action – No								
Action)								
2032 No Action Note 4	1,097.7	166.6	956.3	87.6	13.4	13.4		
2032 Proposed Action	1,184.4	178.1	1,062.2	96.7	14.8	14.7		
2032 Net Change	+86.6	+11.5	+105.9	+9.1	+1.4	+1.4		
(Proposed Action – No								
Action)								



#### Notes:

- 1. Following standard industry practice, ozone was evaluated by evaluating emissions of VOC and  $NO_x$ , which are precursors in the formation of ozone.
- 2. Operational emissions denote emissions associated with aircraft operations only.
- 3. The Proposed Action for 2032 assumed unconstrained operations, adjusted taxi times from the AEDT default to reflect a more realistic scenario based on forecast operations along with default GSE and APU operation.
- 4.The Proposed No Action for 2032 assumes constrained operations, default taxi times, default GSE and default APU.

## 5.2.6 New Central Utility Plant Operations

The existing Central Utility Plant (CUP) will be phased out of service as the proposed projects come online. The existing CUP has two 12.25 million British thermal units (BTU) boilers that service the existing Barbara Jordon Terminal which is approximately 1,000,000 square feet. The Proposed Action will add an additional 1,500,000 square feet (sq ft) of conditioned space to be served by the future projects. The future CUP will operate five natural gas fired 12.25 million BTU to support 2,500,000 square feet of conditioned space initially. The new boilers are expected to come on-line in 2027 or soon thereafter, therefore, net change in operational emissions for 2027 was carried forward and would be representative of the net changes for the opening 2032 year to determine the total net emission change from the Proposed Action once all the projects are completed. Boiler emissions were estimated based on annual and estimated fuel usage and permitted emission factors for each boiler and are presented in **Appendix A**. The net change in operational boiler emissions are presented in bold below in

Table 24.

Table 24. Operational Emissions Inventory of the Central Utility Plant

Source: AUS, January 2022

	-						
Boiler Utility Operations	Relevant Criteria Pollutant Emissions (tons per year) <sup>Note 2</sup>						
Case	со	VOCNote 1	NO <sub>2</sub> Note 1	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	
2027 No Action	0.8208	0.0537	0.4886	.0059	0.0743	0.0743	



Boiler Utility Operations	Relevant Criteria Pollutant Emissions (tons per year) <sup>Note 2</sup>							
Case			NO <sub>2</sub> Note 1	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>		
2027 Proposed Action	2.0521	0.1344	1.2215	0.0147	.1857	.1857		
2027 Net Change in Boiler	+1.23	+0.08	+0.73	+0.009	+0.11	+0.11		
Operational Emissions (No								
Action-Proposed Action)								
2032 No Action	0.8208	0.0537	0.4886	.0059	0.0743	0.0743		
2032 Proposed Action	2.0521	0.1344	1.2215	0.0147	.1857	.1857		
2032 Net Change in Boiler Operational Emissions	+1.23	+0.08	+0.73	+0.009	+0.11	+0.11		

#### Notes:

- 1. Following standard industry practice, ozone was evaluated by evaluating emissions of VOC and NO<sub>x</sub>, which are precursors in the formation of ozone.
- 2. CUP Operational emissions denote emissions associated with the existing and new boilers.



The new boilers will require an air quality permit with the Texas Commission on Environmental Quality (TCEQ) under the Permits by Rule (PBR) 106.4 in order to construct and operate the boilers.

## 5.2.7 Additional Ground Access Vehicles and Parking Areas

The Proposed Action will generate additional aircraft operations which will also result in an increase in passengers and vehicle trips to the airport above the No Action alternative. The additional vehicle trips accessing the airport are expected to occur after implementation of the Projects (i.e. after 2030), therefore additional vehicle trips above the No Action were estimated for the 2032 conditions and included both moving and idling emissions as they enter and leave the airport. In addition to vehicle trips from passengers, vehicle emissions associated with the new parking facilities were also estimated.

Vehicle miles traveled were estimated for the roadway network based on the roadway segment and expected passenger daily trips along each link for the 2032 conditions entering and leaving the airport from Route 71 along Presidential Boulevard. The MOVES3 emission model was used to estimate pollutant specific emission factors for each segment based on expected vehicle speeds of 30 miles per hour and average idling time of 5 minutes per hour for each vehicle. The net change (i.e. Proposed Action minus the No Action) in emissions were estimated for the ground access vehicles accessing the airport, therefore emissions associated with the additional traffic were estimated for 2032 while the 2032 No Action assumes no change to the existing traffic.

The Proposed Action Alternative also includes emissions associated with vehicles using the new parking area which is not expected to fully come on-line until sometime between 2027 and 2030. Emissions for the new parking area were estimated for 2032 using MOVES3 emissions factors while the 2032 No Action assumes no change to the existing parking facilities. Similar to the GAV, only the net change in vehicle emissions were estimated for the new parking area for 2032 while the 2032 No Action assumes no change to the existing parking. **Appendix A** includes the emission calculations for the GAV and new parking areas.

The new parking area will total approximately 3,150 additional spaces and will initially be utilized for construction activities and transition to employee surface parking by 2030. **Table 25** and **Table 26** summarizes the operational emissions along the roadways and from the parking garages, respectively, under the No Action and Proposed Action Alternative for 2032.



Table 25. Operational Emissions Inventory of the Additional Ground Access Vehicles

Source; HMMH and AUS, 2022

Ground Access Vehicles	Relevant Criteria Pollutant Emissions (tons per year)Note 2						
	СО	CO VOC <sup>Note 1</sup> NO <sub>2</sub> <sup>Note 1</sup> SO <sub>2</sub> PM <sub>10</sub> N/C N/C N/C N/C N/C		PM <sub>10</sub>	PM <sub>2.5</sub>		
2032 No Action	N/C	N/C	N/C	N/C	N/C	N/C	
2032 Proposed Action <sup>Note3</sup>	8.17	0.04	0.04	0.006	0.005	0.005	
2032 Net Change							
(Proposed Action – No	+8.17	+0.04	+0.04	+0.006	+0.005	+0.005	
Action)							

#### Notes:

- 1. Following standard industry practice, ozone was evaluated by evaluating emissions of VOC and  $NO_x$ , which are precursors in the formation of ozone.
- 2. Operational emissions denote emissions associated with additional ground vehicles passenger trips generated by the Proposed Action compared to the No Action. N/C denotes d No Action remains unchanged.
- 3. Proposed Action emissions represent additional ground access vehicle trips compared to the No Action.



### Table 26. Operational Emissions Inventory of the Additional Parking Areas

Source; HMMH and AUS, 2022

Parking Area Case	Relevant Criteria Pollutant Emissions (tons per year) <sup>Note 2</sup>						
	со	CO         VOCNote 1         NO2Note 1         SO2         PM10         PM           N/C         N/C <t< th=""></t<>					
2032 No Action	N/C	N/C	N/C	N/C	N/C	N/C	
2032 Proposed Action Note3	2.66	0.011	0.012	0.002	0.002	0.001	
2032 Net Change							
(Proposed Action – No	+2.66	+0.011	+0.012	+0.002	+0.002	+0.001	
Action)							

#### Notes:

- 1. Following standard industry practice, ozone was evaluated by evaluating emissions of VOC and NO $_x$ , which are precursors in the formation of ozone.
- 2. Operational emissions denote emissions associated with vehicles utilizing the new parking areas by the Proposed Action compared to the No Action. N/C denotes d No Action remains unchanged.
- 3. Proposed Action emissions represent additional vehicle associated with the new parking areas compared to the No Action.

### **5.2.8** Significance Thresholds

Austin Bergstrom International Airport is located in Travis County, which is designated as attainment with the NAAQS by EPA for all criteria pollutants, therefore the General Conformity Rule does not apply. However, the emissions associated with the Proposed Action for both Construction and Operations are compared to the General Conformity *de minimis* levels for attainment/maintenance areas for determining significant impacts<sup>19</sup>.

**Table 27** presents the total emissions associated with demolition and construction of the Proposed Action for each year of the construction period (2022 through 2030) compared with the appropriate *de minimis* thresholds. As the table shows, the total emissions for each construction year would be below established *de minimis* thresholds for all pollutants and would not result in a significant air quality impact. It should be noted that the CUP facility will come on-line in 2027 and therefore the CUP emissions were included in the 2027 construction and demolition emissions in **Table 27** for comparison to *de minimis* threshold.

<sup>&</sup>lt;sup>19</sup> emissions below the *de minimis* levels are considered not significant and have minimal emissions increase



Table 27. Total Construction and Demolition Emissions Compared to De Minimis Thresholds

Source: HMMH, 2021

V	Relevant Criteria Pollutant Emissions (tons per year)							
Year	со	voc	NO <sub>2</sub>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>		
2022								
Total Emissions of Construction	8.1	0.4	3.5	0.015	0.28	0.23		
and Demolition								
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis	Yes	Yes	Yes	Yes	Yes	Yes		
thresholds?								
2023								
Total Emissions of Construction	31.7	2.1	11.4	0.060	1.17	0.83		
and Demolition								
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis	Yes	Yes	Yes	Yes	Yes	Yes		
thresholds?								
2024								
Total Emissions of Construction	57.9	2.8	17.7	0.132	3.17	1.20		
and Demolition								
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis	Yes	Yes	Yes	Yes	Yes	Yes		
thresholds?								
2025								
Total Emissions of Construction	55.4	2.5	9.8	0.114	3.75	0.51		
and Demolition								
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis	Yes	Yes	Yes	Yes	Yes	Yes		
thresholds?			-					
2026				2 2 2 2				
Total Emissions of Construction	35.5	0.9	4.2	0.058	1.57	0.22		
and Demolition	400	400	400	100	400	100		
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis	Yes	Yes	Yes	Yes	Yes	Yes		
thresholds? 2027 <sup>1</sup>			+					
Total Emissions of Construction	22.0	0.9	3.1	0.048	1.23	0.23		
and Demolition and Boiler	22.0	0.9	5.1	0.048	1.25	0.25		
Operations								
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis	Yes	Yes	Yes	Yes	Yes	Yes		
thresholds?		, , ,	, 65	7.03	, 63	103		
2028								
Total Emissions of Construction	28.7	0.9	1.9	0.038	0.79	0.09		
and Demolition								
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis	Yes	Yes	Yes	Yes	Yes	Yes		
thresholds?								
2029								
Total Emissions of Construction	22.7	0.6	1.2	0.022	0.28	0.05		
and Demolition								
EPA De Minimis Threshold	100	100	100	100	100	100		





Varu	Relevant Criteria Pollutant Emissions (tons per year)							
Year	со	voc	NO <sub>2</sub>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>		
Emissions below de minimis thresholds?	Yes	Yes	Yes	Yes	Yes	Yes		
2030								
Total Emissions of Construction and Demolition	7.2	0.2	0.67	0.009	0.15	0.03		
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis thresholds?	Yes	Yes	Yes	Yes	Yes	Yes		

Notes: 1. 2027 emissions includes both construction/demolition and the CUP emissions which will be on-line that year for comparison to de minimis thresholds

Table 28 presents the net change in operational emissions (aircraft, new boilers, ground access vehicles, and new parking facilities) from the implementation of the Proposed Action compared to the No Action and compares those emissions changes to the appropriate de minimis thresholds for significance determination for 2027 and 2032. It should be noted that the net operational emissions for 2027 also includes the construction/demolition emissions for 2027 which will be occurring when the new CUP boilers come on-line. As the table shows, the net change would be below established de minimis thresholds for all pollutants for 2027 and 2032 except NOx for 2032 which is slightly above the de minimis threshold of 100 tpy (at 106.7 tpy) of which the aviation net operational emissions constitute 105.9 tpy of the total. It should be noted that the aircraft operations assumptions used in AEDT for the Proposed Action are conservative and do not include PCA or ground power, revised taxi times, and other low emission projects that will be undertaken at the airport to reduce fossil fuel usage and reduce air emissions. As discussed above, since the airport is located in an EPA designated attainment area for all pollutants, General Conformity does not apply. It should also be noted that the airport measures were included in the Austin Eight-Hour O3 Flex plan that was developed approximately 10 years ago and is listed on the TCEQ website. This is voluntary initiative for the Austin MSA and includes the airport.2021 Furthermore, 106 ton per year net emission increase is a fraction of the 2016 Travis County NOx emissions were estimate of 13,048 tons per year assuming conservative assumptions as stated above.

Table 28. Net Operational Emission Changes Compared to De Minimis Thresholds

Source: HMMH, 2022

		Source: Hivi	IVIN, 2022					
	Relevant Criteria Pollutant Emissions (tons per year)							
Year	со	voc	NO <sub>2</sub>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>		
2027 Net Change in Aircraft	No Change	No Change	No Change	No Change	No Change	No Change		
Operational Emissions of the								
Proposed Action								
Net Change in New Utility	+1.23	+0.08	+0.73	+0.009	+0.11	+0.11		
Boiler Emissions								
Construction and Demolition	20.8	0.8	2.4	0.039	1.12	0.12		
Total Aircraft, CUP, and	+22.0	+0.88	+3.13	+0.048	+1.23	+0.23		
Construction/demolition Net								
Emissions (TPY) <sup>1</sup>								
EPA De Minimis Threshold	100	100	100	100	100	100		
Emissions below de minimis thresholds?	Yes	Yes	Yes	Yes	Yes	Yes		

<sup>&</sup>lt;sup>20</sup> Austin-Round Rock: Latest Ozone Planning Activities - Texas Commission on Environmental Quality - www.tceq.texas.gov

<sup>&</sup>lt;sup>21</sup> <u>Austin-Round Rock and the State Implementation Plan - Texas Commission on Environmental Quality -</u> www.tceq.texas.gov





	Relevant Criteria Pollutant Emissions (tons per year)								
Year	со	voc	NO <sub>2</sub>	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>			
2032 Net Change in Aircraft Operational Emissions of the Proposed Action	+86.7	+11.5	+105.9	+9.1	+1.4	+1.4			
Net Change in New Utility Boiler Emissions	+1.23	+0.08	+0.73	+0.009	+0.11	+0.11			
Net Change in Ground Access Vehicle Emissions	+8.20	+0.04	+0.04	+0.006	+0.005	+0.005			
Net Change in Parking Area Emissions	+2.66	+0.011	+0.012	+0.002	+0.002	+0.001			
Total Aircraft and Utility Boiler Net Emissions (TPY)	+98.9	+11.6-	+106.7	+9.1	+1.5	+1.5			
EPA De Minimis Threshold	100	100	100	100	100	100			
Emissions below de minimis thresholds?	Yes	Yes	No	Yes	Yes	Yes			

Notes: 1. 2027 emissions includes operational emissions and construction/demolition activity emissions for 2027 for comparison to the de minimis thresholds.



### 5.2.9 No Action Alternative

The No-Action Alternative assumes that the proposed action is not implemented, and air quality would remain unchanged for 2027 and 2032. Therefore, no additional air quality impacts would occur as a result of the No-Action case.

## 5.2.10 Mitigation

As indicated above, impacts to air quality with the implementation of the Proposed Action would not be significant for most pollutants except NOx (which is slightly above 100 tpy), when compared to the No Action. AUS is committed to mitigation measures that were not included in the analysis which will further reduce emissions for 2032. These measures will be further developed by AUS.

### 5.3 Climate

Climate change is a global phenomenon that can have local impacts.<sup>22</sup> Scientific measurements show that Earth's climate is warming, with concurrent impacts including warmer air temperatures, increased sea level rise, increased storm activity, and an increased intensity in precipitation events. Increasing concentrations of greenhouse gas (GHG) emissions in the atmosphere affect global climate.<sup>23,24,</sup> GHG emissions result from anthropogenic sources, including the combustion of fossil fuels. GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), ozone (O<sub>3</sub>), and fluorinated gases.<sup>25</sup> CO<sub>2</sub> is the most important anthropogenic GHG because it is a long-lived gas that remains in the atmosphere for up to 100 years.

<sup>&</sup>lt;sup>25</sup> U.S. Environmental Protection Agency, Overview of Greenhouse Gases, http://www3.epa.gov/climatechange/ghgemissions/gases.html (accessed February 10, 2022).



<sup>&</sup>lt;sup>22</sup> As explained by the EPA, "greenhouse gases, once emitted, become well mixed in the atmosphere, meaning U.S. emissions can affect not only the U.S. population and environment but other regions of the world as well; likewise, emissions in other countries can affect the United States." U.S. Environmental Protection Agency, Climate Change Division, Office of Atmospheric Programs, *Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act 2-3*, 2009, https://www.epa.gov/ghgemissions/technical-support-document-endangerment-and-cause-or-contribute-findings-greenhouse (accessed September 28, 2018).

<sup>23</sup> Intergovernmental Panel on Climate Change, *Fifth Assessment Report*, 2014, https://www.ipcc.ch/report/ar5/syr/ 9 (accessed September 28, 2018).

<sup>&</sup>lt;sup>24</sup> U.S. Global Change Research Program, *Global Climate Change Impacts in the United States*, 2009, http://www.globalchange.gov/what-we-do/assessment/previous-assessments/global-climate-change-impacts-in-the-us-2009 (accessed September 28, 2018).

### 5.3.1 Regulatory Framework

The impact of proposed projects on climate change is a growing concern. Greenhouse gases (GHGs) are those that trap heat in the earth's atmosphere; these include water (H2O) vapor, carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and O3. Research has shown that there is a direct link between fuel combustion and GHG emissions. Therefore, sources that require fuel or power at an airport are the primary sources that would generate GHGs. Aircraft are probably the most often cited air pollutant source, but they produce the same types of emissions as cars. Per *Aviation and Emissions: A Primer*, "Aircraft jet engines, like many other vehicle engines, produce CO2, H2O vapor, N2O, CO, oxides of sulfur, unburned or partially combusted hydrocarbons or VOCs, particulates, and other trace compounds." <sup>26</sup>

Per FAA Order 1050.1F, the discussion of potential climate impacts should be documented in a separate section of the NEPA document, distinct from air quality27. Where the proposed action or alternative(s) would result in an increase in greenhouse gases (GHG) emissions, the emissions should be assessed either qualitatively or quantitatively.

hmmh

Researchers developed the Global Warming Potential (GWP) as a way to compare the global warming impacts of different gases, by converting each gas amount to a carbon dioxide equivalent (CO2E). GWPs provide a common unit of measure, which allows for consistency when estimating emissions of these different gases. CO2 has a GWP of one because it is the gas used as the reference point. CH4 does not last as long in the atmosphere as CO2; however, it absorbs much more energy. Therefore, one ton of CH4 has 28 times more heat capturing potential than one ton of CO2. The amount of CH4 emissions would be multiplied by 28 to determine its CO2E value. NOX lasts in the atmosphere far longer than CO2. The amount of nitrous oxides emissions would be multiplied by 298 to determine its CO2E value.

Based on the President's recent Executive Order<sup>28</sup>, the project impacts on greenhouse gas (GHG) emissions and climate change should be documented in the Environmental Assessment (EA). Although no federal standards have been set for GHG emissions, it is well established that GHG emissions can affect climate. Based on guidance from the FAA Order 1050.1F Desk Reference, state and local policies and programs that address climate change are discussed in this section. The guidance recommends consideration of: (1) the potential effects of a proposed action or its alternatives on climate change as indicated by its GHG emissions; (2) the implications of climate change for the environmental effects of a proposed action or alternatives.

### 5.3.2 Affected Environment

Greenhouse gases (GHG) are gases that trap heat in the earth's atmosphere. Both naturally occurring and manmade GHGs primarily include water vapor, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Activities that require fuel or power are the primary stationary sources of GHGs at airports. Aircraft and ground access vehicles, which are not under the control of an airport, typically generate more GHG emissions than airport-controlled sources.

Research has shown there is a direct correlation between fuel combustion and GHG emissions. In terms of U.S. contribution, the Government Accountability Office (GAO) reports that "domestic aviation contributes about three percent of total carbon dioxide emissions, according to EPA data," compared with other industrial sources, including the remainder of the transportation sector (20%) and power generation (41%). The International Civil Aviation Organization (ICAO) estimates that GHG emissions from aircraft account for roughly three percent of all anthropogenic GHG emissions globally.<sup>19</sup> Climate change due to GHG emissions is a global phenomenon; therefore, the affected environment is the global climate.

<sup>&</sup>lt;sup>28</sup> Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." January 20, 2021.



<sup>&</sup>lt;sup>26</sup> 14 FAA, January 2005, Aviation and Emissions A Primer. What emissions come from aviation?

<sup>27</sup> https://www.faa.gov/sites/faa.gov/files/about/office\_org/headquarters\_offices/apl/3-climate.pdf

## 5.3.3 Analysis Methodology

For this analysis, GHG emissions associated with the Proposed Action were prepared for carbon dioxide, methane, and nitrous oxide and presented as carbon dioxide equivalent ( $CO_2e$ ) in metric tons per year relevant to their global warming potential. The carbon dioxide equivalent is estimated by taking the mass equivalent of each pollutant (TPY) and multiplying by the global warming potential equivalent (GWP) of each pollutant and adding them together. For example, the GWP of  $CO_2$  is 1,  $CH_4$  is 28 GWP, and  $N_2O$  is 265 GWP, according to the IPCC Fifth Assessment Report<sup>29</sup>.

The methodology and assumptions for the GHG analysis are consistent with the air quality analysis discussed in Section 1.2.2 and 2.2.4. GHG emissions associated with the construction and demolition activities as well as the increase in GHG emissions due to operational changes of the Proposed Action were qualitatively evaluated.

## 5.3.4 Environmental Consequences of Proposed Action Alternative

**Table 29** presents the annual greenhouse gas emissions for demolition and construction activities while **Table 30** presents the GHG operational emissions associated with the 2019 existing and future Proposed Action and No Action for 2027 and 2032.



There are no defined significance thresholds for aviation GHG emissions, nor has FAA identified any factors to consider in making a significance determination for GHG emissions.

In summary, while there are no significance thresholds established for climate impacts, GHGs associated with the Proposed Action have been calculated in accordance with the latest FAA guidelines (1050.1F) for climate impacts in a NEPA document<sup>30</sup> and included in the emission spreadsheets in Appendix A.

Table 29. GHG Emissions Associated with Construction and Demolition for the Proposed Action

Source: HMMH 2022

Year	Greenl	CO₂e (metric						
	CO₂	CH₄	N₂O	tons/year) <sup>Note 2</sup>				
Construction <sup>Note 1</sup>								
2022	4,611	0.021	0.004	4,613				
2023	17,900	0.083	0.017	17,907				
2024	32,928	0.144	0.030	32,940				
2025	20,689	0.143	0.032	20,702				
2026	8,653	0.019	0.002	8,654				
2027	7,055	0.051	0.013	7,061				
2028	6,947	0.071	0.019	6,955				
2029	4,046	0.057	0.014	4,051				
2030	1,868	0.018	0.005	1,870				

Notes: 1. Construction emissions derived from ACEIT and EPA MOVES3.

https://www.faa.gov/about/office org/headquarters offices/apl/environ policy guidance/policy/faa nepa order/desk ref/media/3-climate.pdf



<sup>2.</sup> Emissions are reported as metric tons of carbon dioxide equivalents to present a normalized unit of greenhouse gas emissions based on the global warming potential of each gas.  $CO_2e$  is a combination of CO2 emissions with the CO2-equivalent emissions of other greenhouse gases.

<sup>&</sup>lt;sup>29</sup> https://www.ipcc.ch/assessment-report/ar5/

<sup>30 1050.1</sup>F Desk Reference,

Table 30. GHG Emissions Associated with Operations for the Proposed Action

Source: HMMH 2022

Year			Greenhou	CO₂e (metric tons/year) <sup>Note 2</sup>		
	Activity	Aircraft Fuel Usage (tons)	CO₂	CH₄	N₂O	,,,,,,,
2019	Existing Conditions <sup>Note1</sup>	54,370	171,537	N/A	N/A	155,616
2027	Aircraft No Action <sup>Note1</sup>	67,596	213,262	N/A	N/A	193,468
viv	Aircraft Proposed ActionNote1	67,596	213,262	N/A	N/A	193,468
2032	Aircraft No Action <sup>Note1</sup>	70,338	221,197	N/A	N/A	200,666
	Aircraft Proposed ActionNote1	77,940	245,906	N/A	N/A	223,082
	Net Change in CUP GHGs	N/a	1596	0.06	0.04	1,608
	Net Change in GAV GHGs	N/a	915	0.52	1.41	917
	Net Change in Additional Parking GHGs	N/a	259	0.005	0.002	260

Notes: 1. GHG emissions are derived by AEDT for each condition.

## 5.3.5 Environmental Consequences of No Action Alternative

The No-Action Alternative assumes that the proposed action is not implemented, and air quality would remain unchanged for 2027. Therefore, no additional air quality impacts would occur as a result of the No-Action case. For 2032, the No Action assumes hard stands are in place to address additional aircraft activity due to the constrained gates at the terminal to account for additional APU and GPU activity



<sup>2.</sup> Emissions are reported as metric tons of carbon dioxide equivalents to present a normalized unit of greenhouse gas emissions based on the global warming potential of each gas. CO<sub>2</sub>e is a combination of CO<sub>2</sub> emissions with the CO<sub>2</sub>-equivalent emissions of other greenhouse gases. N/A Not applicable, AEDT does not estimate CH4 and N2O emissions. N/A under the aircraft fuel usage does not apply to operational source

# 6. Aircraft Noise Terminology

Noise is a complex physical quantity. The properties, measurement, and presentation of noise involve specialized terminology that can be difficult to understand. To provide a basic reference on these technical issues, this section introduces fundamentals of noise terminology, the effects of noise on human activity, and noise propagation.

## 6.1 Introduction to Noise Terminology

Analyses of potential impacts from changes in aircraft noise levels rely largely on a measure of cumulative noise exposure over an entire calendar year, expressed in terms of a metric called the Day-Night Average Sound Level (DNL). However, DNL does not provide an adequate description of noise for many purposes. A variety of measures, which are further described in subsequent sub-sections, are available to address essentially any issue of concern, including:



- Sound Pressure Level, SPL, and the Decibel, dB
- A-Weighted Decibel, dBA
- Maximum A-Weighted Sound Level, L<sub>max</sub>
- Time Above, TA
- Sound Exposure Level, SEL
- Equivalent A-Weighted Sound Level, Leq
- Day-Night Average Sound Level, DNL

### 6.1.1 Sound Pressure Level, SPL, and the Decibel, dB

All sounds come from a sound source – a musical instrument, a voice speaking, an airplane passing overhead. It takes energy to produce sound. The sound energy produced by any sound source travels through the air in sound waves – tiny, quick oscillations of pressure just above and just below atmospheric pressure. The ear senses these pressure variations and – with much processing in our brain – translates them into "sound."

Our ears are sensitive to a wide range of sound pressures. The loudest sounds that we can hear without pain contain about one million times more energy than the quietest sounds we can detect. To allow us to perceive sound over this very wide range, our ear/brain "auditory system" compresses our response in a complex manner, represented by a term called sound pressure level (SPL), which we express in units called decibels (dB).

Mathematically, SPL is a logarithmic quantity based on the ratio of two sound pressures, the numerator being the pressure of the sound source of interest ( $P_{\text{source}}$ ), and the denominator being a reference pressure ( $P_{\text{reference}}$ ) <sup>31</sup>

Sound Pressure Level (SPL) = 
$$20*Log\left(\frac{P_{source}}{P_{reference}}\right)dB$$

The logarithmic conversion of sound pressure to SPL means that the quietest sound that we can hear (the reference pressure) has a sound pressure level of about 0 dB, while the loudest sounds

<sup>&</sup>lt;sup>31</sup> The reference pressure is approximately the quietest sound that a healthy young adult can hear.



that we hear without pain have sound pressure levels of about 120 dB. Most sounds in our day-to-day environment have sound pressure levels from about 40 to 100 dB<sup>32</sup>.

Because decibels are logarithmic quantities, we cannot use common arithmetic to combine them. For example, if two sound sources each produce 100 dB operating individually, when they operate simultaneously, they produce 103 dB -- not the 200 dB we might expect. Increasing to four equal sources operating simultaneously will add another three decibels of noise, resulting in a total SPL of 106 dB. For every doubling of the number of equal sources, the SPL goes up another three decibels.

If one noise source is much louder than another is, the louder source "masks" the quieter one and the two sources together produce virtually the same SPL as the louder source alone. For example, a 100 dB and 80 dB sources produce approximately 100 dB of noise when operating together.



Two useful "rules of thumb" related to SPL are worth noting: (1) humans generally perceive a six to 10 dB increase in SPL to be about a doubling of loudness,<sup>33</sup> and (2) changes in SPL of less than about three decibels for an particular sound are not readily detectable outside of a laboratory environment.

## 6.1.2 A-Weighted Decibel

An important characteristic of sound is its frequency, or "pitch." This is the per-second oscillation rate of the sound pressure variation at our ear, expressed in units known as Hertz (Hz).

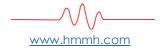
When analyzing the total noise of any source, acousticians often break the noise into frequency components (or bands) to consider the "low," "medium," and "high" frequency components. This breakdown is important for two reasons:

- Our ear is better equipped to hear mid and high frequencies and is least sensitive to lower frequencies. Thus, we find mid- and high-frequency noise more annoying.
- Engineering solutions to noise problems differ with frequency content. Low-frequency noise is generally harder to control.

The normal frequency range of hearing for most people extends from a low of about 20 Hz to a high of about 10,000 to 15,000 Hz. Most people respond to sound most readily when the predominant frequency is in the range of normal conversation – typically around 1,000 to 2,000 Hz. The acoustical community has defined several "filters," which approximate this sensitivity of our ear and thus, help us to judge the relative loudness of various sounds made up of many different frequencies.

The so-called "A" filter ("A weighting") generally does the best job of matching human response to most environmental noise sources, including natural sounds and sound from common transportation sources. "A-weighted decibels" are abbreviated "dBA." Because of the correlation with our hearing, the U. S. Environmental Protection Agency (EPA) and nearly every other federal and state agency have adopted A-weighted decibels as the metric for use in

 $<sup>^{33}</sup>$  A "10 dB per doubling" rule of thumb is the most often used approximation.



<sup>&</sup>lt;sup>32</sup> The logarithmic ratio used in its calculation means that SPL changes relatively quickly at low sound pressures and more slowly at high pressures. This relationship matches human detection of changes in pressure. We are much more sensitive to changes in level when the SPL is low (for example, hearing a baby crying in a distant bedroom), than we are to changes in level when the SPL is high (for example, when listening to highly amplified music).

describing environmental and transportation noise. **Figure 23** depicts A-weighting adjustments to sound from approximately 20 Hz to 10,000 Hz.

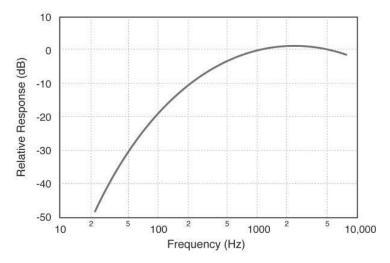


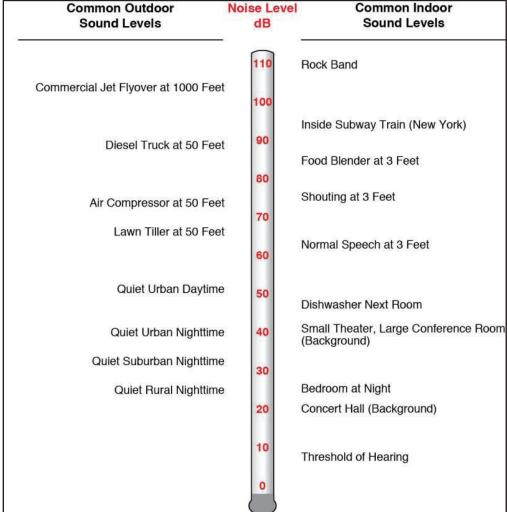


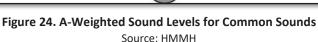
Figure 23. A-Weighting Frequency Response

Source: Extract from Harris, Cyril M., Editor, "Handbook of Acoustical Measurements and Control," McGraw-Hill, Inc., 1991, pg. 5.13; HMMH

As the figure shows, A-weighting significantly de-emphasizes noise content at lower and higher frequencies where we do not hear as well, and has little effect, or is nearly "flat," in for midrange frequencies between 1,000 and 5,000 Hz. All sound pressure levels presented in this document are A-weighted unless otherwise specified.

Figure 24 depicts representative A-weighted sound levels for a variety of common sounds.





## 6.1.3 Maximum A-Weighted Sound Level, Lmax

An additional dimension to environmental noise is that A-weighted levels vary with time. For example, the sound level increases as a car or aircraft approaches, then falls and blends into the background as the aircraft recedes into the distance. The background or "ambient" level continues to vary in the absence of a distinctive source, for example due to birds chirping, insects buzzing, leaves rustling, etc. It is often convenient to describe a particular noise "event" (such as a vehicle passing by, a dog barking, etc.) by its maximum sound level, abbreviated as  $L_{max}$ .

**Figure 25** depicts this general concept, for a hypothetical noise event with an  $L_{max}$  of approximately 102 dB.





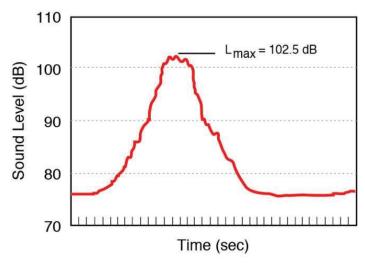


Figure 25. Variation in A-Weighted Sound Level over Time and Maximum Noise Level Source: HMMH



While the maximum level is easy to understand, it suffers from a serious drawback when used to describe the relative "noisiness" of an event such as an aircraft flyover; i.e., it describes only one dimension of the event and provides no information on the event's overall, or cumulative, noise exposure. In fact, two events with identical maximum levels may produce very different total exposures. One may be of very short duration, while the other may continue for an extended period and be judged much more annoying. The next section introduces a measure that accounts for this concept of a noise "dose," or the cumulative exposure associated with an individual "noise event" such as an aircraft flyover.

### 6.1.4 Sound Exposure Level, SEL

The most commonly used measure of cumulative noise exposure for an individual noise event, such as an aircraft flyover, is the Sound Exposure Level, or SEL. SEL is a summation of the A-weighted sound energy over the entire duration of a noise event. SEL expresses the accumulated energy in terms of the one-second-long steady-state sound level that would contain the same amount of energy as the actual time-varying level.

SEL provides a basis for comparing noise events that generally match our impression of their overall "noisiness," including the effects of both duration and level. The higher the SEL, the more annoying a noise event is likely to be. In simple terms, SEL "compresses" the energy for the noise event into a single second. **Figure 26** depicts this compression, for the same hypothetical event shown in **Figure 25**. Note that the SEL is higher than the L<sub>max</sub>.

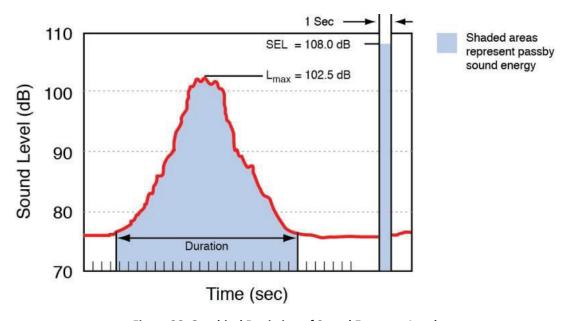




Figure 26. Graphical Depiction of Sound Exposure Level

Source: HMMH

The "compression" of energy into one second means that a given noise event's SEL will almost always will be a higher value than its  $L_{max}$ . For most aircraft flyovers, SEL is roughly five to 12 dB higher than  $L_{max}$ . Adjustment for duration means that relatively slow and quiet propeller aircraft can have the same or higher SEL than faster, louder jets, which produce shorter duration events.

### 6.1.5 Equivalent A-Weighted Sound Level, Leg

The Equivalent Sound Level, abbreviated  $L_{eq}$ , is a measure of the exposure resulting from the accumulation of sound levels over a particular period of interest; e.g., one hour, an eight-hour school day, nighttime, or a full 24-hour day.  $L_{eq}$  plots for consecutive hours can help illustrate how the noise dose rises and falls over a day or how a few loud aircraft significantly affect some hours.

 $L_{\rm eq}$  may be thought of as the constant sound level over the period of interest that would contain as much sound energy as the actual varying level. It is a way of assigning a single number to a time-varying sound level. Figure 27 illustrates this concept for the same hypothetical event shown in Figure 25 and Figure 26. Note that the  $L_{\rm eq}$  is lower than either the  $L_{\rm max}$  or SEL.

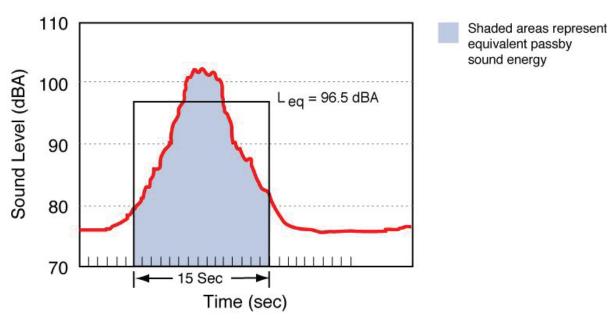


Figure 27. Example of a 15-Second Equivalent Sound Level

Source: HMMH

### 6.1.6 Day-Night Average Sound Level, DNL or Lan

The FAA requires that airports use a measure of noise exposure that is slightly more complicated than L<sub>eq</sub> to describe cumulative noise exposure – the Day-Night Average Sound Level, DNL.

The U.S. EPA identified DNL as the most appropriate means of evaluating airport noise based on the following considerations<sup>34</sup>.

- The measure should be applicable to the evaluation of pervasive long-term noise in various defined areas and under various conditions over long periods.
- The measure should correlate well with known effects of the noise environment and on individuals and the public.
- The measure should be simple, practical, and accurate. In principal, it should be useful for planning as well as for enforcement or monitoring purposes.
- The required measurement equipment, with standard characteristics, should be commercially available.
- The measure should be closely related to existing methods currently in use.
- The single measure of noise at a given location should be predictable, within an acceptable tolerance, from knowledge of the physical events producing the noise.
- The measure should lend itself to small, simple monitors, which can be left unattended in public areas for long periods.

Most federal agencies dealing with noise have formally adopted DNL. The Federal Interagency Committee on Noise (FICON) reaffirmed the appropriateness of DNL in 1992. The FICON

<sup>&</sup>lt;sup>34</sup> "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," U. S. EPA Report No. 550/9-74-004, March 1974.



summary report stated: "There are no new descriptors or metrics of sufficient scientific standing to substitute for the present DNL cumulative noise exposure metric."

In 2015, the FAA began a multi-year effort to update the scientific evidence on the relationship between aircraft noise exposure and its effects on communities around airports. This was the most comprehensive study using a single noise survey ever undertaken in the United States, polling communities surrounding 20 airports nationwide. The FAA Reauthorization Act of 2018 under Section 188 and 173, required FAA to complete the evaluation of alternative metrics to the DNL standard within one year. The Section 188 and 173 Report to Congress was delivered on April 14, 2020<sup>36</sup> and concluded that while no single noise metric can cover all situations, DNL provides the most comprehensive way to consider the range of factors influencing exposure to aircraft noise. In addition, use of supplemental metrics is both encouraged and supported to further disclose and aid in the public understanding of community noise impacts. The full study supporting these reports was released in January 2021. If changes are warranted in the use of DNL, which DNL level to assess or the use of supplemental metrics, FAA will propose revised policy and related guidance and regulations, subject to interagency coordination, as well as public review and comment.



In simple terms, DNL is the 24-hour  $L_{\text{eq}}$  with one adjustment; all noises occurring at night (defined as 10 p.m. through 7 a.m.) are increased by 10 dB, to reflect the added intrusiveness of nighttime noise events when background noise levels decrease. In calculating aircraft exposure, this 10 dB increase is mathematically identical to counting each nighttime aircraft noise event ten times.

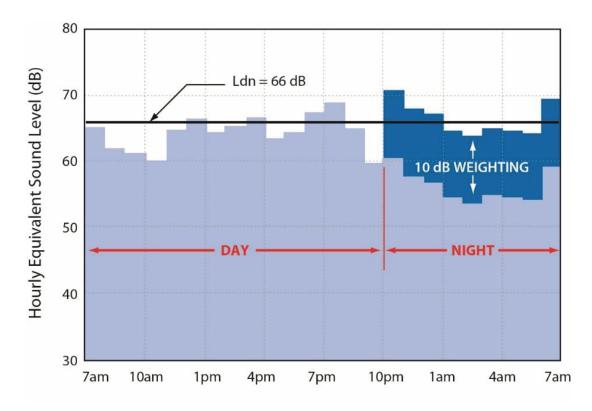
DNL can be measured or estimated. Measurements are practical only for obtaining DNL values for limited numbers of points, and, in the absence of a permanently installed monitoring system, only for relatively short periods. Most airport noise studies use computer-generated DNL estimates depicted as equal-exposure noise contours (much as topographic maps have contours of equal elevation).

The annual DNL is mathematically identical to the DNL for the average annual day; i.e., a day on which the number of operations is equal to the annual total divided by 365 (366 in a leap year). Figure 28 graphically depicts the manner in which the nighttime adjustment applies in calculating DNL. Figure 29 presents representative outdoor DNL values measured at various U.S. locations.

Federal Aviation Administration. Report to Congress on an evaluation of alternative noise metrics. https://www.faa.gov/about/plans\_reports/congress/media/Day-Night\_Average\_Sound\_Levels\_COMPLETED\_report\_w\_letters.pdf



Federal Aviation Administration. Press Release – FAA To Re-Evaluate Method for Measuring Effects of Aircraft Noise. https://www.faa.gov/news/press\_releases/news\_story.cfm?newsId=18774



hmmh

Figure 28. Example of a Day-Night Average Sound Level Calculation

Source: HMMH



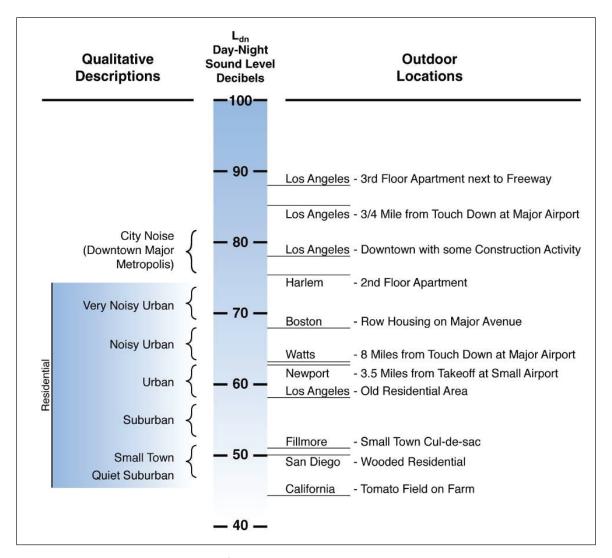




Figure 29. Examples of Measured Day-Night Average Sound Levels, DNL

Source: U.S. Environmental Protection Agency, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," March 1974, p.14.

## 6.2 Aircraft Noise Effects on Human Activity

Aircraft noise can be an annoyance and a nuisance. It can interfere with conversation and listening to television, disrupt classroom activities in schools, and disrupt sleep. Relating these effects to specific noise metrics helps in the understanding of how and why people react to their environment.

#### 6.2.1 Speech Interference

One potential effect of aircraft noise is its tendency to "mask" speech, making it difficult to carry on a normal conversation. The sound level of speech decreases as the distance between a talker and listener increases. As the background sound level increases, it becomes harder to hear speech.



**Figure 30** presents typical distances between talker and listener for satisfactory outdoor conversations, in the presence of different steady A-weighted background noise levels for raised, normal, and relaxed voice effort. As the background level increases, the talker must raise his/her voice, or the individuals must get closer together to continue talking.

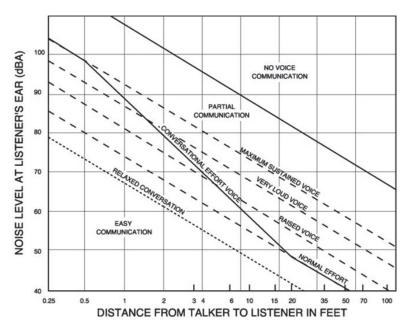


Figure 30. Outdoor Speech Intelligibility

Source: U.S. EPA, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," March 1974, p.D-5.

Satisfactory conversation does not always require hearing every word; 95% intelligibility is acceptable for many conversations. In relaxed conversation, however, we have higher expectations of hearing speech and generally require closer to 100% intelligibility. Any combination of talker-listener distances and background noise that falls below the bottom line in the figure (which roughly represents the upper boundary of 100% intelligibility) represents an ideal environment for outdoor speech communication. Indoor communication is generally acceptable in this region as well.

One implication of the relationships in **Figure 30** is that for typical communication distances of three or four feet, acceptable outdoor conversations can be carried on in a normal voice as long as the background noise outdoors is less than about 65 dB. If the noise exceeds this level, as might occur when an aircraft passes overhead, intelligibility would be lost unless vocal effort were increased or communication distance were decreased.

Indoors, typical distances, voice levels, and intelligibility expectations generally require a background level less than 45 dB. With windows partly open, housing generally provides about 10 to 15 dB of interior-to-exterior noise level reduction. Thus, if the outdoor sound level is 60 dB or less, there is a reasonable chance that the resulting indoor sound level will afford acceptable interior conversation. With windows closed, 24 dB of attenuation is typical.



## 6.2.2 Sleep Interference

Research on sleep disruption from noise has led to widely varying observations. In part, this is because (1) sleep can be disturbed without awakening, (2) the deeper the sleep the more noise it takes to cause arousal, (3) the tendency to awaken increases with age, and other factors.

Figure 31 shows a summary of findings on the topic.

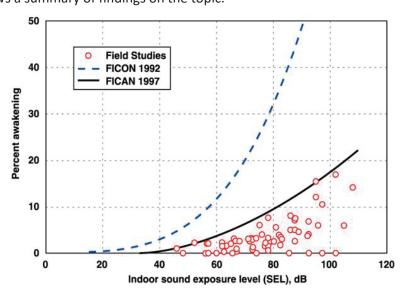
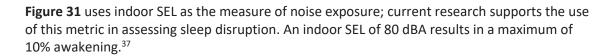


Figure 31. Sleep Interference

Source: Federal Interagency Committee on Aircraft Noise (FICAN), "Effects of Aviation Noise on Awakenings from Sleep," June 1997, pg. 6



### 6.2.3 Community Annoyance

Numerous psychoacoustic surveys provide substantial evidence that individual reactions to noise vary widely with noise exposure level. Since the early 1970s, researchers have determined (and subsequently confirmed) that aggregate community response is generally predictable and relates reasonably well to cumulative noise exposure such as DNL. Figure 32 depicts the widely recognized relationship between environmental noise and the percentage of people "highly annoyed," with annoyance being the key indicator of community response usually cited in this body of research. Separate work by the EPA showed that overall community reaction to a noise environment was also correlated with DNL. Figure 33 depicts this relationship.

As noted above in the discussion of DNL, the full report on the FAA's recent research, polling communities surrounding 20 airports nationwide, was released in January 2021. At the time of

<sup>&</sup>lt;sup>37</sup> The awakening data presented in Figure A-9 apply only to individual noise events. The American National Standards Institute (ANSI) has published a standard that provides a method for estimating the number of people awakened at least once from a full night of noise events: ANSI/ASA S12.9-2008 / Part 6, "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 6: Methods for Estimation of Awakenings Associated with Outdoor Noise Events Heard in Homes." This method can use the information on single events computed by a program such as the FAA's AEDT, to compute awakenings.





this reporting, the public review and comment period on that research had ended but FAA had not yet issued new guidance.

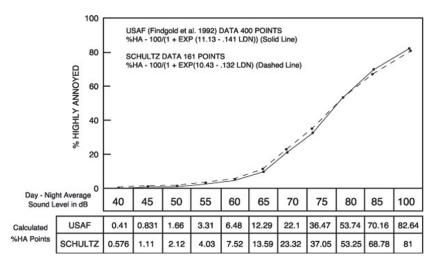


Figure 32. Percentage of People Highly Annoyed

Source: FICON, "Federal Agency Review of Selected Airport Noise Analysis Issues," September 1992

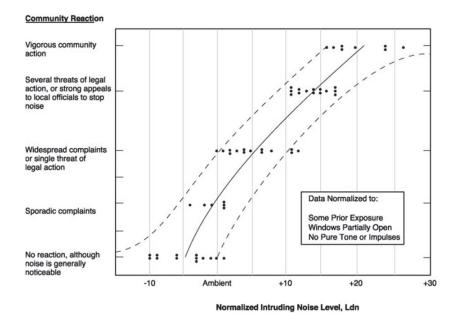


Figure 33. Community Reaction as a Function of Outdoor DNL

Source: Wyle Laboratories, Community Noise, prepared for the U.S. EPA, Office of Noise Abatement and Control, Washington, D.C.,
December 1971, pg. 63

Data summarized in the figure suggest that little reaction would be expected for intrusive noise levels five decibels below the ambient, while widespread complaints can be expected as





intruding noise exceeds background levels by about five decibels. Vigorous action is likely when levels exceed the background by 20 dB.

## 6.3 Noise Propagation

This section presents information sound-propagation effect due to weather, source-to-listener distance, and vegetation.

### 6.3.1 Weather-Related Effects

Weather (or atmospheric) conditions that can influence the propagation of sound include humidity, precipitation, temperature, wind, and turbulence (or gustiness). The effect of wind – turbulence in particular – is generally more important than the effects of other factors. Under calm-wind conditions, the importance of temperature (in particular vertical "gradients") can increase, sometimes to very significant levels. Humidity generally has little significance relative to the other effects.



### 6.3.2 Influence of Humidity and Precipitation

Humidity and precipitation rarely effect sound propagation in a significant manner. Humidity can reduce propagation of high-frequency noise under calm-wind conditions. This is called "Atmospheric absorption." In very cold conditions, listeners often observe that aircraft sound "tinny," because the dry air increases the propagation of high-frequency sound. Rain, snow, and fog also have little if any noticeable effect on sound propagation. A substantial body of empirical data supports these conclusions.<sup>38</sup>

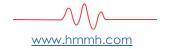
## 6.3.3 Influence of Temperature

The velocity of sound in the atmosphere is dependent on the air temperature. <sup>39</sup> As a result, if the temperature varies at different heights above the ground, sound will travel in curved paths rather than straight lines. During the day, temperature normally decreases with increasing height. Under such "temperature lapse" conditions, the atmosphere refracts ("bends") sound waves upwards and an acoustical shadow zone may exist at some distance from the noise source.

Under some weather conditions, an upper level of warmer air may trap a lower layer of cool air. Such a "temperature inversion" is most common in the evening, at night, and early in the morning when heat absorbed by the ground during the day radiates into the atmosphere. <sup>40</sup> The effect of an inversion is just the opposite of lapse conditions. It causes sound propagating through the atmosphere to refract downward.

The downward refraction caused by temperature inversions often allows sound rays with originally upward-sloping paths to bypass obstructions and ground effects, increasing noise levels at greater distances. This type of effect is most prevalent at night, when temperature

<sup>&</sup>lt;sup>40</sup>Embleton, T.F.W., G.J. Thiessen, and J.E. Piercy, "Propagation in an inversion and reflections at the ground," *Journal of the Acoustical Society of America*, Vol. 59, No. 2, February 1976, p. 278.



<sup>&</sup>lt;sup>38</sup>Ingard, Uno. "A Review of the Influence of Meteorological Conditions on Sound Propagation," *Journal of the Acoustical Society of America*, Vol. 25, No. 3, May 1953, p. 407.

<sup>&</sup>lt;sup>39</sup>In dry air, the approximate velocity of sound can be obtained from the relationship:

 $c = 331 + 0.6T_c$  (c in meters per second,  $T_c$  in degrees Celsius). Pierce, Allan D., *Acoustics: An Introduction to its Physical Principles and Applications*. McGraw-Hill. 1981. p. 29.

inversions are most common and when wind levels often are very low, limiting any confounding factors. <sup>41</sup> Under extreme conditions, one study found that noise from ground-borne aircraft might be amplified 15 to 20 dB by a temperature inversion. In a similar study, noise caused by an aircraft on the ground registered a higher level at an observer location 1.8 miles away than at a second observer location only 0.2 miles from the aircraft. <sup>42</sup>

#### 6.3.4 Influence of Wind

Wind has a strong directional component that can lead to significant variation in propagation. In general, receivers that are downwind of a source will experience higher sound levels, and those that are upwind will experience lower sound levels. Wind perpendicular to the source-to-receiver path has no significant effect.

The refraction caused by wind direction and temperature gradients is additive. <sup>43</sup> One study suggests that for frequencies greater than 500 Hz, the combined effects of these two factors tends towards two extreme values: approximately 0 dB in conditions of downward refraction (temperature inversion or downwind propagation) and -20 dB in upward refraction conditions (temperature lapse or upwind propagation). At lower frequencies, the effects of refraction due to wind and temperature gradients are less pronounced. <sup>44</sup>

Wind turbulence (or "gustiness") can also affect sound propagation. Sound levels heard at remote receiver locations will fluctuate with gustiness. In addition, gustiness can cause considerable attenuation of sound due to effects of eddies traveling with the wind. Attenuation due to eddies is essentially the same in all directions, with or against the flow of the wind, and can mask the refractive effects discussed above. <sup>45</sup>

#### 6.3.5 Distance-Related Effects

People often ask how distance from an aircraft to a listener affects sound levels. Changes in distance may be associated with varying terrain, offsets to the side of a flight path, or aircraft altitude. The answer is a bit complex because distance affects the propagation of sound in several ways.

The principal effect results from the fact that any emitted sound expands in a spherical fashion – like a balloon – as the distance from the source increases, resulting in the sound energy being spread out over a larger volume. With each doubling of distance, spherical spreading reduces instantaneous or maximum level by approximately six decibels and SEL by approximately three decibels.





<sup>&</sup>lt;sup>41</sup>Ingard, p. 407.

<sup>&</sup>lt;sup>42</sup>Dickinson, P.J., "Temperature Inversion Effects on Aircraft Noise Propagation," (Letters to the Editor) *Journal of Sound and Vibration*. Vol. 47, No. 3, 1976, p. 442.

<sup>&</sup>lt;sup>43</sup>Piercy and Embleton, p. 1412. Note, in addition, that as a result of the scalar nature of temperature and the vector nature of wind, the following is true: under lapse conditions, the refractive effects of wind and temperature add in the upwind direction and cancel each other in the downwind direction. Under inversion conditions, the opposite is true.

<sup>&</sup>lt;sup>44</sup>Piercy and Embleton, p. 1413.

<sup>&</sup>lt;sup>45</sup>Ingard, pp. 409-410.

## 6.3.6 Vegetation-Related Effects

Sound can be scattered and absorbed as it travels through vegetation. This results in a decrease in sound levels. The literature on the effect of vegetation on sound propagation contains several approaches to calculating its effect. Though these approaches differ in some aspects, they agree on the following:

- The vegetation must be dense and deep enough to block the line of sight
- The noise reduction is greatest at high frequencies and least at low frequencies

The International Standard ISO 9613-2<sup>46</sup> provides a useful example of the types of calculations employed in these methods. Originally developed for industrial noise sources, ISO 9613-2 is well-suited for the evaluation of ground-based aircraft noise sources under favorable meteorological conditions for sound propagation. ISO 9613-2's methodology for calculating sound propagation includes geometric dispersion from acoustical point sources, atmospheric absorption, the effects of areas of hard and soft ground, screening due to barriers, and reflections. The attenuation provided by dense foliage varies by octave band and by distance as shown in **Table 31**.



For propagation through less than 10 m of dense foliage, no attenuation is assumed. For propagation through 10 m to 20 m of dense foliage, the total attenuation is shown in the first row of **Table 31**. For distances between 20 m and 200 m, the total attenuation is computed by multiplying the distance of propagation through dense foliage by the dB/m values shown in the second row of **Table 31**.

**Table 31. Dense Foliage Noise Attenuation** 

Source: ISO 9613-2, Table A.1

Duamagation Distance	Nominal Midband Frequency (Hz)							
Propagation Distance	63	125	250	500	1,000	2,000	4,000	8,000
10 m to 20 m (dB Attenuation)	0	0	1	1	1	1	2	3
20 m to 200 m (dB/m Attenuation)	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.12

ISO 9613-2 assumes a moderate downwind condition. The equations in the ISO Standard also hold, equivalently, for average propagation under a well-developed moderate ground-based temperature inversion, such as commonly occurs on clear, calm nights. In either case, the sound is refracted downward. The radius of this curved path is assumed to be 5 km. With this curved sound path, only portions of the sound path may travel through the dense foliage, as illustrated by **Figure 34**. Thus, the relative locations of the source and receiver, the dimensions of the volume of dense foliage, and the contours of the intervening terrain are essential to the estimation of the noise attenuation.

<sup>&</sup>lt;sup>46</sup> International Organization for Standardization, Acoustics – Attenuation of sound during propagation outdoors – Part 2: General Method of calculation, International Standard ISO9613-2, Geneva, Switzerland (15 December 1996).



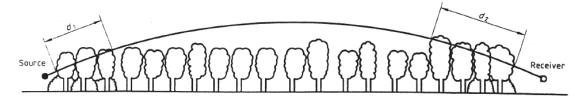


Figure 34. Downward Refracting Sound Path

source: ISO 9613-2

As illustrated in **Figure 34**, the foliage only provides attenuation if the sound path passes through the foliage. For aircraft in the air, the sound will pass through little, if any foliage. Additionally, either the noise source or receiver must be near the foliage for it to have an effect.



Appendix A – Emissions Calculations

STUDY

Study Name

Austin Airport

Study Description

Construction Schedule 2022

EMISSIONS INVENTORY - DETAILS:

Non-Road Sources Units for Non-Greenhouse Gases Emission: Short Ton

Units for Gre	Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton			NONROAD Emission Factors g/-hp-hr NONROAD Emissions (TPV)
Scenario I Drear	ear Project Constructicationent	MovesLookup	HP Averag Load FactoHours of A CO	NOX CO2 SO2 PM10 PM2.5 VOC
1	2022 Demolitio	Tractors/Loaders/Backhoes7Diesel	75 0.2	74078 3.776604 694.5538 0.002167 0.351303 0.340764 0.493399 0.231178
1	2022 DemolitionBuilding DeDump Truck	Off-highway Trucks 600 Diesel	600 00:59	4800 0.101251 0.282904 536.7739 0.001443 0.020296 0.019688 0.0192221 0.189649 0.523895 1005.408 0.002703 0.038016 0.036002
1	2022 DemolitionBuilding DExcavator with Bucket	Excavators175 Diesel		2400 0.160072 0.459199 536.7629 0.001455 0.040972 0.039743 0.023728 0.043724 0.125432 146.619 0.000397
1	2022 DemolitionBuilding DeGenerator Sets	Other Construction EquipmeDiesel	40 0.43	2400 0.378526 2.620463 595.8355 0.001604 0.041872 0.040616 0.108156 0.017224 0.119241 27.11269 7.3E-05 0.001905 0.001848 0.004921
1	2022 DemolitionBuilding DePickup Truck	Off-highway Trucks 600 Diesel	600 0.59	2800 0.101251 0.282904 536.7739 0.001443 0.020296 0.019688 0.019221 0.110629 0.309105 586.4881 0.001577 0.022176 0.021511 0.021001
2	2022 DemolitionBuilding DeBob Cat	Tractors/Loaders/Backhoes7Diesel		4800 2,774078 3,776604 694,5538 0,002167 0,351303 0,340764 0,493399 0,231178 0,314724 57,88076 0,000181 0,029276 0,028398 0,041117
2	2022 DemolitionBuilding DeDump Truck	Off-highway Trucks 600 Diesel		4800 0.101251 0.282904 536.7739 0.001443 0.020296 0.019688 0.019221 0.1829649 0.529895 1005.408 0.002703 0.038016 0.036876 0.036002
2	2022 DemolitionBuilding DExcavator with Bucket	Excavators175 Diesel	175 0.59	2400 0.160072 0.459199 536.7629 0.001455 0.040972 0.039743 0.023728 0.043724 0.125432 146.619 0.000397 0.011192 0.010856 0.006481
2	2022 DemolitionBuilding DeGenerator Sets	Other Construction EquipmeDiesel	40 0.43	2400 0.378252 2.620463 595.8355 0.001604 0.041872 0.040616 0.108156 0.017224 0.119241 27.11269 7.3E-05 0.001905 0.001848 0.004921
2	2022 DemolitionBuilding DePickup Truck	Off-highway Trucks 600 Diesel	600 0.59	2800 0.101251 0.282904 536.7739 0.001443 0.020296 0.019688 0.0195221 0.110629 0.309105 586.4881 0.001577 0.022176 0.021511 0.021001
3	2022 Building - IConcrete FBackhoe	Tractors/Loaders/Backhoes1Diesel	100 0.21	320 3.022207 2.92543
3	2022 Building - IConcrete FConcrete Ready Mix Trucks	Off-highway Trucks 600 Diesel		60 0.101251 0.282904 5.37E+02 0.001443 0.020296 0.019688 0.019221 0.002371 0.006624 12.5676 3.38E-05 0.000475 0.000461 0.00045
3	2022 Building - Loncrete FFork Truck	Other Construction EquipmeDiesel		320 0.94411 1.727357
3	2022 Building - Loncrete FTool Truck	Off-highway Trucks 600 Diesel	600 0.59	80 0.101251 0.282904 5.37E+02 0.001443 0.020296 0.019688 0.019221 0.003161 0.008832 16.7568 4.5E-05 0.000634 0.000615 0.0006
3	2022 Building - Loncrete FTractor Trailer-Material Delivery	Off-highway Trucks 600 Diesel	600 0.59	16 0.101251 0.282904 5.37E+02 0.001443 2.03E-02 0.019688 0.019221 0.000632 0.001766 3.35136 9.01E-06 0.000127 0.000123 0.00012
3	2022 Building - Lonstructi Survey Crew Trucks	Off-highway Trucks 600 Diesel		10 0.101251 0.282904 5.37E+02 1.44E-03 2.03E-02 0.019688 0.019221 0.000395 0.001104 2.0946 5.63E-06 7.92E-05 7.68E-05 7.5E-05
3	2022 Building - 1Constructid ractor Trailers Temp Fac.	Off-highway Trucks 600 Diesel	600 0.59	4 0.101251 0.282904 5.37E+02 1.44E-03 2.03E-02 0.019688 0.019221 0.000158 0.000442 0.83784 2.25E-06 3.17E-05 3.07E-05 3E-05
3	2022 Building - Exterior W Fork Truck	Other Construction EquipmeDiesel	100 0.59	240 0.94411 1.727357 5.96E+02 0.001704 0.138294 0.134145 0.087392 0.014736 0.026962 9.301367 2.66E-05 0.002159 0.002094 0.001364
3	2022 Building - Exterior W Man Lift	Rough Terrain Forklifts75 Diesel		240 0.752214 2.847502 5.96E+02 0.001728 0.088608 0.08595 0.118437 0.003134 0.011865 2.482586 7.2E-06 0.000369 0.000358 0.000493
3	2022 Building - Exterior WTool Truck	Off-highway Trucks 600 Diesel		60 0.101251 0.282904 5.37E+02 0.001443 0.020296 0.019688 0.019221 0.002371 0.006624 12.5676 3.38E-05 0.000475 0.000461 0.00045
3	2022 Building - Exterior W Tractor Trailer- Material Delivery	Off-highway Trucks 600 Diesel	600 0.59	24 0.101251 0.282904 5.37E+02 0.001443 0.020296 0.019688 0.019221 0.000948 0.002649 5.027041 1.35E-05 0.00019 0.00018 0.00018
3	2022 Building - Interior BuFork Truck	Other Construction EquipmeDiesel	100 0.59	960 0.94411 1.727357 595.9049 0.001704 0.138294 0.134145 0.087392 0.058946 0.107848 37.20547 0.000106 0.008634 0.008375 0.005456
3	2022 Building - Interior BuMan Lift	Rough Terrain Forklifts75 Diesel	75 0.21	960 0.752214 2.847502 5.96E+02 0.001728 0.088608 0.08595 0.118437 0.012537 0.047459 9.930342
3	2022 Building - Interior BuTool Truck	Off-highway Trucks 600 Diesel		
3	2022 Building - Interior BuTractor Trailer- Material Delivery	Off-highway Trucks 600 Diesel		120 0.101251 0.282904 536.7739 0.001443 0.020296 0.019688 0.019221 0.004741 0.013247 25.1352 6.76E-05 0.00095 0.000922 0.0009
9		Rough Terrain Forklifts100 Diesel	100 0.59	120 0.789575 1.585096 5.96E+02 0.00168 0.117174 0.113658 0.071349 0.006162 0.012371 4.65105 1.31E-05 0.000914 0.000887 0.000557
3	2022 Building - TRoofing Man Lift (Fascia Construction)	Rough Terrain Forklifts75 Diesel		120 0.752214 2.847502 5.96E+02 0.001728 0.088608 0.08595 0.118437 0.001567 0.005932 1.241293
3	2022 Building - 1Roofing Material Deliveries			8 0.101251 0.282904 5.37E+02 1.44E-03 2.03E-02 0.019688 0.019221 0.000316 0.000883 1.67568 4.5E-06 6.34E-05 6.15E-05
3	2022 Building - 1Roofing Tractor Trailer- Material Delivery	Off-highway Trucks 600 Diesel	600 0.59	12 0.101.251 0.282904 5.37E+02 1.44E-03 2.03E-02 0.019688 0.019221 0.000474 0.001325 2.51352 6.76E-06 9.5E-05 9.22E-05 9E-05
3	2022 Building - 'Security & High Lift	Rough Terrain Forklifts100 Diesel	100 0.59	320 0.789575 1.585096 5.96E+02 0.00168 0.117174 0.113658 0.071349 0.016432 0.032989 12.4028 3.5E-05 0.002439 0.002365 0.001485
3	2022 Building - Security & Tool Truck	Off-highway Trucks 600 Diesel		80 0.101251 0.282904 5.37E+02 0.001443 0.020296 0.019688 0.019221 0.003161 0.008832 16.7568 4.5E-05 0.000634 0.000615 0.0006
3	2022 Building - 1Structural 40 Ton Crane	Cranes300 Diesel	300 0.43	240 0.144429 0.577312 5.31E+02 0.001474 0.028127 0.027284 0.039044 0.004929 0.019702 18.11938 5.03E-05 0.00096 0.000931 0.001332
3	2022 Building - 1Structural Fork Truck	Other Construction EquipmeDiesel		120 0.94411 1.727357 5.96E+02 0.001704 0.138294 0.134145 0.087392 0.007368 0.013481 4.650683 1.33E-05 0.001079 0.001047 0.000682
3	2022 Building - 1Structural Tool Truck	Off-highway Trucks 600 Diesel	600 0.59	60 0.101251 0.282904 5.37E+02 0.001443 0.020296 0.019688 0.019221 0.002371 0.006624 12.5676 3.38E-05 0.000475 0.000461 0.00045
9	2022 Building - 1Structural Tractor Trailer- Steel Deliveries	Off-highway Trucks 600 Diesel	600 0.59	16 0.101251 0.282904 5.37E+02 0.001443 2.03E-02 0.019688 0.019221 0.000632 0.001766 3.35136 9.01E-06 0.000127 0.000123 0.00012
				1.37913 3.206988 3904.888 0.010574 0.234496 0.227462 0.242986
On-Road Sources	rces			

On-Road Sources Units for Non-Greenhouse Gases Emission: Short Ton Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton

Roadway TRour Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr e Urban Unr Lookup

Bosel Urban Unrestricted Accessinglobese

Gasoline Urban Unrestricted Accessinglobese

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Bosel Urban Unrestricted Accessinglobese

Obsesol Urban Unrestricted Accessinglobese

Obsesol Urban Unrestricted Accessinglobese

Gasoline Urban Unrestricted Accessinglobese On-road Activity
Material Delivery
Employee Commute
Material Delivery
Employee Commute
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Material Delivery rear Project EquipmentEquipment Category
2022 DemoditoDubup Truck fage Unit Short-haul Truck
2022 Demodition-Passenger Passenger Cat
2022 Demodition-Passenger Passenger Cat
2022 Demodition-Passenger Passenger Cat
2022 Building - Lown Prucking le Unit Short-haul Truck
2022 Building - Zhom Prucking le Unit Short-haul Truck
2022 Building - Dump Trucking le Unit Short-haul Truck
2022 Building - Dump Trucking Lown Passenger Cat
2022 Building - Passenger Passenger 2022 Building - Passenger 2022 Buildi Scenario ID/ear

14900 3.26342 2.16527 0.005602 0.056872 14900 3.26342 0.113708 0.00256 0.00244 0.138768 0.00256 0.00244 0.138768 0.00256 0.00244 0.138768 0.00256 0.00244 0.13878 0.00256 0.00244 1.231 3.38363 2.16557 0.003602 0.056872 1815165 3.26427 0.00260 0.00264 1815165 3.26427 0.00266 0.00244 166 160 2.337769 4.46525 0.005614 0.094389

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3.85 18.7 313.5

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MOVES ONROAD PM10

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Fugitive	Units fo

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NOx	0
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Fugitive SoNumber of Months	2022 Building - IConcrete M
Project	22 Building
Scenario ID/ear	3 202

0 700

PM10 Vi

	Totals		0	0	0	0.04395	0
3	2022 Building - 100 aterial M	9	0	0	0	0.02645	0
3	2022 Building - 110 aterial M	9	0	0	0	0.00895	0

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2022 Totals

Year	Emission S	со	NOx	SO2	PM10		PM2.5		VOC	CO2	CH4	N2O	CO2e
2022	NonRoad	1.37913	3.206988		0.010574057	0.234496354		0.2274615	0.242986	3904.888			
2022	OnRoad	6.720377	0.243207		0.004676289	0.005206482		0.004614206	0.123834	706.1614	0.021055	0.00418	
2022	Fugitive	0	0		0	0.04395			0				
2022	TOTAL	8.099507	3,450195		0.015250346	0.283652836		0.232075706	0.366819	4611.049	0.021055	0.00418	4612,746

### ASSUMPTIONS

Emission factors were developed from the following models:

On-Road Vehicles: MOVES3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

14 U.S. Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for:

Asphalt drying
Asphalt storage and batching
Concrete mixing/batching
Soil handling
Unstabilized land and wind erosion
Material movement (unpaved roads)
Material movement (paved roads)

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations.

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available:

Asphalt Deliveries/Ten Wheelers Bulldozer Concrete Ready Mix Trucks Concrete Ready Trucks Mix for Cores Concrete Truck Crack Filler (Trailer Mounted) Delivery of Tanks (3) Distributing Tanker Dozer Dump Truck

Version 1.0 Run Date & Time: 12/27/2021 9:12:12 AM

STUDY

study Name

Austin Airport

study Description

2023 constructionSchedule

NONROAD Emissions (TPY)

NONROAD Emission Factors g/-hp-hr urs of ACO 0 735.98 735.98 367.99 367.99 429.32 1.998 1.998 3.996 1.998 1.998 2.55744 480 180 160 160 120 240 Off-highway Trucks600 Diesel Revalvors175 Diesel Orther Construction Equipment Diesel Off-highway Trucks600 Diesel Other Construction Equipment Diesel Other Construction Equipment Diesel Other Construction Equipment Diesel Other Construction Equipment Diesel Other Construction Equipment25 Diesel Construction Equipment11 Other Construction Equipment10 Cranes300 Other Construction Equipment11 Other Construction Equipment40 oment17 ractors/Loaders/Backhoes100 Fractors/Loaders/Backhoes75 Fractors/Loaders/Backhoes75 Rough Terrain Forklifts100 Off-highway Trucks600 Off-highway Trucks600 Rough Terrain Forklifts100 Excavators175 Other Construction Equipn Off-highway Trucks600 Rough Terrain Forklifts75 Off-highway Trucks600 Rough Terrain Forklifts75 Rough Terrain Forklifts75 Off-highway Trucks600 Off-highway Trucks600 Off-highway Trucks300 Other Construction Equi Off-highway Trucks600 Off-highway Trucks600 Other Construction Equi Off-highway Trucks600 Off-highway Trucks600 Off-highway Trucks600 Off-highway Trucks300 Off-highway Trucks600 Other Construction Equi Off-highway Trucks300 Off-highway Trucks600 Off-highway Trucks600 Off-highway Trucks600 Off-highway Trucks600 Off-highway Trucks600 Skid Steer Loaders75 Excavators175 Pavers 175 Rollers 100 2023 Building - Concrate Fackhoe
2023 Building - Concrate Forward
2023 Building - Concrate Fractor Trailer-Material Delivery
2023 Building - Concrate Fractor Trailer-Material Delivery
2023 Building - Concrate Fractor Trailer-Material Delivery
2023 Building - Exterior Worker Tuck
2023 Building - Exterior Worker
2023 Building - Structural Concrete Funck
2023 Building - Structural Concrete Funck
2023 Building - Structural Tractor Trailer-Material Delivery
2023 Building - Structural Tractor Trailer-Material Delivery
2023 Building - Structural Tractor Trailer-Material
2023 Building - Structural Tractor Trailer-Steel Deliveries
2023 Building - Structural Tractor Trailer-Steel Deliveries
2023 Building - Structural Tractor Trailer-Material
2023 Building - Structural Tractor Trailer-Steel Deliveries
2023 Building - Structural Tractor Trailer-Steel
2023 Building - Structural Tractor Trailer-Steel
2023 Building - Structural Tractor Trailer-Material
2023 Building - Structural Tractor Trailer-Material
2023 Building - Structural Tractor Trailer-Mater Units for Non-Greenhouse Gases Emission: Short Ton Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton Constructi Equipment EMISSIONS INVENTORY - DETAILS: Von-Road Sources Scenario Il Year

Construction Equipment4C Diese

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2023 Access RozConcrete FConcrete Truck
                                                                                       Off-highway Trucks600
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2023 Access Roz Concrete FOther General Equipment
                                                                                       Other Construction Equipment 17 Diesel
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                                                                                                                                                                                         Off-highway Trucks600
2023 Access RoaConcrete FPickup Truck
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2023 Access Roz Concrete FRubber Tired Loader
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2023 Access RoaConcrete FSlip Form Paver
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2023 Access Roa Concrete PSurfacing Equipment (Grooving)
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175
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2023 Access RoaCurbing Concrete Truck
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2023 Access RoaCurbing Curb/Gutter Paver
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2023 Access Roa Curbing Other General Equipment
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2023 Access RoaCurbing Pickup Truck
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2023 Access Roz Drainage - Dozer
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2023 Access Roa Drainage - Dump Truck
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2023 Access Roz Drainage - Excavator
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2023 Access RoaDrainage - Loader
2023 Access Roz Drainage - Other General Equipment
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2023 Access Roz Drainage - Pickup Truck
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2023 Access Roz Drainage - Roller
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2023 Access Roz Drainage - Dump Truck
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2023 Access Roz Drainage - Other General Equipment
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Off-highway Trucks600 Diesel
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2023 Access Roz Drainage - Pickup Truck
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2023 Access Roz Drainage - Tractors/Loader/Backhoe
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2023 Access Roz Dust Contr Water Truck
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2023 Access Roz Excavation Dozer
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2023 Access Roz Excavation Dump Truck (12 cy)
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2023 Access Roz Excavation Pickup Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                                                            8.88 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000253 0.000781 1.860039 4.96E-06 5.37E-05 5.21E-05 5.49E-05
2023 Access Roz Excavation Roller
                                                                                        Rollers100
                                                                                                                                                               100
                                                                                                                                                                              0.59
                                                                                                                                                                                      4.098462 \quad 0.504707 \quad 1.277084 \quad 596.0359 \quad 0.001638 \quad 0.076422 \quad 0.074129 \quad 0.042273 \quad 0.000135 \quad 0.00034 \quad 0.158874 \quad 4.36E-07 \quad 2.04E-05 \quad 1.98E-05 \quad 0.001638 \quad
                                                                                                                                                                                                                                                                                                                                                                                                            1.13E-05
                                                                                       Crawler Tractor/Dozers175
2023 Access Roz Excavation Dozer
                                                                                                                                      Diesel
                                                                                                                                                               175
                                                                                                                                                                             0.59
                                                                                                                                                                                            6.66 0.173769 0.459721 536.7568 0.00146 0.044767 0.043424 0.025781 0.000132 0.000348 0.406863 1.11E-06 3.39E-05 3.29E-05 1.95E-05
2023 Access Roa Excavation Dump Truck (12 cy)
                                                                                                                                                               600
175
                                                                                                                                                                                          17.76 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000507 0.001561 3.720077 5.328 0.114838 0.351797 536.7809 0.001438 0.028734 0.027872 0.01734 6.96E-05 0.000213 0.325505
                                                                                                                                                                                                                                                                                                                                                                                                            0.00011
1.05E-05
                                                                                                                                                                                                                                                                                                                                                              9.93E-06 0.000107 0.000104
                                                                                       Off-highway Trucks600
                                                                                                                                       Diesel
                                                                                                                                                                              0.59
                                                                                                                                                                                                                                                                                                                                                              8.72E-07 1.74E-05 1.69E-05
2023 Access Roz Excavation Excavator
                                                                                       Excavators175
                                                                                                                                       Diesel
                                                                                                                                                                              0.59
2023 Access Roz Excavation Pickup Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                                                           5.328 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000152 0.000468 1.116023 2.98E-06 3.22E-05 3.13E-05
                                                                                                                                                                                                                                                                                                                                                                                                            3.29F-05
                                                                                       Rollers100
                                                                                                                                                                                           5.328 0.504707 1.277084 596.0359 0.001638 0.076422 0.074129 0.042273 0.000175 0.000443 0.206536
2023 Access Roz Excavation Roller
                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                                                              5.67E-07 2.65E-05 2.57E-05
                                                                                                                                                                                                                                                                                                                                                                                                            1.46E-05
                                                                                                                                       Diesel
                                                                                                                                                                              0.59
                                                                                       Scrapers600
Crawler Tractor/Dozers175
2023 Access Ros Excavation Scraper
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                                                            6.66 \ \ 0.281977 \ \ \ 0.70373 \ \ 536.7116 \ \ 0.001506 \ \ 0.047742 \ \ 0.046309 \ \ 0.040601 \ \ 0.000733 \ \ 0.001829 \ \ 1.394842 \ \ 3.91E-06 \ \ 0.000124 \ \ \ 0.00012 \ \ 0.000106 \ \ 0.000124 \ \ 0.000120 \ \ 0.000106 \ \ 0.000124 \ \ 0.000120 \ \ 0.000106 \ \ 0.000120 \ \ 0.000120 \ \ 0.000106 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.000120 \ \ 0.0001200 \ \ 0.000120 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.0001200 \ \ 0.000
2023 Access Roz Excavation Dozer
                                                                                                                                                               175
                                                                                                                                                                              0.59 2.507294 0.173769 0.459721 536.7568 0.00146 0.044767 0.043424 0.025781 4.96E-05 0.000131 0.153172 4.17E-07 1.28E-05
                                                                                                                                                                                                                                                                                                                                                                                            1.24E-05 7.36E-06
                                                                                                                                      Diesel
2023 Access RoaFencing Concrete Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                              0.59 13.33333 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.00038 0.001172 2.792851 7.45E-06 8.07E-05 7.82E-05 8.24E-05
                                                                                        Off-highway Trucks600
                                                                                                                                                                              0.59 53.33333 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.001521 0.004688
2023 Access RoaFencing
                                                                                                                                                                                                                                                                                                                                                              2.98E-05 0.000323 0.000313
                                                                                                                                                                                                                                                                                                                                                                                                             0.00033
                                     Dump Truck
2023 Access Roz Fencing Other General Equipment
                                                                                       Other Construction Equipment17 Diesel
                                                                                                                                                               175
                                                                                                                                                                             2023 Access Roz Fencing
                                      Pickup Truck
                                                                                        Off-highway Trucks600
                                                                                                                                                               600
                                                                                                                                                                              0.59 53.33333 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.001521 0.004688
                                                                                                                                                                                                                                                                                                                                              11.1714
                                                                                                                                                                                                                                                                                                                                                              2.98E-05 0.000323 0.000313 0.00033
2023 Access RoaFencing
                                     Skid Steer Loade
                                                                                       Skid Steer Loaders75
                                                                                                                                      Diesel
                                                                                                                                                                75
                                                                                                                                                                              0.21 53.33333 3.515177 4.233588 693.9764 0.002207 0.495546 0.480679 0.685836 0.003255 0.00392 0.642585
                                                                                                                                                                                                                                                                                                                                                              2.04E-06 0.000459 0.000445 0.000635
2023 Access RoaFencing
                                                                                        Tractors/Loaders/Backhoes100
                                                                                                                                                               100
175
                                                                                                                                                                             0.21 53.3333 2.836111 2.782112 694.7262 0.002118 0.374745 0.363503 0.436618 0.003501 0.003435 0.857706 0.59 2.9548 0.173769 0.459721 536.7568 0.00146 0.044767 0.043424 0.025781 5.84E-05 0.000155 0.18051
                                                                                                                                                                                                                                                                                                                                                              2.61E-06 0.000463 0.000449 0.000539
                                      Tractors/Loader/Backhoe
                                                                                                                                      Diesel
                                                                                       Crawler Tractor/Dozers175
                                                                                                                                                                                                                                                                                                                                                              4.91E-07 1.51E-05 1.46E-05 8.67E-06
2023 Access RoaGrading Dozer
                                                                                                                                      Diesel
2023 Access RoaGrading Grader
                                                                                       Graders300
                                                                                                                                                               300
100
                                                                                                                                                                              0 59
                                                                                                                                                                                        2.9548 0.096096 0.281619 536.7688 0.001445 0.021526 0.020881 0.021383 5.54E-05 0.00162 0.309453 8.33E-07 1.24E-05 2.9548 0.504707 1.277084 596.0359 0.001638 0.076422 0.074129 0.042273 9.7E-05 0.000245 0.11454 3.15E-07 1.47E-05
                                                                                                                                                                                                                                                                                                                                                                                             1.2E-05 1.23E-05
                                                                                                                                      Diesel
2023 Access RoaGrading Roller
                                                                                       Rollers100
                                                                                                                                      Diesel
                                                                                                                                                                              0.59
                                                                                                                                                                                                                                                                                                                                                                                            1.42E-05
                                                                                                                                                                                                                                                                                                                                                                                                            8.12E-06
2023 Access Ros Hydroseed Hydroseeder
                                                                                       Other Construction Equipment60 Diesel
                                                                                                                                                               600
                                                                                                                                                                              0 59
                                                                                                                                                                                          2.662 0.730929 1.569261 536 5382 0.001634 0.114059 0.110638 0.100008 0.000759 0.00163 0.557338
                                                                                                                                                                                                                                                                                                                                                              1 7F-06 0 000118 0 000115 0 000104
2023 Access Roz Hydroseed Off-Road Truck
                                                                                       Off-highway Trucks600
                                                                                                                                                               600
                                                                                                                                                                                           2.662 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 7.59E-05 0.000234 0.557593
                                                                                                                                                                                                                                                                                                                                                              1.49E-06 1.61E-05 1.56E-05 1.65E-05
                                                                                                                                      Diesel
                                                                                                                                                                              0.59
2023 Access RoaMarkings Flatbed Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                              0.59 32.91429 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000939 0.002893 6.894352 1.84E-05 0.000199 0.000193 0.000203
2023 Access Roa Markings Other General Equipment
                                                                                        Other Construction Equipment
                                                                                                                                                               175
                                                                                                                                                                              4.12E-06 0.000201 0.000195 0.00015
                                                                                                                                     7 Diese
                                                                                       Off-highway Trucks600
                                                                                                                                                                             0.59 32.91429 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000939 0.002893 6.894352
                                                                                                                                                                                                                                                                                                                                                              1.84E-05 0.000199 0.000193 0.000203
2023 Access RoaMarkings Pickup Truck
                                                                                                                                      Diesel
                                                                                                                                                               600
2023 Access RozSidewalks Concrete Truck
                                                                                        Off-highway Trucks600
                                                                                                                                                                                                96 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.002738 0.008438 20.10853
                                                                                                                                                                                                                                                                                                                                                               5.37E-05 0.000581 0.000563 0.000593
2023 Access RozSidewalks Dump Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                                                                96 0.073093 0.225249 536,7836 0.001433 0.015502 0.015037 0.015837 0.002738 0.008438 20.10853
                                                                                                                                                                                                                                                                                                                                                              5.37E-05 0.000581 0.000563 0.000593
2023 Access RozSidewalks Pickup Truck
                                                                                                                                                               600
100
                                                                                                                                                                                               96 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.002738 0.008438 20.10853 5.37E-05 0.000581 0.000563 0.000593 96 2.836111 2.782112 694.7262 0.002118 0.374745 0.363503 0.436618 0.006303 0.006183 1.54387 4.71E-06 0.000833 0.000808 0.00097
                                                                                        Off-highway Trucks600
                                                                                                                                       Diesel
                                                                                                                                                                              0.59
2023 Access RozSidewalks Tractors/Loader/Backhoe
                                                                                        Tractors/Loaders/Backhoes100
                                                                                                                                      Diesel
                                                                                                                                                                             0.21
2023 Access RoaSidewalks Vibratory Compactor
                                                                                       Plate Compactors6 Diesel
Other Construction Equipment17 Diesel
                                                                                                                                                                                               96 2.565572 4.203341 588.0264 0.002162 0.262442 0.254569 0.816969 0.0007 0.001148 0.160544  
2.4 0.30314 0.935436 536.6725 0.00151 0.073779 0.071565 0.054797 0.03E-05 0.000186 0.10684
                                                                                                                                                                                                                                                                                                                                                               5.9E-07 7.17E-05 6.95E-05 0.000223
                                                                                                                                                                             0.43
                                                                                                                                                               175
                                                                                                                                                                                                                                                                                                                                                              3.01E-07 1.47E-05 1.42E-05 1.09E-05
2023 Access RozSoil Erosio Other General Equipment
                                                                                                                                                                             0.43
2023 Access Ros Soil Frosio Pickup Truck
                                                                                       Off-highway Trucks600
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                                                               4.8 0.073093 0.225249 536 7836 0.001433 0.015502 0.015037 0.015837 0.000137 0.000422 1.005426 2.685-06
                                                                                                                                                                                                                                                                                                                                                                              2.9E-05 2.82E-05 2.97E-05
                                                                                                                                      Diesel
                                                                                       Other Construction Equipment11 Diesel
2023 Access RoaSoil Erosio Pumps
                                                                                                                                                                11
                                                                                                                                                                              0.43
                                                                                                                                                                                               2.4 2.478757 4.183305 593.7578 0.002183 0.241812 0.234557 0.836975 3.1E-05 5.23E-05 0.00743
                                                                                                                                                                                                                                                                                                                                                              2.73E-08 3.03E-06 2.94E-06
                                                                                                                                                                                                                                                                                                                                                                                                            1.05E-05
2023 Access RozSoil Frosio Tractors/Loader/Backhoe
                                                                                       Tractors/Loaders/Backhoes100 Diesel
                                                                                                                                                               100
                                                                                                                                                                             0.21
                                                                                                                                                                                               2.4 2.836111 2.782112 694.7262 0.002118 0.374745 0.363503 0.436618 0.000158 0.000155 0.038597
                                                                                                                                                                                                                                                                                                                                                              1.18F-07 2.08F-05 2.02F-05 2.43F-05
                                                                                        Off-highway Trucks600
                                                                                                                                                                                                32 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000913 0.002813 6.702842
                                                                                                                                                                                                                                                                                                                                                              1.79E-05 0.000194 0.000188 0.000198
2023 Access RozStreet LighDump Truck
                                                                                                                                                               600
                                                                                       Tractors/Loaders/Backhoes175 Diesel
2023 Access RozStreet LighLoader
                                                                                                                                                               175
                                                                                                                                                                             0.59
                                                                                                                                                                                               32 1.177854 2.091966 625.6269 0.001906 0.256407 0.248715 0.31546 0.00429 0.007619 2.278568 6.94E-06 0.000934 0.000906 0.001149
2023 Access RozStreet LighOther General Equipment
                                                                                        Other Construction Equipment 17 Diesel
                                                                                                                                                               175
                                                                                                                                                                                                    0.30314 0.935436 536.6725 0.00151 0.073779 0.071565 0.054797 0.000805 0.002483 1.424533
                                                                                                                                                                                                                                                                                                                                                              4.01E-06 0.000196 0.00019 0.000145
2023 Access RogStreet LighPickup Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                                                               32 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000913 0.002813 6.702842
                                                                                                                                                                                                                                                                                                                                                              1.79E-05 0.000194 0.000188 0.000198
2023 Access RogStreet LighSkid Steer Loader
                                                                                        Skid Steer Loaders75
                                                                                                                                                                75
                                                                                                                                                                                                32 3.515177 4.233588 693.9764 0.002207 0.495546 0.480679 0.685836 0.001953 0.002352 0.385551
                                                                                                                                                                                                                                                                                                                                                              1.23E-06 0.000275 0.000267 0.000381
                                                                                                                                      Diesel
                                                                                                                                                                              0.21
                                                                                        Tractors/Loaders/Backhoes100 Diesel
                                                                                                                                                                                               32 2.836111 2.782112 694.7262 0.002118 0.374745 0.363503 0.436618 0.002101 0.002061 0.514623 1.57E-06 0.000278 0.000269 0.000323
2023 Access RozStreet LighTractors/Loader/Backhoe
                                                                                                                                                               100
                                                                                                                                                                             0.21
2023 Access RozSubbase PlDozer
                                                                                       Crawler Tractor/Dozers175
Off-highway Trucks600
                                                                                                                                                               175
600
                                                                                                                                                                             0.59 3.365053 0.173769 0.459721 536.7568 0.00146 0.044767 0.043424 0.025781 6.66E-05 0.000176 0.205573 5.59E-07 1.71E-05 1.66E-05 9.87E-06 0.59 23.68 0.073093 0.225249 536.7836 0.00143 0.015502 0.015037 0.015837 0.000675 0.002081 4.960103 1.32E-05 0.000143 0.000139 0.00146
                                                                                                                                      Diese
2023 Access RozSubbase PlDump Truck (12 cy)
                                                                                                                                      Diesel
2023 Access RoaSubbase PlPickup Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                              0.59 3.365053 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 9.6E-05 0.000296 0.704857 1.88E-06 2.04E-05 1.97E-05 2.08E-05
2023 Access Roz Subbase Pl Roller
                                                                                       Rollers100
                                                                                                                                                               100
                                                                                                                                                                              0.59 3.278769 0.504707 1.277084 596.0359 0.001638 0.076422 0.074129 0.042273 0.000108 0.000272 0.127099
                                                                                                                                                                                                                                                                                                                                                              3.49E-07 1.63E-05 1.58E-05
                                                                                                                                                                                                                                                                                                                                                                                                            9.01E-06
                                                                                                                                       Diesel
2023 Access Roa Topsoil Pla Dozen
                                                                                       Crawler Tractor/Dozers175
                                                                                                                                      Diesel
                                                                                                                                                               175
                                                                                                                                                                              0.59 6.566667 0.173769 0.459721 536.7568 0.00146 0.044767 0.043424 0.025781 0.00013 0.000344 0.401161 1.09F-06 3.35F-05 3.25F-05 1.93F-05
                                                                                        Off-highway Trucks600
                                                                                                                                                               600
                                                                                                                                                                              0.59 6.566667 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000187 0.000577 1.375479
                                                                                                                                                                                                                                                                                                                                                              3.67E-06 3.97E-05 3.85E-05 4.06E-05
2023 Access Roa Topsoil Pla Dump Truck
                                                                                                                                       Diese
2023 Access Roa Topsoil Pla Pickup Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                              0.59 6.566667 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000187 0.000577 1.375479 3.67E-06 3.97E-05 3.85E-05 4.06E-05
                                                                                        Off-highway Trucks600
                                                                                                                                                                                       24532.8 \quad 0.073093 \quad 0.225249 \quad 536.7836 \quad 0.001433 \quad 0.015502 \quad 0.015037 \quad 0.015837 \quad 0.699733 \quad 2.156356 \quad 5138.734 \quad 0.013716 \quad 0.148405 \quad 0.143953 \quad 0.151608 \quad 0.148405 \quad
2023 Access RoaTree PlantiFlatbed Truck
2023 Access RoaTree PlantiOther General Equipment
                                                                                       Other Construction Equipment 17 Diesel
                                                                                                                                                               175
                                                                                                                                                                             0.43
                                                                                                                                                                                       24532.8 0.30314 0.935436 536.6725 0.00151 0.073779 0.071565 0.054797 0.616885 1.903593 1092.118 0.003074 0.150138 0.145634 0.111511
2023 Access RoaTree Planti Pickup Truck
                                                                                       Off-highway Trucks600
                                                                                                                                                                                        24532.8 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.699733 2.156356 5138.734 0.013716 0.148405 0.143953 0.151608
                                                                                                                                                               600
                                                                                        Tractors/Loaders/Backhoes100
2023 Access RoaTree PlantiTractors/Loader/Backhoe
                                                                                                                                      Diesel
                                                                                                                                                               100
                                                                                                                                                                              0.21
                                                                                                                                                                                       24532.8 2.836111 2.782112 694.7262 0.002118 0.374745 0.363503 0.436618 1.610631 1.579966 394.536 0.001203 0.212818 0.206434 0.247956
2023 Building - :Concrete FBackhoe
                                                                                        Tractors/Loaders/Backhoes100
                                                                                                                                                               100
                                                                                                                                                                                             320 2.836111 2.782112 694.7262 0.002118 0.374745 0.363503 0.436618 0.021009 0.020609 5.146233 1.57E-05 0.002776 0.002693 0.003234 60 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.001711 0.005274 12.56783 3.35E-05 0.000363 0.000352 0.000371
                                                                                                                                      Diese
2023 Building - :Concrete FConcrete Ready Mix Trucks
                                                                                       Off-highway Trucks600
                                                                                                                                                               600
                                                                                                                                      Diesel
                                                                                                                                                                              0.59
2023 Building - : Concrete FFork Truck
                                                                                       Other Construction Equipment10 Diesel
                                                                                                                                                               100
                                                                                                                                                                             0.59
                                                                                                                                                                                             320 0.783958 1.589339 595,9478 0.001679 0.116159 0.112674 0.072388 0.016316 0.033077 12.40271 3.49E-05 0.002417 0.002345 0.001507
2023 Building - : Concrete FTool Truck
                                                                                       Off-highway Trucks600
                                                                                                                                      Diese
                                                                                                                                                               600
                                                                                                                                                                                               80 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.002282 0.007032 16.75711
                                                                                                                                                                                                                                                                                                                                                              4.47E-05 0.000484 0.000469 0.000494
                                                                                                                                                                              0.59
2023 Building - : Concrete FTractor Trailer- Material Delivery
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                                                                16 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000456 0.001406 3.351421 8.95F-06 9.68F-05 9.39F-05 9.89F-05
                                                                                                                                                                                                10 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000285 0.000879 2.09483 5.59E-06 6.05E-05 5.87E-05 6.18E-05 4 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000144 0.000352 0.837855 2.24E-06 2.42E-05 2.35E-05 2.47E-05
2023 Building - : Constructi Survey Crew Trucks
                                                                                        Off-highway Trucks600
2023 Building - : Constructi Tractor Trailers Temp Fac.
                                                                                       Off-highway Trucks600
                                                                                                                                      Diesel
                                                                                                                                                               600
                                                                                                                                                                             0.59
                                                                                                                                                               100
                                                                                                                                                                                             2023 Building - : Exterior W Fork Truck
                                                                                        Other Construction Equipmer
                                                                                                                                   10 Diese
                                                                                                                                                                              0.59
2023 Building - : Exterior W Man Lift
                                                                                       Rough Terrain Forklifts75
                                                                                                                                      Diesel
                                                                                                                                                                75
                                                                                                                                                                             0.21
                                                                                                                                                                                             240 0.650574 2.788763 595.8453 0.001694 0.074011 0.071791 0.104973 0.002711 0.01162 2.482744 7.06E-06 0.000308 0.000299 0.000437
                                                                                                                                                                                               60 \ \ 0.073093 \ \ 0.225249 \ \ 536.7836 \ \ 0.001433 \ \ 0.015502 \ \ 0.015037 \ \ 0.015837 \ \ 0.001711 \ \ 0.005274 \ \ 12.56783 \ \ 3.35E-05 \ \ 0.000363 \ \ 0.000352 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 \ \ 0.000371 
2023 Building - : Exterior W Tool Truck
                                                                                       Off-highway Trucks600
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2025 building - Exterior W Iractor Trailer- Material Delivery Oil-nighway Trucksood	OTT-NIGNWAY I LUCK SEUU	Diesel	900	0.59	24 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000685 0.00211 5.027132 1.34E-05 0.000145 0.000141 0.000148
Building - :Interior Bu Fork Truck	Other Construction Equipmer	nt 10 Diesel	100	0.59	960 0.783958 1.589339 595.9478 0.001679 0.116159 0.112674 0.072388 0.048947 0.099231 37.20814 0.000105 0.007252 0.007035 0.00452
Building - Interior Bu Man Lift	Rough Terrain Forklifts75	Diesel	75	0.21	960 0.650574 2.788763 595.8453 0.001694 0.074011 0.071791 0.104973 0.010843 0.04648 9.930975 2.82E-05 0.001234 0.001197 0.00175
Building - Interior BuTool Truck	Off-highway Trucks600	Diesel	900	0.59	120 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.003423 0.010548 25.13566 6.71E-05 0.000726 0.000704 0.000742
Building - Interior BuTractor Trailer- Material Delivery	Off-highway Trucks600	Diesel	009	0.59	120 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.003423 0.010548 25.13566 6.71E-05 0.000726 0.000704 0.000742
3 Building - : Roofing High Lift	Rough Terrain Forklifts100	Diesel	100	0.59	120 0.655953 1.446394 595.989 0.00166 0.097909 0.094972 0.058537 0.005119 0.011288 4.65134 1.3E-05 0.000764 0.000741 0.000457
3 Building - : Roofing Man Lift (Fascia Construction)	Rough Terrain Forklifts75	Diesel	75	0.21	120 0.650574 2.788763 595.8453 0.001694 0.074011 0.071791 0.104973 0.001355 0.00581 1.241372 3.53E-06 0.000154 0.00015 0.000219
3 Building - : Roofing Material Deliveries	Off-highway Trucks 600	Diesel	900	0.59	8 0.073099 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000228 0.000703 1.675711 4.47E-06 4.84E-05 4.69E-05 4.94E-05
3 Building - : Roofing Tractor Trailer- Material Delivery	Off-highway Trucks 600	Diesel	009	0.59	12 0.073099 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000342 0.001055 2.513566 6.71E-06 7.26E-05 7.04E-05 7.42E-05
8 Building - : Security & High Lift	Rough Terrain Forklifts100	Diesel	100	0.59	320 0.655553 1.446394 595.989 0.00166 0.097909 0.094972 0.058537 0.013652 0.030102 12.40357 3.45E-05 0.002038 0.001977 0.001218
Building - : Security & Tool Truck	Off-highway Trucks600	Diesel	009	0.59	80 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.002282 0.007032 16.75711 4.47E-05 0.000484 0.000469 0.000494
3 Building - : Structural: 40 Ton Crane	Cranes300	Diesel	300	0.43	240 0.118179 0.470042 530.9465 0.001459 0.023721 0.023009 0.03283 0.004033 0.016041 18.12 4.98E-05 0.00081 0.000785 0.00112
: Building - : Structural : Fork Truck	Other Construction Equipmer	rt 10 Diesel	100	0.59	120 0.783958 1.589339 595.9478 0.001679 0.116159 0.112674 0.072388 0.006118 0.012404 4.651018 1.31E-05 0.000907 0.000879 0.000565
8 Building - :Structural:Tool Truck	Off-highway Trucks600	Diesel	900	0.59	60 0.073099 0.225249 536.7836 0.001433 0.015502 0.015637 0.015837 0.001711 0.005274 12.56783 3.35E-05 0.000363 0.000352 0.000371
	Off-highway Trucks600	Diesel	900	0.59	16 0.073093 0.225249 536.7836 0.001433 0.015502 0.015037 0.015837 0.000456 0.001406 3.351421 8.95E-06 9.68E-05 9.39E-05 9.89E-05
					Totals 4.655225 10.42151 14992.32 0.040427 0.8363 0.811211 0.828304
	2023 Building - Interior Bu-Fork Track 2023 Building - Interior Bu-Fork Track 2023 Building - Interior Bu-Man Lift 2023 Building - Interior Bu-Tractor Trailer- Material Delivery 2023 Building - Roofing High Lift 2023 Building - Roofing Material Delivery 2023 Building - Roofing Material Deliveries 2023 Building - Roofing Material Delivery 2023 Building - Roofing Material Delivery 2023 Building - Security & Right Track 2023 Building - Security & Right Track 2023 Building - Security & Right Track 2023 Building - Security & Track 2023 Building - Structural i Tool Track 2023 Building - Structural i Tool Track 2023 Building - Structural i Tool Track	2023 Building - Irrerior Bu Fork Track 2023 Building - Irrerior Bu Man Lift 2023 Building - Irrerior Bu Man Lift 2023 Building - Irrerior Bu Tractor Trailer- Material Delivery Off-highway Trucks600 2023 Building - Roofing High Lift 2023 Building - Roofing High Lift 2023 Building - Roofing Man Lift (Basad Contruction) Rough Terrain Forklift's So 2023 Building - Roofing Man Lift (Basad Contruction) Rough Terrain Forklift's Control Butterior Forklift's Control Building - Roofing Man Lift (Basad Contruction) Rough Terrain Forklift's Control Building - Rough Terrain Forklift's Control Building - Security & High Lift 2023 Building - Security & High Lift 2023 Building - Security & High Lift 2023 Building - Structural Fork Truck 2023 Building - Structural Fork Truck 2023 Building - Structural Tractor Trailer- Steel Deliveries Off-highway Trucks600 2023 Building - Structural Tractor Trailer- Steel Deliveries Off-highway Trucks600 2023 Building - Structural Tractor Trailer- Steel Deliveries Off-highway Trucks600	15   10   10   10   10   10   10   10	is pment10 Diesel Diesel Diesel OO Diesel Signature Diesel OO Diesel Diesel OO Diesel Diesel Diesel Diesel Diesel	S

On-Road Sources Units for Non-Greenhouse Gases Emission: Short Ton

MOVES ONROAD Emissions Factors (g) 13 11 12 14

MOVES ONROAD Emissions Factors (g,	7 10 13 11 12 14	MT CO NOx SO2 PM10 PM2.5 VOC	23125 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	12333 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	3746160 3.139617 0.102501 0.002209 0.002342 0.002072 0.082373	2400 2.29415 4.229434 0.005715 0.083446 0.07677 0.194026	0 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	14900 3.139617 0.102501 0.002209 0.002342 0.002072 0.082373	0 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	136224 3.139617 0.102501 0.002209 0.002342 0.002072 0.082373	209 2.29415 4.229434 0.005715 0.083446 0.07677 0.194026	3330 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	296 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	1776 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	665640 3.139617 0.102501 0.002209 0.002342 0.002072 0.082373	2313 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	1233 1.340232 2.022296 0.003539 0.047556 0.043751 0.134781	3218292 3.139617 0.102501 0.002209 0.002342 0.002072 0.082373	160 2.29415 4.229434 0.005715 0.083446 0.07677 0.194026
		koadway TRound Trip Distance finumber ol number ol number ol Project Ler Project Wi Project An Building H OpenSpac Number o Activity RaVMT	;	;	;	0.0024	;	;	;	;	;	;	;	;	;	;	;	;	0.0016
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		ect Ler Proj	:	1	:	:	:	1	:	:	1200	1200	1200	1200	1	1	:	1	1
		mber of Pro	129	129	129	129	129	129	129	129	258	258	258	258	258	258	258	258	258
		umber of Nu			896			3.85		35.2					98			415.8	
		umber of N	3	2	896	1-	1-	3.85	1-	35.2	1-	1-	1-	1-	98	1-	1-	415.8	1
		istance frN	2	2		2	2		S		2	S	2	S		S	2		ις
		Round Trip D	40	40	30	40	40	30	40	30	40	40	40	40	30	40	40	30	40
		Roadway	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr
		Lookup Fuel	DieselUrb: Diesel	DieselUrb: Diesel	GasolineU Gasoline	DieselUrb: Diesel	DieselUrb: Diesel	GasolineU Gasoline	DieselUrb: Diesel	GasolineU Gasoline	DieselUrb: Diesel	DieselUrb: Diesel	DieselUrb: Diesel	DieselUrb: Diesel	GasolineU Gasoline	DieselUrb: Diesel	DieselUrb: Diesel	GasolineU Gasoline	DieselUrb: Diesel
		On-road Activity	Material Delivery	Material Delivery	Employee Commute	Material Delivery	Material Delivery	Employee Commute	Material Delivery	Employee Commute	Material Delivery	Material Delivery	Material Delivery	Material Delivery	Employee Commute	Material Delivery	Material Delivery	Employee Commute	Material Delivery
Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton		Year Project Equipmen Equipment Category	2023 Building - : Cement M Single Unit Short-haul Truck	2023 Building - : Dump TrucSingle Unit Short-haul Truck	2023 Building - : Passenger Passenger Car	2023 Building - :Tractor TraCombination Short-haul Truck	2023 Demolitior Dump Truc Single Unit Short-haul Truck	2023 Demolitior Passenger Passenger Car	2023 Demolitior Dump TrucSingle Unit Short-haul Truck	2023 Demolitior Passenger Passenger Car	2023 Access Roz Asphalt 18 Combination Short-haul Truck	2023 Access RocCement M Single Unit Short-haul Truck	2023 Access Roc Dump Truc Single Unit Short-haul Truck	2023 Access Ro¿Dump TrucSingle Unit Short-haul Truck	2023 Access Roz Passenger Passenger Car	2023 Building - : Cement M Single Unit Short-haul Truck	2023 Building - : Dump TrucSingle Unit Short-haul Truck	2023 Building - : Passenger Passenger Car	2023 Building - :Tractor TraCombination Short-haul Truck
Units for G		Scenario Il Year	1	1	1	1	2	2	9	e	4	4	4	4	4	5	5	5	Ŋ

Fugitive Sources Units for Non-Greenhouse Gases Emission: Short Ton

VOC	0	0	0	0.5342	0.001079	0	0	0	0	0	0	0	0	535279
PM10 V	0 0.08555	0.01495	0.04555	0	0.03485 0.002176 0.000401 0.002386 0.001079	0.0123	0.02395	0.073	0 0.004076	5.81E-09	0.00855	0.01195	0.03535	PC5355 0 C13C1 0 100000 0 1251 0 1351 0
502	0	0	0	0	0.000401	0	0	0	0	0	0	0	0	100000
NOX	0	0	0	0	.002176	0	0	0	0	0	0	0	0	002176
z	0	0	0	0	0.03485 0	0	0	0	0	0	0	0	0	0.03485.0
8	9	9	9	12	12	12	12	12	12	12	12	12	12	
Project Fugitive Sc Number of Months	:Concrete	:Material N	∴Material N	Asphalt Dr	«Asphalt St	¿Concrete l	∢Material N	∢Material N	¿Soil Handli	€Unstabilize	:Concrete P	:Material N	: Material N	Totals
	2023 Building - : Concrete I	2023 Building - : Material I	2023 Building - : Material №	2023 Access RoaAsphalt Dr	2023 Access RoaAsphalt Sta	2023 Access Ro¿Concrete I	2023 Access RoaMaterial N	2023 Access RoaMaterial №	2023 Access RosSoil Handli	2023 Access Roc Unstabilize	2023 Building - : Concrete I	2023 Building - : Material I	2023 Building - : Material №	
Scenario II Year	1	1	1	4	4	4	4	4	4	4	Ŋ	2	5	

ASSUMPTIONS

1.176586476 0.83136 2.077314 17900.78 0.083864 0.017166 17907.67

PM10

**SO2** 

2023 Totals Year Em

ear Emission SCO NOX 502 2023 OnoRead 4.6622.5 10.42151 2023 OnRead 27.0022.5 0.991088 2023 Fugirve 0.03485 0.002176 2023 TOTAL 31.70233 11.41478

0.040426937 0.019134024 0.0004005 0.059961461

C02e

Emission factors were developed from the following models:

On-Road Vehicles: MOVES 3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

14 U.S. Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for:

Asphalt drying
Asphalt storage and batching
Concrete mixing/batching
Soil handling
Unstabilized land and wind erosion
Material movement (unpaved roads)
Material movement (paved roads)

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations.

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available: Asphalt Deliveries/Ten Wheelers

Bulldozer
Concrete Ready Mix Trucks
Concrete Ready Trucks Mix for Cores
Concrete Truck
Crack Filler (Trailer Mounted)
Delivery of Tanks (3)
Distributing Tanker
Dozer
Dump Truck
Dump Truck (12 cy)

/mile) MOVES ONROAD Emissions (tpy)

| Novel of History | Novel of History | Histor CO2 332.4565 0.009671 0.001982 12.96491 0.423273 0.00912 0.009673 0.008557 0.340154 1372.865 0.039936 0.008183 1707.092 0.021732 0.002802 0.006069 0.011189 1.51E-05 0.000221 0.000203 0.000513 4.516215 5.75E-05 7.41E-06  Airport Construction Emissions Inventory Tool (ACEIT) Run Date & Time: 12/27/2021 1:56:32 PM

STUDY

Study Name

Austin Airport

Study Description

Construction Schedule 2024

FMISSIONS INVENTORY - DETAILS:

Units for Non-Greenhouse Gases Emission: Short Ton Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton NONROAD Emission Factors g/-hp-hr NONROAD Emissio CO2 SO2 9 7 8 PM10 PM2.5 VOC NOx CO (tpy) NOx (tpy) CO2 (tpy) SO2 (tpy) Project Constructi Equipment HP Averag Load Facto Hours of ACO MovesLookup Fuel 2024 Taxiways Asphalt PlaAsphalt Paver 2024 Taxiways Asphalt PlaDump Truck 0.59 13.73625 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.000277 0.000699 0.839149 2.29E-06 0.59 49.47214 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00101 0.003528 10.36277 2.75E-05 Pavers175 Diesel 175 Off-highway Trucks60 Diesel 600 Other Construction Ec Diesel 2024 Taxiways Asphalt Pl:Other General Equipment 175 0.43 27.4725 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000588 0.00185 1.223041 Off-highway Trucks60 Diesel 2024 Taxiways Asphalt PlaPickup Truck  $0.59 \ 13.73625 \ 0.052307 \ 0.182731 \ 536.7912 \ 0.001425 \ 0.011908 \ 0.01155 \ 0.013356 \ 0.00028 \ 0.000979 \ 2.877288$ 0.59 13.73625 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000373 0.001061 0.532495 1.45E-06 0.21 13.73625 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.000783 0.000978 0.165537 5.21E-07 2024 Taxiways Asphalt Pl; Roller Rollers100 Diesel 100 2024 Taxiways Asphalt Pl:Skid Steer Loader Skid Steer Loaders75 Diesel 0.59 17.5824 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.000428 0.001076 0.170138 6.26E-07 2024 Taxiways Asphalt Pl: Surfacing Equipment (Grooving) Other Construction Ec Diesel 25 2024 Taxiways Clearing aıChain Saw 36 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.000756 0.001278 0.181429 Other Construction EcDiese 36 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.001118 0.002509 1.016978 2.83E-06 2024 Taxiways Clearing arChipper/Stump Grinder Other Construction Ec Diesel 100 0.43 48 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00098 0.003423 10.05441 2.67E-05 105.92 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.001535 0.004311 6.470939 1.74E-05 2024 Taxiways Clearing ar Pickup Truck Off-highway Trucks60 Diesel 600 0.59 2024 Taxiways Drainage - Dozer Crawler Tractor/Doze Diesel 175 0.59 105.92 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002162 0.007553 22.18672 105.92 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.00102 0.003382 6.471154 2024 Taxiways Drainage - Dump Truck Off-highway Trucks60 Diesel 600 0.59 5.89F-05 Excavators175 2024 Taxiways Drainage - Excavator 175 0.59 Diesel 1.72E-05 2024 Taxiways Drainage - Loader Tractors/Loaders/Bac Diesel 175 0.59 105.92 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.013152 0.023468 7.542934 2.28E-05 2024 Taxiways Drainage - Other General Equipment Other Construction Ec Diesel 175 105.92 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.002268 0.007132 4.715425 2024 Taxiways Drainage - Pickup Truck Off-highway Trucks60 Diesel 600 0.59 105.92 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002162 0.007553 22.18672 5.89E-05 100 105.92 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.002875 0.008181 4.106062 2024 Taxiways Drainage - Roller Rollers100 2024 Taxiways Drainage - Dump Truck Off-highway Trucks60 Diesel 600 0.59 58.84444 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001201 0.004196 12.32596 3.27E-05 0.59 58.84444 1.090944 1.946746 625.6994 0.001899 0.241644 0.254395 0.290885 0.007306 0.013038 4.190519 1.27E-05 0.43 58.84444 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.00126 0.003962 2.619681 7.29E-06 2024 Taxiways Drainage - Loader Tractors/Loaders/Bac Diese 2024 Taxiways Drainage - Other General Equipment Other Construction EcDiesel 175 2024 Taxiways Drainage - Pickup Truck Off-highway Trucks60 Diesel 0.59 58.84444 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001201 0.004196 12.32596 3.27E-05 2024 Taxiways Drainage - Tractors/Loader/Backhoe 0.21 58.84444 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.003618 0.003605 0.946474 Tractors/Loaders/Bac Diesel 100 2.86F-06 2024 Taxiways Dust Contr Water Truck Off-highway Trucks60 Diesel Crawler Tractor/Doze Diesel 0.59 2880 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.058785 0.205359 603.2644 0.001602 0.59 61.05067 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000885 0.002485 3.72975 1E-05 600 2024 Taxiways ExcavationDozer 175 2024 Taxiways Excavation Dump Truck (12 cv) Off-highway Trucks60 Diesel 600 3.4E-05 Off-highway Trucks60 Diesel 2024 Taxiways ExcavationPickup Truck 600 2024 Taxiways ExcavationRoller Rollers100 Diesel 100 0.59 28.17723 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000765 0.002176 1.09231 2.98F-06 024 Taxiways ExcavationDoze Crawler Tractor/Doze Diesel 45.788 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000663 0.001863 2.797313 0.59 122.1013 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002492 0.008706 25.57618 6.79E-05 2024 Taxiways Excavation Dump Truck (12 cy) Off-highway Trucks60 Diesel 600 36.6304 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.000353 0.00117 2.237924 2024 Taxiways ExcavationExcavator 5.95E-06 2024 Taxiways ExcavationPickup Truck Off-highway Trucks60 Diesel 600 0.59 36.6304 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000748 0.002612 7.672853 2.04E-05 Rollers100  $36.6304 \ \ 0.417356 \ \ 1.187531 \ \ 596.0587 \ \ 0.001624 \ \ 0.064693 \ \ 0.062752 \ \ 0.034547 \ \ 0.000994 \ \ 0.002829 \ \ 1.420003$ 2024 Taxiways ExcavationRoller 100 45.788 0.231824 0.588102 536.729 0.001489 0.040091 0.038888 0.034682 0.004142 0.010508 9.589954 2.66E-05 Scrapers600 2024 Taxiways ExcavationScraper Diesel 600 
 0.59
 17.3765
 0.127318
 0.357586
 536.756
 0.001443
 0.001425
 0.019137
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 0.000702
 1.053095
 2.88E-06

 0.59
 17.2366
 0.052307
 0.182731
 536.7912
 0.001425
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 0.01155
 0.013356
 0.000748
 0.002615
 7.680449
 2.04E-05

 0.59
 146.6667
 0.052307
 0.182731
 536.7912
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 146.6667
 0.052307
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 8.16E-05

 0.43
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 0.811691
 536.6978
 0.001493
 0.062621
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 1.82E-05
 2024 Taxiways ExcavationDozei Crawler Tractor/Doze Diesel 175 2024 Taxiways Fencing Concrete Truck Off-highway Trucks60 Diesel 600 2024 Taxiways Fencing 2024 Taxiways Fencing Dump Truck Off-highway Trucks60 Diesel Other Construction Ec Diesel 600 175 Other General Equipment 0.59 146.6667 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002994 0.010458 30.7218 8.16E-05 0.21 146.6667 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.008356 0.010445 1.7675 5.56E-06 2024 Taxiways Fencing Pickup Truck Off-highway Trucks60 Diesel 600 Skid Steer Loaders75 Diesel 0.21 146.6667 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.008356 0.010445 2024 Taxiways Fencing Skid Steer Loader 2024 Taxiways Fencing Tractors/Loader/Backhoe Tractors/Loaders/Bac Diesel 100 0.21 146.6667 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.009018 0.008984 2.359035 7.13E-06 14.6964 0.070474 0.225529 536.7797 0.001435 0.016427 0.015934 0.017337 0.000213 0.0000598 0.897843 2.41E-06 2024 Taxiways Grading Crawler Tractor/Doze Diese 2024 Taxiways Grading Grader Graders300 Diesel 300 0.59 2024 Taxiways Grading 100 14.6964 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000399 0.001135 0.569716 1.55E-06 13.24 0.674104 1.451475 536.5624 0.00162 0.106831 0.103626 0.092216 0.003483 0.007499 2.772158 8.37E-06 Roller Rollers100 2024 Taxiways HydroseecHydroseeder Other Construction EcDiesel 600 0.59 13.24 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00027 0.000944 2.77334 7.36E-06 44.4 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000906 0.003166 9.300326 2.47E-05 2024 Taxiways Hydroseec Off-Road Truck Off-highway Trucks60 Diesel 600 0.59 Off-highway Trucks60 Diesel 600 0.59 2024 Taxiways Lighting Dump Truck 44.4 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.005513 0.009838 3.16188 9.55E-06 44.4 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000951 0.002989 1.976632 5.5E-06 2024 Taxiways Lighting Loader Tractors/Loaders/Bac Diesel 175 175 0.59 Other General Equipment 2024 Taxiways Lighting Other Construction EcDiesel 0.43  $44.4 \quad 0.052307 \quad 0.182731 \quad 536.7912 \quad 0.011425 \quad 0.011908 \quad 0.01155 \quad 0.013356 \quad 0.000906 \quad 0.003166 \quad 0.930326 \quad 2.47E-05 \quad 44.4 \quad 3.281564 \quad 4.101785 \quad 694.13 \quad 0.002185 \quad 0.457728 \quad 0.443996 \quad 0.633997 \quad 0.00253 \quad 0.003162 \quad 0.53507 \quad 1.68E-06 \quad 0.00166 \quad 0.0$ 2024 Taxiways Lighting Pickup Truck Off-highway Trucks60 Diesel 600 0.59 2024 Taxiways Lighting 694.13 0.002185 0.457728 0.443996 0.633997 0.00253 0.003162 0.53507 1.68E-06 Skid Steer Loader 0.21 44.4 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.00273 0.00272 0.714144 2.16E-06 0.59 226.2857 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.004619 0.016135 47.39934 0.000126 2024 Taxiways Lighting Tractors/Loader/Backhoe Tractors/Loaders/Bac Diesel 100 2024 Taxiways Markings Flatbed Truck Off-highway Trucks60 Diesel 2024 Taxiways Markings Other General Equipment Other Construction EcDiesel 175  $0.43 \ \ 226.2857 \ \ 0.258085 \ \ 0.811691 \ \ 536.6978 \ \ 0.001493 \ \ \ 0.062621 \ \ 0.060743 \ \ 0.046238 \ \ 0.004844 \ \ 0.015236 \ \ 10.07396$ 2024 Taxiways Markings Pickup Truck Off-highway Trucks60 Diesel 600 0.59 226.2857 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.004619 0.016135 47.39934 0.000126 12 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000257 0.000808 0.534225 1.49E-06 2024 Taxiways Soil Erosio Other General Equipment Other Construction EcDiesel 175 0.43 24 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00049 0.001711 5.027203 1.33E-05 12 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.000155 0.000262 0.03715 1.37E-07 2024 Taxiways Soil Erosio Pickup Truck Off-highway Trucks60 Diesel 600 0.59 2024 Taxiways Soil Erosio Pumps Other Construction EcDiesel 11 0.43 2024 Taxiways Soil Erosio Tractors/Loader/Backhoe Tractors/Loaders/Bac Diesel 100 0.21 12 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.000738 0.000735 0.193012 5.83E-07 2024 Taxiways Subbase PlDozer 175 0.59 23.13474 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000335 0.000942 1.413364 Crawler Tractor/Doze Diesel 2024 Taxiways Subbase Pl Dump Truck (12 cv) Off-highway Trucks60 Diesel 600 0.59 162.8 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003323 0.011608 34.10119 9.05F-05 0.59 23.13474 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000472 0.00165 4.845959 2024 Taxiways Subbase PlPickup Truck Off-highway Trucks60 Diesel 600 2024 Taxiways Subbase PlRoller Rollers100 Diesel 100 0.59 22.54154 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000612 0.001741 0.873838 2.38E-06 0.59 32.65867 0.127318 0.357586 536.7756 0.001443 0.032211 0.01245 0.019137 0.000473 0.001329 1.995206 5.36E-06 0.59 32.65867 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000667 0.002329 6.840906 1.82E-05 Crawler Tractor/Doze Diesel 2024 Taxiways Topsoil PlaDozei 2024 Taxiways Topsoil PlaDump Truck Off-highway Trucks60 Diesel 600 Off-highway Trucks60 Diesel 0.59 32.65867 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000667 0.002329 6.840906 1.82E-05 0.59 39.738 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.000801 0.00203 2.427598 6.61E-06 2024 Taxiways Topsoil PlaPickup Truck 600 2024 Terminal AAsphalt PlaAsphalt Paver 175 Pavers175 Diesel 2024 Terminal AAsphalt PlaDump Truck Off-highway Trucks60 Diesel 600 0.59 143.1194 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002921 0.010205 29.97877 7.96E-05 2024 Terminal AAsphalt Pl:Other General Equipment 175 79.476 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001701 0.005351 3.538171 9.84E-06 Other Construction EcDiesel 39.738 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000811 0.002834 8.323792 2.21E-05 39.738 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.001079 0.003069 1.540471 4.2E-06 2024 Terminal AAsphalt PlaPickup Truck Off-highway Trucks60 Diesel 600 0.59 100 2024 Terminal AAsphalt PlaRoller 2024 Terminal AAsphalt PliSkid Steer Loader Skid Steer Loaders75 Diesel 75 0.21 39,738 3,281564 4,101785 694,13 0,002185 0,457728 0,443996 0,633997 0,002264 0,00283 0,478888 1,51E-06 0.59 50.86464 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.001237 0.003113 0.492198 2024 Terminal AAsphalt PlaSurfacing Equipment (Grooving) Other Construction EcDiesel 81.6 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.001713 0.002898 0.41124 1.51E-06 2024 Terminal AClearing at Chain Saw Other Construction Ec Diesel 11 0.7 81.6 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.002533 0.005686 2.30515 6.42E-06 108.8 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002221 0.007758 22.78999 6.05E-05 2024 Terminal AClearing arChipper/Stump Grinder 100 Other Construction EcDiesel 2024 Terminal AClearing arPickup Truck Off-highway Trucks60 Diesel 600 0.59 2024 Terminal AConcrete FAir Compressor Other Construction Ec Diesel 105.968 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.00329 0.007384 2.993531 8.34E-06 105.968 0.319365 2.565449 595.8652 0.001583 0.029353 0.028472 0.098284 0.00088 0.007072 1.642636 4.36E-06 100 0.43 2024 Terminal AConcrete FConcrete Saws Other Construction EcDiesel 40 0.59 2024 Terminal 4Concrete FConcrete Truck Off-highway Trucks60 Diesel 600 0.59, 441, 5333, 0.052307, 0.182731, 536, 7912, 0.001425, 0.011908, 0.01155, 0.013356, 0.009012, 0.031484, 92, 48657, 0.000246 211.936 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.004537 0.014269 9.435124 2.62E-05 2024 Terminal AConcrete FOther General Equipment Other Construction EcDiesel 175 2024 Terminal AConcrete FPickup Truck Off-highway Trucks60 Diesel 600 0.59 317.904 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.006489 0.022668 66.59033 0.000177 Tractors/Loaders/Bac Diesel 105.968 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.013158 0.023479 7.546353 2.28E-05 2024 Terminal AConcrete FRubber Tired Loader 2024 Terminal AConcrete FSlip Form Paver Pavers175 105.968 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.002137 0.005396 6.473595 1.76E-05 Diesel 175

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2024 Terminal A Concrete F Surfacing Equipment (Grooving)
                                                                                  Other Construction Ec Diesel
                                                                                                                                 25
                                                                                                                                          0.59 105.968 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.002577 0.006485 1.025413 3.77E-06
                                                                                                                               175
                                                                                                                                                     23.232 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000337 0.000946 1.419306 3.81E-06
2024 Terminal A Drainage - Dozer
                                                                                   Crawler Tractor/Doze Diesel
2024 Terminal A Drainage - Dump Truck
                                                                                                                                                     23,232 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000474 0.001657 4.866333 1.29E-05
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59
2024 Terminal A Drainage - Excavator
                                                                                  Excavators175
                                                                                                                                                     23.232 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.000224 0.000742 1.419353 3.77E-06 23.232 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.002885 0.005147 1.654432 5E-06
                                                                                                                               175
175
                                                                                  Tractors/Loaders/Bac Diesel
2024 Terminal A Drainage - Loader
                                                                                                                                           0.59
                                                                                                                                                    23.232 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000497 0.001564 1.034259 2.88E-06 23.232 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000474 0.001657 4.866333 1.29E-05
2024 Terminal A Drainage - Other General Equipment
                                                                                  Other Construction Ec Diesel
                                                                                                                               175
                                                                                                                                           0.43
2024 Terminal A Drainage - Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59
2024 Terminal & Drainage - Roller
                                                                                  Rollers100
                                                                                                                               100
                                                                                                                                                    23.232 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000631 0.001794 0.900605 2.45E-06
                                                                                                          Diesel
                                                                                                                                           0.59
2024 Terminal A Drainage - Dump Truck
                                                                                                                                           0.59 12.90667 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000263 0.00092 2.703518
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                                                                                                                                                                            7.18E-06
2024 Terminal ADrainage - Loader
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                               175
                                                                                                                                           0.59 12.90667 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.001603 0.00286 0.919129 2.78F-06
 2024 Terminal ADrainage - Other General Equipment
                                                                                                                                           0.43 12.90667 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000276 0.000869 0.574589
                                                                                   Other Construction Ec Diesel
2024 Terminal A Drainage - Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           2024 Terminal ADrainage - Tractors/Loader/Backhoe
                                                                                                                                           0.21 12.90667 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.000794 0.000791 0.207595 6.27E-07 0.59 2880 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.058785 0.205359 603.2644 0.001602
                                                                                  Tractors/Loaders/Bad Diesel
                                                                                                                                100
2024 Terminal A Dust Contr Water Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
2024 Terminal A Excavation Dozer
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                                          0.59 176.6133 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.002559 0.007188 10.78979 2.9E-05 0.59 176.6133 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003605 0.012593 36.99463 9.82E-05
                                                                                                                               175
2024 Terminal A Excavation Dump Truck (12 cy)
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
2024 Terminal A Excavation Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59 176.6133 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003605 0.012593 36.99463 9.82E-05
                                                                                                                                           0.59 81.51385 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.002213 0.006296 3.159941
                                                                                                                               100
2024 Terminal A Excavation Roller
                                                                                  Rollers100
                                                                                                                                                                                                                                                                                           8.61E-06
2024 Terminal A Excavation Dozen
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                               175
                                                                                                                                                   132.46 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.001919 0.005391 8.09234 2.17E-05
2024 Terminal A Excavation Dump Truck (12 cy)
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                           0.59 353.2267 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00721 0.025187 73.98926 0.000196
                                                                                                                               600
2024 Terminal A Excavation Excavator
                                                                                  Excavators175
                                                                                                          Diesel
                                                                                                                               175
                                                                                                                                           0.59 105.968 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.001021 0.003383 6.474086 1.72F-05
                                                                                                                                600
                                                                                                                                                   105.968 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002163 0.007556 22.19678
                                                                                  Off-highway Trucks60 Diesel
2024 Terminal A Excavation Roller
                                                                                  Rollers100
                                                                                                           Diesel
                                                                                                                               100
                                                                                                                                           0.59
                                                                                                                                                  105.968 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.002876 0.008184 4.107923 1.12E-05
 2024 Terminal A Excavation Scraper
                                                                                                                                                     132.46 0.231824 0.588102 536.729 0.001489 0.040091 0.038888 0.034682 0.011983 0.030398 27.74275
                                                                                   Scrapers600
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                                           0.59 49.86729 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000723 0.00203 3.046528 8.19E-06
2024 Terminal A Excavation Dozer
                                                                                                                               175
                               Concrete Truck
                                                                                                                                          0.59 7.955556 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000162 0.000567 1.666425 4.4E-06
0.59 31.82222 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00065 0.002269 6.665699 1.77E-05
2024 Terminal AFencing
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
600
2024 Terminal AFencing
                                                                                  Off-highway Trucks60 Diesel
                               Dump Truck
2024 Terminal AFencing
                               Other General Equipment
                                                                                  Other Construction Ec Diesel
                                                                                                                               175
                                                                                                                                           0.43 \ \ 31.82222 \ \ 0.258085 \ \ 0.811691 \ \ 536.6978 \ \ 0.001493 \ \ 0.062621 \ \ 0.060743 \ \ 0.046238 \ \ 0.000681 \ \ 0.002143 \ \ 1.416685 \ \ \ 3.94E-06081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.00081 \ \ 0.
                                                                                                                                          0.59 31.82222 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00065 0.002269 6.665699 1.77E-05 0.21 31.82222 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.001813 0.002266 0.383494 1.21E-06
2024 Terminal AFencing
                                                                                  Off-highway Trucks60 Diesel
                               Pickup Truck
                                                                                                                               600
2024 Terminal AFencing
                               Skid Steer Loader
                                                                                  Skid Steer Loaders75 Diesel
                                                                                                                                 75
2024 Terminal AFencing
                               Tractors/Loader/Backhoe
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                                100
                                                                                                                                           2024 Terminal AGrading
                               Dozer
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                               175
                                                                                                                                           0.59 33.0403 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000479 0.001345 2.018521 5.43F-06
                                                                                                                                                   33.0403 0.070474 0.225529 536.7797 0.001435 0.016427 0.015934 0.017337 0.000454 0.001454 3.460349
2024 Terminal AGrading
                                                                                                                                300
2024 Terminal A Grading Roller
                                                                                  Rollers100
                                                                                                           Diesel
                                                                                                                               100
                                                                                                                                           0.59
                                                                                                                                                   33.0403 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000897 0.002552 1.28083 3.49E-06
                                                                                                                                                    33.0403 0.417359 1.187531 596.0597 0.001624 0.004693 0.002722 0.034597 0.000897 0.002552 1.28083 3.992-06 0.674104 1.451475 536.5524 0.00162 0.106831 0.103626 0.092216 0.00783 0.016859 6.223331 1.888-05 29.766 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000608 0.002122 6.234399 1.666-05 14.88 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000608 0.002122 6.234399 1.666-05 14.88 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000304 0.001061 3.11666 6.288-06 14.88 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.001848 0.003297 1.059657 3.2E-06
                                                                                                                                600
2024 Terminal A Hydroseec Hydroseeder
                                                                                  Other Construction Ec Diesel
2024 Terminal A Hydroseec Off-Road Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59
2024 Terminal A Lighting
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                               Dump Truck
                                                                                                                                           0.59
2024 Terminal A Lighting
                               Loader
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                               175
                                                                                                                                           0.59
2024 Terminal A Lighting
                                                                                                                                                      14.88 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000319 0.001002 0.662439 1.84E-06 14.88 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000304 0.001061 3.116866 8.28E-06
                               Other General Equipment
                                                                                  Other Construction Ec Diesel
                                                                                                                                175
                                                                                                                                           0.43
2024 Terminal A Lighting
                               Pickup Truck
                                                                                                                                600
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                           0.59
2024 Terminal A Lighting
                               Skid Steer Loader
                                                                                  Skid Steer Loaders75 Diesel
                                                                                                                                 75
                                                                                                                                          0.21
                                                                                                                                                      14.88 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.000848 0.00106 0.179321 5.64E-07
2024 Terminal A Lighting
                               Tractors/Loader/Backhoe
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                                100
                                                                                                                                                       14.88 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.000915 0.000911 0.239335
                                                                                                                                           0.59 654 6286 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.013362 0.046678 137.1229 0.000364
2024 Terminal AMarkings Flathed Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                175
                                                                                                                                           0.43 654.6286 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.014014 0.044076 29.14324 8.11E-05
2024 Terminal A Markings Other General Equipment
                                                                                  Other Construction Ec Diesel
2024 Terminal A Markings Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59\ 654.6286\ 0.052307\ 0.182731\ 536.7912\ 0.001425\ 0.011908\ 0.01155\ 0.013356\ 0.013362\ 0.046678\ 137.1229\ 0.000364
 2024 Terminal ASealing/Fu Distributing Tanker
                                                                                                                                                   84.7744 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00173 0.006045 17.75742
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                           0.43 84.7744 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001815 0.005708 3.77405 1.05E-05
2024 Terminal A Sealing/Fu Other General Equipment
                                                                                  Other Construction Ec Diesel
                                                                                                                               175
2024 Terminal A Sealing/Fu Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                                  84.7744 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00173 0.006045 17.75742 4.71E-05
                                                                                                                               600
2024 Terminal ASoil Erosio Other General Equipment
                                                                                                                               175
                                                                                                                                                       27.2 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000582 0.001831 1.21091 3.37E-06
                                                                                  Other Construction Ec Diesel
                                                                                                                                           0.43
2024 Terminal ASoil Erosio Pickup Truck
                                                                                                                                                       54.4 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00111 0.003879 11.39499 3.03E-05 27.2 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.000351 0.000593 0.084206 3.1E-07
                                                                                  Off-highway Trucks60 Diesel
2024 Terminal ASoil Erosio Pumps
                                                                                  Other Construction Ec Diesel
                                                                                                                                 11
                                                                                                                                          0.21 27.2 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.001672 0.001666 0.437494 1.32E-06 0.59 66.92716 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.0007 0.002724 4.088761 1.1E-05
2024 Terminal ASoil Erosio Tractors/Loader/Backhoe
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                               100
2024 Terminal ASubbase Pl Dozer
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                                175
2024 Terminal ASubbase Pl Dump Truck (12 cv)
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59 470.9689 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.009613 0.033583 98.65234 0.000262
                                                                                                                                          0.59 66.92716 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001366 0.004772 14.01902 3.72E-05 0.59 65.21108 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.00177 0.005036 2.527953 6.89E-06
  024 Terminal ASubbase PiPickup Truck
                                                                                  Off-highway Trucks60 Diesel
2024 Terminal A Subbase P Roller
                                                                                  Rollers100
                                                                                                          Diesel
                                                                                                                               100
                                                                                                                                          0.59 73.42267 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.001064 0.002988 4.485589 1.21E-05 0.59 73.42267 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001499 0.005235 15.37961 4.08E-05
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                                175
2024 Terminal ATopsoil PlaDozer
2024 Terminal A Topsoil Pla Dump Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
2024 Terminal A Topsoil Pla Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                          0.59 73.42267 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001499 0.005235 15.37961 4.08E-05 0.59 43.068 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.000868 0.002193 2.631028 7.16E-06
                                                                                                                               600
2024 Terminal AAsphalt PlaAsphalt Paver
                                                                                  Pavers175
                                                                                                                               175
                                                                                  Off-highway Trucks60 Diesel
2024 Terminal AAsphalt PlaDump Truck
                                                                                                                                600
                                                                                                                                           0.59 155.1127 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003166 0.01106 32.49095 8.63E-05
                                                                                  Other Construction Ec Diesel
                                                                                                                               175
                                                                                                                                                    86.136 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001844 0.005799 3.834666 1.07E-05
2024 Terminal Asphalt Pl: Other General Equipment
2024 Terminal AAsphalt PlaPickup Truck
                                                                                                                                                    43.068 \ 0.052307 \ 0.182731 \ 536.7912 \ 0.001425 \ 0.011908 \ 0.01155 \ 0.013356 \ 0.000879 \ 0.003071 \ 9.021316 \\ 43.068 \ 0.417356 \ 1.187531 \ 596.0587 \ 0.001624 \ 0.064693 \ 0.062752 \ 0.034547 \ 0.001169 \ 0.003326 \ 1.669561
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                600
                                                                                                                                           0.59
                                                                                                                                                                                                                                                                                            2.4F-05
                                                                                                                                100
2024 Terminal AAsphalt PlaRoller
                                                                                  Skid Steer Loaders75 Diesel
                                                                                                                                                     43.068 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.002454 0.003067 0.519018 1.63E-06
2024 Terminal AAsphalt Plaskid Steer Loader
                                                                                                                                 75
                                                                                                                                           0.21
2024 Terminal AAsphalt PkSurfacing Equipment (Grooving)
                                                                                                                                 25
                                                                                                                                           0.59 55.12704 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.001341 0.003374 0.533444
                                                                                                                                                       88.8 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.001864 0.003153 0.447526 1.65E-06
2024 Terminal A Clearing at Chain Saw
                                                                                  Other Construction Ec Diesel
                                                                                                                                 11
                                                                                                                                            0.7
                                                                                                                                                      88.8 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.002757 0.008188 2.508545 6.99E-06 118.4 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002417 0.008443 24.80087 6.59E-05
2024 Terminal AClearing at Chipper/Stump Grinder
                                                                                  Other Construction Ec Diesel
2024 Terminal AClearing at Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59
2024 Terminal A Concrete F Air Compressor
                                                                                  Other Construction Ec Diesel
                                                                                                                                                  114.848 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.06039 0.003565 0.008003 3.244385 9.03E-06 114.848 0.319365 2.565449 595.8652 0.001583 0.029353 0.028472 0.098284 0.000954 0.007665 1.780287 4.73E-06
                                                                                                                               100
2024 Terminal A Concrete F Concrete Saws
                                                                                  Other Construction Ec Diesel
                                                                                                                                 40
                                                                                                                                           0.59
2024 Terminal A Concrete F Concrete Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59 478.5333 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.009767 0.034122 100.2368 0.000266
2024 Terminal A Concrete F Other General Equipment
                                                                                                                                                  229.696 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.004917 0.015465 10.22578 2.84E-05
                                                                                  Other Construction Ec Diesel
                                                                                                                               175
                                                                                                                                           0.43
2024 Terminal A Concrete F Pickup Truck
2024 Terminal A Concrete F Rubber Tired Loader
                                                                                                                                                  344.544 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.011356 0.007033 0.024568 72.17053 0.000192 114.848 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.01426 0.025447 8.178729 2.47E-05
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                                175
2024 Terminal AConcrete FSlip Form Paver
                                                                                  Pavers175
                                                                                                          Diesel
                                                                                                                               175
                                                                                                                                          0.59
                                                                                                                                                   114.848 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.002316 0.005848 7.016075 1.91E-05
 2024 Terminal A Concrete F Surfacing Equipment (Grooving)
                                                                                  Other Construction Ec Diesel
                                                                                                                                                    114.848 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.002793 0.007029 1.111342
2024 Terminal A Drainage - Dozer
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                               175
                                                                                                                                          0.59
                                                                                                                                                      13.12 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.00019 0.000534 0.801536 2.15E-06
2024 Terminal A Drainage - Dump Truck
                                                                                                                                                       13.12 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000268 0.000936 2.748204
                                                                                  Off-highway Trucks60 Diesel
2024 Terminal A Drainage - Excavator
                                                                                  Excavators175
                                                                                                                               175
                                                                                                                                           0.59
                                                                                                                                                      13.12 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.000126 0.000419 0.801563 2.13E-06
2024 Terminal ADrainage - Loader
                                                                                                                                                      13.12 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.001629 0.002907 0.934321 2.82E-06 13.12 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000281 0.000883 0.584086 1.62E-06
                                                                                  Tractors/Loaders/Bad Diesel
                                                                                                                               175
                                                                                                                                           0.59
2024 Terminal A Drainage - Other General Equipment
                                                                                                                               175
                                                                                  Other Construction Ec Diesel
                                                                                                                                           0.43
                                                                                                                                                      13.12 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000268 0.000936 2.748204 13.12 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000356 0.001013 0.508606
2024 Terminal A Drainage - Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59
                                                                                                                                                                                                                                                                                             7 3F-06
2024 Terminal & Drainage - Roller
                                                                                  Rollers100
                                                                                                                               100
                                                                                                                                           0.59
                                                                                                           Diesel
                                                                                                                                                                                                                                                                                            1.39E-06
                                                                                  Off-highway Trucks60 Diesel
Tractors/Loaders/Bac Diesel
                                                                                                                               600
175
                                                                                                                                          0.59 7.288889 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000149 0.00052 1.52678 4.05E-06 0.59 7.288889 1.090944 1.946746 625.6994 0.01889 0.241644 0.234395 0.290885 0.000905 0.001615 0.519067 1.57E-06
2024 Terminal A Drainage - Dump Truck
2024 Terminal A Drainage - Loader
2024 Terminal ADrainage - Other General Equipment
                                                                                  Other Construction Ec Diesel
                                                                                                                               175
                                                                                                                                           0.43 7.288889 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000156 0.000491 0.324492 9.03F-07
                                                                                                                                           0.59 7.288889 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000149 0.00052 1.52678
2024 Terminal A Drainage - Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                600
2024 Terminal A Drainage - Tractors/Loader/Backhoe
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                               100
                                                                                                                                           0.21 7.288889 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.000448 0.000446 0.117237 3.54E-07
                                                                                                                                          0.59 2880 0.052307 0.182731 536.7912 0.001425 0.011908 0.011155 0.013356 0.058785 0.205359 603.2644 0.001602 0.59 191.4133 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.002774 0.00779 11.69396 3.14E-05
2024 Terminal A Dust Contr Water Truck
                                                                                  Off-highway Trucks60 Diesel
2024 Terminal A Excavation Dozer
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                               175
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                          0.59 191.4133 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003907 0.013649 40.09474 0.000106 0.59 191.4133 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003907 0.013649 40.09474 0.000106
2024 Terminal A Excavation Dump Truck (12 cv)
                                                                                                                               600
2024 Terminal A Excavation Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
2024 Terminal 4Excavation Roller
                                                                                  Rollers 100
                                                                                                                               100
                                                                                                                                           0.59 88.34462 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.002398 0.006823 3.42474 9.33E-06
                                                                                  Crawler Tractor/Doze Diesel
2024 Terminal A Excavation Dozen
                                                                                                                                                   143.56 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.00208 0.005843 8.770469 2.36E-05
                                                                                                                               175
                                                                                  Off-highway Trucks60 Diesel
Excavators175 Diesel
                                                                                                                                          0.59 382.8267 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.007814 0.027298 80.18948 0.000213 0.59 114.848 0.084645 0.280526 536.7934 0.001427 0.020501 0.19886 0.013129 0.001106 0.003667 7.016607 1.86E-05
2024 Terminal A Excavation Dump Truck (12 cy)
                                                                                                                               600
2024 Terminal A Excavation Excavator
                                                                                                                                175
2024 Terminal A Excavation Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                          0.59
                                                                                                                                                  114.848 0.052307 0.182731 536,7912 0.001425 0.011908 0.01155 0.013356 0.002344 0.008189 24.05684 6.39E-05
                                                                                                                                                  14.848 0.417356 1.187531 596.0587 0.001624 0.06693 0.062752 0.0034547 0.003117 0.00887 4.452162 1.21E-05 143.56 0.231824 0.588102 536.729 0.001489 0.040091 0.038888 0.034682 0.012987 0.032945 30.06757 8.34E-05
2024 Terminal A Excavation Roller
                                                                                  Rollers100
                                                                                                                                100
                                                                                  Scrapers600
2024 Terminal A Excavation Scraper
                                                                                                           Diesel
                                                                                                                               600
                                                                                                                                          0.59 54.04612 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000783 0.0022 3.301824 8.87E-06 0.59 4.444444 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 9.07E-05 0.000317 0.930964 2.47E-06
2024 Terminal A Excavation Dozer
                                                                                  Crawler Tractor/Doze Diesel
                                                                                                                                175
2024 Terminal AFencing Concrete Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
2024 Terminal AFencing
                                                                                                                                          0.59 17.77778 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000363 0.001268 3.723854 9.89E-06 0.43 17.77778 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000381 0.001197 0.791444 2.2E-06
                               Dump Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                               Other General Equipment
2024 Terminal AFencing
                                                                                                                               175
                                                                                  Other Construction Ec Diesel
2024 Terminal AFencing
                               Pickup Truck
                                                                                  Off-highway Trucks60 Diesel
                                                                                                                               600
                                                                                                                                           0.59 17.77778 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000363 0.001268 3.723854
                                                                                                                                                                                                                                                                                            9.89F-06
2024 Terminal AFencing
                                                                                                                                           0.21 17.77778 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.001013 0.001266 0.214242
                               Skid Steer Loade
                                                                                  Skid Steer Loaders75 Diesel
                                                                                                                                 75
2024 Terminal AFencing
                               Tractors/Loader/Backhoe
                                                                                  Tractors/Loaders/Bac Diesel
                                                                                                                               100
                                                                                                                                           0.21 17.77778 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.001093 0.001089 0.285944
                                                                                                                                                                                                                                                                                           8.64F-07
                                                                                                                                                  35.7709 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000518 0.001456 2.185341
2024 Terminal AGrading
                                                                                  Crawler Tractor/Doze Diesel
2024 Terminal A Grading Grader
                                                                                  Graders300
                                                                                                                                           0.59 35.7709 0.070474 0.225529 536.7797 0.001435 0.016427 0.015934 0.017337 0.000492 0.001574 3.746327
```

Diesel

300

1E-05

```
2024 Terminal A Grading Roller
                                                                             Rollers100
                                                                                                     Diesel
                                                                                                                        100
                                                                                                                                   0.59 35.7709 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000971 0.002763 1.386684 3.78E-06
                                                                              Other Construction Ec Diesel
                                                                                                                         600
                                                                                                                                             32.226 0.674104 1.451475 536.5624 0.00162 0.106831 0.103626 0.092216 0.008477 0.018253
2024 Terminal A Hydroseec Hydroseeder
                                                                                                                                             32.226 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000658 0.002298 6.750277 1.79E-05
                                                                                                                        600
2024 Terminal A Hydroseec Off-Road Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                                   0.59
2024 Terminal A Lighting
                                                                                                                                              15.68 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00032 0.001118 3.284439 8.72E-06 15.68 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.001947 0.003474 1.116628 3.37E-06
                             Dump Truck
                                                                              Off-highway Trucks60 Diesel
                                                                                                                         600
175
                                                                                                                                   0.59
2024 Terminal A Lighting
                                                                              Tractors/Loaders/Bad Diesel
                             Loader
2024 Terminal ALighting
                             Other General Equipment
                                                                             Other Construction Ec Diesel
                                                                                                                        175
                                                                                                                                   0.43
                                                                                                                                              15.68 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000336 0.001056 0.698054 1.94E-06
2024 Terminal A Lighting
                                                                             Off-highway Trucks60 Diesel
                                                                                                                                              15.68 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00032 0.001118 3.284439 8.72E-06
                             Pickup Truck
                                                                                                                        600
                                                                                                                                   0.59
2024 Terminal ALighting
                             Skid Steer Loader
                                                                             Skid Steer Loaders75 Diesel
                                                                                                                          75
                                                                                                                                              15.68 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.000893 0.001117 0.188962 5.95E-07
                                                                                                                                   0.21
                                                                                                                                              15.68 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.000964 0.00096 0.252202
2024 Terminal A Lighting
                             Tractors/Loader/Backhoe
                                                                              Tractors/Loaders/Bac Diesel
                                                                                                                         100
2024 Terminal A Markings Flatbed Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59 709.4857 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.014482 0.05059 148.6137 0.000395
                                                                                                                         175
                                                                                                                                          709.4857 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.015189 0.047769 31.58541 8.79E-05
 2024 Terminal AMarkings Other General Equipment
                                                                              Other Construction Ec Diesel
2024 Terminal A Markings Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59 709.4857 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.014482 0.05059 148.6137 0.000395
2024 Terminal A Sealing/Fu Distributing Tanker
                                                                                                                                           91.8784 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001875 0.006551 19.24547 5.11E-05
                                                                              Off-highway Trucks60 Diesel
                                                                                                                         600
2024 Terminal ASealing/FuOther General Equipment
                                                                             Other Construction Ec Diesel
                                                                                                                        175
                                                                                                                                   0.43
                                                                                                                                           91.8784 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001967 0.006186 4.090311 1.14E-05
                                                                                                                                           91.8784 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001875 0.006551 19.24547 5.11E-05 29.6 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000634 0.001993 1.317755 3.67E-06
2024 Terminal A Sealing/Fu Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                         600
175
2024 Terminal ASoil Erosio Other General Equipment
                                                                              Other Construction Ec Diesel
                                                                                                                                   0.43
                                                                                                                                               59.2 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001208 0.004221 12.40043 3.29E-05 29.6 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.000382 0.000646 0.091636 3.37E-07
2024 Terminal ASoil Erosio Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                         600
                                                                                                                                   0.59
2024 Terminal ASoil Erosio Pumps
                                                                                                                         11
                                                                             Other Construction Ec Diesel
                                                                                                                                   0.43
2024 Terminal ASoil Erosio Tractors/Loader/Backhoe
                                                                             Tractors/Loaders/Bad Diesel
                                                                                                                        100
                                                                                                                                   0.21
                                                                                                                                               29.6 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.00182 0.001813 0.476096 1.44E-06
2024 Terminal ASubbase Pi Dozer
                                                                              Crawler Tractor/Doze Diesel
                                                                                                                         175
                                                                                                                                   0.59 72.53558 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.001051 0.002952 4.431395
2024 Terminal ASubbase Pl Dump Truck (12 cv)
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59 510.4356 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.010419 0.036397 106.9193 0.000284
2024 Terminal A Subbase P Pickup Truck
                                                                                                                         600
                                                                                                                                   0.59 72.53558 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001481 0.005172 15.1938 4.03E-05
                                                                              Off-highway Trucks60 Diesel
2024 Terminal ASubbase P Roller
                                                                             Rollers100
                                                                                                     Diesel
                                                                                                                        100
                                                                                                                                   0.59 70.67569 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.001918 0.005459 2.739792 7.47E-06
                                                                              Crawler Tractor/Doze Diesel
                                                                                                                                   0.59\ 79.49067\ 0.127318\ 0.357586\ 536.7756\ 0.001443\ 0.032211\ 0.031245\ 0.019137\ 0.001152\ 0.003235
2024 Terminal ATopsoil PlaDozer
                                                                                                                                   0.59 79.49067 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001623 0.005668 16.65066 4.42E-05
2024 Terminal ATopsoil Pla Dump Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                        600
175
                                                                                                                                   0.59 79.49067 0.052307 0.182731 536.7912 0.001425 0.011908 0.011155 0.013356 0.001623 0.005668 16.65066 4.42E-05 0.59 14.89625 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.003 0.000759 0.910013 2.48E-06
2024 Terminal A Topsoil Pla Pickup Truck
                                                                             Off-highway Trucks60 Diesel
2024 Taxiway E>Asphalt Plasphalt Paver
                                                                             Pavers175
2024 Taxiway Ex Asphalt Pla Dump Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                                   0.59 53.64997 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001095 0.003826 11.23789 2.98E-05
                                                                                                                        600
                                                                              Other Construction Ec Diesel
                                                                                                                                   0.43 29.7925 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000638 0.002006 1.326325 3.69E-06
2024 Taxiway ExAsphalt PlaOther General Equipment
                                                                                                                         175
2024 Taxiway Ex Asphalt Pla Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                                   0.59 14.89625 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000304 0.001062 3.12027 8.28E-06
                                                                                                                        600
2024 Taxiway Ex Asphalt Pla Roller
                                                                                                                         100
                                                                                                                                   0.59\ 14.89625\ 0.417356\ 1.187531\ 596.0587\ 0.001624\ 0.064693\ 0.062752\ 0.034547\ 0.000404\ 0.00115\ 0.577463
2024 Taxiway ExAsphalt Plaskid Steer Loader
                                                                             Skid Steer Loaders 75 Diesel
                                                                                                                          75
                                                                                                                                   0.21 14.89625 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.000849 0.001061 0.179517 5.65E-07
2024 Taxiway E Asphalt Pla Surfacing Equipment (Grooving)
                                                                                                                                           19.0672 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.000464 0.001167 0.184506
                                                                              Other Construction Ec Diesel
2024 Taxiway ExClearing at Chain Saw
                                                                             Other Construction Ec Diesel
                                                                                                                          11
                                                                                                                                    0.7
                                                                                                                                                 36 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.000756 0.001278 0.181429 6.67E-07
2024 Taxiway ExClearing at Chipper/Stump Grinder
                                                                                                                         100
                                                                                                                                                 36 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.001118 0.002509 1.016978
                                                                              Other Construction Ec Diesel
                                                                                                                                                 48 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00098 0.003423 10.05441 2.67E-05
2024 Taxiway ExClearing at Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                          39.7232 0.319365 2.565449 595.8652 0.001583 0.029353 0.028472 0.098284 0.00033 0.002651 0.615759 1.64E-06
2024 Taxiway ExConcrete FAir Compressor
                                                                             Other Construction Ec Diesel
                                                                                                                        100
                                                                                                                                   0.43
2024 Taxiway E) Concrete F Concrete Saws
                                                                             Other Construction Ec Diesel
                                                                                                                          40
                                                                                                                                   0.59
                                                                                                                                   0.59 165.5133 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003378 0.011802 34.66955 9.21E-05 0.43 79.4464 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001701 0.005349 3.536854 9.84E-06
2024 Taxiway E) Concrete F Concrete Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                        175
2024 Taxiway E)Concrete FOther General Equipment
                                                                             Other Construction Ec Diesel
2024 Taxiway ExConcrete F Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59 119.1696 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002432 0.008497 24.96207 6.63E-05
2024 Taxiway E) Concrete F Rubber Tired Loader
                                                                              Tractors/Loaders/Bac Diesel
                                                                                                                         175
                                                                                                                                           39.7232 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.004932 0.008801 2.828828 8.54E-06
                                                                                                                                           39.7232 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.000801 0.00203 2.426694 6.61E-06 39.7232 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.000966 0.002431 0.384387 1.41E-06
2024 Taxiway ExConcrete ESlip Form Payer
                                                                             Pavers175
                                                                                                                        175
                                                                                                                                   0.59
                                                                                                     Diesel
2024 Taxiway E) Concrete FSurfacing Equipment (Grooving)
                                                                              Other Construction Ec Diesel
                                                                                                                          25
2024 Taxiway E Drainage - Dozer
                                                                             Crawler Tractor/Doze Diesel
                                                                                                                        175
                                                                                                                                   0.59
                                                                                                                                               78.4 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.001136 0.003191 4.789668 1.29E-05
                                                                                                                                               78.4 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.0016 0.00559 16.4222 4.36E-05 78.4 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.000755 0.002503 4.789827 1.27E-05
 2024 Taxiway E>Drainage - Dump Truck
                                                                              Off-highway Trucks60 Diesel
2024 Taxiway E) Drainage - Excavator
                                                                             Excavators175
                                                                                                                        175
                                                                                                                                   0.59
2024 Taxiway Ex Drainage - Loader
                                                                              Tractors/Loaders/Bac Diesel
                                                                                                                                                78.4 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.009735 0.017371 5.583139 1.69E-05
                                                                                                                        175
2024 Taxiway Ex Drainage - Other General Equipment
                                                                                                                                                78.4 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001678 0.005279 3.490269 9.71E-06
                                                                             Other Construction Ec Diesel
                                                                                                                        175
                                                                                                                                   0.43
                                                                             Off-highway Trucks60 Diesel
Rollers100 Diesel
                                                                                                                                               78.4 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.0016 0.00559 16.4222 4.36E-05
78.4 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.002128 0.006055 3.03923 8.28E-06
2024 Taxiway E Drainage - Pickup Truck
                                                                                                                         600
                                                                                                                                   0.59
2024 Taxiway Ex Drainage - Roller
                                                                                                                         100
                                                                                                                                   0.59
                                                                             Off-highway Trucks60 Diesel
2024 Taxiway Ex Drainage - Dump Truck
                                                                                                                        600
                                                                                                                                   0.59 43.55556 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000889 0.003106 9.123443 2.42E-05
                                                                                                                                   0.59 43.55556 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.005408 0.00965 3.101744
2024 Taxiway Ex Drainage - Loader
                                                                              Tractors/Loaders/Bac Diesel
                                                                                                                        175
2024 Taxiway Ex Drainage - Other General Equipment
                                                                             Other Construction Ec Diesel
                                                                                                                        175
                                                                                                                                   0.43 43.55556 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000932 0.002933 1.939039 5.39E-06
                                                                                                                                   0.59 43.55556 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000889 0.001608 0.182741 242F-05 0.011908 0.01155 0.013356 0.00889 0.001608 0.001602 0.182741 0.001425 0.001425 0.011908 0.01155 0.013356 0.00889 0.001608 0.001602 0.12442 0.24F-05 0.01508 0.01508 0.001602 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.01508 0.
 2024 Taxiway E>Drainage - Pickup Truck
2024 Taxiway Ex Drainage - Tractors/Loader/Backhoe
                                                                             Tractors/Loaders/Bac Diesel
                                                                                                                        100
2024 Taxiway Ex Dust Contr Water Truck
                                                                              Off-highway Trucks60 Diesel
                                                                                                                         600
2024 Taxiway Excavation Dozer
                                                                             Crawler Tractor/Doze Diesel
                                                                                                                        175
                                                                                                                                   0.59 66.20533 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000959 0.002694 4.044663 1.09E-05
2024 Taxiway E>Excavation Dump Truck (12 cy)
                                                                                                                                   0.59 66.2053 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001351 0.004721 13.86782 3.68E-05 0.59 66.20533 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001351 0.004721 13.86782 3.68E-05
                                                                             Off-highway Trucks60 Diesel
2024 Taxiway Excavation Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
2024 Taxiway Excavation Roller
                                                                             Rollers 100
                                                                                                                         100
                                                                                                                                   0.59 30.55631 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000829 0.00236 1.184536 3.23E-06
                                                                             Crawler Tractor/Doze Diesel
                                                                                                                        175
                                                                                                                                           49.654 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.00072 0.002021 3.033497
2024 Taxiway Excavation Dozer
                                                                                                                                   0.59
                                                                                                                                                                                                                                                                             8.15E-06
                                                                                                                                   0.59 132.4107 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002703 0.009442 27.73564 7.36E-05 0.59 39.7232 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.000383 0.001268 2.426878 6.45E-06
2024 Taxiway Excavation Dump Truck (12 cy)
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
175
                                                                              Excavators175
2024 Taxiway Excavation Excavator
                                                                             Off-highway Trucks60 Diesel
2024 Taxiway Fy Excavation Pickup Truck
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                          39.7232 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000811 0.002832 8.320691 2.21F-05
2024 Taxiway Excavation Roller
                                                                              Rollers100
                                                                                                                         100
                                                                                                                                           2024 Taxiway Excavation Scraper
                                                                             Scrapers600
                                                                                                     Diesel
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                            49.654 0.231824 0.588102 536.729 0.001489 0.040091 0.038888 0.034682 0.004492 0.011395 10.39966 2.88E-05
                                                                                                                                   0.59 18.69333 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.01937 0.000271 0.000761 1.142026 3.07E-06
0.59 27.11111 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000553 0.001933 5.678878 1.51E-05
2024 Taxiway Excavation Dozer
                                                                              Crawler Tractor/Doze Diesel
                                                                                                                         175
2024 Taxiway Expending Concrete Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
2024 Taxiway ExPencing
                                                                             Off-highway Trucks60 Diesel
                                                                                                                                   0.59 108.4444 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002213 0.007733 22.71551 6.03E-05 0.43 108.4444 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.002322 0.007301 4.82781 1.34E-05
                             Dump Truck
                                                                                                                        600
                             Other General Equipment
                                                                                                                        175
2024 Taxiway ExFencing
                                                                             Other Construction Ec Diesel
2024 Taxiway ExFencing
                                                                             Off-highway Trucks60 Diesel
                                                                                                                                   0.59 108.4444 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002213 0.007733 22.71551
                             Pickup Truck
                                                                                                                        600
75
                                                                                                                                                                                                                                                                             6 03F-05
                                                                                                                                   0.21 108.4444 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.006178 0.007723 1.306879 4.11E-06
2024 Taxiway ExFencing
                                                                             Skid Steer Loaders75 Diesel
                             Skid Steer Loader
2024 Taxiway E Fencing
                                                                                                                                   0.21 108.4444 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.006668 0.000643 1.744256 5.27E-06
0.59 14.6853 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000213 0.000598 0.897165 2.41E-06
                             Tractors/Loader/Backhoe
                                                                             Tractors/Loaders/Bad Diesel
                                                                                                                        100
                                                                              Crawler Tractor/Doze Diesel
                                                                                                                         175
2024 Taxiway E Grading
2024 Taxiway ExGrading
                             Grader
                                                                             Graders300
                                                                                                     Diesel
                                                                                                                        300
                                                                                                                                   0.59
                                                                                                                                           14.6853 0.070474 0.225529 536.7797 0.001435 0.016427 0.015934 0.017337 0.000202 0.000646 1.538008 4.11F-06
                                                                                                                         100
                                                                                                                                            14.6853 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000399 0.001134 0.569286 1.55E-06
 2024 Taxiway E Grading
2024 Taxiway E Hydroseec Hydroseeder
                                                                             Other Construction Ec Diesel
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                              13.23 0.674104 1.451475 536.5624 0.00162 0.106831 0.103626 0.092216 0.00348 0.007493 2.770064 8.36E-06
                                                                                                                                              13.23 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00027 0.000943 2.771246 33.12 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000676 0.002362 6.93754
                                                                                                                         600
2024 Taxiway E Hydroseec Off-Road Truck
                                                                              Off-highway Trucks60 Diesel
2024 Taxiway Exlighting Dump Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                                                                                                                                                            1.84E-05
2024 Taxiway Exlighting
                             Loader
                                                                              Tractors/Loaders/Bac Diesel
                                                                                                                        175
                                                                                                                                   0.59
                                                                                                                                              33.12 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.004112 0.007338 2.358591 7.12E-06
                                                                                                                                              33.12 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000709 0.00223 1.474461
                             Other General Equipment
2024 Taxiway Exlighting
                                                                             Other Construction Ec Diesel
                                                                                                                         175
                                                                                                                                   0.43
                                                                                                                                                                                                                                                                              4.1F-06
2024 Taxiway ExLighting
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                              33.12 0.052307 0.182731 536,7912 0.001425 0.011908 0.01155 0.013356 0.000676 0.002362 6.93754 1.84E-05
                             Pickup Truck
                                                                                                                                   0.59
                                                                                                                                              33.12 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.001887 0.002359 0.399134 1.26E-06
                             Skid Steer Loade
                                                                             Skid Steer Loaders75 Diesel
                                                                                                                          75
                                                                                                                                   0.21
2024 Taxiway Exlighting
2024 Taxiway Exhighting Tractors/Load
2024 Taxiway Exharkings Flatbed Truck
                                                                                                                                   0.21 33.12 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.00203 0.002029 0.532713 1.61E-06 0.59 245.3943 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.005009 0.017498 51.40195 0.000136
                             Tractors/Loader/Backhoe
                                                                              Tractors/Loaders/Bad Diesel
                                                                                                                        100
                                                                              Off-highway Trucks60 Diesel
                                                                                                                         600
2024 Taxiway E Markings Other General Equipment
                                                                             Other Construction Ec Diesel
                                                                                                                        175
                                                                                                                                   0.43 245.3943 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.005253 0.016522 10.92464 3.04F-05
                                                                                                                                   0.59 245.3943 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.005009 0.017498 51.40195
2024 Taxiway E Markings Pickup Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                         600
2024 Taxiway E Soil Erosio Other General Equipment
                                                                             Other Construction Ec Diesel
                                                                                                                        175
                                                                                                                                   0.43
                                                                                                                                                 12 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000257 0.000808 0.534225 1.49E-06
                                                                                                                                                 24 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00049 0.001711 5.027203 1.33E-05 12 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.000155 0.000262 0.03715 1.37E-07
2024 Taxiway ExSoil Erosio Pickup Truck
                                                                              Off-highway Trucks60 Diesel
2024 Taxiway E>Soil Erosio Pumps
                                                                             Other Construction Ec Diesel
                                                                                                                         11
                                                                                                                                   0.43
                                                                              Tractors/Loaders/Bac Diesel
2024 Taxiway E Soil Erosio Tractors/Loader/Backhoe
                                                                                                                                   0.21 12 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.000738 0.000735 0.193012 5.83E-07 0.59 25.08842 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000364 0.001021 1.53272 4.12E-06
                                                                                                                        100
                                                                                                                        175
2024 Taxiway E Subbase P Dozer
                                                                             Crawler Tractor/Doze Diesel
2024 Taxiway E Subbase P Dump Truck (12 cv)
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59 176.5467 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.003604 0.012589 36.98066 9.82E-05
2024 Taxiway E Subbase P Pickup Truck
                                                                                                                                   0.59 25.08842 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000512 0.001789 5.255191
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                                                                                                                                                              1.4E-05
                                                                                                                        100
175
2024 Taxiway E Subbase P Roller
                                                                             Rollers100
                                                                                                                                   0.59 24.44492 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000664 0.001888 0.947624 2.58E-06
2024 Taxiway E Topsoil Pla Dozer
                                                                              Crawler Tractor/Doze Diesel
                                                                                                                                   0.59 32.63467 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000473 0.001328 1.99374
2024 Taxiway E) Topsoil Pla Dump Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59 32.63467 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000666 0.002327 6.835879 1.82E-05
                                                                                                                                   0.59 32.63467 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000666 0.002327 6.835879
2024 Taxiway E Topsoil PlaPickup Truck
                                                                              Off-highway Trucks60 Diesel
                                                                                                                         600
                                                                                                                                                320 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.019675 0.019602 5.146986 60 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001225 0.004278 12.56801 320 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.013631 0.030597 12.40345
2024 Building - : Concrete F Backhoe
                                                                              Tractors/Loaders/Bac Diesel
                                                                                                                        100
                                                                                                                                   0.21
                                                                                                                                                                                                                                                                             1.56E-05
2024 Building - : Concrete F Concrete Ready Mix Trucks
                                                                                                                         600
                                                                              Off-highway Trucks60 Diesel
                                                                                                                                                                                                                                                                             3.34E-05
2024 Building - : Concrete F Fork Truck
                                                                             Other Construction Ec Diesel
                                                                                                                        100
                                                                                                                                   0.59
                                                                                                                                                                                                                                                                             3.45E-05
                                                                             Off-highway Trucks60 Diesel
                                                                                                                                                 80 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001633 0.005704 16.75734 16 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000327 0.001141 3.351469
2024 Building - : Concrete FTool Truck
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                                                                                                                                                             4 45F-05
2024 Building - : Concrete FTractor Trailer- Material Delivery
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                                                                                                                                                              8.9F-06
2024 Building - : Constructi Survey Crew Trucks
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                   0.59
                                                                                                                                                 10 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000204 0.000713 2.094668
                                                                                                                                                                                                                                                                            5 56F-06
2024 Building - : Constructi Tractor Trailers Temp Fac.
                                                                                                                                                                                                                 Off-highway Trucks60 Diesel
                                                                                                                         600
                                                                                                                                   0.59
                                                                                                                                                   4 0.052307 0.182731 536.7912 0.001425 0.011908
                                                                                                                                                                                                                                                                             2.22E-06
                                                                                                                                                240 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.010223 0.022947 9.302588 2.59E-05 240 0.559297 2.73688 595.8792 0.01663 0.06081 0.058986 0.092933 0.00233 0.011404 2.482885 6.93E-06
2024 Building - : Exterior W Fork Truck
                                                                             Other Construction Ec Diesel
                                                                                                                        100
                                                                                                                                   0.59
2024 Building - : Exterior W Man Lift
2024 Building - : Exterior W Tool Truck
                                                                             Off-highway Trucks60 Diesel
                                                                                                                        600
                                                                                                                                                 60 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001225 0.004278 12.56801 3.34E-05
                                                                                                                                   0.59
```

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24 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00049 0.001711 5.027203 1.33E-05
2024 Building - : Exterior W Tractor Trailer- Material Delivery
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                   960 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.040892 0.09179 37.21035 0.000104 960 0.559297 2.73688 595.8792 0.001663 0.06081 0.058986 0.092933 0.009322 0.045616 9.931538 2.77E-05
                                                                                                              100
                                                                                                                        0.59
2024 Building - : Interior Bu Fork Truck
2024 Building - :Interior Bu Man Lift
                                                                       Rough Terrain Forklift Diesel
                                                                                                               75
                                                                                                                        0.21
                                                                                                                                   120 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002449 0.008557 25.13602 6.67E-05 120 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002449 0.008557 25.13602 6.67E-05
2024 Building - : Interior BuTool Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
0.59
2024 Building - :Interior BuTractor Trailer- Material Delivery
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                       Rough Terrain Forklift Diesel
2024 Building - : Roofing High Lift
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                    120 0.529425 1.320666 596.0214 0.001641 0.079303 0.076924 0.047138 0.004132 0.010307 4.651592 1.28E-05
2024 Building - : Roofing Man Lift (Fascia Construction)
                                                                       Rough Terrain Forklift Diesel
                                                                                                               75
                                                                                                                                    120 0.559297
                                                                                                                                                    2.73688 595.8792 0.001663 0.06081 0.058986 0.092933 0.001165 0.005702 1.241442
                                                                                                                                                                                                                                                     3.46E-06
                                                                                                                        0.21
2024 Building - : Roofing Material Deliveries
                                                                       Off-highway Trucks60 Diesel
                                                                                                             600
                                                                                                                        0.59
                                                                                                                                     8 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000163 0.00057 1.675734 4.45E-06
                                                                                                                                     12 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000245 0.000856 2.513602
2024 Building - : Roofing
                           Tractor Trailer- Material Delivery
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                                                                                                                                      6.67E-06
2024 Building - : Security & High Lift
                                                                       Rough Terrain Forklift Diesel
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                    320 0.529425 1.320666 596.0214 0.001641 0.079303 0.076924 0.047138 0.011018 0.027485 12.40425 3.42E-05
                                                                                                                                     80 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001633 0.005704 16.75734
 2024 Building - : Security & Tool Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                       Cranes300
                                                                                                                                    240 0.098349 0.390469 530.9601 0.001447 0.020525 0.01991 0.02823 0.003356 0.013326 18.12047 4.94E-05
2024 Building - : Structural 40 Ton Crane
                                                                                           Diesel
                                                                                                              300
                                                                                                                        0.43
                                                                       Other Construction Ec Diesel
                                                                                                                                    120 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.005112 0.011474 4.651294
2024 Building - : Structural Fork Truck
                                                                                                              100
                                                                                                                                     60 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001225 0.004278 12.56801 3.34E-05
2024 Building - : Structural Tool Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                             600
100
                                                                                                                                   16 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000327 0.001141 3.351469 320 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.019675 0.019602 5.146986
2024 Building -: Structural Tractor Trailer- Steel Deliveries
                                                                       Off-highway Trucks60 Diesel
                                                                                                                        0.59
                                                                                                                                                                                                                                                      8 0F-06
2024 Building - : Concrete F Backhoe
                                                                       Tractors/Loaders/Bad Diesel
                                                                                                                        0.21
                                                                                                                                                                                                                                                      1.56E-05
2024 Building - : Concrete F Concrete Ready Mix Trucks
                                                                                                                                     60 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001225 0.004278 12.56801 3.34E-05
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                       Other Construction Ec Diesel
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                    320 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.013631 0.030597 12.40345
                                                                                                                                                                                                                                                      3.45E-05
2024 Building - : Concrete FFork Truck
2024 Building - : Concrete FTool Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                             600
                                                                                                                        0.59
                                                                                                                                     80 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001633 0.005704 16.75734 4.45E-05
2024 Building - : Concrete FTractor Trailer- Material Delivery
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                                     16 0.052307 0.182731 536.7912 0.001425 0.011908
                                                                                                                                                                                               0.01155 0.013356 0.000327 0.001141 3.351469
                                                                                                                        0.59
2024 Building - 'Constructi Survey Crew Trucks
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                     10 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000204 0.000713 2.094668 5.56F-06
2024 Building - : Constructi Tractor Trailers Temp Fac.
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                                      4 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 8.16E-05 0.000285 0.837867 2.22E-06
2024 Building - : Exterior W Fork Truck
                                                                       Other Construction Ec Diesel
                                                                                                             100
                                                                                                                        0.59
                                                                                                                                    240 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.010223 0.022947 9.302588 2.59E-05
                                                                                                                                    240 0.559297 2.73688 595.8792 0.001663 0.06081 0.058986 0.092933 0.00233 0.011404 2.482885
 2024 Building - : Exterior W Man Lift
                                                                       Rough Terrain Forklift Diesel
                                                                                                                                     60 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001225 0.004278 12.56801 3.34E-05
2024 Building - : Exterior W Tool Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
2024 Building - :Exterior WTractor Trailer- Material Delivery
                                                                       Off-highway Trucks60 Diesel
Other Construction Ec Diesel
                                                                                                                                   24 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00049 0.001711 5.027203 1.33E-05 960 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.040892 0.09179 37.21035 0.000104
                                                                                                              600
100
                                                                                                                        0.59
0.59
2024 Building - : Interior Bu Fork Truck
                                                                       Rough Terrain Forklift Diesel
2024 Building - :Interior Bu Man Lift
                                                                                                                        0.21
                                                                                                                                    960 0.559297   2.73688 595.8792 0.001663   0.06081 0.058986 0.092933 0.009322 0.045616 9.931538  2.77E-05
                                                                                                               75
                                                                                                                                   120 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002449 0.008557 25.13602 6.67E-05 120 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.002449 0.008557 25.13602 6.67E-05
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
2024 Building - : Interior BuTool Truck
                                                                                                                        0.59
                                                                       Off-highway Trucks60 Diesel
2024 Building - :Interior BuTractor Trailer- Material Delivery
                                                                                                              600
                                                                                                                        0.59
2024 Building - : Roofing High Lift
                                                                       Rough Terrain Forklift Diesel
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                    120 0.529425 1.320666 596.0214 0.001641 0.079303 0.076924 0.047138 0.004132 0.010307 4.651592
2024 Building - : Roofing Man Lift (Fascia Construction)
                                                                       Rough Terrain Forklift Diesel
                                                                                                               75
                                                                                                                        0.21
                                                                                                                                    120 0.559297 2.73688 595.8792 0.001663 0.06081 0.058986 0.092933 0.001165 0.005702 1.241442 3.46E-06
 2024 Building - : Roofing Material Deliveries
                                                                                                                                      8 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000163 0.00057 1.675734
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
2024 Building - : Roofing Tractor Trailer- Material Delivery
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                     12 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000245 0.000856 2.513602 6.67E-06
                                                                       Rough Terrain Forklift Diesel
                                                                                                              100
                                                                                                                                    320 0.529425 1.320666 596.0214 0.001641 0.079303 0.076924 0.047138 0.011018 0.027485 12.40425
2024 Building - : Security & High Lift
2024 Building - : Security & Tool Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                    80 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001633 0.005704 16.75734 4.45E-05
                                                                                                                                   240 0.098349 0.390469 530.9601 0.001447 0.020525 0.01991 0.02823 0.003356 0.013326 18.12047 4.94E-05 120 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.005112 0.011474 4.651294 1.3E-05
2024 Building - : Structural 40 Ton Crane
                                                                       Cranes300
                                                                                                              300
                                                                                                                        0.43
                                                                       Other Construction Ec Diesel
2024 Building -: Structural Fork Truck
                                                                                                              100
                                                                                                                        0.59
2024 Building - :Structural Tool Truck
2024 Building - :Structural Tractor Trailer- Steel Deliveries
                                                                       Off-highway Trucks60 Diesel
Off-highway Trucks60 Diesel
                                                                                                                                     60 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001225 0.004278 12.56801 3.34E-05 16 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000327 0.001141 3.351469 8.9E-06
                                                                                                              600
                                                                                                                        0.59
                                                                                                              600
                                                                                                                        0.59
2024 Demolitior Building D Bob Cat
                                                                       Tractors/Loaders/Bac Diesel
                                                                                                               75
                                                                                                                        0.21
                                                                                                                                  9936 2.427734 3.590307 694.7561 0.002129 0.303223 0.294126 0.425008 0.418793 0.619342 119.8481 0.000367
2024 Demolitior Building D Dump Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                                        0.59
                                                                                                                                  9936 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.202807 0.708489 2081.262 0.005526
                                                                                                              600
2024 Demolition Building Di Excavator with Bucket
                                                                       Excavators175
                                                                                                              175
                                                                                                                        0.59
                                                                                                                                  4968 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.047861 0.158618 303.5186 0.000807
                                                                                           Diesel
2024 Demolitior Building D Generator Sets
                                                                       Other Construction Ec Diesel
                                                                                                                                   4968 0.319365 2.565449 595.8652 0.001583 0.029353 0.028472 0.098284 0.030082 0.241646 56.12606 0.000149
                                                                                                                        0.43
2024 Demolition Building Di Pickup Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                  5796 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.118304 0.413285 1214.07 0.003224
 2024 Access Ro: Asphalt Pl: Asphalt Paver
                                                                                                              175
                                                                                                                                   .998 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 4.03E-05 0.000102 0.122058 3.32E-07
                                                                       Off-highway Trucks60 Diesel
                                                                                                                                 195948 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000147 0.000513 1.507312
2024 Access RoaAsphalt PlaDump Truck
                                                                                                             600
                                                                                                                        0.59 7
                                                                                                                                                                                                                                                       4E-06
                                                                                                                                 3.996 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 8.55E-05 0.000269 0.177897 4.95E-07 1.998 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 4.08E-05 0.000142 0.418515 1.11E-06
2024 Access Roa Asphalt Pla Other General Equipment
                                                                       Other Construction Ec Diesel
                                                                                                              175
                                                                                                                        0.43
2024 Access Roa Asphalt Pla Pickup Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59

    1.998
    0.417356
    1.187531
    596.0587
    0.001624
    0.064693
    0.062752
    0.034547
    5.42E-05
    0.000154
    0.077454

    1.998
    3.281564
    4.101785
    694.13
    0.02185
    0.457728
    0.443996
    0.633997
    0.000114
    0.000142
    0.024078

2024 Access Roa Asphalt Pla Roller
                                                                       Rollers 100
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                                                                                                                                     2 11F-07
                                                                       Skid Steer Loaders75 Diesel
                                                                                                               75
2024 Access RoaAsphalt PlaSkid Steer Loader
                                                                                                                        0.21
                                                                                                                                                                                                                                                     7.58E-08
                                                                                                                               2.55744 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 6.22E-05 0.000157 0.024747
2024 Access RoaAsphalt PlaSurfacing Equipment (Grooving)
                                                                       Other Construction Ec Diesel
                                                                                                               25
                                                                                                                        0.59
                                                                                                                                                                                                                                                      9.1E-08
                                                                                                               11
                                                                                                                                    7.2 2.473256 4.183481 593.756 0.002183 0.240901 0.233674 0.83744 0.000151 0.000256 0.036286
2024 Access Roa Clearing at Chain Saw
                                                                       Other Construction Ec Diesel
                                                                                                                         0.7
2024 Access Roz Clearing at Chipper/Stump Grinder
                                                                       Other Construction Ec Diesel
                                                                                                              100
                                                                                                                        0.43
                                                                                                                                    7.2 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.000224 0.000502 0.203396 5.66E-07
                                                                                                                                 9.6 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.011335 0.000196 0.000685 2.010881 5.34E-06 5.328 0.654952 1.47016 595.9832 0.00166 0.098026 0.095085 0.060399 0.000165 0.000371 0.150513 4.19E-07
 2024 Access Roa Clearing at Pickup Truck
                                                                       Off-highway Trucks60 Diesel
2024 Access Roa Concrete F Air Compressor
                                                                       Other Construction Ec Diesel
                                                                                                              100
                                                                                                                        0.43
                                                                                                               40
                                                                                                                                  5.328 0.319365 2.565449 595.8652 0.001583 0.029353 0.028472 0.098284 4.43E-05 0.000356 0.082591
2024 Access Roa Concrete F Concrete Saws
                                                                       Other Construction Ec Diesel
2024 Access Roa Concrete F Concrete Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                  22.2 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000453 0.001583 4.650163 1.23E-05
2024 Access Roa Concrete F Other General Equipment
                                                                       Other Construction Ec Diesel
                                                                                                                                 10.656 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000228 0.000717 0.474392 1.32E-06
                                                                                                              175
                                                                                                                        0.43
                                                                                                                                 15.984 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000326 0.00114 3.348117 8.89E-06
2024 Access Roa Concrete F Pickup Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
2024 Access Roa Concrete F Rubber Tired Loader
                                                                       Tractors/Loaders/Bac Diesel
                                                                                                              175
                                                                                                                        0.59
                                                                                                                                  5.328 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.000662 0.001181 0.379426 1.15E-06
                                                                       Pavers175
                                                                                                              175
                                                                                                                                  5.328 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.000107 0.000271 0.325488
2024 Access Roa Concrete FSlip Form Paver
                                                                                                                        0.59
                                                                                                                                                                                                                                                     8.86E-07
                                                                                                                                 5.328 1.495637 3.763971 595.1489 0.002188 0.171506 0.16636 0.352256 0.00013 0.000326 0.051557 48 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00098 0.003423 10.05441
2024 Access Roa Concrete F Surfacing Equipment (Grooving)
                                                                       Other Construction Ec Diesel
                                                                                                               25
                                                                                                                        0.59
                                                                                                                                                                                                                                                      1.9F-07
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
2024 Access RoaCurbing Concrete Truck
                                                                                                                        0.59
2024 Access Roy Curbing Curb/Gutter Paver
                                                                       Pavers175
                                                                                            Diesel
                                                                                                              175
                                                                                                                        0.59
                                                                                                                                     48 0.177152 0.447389 536.7527 0.001462 0.045103 0.04375 0.027391 0.000968 0.002444 2.932325 7.99F-06
2024 Access Roa Curbing
                          Other General Equipment
                                                                       Other Construction Ec Diesel
                                                                                                              175
                                                                                                                                     48 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001028 0.003232 2.1369
                                                                                                                        0.43
                                                                                                                                                                                                                                                      5.94E-06
2024 Access Roa Curbing Pickup Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                     48 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00098 0.003423 10.05441 2.67E-05
                                                                                                                                 38.72 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000561 0.001576 2.36551 6.36E-06 38.72 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00079 0.002761 8.110554 2.15E-05
                                                                       Crawler Tractor/Doze Diesel
 2024 Access Roa Drainage
                                                                                                              175
2024 Access Roz Drainage - Dump Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                             600
                                                                                                                        0.59
2024 Access Roa Drainage - Excavator
                                                                                                              175
                                                                                                                                 38.72 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 0.000373 0.001236 2.365588 6.29E-06 38.72 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.004808 0.008579 2.757387 8.33E-06
                                                                       Excavators175
                                                                                                                        0.59
                                                                       Tractors/Loaders/Bac Diesel
                                                                                                              175
2024 Access Roz Drainage - Loader
                                                                                                                        0.59
2024 Access Roa Drainage - Other General Equipment
                                                                       Other Construction Ec Diesel
                                                                                                              175
                                                                                                                        0.43
                                                                                                                                  Off-highway Trucks60 Diesel
                                                                                                                                  38.72 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.00079 0.002761 8.110554 2.15E-05
2024 Access Roa Drainage - Pickup Truck
                                                                                                              600
                                                                                                                        0.59
2024 Access Roa Drainage - Roller
                                                                       Rollers100
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                  38.72 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.001051 0.00299 1.501008 4.09F-06
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                                 .51111 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000439 0.001534 4.505864
2024 Access Roa Drainage - Dump Truck
2024 Access Roz Drainage - Loader
                                                                       Tractors/Loaders/Bac Diesel
                                                                                                             175
                                                                                                                        0.59 21.51111 1.090944 1.946746 625.6994 0.001889 0.241644 0.234395 0.290885 0.002671 0.004766 1.531882 4.63F-06
 2024 Access Roa Drainage - Other General Equipment
                                                                       Other Construction Ec Diesel
                                                                                                                        0.43 21.51111 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000461 0.001448 0.957648
2024 Access Roz Drainage - Pickup Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                             600
                                                                                                                        0.59 21.51111 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000439 0.001534 4.505864
                                                                                                                                                                                                                                                      1.2E-05
                                                                                                                        0.21 21.51111 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.001323 0.001318 0.345992 1.05E-06 0.59 2880 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.058785 0.205359 603.2644 0.001602
                                                                       Tractors/Loaders/Bac Diesel
                                                                                                              100
2024 Access Roa Drainage - Tractors/Loader/Backhoe
2024 Access Roa Dust Contr Water Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                                  8.88 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 0.000129 0.000361 0.542503 1.46E-06 8.88 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000181 0.000633 1.860065 4.94E-06 8.88 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000181 0.000633 1.860065 4.94E-06
2024 Access Roa Excavation Dozer
                                                                       Crawler Tractor/Doze Diesel
                                                                                                              175
                                                                                                                        0.59
2024 Access Roz Excavation Dump Truck (12 cy)
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
2024 Access Roz Excavation Pickup Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                Rollers100
2024 Access RoaExcavation Roller
                                                                                                              100
                                                                                                                        0.59 4
                                                                                            Diesel
                                                                                                                                  6.66 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 9.65E-05 0.000271 0.406877 1.09E-06 17.76 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000363 0.001266 3.72013 9.88E-06
2024 Access Ro: Excavation Dozen
                                                                       Crawler Tractor/Doze Diesel
                                                                                                              175
                                                                                                                        0.59
2024 Access Roa Excavation Dump Truck (12 cy)
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                                  5.328 0.084645 0.280526 536.7934 0.001427 0.020501 0.019886 0.013129 5.13E-05 0.00017 0.325513 8.65E-07
2024 Access Rox Excavation Excavator
                                                                       Excavators175
                                                                                            Diesel
                                                                                                              175
                                                                                                                        0.59
                                                                                                                                  5.328 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000109 0.00038 1.116039
2024 Access Roa Excavation Pickup Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
2024 Access Roa Excavation Roller
                                                                       Rollers100
                                                                                            Diesel
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                  5.328 0.417356 1.187531 596.0587 0.001624 0.064693 0.062752 0.034547 0.000145 0.000411 0.206544
                                                                                                                                                                                                                                                    5.63E-07
2024 Access RoaExcavationScraper
                                                                                                                                   6.66 0.231824 0.588102 536.729 0.001489 0.040091 0.038888 0.034682 0.000602 0.001528 1.394887
                                                                       Scrapers600
                                                                       Crawler Tractor/Doze Diesel
                                                                                                                        2024 Access Roa Excavation Dozer
                                                                                                              175
2024 Access Roa Fencing Concrete Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                                        0.59 13.3333 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000272 0.000951 2.792891 7.42E-06 0.59 53.33333 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001089 0.003803 11.17156 2.97E-05
                                                                                                              600
                                                                       Off-highway Trucks60 Diesel
2024 Access Roa Fencing
                          Dump Truck
                                                                                                              600
2024 Access Roz Fencing
                          Other General Equipment
                                                                       Other Construction Ec Diesel
                                                                                                              175
                                                                                                                        0.43 53.3333 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.001142 0.003591 2.374333
                                                                                                                                                                                                                                                      6 6F-06
                                                                       Off-highway Trucks60 Diesel
                                                                                                                        0.59 53.33333 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001089 0.003803 11.17156 2.97E-05
2024 Access Roa Fencing
                                                                                                              600
                           Pickup Truck
2024 Access Roz Fencing
                                                                                                                        0.21 53.3333 3.281564 4.101785 694.13 0.002185 0.457728 0.443996 0.633997 0.00303 0.003798 0.642727 2.02E-06 0.21 53.3333 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.003279 0.003267 0.857831 2.59E-06
                           Skid Steer Loader
                                                                       Skid Steer Loaders 75 Diesel
                                                                                                               75
                                                                       Tractors/Loaders/Bad Diesel
2024 Access Roa Fencing
                                                                                                              100
                           Tractors/Loader/Backhoe
2024 Access RoaGrading Dozer
                                                                       Crawler Tractor/Doze Diesel
                                                                                                              175
                                                                                                                                2.9548 0.127318 0.357586 536.7756 0.001443 0.032211 0.031245 0.019137 4.28E-05 0.00012 0.180517 4.85E-07
                                                                                                                        0.59
                                                                                                                                2.9548 0.070474 0.225529 536,7797 0.001435 0.016427 0.015934 0.017337 4.06E-05 0.00013 0.30946 8.27E-07 2.9548 0.477356 1.187531 596.0587 0.001624 0.064693 0.06275 0.034547 8.02E-05 0.000228 0.114545 3.12E-07
2024 Access Roa Grading
                                                                       Graders300
                                                                                                              300
2024 Access Roa Grading Roller
                                                                       Rollers100
                                                                                            Diesel
                                                                                                              100
                                                                                                                        0.59
                                                                                                                                 2.662 0.674104 1.451475 536.5624 0.00162 0.106831 0.103626 0.092216 0.0007 0.001508 0.557363 
2.662 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 5.43E-05 0.00019 0.557601
                                                                       Other Construction Ec Diesel
                                                                                                              600
2024 Access Roa Hydroseec Hydroseeder
2024 Access Roz Hydroseec Off-Road Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                                                                                                                                     1.48E-06
                                                                                                                        0.59 32.91429 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000672 0.002347 6.89445 1.83E-05 0.43 32.91429 0.258085 0.811691 536.6978 0.001493 0.062621 0.060743 0.046238 0.000705 0.002216 1.465303 4.08E-06
2024 Access Roa Markings Flatbed Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
2024 Access Roa Markings Other General Equipment
                                                                       Other Construction Ec Diesel
                                                                                                              175
2024 Access RoaMarkings Pickup Truck
2024 Access RoaSidewalks Concrete Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59 32.91429 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.000672 0.002347 6.89445 1.83E-05
                                                                                                                                     96 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001959 0.006845 20.10881
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                                                                                                                                      5.34E-05
2024 Access Ro: Sidewalks Dump Truck
                                                                       Off-highway Trucks60 Diesel
                                                                                                              600
                                                                                                                        0.59
                                                                                                                                     96 0.052307 0.182731 536.7912 0.001425 0.011908 0.01155 0.013356 0.001959 0.006845 20.10881 5.34F-05
                                                                                                                                     Off-highway Trucks60 Diesel
2024 Access Roz Sidewalks Tractors/Loader/Backhoe
                                                                       Tractors/Loaders/Bad Diesel
                                                                                                             100
                                                                                                                                     96 2.656022 2.64619 694.8278 0.0021 0.350932 0.340404 0.402188 0.005902 0.005881 1.544096 4.67E-06
                                                                                                                        0.21
```

	2024 Access RozSidewalks Vibratory Compactor	Plate Compactors6 Diesel	6	0.43	96 2.543503	4.195136	588.0165	0.002162	0.257447	0.249724	0.820403	0.000694	0.001145	0.160541	5.9E-07
	2024 Access RozSoil Erosio Other General Equipment	Other Construction Ec Diesel	175	0.43	2.4 0.258085										
	2024 Access RozSoil Erosio Pickup Truck 2024 Access RozSoil Erosio Pumps	Off-highway Trucks60 Diesel Other Construction Ec Diesel	600 11	0.59 0.43	4.8 0.052307 2.4 2.473256										
	2024 Access RozSoil Erosio Tractors/Loader/Backhoe	Tractors/Loaders/Bac Diesel	100	0.21	2.4 2.656022				0.350932						
	2024 Access RozStreet Ligh Dump Truck	Off-highway Trucks60 Diesel	600	0.59	32 0.052307										
	2024 Access RozStreet Ligh Loader	Tractors/Loaders/Bac Diesel	175	0.59	32 1.090944 32 0.258085										
	2024 Access RozStreet Ligh Other General Equipment 2024 Access RozStreet Ligh Pickup Truck	Other Construction Ec Diesel Off-highway Trucks60 Diesel	175 600	0.43	32 0.258085									1.4246	
	2024 Access RozStreet Ligh Skid Steer Loader	Skid Steer Loaders75 Diesel	75	0.21	32 3.281564				0.457728						
	2024 Access RozStreet Ligh Tractors/Loader/Backhoe	Tractors/Loaders/Bac Diesel	100	0.21	32 2.656022				0.350932						
	2024 Access RozSubbase Pl Dozer	Crawler Tractor/Doze Diesel	175 600	0.59	3.365053 0.127318 23.68 0.052307										
	2024 Access RozSubbase P Dump Truck (12 cy) 2024 Access RozSubbase P Pickup Truck	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600		3.365053 0.052307										
2	2024 Access RozSubbase P Roller	Rollers100 Diesel	100		3.278769 0.417356										
	2024 Access RoaTopsoil Pla Dozer	Crawler Tractor/Doze Diesel	175		6.566667 0.127318										
	2024 Access RoaTopsoil Pla Dump Truck 2024 Access RoaTopsoil Pla Pickup Truck	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600 600		6.566667 0.052307 6.566667 0.052307									1.375499	
	2024 Access RoaTree Plant Flatbed Truck	Off-highway Trucks60 Diesel	600	0.59	33120 0.052307										
	2024 Access RoaTree Plant Other General Equipment	Other Construction Ec Diesel	175	0.43	33120 0.258085										
	2024 Access RozTree Plant Pickup Truck	Off-highway Trucks60 Diesel	600	0.59	33120 0.052307										
	2024 Access RoaTree Plant Tractors/Loader/Backhoe 2024 Building - :Concrete F Backhoe	Tractors/Loaders/Bac Diesel Tractors/Loaders/Bac Diesel	100 100	0.21	33120 2.656022 320 2.656022		694.8278		0.350932 0.350932						
	2024 Building - :Concrete F Concrete Ready Mix Trucks	Off-highway Trucks60 Diesel	600	0.59	60 0.052307									12.56801	
	2024 Building - :Concrete F Fork Truck	Other Construction Ec Diesel	100	0.59	320 0.654952										
	2024 Building - :Concrete FTool Truck	Off-highway Trucks60 Diesel	600	0.59	80 0.052307										
	2024 Building - :Concrete FTractor Trailer- Material Delivery 2024 Building - :Constructi Survey Crew Trucks	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600 600	0.59 0.59	16 0.052307 10 0.052307										
	2024 Building - :Constructi Tractor Trailers Temp Fac.	Off-highway Trucks60 Diesel	600	0.59	4 0.052307										
3	2024 Building - :Exterior W Fork Truck	Other Construction Ec Diesel	100	0.59	240 0.654952										
	2024 Building - Exterior W Man Lift	Rough Terrain Forklift Diesel	75 600	0.21	240 0.559297		595.8792								
	2024 Building - :Exterior W Tool Truck 2024 Building - :Exterior W Tractor Trailer- Material Delivery	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600	0.59	60 0.052307 24 0.052307										
	2024 Building - Interior Bu Fork Truck	Other Construction Ec Diesel	100	0.59	960 0.654952	1.47016	595.9832	0.00166	0.098026	0.095085	0.060399	0.040892	0.09179	37.21035	0.000104
	2024 Building - :Interior Bu Man Lift	Rough Terrain Forklift Diesel	75	0.21	960 0.559297		595.8792								
	2024 Building - Interior BuTool Truck 2024 Building - Interior BuTractor Trailer- Material Delivery	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600 600	0.59 0.59	120 0.052307 120 0.052307									25.13602 25.13602	
	2024 Building - : Roofing High Lift	Rough Terrain Forklift Diesel	100	0.59	120 0.529425										
	2024 Building - :Roofing Man Lift (Fascia Construction)	Rough Terrain Forklift Diesel	75	0.21	120 0.559297										
	2024 Building - (Roofing Material Deliveries	Off-highway Trucks60 Diesel	600	0.59	8 0.052307										
	2024 Building - : Roofing Tractor Trailer- Material Delivery	Off-highway Trucks60 Diesel Rough Terrain Forklift Diesel	600 100	0.59 0.59	12 0.052307 320 0.529425										
	2024 Building - :Security & High Lift 2024 Building - :Security & Tool Truck	Off-highway Trucks60 Diesel	600	0.59	80 0.052307									16.75734	
	2024 Building - :Structural 40 Ton Crane	Cranes300 Diesel	300	0.43	240 0.098349										
	2024 Building - :Structural Fork Truck	Other Construction Ec Diesel	100	0.59	120 0.654952										
	2024 Building - :Structural Tool Truck 2024 Building - :Structural Tractor Trailer- Steel Deliveries	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600 600	0.59 0.59	60 0.052307 16 0.052307							0.001225		12.56801	
	2024 Building - : Structural Tractor Trailer - Steel Deliveries 2024 Building - : Concrete FBackhoe	Tractors/Loaders/Bac Diesel	100	0.33	320 2.656022				0.350932						
	2024 Building - :Concrete F Concrete Ready Mix Trucks	Off-highway Trucks60 Diesel	600	0.59	60 0.052307									12.56801	
	2024 Building - Concrete F Fork Truck	Other Construction Ec Diesel	100	0.59	320 0.654952										
	2024 Building - :Concrete FTool Truck 2024 Building - :Concrete FTractor Trailer- Material Delivery	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600 600	0.59 0.59	80 0.052307 16 0.052307										
	2024 Building - :Constructi Survey Crew Trucks	Off-highway Trucks60 Diesel	600	0.59	10 0.052307										
	2024 Building - :Constructi Tractor Trailers Temp Fac.	Off-highway Trucks60 Diesel	600	0.59	4 0.052307									0.837867	
	2024 Building - Exterior W Fork Truck	Other Construction Ec Diesel	100 75	0.59 0.21	240 0.654952 240 0.559297		595.9832 595.8792								
	2024 Building - :Exterior W Man Lift 2024 Building - :Exterior W Tool Truck	Rough Terrain Forklift Diesel Off-highway Trucks60 Diesel	600	0.59	60 0.052307									12.56801	
	2024 Building - :Exterior W Tractor Trailer- Material Delivery	Off-highway Trucks60 Diesel	600	0.59	24 0.052307										
	2024 Building - Interior Bu Fork Truck	Other Construction Ec Diesel	100	0.59	960 0.654952										
	2024 Building - Interior BuMan Lift 2024 Building - Interior BuTool Truck	Rough Terrain Forklift Diesel Off-highway Trucks60 Diesel	75 600	0.21	960 0.559297 120 0.052307		595.8792 536.7912								
	2024 Building - Interior Bu Tractor Trailer- Material Delivery	Off-highway Trucks60 Diesel	600	0.59	120 0.052307									25.13602	
	2024 Building - :Roofing High Lift	Rough Terrain Forklift Diesel	100	0.59	120 0.529425	1.320666	596.0214	0.001641	0.079303	0.076924	0.047138	0.004132	0.010307	4.651592	1.28E-05
	2024 Building - (Roofing Man Lift (Fascia Construction)	Rough Terrain Forklift Diesel	75 600	0.21	120 0.559297 8 0.052307										
	2024 Building - :Roofing Material Deliveries 2024 Building - :Roofing Tractor Trailer- Material Delivery	Off-highway Trucks60 Diesel Off-highway Trucks60 Diesel	600	0.59	12 0.052307										
	2024 Building - :Security & High Lift	Rough Terrain Forklift Diesel	100	0.59	320 0.529425										
	2024 Building - :Security & Tool Truck	Off-highway Trucks60 Diesel	600	0.59	80 0.052307										
	2024 Building - :Structural 40 Ton Crane 2024 Building - :Structural Fork Truck	Cranes300 Diesel Other Construction Ec Diesel	300 100	0.43	240 0.098349 120 0.654952										
	2024 Building - Structural Tool Truck	Off-highway Trucks60 Diesel	600	0.59	60 0.052307										
	2024 Building - :Structural Tractor Trailer- Steel Deliveries	Off-highway Trucks60 Diesel	600	0.59	16 0.052307							0.000327			
	2024 Site Work Constructi Survey Crew Trucks	Off-highway Trucks60 Diesel	600	0.59	10 0.052307										
	2024 Site Work Constructi Tractor Trailers Temp Fac. 2024 Site Work Site Clearii Bulldozer	Off-highway Trucks60 Diesel Crawler Tractor/Doze Diesel	600 175	0.59 0.59	4 0.052307 40 0.127318										
	2024 Site Work Site Clearii Chain Saws	Other Construction Ec Diesel	11	0.7	40 2.473256										
	2024 Site Work Site Cleari Flat Bed or Dump Trucks	Off-highway Trucks60 Diesel	600	0.59	80 0.052307										
	2024 Site Work Site Cleari Front Loader	Tractors/Loaders/Bac Diesel	100	0.21	40 2.656022										
	2024 Site Work Site Clearii Grub the site down 2'-0 2024 Site Work Site Clearii Log Chipper	Other Construction Ec Diesel Other Construction Ec Diesel	40 100	0.59	40 0.319365 40 0.654952										
	2024 Site Work Site Cleari Mulcher	Other Construction Ec Diesel	100	0.43	40 0.654952										
	2024 Site Work Site Cleari Ten Wheelers	Off-highway Trucks60 Diesel	600	0.59	40 0.052307										
	2024 Site Work Site Cleari Tractor	Tractors/Loaders/Bac Diesel	100	0.21	80 2.656022										
	2024 Site Work Site RestorBob Cat 2024 Site Work Site RestorConcrete Ready Mix Trucks	Tractors/Loaders/Bac Diesel Off-highway Trucks60 Diesel	75 600	0.21	24 2.427734 24 0.052307										
5	2024 Site Work Site RestorTractor Trailer with Boom Hoist- Delivery	Off-highway Trucks60 Diesel	600	0.59	24 0.052307	0.182731	536.7912	0.001425	0.011908	0.01155	0.013356	0.00049	0.001711	5.027203	1.33E-05
	2024 Site Work Site RestorCompacting Equipment	Plate Compactors6 Diesel	6	0.43	24 2.543503										
	2024 Site Work Site Restor Small Dozer	Other Construction Fr Discal	175	0.59	24 0.127318										
	2024 Site Work Site Restor Forktruck (Hoist) 2024 Site Work Site Restor Roller	Other Construction Ec Diesel Rollers100 Diesel	100 100	0.59	80 0.654952 40 0.417356										
	2024 Site Work Site RestorSeed Truck Spreader	Off-highway Trucks60 Diesel	600	0.59	16 0.052307										
5	2024 Site Work Site RestorTractor Trailer- Material Delivery	Off-highway Trucks60 Diesel	600	0.59	80 0.052307										
	2024 Site Work Undergrot Backhoe 2024 Site Work Undergrot Fork Truck	Tractors/Loaders/Bac Diesel Other Construction Ec Diesel	100 100	0.21	120 2.656022 60 0.654952				0.350932						
5		outer Construction Et Diesel	100	0.59	ou 0.654952			0.00106	U.U98U26	0.095085	U.U0U399	0.002556	U.UU5/3/	2.32564/	
5 :		Off-highway Trucks60 Diesel	600	0.59	30 0.052307	0.182731	536.7912	0.001425	0.011908	0.01155	0.013356	0.000612	0.002139	6.284004	1.67F-05
5 :	2024 Site Work Undergrou Tractor Trailer- Material Delivery	Off-highway Trucks60 Diesel	600	0.59	30 0.052307	0.182731	536.7912	0.001425	0.011908	0.01155	0.013356 Totals			6.284004 <b>27254.13</b>	

Scenario IEYear	Project	Equipmen Equipment Category	On-road Activity	Lookup Fuel	Roadway 1Round	Trip Distanc	e fcNum	ber of Number of Num	ber ofProj	ect Lei Proje	ct Wi Project Ar	Building H	Open Space	Number o	Activity Ra
1	2024 Taxiways	Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	5	1	258	3300	30				
1	2024 Taxiways	Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	5	2	258	3300	30				
1	2024 Taxiways	Dump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	5	1	258	3300	30				
1	2024 Taxiways	Dump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	5	1	258	3300	30				
1	2024 Taxiways	Passenger Passenger Car	Employee Commute	GasolineU Gasoline	Urban Unr	30		497.2 497.2	258						
2	2024 Terminal	AAsphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	5	1	258	716	400				
2	2024 Terminal	ACement M Single Unit Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	5	4	258	716	400				
2	2024 Terminal	ADump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1	258	716	400				

-	2024 T	Market J. D. P	Discouling to Discoul	Ordere Dies	40	5	2		250	746	400				
2	2024 Terminal & Dump Truc Single Unit Short-haul Truck 2024 Terminal & Passenger Passenger Car	Material Delivery Employee Commute	DieselUrb: Diesel	Urban Unr Urban Unr	40 30	5	2 76	76	258 258	716	400				
		Material Delivery	DieselUrb; Diesel	Urban Unr		5	1	76	258	400	776				
3	2024 Terminal A Asphalt 18 Combination Short-haul Truck 2024 Terminal A Cement M Single Unit Short-haul Truck	,			40	5	4		258	400	776			-	
-		Material Delivery	DieselUrb: Diesel	Urban Unr	40	5								-	
3	2024 Terminal & Dump Truc Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1 2		258	400	776 776			-	
3	2024 Terminal & Dump Truc Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5			258	400	//6			-	
3	2024 Terminal A Passenger Passenger Car	Employee Commute		Urban Unr	30	_	374	374	258						
4	2024 Taxiway Ex Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		258	2440	44				
4	2024 Taxiway E) Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	2		258	2440	44				
4	2024 Taxiway E) Dump Tru (Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		258	2440	44				
4	2024 Taxiway E) Dump Tru (Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		258	2440	44				
4	2024 Taxiway E) Passenger Passenger Car	Employee Commute		Urban Unr	30		125.4	125.4	258						
5	2024 Building - : Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		258			10000			
5	2024 Building - ∶Dump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		258			10000			
5	2024 Building - : Passenger Passenger Car	Employee Commute		Urban Unr	30		1936	1936	258						
5	2024 Building - : Tractor Tra Combination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		258			10000			0.0016
6	2024 Building - : Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		193			10000			
6	2024 Building - : Dump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		193			10000			
6	2024 Building - : Passenger Passenger Car	Employee Commute	GasolineU Gasoline	Urban Unr	30		2079	2079	193						
6	2024 Building - : Tractor Tra Combination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		193			10000			0.0016
1	2024 Demolitio: Dump Tru: Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	5	1		193		4	14000	35	35	
1	2024 Demolitioi Passenger Passenger Car	Employee Commute	GasolineU Gasoline	Urban Unr	30		110	110	193						
2	2024 Access Ro: Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	5	1		258	1200	12				
-	2024 Access Not Aspiralt 18 Combination Short-hadrituck	iviateriai belivery	Dieseror by Dieser	Orban Om	40		1		238		12				
2	2024 Access Ro: Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrba Diesel	Urban Unr	40	5	1		258	1200	12				
						5	-		258 258				-	-	
2	2024 Access Ro: Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrba Diesel	Urban Unr	40		1		258 258 258	1200	12		 	-	  
2	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Tru: Single Unit Short-haul Truck	Material Delivery Material Delivery	DieselUrb; Diesel DieselUrb; Diesel DieselUrb; Diesel	Urban Unr Urban Unr	40 40	5	1	86	258 258	1200 1200	12 - 12 -		  	- - -	  
2 2 2	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Truc Single Unit Short-haul Truck 2024 Access Ro: Dump Truc Single Unit Short-haul Truck	Material Delivery Material Delivery Material Delivery	DieselUrb; Diesel DieselUrb; Diesel DieselUrb; Diesel	Urban Unr Urban Unr Urban Unr	40 40 40	5	1 1 1	86	258 258 258	1200 1200 1200	12 12 12 		- - - -	- - - -	   
2 2 2 2	2024 Access Ro: Cement MSingle Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car	Material Delivery Material Delivery Material Delivery Employee Commute	DieselUrba Diesel DieselUrba Diesel DieselUrba Diesel GasolineU Gasoline	Urban Unr Urban Unr Urban Unr Urban Unr	40 40 40 30	5	1 1 1 86	86	258 258 258 258	1200 1200 1200 	12 - 12 - 12 - -	-	   	- - - -	   
2 2 2 2 3	2024 Access Ro: Cement MSingle Unit Short-haul Truck 2024 Access Ro: Dump Trur Single Unit Short-haul Truck 2024 Access Ro: Dump Trur Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building - Cement MSingle Unit Short-haul Truck	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery	DieselUrb; Diesel DieselUrb; Diesel DieselUrb; Diesel GasolineU Gasoline DieselUrb; Diesel DieselUrb; Diesel	Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr	40 40 40 30	5 5	1 1 1 86 1	86 264	258 258 258 258 193	1200 1200 1200  	12 - 12 - 12 - -	  10000	    	   	   
2 2 2 2 3 3	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Trus Single Unit Short-haul Truck 2024 Access Ro: Dump Trus Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus Single Unit Short-haul Truck	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery	DieselUrb; Diesel DieselUrb; Diesel DieselUrb; Diesel GasolineU Gasoline DieselUrb; Diesel DieselUrb; Diesel	Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr	40 40 40 30 40 40	5 5	1 1 1 86 1 1		258 258 258 193 193	1200 1200 1200  	12 - 12 - 12 - -	  10000	- - - - -	    	      0.0016
2 2 2 2 3 3 3	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building - : Cement M Single Unit Short-haul Truck 2024 Building - : Dump Trus/Single Unit Short-haul Truck 2024 Building - : Passenger Car	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Employee Commute	DieselUrb; Diesel DieselUrb; Diesel DieselUrb; Diesel GasolineU Gasoline DieselUrb; Diesel DieselUrb; Diesel GasolineU Gasoline	Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr	40 40 40 30 40 40 30	5 5 5	1 1 1 86 1 1 264		258 258 258 193 193 193	1200 1200 1200   	12 - 12 - 12 - -	10000	    	- - - - - - -	     0.0016
2 2 2 2 3 3 3 3	2024 Access Ro: Cement MSingle Unit Short-haul Truck 2024 Access Ro: Dump Trur Single Unit Short-haul Truck 2024 Access Ro: Dump Trur Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trur Single Unit Short-haul Truck 2024 Building -: Passenger Passenger Car 2024 Building -: Tractor Tr: Combination Short-haul Truck	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Employee Commute Material Delivery	DieselUrb; Diesel DieselUrb; Diesel DieselUrb; Diesel GasolineU Gasoline DieselUrb; Diesel DieselUrb; Diesel GasolineU Gasoline DieselUrb; Diesel	Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr	40 40 30 40 40 30 40	5 5 5 5	1 1 1 86 1 1 264 1		258 258 258 193 193 193 193	1200 1200 1200    	12 12 12 	10000	     	-	     0.0016
2 2 2 2 3 3 3 3 4	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Trus'single Unit Short-haul Truck 2024 Access Ro: Dump Trus'single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus'single Unit Short-haul Truck 2024 Building -: Passenger Passenger Car 2024 Building -: Tractor Tr: Combination Short-haul Truck 2024 Building -: Crement M Single Unit Short-haul Truck 2024 Building -: Cement M Single Unit Short-haul Truck	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Employee Commute Material Delivery Material Delivery Material Delivery	DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel	Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr Urban Unr	40 40 40 30 40 40 30 40 40	5 5 5 5 5	1 1 1 86 1 1 264 1 1		258 258 258 193 193 193 193 129	1200 1200 1200    	12 12 12 	10000 10000 10000 10000	      		     0.0016
2 2 2 3 3 3 3 4 4	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building - : Cement M Single Unit Short-haul Truck 2024 Building - : Dump Trus/Single Unit Short-haul Truck 2024 Building - : Passenger Passenger Car 2024 Building - : Tractor Trt Combination Short-haul Truck 2024 Building - : Cement M Single Unit Short-haul Truck 2024 Building - : Cement M Single Unit Short-haul Truck 2024 Building - : Dump Trus/Single Unit Short-haul Truck	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Material Delivery Material Delivery Material Delivery	DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel	Urban Unr	40 40 40 30 40 40 30 40 40 40	5 5 5 5 5	1 1 86 1 1 264 1 1	264	258 258 258 193 193 193 193 129 129	1200 1200 1200     	12 - 12 - 12 - -	10000 10000 10000 10000 10000	      		0.0016
2 2 2 3 3 3 4 4 4	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus/Single Unit Short-haul Truck 2024 Building -: Passenger Passenger Car 2024 Building -: Tractor Tric Combination Short-haul Truck 2024 Building -: Tractor Tric Combination Short-haul Truck 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus/Single Unit Short-haul Truck 2024 Building -: Sement M Single Unit Short-haul Truck 2024 Building -: Passenger Passenger Car	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Material Delivery Material Delivery Employee Commute	DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline	Urban Unr	40 40 40 30 40 40 30 40 40 40 30	5 5 5 5 5 5	1 1 1 86 1 1 264 1 1 198	264	258 258 258 193 193 193 193 129 129 129	1200 1200 1200      	12 - 12 - 12 - -	10000 10000 10000 10000 10000			
2 2 2 2 3 3 3 4 4 4	2024 Access Roi Cement M Single Unit Short-haul Truck 2024 Access Roi Dump Trut Single Unit Short-haul Truck 2024 Access Roi Dump Trut Single Unit Short-haul Truck 2024 Access Roi Passenger Passenger Car 2024 Building - Cement M Single Unit Short-haul Truck 2024 Building - Dump Trut Single Unit Short-haul Truck 2024 Building - Passenger Passenger Car 2024 Building - Tractor Tri Combination Short-haul Truck 2024 Building - Cement M Single Unit Short-haul Truck 2024 Building - Dump Trut Single Unit Short-haul Truck 2024 Building - Dump Trut Single Unit Short-haul Truck 2024 Building - Tassenger Passenger Car 2024 Building - Tractor Tri Combination Short-haul Truck	Material Delivery Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Employee Commute Material Delivery Material Delivery Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery	DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel	Urban Unr	40 40 30 40 40 30 40 40 40 30 40	5 5 5 5 5 5	1 1 86 1 1 264 1 1 198 1	264	258 258 258 193 193 193 193 129 129 129 129	1200 1200 1200       	12 12 12 	10000 10000 10000 10000 10000 10000	-	- - -	  0.0016
2 2 2 2 3 3 3 3 4 4 4 4 5	2024 Access Ro: Cement M Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Dump Trus/Single Unit Short-haul Truck 2024 Access Ro: Passenger Passenger Car 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus/Single Unit Short-haul Truck 2024 Building -: Dump Trus/Single Unit Short-haul Truck 2024 Building -: Tractor Tri Combination Short-haul Truck 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus/Single Unit Short-haul Truck 2024 Building -: Passenger Passenger Car 2024 Building -: Tractor Tri Combination Short-haul Truck 2024 Building -: Tractor Tri Combination Short-haul Truck 2024 Site Work Cement M Single Unit Short-haul Truck	Material Delivery Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Employee Commute Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Material Delivery Material Delivery Material Delivery	DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel	Urban Unr	40 40 40 30 40 40 30 40 40 40 30 40	5 5 5 5 5 5 5 5 5 5	1 1 86 1 1 264 1 1 1 1 1 198 1 1	264	258 258 258 193 193 193 129 129 129 129 129	1200 1200 1200        	12 12 12 	10000 10000 10000 10000 10000 10000 10000	-	- - -	  0.0016
2 2 2 2 3 3 3 3 4 4 4 4 5 5	2024 Access Roi Cement M Single Unit Short-haul Truck 2024 Access Roi Dump Trus Single Unit Short-haul Truck 2024 Access Roi Dump Trus Single Unit Short-haul Truck 2024 Access Roi Passenger Passenger Car 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus Single Unit Short-haul Truck 2024 Building -: Passenger Passenger Car 2024 Building -: Tractor Trac Combination Short-haul Truck 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Cement M Single Unit Short-haul Truck 2024 Building -: Dump Trus Single Unit Short-haul Truck 2024 Building -: Passenger Car 2024 Building -: Tractor Tra Combination Short-haul Truck 2024 Site Work Cement M Single Unit Short-haul Truck 2024 Site Work Cement M Single Unit Short-haul Truck	Material Delivery Material Delivery Material Delivery Employee Commute Material Delivery Material Delivery Employee Commute Material Delivery	DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel GasolineU Gasoline DieselUrb: Diesel	Urban Unr	40 40 40 30 40 40 30 40 40 40 40 40 40	5 5 5 5 5 5 5 5 5 5	1 1 86	264 198	258 258 258 193 193 193 129 129 129 129 129 129	1200 1200 1200        	12 12 12	10000 10000 10000 10000 10000 10000 10000	-	- - -	  0.0016

Fugitive Sources Units for Non-Greenhouse Gases Emission: Short Ton

1 20 1 21 1 21 1 21 1 22 2 21 2 21 2 22 2 21 2 21 2 21 2 21 3 21 3	024 Taxiways 024 Taxiways 024 Taxiways 024 Taxiways 024 Taxiways 024 Taxiways 024 Terminal 024 Terminal 024 Terminal	Asphalt Sti Material N Material N Soil Handli Unstabilize 4 Asphalt Dr 4 Asphalt Sti 4 Concrete N	12 12 12 12 12 12 12 12	0 0.23955 0 0 0 0	0 0.01495 0 0 0	0 0.002752 0 0 0	0.0164 0.02995 0.0963 0.028	0.05 0.0074 0
1 20 1 21 1 21 1 22 2 21 2 21 2 21 2 21	024 Taxiways 024 Taxiways 024 Taxiways 024 Taxiways 024 Terminal 024 Terminal 024 Terminal 024 Terminal	Material N Material N Soil Handli Unstabilize Asphalt Dr 4-Asphalt Str Concrete N	12 12 12 12 12 12	0 0 0	0 0	0 0 0	0.02995 0.0963	0
1 21 1 22 1 2 21 2 21 2 22 2 22 2 24 2 21 2 21	024 Taxiways 024 Taxiways 024 Taxiways 024 Terminal of 024 Terminal of 024 Terminal of 024 Terminal of 024 Terminal of	Material N Soil Handli Unstabilize Asphalt Dr Asphalt Ste Concrete N	12 12 12 12 12	0 0	0	0	0.0963	0
1 21 1 22 2 24 2 24 2 24 2 24 2 24 2 24	024 Taxiways 024 Taxiways 024 Terminal I 024 Terminal I 024 Terminal I 024 Terminal I	Soil Handli Unstabilizi Asphalt Dr Asphalt Sti Concrete N	12 12 12 12	0	0	0		
1 20 2 20 2 20 2 20 2 20 2 20 2 20 2 20	024 Taxiways 024 Terminal I 024 Terminal I 024 Terminal I 024 Terminal I 024 Terminal I	Unstabilize  Asphalt Dr  Asphalt Ste  Concrete N	12 12 12	0			0.028	
2 20 2 20 2 20 2 20 2 20 2 20 2 20 3 20 3	024 Terminal 024 Terminal 024 Terminal 024 Terminal 024 Terminal 024 Terminal	<sup>g</sup> Asphalt Dr <sup>g</sup> Asphalt Sti <sup>g</sup> Concrete N	12 12		0	0		0
2 20 2 20 2 20 2 20 2 20 2 20 3 20 3 20	024 Terminal a 024 Terminal a 024 Terminal a 024 Terminal a	Asphalt Stu Concrete	12	0		U	3.99E-08	0
2 20 2 21 2 21 2 21 2 21 3 20 3 20	024 Terminal a 024 Terminal a 024 Terminal a	Concrete N			0	0	0	0.05
2 20 2 20 2 20 2 20 3 20 3 20	024 Terminal a		12	0.69295	0.04325	0.00795	0.04745	0.02145
2 20 2 20 2 20 3 20 3 20	024 Terminal	Material N	12	0	0	0	0.24505	0
2 20 2 20 3 20 3 20			12	0	0	0	0.0479	0
2 20 3 20 3 20	024 Torminal	Material N	12	0	0	0	0.152	0
3 20	024 [6]]]]]]]	Soil Handli	12	0	0	0	0.08105	0
3 20	024 Terminal	Unstabilize	12	0	0	0	1.16E-07	0
	024 Terminal	Asphalt Dr	12	0	0	0	0	0.05
	024 Terminal	Asphalt St	12	0.75105	0.0469	0.00865	0.05145	0.02325
3 20	024 Terminal	•	12	0	0	0	0.2656	0
	024 Terminal		12	0	0	0	0.0479	0
	024 Terminal		12	0	0	0	0.15245	0
	024 Terminal		12	0	0	0	0.08785	0
	024 Terminal		12	0	0	0	1.25E-07	0
	024 Taxiway E		12	0	0	0	0	0.05
	024 Taxiway E	•	12	0.25975		0.002985	0.0178	0.00805
	024 Taxiway E		12	0.23373	0.0102	0.002303	0.09185	0.00000
	024 Taxiway E		12	0	0	0	0.02995	0
	024 Taxiway E		12	0	0	0	0.02555	0
	024 Taxiway E		12	0	0	0	0.0304	0
	024 Taxiway E 024 Taxiway E		12	0	0	0	4.33E-08	0
	024 Paxiway E 024 Building -		12	0	0	0	0.00855	0
	024 Building - 024 Building -		12	0	0	0	0.00833	0
	-		12	0	0	0	0.01195	0
	024 Building -		9	0	0	0	0.03555	0
	024 Building -		9	0	0	0	0.00895	0
	024 Building -		9	0	0	0	0.00695	0
	024 Building -							
	024 Access Ro	•	12	0 02405	0	0	0	0.0475
	024 Access Ro	•	12		0.002176		0.002386	
	024 Access Ro		12	0	0	0	0.0123	0
	024 Access Ro		12		-	0	0.02395	0
	024 Access Ro		12	0	0	0	0.073	0
	024 Access Ro		12	0	0		0.004076	0
	024 Access Ro		12	0	0	0	5.81E-09	0
	024 Building -		9	0	0	0	0.00855	0
	024 Building -		9	0	0	0	0.00895	0
	024 Building -		9	0	0	0	0.02645	0
	024 Building -		6	0	0	0	0.00855	0
	024 Building -		6	0	0	0	0.006	0
	024 Building -		6	0	0	0	0.01765	0
	024 Site Work		6	0	0	0	0.006	0
	024 Site Work	Material N	6	0	0	0	0.018	0
	024 Site Work		6	0	0	0	0.002831	0
5 20	024 Site Work	Unstabilize	6	0	0	0	2.02E-09	0

## 2024 Totals

Year	Emission S	co	NOx	SO2		PM10		PM2.5	VOC	CO2	CH4	N2O	CO2e
- 2	2024 NonRoad	6.495923	15.51591		0.072942339		1.189925837	1.154227	1.254158	27254.13			
	2024 OnRoad	49.45708	2.036828		0.036389226		0.05161262	0.046211	1.249178	5673.515	0.143606	0.031344	
	2024 Fugitive	1.97815	0.123476		0.022737		1.933242832		0.308729				
	2024 TOTAL	57.93115	17.67622		0.132068565		3.174781289	1.200438	2.812065	32927.65	0.143606	0.031344	32939.98

# ASSUMPTIONS

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

14 U.S. Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for:

Asphalt drying Asphalt storage and batching

Concrete mixing/batching

Soil handling Unstabilized land and wind erosion Material movement (unpaved roads)

Material movement (paved roads)

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available:

Asphalt Deliveries/Ten Wheelers Bulldozer Concrete Ready Mix Trucks Concrete Ready Trucks Mix for Cores Concrete Truck Crack Filler (Trailer Mounted) Delivery of Tanks (3) Distributing Tanker Dozer Dump Truck

Dump Truck (12 cy)

ns (TPY)

```
PM10 (tpy PM2.5 (tp) VOC Exhaust (tpy)
7.05E-05 6.84E-05 4.28E-05
0.00023 0.000223 0.000258
0.000143 0.000138 0.000105
 6.38E-05 6.19E-05 7.16E-05
 5.78E-05 5.61E-05 3.09E-05
0.000109 0.000106 0.000151
  4.9E-05 4.76E-05 0.000101
 7.36E-05 7.14E-05 0.000256
0.000167 0.000162 0.000103
0.000223 0.000216 0.00025
0.000223 0.000210 0.00023
0.000388 0.000377 0.000231
0.000492 0.000477 0.000552
0.000247 0.00024 0.000158
0.002913 0.002826 0.003507
 0.00055 0.000534 0.000406
0.000492 0.000477 0.000552
0.000446 0.000432 0.000238
0.000273 0.000265 0.000307
0.001618 0.00157 0.001948
0.000306 0.000296 0.000226
0.000273 0.000265 0.000307
0.000478 0.000464 0.000548
0.013382 0.012981 0.01501
0.000224 0.000217 0.000133
0.000284 0.000275 0.000318
0.000284 0.000275 0.000318
0.000119 0.000115 6.33E-05
0.000168 0.000163 9.97F-05
0.000567 0.00055 0.000636
 8.55E-05 8.29E-05 5.47E-05
0.00017 0.000165 0.000191
0.000154 0.000149 8.23E-05
0.000716 0.000695 0.00062
6.32E-05 6.13E-05 3.75E-05
0.00017 0.000165 0.000191
0.000681 0.000661 0.000764
0.000762 0.000739 0.000563
0.000681 0.000661 0.000764
0.001166 0.001131 0.001614
0.001191 0.001156 0.001365
5.39E-05 5.23E-05 3.2E-05
4.71E-05 4.57E-05 4.97E-05
6.18E-05 6E-05 3.3E-05
0.000552 0.000535 0.000476
6.15E-05 5.97E-05 6.9E-05
               0.0002 0.000231
0.000206

        0.000206
        0.0002
        0.000231

        0.001221
        0.001184
        0.00147

        0.000231
        0.000224
        0.00017

        0.000206
        0.0002
        0.000231

0.000353 0.000342 0.000489
0.000361 0.00035 0.000413
0.001051 0.00102 0.001179
0.001175 0.00114 0.000868
0.001051 0.00102 0.001179
6.23E-05 6.05E-05 4.6E-05 0.000112 0.000108 0.000125
 1.51E-05 1.46E-05 5.24E-05
9.75E-05 9.46E-05 0.000112
8.48E-05 8.23E-05 5.04E-05 0.000756 0.000734 0.000848
0.000107 0.000104 0.000121

9.48E-05 9.2E-05 5.06E-05

0.00012 0.000116 7.11E-05
0.000152 0.000147 0.00017
0.000152 0.000147 0.00017
0.000204 0.000198 0.000124
0.000665 0.000645 0.000746
0.000167 0.000162 8.93E-05
0.000316 0.000306 0.000437
0.000142 0.000138 0.000291
0.000167 0.000162 0.00058
0.000379 0.000368 0.000234
0.000506 0.00049 0.000567
0.000492 0.000478 0.000303
8.09E-05 7.85E-05 0.000271
0.002052 0.00199 0.002301
0.001101 0.001068 0.000813
0.001477 0.001433 0.001657
0.002914 0.002827 0.003508
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0.000544 0.000528 0.00033

```
0.000295 0.000287 0.000607
8.52E-05 8.26E-05 5.06E-05
0.000108 0.000105 0.000121
5.42E-05 5.26E-05 3.47E-05
0.000639 0.00062 0.000769
0.000121 0.000117 8.91E-05
0.000108 0.000105 0.000121
9.77E-05 9.48E-05 5.22E-05
   6E-05 5.82E-05 6.73E-05
0.000355 0.000344 0.000427
6.7E-05 6.5E-05 4.95E-05
6E-05 5.82E-05 6.73E-05
0.000105 0.000102
                        0.00012
0.013382 0.012981
                        0.01501
0.000647 0.000628 0.000385
0.000821 0.000796 0.00092
0.000821 0.000796 0.00092
0.000343 0.000333 0.000183
0.000486 0.000471 0.000289
0.001641 0.001592 0.001841
0.000247 0.00024 0.000158
0.000492 0.000478 0.000552
0.000446 0.000432 0.000238
0.002072 0.00201 0.001793
0.000183 0.000177 0.000109
3.7E-05 3.59E-05 4.15E-05
0.000148 0.000143 0.000166
0.000253 0.000245 0.00035
0.000259 0.000251 0.000296
0.000121 0.000117 7.2E-05
0.000106 0.000103 0.000112
0.000139 0.000135 7.42E-05
0.001241 0.001204 0.001071
0.000138 0.000134 0.000155
6.91E-05 6.71E-05 7.76E-05
0.000409 0.000397 0.000493
7.73E-05 7.5E-05 5.71E-05 6.91E-05 6.71E-05 7.76E-05
0.000118 0.000115 0.000164
0.000121 0.000117 0.000139
0.003042 0.002951 0.003412
  0.0034 0.003298 0.002511
0.003042 0.002951 0.003412
0.000394 0.000382 0.000442
 0.00044 0.000427 0.000325
0.000394 0.000382 0.000442
0.000141 0.000137 0.000104
0.000253 0.000245 0.000284
3.42E-05 3.31E-05 0.000119
0.000221 0.000214 0.000253
0.000245 0.000238 0.000146
0.002188 0.002123 0.002455
0.000311 0.000302 0.000349
0.000274 0.000266 0.000147
0.000269 0.000261 0.00016
0.000341 0.000331 0.000383
0.000341 0.000331 0.000383
0.000221 0.000214 0.000134
0.000721 0.000699 0.000808
0.000447 0.000434 0.00033
0.0002 0.000194 0.000224
0.000181 0.000176 9.68E-05
0.000342 0.000332 0.000474
0.000154 0.000149 0.000316
0.000182 0.000176 0.000631
0.000534 0.000518 0.000329
8.77E-05 8.51E-05 0.000294
0.002224 0.002157 0.002494
0.001193 0.001157 0.000881
0.001601 0.001553 0.001796
0.003159 0.003064 0.003802
 0.00059 0.000572 0.000358
  0.00032 0.000311 0.000658
4.81E-05 4.67E-05 2.86E-05 6.1E-05 5.91E-05 6.84E-05 3.06E-05 2.97E-05 1.96E-05
0.000361 0.00035 0.000434
6.82E-05 6.61E-05 5.03E-05
6.1E-05 5.91E-05 6.84E-05
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                         3.8E-05
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            2E-05 2.32E-05
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9.23E-05 8.96E-05 6.82E-05
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7.29E-05 7.07E-05 8.17E-05
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0.000127 0.000124 0.000146
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7.43E-05 7.21E-05 8.34E-05
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8.18F-05 7.93F-05 0.000284
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1.76E-05 1.7E-05 5.6E-05
 8.8E-05 8.53E-05 5.23E-05
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0.000139 0.000135 0.000156
1.189926 1.154227 1.254158
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MOVES ONROAD Emissions Factors (g/mile)
7 10 13 11 12 14 5 8 9
7 NOX SO2 PMI0 PML25 VOC CO2 CH4 N20 CO NOX SO2 VOC CO2 CH4 N20 CO2 VOC CO2 CH4 N20 CO NOX SO2 VOC CO2 CH4 N20 C

35323 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.050714 0.074017 0.000135 0.001584 0.001457 0.004599 40.32394 0.000637 0.000128 588240 3.007806 0.079729 0.002154 0.00221 0.001955 0.073987 324.2969 0.008445 0.001851 1.950342 0.051698 0.001397 0.001433 0.001268 0.047975 210.2828 0.005476 0.0012 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.011154 0.020063 2.78E-05 0.000368 0.000388 0.000896 8.309452 0.000102 71780 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.103056 0.15041 0.000275 0.003219 0.002961 0.009346 81.94243 0.001294 0.00026 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.00916 0.013369 2.44E-05 0.000286 0.000263 0.000831 7.283264 0.000115 2.31E-05 38283 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.054964 0.08022 0.000146 0.001717 0.001579 0.004985 43.70301 0.00069 0.000139 2894760 3.007806 0.079729 0.002154 1558 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.003858 0.00694 9.62E-06 0.000127 0.000117 0.00031 2.874362 3.53E-05 4.81E-06 24827 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.03286 0.03565 0.052023 9.5E-05 0.001113 0.001024 0.003233 28.34194 0.000448 8.99E-05 207 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.003169 0.004625 8.44E-06 9.9E-05 0.01213 0.001024 0.003233 28.34194 0.000448 8.99E-05 0.00113 0.001024 0.003233 28.34194 0.000448 8.99E-05 0.00124 0.003233 28.34194 0.000448 0.003233 28.34194 0.000448 0.003233 28.34194 0.000448 0.003233 28.34194 0.000448 0.003233 28.34194 0.000448 0.003233 28.34194 0.000448 0.003233 28.34194 0.000448 0.003233 28.34194 0.000448 0.00323 28.34194 0.000448 0.00323 28.34194 0.000448 0.00323 28.34194 0.00048 0.00323 28.34194 0.00048 0.00323 28.34194 0.00048 0.00323 28.34194 0.00048 0.00323 28.34194 0.00048 0.00323 28.34194 0.000 13241 1302458 1900938 0.00347 0.04068 0.037425 0.118124 1035 616 0.016355 0.003286 0.01901 0.027746 5.06E-05 0.000594 0.000546 0.001724 15.11563 0.000239 4 8F-05 970596 3.007806 0.079729 0.002154 0.00221 0.001955 0.073987 324.2969 0.008445 0.001851 3.218065 0.085302 0.002305 0.002365 0.002092 0.079159 346.9667 0.009035 2313 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.003321 0.004847 8.85E-06 0.000104 9.54E-05 0.000301 2.640469 4.17E-05 8.38E-06 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.00177 0.002584 4.72E-06 5.53E-05 5.09E-05 0.000161 1.407565 2.22E-05 4.47E-06 1949846 3.007806 0.079729 0.002154 0.00221 0.001955 0.073987 324.2969 0.008445 0.001851 6.464823 0.171364 0.00463 0.004751 0.004203 0.159023 697.027 0.018151 0.003978 160 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.000396 0.000713 9.87E-07 1.31E-05 1.2E-05 3.18E-05 0.295185 3.63E-06 4.94E-07 2313 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.00321 0.004847 8.85E-06 0.000104 9.54E-05 0.000301 2.640469 4.17E-05 8.38E-06 1233 1.302458 1.900938 0.00347 2037410 3.007806 0.079729 0.002154 0.00221 0.001955 0.073987 324.2969 0.008445 0.001851 6.755146 0.17906 0.004838 0.004964 0.004391 0.166164 728.3292 0.018966 0.004157 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.000396 0.000713 9.87E-07 1.31E-05 1.2E-05 3.18E-05 0.295185 3.63E-06 4.94E-07 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0 0 636900 3.007806 0.079729 0.002154 0.00221 0.001955 0.073987 324.2969 0.008445 0.001851 2.111677 0.055975 0.001512 0.001552 0.001373 0.051943 227.6777 0.005979 0.001799 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.000518 0.000931 1.29E-06 1.71E-05 1.57E-05 4.16E-05 0.385585 4.74E-06 3330 1.302458 1.900938 0.00347 0.0468 0.037425 0.118124 1035.616 0.016355 0.003286 0.004781 0.006978 1.27E-05 0.000149 0.000137 0.000434 3.801453 6E-05 296 1.302458 1.900938 0.00347 0.0468 0.037425 0.118124 1035.616 0.016355 0.003286 0.00428 0.000425 0.00062 1.13E-06 1.33E-05 1.22E-05 3.85E-05 0.337907 5.34E-06 6F-05 1.21F-05 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.00255 0.003721 6.79E-06 7.96E-05 7.33E-05 0.000231 2.027442 1776 1.302458 1.900938 0.00347 3.2E-05 6.43E-06 665640 3.007806 0.079729 0.002154  $0.00221 \ \ 0.001955 \ \ 0.073987 \ \ 324.2969 \ \ 0.008445 \ \ 0.001851 \ \ 2.206966 \ \ 0.058501 \ \ 0.001581 \ \ 0.001622 \ \ 0.001435 \ \ 0.054287 \ \ 237.9516 \ \ 0.006196 \ \ 0.001358 \ \ 0.001435 \ \ 0.00$ 2313 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.003321 0.004847 8.85E-06 0.000104 9.54E-05 0.000301 2.640469 4.17E-05 8.38E-06 1233 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.00177 0.002584 4.72E-06 5.53E-05 5.09E-05 0.000161 1.407565 2.22E-05 4.47E-06 152856 3.007806 0.079729 0.002154 0.00221 0.001955 0.073987 324.2969 0.008445 0.001851 0.506803 0.013434 0.000363 0.000372 0.000329 0.012466 54.64265 0.001423 0.000312 160 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.000396 0.000713 9.87E-07 1.31E-05 1.2E-05 3.18E-05 0.295185 3.63E-06 4.94E-07 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.003321 0.004847 8.85E-06 0.000104 9.54E-05 0.000301 2.640469 4.17E-05 8.38E-06 2313 1.302458 1.900938 0.00347 1233 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.00177 0.002584 4.72E-06 5.53E-05 5.09E-05 0.000161 1.407565 2.22E-05 4.47E-06 766260 3.007806 0.079729 0.002154 160 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.000396 0.000713 9.87E-07 1.31E-05 1.2E-05 3.18E-05 0.295185 3.63E-06 4.94E-07 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.003321 0.004847 8.85E-06 0.000104 9.54E-05 0.000301 2.640469 1233 1.302458 1.900938 0.00347 0.04068 0.037425 0.118124 1035.616 0.016355 0.003286 0.00177 0.002584 4.72E-06 5.53E-05 5.09E-05 0.000161 1.407565 2.22E-05 4.47E-06 255420 3.007806 0.079729 0.002154 0.00221 0.001955 0.073987 324.2969 0.008445 0.001851 0.846859 0.022448 0.000607 0.000622 0.000551 0.020831 91.30702 0.002378 0.000521 800 2.24658 4.041014 0.005599 0.074091 0.068163 0.180534 1673.661 0.02058 0.002802 0.001981 0.003564 4.94E-06 6.53E-05 6.01E-05 0.000159 1.475924 1.81E-05 2.47E-06 totals 49.45708 2.036828 0.036389 0.051613 0.046211 1.249178 5673.515 0.143606 0.031344

Study Name

STUDY

Austin Airport

Study Description

Construction Schedule 2025

EMISSIONS INVENTORY - DETAILS: Non-Road Sources Units for Non-Greenh Units for Greenhouse Scenario II Year

its for Non-Greei	its for Non-Greenhouse Gases Emission: Short Ton				
nts for Greenhou	its for Greenhouse Gases (COZ, CH4, and NZO) Emission: Metric Ion				NUNKOAD Emission Factor's g. 7 8 11 NUNKOAD Emissions (IPV)
enario Il Year	Project Constructi Equipment	MovesLookup	Fuel	HP Averag Loa	Load Factchours of ACO NOx CO2 SO2 PM10 PM2.5 VOC CO (tpy) NOx (tpy) SO2 (tpy) PM10 (tpy PM2.5 (tpv VOC Exhaust (tpy)
1 202	2025 Taxiways Asphalt Pl. Asphalt Paver	Pavers175	Diesel	175	0.135357 0.355738 536.7717 0.001446 0.034367 0.033336 0.02054 0.000212 0.000556 0.839179
1 202	2025 Taxiways Asphalt Pl. Dump Truck	Off-highway Trucks600	Diesel	009	49,47214 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000755 0.002984 10.36285 2.74E-05 0.000187 0.000181
1 202	2025 Taxiways Asphalt PI. Other General Equipment	Other Construction Equipment175	Diesel	175	_
1 202		Off-highway Trucks600	Diesel	009	13.73625 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.00021 0.000829 2.877311
1 202	2025 Taxiways Asphalt Pl. Roller	Rollers100	Diesel	100	13.73625 0.342347 1.110226 596.0783 0.001613 0.054901 0.053254 0.027829 0.000306 0.000992
1 202		Skid Steer Loaders75	Diesel	75	13.73625 3.015688 3.94864 694.3015 0.002158 0.412121 0.399757 0.576121 0.000719 0.000942 0.165578 5.15E-07 9.83E-05 9.53E-05
1 202	2025 Taxiways Asphalt PI. Surfacing Equipment (Grooving)	Other Construction Equipment25	Diesel	52	0.002188 0.171289 0.16615 0.352023 0.000427 0.001076 0.170139
1 202			Diesel	Ħ	36 2.469749 4.183621 593.7568 0.002183 0.240434 0.233221 0.837675 0.000755 0.001278 0.18143 6.67E-07 7.35E-05 7.13E-05
1 202		Other Construction Equipment100	Diesel	100	36 0.556396 1.360255 596.0114 0.001645 0.083344 0.080843 0.050507 0.000949 0.002321 1.017026 2.81E-06 0.000142 0.000138
1 202		Off-highway Trucks600	Diesel	009	48 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000733 0.002896 10.05449 2.66E-05 0.000181 0.000176
1 202		Crawler Tractor/Dozers175	Diesel	175	105.92 0.092973 0.286867 536.7896 0.00143 0.022793 0.02211 0.014312 0.001121 0.003458 6.471108 1.72E-05 0.000275 0.000267
1 202		Off-highway Trucks600	Diesel	009	105.92 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.001617 0.006389 22.1869 5.87E-05 0.000399 0.000387 (
1 202		Excavators175	Diese	175	105.92 0.073539 0.244632 536.7982 0.001423 0.0175 0.016975 0.011596 0.000887 0.002949 6.471212 1.71E-05 0.000211
1 202		Tractors/Loaders/Backhoes175	Diese	175	105.92 0.98587 1.764742 625.7929 0.001867 0.222675 0.215995 0.258629 0.011885 0.021274 7.544061 2.25E-05 0.002684 0.002604
1 202		Other Construction Equipment175	Diese	175	105.92 0.22517 0.694274 536.7159 0.00148 0.054749 0.053107 0.039769 0.001978 0.0061 4.715584 1.3E-05 0.000467 0.000467
1 202		Off-highway Trucks600	Diesel	009	105:52 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.001617 0.006389 22.1869 5.87E-05 0.000339 0.000387
1 202		Rollers100	Diese	100	105.92 0.342347 1.110226 596.0783 0.001613 0.054901 0.053254 0.027829 0.002358 0.007648 4.106197 1.11E-05 0.000378 0.000367
1 202		Off-highway Trucks600	Diese	009	58.84444 0.039133 0.154587 536,7955 0.001421 0.009640 0.003375 0.011812 0.000899 0.00355 12.32606 3.26E-05 0.000222 0.000215
1 202		Tractors/Loaders/Backhoes175	Diesel	175	58.84444 0.98887 1.764742 625.7929 0.001867 0.222675 0.215995 0.258629 0.006603 0.011819 4.191145 1.25E-05 0.001447
1 202	2025 Taxiways Drainage - Other General Equipment	Other Construction Equipment175	Diese	175	536.7159 0.00148 0.054749 0.053107 0.039769 0.001099 0.003389 2.619769
1 202	r T	Time the state of	Diese	900	98.04444 (1093)35 (1094)06 (1094)07 (1090)04 (1090)08 (10
1 202	2023 Taxiways Digitage - Hactors/Loader/ backing	Off highway Trucks600	Diesel	8 8	
1 202		Crossiler Tractor/Deservate	Diesel	8 5	2000 (10) 125 (10) 12
1 202		Off-highway Trucks600	Diesel	503	64.10567 - 10.0000
1 202		Off-highway Trucks600	Diesel	8 8	4.00000 0.003133 0.124-50 3.007-321 3.000-304 0.000-304 0.000-305 0.011612 0.000-32 0.000-32 0.000-30 0.000-30 4.00000 0.003133 0.124-50 3.007-321 0.000-304 0.000-305 0.011612 0.000-32 0.000-305 1.000-305 0.000-305 0.000-3 4.000000000000000000000000000000000000
1 202			Diesel	8 5	10,0300/ 0,032133 0,114-0,15 EBE 67792 0,041413 0,045040 0,07375 0,047825 0,040432 0,040823 0
1 202		Crawler Tractor/Dozers175	i c	8 F	21.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.
1 202		Off-bighway Trucks600	Diese	509	1-27 NOT 2 NOT 2-25 N
1 202			Diesel	8 5	### ### ##############################
1 202		Off-highway Trucks600	Diesel	009	8.6.304 0.039133 0.154587 536.7955 0.001421 0.009664 0.00375 0.011812 0.000559 0.00221 7.672914 2.08E-05 0.000134
1 202			Diese	100	36.6394 0.342347 1.110226 596.0783 0.001613 0.054354 0.027829 0.000846 0.002645 1.42005 3.84E-06 0.0000137 0.0000127
1 202		Scrapers600	Diesel	009	45.788 0.193562 0.494954 536.7416 0.001476 0.034439 0.033406 0.030256 0.003488 0.008844 9.590179 2.64E-05 0.000615 0.00059
1 202		Crawler Tractor/Dozers175	Diesel	175	17.23765 0.095973 0.286867 536.7896 0.00143 0.02211 0.014312 0.000182 0.000563 1.053122 2.81E-06 4.47E-05 4.34E-05
1 202		Off-highway Trucks600	Diesel	009	36.66667 0.039133 0.15487 536.7955 0.001421 0.009664 0.003375 0.011812 0.00056 0.002212 7.68051 2.03E-05 0.000134 0.000134
1 202	Fencing	Off-highway Trucks600	Diese	009	146,6667 0.039133 0.154587 536,7955 0.001421 0.009664 0.009375 0.011812 0.00224 0.008847 30.72204 8.13E-05 0.000553 0.000553
1 202	Fencing	Other Construction Equipment175		175	146.6667 0.22517 0.694274 536.7159 0.00148 0.054749 0.053107 0.039769 0.002739 0.008446 6.529635 1.8E-05 0.000666
1 202	Fencing	Off-highway Trucks600		009	146,6667 0.039133 0.154587 536,7955 0.001421 0.009664 0.009375 0.011812 0.00224 0.008847 30,72204 8.13E-05 0.000553
1 202	2025 Taxiways Fencing Skid Steer Loader	Skid Steer Loaders75	Diesel	75	0.21 146.6667 3.015688 3.94864 694.3015 0.002158 0.412121 0.399757 0.576121 0.007679 0.010055 1.767936 5.5E-06 0.001049 0.001018 0.001467
1 202	2025 Taxiways Fencing Tractors/Loader/Backhoe	Tractors/Loaders/Backhoes100	Diesel	100	146.6667 2.416276 2.47235 694.9526 0.002075 0.32112 0.311486 0.359615
1 202	2025 Taxiways Grading Dozer	Crawler Tractor/Dozers175	Diesel	175	14.6964 0.092973 0.286867 536.7896 0.00143 0.022793 0.02211 0.014312 0.000156 0.00048 0.897866
1 202	Grading	Graders300	Diesel	300	14.6964 0.050706 0.18307 536.7878 0.001426 0.012448 0.012074 0.014259 0.000145 0.000525 1.539194 4.09E-06 3.57E-05 3.46E-05
1 202		Rollers100	Diesel	100	14,6964 0.342347 1.110226 596.0783 0.001613 0.054901 0.053254 0.027829 0.0000327 0.001061 0.569735 1.54E-06 5.25E-05 5.09E-05
1 202		Other Construction Equipment600	Diesel	009	13.24 0.606632 1.30379 5.55.58 0.001601 0.097889 0.094953 0.083141 0.003144 0.006733 2.772291 8.27E-06 0.000506 0.0000491
1 202	Hydroseed	Off-highway I rucksb00	Diese	9 9	UG99133 U.1548V 356.7593 U00424 U.0109564 U00935 U.01181Z UU000ZQ UU00V9 Z.17356 7.54FE-0 4.95FE-0 4.84FE-0 4.95FE-0 4.9
1 202	Lighting	Off-highway I rucksb00	Diesel	009	44.4 0.039133 0.154387 536.7355 0.001421 0.005664 0.005375 0.011812 0.000678 0.002678 9.3004 2.48E-05 0.000167
1 202	2025 Taxiways Lighting Loader	Tractors/Loaders/Backhoes1/5	Diesel	175	0.59 444 0.98854 1.76474 2.65.7929 (0.00186) 0.122.7556 (0.121989 0.1004892 0.1008918 3.16252 9.44-66 0.1001125 (0.00190)
1 202	Lighting	Off highway Trucks600	Diesel	0 0	44.4 U.2.21 U.09421 U.09421 U.00404 U.00414 U.00404 U.00414 U.00511 U.00404 U.
1 202	Lighting	Skid Steer Loaders 75	Diese	8 15	44.4 3.01568 3.4984 694.3015 0.007158 0.017171 0.399777 0.576171 0.007375 0.007304 0.535703 1.66F-06 0.000318 0.000308
1 202	Lighting	Tractors/Loaders/Backhoes100	Diese	100	44.4 2.416276 2.47235 694.9526 0.002075 0.33112 0.311486 0.359615 0.002483 0.002541 0.714273 2.13E-06 0.00033 0.00032
1 202	2025 Taxiways Markings Flatbed Truck	Off-highway Trucks600	Diesel	009	226.2857 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.003456 0.01365 47.39972
1 202		Other Construction Equipment 175	Diese	175	226.2857 0.22517 0.694274 536.7159 0.00148 0.054749 0.053107 0.039769 0.004226 0.013032 10.07429 2.78E-05 0.001028 0.000997
1 202		Off-highway Trucks600	Diese	009	226.2857 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.003456 0.01365 47.39972 0.000125 0.000853 0.000828
1 202		Other Construction Equipment175	Diesel	175	12 0.22517 0.694274 536,715 0.00148 0.054749 0.053379 0.039769 0.000224 0.000691 0.534243 1.47E-06 5.45E-05 5.29E-05
1 202			Diese	995	24 UUG9134 ULBASK SSE, SSE VOOR 12 UUG964 UUG955 UUUTAR SE VOUR SE UUUTAR SEVENA TISTEVA TISTEVA VARTAR 11 TISTEVA VARTA
1 202	2025 Taxiways Soli Erosio Pumps 2025 Taxiways Soil Frosio Trantors (Loader/Bankhoe	Utner Construction Equipment 1 Tractors/Loaders/Rackhoes100	Diesel	1 5	2.469/49 4.183621 593./568 0.002183 0.240434 0.233221 0.83/6/5 0.000155 0.000262 2.416776
1		Tattory roaders/ packings too	בוניאנו	3	12 2.4102/0 2.4723 894.5920 0,0020/3 0.52112 0.511460 0.539013 0,0000/1 0,0006/ 0,19304/ 3,70E-V 6.92E-V3 6.09E-V3

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95 3.77E-65 96 0.00075 97 0.	
	76 0.001723 52 0.000245 33 0.000226 19 0.000185 77 0.000269 77 0.000269 68 0.000163
	51 0.001776 05 0.000252 06 0.000233 05 0.00019 05 0.000277 06 0.000168
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4 0.009375 4 0.009375 4 0.009375 4 0.009375 4 0.009375 4 0.009375 4 0.009375 4 0.009375 4 0.009375 4 0.009375 5 0.011605 5 0.01605 6 0.01605 6 0.01605 6 0.01605 6 0.01605 6 0.01605 6 0.01605 6 0.01605 7 0.01605 8 0.002310 9 0.00310 9	4 0.009375 4 0.009375 1 0.053254 3 0.02211 4 0.009375 7 0.033336
1 0.002664 1 0.002664	
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Cawler Tractor/Dozers175 Off-lighway Trucks600 Rollers100 Crawler Tractor/Dozers175 Off-lighway Trucks600 Pavers175 Off-lighway Trucks600 Pavers175 Off-lighway Trucks600 Off-lighway Trucks600 Off-lighway Trucks600 Off-lighway Trucks600 Off-lighway Trucks600 Other Construction Equipment3 Off-lighway Trucks600 Off-	rucks600 rucks600 or/Dozers1 rucks600 rucks600
Clawler Tractor/Dozess Off-lighway Trucks600 Rollers 1900	Off-highway Trucksi Off-highway Trucksi Rollers100 Crawker Tractor/Dox Off-highway Trucksi Off-highway Trucksi Pavers175
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Dozer Dump Truck (12 cy) Pickup Truck Realer Dozer Dozer Dump Truck Asphalt Paver Doubry Truck Asphalt Paver Doubry Truck Asphalt Paver Doubry Truck Realer Skid Steer Loader Skid Steer Loader Surfacing Equipment (Groo Concrete Saws Dozer Concrete Truck Down Truck Realer Dozer	2 cy)
Subbase P Dozer Subbase P Dozer Subbase P Dozer Subbase P Polety Truck (12 cg) Subbase P Roller Topsoil Pit Doze Topsoil Topsoil Pit Doze Topsoil Topsoi	np Truck (1 up Truck er er np Truck up Truck
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	2003 Terminal / Subbase P Dump Truck (12 cy) 2005 Terminal / Subbase P Pickup Truck 2005 Terminal / Topsol Be Dozer 2005 Terminal / Topsol Be Dozer 2005 Terminal / Topsol Be Dump Truck 2005 Terminal / Topsol Pe Pickup Truck 2005 Terminal / Topsol Pe Pickup Truck 2005 Terminal / Asphalt Pl Asphalt Paver
2025 Taxiways 2025 Taminal 202	2025 Tem 2025 Tem 2025 Tem 2025 Tem 2025 Tem 2025 Tem 2025 Tem

0.000715	000199	79E-05	0.000431	000316	100631	0.000213	000546	000275	0.000285	002206	0.000758	001588	0.003381	000268	0.000657	2.14E-05	6.05E-05	.73E-05	0.000386	33E-05	6.05E-05	.37E-05	3.36E-05	2.4F-05	36F-05	6.07E-05	013274	200312	288000	0.000882	0.00016	000234	0.001765	000132	0.000529	301695	3.8E-05	2.05E-05	19E-05	5.86E-05	19E-05	.000178	0.000148	.83E-05	47F-05	0.001046	000149	.23E-05	5.17E-05	23E-05	000157	000131	0.00234	0.00327	000423	000303	0.000423	70073	0.000129	0.000246	0.000118	002353	000334	000128	0.000129	0.000366	3.48E-05	000247	.83E-05	2.7F-05	300149	0.000149	90000	000256
0.000567 0.0	0.000158	0.000138	0.000299	0.000149	0.000176	0.00034	0.000433	0.00044	7.49E-05	0.001751	0.001012	0.00126	0.002823	0.000436	0.00031	3.3E-05	4.8E-05	2.53E-05	0.000323	5.78E-05	4.8E-05	4.54E-05	2.6/E-05	3.21F-05	2.67E-05	5.26E-05	0.010535	0.000482	0.0007	0.0007	0.000306	0.000361	0.0014	0.00022	0.00042	0.000338	0.000136	1.63E-05	6.5E-05	7.83E-05	6.5E-05	0.000123 0	0.000128	9E-05	0.432-03	0.001194	0.000118	5.74E-05	J.UUU385 6.91E-05	5.74E-05	0.0000.0	0.000113	0.003125	0.002595	0.000336	0.000405	0.000336	0.000217	3.6E-05	0.000213	0.000183	0.001867	0.000265	0.000245	0.0002	0.000291	5.65E-05	0.000196	0.0000131	5.16F-05	0.000103	5.15E.05	3.135-03	7.35E-05 7.13E-05 0.0
0.000585		o c	9 0	0	0	0	0	0	7.72E-05	0	0	0.001299											2.75E-05								0.000315	0.000372	0.001444		0.000433		0.00014	1.68E-05	6.7E-05	8.07E-05	6.7E-05	0.000127	ο,	٥, ٥	۰ -	. 0	0	٠, ر	7.12E-05	,	0	0 0	0	0	0	0.000417	0	0.000223	,,		0	0	0	9 0	,		5.83E-05	0	0 1	5.32F-05	, 0	5 31F-05	3.31E-03	7.35E-U5
	2.39E-05	4 4	-	-		Θ	Θ	80	4	0					-								4.04E-06					m	0.000106	0.000106	9.27E-06	2.34E-05	0.000212	T.00E-U3	1 25 05	8.27E-05	8.8E-06	2.46E-06	9.86E-06	2.18E-06	9.86E-06	6.66E-07	8.54E-07	5.82E-06	3.75E-06	2.01E-05	1.79E-05	8.69E-06	3.33E-06 1.93E-06	8.69E-06	5.88E-07	7.53E-07	8.71E-05	0.000393	5.09E-05	1.13E-05	5.09E-05	3.28F-05	3.37E-07	1.42E-06	1.18E-05	0.000283	4.02E-05	7.41E-06	4 41E-05	4.41E-05	2.45E-06	2.97E-05	m o		i	י פ	0.705-07	6.67E-U/
32.49121	9.021388	, –	٦ ,	0.533445	0	2.508664	24.80107	3.244539	1.780307	100.2376	10.22612	72.1/11	8.17995	7.016324	1.111343	0.801557	2.748226	0.80157	0.934461	0.584106	2.748226	0.508623	1.526/92	0.324503	1 526792	0.117258	603.2692	11.69426	40.09506	40.09506	3.424853	8.770698	80.19012	/00TO./	24.05/03	30.06827	3.30191	0.930971	3.723884	0.791471	3.723884	0.214295	0.285995	2.185398	1 386729	6.747722	6.750331	3.284466	0.698077	3.284466	0.189008	0.252248	31.58647	148.6149	19.24563	4.090448	19.24563	12.40053	0.091636	0.476182	4.43151	106.9202	15.19392	7.739882	16 65079	16.65079	0.910046	11.23798	1.326369	0.577482	0.179561	0.184506	0.104300	0.18143
0.009357	0.002598	0.00311	0.003952	0.003373	0.003153	0.005725	0.007142	0.007405	0.007617	0.028867	0.013228	0.020784	0.023068	0.00465	0.007028	0.000428	0.000791	0.000365	0.002635	0.000756	0.000791	0.000947	0.00044	0.00042	0.00044	0.000417	0.17373	0.00625	0.011547	0.011547	0.006379	0.004687	0.023093	0.00200	0.006928	0.027727	0.001765	0.000268	0.001072	0.001024	0.001072	0.001219	0.001017	0.001168	0.001278	0.016389	0.001944	000946	0.000903	0.000946	0.001075	0.000897	0.040859	0.042798	0.005542	0.005291	0.005542	0.003571	0.000646	0.001694	0.002368	0.030791	0.004376	0.005103	004795	0.004795	0.000603	0.003236	0.001716	0.000039	0.001021	0.001021	0.001100	0.001278
0.002369	0.000658	0.000959	0.000000	0.001339	0.001861	0.002342	0.001808	0.003029	0.000904	0.007308	0.00429	0.005261	0.012887	0.001769	0.002789	0.000139	0.0002	0.00011	0.001472	000245	0.0002	000292	0.000111	000136	000111	000408	0.043979	002025	002923	002923	001967	001519	0.005846	106000	0.001/54	0.010843	0.000572	.79E-05	0.000271	000332	000271	0.000931	0000994	0.000379	962000	0.007629	000492	0000239	0.0001759	000239	000821	0.000877	013252	010834	001403	0.001716	001403	0.000904	000381	0.001656	892000	0.007795	0.001108	0.001574	0.000041	0.001214	0.000229	0.000819	0.000556	0.000227	0.00078	0.00078	0.000403	44/0000
		928200				0.050507	0.011812	0.050507	0.095301	0.011812	0.039769	0.011812	7.258629	0.02054	.352023	0.014312	0.011812	0.011596	0.258629	0.039769	0.011812	0.027829	218110.0	92657	011817	359615	0.011812	0.014312	0.011812	0.011812	0.027829	0.014312	0.011812	0.011090	218110.0	0.030256	0.014312	0.011812	0.011812	0.039769	0.011812	0.576121	0.359615	0.014312	928760	0.083191	0.011812	0.011812	0.039769	0.011812	0.576121	359615	0.039769	0.011812	0.011812	0.039769	218110.0	0.0357.03	3.837675	359615	0.014312	0.011812	0.011812	0.02/829	0.014312	0.011812	0.02054	0.011812	0.039769	928200	576121			18376/
0.009375	0.009375	053254	399757	0.16615 (	.233221 (	0.080843	0.009375	0.080843 (	0.025065	0.009375	0.053107	0.009375	.215995 (	0.033336	0.16615 (	0.02211 (	.009375 (	.016975 (	.215995 (	.053107 (	0.009375 (	0.053254 (	0.009375 (	053107	0.009375	311486 (	0.009375	0.02211 (	0.009375	0.009375	0.053254 (	0.02211 (	0.009375	0.0000.0	0.009375 (	033406	0.02211	0.009375	0.009375	0.053107	0.009375	399757 (	311486	0.02211	053254	0.094953	0.009375	0.009375	0.053107	0.009375	399757 (	311486	0.053107	0.009375	0.009375	0.053107	0.009375	0.009375	.233221 (	.311486 (	0.02211 (	0.009375	0.009375	0.053254	0.02211	0.009375	0.033336	009375	0.053107	0.053254 (	0.399757	16615		0.233221 (
009664	009664	054901	0.412121	171289	0.240434 0	.083344 0	.009664	.083344	0.02584	.009664 0	0.054749 0	0.009664	.222675 C	.034367		0.022793	.009664	0.0175 0	0.222675 0	.054749 0	0.009664 0	.054901	0.009664 0	054749 (	0.09664	0.32112	.009664	.022793	.009664	.009664	.054901	.022793	0.009664 0	0.01/3	0.009664	034439	.022793	0.009664	.009664	0.054749 0	.009664	412121 0	0.32112 0	0.022793	0.54401	0 688760.	.009664	.009664 0	0.054749 0	.009664	412121	0.32112 0	.054749	0.009664	.009664	0.054749 0	0.009664 0	0.009664	240434 0	0.32112 0	0.022793	.009664	0.009664 0	.054901	0.022733	.009664	0.034367	.009664	0.054749 0		0.412121		0.1/1269	
.001421 0.0.00148 0.0	001421	001613	002158	002188 0	002183	001645	001421 0	001645	001576	001421		001421	001867	001446	002188	0.00143 0	001421 0	0.001423	001867 0	0.00148	001421	001613	001421	0.00148	001421	002075	001421	0.00143	001421	.001421 0	001613 0	0.00143 0	0.001421 0	001423	001421	001476	0.00143	0.001421 0	001421 0	0.00148 0	001421	002158	002075	0.00143	001613	001601	001421	001421	0.00148	001421	002158	002075	0.00148	0.001421 0	001421 0	0.00148 0	0.001421 0	001421 0	002183 0	002075	0.00143 0	001421 0	001421 0	001613 0	001421	001421	001446	001421		001421 0	002158	002130	001700	002183
536.7955 0	536.7955 0.		, ,	, 0	0	0	0	0	0	0	86.7159	9	0	0	0	36.7896	36.7955 0	36.7982 0					536.7955 U.							36.7955 0	96.0783 0	36.7896	36.7955 0	0 7967 0	56.7955 U.	36.7416 0.	36.7896	36.7955 0		536.7159				536.7896 (	0 6/6/0	36.588 0.	36.7955 0	36.7955 0.	536.7159 U	36.7955 0					36.7955 0	36.7159	36.7955 U	36.7955 0	93.7568 0	94.9526 0	536.7896	36.7955 0	36.7955 0	96.0783 0				36.7955 0	36.7159	0 0	0		,	32 756× 11
154587	154587	110226 50	194864 60	763477 59	183621 59	360255 59	154587 53	360255 59	549508 56	154587 5	694274 5	15458/ 5:	764742 6	355738 5	763477 59	286867 5	154587 53	244632 5	764742 6	694274 5	154587 53	110226 5	0.154587 5:	694274 5	154587 5	47235 6	154587 53	286867 53	154587 53	154587 53	110226 59	286867 5	154587 5:	244032 33	15458/ 5:	494954 5	286867 5	154587 53	154587 53	694274 5	154587 5	394864 6	.47235 6	0.286867 55	110226 50	303279	154587 5	154587 5	0.694274 5	154587 5	394864 6	164697 6	694274 5	154587 53	154587 53	694274 53	154587 55	154587 5	183621 59	47235 6	286867 53	154587 53	154587 53	110226 55	15,45,87 53	154587 53	355738 5	154587 5	694274 5	110226 50	3.94864 69			
0.22517	Ö	342347 1.	115688 3	.493648 3.	169749 4.	556396 1.	.039133 0.	556396 1.	0.302419 2.	339133 0.		0.039133 0.	0.98587 1.	135357 0.	1.493648 3.	.092973 0.	0.039133 0.	073539 0.	0.98587 1.	.22517 0.	339133 0.		0.039133 0.	0.22517 0	39133 0	416276 2	.039133 0.	092973 0.	.039133 0.	.039133 0.	342347 1.	0.092973 0.	039133 0.	0.073539 0.	0.039133 0.	342347 I.	092973 0.	039133 0.	0.039133 0.	0.22517 0.	039133 0.	015688 3	116276 2	0.092973 0.	342347 1	606632 1.	.039133 0.	.039133 0.	0.22517 0.	39133 0.	3.015688	2.416276 2	0.22517 0.	0.039133 0.	39133 0.		0.039133 0.	0.039133 0.	.469749 4.	.416276 2	0.092973 0.	039133 0.	339133 0.	34234/ I.	039133 0	.039133 0.	135357 0.	0.039133 0.	0.22517 0.	347347 1			o o	•
155.1127 0.0 86.136 0			43.068.36	, -	7	88.8 0.5	0	14.848 0.5	14.848 0.3	8.5333 0.0		44.544 0.0	14.848 0	114.848 0.	$\vdash$	13.12 0.0	13.12 0.0				13.12 0.0		7 288889 0.0	0 68888	00000	88889 2.4	0	0	0	1.4133 0.0	34462 0.3	143.56 0.0	382.8267 0.0	14.040 0.0	14.848 0.0	143.56 0.7	54.04612 0.0	4444 0.0	17.77778 0.0	17.77778 0	.0 87777	17.77778 3.0	2.7 877777	0 0		0	0	15.68 0.0	15.68 0	15.68 0.0	15.68 3.0	15.68 2.4	709.4857 0		1.8784 0.0		1.8784 0.0	59.2 0.0	29.6 2.4	29.6 2.4	53558 0.0	0.4356 0.0	53558	6/269	19067	49067	89625	.64997 0.0	29.7925 0	0	o m	, -	٠,	ŕ
0.59 15				īń	0.7	0.43	0.59	0.43	0.59	0.59 47											0.59	0.59	0.59 7.2	0.43 7.7	2.7 97 0	0.21 7.2	0.59	0.59 19	0.59 19	0.59 19	0.59 88.	0.59	0.59 38	60.00	0.59	65.0		0.59 4.4	0.59 17.	0.43 17.													0.43 70	0.59 70	0.59	0.43	0.59	65.0	0.43	0.21	0.59 72.	0.59 510	72	5 5	, 6	8	7				4			
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Diesel	Diesel	Diesel	Diesel	Diesel		Diesel	Diesel	Diesel	Diese	Diesel	Diese	Diesel	Diesel	Diese	Diesel	Diese	Diesel	Diese	Diese	Diese	Diesel	Diese	Diesel	Diese	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diese	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diese	Diese	Diesel	Diecel	Diesel	Diesel	Diese	Diesel	Diesel	Diese	Diesel	Diesel	Diesel	Diesel	Diesel		Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diese	Diese	Diesel	Diesel	Diesel	Diesel	Diesel	-
Off-highway Trucks600 Other Construction Equipment175	200	Bollers100	Skid Steer Loaders 75	Other Construction Equipment25	Other Construction Equipment11	Other Construction Equipment100	Off-highway Trucks600 D	Other Construction Equipment100	Other Construction Equipment40	Off-highway Trucks600	Other Construction Equipment175	Off-highway Irucksb00	Tractors/Loaders/Backhoes175	Pavers175	Other Construction Equipment25	Crawler Tractor/Dozers175	Off-highway Trucks600	Excavators175	Tractors/Loaders/Backhoes175	Other Construction Equipment175	Off-highway Trucks600	Rollers100	Off-highway Irucksb00 Tractors (Loaders (Rackhoes 175	Other Construction Equipment 175	Off-highway Trucks600	Tractors/Loaders/Backhoes100	Off-highway Trucks600	Crawler Tractor/Dozers175	Off-highway Trucks600	yTruc			Off-highway Trucks600	EXCAVATORS 1/3	Off-highway Irucksbuu	Scrapers600	Crawler Tractor/Dozers175	Off-highway Trucks600	Off-highway Trucks600	Other Construction Equipment175	Off-highway Trucks600	Skid Steer Loaders75	Tractors/Loaders/Backhoes 100	Crawler Tractor/Dozers1/5	Bollers100	Other Construction Equipment600	Off-highway Trucks600	Off-highway Trucks600	Iractors/Loaders/Backnoes1/5 Other Construction Equipment175	Off-highway Trucks600	Skid Steer Loaders75	Tractors/Loaders/Backhoes 100	Other Construction Equipment175	Off-highway Trucks600	Off-highway Trucks600	Other Construction Equipment175	Other Contraction Equipmont175	Off-highway Trucks600	Other Construction Equipment11	Tractors/Loaders/Backhoes100	Crawler Tractor/Dozers175	Off-highway Trucks600	Off-highway Trucks600	Kollers100	Off-highway Trucks600	Off-highway Trucks600	Pavers175	900	Other Construction Equipment 175	OF-righway indexsood	Skid Steer Loaders75	Other Construction Equipment 25	Other Construction Equipment23	Other Constitution Fall Disputi
2025 Terminal / Asphalt Pl. Dump Truck 2025 Terminal / Asphalt Pl. Other General Equipment	2025 Terminal / Asphalt Pl. Pickup Truck	2025 Terminal / Asphalt Pl. Roller	2025 Terminal (Asnhalt PI Skid Steer Loader	2025 Terminal / Asphalt Pl. Surfacing Equipment (Grooving)	2025 Terminal / Clearing a Chain Saw	np Grinder					il Equipment		ader	2025 Terminal / Concrete F Slip Form Paver	2025 Terminal / Concrete F Surfacing Equipment (Grooving)	2025 Terminal / Drainage - Dozer	2025 Terminal / Drainage - Dump Truck	2025 Terminal / Drainage - Excavator	2025 Terminal / Drainage - Loader	2025 Terminal / Drainage - Other General Equipment	2025 Terminal / Drainage - Pickup Truck	2025 Terminal / Drainage - Roller	2025 Terminal / Drainage - Dump Truck 2025 Terminal / Drainage - Loader	2025 Terminal / Drainage - Codes 2025 Terminal / Drainage - Other General Fourinment	2027 Terminal / Drainage - Ottler General Equipment	2025 Terminal / Drainage - Tractors/Loader/Backhoe	2025 Terminal / Dust Conti Water Truck	2025 Terminal / Excavatior Dozer	2025 Terminal / Excavatior Dump Truck (12 cy)	2025 Terminal / Excavatior Pickup Truck	2025 Terminal / Excavatior Roller	2025 Terminal / Excavatior Dozer	2025 Terminal / Excavatior Dump Truck (12 cy)	2025 Terminal Fexcavation excavator	2025 Terminal / Excavation Pickup Truck	2023 Terminal / Excavation Scraper	2025 Terminal / Excavatior Dozer	Fencing Concrete Truck							Liferating Roller	ĕ	2025 Terminal / Hydroseec Off-Road Truck		il Augnting Loader Il Alighting Other General Equipment			2025 Terminal / Lighting Tractors/Loader/Backhoe	i Financial Stratueuri uun I / Markings Other General Equipment	I ≠ Markings Pickup Truck	2025 Terminal / Sealing/Fu Distributing Tanker	2025 Terminal / Sealing/Fu Other General Equipment	2025 Terminal / Sealing/Fu Pickup Truck	2023 Terminal / Soil Frosio Pickup Truck	2025 Terminal / Soil Erosio Pumps	2025 Terminal / Soil Erosio Tractors/Loader/Backhoe	2025 Terminal / Subbase P Dozer	2025 Terminal / Subbase P Dump Truck (12 cy)	2025 Terminal / Subbase P Pickup Truck	2025 Terminal / Subbase P Roller	2023 Terminal / Topsoil Dis Duma Truck	2025 Terminal / Topsoil Plɛ Pickup Truck	2025 Taxiway E: Asphalt Pl. Asphalt Paver	2025 Taxiway E: Asphalt PI. Dump Truck	2025 Taxiway E; Asphalt PI. Other General Equipment	2023 Taxiway E: Aspiral Pl: Pickup Truck 2025 Taxiway E: Asphalt Pl: Roller	2025 Taxiway E. Asphalt Pl. Skid Steer Loader	2023 Isalway E. Aspriat Franklin Steel Loadel 2025 Taxiway E. Asphalt Di Surfacing Equipment (Grooving)	2023 Taxiway E. Aspiral F. Suriacing Equipment (GLOOVIIIg)	
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Tractors/Loaders/Backhoes100  Crawler Tractor/Dozers175  Rollers 100  Other Construction Equipment600  Off-highway Trucks600  Off-highway	Of Flighway Trucks600 Of Flighway Trucks600 Of Flighway Trucks600 Excavators175 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Crawler Tractor/Dozers175 Of Flighway Trucks600 Of Rollers 100 Of Rollers 100 Of Flighway Trucks600 Of Rollers 100 Of Flighway Trucks600
Tractors/Loaders/Backhoes100  Crawler Tractor/Dozers175  Rollers 100  Other Construction Equipment600  Off-highway Trucks600  Off-highway	Of Flighway Trucks600 Of Flighway Trucks600 Of Flighway Trucks600 Excavators175 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Crawler Tractor/Dozers175 Of Flighway Trucks600 Of Rollers 100 Of Rollers 100 Of Flighway Trucks600 Of Rollers 100 Of Flighway Trucks600
Tractors/Loaders/Backhoes100  Crawler Tractor/Dozers175  Rollers 100  Other Construction Equipment600  Off-highway Trucks600  Off-highway	Of Flighway Trucks600 Of Flighway Trucks600 Of Flighway Trucks600 Excavators175 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Crawler Tractor/Dozers175 Of Flighway Trucks600 Of Rollers 100 Of Rollers 100 Of Flighway Trucks600 Of Rollers 100 Of Flighway Trucks600
Tractors/Loaders/Backhoes100  Crawler Tractor/Dozers175  Rollers 100  Other Construction Equipment600  Off-highway Trucks600  Off-highway	Of Flighway Trucks600 Of Flighway Trucks600 Of Flighway Trucks600 Excavators175 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Crawler Tractor/Dozers175 Of Flighway Trucks600 Of Rollers 100 Of Rollers 100 Of Flighway Trucks600 Of Rollers 100 Of Flighway Trucks600
Tractors/Loaders/Backhoes100  Crawler Tractor/Dozers175  Rollers 100  Other Construction Equipment600  Off-highway Trucks600  Off-highway	Of Flighway Trucks600 Of Flighway Trucks600 Of Flighway Trucks600 Excavators175 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Rollers 100 Of Flighway Trucks600 Crawler Tractor/Dozers175 Of Flighway Trucks600 Of Rollers 100 Of Rollers 100 Of Flighway Trucks600 Of Rollers 100 Of Flighway Trucks600
Tractors/Loaders/Backhoess100  Grawler Trator/Dozeers175  Graders300  Rollers 100  Other Construction Equipment175  Off-highway Trucks600	Pickup Truck Grave Technology Childhawy Trucks600 of the plankay Trucks600 of the Construction Equipment Trucks600 of the Construction Equipment Tractors/Loader/glackhoes175 of the plankay Trucks600 of the Construction Equipment Tractors/Loader/glackhoes175 of the plankay Trucks600 of the plan

Company   Section   Company   Comp	Skid Steer Loader Tractors/Loader/Backhoe Dozer			4 4 4	3.015688 2.416276 0.092973		002075	00	0.576121 0.359615 0.014312	1,000698 0.0 1,000746 0.0 4,73E-06 1.	100914 0.160 100914 0.160 100763 0.214 46E-05 0.027 .6E-05 0.046	, ,	9.54E-05 9.91E-05	9.25E-05 0.0 9.25E-05 0.0 9.61E-05 0.0	00133
Control Cont	Tractors/Loader/Backhoe Dozer			H	2.416276 0.092973 (		002075	0	0.359615	1.000746 0.0 4.73E-06 1.	100763 0.214 46E-05 0.027 .6E-05 0.046	1496 6.4E-07	9.91E-05	9.61E-05 0.0	00111
Continued interference  Continued   Cont	Dozer				0.092973 (				0.014312	4.73E-06 1.	46E-05 0.027 .6E-05 0.046	1277 7 78F-08	1.16E-06	113F-06 7	-
The content signature of the content signatu		ozers175					0.00143	m	2101100		.6E-05 0.046	٠,	T. 10E-00		9E-07
Contribution contribution   Contri	Grader				0.050706		0.001426	o .	0.014259	4.43E-06		Η.	1.09E-06	1.05E-06 1.	4E-06
Continues   Francisco   Continues   Cont					0.342347		0.001613 0.0		0.027829	3.96E-06 3.	23E-U5 U.U1	7 (	1.6E-06	1.55E-06 8	1E-07
Other Communication State		pmentb00			0.606632	27.9 536.588	0.001601	_ (	0.083191	3.54E-U5 U.(	1002US 0.084	7 (	1.545-05	1.49E-05 1.	20-15
Control cont		- ng nway Irucksooo	Diesel 600	0.39 0.	0.039133	1367 536.7953	0.001421	09664 0.00937	0.011012	0.13E-U0 2.	+3E-U3 U.U84	v -	1.32E-UD	1.4/E-U0 1.	00-00
Control between the control of the	Other General Equipment	on Construction Equipment 175	Diesel 000	0.33 2.037	0.03517	274 536 7159	0.00148	54749 0.05310	0.039769	2 84E-05 0.0	100118 0.091		9 245-06	0.03E-00 9.	96-06
Company backed   Company   Company   Company   Company   Company   Company backed   Compa	Pickup Truck	-highway Trucks600	Diesel 600	0.59 2.057	0.039133 0		0.001421	0	0.011812	3.14E-05 0.0	00124 0.430	_	7.76E-06	7.53E-06 9.	8E-06
Continue the continue that t		-highway Trucks600	Diesel 600	0.59	0.039133 0.	1587 536.7955	0.001421	0	0.011812	0.000366 0.0	01448 5.027	$\neg$	9.05E-05	8.78E-05 0.0	00111
Conference   Con				0.59	0.039133 0.		0.001421	0	0.011812	0.00366 0.0	01448 5.027	$\overline{}$	9.05E-05	8.78E-05 0.0	00111
Confidence   Con			_	0.59	0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	998000	101448 5.027	$\overline{}$	9.05E-05	8.78E-05 0.0	00111
Provincial continuent				0.21	2.416276	735 694.9526	0.002075	32112 0.31148	0.359615 0	001342	01374 0.386	$\overline{}$	0.000178	0.000173	.0002
Discontinuismentaries   Section   15   15   15   15   15   15   15   1				0.43	2.527845	1847 588.0067	0.002162	54101 0.24647	0.823845	000173	00286 0.040	$\overline{}$	1.73E-05	1.68E-05 5.	2E-05
Contract		ipment175		0.43	0.22517 0.		0.00148		0.039769	7.47E-06	.3E-05 0.017	4	1.82E-06	1.76E-06 1.	2E-06
Control   Cont		200		0.59	0.039133	ŭ	0.001421	09664 0.00937	0.011812	1.22E-05 4.	33E-05 0.167	4	3.02E-06	2.93E-06 3.	9E-06
The control depth of the control o		Equipment11		0.43	2.469749	ŗ,	0.002183	40434 0.23322	0.837675	5.15E-06 8.	73E-06 0.001	4	5.01E-07	4.86E-07 1.	.2E-06
Principle   Prin	der/Backhoe	oes100		0.21	2.416276	9	0.002075	32112 0.31148	0.359615	2.24E-05 2.	29E-05 0.006	$\overline{}$	2.97E-06	2.88E-06 3.	3E-06
Comparison   Com				0.59	0.039133	ŝ	0.001421	09664 0.00937	0.011812	0	100483 1.675	4	3.02E-05		9E-05
Control Cont		sckhoes175			0.98587	1742 625.7929	0.001867	22675 0.21599	0.258629	0.008888 0.0	01607 0.569		0.000203		00235
Control Activity   Control C		pment175			0.22517	1274 536.7159	0.00148	54749 0.05310	0.039769	000149	00461 0.356	01	3.63E-05	3.52E-05 2.	4E-05
State   Control Cont					0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812 0	.000122 0.0	00483 1.675	7	3.02E-05	2.93E-05 3.	9E-05
Transcriptostation   Description   Control		:75			3.015688	1864 694.3015	0.002158	12121 0.39975	0.576121	.000419 0.0	00248 0.096		5.72E-05	5.55E-05	8E-05
Control Procession   Control		Backhoes100		0.21	2.416276	735 694.9526	0.002075	32112 0.31148	0.359615	.000447 0.0	00458 0.128	ന	5.95E-05	5.77E-05 6.	6E-05
Comparization   December   Comparization   December   Comparization   December   Decem		175		0.59	0.092973	867 536.7896	0.00143	22793 0.0221	0.014312	2.23E-06 6.	37E-06 0.012	က	5.46E-07	5.29E-07 3.	3E-07
Continue that the continue t	12 cy)			0.59	0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	2.26E-05 8.	93E-05 0.310		5.58E-06	5.41E-06 6.	2E-06
Following   Design				0.59	0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	3.21E-06 1.	27E-05 0.044	$\vdash$	7.93E-07	7.69E-07 9.	9E-07
Control Transformential Dees  175 0.00 399460 002273 035285 002670 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 01211 12020 6 66 002570 0121 12020 6 6 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 66 002570 0121 12020 6 002570 0121 12020 6 6 002570 0121 12020 6 002570 0121 1				0.59	0.342347	1226 596.0783	0.001613	54901 0.05325	0.027829	4.56E-06 1.	48E-05 0.007	7	3 7.32E-07	7.1E-07 3.	1E-07
Chief bear Principal   Chief bear Principal   Chief bear   Chief bea		ozers175		0.59	0.092973	3867 536.7896	0.00143	22793 0.0221	0.014312	1.05E-05 3.	25E-05 0.06C	$\vdash$	7 2.58E-06	2.5E-06 1.	2E-06
Control Replaymy Trication   Control Replay		3600		0.59	0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	1.52E-05	6E-05 0.208	S	3.75E-06	3.64E-06 4.	8E-06
Chief Notice   Chief Age   Chief No.   C				0.59	0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	1.52E-05	6E-05 0.208	3351 5.51E-07	3.75E-06	3.64E-06 4.	8E-06
Chite-Name   Chi					0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	0	0	0	0	0	0
Control Cont		ipment175			0.22517	1274 536.7159	0.00148		0.039769	0	0	0	0	0	0
Principle   Prin					0.039133	1587 536.7955	0.001421		5 0.011812	0	0	0	0	0	0
Parential   Pare		aders/Backhoes100			2.416276	735 694.9526	0.002075	32112 0.31148	0.359615	0	0	0	0	0	0
wwy of the physical relation of the size of 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.					0.135357	5738 536.7717	0.001446	34367 0.03333	0.02054	.000246 0.0	00648 0.977	7476 2.63E-06	6.26E-05	6.07E-05 3.	4E-05
Chit-legaway Trackedon   Decar   600 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	.000244 0.0	100965 3.351	1495 8.87E-06	6.03E-05	5.85E-05 7.	7E-05
Tractor/Lodent/Spiechleson					0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	5.11E-05 0.0	00241 0.837	'874 2.22E-06	1.51E-05	1.46E-05 1.	4E-05
The Control	ip Fac.				0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	0	00241 0.837	874 2.22E-06	1.51E-05	1.46E-05 1.	4E-05
Chicking	Bob Cat				2.197293	5923 694.8737	0.002104	73771 0.26555	0.384111	0	01449 0.289	3537 8.77E-07	0.000114	0.000111 0	00016
Control Cont	Concrete Ready Mix Trucks				0.039133	587 536 7955	0.001421	19664 0.00937	0.011812		01448 5 027	7243 1 33F-0F	9 05F-05	8 78F-05 0 C	00111
Other Principle and Principl	Material Deliveries				0.039133	587 536 7955	0.001421	75664 0.0033	0.011812	, ,	7202	7243 1335-0	9 OSE-05	8 78F-05 0.0	00111
Convertication diagramment   Convertication	Tractor Trailer with Boom Hoist- Delivery				0.039133	1587 536 7955	0.001421	09664 0 00937	0.011812	0 998000	01448 5 027	7243 1 33F-0 <sup>4</sup>	9 05F-05	8 78F-05 0 C	00111
The control	s Bulldozer	ozers175			0.092973	867 536.7896	0.00143	22793 0.0221	0.014312	0 691000	00522 0.977	509 2.6E-06	4.15E-05	4.03E-05 2.	1E-05
Other Construction Equipment(1)   Deed   0.5   0.0   0.0		Backhoes 100			2.416276	7235 694.9526	0.002075	32112 0.31148	0.359615 0	0 268000	00916 0.257	7396 7,69E-07	0.000119	0.000115 0.0	00133
Other Contraction Equipment(1) Design 175 0.43 p. 0.2157 0.4275 6819273 857759 0.000140 0.000150 0.000130 0.0					0.039133	1587 536.7955	0.001421	09664 0,00937	0.011812	000244 0	00965 3.351		6.03E-05	5.85E-05 7.	7E-05
Canier Transportation Equipment(1)   Deci   10   12   24 a 416755   1840125   184014   1000845   1000132   11566   1000132   11566   1000132   11566   1000132   11566   1000132   11566   1000132   11566   11569		pment175			0.22517	1274 536.7159	0.00148	54749 0.05310	0.039769	000448 0	01382 1.068		0.000109	0000106	2E-05
Transcrive development   Transcrive developm					0.556396	255 596.0114	0.001645	83344 0.08084	0.050507	0 898000	02123 0.930		0.00013	.000126	8E-05
CAMPER   Tractory Control Equipment   Diese   670   29   20   200   201   20					2.416276	735 694.9526	0.002075		0.359615	001342 0	01374 0.386		0.000178	.000173	0.0002
Care   Construction Equipment   Dece   15		-highway Trucks600			0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812 0	000183 0	00724 2.513	_	4.53E-05	4.39E-05	3E-05
Other Construction Equipment(1)   Diese  CO   29 40 (0.99313 0.154568 0.00218 0.024944 0.025312 0.000487 0.000497 0.01818 0.000491 0.000		ers175			0.092973	3867 536.7896	0.00143	22793 0.0221	0.014312 0	000423 0	01306 2.443		0.000104	.000101	2E-05
Other Construction Equipment(10)   Diese    60		ipment11			2.469749	1621 593.7568	0.002183	40434 0.23322	0.837675 0	000203 0	00852 0.120		4.9E-05	4.75E-05	00171
Other Contraction (galamentation Diese)   100		000			0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812 0	000611 0	02413 8.378		0.000151	.000146	00184
Octavity Control Diseas   100		Equipment 100			0.556396	1255 596.0114	0.001645	83344 0.08084	0.050507	000633 0	01547 0.678		9.48E-05	9.2E-05	.5E-05
Principal Condens   Prin		Equipment 100			0.556396	1255 596.0114	0.001645	83344 0.08084	0.050507	000633 0	01547 0.678		9.48E-05		SE-05
Diese  Cawer Compactors6   Diese  16		ctors/Loaders/Backhoes100	Diesel 100		2.416276	735 694.9526	0.002075	32112 0.31148	0.359615	002237 0	02289 0.643		0.000297		00333
Camera   C	Equipment				2.527845	1847 588.0067	0.002162	54101 0.24647	0.823845	000115 0	00191 0.026		1.16E-05	1.12E-05 3.	SE-05
Chief   Chie		ctor/Dozers175			0.092973	536.7896	0.00143	22793 0.0221	0.014312 C	000169 0	00522 0.977		4.15E-05	4.03E-05 2.	1E-05
Victor   V					0.08211	530.9715	0.001437	1//49 0.01/21	0.024289	00018/ 0	807.1 15/00	.,	4.04E-05	3.92E-05 5.	35-05
Off-Highway Tracksood         Diesel         O.D.         C.D.         D.D.         CLASS         S66-7355         COMPARIA DELIGIOS         COMPARIA DELIGIOS         COMPARIA DELIGIOS         COMPARIA DELIGIOS         COMPARIA DELIGIA         COMPA		8			0.43/526	596.0453	0.001627	66002 0.0640Z	0.038997	000455 0	1012/3 U.62C		6.8/E-U5	6.66E-US 4.	DE-05
Tractory   Control   Con					0.039133	ñ	0.001421	09664 0.00937	0.011812	000244 0	00965 3.351	× ox	6.03E-05	5.85E-05 /.	75-05
Rollerstoor   Preserve   Preser					0.039133	i n	0.001421	09664 0.00937	0.011812 0	000000	100483 I.b/3	4 1	3.02E-05	2.93E-U5 3.	9E-05
Chiefigiumay Trucks600   Diese  100 0.59   16 0.039131 0.145487 316,7355 0.000141 0.000546 0.000375 0.011812 0.000344 0.0000968 3.13495 8.87F-06 6.03F-05 5.35F-05	Backnoe				2.4162/6	235 694.9526	0.002075	32112 0.31148	J 6198625.U	0.000895	0091b 0.257	٠,	0.000119	0.000115 0.0	00133
Check   Control Check   Cont					0.342347	1220 390.0765	0.001013	54901 0.05525 00664 0.05525	0.02/20.0	0 000000	0000E 3 2E1	- 0	5.71E-U3	2.346-03	20-16
Preservation   Pres					0.000100	F150 730 741	0.001421	74364 0.00337	COLLOLL	4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	200903 3.331	0 (	0.035-03	3.03E-U3 /.	9 1
Tractory Loader Explainment of the construction Equipment 100 Diese   100 0.59   24 46576 i. 247235 694,8256 0.000075 0.000375					0.133337	1792 236 7055	0.001446	3436/ U.U3333 D966/ 0.00937	0.02034	0.00240	00040 0.977	v 0	6.205-05	5.07E-03 3.	7 1 0 2
Cheer Construction Equipment 10   Cheer   Construction Equipment 10   Cheer   Construction Equipment 10   Cheer   Construction Equipment 10   Cheer   Construction Equipment 10   Cheer   Ch		001300			2 416276	725 694 9526	370000	22112 0 21149	0.250615	001242	2000 VZC10	, -	0.000170	000173	3 6
Off-Highway Trucks60         Diesel         670         0.59         12         0.03913         0.15457         0.00345         0.011812         0.00018         0.000724         2.515625         6.65766         4.3587         0.55759         0.00044         0.00366         0.00142         0.000864         0.00073         0.000784         0.000784         0.000784         0.000784         0.000784         0.0000784         0.000784         0.000784         0.000784         0.0000784         0.000784 </td <td></td> <td>00</td> <td></td> <td></td> <td>0.556396</td> <td>255 594.9328</td> <td>0.002073</td> <td>83344 0.08084</td> <td>0.050507</td> <td>0.00868 0</td> <td>02123 0.930</td> <td></td> <td>0.00013</td> <td>0000175 7</td> <td>8F-05</td>		00			0.556396	255 594.9328	0.002073	83344 0.08084	0.050507	0.00868 0	02123 0.930		0.00013	0000175 7	8F-05
Pavers 175   Pavers 175   Peer   175   0.59 65.55938   0.1353.57   0.355738   356.7717   0.0001446   0.0034367   0.003133   0.000265   0.000256   0.000265   0.000026   0.0000265   0.000026   0.00002		200			0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	000183 0	00724 2.513	9	4.53E-05		3E-05
Off-lighway Trucks600 Diesel (600 0.59 236-1171 0.039133 0.154.587 536.7955 0.001421 0.00964 0.009375 0.011812 0.003656 0.000424 49.45908 0.000049 0.0000956 0.0000955 0.0000751 0.0000959		ers175	Diesel 175	0.59	0.135357	5738 536.7717	0.001446	34367 0.03333	0.02054	0.00101 0	02654 4.00	Н	0.000256	0.000249 0.0	00153
Other Construction Equipment 175         Desel         175         0.43         1311118         0.2351 70 664374         0.545749         0.64374         0.64374         0.64374         0.64374         0.64376         0.65474         0.657579         0.667579         0.657579         0.667579		-highway Trucks600	Diesel 600	0.59	0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812 0	0 909800	14243 49.45	0	0.00089	0.000864 0.0	01088
Off-highway/Trucks600 Diesel 100 0.59 65.55938 0.039133 0.154587 336.7955 0.001421 0.009664 0.009375 0.011812 0.001001 0.00395 13.73262 3.63E-05 0.000247 0.00024 0.000247 0.00024 0.000247 0.00124 0.		ipment175		0.43	0.22517	1274 536.7159	0.00148	54749 0.05310	0.039769	002449 0	07551 5.837	Н	0.000595	0.000578 0.0	00433
Rollers100   Diese   100 0.59 65.5938 0.3247 1.110226 596.0783 0.001613 0.054901 0.053254 0.07328.9 0.00146 0.00473 2.545138 6.88E-06 0.0000234 0.0000235   Stud Steel Loader57   Diese   75 0.21 65.5938 0.310588 3.9464 64.3015 0.002186 0.11212 0.005432 0.000149 0.75022 2.45E-06 0.000024 0.000025   Cher Construction Equipment 12 Diese   10 0.7 144 2.469749 4.138721 595.1466 0.000218 0.12121 0.35703 0.002039 0.00513 0.7579 2.45E-06 0.000024 0.000025   Cher Construction Equipment 12 Diese   10 0.7 144 2.469749 4.138721 595.1466 0.000145 0.00813 0.00513 0				0.59	0.039133	1587 536.7955	0.001421	09664 0.00937	0.011812	001001 0	03955 13.73	m	0.000247	0.00024 0.0	00302
Sid Stee Loaders75   Diese   75   0.21 65.5598 3.015688 3.94864 66.30015 0.000145 0.000145 0.000494 0.79062 2.465-06 0.0000499 0.000494   0.79062 2.465-06 0.0000499 0.0000494   0.79062 2.465-06 0.0000499 0.0000494   0.79062 2.465-06 0.0000499 0.0000494   0.79062 2.465-06 0.0000499 0.0000494   0.79062 2.465-06 0.0000499 0.0000494   0.79062 2.465-06 0.0000494 0.0000494   0.79062 2.4626		lers100	Diesel 100	0.59	0.342347	1226 596.0783	0.001613	54901 0.05325	0.027829	0.00146 0.	04734 2.541	9	0.000234	0.000227 0.0	00119
Other Construction Equipment 25 Diesel 25 0.59 83.916 1493648 3.763477 595.1496 0.002188 0.171289 0.16615 0.352023 0.002038 0.005135 0.812025 2.99E-06 0.000234 0.002027 0.000209 0.005113 0.735719 2.67E-06 0.000234 0.000238 0.005113 0.735719 2.67E-06 0.000234 0.000238 0.000213 0.735719 2.67E-06 0.000234 0.000238 0.000213 0.735719 2.67E-06 0.000234 0.000238 0.000234 0.000239 0.0005113 0.735719 2.67E-06 0.000234 0.000239 0.000323 0.000379 0.00		d Steer Loaders75	Diesel 75	0.21	3.015688	1864 694.3015	0.002158	12121 0.39975	0.576121	003432 0	104494 0.79	7	0.000469	0.000455 0.0	95900
Other Construction Equipment11 Diese 107 144 2469149 4138521 593.758 000218 0.24043 0.23321 0.837675 0.003919 0.005113 0.75579 2.67E-06 0.000294 0.000285 0.000052 0.		Equipment25		0.59	1.493648	3477 595.1496	0.002188	71289 0.1661	5 0.352023 0	0	0	7	0.000234		00048
Grinder Other Construction Equipment100 Diesel 100 0.43 144 0.556396 1.360255 596.0114 0.001645 0.088344 0.080643 0.05507 0.0005798 0.0003594 4.068104 1.12E-05 0.000569 0.000552 O.0016552 O.001645 0.083344 0.088643 0.05507 0.000374 0.001658 40.21795 0.000106 0.000724 0.000973 O.011812 0.0009732 0.001658 40.21795 0.000106 0.000724 0.000973 O.011812 0.0009732 0.001679 0.0000734 0.000973 O.011812 0.000973 0.00167 0.000973 0.000973 0.000973 0.000973 0.00167 0.000973 0.00		ner Construction Equipment11	Diesel 11	0.7	2.469749 4.	1621 593.7568	0.002183 0	40434 0.23322	1 0.837675 0	.003019 0.0	0	7	0.000294 (	0.000285 0.0	01024
Off-highway Trucks600 Diesel 600 0.59 192 0.039133 0.154387 536.7955 0.001421 0.009664 0.00937 0.011812 0.002323 0.011582 40.21795 0.000106 0.000702 Other Construction Equipment100 Diesel 100 0.43 174.8248 0.555396 1.360255 596.0114 0.001645 0.08343 0.05507 0.00461 0.01127 4.93827 1.35505 0.000691 0.00067	η Grinder	ner Construction Equipment100	Diesel 100	0.43	0.556396 1.	296	0.001645 0	83344 0.08084	3 0.050507 0	.003798 0.0	9.	H	0	0.000552 0.0	00345
Other Construction Equipment100 Diese 100 0.43 1742848 0.55656 13 56025 596 0.114 0.001645 0.001849 0.059570 0.006611 0.011272 4.989927 1.38E-05 0.000691		-highway Trucks600	Diesel 600		0.039133 0.		001421 0	0	5 0.011812 0	.002932 0.0	8	ō	0	0.000702 0.0	00885
CONTROL OF THE COURT OF THE PROCESS AND THE TOTAL CONTROL OF THE CASE OF THE C			Diesel 100		0.556396 1.	-,		0		.004611 0.0	4.9		0		00419
Other Construction Equipment40 Discel 40 0.59 174.8248 0.302419 2.549508 595.8721 0.001576 0.02584 0.025055 0.095301 0.001375 0.011595 2.710033 7.175-06		3 5	Diesel 40		0.302419 2				0	001375 0.0			0	0.000114 0.0	00433

Off-lighway Trucks  Paves 137  Cache Construction  Off-lighway Trucks  Off-lighway Truc	2025 Fuel Tanks Concrete F Pickup Truck 2025, Fuel Tanks Concrete F Rithher Tired Loader	Orner Construction Equipment 7.3	Diesei	524.4744	0	587 536.7955	0.001421	0	110.0 57860	0 0 0	0 0 0	109.8608 1 12.45175 1 10.68044	0.000291 0 3.72E-05 0	0.001919	
Control Cont	norete FRubber Tired Loader	Off-highway Trucks600	Diesel		۰						6 0.035114 3 0.007078 6 0.010698	12.45175	3.72E-05 0.	000000	
Particularies   Particularie	Concrete F Slin Form Paver	oaders/	Diesel	174.8248	-i c	742 625.7929	0.001867	.222675 0.2:	15995 0.258 33336 0.02		6 0.010698	7121071	2 88F-05 0	0.0004298	
Control   Cont	2025 Fuel Tanks Concrete F Surfacing Equipment (Grooving)	quipment25		174.8248	m	477 595.1496	0.002188	171289 0.	16615 0.3520			1.691/1/	6.22E-06 0.	0.000472	
Control Cont	2025 Fuel Tanks Constructi Other General Equipment	quipment175		32	1.22517 0.694	274 536.7159	0.00148	0.054749 0.00	53107 0.039		8 0.001848	1.424648	3.93E-06 0	0.000141	
Continue	Johnstructi Pickup Truck Drainage - Excavator	OI Friginaly Trucksboo Excavators175	Diesel	151 52	059155 0.154 073539 0.244	567 536 7987	0.001421	0.0175 0.0	16975 0.011		8 0.0013	9 257156	2.45E-05 0	0.0000117	
Control Cont	2025 Fuel Tanks Drainage Dozer	/Dozers175		151.52	092973 0.286	867 536.7896	0.00143	.0 22793 0.0	02211 0.014	312 0.00160	0	9.257008	2.47E-05 0	0.000381	
Contact   Cont				151.52	039133 0.154	587 536.7955	0.001421	.009664 0.0	09375 0.011	312 0.00231	4 0.0091	1 31.73866	8.4E-05 0	0.000554	
Control   Cont		1/5 ent175		151.52	1.98587 1.764 1.22517 0.694	74 525.7929	0.001867	2226/3222	53107 0.258	00/TOO 679	1 0.03043:	6 745706	3.22E-U5 1.86E-05.0	0.003725	
Control   Cont	2025 Fuel Tanks Drainage Pickup Truck			151.52 0	039133 0.154	587 536.7955	0.001421	.009664 0.00	39375 0.011	0	4 0.0091	31.73866	8.4E-05 0	0.000554 0.	
(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Drainage Roller	Rollers100		151.52	342347 1.110	226 596.0783	0.001613	.054901 0.0	53254 0.027	0	4 0.01094	5.873971	1.59E-05 0	0.000525	
Company   Comp	Dust Conti Water Truck	Off-highwayTrucks600 Crawler Tractor/Dozers175		2160 0	039133 0.154 092973 0.286	587 536.7955	0.001421	0009664 0.00	39375 0.0114 3110 0 11720	$\circ$	5 0.130298	3 452.4519 5 142.4108	0.001197 0	0.007902	
Control Cont	excavation Dump Truck (12 cy)	Off-highway Trucks600		2331 0.		587 536.7955	0.001421	.009664 0.00	09375 0.011	, 0	0	488.271	0.001292 0	0.008527	
Color   Colo	xcavatior Pickup Truck			2331 0		587 536.7955	0.001421	.009664 0.00	110.0 27860	0	0	488.271	0.001292 0	0.008527	
Control   Cont	excavation Roller	į		1075.846 0	342347 1.110	226 596.0783	0.001613	.054901 0.0	53254 0.027	0	0	41.70729	0.000113 0	0.003726	
Control Cont	excavatior Dozer	Crawler Tractor/Dozers1/5		1/48.25 0	0929/3 0.286	2 2	0.00143	0.022/93 0.0	9221 0.014:	ے د	_ <	976 542	0.000285 0	0.004399	
Checking	Scavation Excavator	ncv3000		1398.6	073539 0.244	536.7982	0.001423	0.0175 0.0	16975 0.011	, ,	0	85.44785	0.002384 0	0.002702	
State   Stat	Excavation Pickup Truck	ucks600		1398.6	039133 0.154	587 536.7955	0.001421	009664 0.00	09375 0.011	, 0	0	292.9626	0.000775	0.005116	
State   Stat	2025 Fuel Tanks Excavatior Roller			1398.6	342347 1.110	226 596.0783	.001613	.054901 0.0	53254 0.027		0	54.21948	0.000147	0.004844	
Charles   Char	2025 Fuel Tanks Excavatior Scraper			1748.25 0	193562 0.494	954 536.7416	.001476	.034439 0.03	33406 0.030.	0	0	366.1665	0.001007 0	0.02279 0	
Control   Cont	ō	175		82.27059 0		867 536.7896	0.00143	.022793 0.0	02211 0.014	0	0	5.026264	1.34E-05 0	0.000207	
Comparison   Com		Off-highway Trucks600		52.5		587 536.7955	.001421	.009664 0.00	39375 0.011	0	0	10.99709	2.91E-05 0	0.000192	
State   Stat		200		210	039133 0.154	587 536.7955	.001421	.009664 0.00	39375 0.011	312 0.00320	7 0.012668	43.98838	0.000116 0	0.0000768 0	
Content   Cont		ipment1/5		210	.22517 0.694	274 536.7159	0.00148	.054749 0.0	93107 0.039	769 0.00392	2 0.01209	9.34925	2.58E-05 0	0.000925	
Content   Cont		Chial Story Locksboo		210	039133 0.154	587 536.7955	0.001421	0.09664 0.0	373 0 5350	0.00320	7 0.012558	43.98838	0.00011b 0	0.000768	_
Content   Cont		khoes 100		210	015688 3.94 416276 2.47	864 694.3ULS 235 694 9526	0.002158	712121 0.3	11486 0359	121 0.01099	5 0.014398	3 3 78 3 16	7.8/E-06 0	0.001457	
Profite   Prof		ozers175		57.8144	092973 0.286	536.7896	0.00143	022793 0.0	1100 1122	17 0.00061	0		9.41F-06	0.000145	
Other Communication registerations   Decet   Direct   D				57.8144	050706 0.18	536.7878	0.001426	.012448 0.0	12074 0.014:	259 0.00057	0		1.61E-05	0.000136	
Chicamant   Chicamant   Data   Chicamanta  Data				57.8144 0	342347 1.110	596.0783	0.001613	.054901 0.0	53254 0.027	329 0.00128	7 0.00417		6.06E-06	0.0002	
Chick-how   Chic	2025 Fuel Tanks Hydroseec Hydroseeder	pment600		52.085 0	606632 1.303	536.588	0.001601	0.0 688760.	94953 0.083	191 0.0123	3 0.026489	10.90595	3.25E-05	0.00193	
Other Control Contro	Hydroseec Off-Road Truck			52.085	039133 0.154	587 536.7955	0.001421	.009664 0.0	110.0 57.80	312 0.00079	5 0.003142	10.91017	2.89E-05	0.000191	
Other Communication Informative December   155   0.4   1080 0.02431 0.04474 0.04745 0.04579 0.04745 0.04749 0.04747 0.04744 0.04747 0.04744 0.04747	Markings Flatbed Truck			1080	039133 0.154	587 536.7955	0.001421	.009664 0.00	110.0 57860	312 0.01649	2 0.065149	3 226.2259	0.000599	0.003951	_
Other property of the proper	Markings Other General Equipment	Other Construction Equipment175		1080	.22517 0.694	274 536.7159	0.00148	.054749 0.0	53107 0.039	769 0.02017	2 0.06219	48.08186	0.000133	0.004758	
Otherhowy Trackool   Other Contraction Regiment 12   Dead   10   0.0	Markings Pickup Truck	Off-highway Trucks600		1080	039133 0.154	587 536.7955	0.001421	.009664 0.00	39375 0.011	312 0.01649	2 0.065149	226.2259	0.000599	0.003951	
Control/Linearing   Control/Lineary   11   Control/Lineary   12	soil crosio Other General Equipment	Off highway Tarakego		₹ A	1.2251/ U.094	274 536.7159	0.00148	0.0 64/49	951U/ U.U59	212 0.00089		70901 06	5.89E-U5	0.000211	
Principle National Control C	Soil Frosio Pickup i ruck	Other Construction Equipment 1		8 8	469749 0.189	507 556.7555	0.001421	240434 0.0	33271 0.837	375 0.00140	8 0.00379.	7 0 1486	5.32E-03 5.46E-07	5.84F-05	
Chicheaner Trackerion   December 1	Soil Erosio Turnips	Tractors (Londors (Backhoos 100		9 6	409/49 4.163	725 607 0576	200000	20112 0.2	11496 0.3501	115 0.00001	7720000	7 0 777 187	3.405-07	0.000346	
Principal Condery Machine Control Co	Soil El Oslo 11 actors/ Loader/ Backiloe Street Ligh Dump Truck			31.46667		587 536.7955	0.002073	0.95112 0.3	11460 0.5390	312 0.00208	1 0.001898	6.591274	2.31E-05	0.000346	
Chicago   Chic	Street Ligh Loader			31.46667 0		742 625.7929	0.001867	222675 0.2	15995 0.258	529 0.00353	1 0.0063	2.241186	6.69E-06	0.000774	
State   Stat	treet Ligh Other General Equipment	75		31.46667 0		274 536.7159	0.00148	.054749 0.0	53107 0.039	85000.0 692	8 0.001813	1.400903	3.86E-06	0.000139	
Market   Lader   Lad	treet Ligh Pickup Truck	Off-highway Trucks600		31.46667		23	0.001421	.009664 0.00	110.0 57560		0	6.591274	1.74E-05 C	0.000115	
Tractor/Loader/Signatureston   Diese  100 0.92   ATTOR   Caraber Tractor/Coates/Signatureston   Diese  100 0.93   ATTOR   A	2025 Fuel Tanks Street Ligh Skid Steer Loader			31.46667 3		Ö,	0.002158	.412121 0.3	9757 0.576:		0	0.379303	1.18E-06 C	0.000218	
Chiefe  Chie	treet Ligh Tractors/Loader/Backhoe	Backhoes100		31.46667 2	416276	Ğ.	0.002075	0.32112 0.3	11486 0.359		0	0.506211	1.51E-06 C	0.000227	
Chiefle   Chie	ubbase P Dozer	175		110.4158 0	092973	io i	0.00143	.022793 0.0	02211 0.0143		8 0.00360	6.745775	1.8E-05	0.000278	
Control   Cont	ubbase P Dump Truck (12 cy)			0 /// 0	039133 0.154	587 536.7955	0.001421	0009664 0.00	110.0 5/580		5 0.04687.	152.757	0.000431	0.002842	
Chiefle   Convertication   Converticat	ubbase P Pickup Truck ubbase P Roller			107.5846 0	42347	226 596.0783	0.001421	054901 0.0	53254 0.027		5 0.00776	4.170729	1.13F-05	0.000404	
CFF  Pigway Trucks600   Diese  600   C93 5565313 C158473 S158 C555 C100121 C1006646 C100375 C101181 C1000375 C101181 C1000375 C100181 C1000375 C1000375 C100181 C1000375 C100181 C1000375	2025 Fuel Tanks Topsoil Ple Dozer	ictor/Dozers175		256.9533	92973	867 536.7896	0.00143	.0 22793 0.0	02211 0.014		9 0.00838	15.69838	4.18E-05	0.000647	
Chickeon	2025 Fuel Tanks Topsoil Pla Dump Truck			256.9533	039133 0.154	587 536.7955	0.001421	.009664 0.0	39375 0.011			53.82362	0.000142 0	0.00094	
Intercontrol control	Topsoil Pickup Truck	3600		256.9533 0		587 536.7955	0.001421	.009664 0.00	09375 0.011			53.82362	0.000142 0	0.00094	
Chiefe Water and Chie	Concrete F Backhoe	ackhoes100		480 2	4162/6 2.47	235 694.9526	0.002075	0.32112 0.3	11486 0.359	-	8 0.02/47	7.721866	2.31E-05 C	0.003461	
Excavators175   Excavators17	Concrete F Concrete Ready Mix Trucks			360	039133 0 154	587 536 7955	0.001421	009664 0.00	11100 3750	, ,	7 0 0 2 1 7 16	75 40865	0 0000	0.000213	
Christophany   Chri	Concrete F Excavator			160	073539 0.244	632 536.7982	0.001423	0.0175 0.0	16975 0.011	, 0	9 0.00445	9.775244	2.59E-05 C	0.000309	
ChiefiphwayTrucks600   Diese  600 0.59 120 0.03913 0.14587 536.7955 0.001421 0.000564 0.000375 0.011812 0.000383 0.000438 0.000937	2025 Building - Concrete F Fork Truck	Equipment 100		480 0		255 596.0114	0.001645	.083344 0.0	30843 0.050	0	9 0.04246	18.60606	5.14E-05 C	0.002524	
Principle   Prin	2025 Building - Concrete F Tool Truck			120	039133 0.154	587 536.7955	0.001421	.009664 0.00	110.0 57860	0	2 0.007239	25.13622	6.65E-05 0	0.000439	
Principle   Chief   Principle   Chief   Chie	Concrete F Tractor Trailer- Material Delivery			240	039133 0.154	587 536.7955	0.001421	.009664 0.00	09375 0.011	0 0	0 (	50.27243	0.000133 0	0.000878	
Charle   C	Constructi Survey Crew Trucks			10	039133 0.154	587 536.7955	0.001421	.009664 0.00	19375 0.011	0 '	0 0	2.094685	5.54E-06	3.66E-05	
Chief Construction Equipment(40)   Diese    40   0.35   840 L03266   0.003344   0.0034	Constructi Iractor Iraliers Lemp Fac.			0 4 6		587 536.7955	0.001421	003544 0.00	110.0 c/560	S12 6.11E-U	-	0.83/8/4	2.22E-Ub J	1.46E-US	
ef Truck (Prieghway Trucks600 Diesel 600 0.59 420 0.66683 1.833279 5.86.588 0.000451 0.0097889 0.009453 0.009452 0.131598 87.94275 0.000058 0.000585 0.000458 0.000459 0.00045	sterior W Fork Truck	ent40		9 6	302419 2540	255 596.UIL4 508 595.8721	0.001645	0.05844 0.00	50645 0.030	, ,	0	0.005.26	2 39E-05 U	3.8F-05	
Figure   Confeignment   Confeignme	xterior W Grout Mixer	ent600		420 0	606632 1.303	279 536,588	0.001601	0.0 688760	94953 0.083	, ,	0	87.94275	0.000262 0	0.015562	
Rough Terrain Freilita*75   Diese   75 0.21   1680 0.46821 2.688223 595-906 0.00143 0.004661 0.00345 0.007442 0.001432 0.001441 0.00544 0.00545 0.007425 0.001442 0.001438 0.001443 0.001441 0.00564 0.00375 0.01141 0.00644 0.001336 0.001430 0.001430 0.00144 0.00	Exterior W Grout Wheel Truck			160 0		587 536.7955	0.001421	.009664 0.0	110.0 57860	0	0	33.51495	8.87E-05 0	0.000585	
Off-lighwayTrucks600   Olese  600 0.59   420 0.03913 0.14587 5.85 5.0001421 0.005640 0.001875 0.0018236 6.001826 0.0001356 0.0001856 0.0001856	Exterior W Man Lift			1680	.46821 2.688	823 595.9096	0.00164	.050119 0.0	18616 0.082	0	0	17.38108	4.78E-05 0	0.001418 0	
Institution   Conference   Co	xterior W Tool Truck			420	039133 0.154	io i	0.001421	0 '	39375 0.011	0 0	0	87.97676	0.000233 0	0.001536 0	
Professional Pro	sterior W Tractor Trailer- Material Delivery			840	039133 0.154	'nü	0.001421	ر ر	110.0 47880	ر ر	0 0	275.9535 0106610	0.000466 0	7.265.05.0	
Rough Terrain Forkliffs/5   Diese   75 0.21 3200 0.46821 2.688823 395.905 0.00164 0.050119 0.048616 0.082418 0.036012 0.149382 33.10682 9.11E-05 0.002784 0.00270 0 CM	terior Wilder Tower (Mantiwoo Lype)	ent100		1600 0	020731 U.114 556396 1.360	นัก	0.001414	, ,	30843 0.050	507 0.05789	8 0.141546	62.02019	0.000171	- 0	
By Tool Truck         Off-lighway Trucks600         Diesel         600         0.59         1600 0.039133 0.154587 536,7955 0.001421 0.009664 0.009375 0.011812 0.024433 0.096517 335,1495 0.0000887 0.000683 0.000583	terior Bu Man Lift			3200	.46821 2.688	ŭ	0.00164	. 0	18616 0.082	118 0.02601	2 0.14938	33.10682	9.11E-05	0	
9. Tractor Trailer-Material Delivery Off-highway Trucks600 Diesel 600 0.59 160 0.099133 0.154587 56.7955 0.001421 0.009664 0.009975 0.011812 0.024433 0.096517 335.1495 0.0000887 0.000683 0.000683 0.000683 0.000683 0.000683 0.000887 0.000683 0.000683 0.000887 0.000683 0.000683 0.000887 0.000683 0.000887 0.000683 0.000887 0.000683 0.000887 0.000887 0.000683 0.000887 0.000887 0.000683 0.000887 0.000887 0.000883 0.000887 0.000888 0.000888 0.000848 0.000848 0.000848 0.000848 0.000848 0.000848 0.000848 0.000848 0.000848 0.000918 0.000848 0.000918 0.000848 0.000918 0.000	terior Bu Tool Truck			1600	039133 0.154	Š	0.001421	0	110.0 57860	312 0.02443	3 0.096517	335.1495	0	0	
High Lift         Rough Ternin Forkilitisto         Diesel         100         0.59         160         0.437526         1.223449         5.66432         0.001627         0.064022         0.03539         0.000566         0.000667         0.00067         0.000667         0.00067         0.00067         0.00067         0.00067         0.00067         0.000667         0	terior Bu Tractor Trailer- Material Delivery			1600 0.		'n	0.001421	0	110.0 57860	312 0.02443	3 0.09651	335.1495	0	0	
Wann Lift         Rough Terrain Cough Te				160	⊣		0.001627	0	54022 0.038	997 0.00455	3 0.01273.	9	1.69E-05 0.0006	0.000666 0	
Material Deliverres Off-lightway Trucks600 Diesel 600 0.39 40 0.03913 0.134587 535,795 0.001421 0.00964 0.009375 0.011812 0.000316 0.00819 13.33F-05 0.0000219 0.00002		Rough Terrain Forklifts75	Diesel	40	7	23	0.00164 0.	0	48616 0.082	118 0.00032	5 0.00186	0.5	1.14E-06 3.48E-	3.38E-05	
Tractor Trainer Material Delivery Orf-rightway Indicasion Diese 600 0.59 40 (105955 0.01421 0.000966 0.00051 0.000510 0.00051 0.000510 0.00051			Diesel	9 :	o (	23	0.001421 0.	.009664 0.00		312 0.00091	6 0.003619	12	m e		
THE PERSON OF TH		Off-highway Trucks600	Diesel	9 9			0.001421				0	00 1	2.22E-05 0	0	

Building - Structural 90 Ton Crane		Diesei	0.09	0.0 0.039133 0.13430/ 330./333 0.001421 0.003064 0.0033/3 0.011612 0.01221/ 0.046236 16/.3/46 0.000443 0.00301/ 0.002320 0.00306/
	Cranes 300 Diesel	(1)	0.43	0.001437 0.017749 0.017217 0.024289 0.002802
Concrete Pump	ipment11		0.43	4.183621 593.7568 0.002183 0.240434 0.233221 0.837675 0.000773 0.001309 0.185749 6.83E-07 7.52E-05 7.3E-05
Concrete Truck		_	0.59	0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000916 0.003619 12.56811 3.33E-05 0.000226
Fork Truck	ipment100		0.59	0.556596 1.860255 596.014 0.001645 0.088344 0.080847 0.050507 0.028159 0.056619 24.80808 6.85E-05 0.003469
Building - Structural 1001 Iruck Building Genetural Tracker Irailar Stroot Dalisarian	Off-highway Indexsoo	009	65.0	U.1945A SB. 1957-1950. U.OLIGATI U.U.029570 U.U.1181Z U.U.02445 U.U.0552 SI.SIJ499 S.KT-C.D.U.U.000830 U.U.0585
Structural Trowel Machine	ipment600		0.59	0.606632 1.303279 536.588 0.001601 0.097889 0.094953 0.083191 0.009469 0.020343 8.3755 2.5E-05 0.001528
Structural Truck Tower (Mantiwoc type)	Off-highway Trucks300 Diesel		0.43	0.020751 0.114516 536.8026 0.001414 0.006672 0.006472 0.009732 0.002125 0.011724 54.95958
Concrete F Backhoe	001saor		0.21	2.416276 2.47235 694.9526 0.002075 0.32112 0.311486 0.359615 0.017899 0.018314 5.14791 1.54E-05 0.002379 0.002307
Concrete F Concrete Ready Mix Trucks			0.59	0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000916 0.003619 12.56811 3.33E-05 0.000226 0.000219
Building - Concrete F Fork Truck	ipment100		0.59	1.360255 596.0114 0.001645 0.083344 0.080843 0.050507 0.01158 0.028309 12.40404 3.42E-05 0.001735 0.001682
Concrete FTool Truck			0.59	80 0.033133 0.154587 536,7955 0.001421 0.009664 0.009375 0.011812 0.001222 0.004826 16,75748 4,48E-05 0.000302 0.000293
Concrete Firactor Trailer - Material Delivery	Off-highway Irucks600 Diesel	009	0.59	
Constructi Survey Crew Trucks	Ort-nignway Irucksbuo Diesel		65.0	10 U.039133 U.13956 536, 535 U.00142 L.U.039664 L.U.0357 U.01181Z U.00135 U.00060 Z.U9468 S.SEFUG S.Y.FEG S.Y.
CONSTITUTE HIGH HIGHERS LETTING FAC.	001+400		0.00	AND DESCRIPTE ERECALA ADMINISTRATION OF A DESCRIPTION OF
Exterior Wilden Lift	Inprinentation 75		0.39	0.550599 1.3502-2.5 390.0114 (ULIDA) 0.0505-34 (USDG) 0.05050) (USDG) 0.05050 1.35022 3.503029 1.5702-2.0 (UDLIZA) 0.050599 1.3502-2.5 390.0114 (ULIDA) 0.0505-34024 0.0506-34020 0.0505-34
Exterior M Tool Truck	2	609	7.0	LAN CHARLE LEGGEST SECTION OF COURT OF CONTROL OF COURT O
Building - Exterior W Tractor Trailer-Material Delivery			0.59	24 0.39133 0.154587 536,7955 0.001421 0.009664 0.009375 0.011812 0.000366 0.001408 5.027243 1.38E-65 9.05E-65 8.78E-05
2025 Building - Interior Bu Fork Truck	pment100		0.59	960 0.556396 1.360255 596.0114 0.001645 0.083344 0.080843 0.050507 0.034739 0.084928 37.21212 0.000103 0.005204 0.005047
Interior Br Man Lift			0.21	960 0.46821 2.688823 595,9096 0.00164 0.050119 0.048616 0.082418 0.007804 0.044815 9.932046 2.73E-05
Building - Interior Bu Tool Truck			0.59	120 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.001832 0.007239 25.13622 6.65E-05 0.000453 (
Building - Interior B. Tractor Trailer- Material Delivery	Off-highway Trucks600 Diesel			
High Lift	001			120 0.437526 1.223449 596.0453 0.001627 0.066002 0.064022 0.038997 0.003415 0.009548 4.651779
Man Lift (Fascia Construction)	Rough Terrain Forklifts75 Diesel		0.21	120 0.46821 2.688823 595.9096 0.00164 0.050119 0.048616 0.082418 0.000975 0.005602 1.241506
Material Deliveries			0.59	8 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000122 0.000483 1.675748 443E-06 3.02E-05 2.93E-05
Tractor Trailer- Material Delivery			0.59	12 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000183 0.000724 2.513622 6.65E-06 4.53E-05 4.39E-05
Security & High Lift	100		0.59	320 0.437526 1.223449 596.0453 0.001627 0.066002 0.064022 0.038997 0.009106 0.025462 12.40474 3.39E-05 0.001374 0.001332
Building - Security & Tool Truck	Off-highway Trucks600 Diesel	009	0.59	80 0.039133 0.194867 536.795 0.001421 10.009646 0.001421 0.001525 0.001482 0.001425 0.001425 0.000239 0.000392 0.000399 0.00039 0.00039 0.00039 0.00039 0.00039 0.00039 0.000399 0.000399 0.000039 0.000399 0.000399 0.0000
Building - Structural Fort Truck	etruction Fauinment100		9 0	240 C.OZZII C.52234 3.05.712 C.OZZI43 O.OZZIA3 O.OZZIZI C.OZZIZO C.OZZIZO 4.5.2.2 C.ODOCOCO C.OZOZIZ 170 O.GZIZI 13.0775 GAGOTTA O.OZZIAS O.OZZIZI O.OZZIZO C.OZZIZO C.OZZIZO 4.5.2.2 C.ODOCZIZ 170 O.GZIZI 13.0775 GAGOTTA O.OZZIAS O.OZZIZI O.OZZIZI O.OZZIZO C.OZZIZI G.OZZIZO 4.7.2 C.ODOCZI O.OZZIZI O.
Building - Structural Tool Truck	207		0.59	60 0.039133 0.154587 536,7955 0.0001421 0.009664 0.000975 0.001181 0.000969 0.000329 0.0000228 0.0000228 0.0000229
Building - Structural Tractor Trailer-Steel Deliveries			0.59	16 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000244 0.000965 3.351495 8.87E-06 6.03E-05 5.85E-05
Constructi Survey Crew Trucks	Off-highway Trucks600 Diesel		0.59	10 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000153 0.000603 2.094685
2025 Site Work Constructi Tractor Trailers Temp Fac.	Off-highway Trucks600 Diesel		0.59	4 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 6.11E-05 0.000241 0.837874 2.22E-06 1.51E-05
2025 Site Work Site Cleari Bulldozer	Crawler Tractor/Dozers175 Diesel	-	0.59	40 0.092973 0.286867 536.7896 0.00143 0.022793 0.02211 0.014312 0.000423 0.001306 2.443772 6.51E-06 0.000104
2025 Site Work Site Cleari Chain Saws	ipment11			40 2.469749 4.183621 593.7568 0.002183 0.240434 0.233221 0.837675 0.000839 0.00142 0.201589 7.41E-07 8.16E-05 7.92E-05
2025 Site Work Site Cleari Flat Bed or Dump Trucks				80 0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.001222 0.004826 16.75748 4.43E-05 0.000302 0.000293
2025 Site Work Site Cleari Front Loader	10es100	-	0.21	40 2.416276 2.47235 694.9526 0.002075 0.32112 0.311486 0.359615 0.002239 0.0643499 1.92E-66 0.000299 0.000288
Site Clearli Grub the site down 2-0	ipment40	9 6	6.59	4 U.302419 Z.549508 595-874 U.UUIS/N U.UUS980 U.US980 U.US9830 U.UU0031 U.UUU5950 U.EE-US
2025 Site Work Site Cleari Log Chipper 2005 Site Mork Site Cleari Mulcher	Other Construction Equipment 100 Diesel		0.43	1.350255 595.U114 U.UU1845 U.U83844 U.U80843 U.U505U/ U.UU1U55 U.U025/9 1.130029 13605F 596.0114 U.U01645 U.U8344 U.U80843 U.U50507 U.U01055 U.U02579 1.130029
2025 Site Work Site Cleari Ten Wheelers			65.0	0.039133 0.154587 536 7965 0.001421 0.00664 0.00637 0.011812 0.00611 0.006413 8.38739 2.2565 0.000141 0.000146
2025 Site Work Site Cleari Tractor	10es100		0.21	2.416276 2.47235 694.9226 0.002075 0.32112 0.31486 0.359615 0.004475 0.004579 1.286978 3.84E-06 0.000595 0.000577
2025 Site Work Site Restor Bob Cat			0.21	2.197293 3.476923 694.8737 0.002104 0.273771 0.265558 0.384111 0.000916 0.001449 0.289537 8.77E-07 0.000114 0.000111
2025 Site Work Site Restor Concrete Ready Mix Trucks		v	0.59	0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000366 0.001448 5.027243 1.33E-05 9.05E-05 8.78E-05 (
2025 Site Work Site Restor Tractor Trailer with Boom Hoist- Delivery	Off-highway Trucks600 Diesel		0.59	536.7955 0.001421 0.009664 0.009375 0.011812 0.000366 0.001448 5.027243 1.33E-05
2025 Site Work Site Restor Compacting Equipment	Plate Compactors6 Diesel	9	0.43	24 2.527845 4.190847 588.0067 0.002162 0.254101 0.246479 0.823845 0.000173 0.000286 0.040135 1.48E-07 1.73E-05 1.68E-05 5.62E-05
2025 Site Work Site Restor Small Dozer	Crawler Tractor/Dozers175 Diesel		0.59	0.092973 0.286867 536.7896 0.00143 0.022793 0.02211 0.014312 0.000254 0.000784 1.466263
2025 Site Work Site Restor Forktruck (Hoist)	Other Construction Equipment100 Diesel		0.59	80 0.556396 1.360255 596.0114 0.001645 0.083344 0.080843 0.050507 0.002895 0.007077 3.10101 8.56E-06 0.000434
2025 Site Work Site Restor Roller			0.59	40 0.342347 1.110226 596.0783 0.001613 0.054901 0.053254 0.027829 0.000891 0.002888 1.550679 4.2E-06 0.000143 0.000139
2025 Site Work Site Restol Seed Truck Spreader			0.59	0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.000244 0.000965 3.351495 8.87E-06 6.03E-05 5.85E-05
2025 Site Work Site Restoi Tractor Trailer- Material Delivery		_	0.59	0.039133 0.154587 536.7955 0.001421 0.009664 0.009375 0.011812 0.001222 0.004826 16.75748 4.43E-05 0.000302 0.000293
2025 Site Work Undergrou Backhoe	10es100		0.21	2.416276 2.47235 694.9526 0.002075 0.32112 0.311486 0.359615 0.006712 0.006868 1.930466 5.76E-06 0.000892 0.000865
2025 Site Work Undergrot Fork Truck	ipment100	100	0.59	1.360255 596.0114 0.001645 0.083344 0.080843 0.050507 0.002171 0.005308 2.325757 6.42E-06 0.000325 0.000315
2005 Cito Mork The dorage Tractor Trailor Material Delivery	000			一条有人的现在分词 医人名人名 医多种性皮肤 化二甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基

On-Road Sources

															MOVES OF	MOVES ONROAD Emissions
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Scenario Il Year Project Equipmen Equipment Category	On-road Activity	Lookup Fuel	Roadway 1 Round Trif Distance & Number o Number o Number o Inumber o Project Wil Project Ari Building H Open Spac Number o Activity RaVMT	ıd Triķ Distan	ce fr Numbe	ro.Number	Number of	Project Lei F	roject Wi Pı	oject Arı Bu	Iding H Ope	n Spac Nur	nber o Activi	y RaVMT CO NOx	SO2 PM10	0 PM2.5
1 2025 Taxiways Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb; Diesel	Urban Unr	40	2	1	258	3300	30	1	1	1	1	1436 2.202626 3.881591 0.005494		0.06619 0.06089
1 2025 Taxiways Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	2	258	3300	30		1		:	22894 1.269302 1.803304 0.003409		0.0339 0.031188
1 2025 Taxiways Dump Trui Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1	258	3300	30	1	1	1		2035 1.269302 1.8	1.269302 1.803304 0.003409 0	0.0339 0.031188
1 2025 Taxiways Dump Trui Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1	258	3300	30		1		:	12210 1.269302 1.803304	0.003409	0.0339 0.031188
1 2025 Taxiways Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30 -	49	497.2 497.2	258			1	1	1	1	848328 2.851508 0.067149 0.002101		0.002103 0.00186
2 2025 Terminal / Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1	258	716	400	1	1	1		4156 2.202626 3.881591 0.005494		0.06619 0.06089
2 2025 Terminal / Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	- 4	258	716	400	1	1	1		66230 1.269302 1.803304 0.003409		0.0339 0.031188
2 2025 Terminal / Dump Trui Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1	258	716	400	:	1	:	:	5887 1.269302 1.803304 0.003409		0.0339 0.031188
2 2025 Terminal / Dump Trui Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	2	258	716	400	1	1	1	1	35323 1.269302 1.803304 0.003409		0.0339 0.031188
2 2025 Terminal / Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30 -		76 76	. 258	,		1	1	1		588240 2.851508 0.067149 0.002101	57149 0.002101 0.00	0.002103 0.00186
3 2025 Terminal / Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1	258	400	- 9//	1	1	1	1	4504 2.202626 3.881591 0.005494		0.06619 0.060895
3 2025 Terminal / Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	- 4	258	400	- 9//	1	1	1	1	71780 1.269302 1.803304 0.003409		0.0339 0.031188
3 2025 Terminal / Dump Trui Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1	258	400	- 9//	1	1	1	1	6380 1.269302 1.803304 0.003409		0.0339 0.031188
3 2025 Terminal / Dump Trui Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	2	258	400	- 9//	:	1	:	:	38283 1.269302 1.803304 0.003409		0.0339 0.031188
3 2025 Terminal / Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30 -	,	74 374	258			1	1	1	1	2894760 2.851508 0.067149 0.002101 0.002103	57149 0.002101 0.00	02103 0.00186

Makes is billowy         Consideration class (1946) for a control of the contro	Descript the following that the control of the co	0895	1188	1188	1188	1188	1188	0.00186	9895	1188	0.031188	0186	2680	1188	0.00186	9895	1188	1188	1188	0.00186	0895	1188	1188	0.00186	1188	1188	1188	0895	9895	1188	1188	1188	0186	1188	1188	0186	9882	0.031188	1188	0186	0895	1188	1188
Control Colored   Control Colored		0.06619 0.06	0.0339 0.03	0.0339 0.03	0.0339 0.03				0.06619 0.06			0.002103 0.0	0.06619	0.0339 0.03		0.06619	0.0339 0.03		0.0339	0.002103	0.06619		0.0339 0.03	0.002103 0.0	0.0339 0.03	0.0339 0.03	0.0339 C	0.06619		0.0339 0.03	0.0339 0.03	0.0339 0.03	0.002103 0.0	0.0339 0.03	0.0339	0.002103	0.06619		0.0339 0.03	0.002103 0.0			
Makes of the control Delivery         Description light of the control Delivery         1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	The control state of the contr			_			_	_	_	_	_		_	_		_			$\overline{}$	_				_	_			_	_			_	_	-	_	$\overline{}$	_	_	_	_	_	_	_
Material Delivery         Diese Urb Deesi         Urban form         40         5         1         288         2440         44	The way of common to device your blocked below you believed to the way of common to the way of the way of common to the way of the way of common to the way of the wa	2.202626	1.269302	1.269302	1.269302	1.269302	1.269302			٠.	1.269302		2.202626	1.269302				1.269302 1			2.202626	1.269302							2.202626	1.269302	1.269302			1.269302 1	1.269302	2.851508	2.202626	1.269302	1.269302			_	1.269302 1
Material Delivery         Diesel/Urb Dieses         Urban lum         40         5         1	This beams of Command Marketin Dioles of Market	1	,	ı	1	: :	1	1	0.0016			1	0.0016	1	1	1	1	1	,		,	ı	: :	,	1	1		0.0012		ı	1	ı		1	,	ı	0.0024	,	1	,	0.0016	,	1
Material Delivery         Diesel/Urb Dieses         Urban lum         40         5         1	The standing of sta	1		ı	1		1	1	:	ı	ı	,	1	:	1	1	,	1	:	1	1	ı		1	1	1			;	ı	1			ı	1	ı	1	,	,		1		ı
Material Delivery         Disseluth Dieses         Urban lur         40         5         1 - 288         2440         44 - 44 - 44 - 44 - 44 - 44 - 44 - 44	Attaches By Abball Striped         Market Ib Dileiery         Deed Up Diseasy         Deed Up Diseasy         1         2         2         2         2         2         2         4	1		ı	1		1	1		1	1	:		:	1	1	,	1	:	1		ı		1	1	1				ı	;			ı		ı	1	;	;		,		1
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Material Delivery         Diesel/Urb Dieses         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Dieses         Urban Unr         40         5         2 -         288           Material Delivery         Diesel/Urb Dieses         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Dieses         Urban Unr         40         5         1 -         288           Employee Commune         Gasoline/Us Gasoline         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Diesel         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Diesel         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Diesel         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Diesel         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Diesel         Urban Unr         40         5         1 -         288           Material Delivery         Diesel/Urb Diese	Towns be Applet (beneficial or Markin bulkey)         Deletely tholled)         Unban for the control of the control or the contro	2440	2440	2440	2440		1	1	1	1	1		1	1620	1	1620	1620	1620	1620	1	300	300	9 9	3	1	1			4725	4725	4725	4725	1	1	1	1	1	1	;		1		1
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	Taxiway E Asphalt IB Combination Short-haul Truck Traxiway E Dearent No Single Unit Short-haul Truck Traxiway E Dearent No Single Unit Short-haul Truck Traxiway E Dump Truckigele Unit Short-haul Truck Traxiway E Dump Truckigele Unit Short-haul Truck Building - Seasenger Passanger Car Building - Cement Mostingle Unit Short-haul Truck Building - Cement Mostingle Unit Short-haul Truck Building - Traces Truck Dearen Truckigele Unit Short-haul Truck Building - Traces Truck Dearen Truckigele Unit Short-haul Truck Building - Traces Truck Dearen Truckigele Unit Short-haul Truck Demolition Damp Truckigele Unit Short-haul Truck Demolition Damp Truckigele Unit Short-haul Truck Demolition Damp Truckigele Unit Short-haul Truck Access Ron-Cement Mostingle Unit Short-haul Truck Access Ron-Damp Truckingle Unit Short-haul Truck Cherl Tanks Dump Truckingle Unit Short-haul Truck Building - Teacer Tri-Combination Short-haul Truck Building - Teacer Tri-Combination Short-haul Truck Building - Tracer Tri-Combination Short-haul Truck Shulling - Tracer Tri-Combina	Urban Unr	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 40	Urban Unr 30	Urban Unr 40	Urban Unr 40	Urban Unr 40
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	6 2025	DieselUrb¿Diesel	DieselUrb; Diesel	DieselUrb;Diesel	DieselUrb¿Diesel	Gasoline Gasoline Gasoline O Gasoline O	DieselUrbiDiesel	Gasoline U Gasoline	DieselUrb: Diesel	DieselUrb:Diesel	DieselUrb:Diesel	Gasoline U Gasoline	DieselUrb¿Diesel	DieselUrb¿Diesel	Gasoline U Gasoline	DieselUrb¿Diesel	DieselUrb: Diesel	DieselUrb¿Diesel	DieselUrb: Diesel	Gasoline U Gasoline	DieselUrb¿Diesel	DieselUrb;Diesel	DieselUng Diesel	Gasoline U Gasoline	DieselUrb: Diesel	DieselUrb¿Diesel	DieselUrbiDiesel	DieselUrbi Diesel	DieselUrb¿Diesel	DieselUrb: Diesel L	DieselUrb: Diesel	DieselUrb¿Diesel	Gasoline U Gasoline	DieselUrb:Diesel	DieselUrb:Diesel L	ute Gasoline U Gasoline 1	DieselUrb¿Diesel	DieselUrb:Diesel	DieselUrb:Diesel	Gasoline U Gasoline	DieselUrb¿Diesel	DieselUrb; Diesel	DieselUrb¿Diesel

Fugitive Sources Units for Non-Greenhouse Gases Emission: Short Ton

Scenario Il Year	Project Fugitive Sc Number of Months	8		NOx s	202	PM10	VOC
4	2025 Taxiways Asphalt Dr	12	0	0	0	0	0.025
т	2025 Taxiways Asphalt Stu	12	0.23955	0.01495 0.002752	0.002752	0.0164	0.0074
	2025 Taxiways Material N	12	0	0	0	0.02995	0
4	2025 Taxiways Material N	12	0	0	0	0.0963	0
т	2025 Taxiways Soil Handli	12	0	0	0	0.028	0
	2025 Taxiways Unstabilize	12	0	0	0	3.99E-08	0
7	2025 Terminal AAsphalt Dr	12	0	0	0	0	0.025
2	2025 Terminal AAsphalt Ste	12	0.69295	0.04325	0.00795	0.04745	0.02145
2	2025 Terminal AConcrete ↑	12	0	0	0	0.24505	0
2	2025 Terminal AMaterial №	12	0	0	0	0.0479	0
2	2025 Terminal AMaterial №	12	0	0	0	0.152	0
2	2025 Terminal ASoil Handli	12	0	0	0	0.08105	0
2	2025 Terminal AUnstabiliz∈	12	0	0	0	1.16E-07	0
m	2025 Terminal Asphalt Dr	12	0	0	0	0	0.025
m	2025 Terminal AAsphalt St	12	0.75105	0.0469	0.00865	0.05145	0.02325
m	2025 Terminal A Concrete ↑	12	0	0	0	0.2656	0
m	2025 Terminal AMaterial №	12	0	0	0	0.0479	0
m	2025 Terminal AMaterial №	12	0	0	0	0.15245	0
m	2025 Terminal ASoil Handli	12	0	0	0	0.08785	0
m	2025 Terminal AUnstabiliz∈	12	0	0	0	1.25E-07	0
4	2025 Taxiway E Asphalt Dr	12	0	0	0	0	0.025
4	2025 Taxiway E Asphalt Stu	12	0.25975	0.0162	0.002985	0.0178	0.00805
4	2025 Taxiway E∕Concrete ↑	12	0	0	0	0.09185	0
4	2025 Taxiway E∕Material №	12	0	0	0	0.02995	0
4	2025 Taxiway E∕Material №	12	0	0	0	0.0954	0
4	2025 Taxiway E Soil Handli	12	0	0	0	0.0304	0
4	2025 Taxiway Ey Unstabilize	12	0	0	0	4.33E-08	0
'n	2025 Building - :Concrete ↑	12	0	0	0	0.00855	0
Ŋ	2025 Building - : Material №	12	0	0	0	0.01195	0
u	Allein the state of the state o		•	•			

6	2025 Building - ∶Concrete N	12	0	0	0	0.00855	0
6	2025 Building - ∶Material N	12	0	0	0	0.01195	0
6	2025 Building - ∶Material N	12	0	0	0	0.03535	0
1	2025 Demolitior Material N	9	0	0		0.004479	0
1	2025 Demolitior Material N	9	0	0	0	0.0144	0
1	2025 Demolitior Soil Handli	9	0	0	0	0.01925	0
1	2025 Demolitior Unstabilize	9	0	0	0	2.06E-08	0
2	2025 Access Roa Asphalt Dr	9	0	0	0	0	0.05
2	2025 Access Roa Asphalt Sto	9	0.1176	0.00735	0.001351	0.00805	0.003642
2	2025 Access Roa Concrete N	9	0	0	0	0.0416	0
2	2025 Access Roa Material N	9	0	0	0	0.0179	0
2	2025 Access Roa Material N	9	0	0	0	0.057	0
2	2025 Access Roa Soil Handli	9	0	0	0	0.01375	0
2	2025 Access Roa Unstabilize	9	0	0	0	1.47E-08	0
3	2025 Access Roa Asphalt Dr	3	0	0	0	0	0.0334
3	2025 Access Roa Asphalt Sto	3	0.0021775	0.000136	2.50E-05	0.000149	6.75E-05
3	2025 Access Roa Concrete №	3	0	0	0	0.00077	0
3	2025 Access Roa Material N	3	0	0	0	0.00605	0
3	2025 Access Roa Material N	3	0	0	0	0.0183	0
3	2025 Access Roa Soil Handli	3	0	0	0	0.000255	0
3	2025 Access Roa Unstabiliz€	3	0	0	0	9.08E-11	0
4	2025 Open Park Asphalt Dr	12	0	0	0	0	0.37095
4	2025 Open Park Material N	12	0	0	0	0.01795	0
4	2025 Open Park Material N	12	0	0	0	0.05315	0
4	2025 Open Park Soil Handli	12	0	0	0	0.002831	0
4	2025 Open Park Unstabilize	12	0	0	0	4.03E-09	0
5	2025 Fuel Tanks Asphalt Dr	9	0	0	0	0	0.09
5	2025 Fuel Tanks Asphalt Sto	9	1.14325	0.0714	0.01315	0.0783	0.0354
5	2025 Fuel Tanks Concrete №	9	0	0	0	0.4043	0
5	2025 Fuel Tanks Material N	9	0	0	0	0.0627	0
5	2025 Fuel Tanks Material N	9	0	0	0	0.2803	0
5	2025 Fuel Tanks Soil Handli	9	0	0	0	0.13375	0
5	2025 Fuel Tanks Unstabiliz€	9	0	0	0	1.43E-07	0
6	2025 Building - : Concrete N	9	0	0	0	0.08555	0
6	2025 Building - : Material N	9	0	0	0	0.01345	0
6	2025 Building - ∶Material N	9	0	0	0	0.041	0
7	2025 Building - : Concrete N	12	0	0	0	0.00855	0
7	2025 Building - : Material N	12	0	0	0	0.01195	0
7	2025 Building - : Material N	12	0	0	0	0.03535	0
8	2025 Site Work Material N	12	0	0	0	0.01195	0
8	2025 Site Work Material N	12	0	0	0	0.03565	0
8	2025 Site Work Soil Handli	12	0	0	0	0.002831	0
8	2025 Site Work Unstabilize	12	0	0	0	4.03E-09	0
	Totals		3.2063275	0.200186	0.036863	3.207964	0.743609

### 2025 Totals

LOLD TOTAL											
Year Emission	SCO	NOx	SO2	PM10		PM2.5	VOC	CO2	CH4	N2O	CO2e
2025 NonRoa	2.38967	7.270591	L	0.038327822	0.474959812	0.460711	0.491793	14584.13			
2025 OnRoad	49.79984	2.375674	1	0.038327822	0.058913601	0.052923	1.262791	6105.195	0.144624	0.031834	
2025 Fugitive	3.206328	0.200186	5	0.03686252	3.207964011		0.743609				
2025 TOTAL	55.39584	9.846452	)	0.113518164	3.741837424	0.513635	2.498193	20689.33	0.144624	0.031834	20701.81

# ASSUMPTIONS

Emission factors were developed from the following models:

On-Road Vehicles: MOVES3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

 $14\,U.S.\ Counties\ are\ used\ to\ represent\ all\ other\ counties\ in\ the\ U.S.\ (all\ other\ counties\ are\ mapped\ to\ the\ 14).$ 

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for:

Asphalt drying
Asphalt storage and batching
Concrete mixing/batching
Soil handling
Unstabilized land and wind erosion
Material movement (unpaved roads)
Material movement (paved roads)

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations.

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available:
Asphalt Deliveries/Ten Wheelers
Bulldozer
Concrete Ready Mix Trucks
Concrete Ready Trucks Mix for Concrete

Splinto Entertain State State

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0.104185 1018.132 0.015684 0.003286 0.034737 0.049351 9.33E-05 0.000928 0.000854 0.002851 27.86344 0.000429 8.99E-05 0.104185 1018.132 0.015684 0.003286 0.003088 0.004387 8.29E-06 8.25E-05 7.59E-05 0.000253 2.476925 3.82E-05 7.99E-06
0.104185 1018 132 0.015684 0.003286 0.018526 0.026321 4.98E-05 0.000495 0.000455 0.001521 14.86043 0.000229
0.069524 316.2227 0.007826 0.001731 3.050841 0.071843 0.002248 0.00225 0.00199 0.074384 338.3281 0.008373 0.001852
0.104185 1018.132 0.015684 0.003286 0.003236 0.004598 8.69E-06 8.64E-05 7.95E-05 0.000266 2.595889
                                                                                                             4E-05 8.38E-06
0.104185 1018.132 0.015684 0.003286 0.001725 0.002451 4.63E-06 4.61E-05 4.24E-05 0.000142 1.383801 2.13E-05 4.47E-06
0.069524 \ \ 316.2227 \ \ 0.007826 \ \ 0.001731 \ \ \ 3.457592 \ \ \ 0.081422 \ \ \ 0.002547 \quad \  \  0.00255 \ \ \ 0.002255 \ \ \ \ 0.084301 \ \ \ 383.4354 \ \ \ 0.009489 \ \ \ 0.002099
0.169144 1643.222 0.019684 0.002802 0.000388 0.000685 9.69E-07 1.17E-05 1.07E-05 2.98E-05 0.289816 3.47E-06 4.94E-07
0.104185 1018.132 0.015684 0.003286 0.003236 0.004598 8.69E-06 8.64E-05 7.95E-05 0.000266 2.595889
                                                                                                              4E-05 8.38E-06
0.104185 1018.132 0.015684 0.003286 0.001725 0.002451 4.63E-05 4.61E-05 4.24E-05 0.000142 1.383801 2.13E-05 4.47E-06 0.069524 316.2227 0.007826 0.001731 5.029225 0.118432 0.003705 0.003708 0.003281 0.12262 557.7242 0.013802 0.003053
0.169144 1643.222 0.019684 0.002802 0.000388 0.000685 9.69E-07 1.17E-05 1.07E-05 2.98E-05 0.289816 3.47E-06 4.94E-07
0.104185 1018.132 0.015684 0.003286 0.021155 0.030056 5.68E-05 0.000565 0.00052 0.001736 16.96924 0.000261 5.48E-05
0.069524 316 2227 0.007826 0.001731 0.960934 0.022629 0.000708 0.000709 0.000627 0.023429 106 5644 0.002637 0.000583
0.169144 1643.222 0.019684 0.002802 0.001712 0.003017 4.27E-06 5.14E-05 4.73E-05 0.000131 1.277003 1.53E-05 2.18E-06
0.104185 1018.132 0.015684 0.003286 0.015725 0.022341 4.22F-05 0.00042 0.000386 0.001291 12.61358 0.000194 4.07F-05
0.104185 1018.132 0.015684 0.003286 0.001398 0.001986 3.75E-06 3.73E-05 3.43E-05 0.000115 1.121182 1.73E-05
0.104185 \ \ 1018.132 \ \ 0.015684 \ \ 0.003286 \ \ 0.008387 \ \ 0.011915 \ \ \ 2.25E-05 \ \ 0.000224 \ \ 0.000206 \ \ 0.000688 \ \ 6.727091 \ \ 0.000104 \ \ \ 2.17E-05
0.069524 \ \ 316.2227 \ \ 0.007826 \ \ 0.001731 \ \ \ 1.565158 \ \ \ 0.036857 \ \ \ 0.001153 \ \ \ 0.001154 \ \ \ 0.001021 \ \ \ 0.038161 \ \ 173.5707 \ \ \ 0.004295
0.169144 1643.222 0.019684 0.002802 3.16E-05 5.56E-05 7.87E-08 9.49E-07 8.73E-07 2.42E-06 0.023548 2.82E-07 4.02E-08
0.104185 1018.132 0.015684 0.003286 0.000291 0.000413 7.82E-07 7.77E-06 7.15E-06 2.39E-05 0.233439 3.6E-06 7.53E-07
0.104185 1018.132 0.015684 0.003286 2.66E-05 3.78E-05 7.14E-08
                                                                     7.1E-07 6.53E-07 2.18E-06 0.021324 3.28E-07 6.88E-08
0.104185 1018.132 0.015684 0.003286 0.000155 0.000221 4.17E-07 4.15E-06 3.82E-06 1.27E-05 0.124576 1.92E-06 4.02E-07
0.069524 316.2227 0.007826 0.001731 0.527126 0.012413 0.000388 0.000389 0.000344 0.012852 58.45647 0.001447
                                                                                                                       0.00032
0.104185 1018.132 0.015684 0.003286 0.003236 0.004598 8.69E-06 8.64E-05 7.95E-05 0.000266 2.595889 4E-05 8.38E-06 0.104185 1018.132 0.015684 0.003286 0.000288 0.000409 7.74E-07 7.7E-06 7.08E-06 2.37E-05 0.231195 3.56E-06 7.46E-07
0.104185 1018.132 0.015684 0.003286 0.001725 0.002451 4.63E-06 4.61E-05 4.24E-05 0.000142 1.383801 2.13E-05 4.47E-06
0.069524 316.2227 0.007826 0.001731 4.38893 0.103354 0.003233 0.003236 0.002863 0.107009 486.7176 0.012045 0.002664
0.169144 1643.222 0.019684 0.002802 0.000291 0.000513 7.27E-07 8.76E-06 8.06E-06 2.24E-05 0.217362 2.6E-06 3.71E-07 0.169144 1643.222 0.019684 0.002802 0.016646 0.029335 4.15E-05 0.0005 0.00046 0.001278 12.41863 0.000149 2.12E-05
0.169144 1643.222 0.019684 0.002802 0.016646 0.029335 4.15E-05
                                                                       0.104185 1018.132 0.015684 0.003286 0.152882 0.2172 0.000411 0.004083 0.003756 0.012549 122.6297 0.001889 0.000396
0.104185 1018.132 0.015684 0.003286 0.01359 0.019308 3.65E-05 0.000363 0.000334 0.001115 10.90094 0.000168 3.52E-05
0.104185 1018.132 0.015684 0.003286 0.081537 0.11584 0.000219 0.002178 0.002003 0.006693 65.40227 0.001007 0.000211
0.069524 316.2227 0.007826 0.001731 1.292165 0.030429 0.000952 0.000953 0.000843 0.031505 143.2968 0.003546 0.000784
0.104185 1018.132 0.015684 0.003286 0.032356 0.045968 8.69E-05 0.000864 0.000795 0.002656 25.95328
                                                                                                             0.0004 8.38E-05
0.104185 1018.132 0.015684 0.003286 0.017256 0.024516 4.63E-05 0.000461 0.000424 0.001416 13.84138 0.000213 4.47E-05
0.069524 316.2227 0.007826 0.001731 3.002919 0.070715 0.002212 0.002214 0.001959 0.073216 333.0136 0.008241 0.001823
0.104185 1018.132 0.015684 0.003286 0.003236 0.004598 8.69E-06 8.64E-05 7.95E-05 0.000266 2.595889
0.104185 1018.132 0.015684 0.003286 0.001725 0.002451 4.63E-06 4.61E-05 4.24E-05 0.000142 1.383801 2.13E-05 4.47E-06
0.069524 316.2227 0.007826 0.001731 8.563765 0.201665 0.006309 0.006315 0.005586 0.208798 949.6928 0.023502 0.005198
0.169144 1643.222 0.019684 0.002802 0.000388 0.000685 9.69E-07 1.17E-05 1.07E-05 2.98E-05 0.289816 3.47E-06 4.94E-07
0.104185 1018.132 0.015684 0.003286 0.003236 0.004598 8.69E-06 8.64E-05 7.95E-05 0.000266 2.595889
                                                                                                             4F-05 8.38F-06
0.104185 1018.132 0.015684 0.003286 0.001725 0.002451 4.63E-06 4.61E-05 4.24E-05 0.000142 1.383801 2.13E-05 4.47E-06
0.069524 316.2227 0.007826 0.001731 3.499335 0.082405 0.002578 0.00258 0.002283 0.085319 388.0645 0.009604 0.002124 0.169144 1643.222 0.019684 0.002802 0.001942 0.003423 4.84E-05 5.84E-05 5.37E-05 0.000149 1.449081 1.74E-05 2.47E-06
                            totals
                                     49.79984 2.375674 0.038328 0.058914 0.052923 1.262791 6105.195 0.144624 0.031834
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Airport Construction Emissions inventory Tool (ACEIT) Version 1.0 Run Date & Time: 12/27/2021 11:56:54 AM

Study Name

STUDY

Austin Airport

Study Description

2026 Construction Schedule

Non-Road Sources Units for Non-Greenhouse Gases Emission: Short Ton Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton EMISSIONS INVENTORY - DETAILS:

ts for Non-	its for Non-Greenhouse Gases Emission: Short Ton				:		;					į	
its for Gree	its for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton				, NC	NONROAD Emission Factors g/-hp-hi	n Factors g/-hp- 9 7	۰ خ	-	Z O Z	NONROAD Emissions (TPY,	(ды)	
nario II Year	ar Project Constructi Equipment	MovesLookup	Fuel	Averag Load	Ň	CO2 SO2	PM10	PM2.5 VOC	CO (tpy)	IOx (tpy) CO2 (tp	y) SO2 (tpy) PI	NOx (tpy) CO2 (tpy) SO2 (tpy) PM10 (tpy PM2.5 (tp; VOC Exhaust (tpy)	OC Exhaust (tpy)
T	2026 Taxiways Asphalt PI. Asphalt Paver	Pavers175	Diesel	175	0.59 3.434125 9.87E-02 2.84E-01 5.37E+02 1.43E-03 2.44E-02	5.37E+02 1.43I	E-03 2.44E-02	2.37E-02 1.5	2.37E-02 1.52E-02 3.86E-05 0.000111 0.209805	3.000111 0.2098	5.6E-07	9.54E-06 9.25E-06	5.93E-06
1	2026 Taxiways Asphalt Pl. Dump Truck	Off-highway Trucks600	Diesel	009	٠.	5.37E+02 1.42E-03	E-03 8.52E-03	8.26E-03	_	0.000668 2.590773	6.84E-06	3.99E-05	5.32E-05
н		Other Construction Equipment175	Diesel	175	6.86825 1.94E-01	5.37E+02 1.47	E-03 4.71E-02	4.57E-02	0.00011		8.37E-07	2.6E-05	1.92E-05
T	2026 Taxiways Asphalt Pl. Pickup Truck	Off-highway Trucks600	Diesel	009	3.434125	5.37E+02 1.42E-03		8.26E-03	4.31E-05		1.9E-06	1.11E-05	1.48E-05
Н.		Rollers100	Diese		3.434125	5.96E+02		4.20E-02	5.75E-05		3.57E-07	9.39E-06	4.72E-06
Η,			Diese		3.434125	6.94E+02			0.000164		1.27E-07	2.11E-05	3.09E-05
-		Other Construction Equipment25	Diesel		4.39568	5.95E+02		1.66E-01	0.000107		1.56E-07	1.19E-05	2.51E-05
⊣ -	2026 Taxiways Clearing a Chain Saw		Diesel	I 5	0.7 12 2.47E+00 4.18E+00	5.94E+02 2.18E-03	E-03 2.40E-01	2.33E-01	8.38E-01 0.000251	0.000426 0.060476	2.22E-07	2.37E-05	8.53E-05
٠,		Other Construction Equipment to	Diesel	901	12 4.65E-01	5.36E+02					9.28E-U/	3.8/E-U5	.39E-U5
		Off-highway I rucks600	Diese		16 3.21E-02	5.3/E+02			1.10E-02 0.000201			5.16E-05	6.88E-05
	2026 Taylung Prainage - Dozer	Crawler Iractor/Dozers1/5	Diesel	5/1	0.59 53.12 /.83E-02 2.51E-01			1.82E-02	0.000474	0.001519 3.245367		0.00011	7.42E-05
٠.		OII-II griwdy Trucksoud	Diesel		53.12 3.21E-02	5.375+02		1 405 00	0.000000	0.002868 II.IZ/0Z		.0001// 0.0001/1 0	J.UUUZZ8
٠.		Excavators 1/3 Tractors / Loaders / Rackhoes 175	Diesel	5,1	53.12 8.36E-02	5.37E+02 6.26F+02			0.000396			0.001106	0.001229
		Other Construction Equipment175	Diesel		53.12 1.94E-01	5.37E+02			0.000853	0,002617 2,364992		0.000201	0.000149
. 4		Off-highway Trucks600	Diese		53.12 3.21E-02	5.37E+02				0.002868 11.12702			0.000228
П		Rollers100	Diesel		53.12 2.57E-01	5.96E+02		4.20E-02	0.000889		5.53E-06	0.000145	7.3E-05
1		Off-highway Trucks600	Diesel	009	0.59 29.51111 3.21E-02 1.38E-01			8.26E-03	1.10E-02 0.00037	0.001594 6.181676	1.63E-05	9.81E-05 9.51E-05 0	0.000127
7	2026 Taxiways Drainage - Loader	Tractors/Loaders/Backhoes175	Diesel	175	0.59 29.51111 8.13E-01 1.46E+00	6.26E+02 1.83E-03		1.83E-01	2.03E-01 0.002732	0.004912 2.102442		6.13E-06 0.000633 0.000614 0	0.000683
T		Other Construction Equipment175	Diesel	175		5.37E+02		4.57E-02	0.000474			0.000112	8.25E-05
7		Off-highway Trucks600	Diesel			5.37E+02		8.26E-03	0.00037		76 1.63E-05 9.81E-05	9.51E-05	0.000127
1		Tractors/Loaders/Backhoes 100	Diesel		29.51111 1.99E+00	6.95E+02		2.64E-01	0.001357	0	89 1.39E-06 0.000186	.000186 0.00018 0	0.000198
Η.		Off-highway Trucks600	Diese		1440	5.37E+02		8.26E-03			36 0.000797 0	0.004643	0.006191
Η,		Crawler Tractor/Dozers175	Diese		15.26267 7.83E-02	5.37E+02		1.82E-02	0.000136		2.47E-06	3.16E-05	2.13E-05
		Off-highway I rucks600	Diese		15.26267	5.3/E+02		8.26E-03		0.000824 3.197062	8.45E-06	4.92E-05	6.56E-05
٦.	2026 Taylungs Excavation Pickup Index	On-nignway Iruckseuu	Diesel		0.59 15.2626/ 3.21E-02 1.38E-01	5.3/E+U2 I.4ZE-U3	E-03 8.52E-03	8.26E-U3	1.10E-02 0.000191 0.000824	3.197062	8.45E-06	3.0/E-US 4.92E-US t	6.55E-U5
		Crawler Tractor/Dozers175	Diesel	57.	11 447	5.37F+02					1.86E-06	2.37E-05	1.6E-05
		Off-highway Trucks600	Diesel	009	30.52533	5.37E+02		8.26E-03	0.000383				000131
-			Diesel		9.1576 6.56E-02	5.37E+02		1.49E-02	6.83E-05			1.55E-05	1.09E-05
Ţ		Off-highway Trucks600	Diesel		9.1576 3.21E-02	5.37E+02		8.26E-03			5.07E-06	3.04E-05 2.95E-05 3.94E-05	.94E-05
1		Rollers100	Diesel	100	9.1576 2.57E-01	5.96E+02		4.20E-02		0.00062 0.355023		2.58E-05 2.5E-05 :	1.26E-05
1		Scrapers600	Diesel		11.447 1.60E-01	5.37E+02		2.86E-02	0.000713			0.000128	000118
1	Excavation	Crawler Tractor/Dozers175	Diesel	175	4.30949 7.83E-02	5.37E+02		1.82E-02	3.84E-05		6.99E-07	8.93E-06	6.02E-06
Ţ	Fencing	Off-highway Trucks600	Diesel		18.33333 3.21E-02	5.37E+02		8.26E-03		0.00099 3.840273			7.88E-05
1	Fencing	Off-highway Trucks600	Diesel		73.3333 3.21E-02	5.37E+02			0.00092			0.000236	0.000315
	2026 Taxiways Fencing Other General Equipment	Other Construction Equipment1/5	Diesel	1/2	0.43 /3.33333 1.94E-01 5.94E-01	5.3/E+02 1.4/E-03	E-03 4./1E-02	4.5 /E-02 3.3	3.37E-02 0.001178	0.003613 3.264924		0.000278	0.000205
٠.	Ferring	Clin Step Loaders 75	Diesel		73 33333 3.21E-02	5.37E-102			_	0.00390 13.30109			0.000313
	Fencing	Tractors/Loaders/Backhoes100	Diesel		73.33333 1.99E+00	6.95E+02		2.64E-01				0.000448	0.000493
T	Grading	Crawler Tractor/Dozers175	Diesel			5.37E+02		1.82E-02		0.000132 0.281434			6.44E-06
1		Graders300	Diesel		0.59 4.6065 3.81E-02 1.55E-01	5.37E+02	E-03 9.92E-03	9.62E-03	1.23E-02 3.42E-05	0.00014 0.482457	1.28E-06	8.65E-06	1.11E-05
T	2026 Taxiways Grading Roller	Rollers100	Diesel		0.59 4.6065 2.57E-01 1.04E+00	5.96E+02 1.60E-03	E-03 4.33E-02	4.20E-02 2.1	2.11E-02 7.71E-05 0.000312	0.000312 0.178586	386 4.79E-07	1.3E-05 1.26E-05 (	6.33E-06
1	2026 Taxiways Hydroseec Hydroseeder	Other Construction Equipment600	Diesel		4.15	5.37E+02		7.81E-02		0.001769 0.869025	2.54E-06		0.000112
1	Hydroseed	Off-highway Trucks600	Diesel		4.15 3.21E-02	5.37E+02		8.26E-03	5.21E-05	0.000224 0.869298	2.3E-06	1.34E-05	1.78E-05
	Lighting	Off-highway Trucks600	Diesel	000	22.2	5.37E+02		8.26E-03		0.001199 4.650221			9.55E-05
н,	Lighting	Tractors/Loaders/Backhoes175	Diesel		22.2 8.13E-01	6.26E+02		1.83E-01				0.000462	0.000514
	2026 Taxiways Lighting Other General Equipment	Other Construction Equipment1/5	Diesel	1/2	0.43 22.2 1.94E-01 5.94E-01	5.3/E+02	1.4/E-03 4./1E-02	4.5 /E-02	3.37E-02 0.000357	0.001094 0.988382	2./E-06	8.41E-05	6.21E-05
	Lighting	Skid Steer Loaders75	Diesel	25	22.2 2.74E+00	6.94E+02		3.55E-01	0.001057			0.000137	0.0002
н	Lighting	Tractors/Loaders/Backhoes100	Diesel			6.95E+02			0.001021		1.04E-06	0.000136	0.000149
1	Markings	Off-highway Trucks600	Diesel	009	56.5	5.37E+02		8.26E-03	0.00071		3.13E-05	0.000182	0.000243
1	2026 Taxiways Markings Other General Equipment	Other Construction Equipment175	Diesel	175	56.57143 1.94E-01	5.37E+02 1.47E-03		4.57E-02	0.000909	0.002787 2.518656		0.000214	0.000158
		Off-highway Trucks600	Diesel	009	56.57143 3.21E-02	5.37E+02		8.26E-03	0.00071		3.13E-05	0.000182	0.000243
н,		Other Construction Equipment175	Diesel	175	4 1.94E-01	5.37E+02		4.57E-02	6.42E-05			1.52E-05	1.12E-05
	2026 Taylungs Soil Frosio Pickup Iruck	Off-highway I rucksb00	Diesel	909	0.59 8 3.21E-02 1.38E-01	5.3/E+02	1.42E-03 8.52E-03	8.26E-03	1.10E-02 0.0001	0.000432 1.6/5/55 4.43E-06	'55 4.43E-06 2.66E-05	2.58E-05	3.44E-05
4	ZOZO Idxiways Soli Erosio Pumps	Orner Construction Equipment 1	חבים	7	4	5.545+02	E-U3 2.40E-VI	2.33E-UI	3. I4E-U3	0./3E-U3 U.VIE.	4.335-00	4.83E-UB	./ 3E-03

Control   Cont	Comparison   Com	Soil Erosio Tractors/Loader/Backhoe Subbase P Dozer	Tractors/Loaders/Backhoes100 Crawler Tractor/Dozers175	Diesel .	00	11 4 1	1.99E+00 2.: 7.83E-02 2.	17E+00 6.9 51E-01 5.3	5E+02 2.0 7E+02 1.4	3E-03 2.7; 2E-03 1.88	E-01 2.64E	-01 2.90E-0	01 0.00018 <sup>2</sup> 02 5.16E-05	0.00020	0.064367	1.88E-07 2.52E-05 9.38E-07 1.24E-05	05 2.44E-05 05 1.2E-05	5 2.69E-05 5 8.08E-06	90
Control cont	Control Cont	(2 Cv)	4 %	Diesel		9 40.70222	3.21E-02 1.	38E-01 5.3	7E+02 1.4	2E-03 1.0c	E-03 8.26F	-02 1.23E-0		0.002198	8 8.525871	2.25E-05 0.			3 22
Company control   Company co	Column   C	:	Off-highway Trucks600			9 5.783789	3.21E-02 1.	38E-01 5.3	7E+02 1.4	2E-03 8.52	E-03 8.26E			0.000312	1.211527	3.2E-06	05 1.86E-0	5 2.49E-0	92
Control Cont	Characterization control of the cont		Rollers100			9 5.635692	2.57E-01 1.0	34E+00 5.9	6E+02 1.6	DE-03 4.3	E-02 4.20E		٥,	0.00038	0.218486	5.87E-07	05 1.54E-05	5 7.75E-C	90
Control Cont	Control broader  Cont		Crawler Tractor/Dozers175			9 10.23733	7.83E-02 2.	51E-01 5.3	7E+02 1.4	Н	Н		٥,	0	3 0.62545	1.66E-06	05 2.12E-05	3 1.43E-C	02
Control Cont	Control Cont		Off-highway Trucks600	_		9 10.23733	3.21E-02 1.	38E-01 5.3	7E+02 1.4	oo	∞		0	0	3 2.144408	5.67E-06	05 3.3E-05	5 4.4E-0	92
Presentation General Data of the Control of the Con	Control Cont		Off-highway Trucks600	_	_	9 10.23733	3.21E-02 1.	38E-01 5.3	7E+02 1.4	∞	∞		0	0	3 2.144408	5.67E-06	05 3.3E-05	5 4.4E-0	92
Continue of the continue of	Chepatrolic Agential Control (1987)   1985   1985   1985   1980   1985		Pavers 175		_	9 9.9345	9.87E-02 2.	84E-01 5.3	7E+02 1.4	7	7		0	0	0.606939	1.62E-06	05 2.68E-05	3 1.71E-C	92
Our contraction typework) best of 50 of 51 May 1940 5 Set 01 May 1940 1 May 1	Description (Legislation (Legislation) Description (Legislation (Legis		Off-highway Trucks600			35.77985	3.21E-02 1.	38E-01 5.3	7E+02 1.4	$\infty$	∞		0	0.0019	_	1.98E-05 0		5 0.00015	54
Continue to the continue to	Otherwise of present   Dec   20   20   20   20   20   20   20   2	Equipment	Equi	Diesel	_	19.869	1.94E-01 5.	94E-01 5.3	7E+02 1.4	4	4		0	0.0009	0	2.42E-06 7		5.56E-	02
Control of the countries (equation)   Dec.   20   20   20   20   20   20   20   2	Control Cont		Off-highway Trucks600	Diesel	_	9 9.9345	3.21E-02 1.	38E-01 5.3	7E+02 1.4	∞	00		0	0	7	5.5E-06			92
Description	STATEMENT   Description   De		Rollers100	Diesel	_	9 9.9345	2.57E-01 1.0	04E+00 5.9	6E+02 1.6	4	E-02 4.20E		0	0		1.03E-06			02
One comment injunction is a 1 to 1 to 11 t	Control Communication   Control Cont	er	Skid Steer Loaders75	Diesel	_	9.9345	2.74E+00 3.	79E+00 6.9	4E+02 2.1	m	m		$\circ$	0		3.68E-07	$\omega$	8.93E-C	92
Otto Contamination (Contamination Desired )	Other Contractal Elements   Desire   11   10   111, 146, 411400 States   1160	ment (Grooving)	Other Construction Equipment25	Diesel		12.71616	1.49E+00 3.7	76E+00 5.9	5E+02 2.1	П	Н		0	0		4.52E-07	m	5 7.27E-0	02
One-tronmation plane         100         40         11         20         11         20         20         12         20         12         20         12         20 </td <td>  Other communication   Decay   Decay</td> <td></td> <td>Other Construction Equipment11</td> <td>Diesel</td> <td></td> <td>21.6</td> <td>2.47E+00 4.:</td> <td>18E+00 5.9</td> <td>4E+02 2.1</td> <td>~</td> <td>7</td> <td></td> <td>O</td> <td>0</td> <td></td> <td>4E-07</td> <td>4</td> <td>5 0.00015</td> <td>54</td>	Other communication   Decay		Other Construction Equipment11	Diesel		21.6	2.47E+00 4.:	18E+00 5.9	4E+02 2.1	~	7		O	0		4E-07	4	5 0.00015	54
Contention   Con	Control Cont	Grinder	Other Construction Equipment 100	Diesel	_	3 21.6	4.65E-01 1.3	27E+00 5.9	6E+02 1.6	7	9		22 0.000476	0	_	1.67E-06 7	9	5 4.3E-0	92
Otto Communic Information   Decay   20,000   2	Characteristic (Apparent)   Decision   All State   A		Off-highway Trucks600	Diesel	_	9 28.8	3.21E-02 1.	38E-01 5.3	7E+02 1.4	∞	00		22 0.000361	0		1.59E-05 9	6		24
Checken, and controlled ingressed between controlled co	Otherwarriendorms best of a cost at the cost and state of the cost	_	Other Construction Equipment100	Diesel	Ü	26.492	4.65E-01 1.3	27E+00 5.9	6E+02 1.6	-	9		22 0.000583		_	2.05E-06 8	00	5 5.27E-0	02
Other Converted fields was 180 or 20 juilisis 1150 1770 1770 45 control contro	Control (1899-web)  20   10   10   10   10   10   10   10		Other Construction Equipment40	Diese		26.492	2.90E-01 2.	54E+00 5.9	6E+02 1.5	~	2				0	1.08E-06			92
Other bitters of the control of the	Control Cont		Off-highway Trucks600	Diesel		110.3833	3.21F-02 1	38F-01 5.3	7F+02 1.4	00	000		_	0.00596		6.11F-05 0	67 0.000356	00004	1 12
Present Joseph   Pres	The control devices between 15   20   20   20   20   20   20   20   2	Fauinment	Other Construction Equipment 175	Diesel		52 984	1 94E-01 5	QAE-01 5.3	75+02 1.4	٧,	, <			90000		6 45E-06	7020000 20	710000	. 8
Transcript   Tra	Transferentity   December   175   20		Oct his bound action by the boundary			10.00	231101	1010	10.07				0			2010	200000	10000	2 5
One-State Control and state of the	Proceedings   Procedings   Pr		OI-IIBIIWAY IIUCKSOOO	Diesel		19.470	3.21E-02 1.	305-01 3.3	7ETUZ 1.4	۰ ،	۰ ،		,	0.00423	٠,	00-14:4	04 0.00023	0.0000	7 ;
Development (Controlled Controlled Controlle	Development and the control of the c	Loader	Tractors/Loaders/Backhoes175		_	26.492	8.13E-01 1.	16E+00 6.2	6E+02 1.8	-	-		_	0.0044		5.51E-06	68 0.00055	0.00061	13
Other Communes (separate) Sees 1 26 or 20 11 177 SEES 1 175 OL 20 11 177 SEES 1 175 OL 20 11 175 SEES 1 175 OL 20	Other Control (Septembril) 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	/er			_	26.492	9.87E-02 2.	84E-01 5.3	7E+02 1.4	7	7		0	0	⊣	4.32E-06 7.36E-	05 7.14E-09	4.57E-0	92
Check Principale carriery	Chrown-Practication (1984) 1866 1875 (1880) 1877 1880 1870 1870 1870 1870 1870 1870	uipment (Grooving)		Diesel	_	26.492	1.49E+00 3.7	76E+00 5.9	5E+02 2.1	⊣	Т		0	0	0	9.43E-07 7	_	0.0001	25
Control Cont	Communication   Communicatio			Diesel			7.83E-02 2.	51E-01 5.3	7E+02 1.4	7	7		0	0	O	1.91E-06 2	~	1.65E-C	92
Fractional Company of the control	Franchishmenth   September		Off highway Trucken	Dioroi			2 275 02 1	200.01	75.00 1.4	0	0		٠,			6 50 30 3		2002	ä
Control Cont	The controlled figures (1986) 157 (2014) 1576 (1514) 1540 (1514) 1		Circuigniway Inchaooo			11.770	i (	17101	77.02	٥ ,	۰ -		۰ د	0	4 (	10505		1445	3 8
Control Cont	Continue of the continue of		Excavators1/5			11.776	v.	1/E-01 5.3	/E+UZ 1.4	_	٦.		xi.		_	1.9E-06		1.41E-0	s i
Control Cont	Control Cont		Tractors/Loaders/Backhoes175		_	11.776	÷.	16E+00 6.2	6E+02 1.8	_	-		_			2.45E-06 C	53 0.00024	0.00027	72
Comparison   Decay   Decay   Comparison   Decay   De	Control (Control (C	ral Equipment	Other Construction Equipment 175		_	11.776	ņ	94E-01 5.3	7E+02 1.4	4	4		22 0.000189	0.00058	O	1.43E-06	05 4.46E-05	3.29E-C	92
Chiefe-noise   December   Decem	Content cont	*	Off-highway Trucks600			11.776	3.21E-02 1.	38E-01 5.3	7E+02 1.4	80	00		2 0.000148	0.000636	~	6.52E-06	05 3.8E-0	5.06E-C	55
Other process   December 2015   Control of the co	Protective and Protection Reports   Protection Re	i		lasaid		11 776	2 57E-01	DAFAOO 5 0	6E±02 1.6	_	_		200000	020000		1 23E-06	05 3 225-06	1625	۲ ا
Transplant File   Proceedings   Process   Pr	Franchist   Fran	-	-		, ,	00000000	4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	00.100	1000				, ,	0	,		000000000000000000000000000000000000000	1 1 1 1 1	3 6
Productioned inclination   Productioned inclin	Production/control/c	¥		Diesel		0.542222	3.21E-UZ I.	38E-01 3.3	/E+UZ 1.4	~	ю		•	>	-		US 2.11E-U	7.2.81E-0	S
Other Control	Other formations (includence) Deciding Control (1964) (196		Tractors/Loaders/Backhoes175	Diesel	_	6.542222	<del>,</del>	16E+00 6.2	6E+02 1.8		-		$\circ$	0	0		14 0.000136	0.00015	21
Transport   Control   Co	The control of participation   December	neral Equipment	Other Construction Equipment175	Diesel	_	6.542222	Ŋ	94E-01 5.3	7E+02 1.4	7	4		ö	0	0	7.97E-07 2.56E-	05 2.48E-09	1.83E-0	92
Transcriptionariest   December	Transcription (Transcription Control	¥5		Diesel		6.542222	H	38E-01 5.3	7E+02 1.4	w	00		00	0	$\overline{}$	3.62E-06 2.17E-	05 2.11E-05	5 2.81E-C	02
Content   Cont	Orbeity Work Truck (1900)  Orbeity (1904)  Orb	oodor/Backhoo	Tractors (loaders (lanchase 100			6 543333	1 005-100 2	0 9 001321	0 6 607 3 0		c		٠,	_	- 3	2 075 07	70.00	A 20E.	ä
Checker   Chec	Christ-Interformation   December   Christopher   December   Christoph	Janer/backiloe	II accors/roadels/backiloestoo		,	0.342222	1.995+00 2	1/5+00 0.3	25.0	4	7		,	٠	-	3.0/E-0/	03 4E-0	4.395-	9 :
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Otherway Trackedon   Dees  600 0 0.9 4,1333 3116.0 1 186.0 5.576.0 1 164.0 0 5.000 0 0.000 0	Off-theyway Tracksion Dees (60 0.9 44,1333, 3116.0, 1 186.0, 5.576.0, 1 16.0.0, 5.0.0, 1 18.0.0, 5.57.		Crawler Tractor/Dozers175	Diesel	_	44.15333	7.83E-02 2.	51E-01 5.3	7E+02 1.4	П	_		$\circ$	0	7	7.16E-06	σ		92
Content	Content	k (12 cv)	Off-highway Trucks600	Diesel		44.15333	3.21E-02 1.	38E-01 5.3	7E+02 1.4	00	ω,		0	0	6	2.44E-05	47 0.000142		19
Convert Treat/Observice   December   100   0.0	Construction   December   Decem	46-11-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	Off highway Tanabaloo			44 15333		305 01 5 3	75,00				, ,			2 445 05 0			1 5
Commentation   December   100   29   33,1956   2,1961   1,1961   1,2961	Consisting Month (March Month)         Dates         100         93         33,196         12,601         12,601         13,601         14,601	4	OI FIII BIIWAY II UCKSOOO			CCCCT-++	٠.	30E-01 3.3	/ET02 1.4	0	0		,	٠	n '	Z.#F-03 C	5 '		1
Continue Transformers   Deed   175   0.5   3.3115   12610   1276	Control Markov		Rollers100		_	20.37846	$\vdash$	04E+00 5.9	6E+02 1.6	4	4		$\circ$	0		2.12E-06	ഗ		92
Control Cont	Converting   Con		Crawler Tractor/Dozers175		_	33.115	7	51E-01 5.3	7E+02 1.4	7			$\circ$	0	7 2.023161	5.37E-06	9		92
Exemple   Control   Cont	Exemple   Exem	k (12 cv)	Off-highway Trucks600			88.30667		38E-01 5.3	7E+02 1.4	00			0	0	3 18.49755	4.89E-05 C	94 0.00028	5 0.000	38
Professional Processing	Commonwer   Comm		Excavators 175			26.492	2	17E-01 53	7F±02 1.4	-				- C	1 1 618543	4 28E-06 4	4	3 16F	1 15
National Control Con	Decided Control Cont	2	October Freeholder			26 400		305.01 5.3	10.17	. 0			, ,	, (	6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1 475 05 0	. 0	1000	1 5
State	State-book	_	OII-IIIBIIWAY IIUCKSOOO			20.432	٠.	305-01 3.3	/ET02 1.4	0	0		,	۰		T.4/E-03 o	03 0.34E-U	0.0001	\$ :
Statewisting Dieses (60 0.99 31.24682 788-01 3.576-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.881-01 1.871-01 3.4619 1.871-01	Suppression Diesel 66 0 1999 13,1311 1,1610 1,1311		Rollers100		_		2.57E-01 1.0	04E+00 5.9	6E+02 1.6	4	4		0	_		2.76E-06 7	05 7.24E-09	3.64E-0	92
Content Trace/Order (1775)   Content Trace/	Content Trace/Orders/175   Obes   175   Ob		Scrapers600	-	_		4	09E-01 5.3	7E+02 1.4	7	7		22 0.002062			1.89E-05	81 0.00037	2 0.0003	41
Off-highway Incletion         Deed         600         50         39 37773         31400         1860         600         60         99 37173         31400         1860         60         99 37173         31400         1860         30 20         1860	Other plant Production         Diese         60         59         59         138         61         50         59         59         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         138         61         6		Crawler Tractor/Dozers175			Н	7	51E-01 5.3	7E+02 1.4	₹	Н		2 0.000111	0	7 0.761661	2	05 2.58E-0	3 1.74E-C	55
Octavity	Octay   Octa	3	Off-highway Trucks600			~	,	38F-01 5 3	7F+02 1.4	00	α		-0-49PF-0	_	5 0 833223	2.2E-06.1	,	1 71F-C	Ę.
Orthogram functions Orthog	Orinity Protection (Control Control Co		Occupant transfer to		, (	, ,	1 -	20101	4 60 11	0	0 0		2000	0		00110	1 4	1000	3 6
Check   Chec	Order Controlled Replace   125   Order   1		OIL-III BIIMAY II II CASOOO		, ,	11116.01 6	3.21E-02 I.	305-01 3.3	75.02 1.4	۰.	۰.		0.0002		n	0.01E-00	, ,	0.045	3 8
Michaelphany Trucksion   December 175   1591111 274(4-00) 379(4-0) 624(4-0) 271(4-0) 128(4-	Octay   Octa	al Equipment	Other Construction Equipment 175			3 15.91111	1.94E-01 5.	94E-01 5.3	7E+02 1.4	4	4		2 0.000256			1.94E-06	9	4.45E-C	92
Sidictore Loader/35   Diese  175   0.21 1591111 2764-00 1376-00 136-01 376-01 136-01	Stidistive Loader/35   Diese  7.5   2.1 1591111 2984-60 1284-02 216-01 216-01 208-01 0.000735   0.000735   0.000735   0.00091   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   2.486-07 0.00001   0.75604   0.756		Off-highway Trucks600	_	_	9 15.91111	3.21E-02 1.	38E-01 5.3	7E+02 1.4	∞	00		200000	0.00085	က	8.81E-06	цı	5 6.84E-C	05
Tractory/Loadert/glac/throes.200   Diese  100   0.21   1591111   1995-00   2.1176-01   1.426-01   1.266-01   1.266-01   1.266-01   0.00001   0.256-01   1.766-01	Tractory/loaders/gachiness100   Detail   100   101   101   100   101	ader	Skid Steer Loaders75			11.15.91111 3	2.74F+00 3.	79F+00 6.9	4F+02 2.1	c	ď		37 0000 10	0.001048	_	5.89F-07.0	0	5 0.00012	43
Caracteristics   Cara	Cawer   Taken   Cawer   Cawe	dor/Backhoo	Lhoor			1 15 01111 1	1 005-100 2	75-100 69	55+02 20	, (	, (		52,000,0	00000		7 485-07	0	0.0001	2 2
Crawler   Tacky   Diese    175   Strict   Stri	Condension   Content   C	idel/ backilde	Sacrinoes			11116.61	1.99E+00 2.	E/E+00 0.3	35 20 20	۷ ,	٠,		26,000,01	0.00000		/.46E-0/	n •	0.0001	5 6
Process   2000   Disea   2000   20.59   87.781   275F-01 1.04E-00 1.04E-00 2.04E-00 2.01E-00.000144   0.000038 0.0329557   83.95E-01 2.04E-00 2.01E-00.000144   0.000038 0.0000144   0.000038 0.032957   83.95E-01 2.04E-00 2.04E-	Galemera300   Deser   300   0.58   8.7781   2.176.01   1.0146.00   0.5864-021   1.156.02   1.1146.00   1.1146.00   1.1146.00   0.5864-021   1.1146.00   1.1146.0		Crawler Iractor/Dozers1/5		_	8.5/81	7.83E-02 2	51E-01 5.3	/E+02 1.4	-	-		77 7.65E-U	0.00024	_	1.39E-06 1	_	T.ZE-(	Ç,
Chiefle No.   O.   1.05   1.3754   1.3764   1.0464-00   1.0564-03   1.3166-0	Politication   Diese   100   0.59   87728   27720   1.0546-0.0 5.58470   27520   275		Graders300	,	_	8.5781	3.81E-02 1	55E-01 5.3	7E+02 1.4	6	6		32 6.37E-05	0.00026	0	7	_	2.06E-0	92
Other Construction Rujiment60         Diesel         600         0.59         77.78         497EQ1 108E-00 53FEQ3 18FEQ3 18FEQ3 18FEQ3 18FEQ3 108CQ3 50004M         161877 147E-06 24FEG0 10002M         161877 147E-06 24FEG0 10002M         161877 147E-06 24FEG0 10002M         16187 24FEGO 10002M         16187 147E-06 24FEGO 24FEGO 24FEGO 24FEGO 24FEGO 10004M         16187 147E-06 24FEGO 24F	Other Construction Equipment50         Diese         GOD         7.728         4.77E-01         1.75E-01         1.75E-01 </td <td></td> <td>Rollers100</td> <td></td> <td></td> <td>8.5781</td> <td>2.57E-01 1.</td> <td>34E+00 5.9</td> <td>6E+02 1.6</td> <td>4</td> <td>4</td> <td></td> <td>2 0.00014</td> <td>0.00058</td> <td>0</td> <td>7</td> <td>2</td> <td>3 1.18E-C</td> <td>05</td>		Rollers100			8.5781	2.57E-01 1.	34E+00 5.9	6E+02 1.6	4	4		2 0.00014	0.00058	0	7	2	3 1.18E-C	05
Off-light way Trackedon         Diesel         GO         7.73         3.12EQ1         1.3EEQ1         3.2EEQ1	Off-helpway/rucksion         Desel         600         0.59         7.72         3.2EQ 1 38FQ 1 53FQ 1 42EQ 3 85EQ 3 10EQ 2 000041 1.6888 4.28EG 0 1.0FQ 2 000041 1.6888 4.28EG 0 2.0FG 0 00015 0.28EG 3 1.0FQ 2 000041 1.6888 4.28EG 0 2.0FG 0 00015 0.00045 0.2FG 0 2.4FG 0 2.4F		, L	Diecel		7 7 7 8	4 97E-01	2 OOF 30	75+02 15	0	-		0001496	0.00329	-		_		g
Ortherway Tracesoro Deser 600 0.59 7.48 3.11e-01 1.38F-01 5.37F-01 1.42F-01 8.52F-01 8.24F-01 1.000411 1.13F-01 2.37F-01 2.37F-01 1.000411 1.000411 1.558438 4.13F-01 2.37F-01 1.42F-01 8.52F-01 8.24F-01 1.000411 0.000380 0.000128 0.23F-01 2.37F-01 2.37F-01 1.000411 0.000380 0.000128 0.000411 1.13F-01 2.37F-01 1.000411 0.000411 0.000380 0.000128 0.000411	Chief by Way Tracksoon   Deser   Construction Regiment   Des		5	Diesel .	, ,	7.720	4.97.E-01 1.7	355.00	75.02 1.3	9 0			20.00143	,		4.72E-00	43 0.00023	0.00020	9 6
Off-highway Tracksion Diesel (500 0599 744 8.13EQ1 1.38EQ1 8.35EQ3 8.25EQ3 8.25EQ3 1.3EQ2 0.000035 0.00039 0.00028 0.27EGS 2.74EGS 0.00010 0.00039 0.00028 0.00039 0.0	Off-highway Tracksion Diesel (500 0.59) 7.44 8.13ECH 1.38ECH 2.18ECH 2.18ECH 2.18ECH 2.13ECH 2.13ECH 0.000069 0.00128 0.000001 0.000001 0.0000	uck	Off-highway I rucks600	Diesel	_	1.728	3.21E-02 I.	38E-01 5.3	/E+02 1.4	X)	X)		9.69E-	_		4.28E-06	US 2.49E-US	3.32E-C	ç
Tractory/Loader/Packhoes175 Diese 175 0.59 7.44 8.13E¢O1 1.46E¢O 6.36E¢O 1.183E¢O 1.13E¢O 1.000038 0.000139 0.000038 0.331241 9.0E¢O 0.2010 0.00014 0.	Tractors/Loader/Rackhoear/15   Diese   175	~	Off-highway Trucks600	Diesel	_	7.44	3.21E-02 1.	38E-01 5.3	7E+02 1.4	œ	ω		32 9.33E-05	0		4.12E-06	05 2.4E-05	3.2E-C	02
Other Construction Equipment 175 Diesel 175 0.43 7.44 1.14F.01 1.53TF.02 1.47F.03 4.71F.02 4.77F.02 1.37F.02 0.00019 0.000357 0.00019 0.000319 0.000315 0.00004 0.00002 2.47F.03 2.4F.05 0.0004 0.00037 0.00004 0.00037 0.24F.03 2.4F.05 0.0004 0.00037 0.00004 0.00037 0.00004 0.00037 0.24F.03 2.4F.05 0.0004 0.00037 0.00004 0.00037 0.00039 0.00039 0.000319 0	Other Construction Equipment175         Diesel         175         0.43         7.44         1.94E-01         5.97E-03         3.77E-02         1.37E-02         3.77E-02			Diesel	_		œ	16E+00 6.2	6E+02 1.8	Н	Н		0.000685	0.001238	0	1.55E-06	16 0.00015	5 0.00017	72
Off-lightway Tracksion         Diesel         GO         1.39         7.44         3.11 Eo         1.38E of         3.25E of         3.11 Eo         3.11 Eo         3.25E of         3.12E of	Off-lightway Tracksion         Desel         670         7.44         3.11/202         1.32E-03         3.5E-03         3.5E-03         3.5E-03         3.10E-03         3.33E-03         4.12E-06         2.14/203         5.2E-03         3.5E-03         3.10E-03         3.33E-03         4.12E-06         2.14/203         5.2E-03         3.5E-03         3.10E-03         4.0E-04         4.7E-04         4.7E-0	ral Equipment	Other Construction Equipment 175	Diesel			τ-	94F-01 53	7F+02 1.4	4	Α		21 10000 0 50	0.00036	0	9 OFF-07	05 2 82F-0	2 0 0 F-C	50
State   Stat	March   Marc		063-1					10100					, ,	•	, ,	20101	•		1 6
Skid Steer Loader/355   Deser   100   10	Skid Steer Loader/System   Decet   75   0.21   7.44   2.94400   3.95460   2.35620   2.35620   5.35620	¥	OII-III BIIWAY ITUCKSOOU	Diesel	_			30E-01 3.3	/E+UZ 1.4	0	0			_	-	4.12E-U0 2			ç
Tractor/Loader/Backhee;100   Diese  100 0.23   134:160   137:160	Tractors/Loader/Backhoesito   Diese   100 0.12   7.44 1,995-40 1,277-60 6,955-62 1,267-60 1 2,067-01 0,00033 0,000837 0,119724 3,157-0 4,000528	-oader	Skid Steer Loaders75		_	7.44		79E+00 6.9	4E+02 2.1	m	m		0		0	2.75E-07 4	4		92
Off-highway Trucks600         Diesel         600         0.59         153.57.1         3.126.0         1.378-0.2         1.3	Other light way Trucks600	ader/Backhoe	Tractors/Loaders/Backhoes 100		_	7.44	1.99E+00 2.:	L7E+00 6.9	5E+02 2.0	7	7		0	0		3.5E-07 4	4	2E-0	02
Other Construction Equipment 175 Desei 175 Des	Other Construction Equipment 175   Deser   Con	-	Off-highway Trucks600			163 6571	2 21E-02 1	38E-01 5 3	75-00 1.4	o	o		_	0		0 065.05	37 0 000528	20000	5
Chiefe University of the Part   Safety   Safet	Chiefly the properties of the construction flug ment of the provided control the prediction flug ment of the provided control the prediction flug ment of the provided control the prediction of the provided control the prediction flug ment of the provided control the prediction flug ment of the provided control the prediction flug ment of the prediction flug ment		OIL III BUILDINGS	5000	, ,	100.001	0.215.02 1.021.02	201-01	75.02 1.4	,	٠,		, ,	0		0.000.0	2500000	20000	5 6
Off-Helpway Trucks600         Diesel         600         0.59         21.138-CI         13E-CI	Off-highway Trucksion         Diesel         600         0.59         21.136         21.18C-01         23.57F-0.2         1.24E-03         8.25E-03         2.26E-03         1.10E-02         0.000058         30.0114A         4.439411         1.17E-05         7.04E-05         3.21E-03         3.21E-03         8.25E-03         8.25E-03         8.26E-03         1.10E-02         0.000058         0.00114A         4.439411         1.17E-05         7.04E-05         8.38E-05         3.37E-03         0.000040         0.00104A         4.439411         1.17E-05         7.04E-05         0.00004         0.00104A         4.439411         1.17E-05         7.04E-05         8.38E-05         8.38E-03         3.37E-03         0.00004         0.00104A         4.439411         1.17E-05         7.04E-05         8.88E-03         3.28E-03         3.04E-03         3.07E-03         0.00004         0.00104A         4.439411         1.17E-05         7.04E-05         8.88E-03         3.05E-03         3.04E-03         3.07E-03         3.0000014         4.439411         1.17E-05	eral Equipment	Other Construction Equipment 13	Diesel	_	163.6571	1.94E-01 5.	94E-01 5.3	7E+02 1.4	4	4		0	0	_	٠.	39 0.000o	0.0004:	28
Off-highway Trucks600         Diesel         600         0.59         211393         237E-02         1.3F-03         2.5F-03         3.2F-02         1.0F-02         0.000266         0.001144         4.434941         1.1F-05         7.0A-05         5.8B-05         0.00026         0.001144         4.434941         1.1F-05         7.0A-05         0.00004         0.000144         0.434941         1.1F-05         7.0B-05         0.00004         0.000144         0.434941         1.1F-05         0.00004         0.00004         0.00004         0.00004         0.00004         0.00004         0.00004         0.00004         0.00004         0.00004	Off-heb/wayTrucks600   One-sel   Companies   One-sel	*	Off-highway Trucks600	Diesel (	_	163.6571	3.21E-02 1.	38E-01 5.3	7E+02 1.4	ω	∞		o	0	က	٠,	44 0.000528	3 0.00070	04
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Other Construction Equipment11 Diesel 11 0.43 7.2 247E+00 4.18E+00 5.94E+02 2.18E+03 2.40E+01 2.33E+01 8.38E+01 8.26E+05 0.000315 0.02229 8.2E+08 9.01E+06 8.74E+05 Trackrost/loaders/jackrostostoop Diesel 10 0.23 Trackrost/loaders/jackrostoop Diesel 11 0.43 7.2 247E+00 4.18E+03 5.97E+01 2.46E+03 1.26E+01 0.000318 0.000329 1.000329 2.71E+03 3.2E+02 1.32E+02 1.32E+02 1.000318 0.00039 1.000329 2.71E+03 3.2E+02 1.32E+02 1.32E+02 1.32E+03 1.32E+0	Other Construction Equipment11 Diesel 10 043 72 2.47F-00 14.18F-00 5.94F-02 1.18F-03 1.34F-01	×	Off-highway Trucks600	_	_	14.4	3.21E-02 1.	38E-01 5.3	7E+02 1.4	2E-03 8.52	E-03 8.26E	8	0	0		7.97E-06 4.79E-	05 4.64E-05		92
Tractor/Joaders/Backhoes100 Desel 100 0.21 7.2 199E+00 2.17E+00 6.95E+02 2.05E+03 2.72E+01 2.64E-01 2.90E-01 0.000331 0.000336 0.115861 3.38E-07 4.54E-05 Converting to the co	Tractors/loaders/Backhoes/100 Desel 100 0.21 7.2 1996-400 2.177e-00 6.956-40 2.036-01 2.036-01 2.036-01 0.000331 0.000332 0.11586 3.38E-07 4.54E-05 Cawer Tractors/loaders/Backhoes/100 Desel 175 0.299 16.33179 7.83E-02 2.51E-01 1.24E-03 1.83E-02 1.03E-02 0.000439 1.022229 2.71E-02 1.42E-03 1.83E-02 1.03E-02 0.000439 1.022229 2.71E-02 1.42E-03 1.83E-03 1.03E-03 0.000331 0.000332 2.74E-03 1.83E-03 1.37E-03 1.83E-03 1.37E-03 1.83E-03 1.37E-03 1.03E-03 0.000331 0.000332 2.74E-03 1.83E-03 1.37E-03 1.83E-03 1.03E-03 0.000331 0.000332 2.74E-03 1.03E-03 0.000331 0.000333 1.03E-03 2.74E-03 1.03E-03 0.000333 1.03E-03 1.03E-03 0.03E-03 1.03E-03 0.03E-03 1.03E-03 0.03E-03 1.03E-03 1.03E-03 0.03E-03 1.03E-03 0.03E-03 1.03E-03 1.03E-03 0.03E-03 1.03E-03 1		Ē			7.2	2 47F+00 4	18F+00 5 9	4F+02 2 1	3F-03 2 40	2	5	_	0		8 2F-08 9 01F-	06 8 74F-06		5
Tractors/Loader/Sackrossisto Diesel 100 0.27 72.3 1246-00 2.374-01 1.246-01 1.246-01 1.000342 0.11246-01 1.3246-01 1.246-01 1.000342 0.11246-01 1.000342 0.11246-01 1.3246-01 1.246-01	Transcript Clause Full Abstraction   Transcrip	:	5			7.7	2.475+00 4.	105+00 5.3	4E+02 2.1	25-03 2.40	7	₹ :		۰		0.2E-U0 9.UIE-	00 0.74E-U		9 :
Crawler Tractor/Cocers175   Diese   175 0.599 16/37129 7 (28E-01 2.51E-01 1.67E-09 1.88E-02 1.62E-00 1.000049 1.0000479 1.00	Cawler Tractor/Occent.175   Diese   175   0.59 16/31/97 NBE-02 2.51E-01 5.37E-02 1.42E-03 1.88E-02 1.32E-02 1.0000199 0.0000479 1.022229 2.71E-05 3.88E-03 3.40F-05	ader/Backhoe			_	7.2	1.99E+00 2.:	L7E+00 6.9	5E+02 2.0	7	7	ᇊ	0	0	O	3.38E-07 4.54E-	05 4.4E-05		92
Off-highwayTrucks600 Diesel 600 0.59 1177422 3.21E-02 1.38E-01 5.37E+02 1.42E-03 8.25E-03 8.26E-03 1.00E-02 0.000477 0.00638 24.66E4 6.52E-05 0.000391 0.00038 Off-highwayTrucks600 Diesel 600 0.59 16.30277 2.57E-01 1.00E-03 5.5E-03 8.25E-03 8.26E-03 1.10E-02 0.000147 0.00638 24.66E4 6.52E-05 0.000393 0.000393 2.55E-03 5.55E-03 5.53E-03 8.25E-03 1.00E-02 0.000393 2.000393 2.000393 2.000393 2.55E-03 5.55E-03 5.55E-03 2.55E-03	Off-highwayTrucks600 Diesel 600 0.59 1177422 3.21E-02 1.38E-01 5.37E-02 1.42E-03 8.25E-03 8.26E-03 1.0E-02 0.000147 0.006338 24.66E-9 6.52E-05 0.000391 0.00038 CFH-highwayTrucks600 Diesel 100 0.59 16.73179 3.21E-02 1.38E-01 5.37E-02 1.42E-03 8.26E-03 1.10E-02 0.00017 0.006338 24.66E-9 5.5E-05 6.35E-05 6.35E-05 6.3E-05 6.3E-0					16.73179	7.83E-02 2.	51E-01 5.3	7E+02 1.4	-	E-02 1.82E		0	0		2.71E-06 3.58E-	05 3.47E-0		55
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CAMPET TRATOP/DOZESTA? Diesel 175 0.59 1906267 7.31E-02 1.32E-02 1.32E-02 1.23E-02 0.00017 0.000349 1.10E-05 0.35E-05 3.21E-02 1.32E-02 1.32E-02 1.32E-02 0.00017 0.000349 1.10E-05 0.000349 0.00017 0.000349 0.00	Cawler Tractor/Dozers175 Diesel 175 0:59 19.06267 7.88E-02 2.51E-01 5.37E-02 1.48E-03 1.88E-02 1.23E-02 1.23E-0		Rollers100			16	2 57E-01 11	4F+00 5 0	6F±02 1.6	DE-03 433	F-02 4 20F	-02 2 11E-C	5	0.001103	0 632029	1 7E-06 4 59E	05 4 46E-0	2 24F.	ñ
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A TATE OF TATE	Off-highwayTrucks600 Diesel 600 0.59 19.06267 3.21E-02 1.38E-01 5.37E+02 1.42E-03 8.52E-03 8.26E-03 1.10E-02 0.000239 0.001029 3.993046 1.05E-03 6.34E-05 6.	×		Diesel		9 19,06267	3.21E-02 1.	38E-01 5.3	7E+02 1.4	2E-03 8.53	E-03 8.26E	-03 1.10E-C	2 0.00023	0.001029	3,993046	1.05E-05 6.34E-	05 6.15E-0	8.2E-	50
7 10 110 4 040000 040000 040000 05 104 4 00 110 0 00 104 4 00 110 0 00 110 11	OfFhighway Trucks600 Diesel 600 0.59 15/06267 3.21E-02 1.38E-01 5.37E+02 1.42E-03 8.52E-03 8.25E-03 1.10E-02 0.000239 0.001029 3.993046 1.05E-05 6.	į ·						1	4				,	0		<i>i</i> (	5 (		3 !

The control																		
	16 Terminal / Asphalt Pl. Asphalt Paver			0.59	10.767	9.87E-02 2.84	E-01 5.37E+C	12 1.43E-C	3 2.44E-	02 2.37E-4	7	2 0.00012	0		1.75E-06	.99E-05	2.9E-05	1.86E-05
	6 Terminal / Asphalt Pl. Dump Truck	100000000000000000000000000000000000000		0.59	38.77817	3.21E-02 1.38	E-01 5.37E+C	1.42E-(	)3 8.52E-	03 8.26E-0		2 0.00048	0	ο c	2.15E-05	000129	0.000125	0.000167
	6 Terminal / Asphalt Pl. Other General Equipment 6 Terminal / Asphalt Dl. Dickup Truck	I pment1/5		54.0	. 42.534	2.24E-01 5.34	E-01 5.3/E+C	7 1.47EC	13 4./1E-	02 4.5/E-1		9 0.00034	0.001061	ر ب ر	2.62E-U6	3.58E-05	15E-05	6.02E-05
	6 Terminal / Asphalt Pl. Roller			0.59	10.767	2.57E-01 1.04E	5+00 5,96E+0	12 1.60E-C	4.33E	4.20E-	2.11E	,	3 0.000729		1.12E-06	3.03E-05	2.94E-05	1.48E-05
	5 Terminal / Asphalt Pl. Skid Steer Loader			0.21	10.767 2	2.74E+00 3.79E	E+00 6.94E+0	12 2.13E-C	m	3.55E-	5.18E	0	90.000709		3.98E-07	6.83E-05	6.63E-05	9.68E-05
	5 Terminal / Asphalt PI. Surfacing Equipment (Grooving)	Equipment25		0.59	13.78176 1	1.49E+00 3.76E	E+00 5.95E+C	12 2.19E-0	Т	1.66E-	3.52E	0	0.000843		4.9E-07	3.83E-05	3.72E-05	7.88E-05
Column   C	5 Terminal / Clearing a Chain Saw	Equipment11		0.7	22.8 2	2.47E+00 4.18t	E+00 5.94E+C	7	7	2.33E-	8.38E	0 0	7 0.00081	0	4 .	4.64E-05	4.5E-05	0.000162
	5 Terminal / Clearing a Chipper/Stump Grinder 5 Terminal / Clearing a Dickin Truck	Equipment100		0.43	30.4	4.65E-01 1.27t	ų r	-	- α	6.80E-	4.20E	0	0.001369	9		7.58E-05	7.35E-05 9.8E-05	4.54E-05
	5 Terminal / Concrete F Air Compressor	ion Equipment100			28.712	4.65E-01 1.27E	E+00 5.96E+0	1.63E-C	-	6.80E	4.20E		0.001724	0		9	26E-05	5.71E-05
	6 Terminal / Concrete F Concrete Saws	pment40		0.59	28.712	7	Ŋ	Н	2	2.24E-	9.35E		0.001896	0		1.73E-05	1.67E-05	6.98E-05
	6 Terminal / Concrete F Concrete Truck			0.59	119.6333	Н.	ro, r	Η ,	∞ •	8.26E-	1.10E	0 0		25		0.000398	0.000386	0.000514
Control   Cont	b Terminal / Concrete / Other General Equipment 6 Terminal / Concrete Dickin Truck	Other Construction Equipment1/5	Nesel 17		57.424 86.136 3	٠, ،	v r		4 a	4 0	3.3/E		0.002829	7 -	٥ -	0.000224	0.000218	0.000161
Control   Cont	6 Terminal / Concrete F Rubber Tired Loader	Tractors/Loaders/Backhoes175	iesel 17		28.712 8		9		, 4		2.03E		3 0.004779	- 7	r io	0.000616	0.000598	0.000664
	6 Terminal / Concrete F Slip Form Paver						5		7	7		2 0.00032	3 0.000928	-	4	7.98E-05	7.74E-05	4.96E-05
The control to the co	5 Terminal / Concrete F Surfacing Equipment (Grooving)					1.49E+00 3.76E	E+00 5.95E+C		_	_		0.00069	5 0.001757	0	⊣	7	7.74E-05	0.000164
	6 Terminal / Drainage - Dozer				2 5	~ ~	n n		- 0	- 0		2 5.99E-0	0 0	ο,	1.09E-06	1.44E-05	1.39E-05	9.39E-06
manical poste por estate and the control of the con	o Terminal / Drainage - Dump Truck 5 Terminal / Drainage - Excavator				6.72	٦ ۲	ח ת		20 -	ν -		2 8.43E-U	0			7 -	2.1/E-05 1.14E-05	2.89E-U5
The control of the co	6 Terminal / Drainage - Loader				6.72	٠.	9					0.00062	0	0		0.000144	0.00014	0.000155
The control of the co	6 Terminal / Drainage - Other General Equipment	'n			6.72	2	2		4	4		0.00010	0	0	8.18E-07	2.63E-05	2.55E-05	1.88E-05
Part	6 Terminal / Drainage - Pickup Truck				6.72	_	2		80	00		2 8.43E-0	0	$\vdash$	3.72E-06	2	2.17E-05	2.89E-05
Contact   Cont	5 Terminal / Drainage - Roller			0.59	6.72	÷.	Ŋ		4	4		2 0.00011	0	0	6.99E-07	Н	1.84E-05	9.24E-06
Contained Fromings From Part State   Contained From Part	6 Terminal / Drainage - Dump Truck			0.59	3.733333	٠,	ri o		∞ ⋅	8.26E		2 4.68E-0	0		2.07E-06	- 0	1.2E-05	1.61E-05
	b Terminal / Drainage - Loader E Terminal / Drainage - Other Coneral Equipment			0.59	3.733333 (	i u	ں ف			1.835		1 0.00034	0 0	0 0	` '	∞ -	1.775-05	8.64E-05
	o Terminal / Drainage - Ocher General Equipment 6 Terminal / Drainage - Pickup Truck	n		0.59	3.733333	n H	n n		1 00	8.26E		2 4.68E-0	0	0.782019		1.24E-05	1.2E-05	1.61E-05
The control of the co	6 Terminal / Drainage - Tractors/Loader/Backhoe			0.21	733333	7	9		~	7	2.90E		0.000188	0.060076		2.35E-05	2.28E-05	2.51E-05
The state of the s	6 Terminal / Dust Conti Water Truck			0.59		Н	2		80	8.26E-	1.10E		1 0.077758	301.636		0.004786	0.004643	0.006191
The control of the co	6 Terminal / Excavatior Dozer 6 Terminal / Excavatior Dump Truck (12 مر)			0.59		7 -	ഗൃ		- α	1.82E		2 0.00042	7 0.001369	2.9236		0.000102		6.69E-05
Particular   Par	6 Terminal / Excavation Pickup Truck			0.59			J L		0	0		0.000	0.002584	10.02381	4 (4	0.000159	0.000154	0.000200
Particulari (Mancher)	6 Terminal / Excavation Roller			0.59		٠.	2		4	4		2 0.0003	0.001494	0.85624		6.22E-05	6.04E-05	3.04E-05
Part	6 Terminal / Excavatior Dozer	175		0.59			2		_	Η.		2 0.0003	0.001027	2.1927	ш,	7.67E-05	7.44E-05	5.02E-05
Participation   Participatio	6 Terminal / Excavatior Dump Truck (12 cy)	ucks600		0.59			2		w ·			0.00120	0.005168	20.04762	•	0.000318	0.000309	0.000411
	6 Terminal / Excavation Excavator 6 Terminal / Excavation Dickum Truck	0093751					n n		_ ~			2 0.00021	0.0000709	1.754175	4 -	5.02E-05	4.87E-05	3.43E-05
	6 Terminal / Excavation Roller	000000				. 4	ט נ		2	0 4		2 0.00048	0.001943	1.113112	7	8.09E-05	7.85E-05	3.95E-05
	6 Terminal / Excavatior Scraper				35.89		2		2	~		2 0.00223	5 0.005722	7.517229	~	0.000413	0.000401	0.00037
	6 Terminal / Excavatior Dozer			0.59	13.51153		2		$\overline{}$	П		2 0.0001.	0.000386	0.825487	2	2.89E-05	2.8E-05	1.89E-05
Particular   Par				0.59	2.222222		വ		w a	w a		2 2.79E-0	0.00012	0.465488	_ 7	7.39E-06	7.16E-06	9.55E-06
Part		ipment175		0.43	8.888889 1		ט ר		2	2 4		2 0.00014	3 0.000438	0.395748		η (ς	3.37E-05	2.49E-05
Freeing sids State (Lodder)   State (L				0.59	,		5		ω,	. 00		2 0.00011	0.00048	1.86195	4	2	2.87E-05	3.82E-05
Transpire   Freedy   Transpire   Transpi				0.21	7		9		m	3		1 0.00042	3 0.000585	0.107174	m	2	5.47E-05	7.99E-05
remail to page goaler control				0.21		α.	9		~	7		0.00040	9 0.000447	0.143039	4	,	5.43E-05	5.97E-05
Particular   Par	Terminal / Grading				9.2774		v r		- 0	- о		2 8.2/E-U	0.000265	_ <	1.5E-06		1.92E-05	7.23E-05
Transity   Hydroseck   Hydroseck   Cyte	Terminal / Grading				9.2774		r c		, 4	4		2 0.00015	0.000628	0.359668	9		2.54E-05	1.28E-05
Transmiss   Tran	i Terminal / Hydroseec Hydroseeder	ipment600			8.358 4	_	2		00	7		2 0.00162	0.003563	1.750196	ш,	0.000263	0.000255	0.000226
	Terminal / Hydroseec Off-Road Truck				8.358		5		00 (	00 0			5 0.000451	1.750745	Α.	2.78E-05	2.69E-05	3.59E-05
Chief Controlled Spires   Chief Controlled	Terminal / Lighting Terminal / Lighting					21E-02 13F-01	ഗ്ധ		∞ ←	∞ ←			5 0.000423	1.64224	4 -	2.61E-05	2.53E-05	3.37E-05
State   Stat	Terminal / Lighting	75				94E-01	i in		4 4	4			0.000386	0.34905	7 01	3.06E-05	2.97E-05	2.19E-05
Sidi Steat Condension   Sidi Steat					(1)	7	2		00	00			5 0.000423	1.64224	٧.	2.61E-05	2.53E-05	3.37E-05
Chiefle   Chie					7	2.74E+00 3.79t	E+00 6.94E+C		m	m c		7.000037	3 0.000516	0.094528		4.98E-05	4.83E-05	7.05E-05
Other Construction Equipment175         Diesel         175         0.4         177,3714         1946.01         5376-01         1476.02         4.776.02	i Terminal / Lighting - Tractors/Loader/ backnoe i Terminal / Markings - Flatbed Truck			0.59			o r		v 00	V 00		0.0003	0.009578	37.15389	, 0	0.00059	4.79E-US 0.000572	0.000763
Off-highway Trucksion         Diesel         600         0.59         17/37/43 3.12.EQ1         137EQ1         3.2EQ2         3.2EQ2         137EQ3         147EQ3         8.5EQ3         3.2EQ3         0.00237         0.00237         0.00234	Terminal / Markings Other General Equipment	75		0.43	177.3714		2		4	4		2 0.00284	0.008739	7.896876	7	0.000693	0.000672	0.000496
Oth-Righway Tracks600 Ories 600 0.99 1.2869 3.126-01 5.98	Terminal / Markings Pickup Truck			0.59	177.3714		2		00	00		2 0.00222	0.009578	37.15389	σ.	0.00059	0.000572	0.000763
Oth light way Tracksoo	i Terminal / Sealing/Fu Distributing Tanker i Terminal / Sealing/Fu Other General Founment			0.59	22.9696 2	- 6	n n		ω 4	ω 4	3 1.10E-0	2 0.00028	0.00124	1.022645	_	7.63E-05 8 97E-05	7.41E-05 8.7E-05	9.88E-05 6.42E-05
Other Construction Equipment 175 Dissel 175 0.43 7.6 194E-01 5.94E-01 5.73F-02 1.47E-02 4.75E-02 8.25E-02 8.25E-02 8.25E-02 8.25E-02 8.25E-03 1.25E-03 1.25E	5 Terminal / Sealing/Fu Pickup Truck			0.59	22.9696	, -	J R		- ∞	- 00	1.10E		3 0.00124	4 4	$\vdash$	7.63E-05	7.41E-05	9.88E-05
Otherway Trucks600  Other in Caver Tractory Coastary Sacration 1 2 2 3.12 C 1.38 C 1 5.75 C 2.47 C 1.42 C 3.85 C 3	5 Terminal / Soil Erosio Other General Equipment	Equipment175		0.43	7.6	2	2		4	4		2 0.00012	0.000374	0	6	2.97E-05	2.88E-05	2.13E-05
Transcription rapid present 1   10-44   17-10-14   17	5 Terminal / Soil Erosio Pickup Truck	cks600		0.59	15.2	Η,	ro r		00 (	00 (		2 0.00019	0.000821	m	8.41E-06	5.05E-05	4.9E-05	6.54E-05
Crawler Tractor/Dozers175   Diese   175   0.59   18.13389   7.8E-02   2.51E-01   2.7E-02   1.2E-02   1.2E-02   0.000150   0.000592   0.700042   0.7E-02	b Terminal ≠Soil Erosio Pumps 6 Terminal ≠Soil Erosio Tractors/Loader/Backhoe			0.43	7.6 1	2.47E+00 4.18I 1.99E+00 2.17E	E+00 5.94E+C E+00 6.95E+0		7 7	7 7		1 9.77E-U 1 0.000349	0.000166		×m	υ. 4.	22E-06 64E-05	3.32E-05 5.1E-05
Off-highway Tracks600   Diese  600 0.59 1276089 3.12e0.1 3.87e0.1 4.82e0 8.82e0.8 8.25e0.8 1.0e0.2 0.000010 0.000391 B.73010.7 0.70e0.0 0.000444 0.00044 0.00044 0.000444 0.00044 0.00044 0.00044 0.00044 0.00044 0.00044 0.00044 0.00044 0.	5 Terminal / Subbase P Dozer			0.59	18.13389 7	2	2		7	П	1.23E		0.000519		7	3		2.53E-05
Cander   C	Terminal / Subbase P Dump Truck (12 cy)			0.59	127.6089		r c		ω 0	00 0	3 1.10E-0	0.00160	0.006891		_	9.		0.000549
Crawler Tractor/Pocness175   Olese   600   0.59   20.616   33.74-0.0   1.47-0.0   1.47-0.0   1.48-0.0   1.47-0.0   1.48-0.0   1.47-0.0   1.48-0.0   1.47-0.0   1.48-0.0   1.47-0.0   1.48	Terminal / Subbase P Pickup Truck Terminal / Subbase P Roller			65.0	17.66892	7 4	U U		δ 4	4.20E	2.11E		- 0		1.84E-06	4.98E-05	5.83E-05	7.8E-U5 2.43E-05
Off-highwayTracks600   Obese   600   0.59   20.616   3.21E-O. 1.38E-O. 1.37E-O. 1.4.ZE-O. 8.5.ZE-O. 8.5.ZE-O. 8.2.DE-O. 0.000113   4.3184.22   1.1.4E-O. 6.6.SE-O. 6.5.ZE-O. 1.38E-O. 1.37E-O. 1.4.ZE-O. 8.5.ZE-O. 8.2.ZE-O. 2.0.ZE-O. 0.000113   4.3184.22   1.1.4E-O. 6.5.ZE-O. 6.5.ZE-O. 1.38E-O. 1.37E-O. 1.4.ZE-O. 8.5.ZE-O. 8.2.ZE-O. 2.0.ZE-O. 2.0.ZE-O. 0.000113   4.3184.22   1.1.4E-O. 6.5.ZE-O. 6.2.ZE-O. 1.38E-O. 1.37E-O. 1.4.ZE-O. 8.2.ZE-O. 8.2.ZE-O. 3.2.ZE-O. 4.1.ZE-O. 4.0.ZE-O. 4	Terminal / Topsoil Pla Dozer	175			20.616 7	2	'n		_	1.82E-	1.23E			, –	3.34E-06	4.41E-05	4.27E-05	2.88E-05
Othelphrwyl vlacks600 Diesel 600 G.59 2.08FG 137FG 1.48E01 5.37FG 2.48E0 1.48E04 8.28E0 8.28E	Terminal / Topsoil Pla Dump Truck				20.616	Η.	E-01 5.37E+C	1.42E-C	∞ .	8.26E-	1.10E	2 0.00025	0	4	1.14E-05	6.85E-05	65E-05	8.86E-05
Asphale I DumpTruck Appliant Patient Particles of the Par	Terminal / Topsoil Pla Pickup Truck	ıy Trucks600			20.616	٠i ،	E-01 5.37E+C	)2 1.42E-(	∞ .	8.26E-	1.10E			4 0	1.14E-05	6.85E-05	65E-05	8.86E-05
Asphale Pl Other General Equipment 7 Other Construction Equipment 15 Diesel 105 0.43 7.148 1.1945-01 5.945-01 5.945-01 5.745-02 1.475-02 4.575-02 3.375-02 0.000012 0.0003570 0.331598 9.075-07 2.915-05 2.915-05 0.454 1.245-03 1.245-03 1.045-02 4.675-05 0.000201 0.730004 2.065-02 1.245-05 0.000201 0.730004 2.065-02 1.245-05 0.000201 0.730004 2.065-06 1.245-05 0.000201 0.730004 2.065-02 1.245-05 0.000201 0.730004 2.065-02 1.245-05 0.000201 0.730004 2.065-02 1.245-05 0.000201 0.730004 2.065-02 1.245-03 0.745-02 1.245-03 1.2		cks600			3.724	3.21E-02 1.38	E-01 5.37E+0	12 1.42E-C	4 00	8.26E	1.10E			,	7.42E-06	4.46E-05		5.77E-05
Othergrows incised to the construction Equipment Growing Other Construction Equipment Growing Other Construction Equipment Growing Other Construction Equipment I lose of the Construction Equipment		pment175			7.448	1.94E-01 5.94	E-01 5.37E+C	1.47E-C	3 4.71E-	02 4.57E-		2 0.0001.		0	9.07E-07	2.91E-05	2.82E-05	2.08E-05
Apphale II State Loader Skid Steer Loader Skid Skid Steer Loader Skid Skid Steer Loader Skid Skid Skid Skid Skid Skid Skid Skid					3.724	3.21E-02 1.38 2.57E-01 1.04F	7+01 5.37E+C	7 1.42E-(	33 8.52E-	03 8.26E-0	3 1.10E-0	2 4.67E-U	0 0	0.780064	2.06E-06	1.24E-05	1.2E-05	1.6E-05 5.12E-06
Asphalt Pl Surfacing Equipment (Grooving) Other Construction Equipment12 Diesel 25 0.59 4.76672 1.495+00 5.955+02 2.195-03 1.71E-01 1.665-03 3.525-03 0.000116 0.000226 0.000392 0.046126 1.72-07 1.335-05 1.0000238 0.046126 1.72-07 1.035-05 1.000028 0.046126 1.000384 0.054429 2.5-07 2.2-05 2.000028 0.000226 0.000384 0.054429 2.5-07 2.2-05 2.000028		ers75			3.724 2	2.37E-01 1.04 2.74E+00 3.79E	E+00 5.98E+0 E+00 6.94E+0	12 2.13E-C	3 3.66E-1	f m	2.11E-0 11 5.18E-0		0	0.044901	1.38E-07	2.36E-05	2.29E-05	3.35E-05
Clearing a Chain Saw Other Construction Equipment11 Diesel 11 0.7 10.8 2.47E+00 4.18E+00 5.94E+02 2.18E-03 2.40E-01 2.33E-01 8.38E-01 0.000226 0.000328 0.054429 2.E-07		ion Equipment25	iesel 2	0.59	4.76672 1	L.49E+00 3.76E	E+00 5.95E+0		· -i	; ⊣	3.52E-0	0	0	0.046126	1.7E-07	1.33E-05	1.29E-05	2.73E-05
		ö	iesel 1:	0.7	10.8 2	2.47E+00 4.18E	E+00 5.94E+C		7	01 2.33E-4	1 8.38E-0			0.054429	2E-07	2.2E-05	2.13E-05	7.68E-05

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Comparison   Com
13   10   10   10   10   10   10   10
12.00   10.0
12.00   10.0
15.00   10.0
17.   18.
17.   18.
100   100
Decem   Co.   Co
December   Color   C
175   0.05   30.208   33.16.0   33.76.0   33.76.0   33.76.0   34
175   0.59   30.208   3.11c. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.75   0.59   30.208   3.12c. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.75   0.59   30.208   1.34t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   1.34t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   1.34t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   1.34t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   1.34t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   30.208   2.12t. 0. 1.38t. 0. 1.377c. 0. 1.00ces   1.05   0.05   3
Obesed         177         0.99         30.208         32.EG         1.28E-O           Diesed         177         0.99         30.208         55E-CO         2.17E-O           Diesed         175         0.99         30.208         55E-CO         2.17E-O           Diesed         100         30.208         18.1E-O         1.36E-O           Diesed         600         0.99         30.208         18.1E-O         1.36E-O           Diesed         600         0.99         30.208         18.1E-O         1.36E-O           Diesed         600         0.99         30.208         31.E-O         1.36E-O           Diesed         600         0.99         1.86E-O         1.38E-O         1.36E-O           Diesed         600         0.99         1.86E-O         1.38E-O         1.36E-O           Diesed         600         0.99         1.86E-O         1.38E-O         1.36E-O
Diesel         (500         <
Diese   175   0.59   30.208
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throess tripped on the property of the propert
Off-highway Trucks600 Excavators 135 That oxivious fragility and pure flaginemit all materity chaders Backhoes 135 Other Construction Equipment of the highway Trucks600 That oxivious from the tractor floaders Backhoes 130 Off-highway Trucks600 Off-highway Trucks60
Off-highway Excavators/Loz Cher Consty Off-highway Off-highway Chighway Chighway Crawler Tractors/Loz Off-highway
Drainage - Dump Truck Drainage - Character Drainage - Chare Drainage - Chare Drainage - Chare Drainage - Dump Truck Drainage - Loader Drainage - Dump Truck Drainage - Dump Truck Drainage - Dump Truck Drainage - Dump Truck (12 cy) Excavatior Dump Truck Excavatior Dump Truck Excavatior Dump Truck Grading Dump Truck Apphale Ploturp Truck Concrete Floture Fruck Gonrete Formere Everator Drainage - Dump Truck Drai
Drainage - Dump Truck Drainage - Exavator Drainage - Exavator Drainage - Dump Truck Drainage - Date General Equipment Excavatior Dozer Excavatior Dozer Excavatior Dozer Excavatior Dozer Excavatior Dozer Excavatior Roller Diabase P Roller Truck Forbiol In Exclude Truck Soil Erosio Dickup Truck Soil Erosio Dickup Truck Soil Erosio Dickup Truck Asphalt Pl Other General Equipment Concrete Forbior Fixed Concrete Forbior Fixed Concrete Forbior Fixed Concrete Forbior Fixed Drainage - Concrete Forbior Roller Drainage - Other General Equipment Drainage - Other General
Drainage - Dump Truck Drainage - Dump Truck Drainage - Losader Drainage - Chard Drainage - Chard Drainage - Chard Drainage - Chard Drainage - Dump Truck Excavatior Polley Truck Grading Dump Truck (12 c Excavatior Dump Truck (12 c Excavatior Dump Truck Lighting Dump Truck Lighting Dump Truck Grading Dump Truck Grading Dump Truck Fercing Dump Truck Fercing Dump Truck Fercing Excavatior Polley Truck Grading Fercing Dump Truck Fercing Fercing Dump Truck Grading Fercing Fercing Dump Truck Fercing Fercing Dump Truck Fercing Ferc
2026 Taxiways Drainage - Dump Truck 2026 Taxiways Drainage - Cuther General Equipment 2026 Taxiways Drainage - Cuther General Equipment 2026 Taxiways Drainage - Cuther General Equipment 2026 Taxiways Drainage - Pickup Truck 2026 Taxiways Drainage - Pickup Truck 2026 Taxiways Drainage - Dump Truck 2026 Taxiways Drainage - Dump Truck 2026 Taxiways Drainage - Dump Truck 2026 Taxiways Drainage - Pickup Truck 2026 Taxiways Excavation Dozer 2026 Taxiways Excavation Prock (12 cy) 2026 Taxiways Excavation Procking Truck 2026 Taxiways Subbase P Dump Truck 2026 Taxiways Concrete Forerer Excavator 2026 Taxiways Concrete Forerer Excavator

Escavation Dezer Inters. Crawler Tractor/Dozers135 Escavation Dezer Inters. Crawler Tractor/Dozers135 Escavation Dump Truck (12 oy) Grif-highway Trucks600 Escavation Charles Grawler Tractor/Dozers135 Escavation Dump Truck (12 oy) Grif-highway Trucks600 Escavation Dump Truck (12 oy) Grif-highway Trucks600 Escavation Potent Tractor/Dozers135 Escavation Straper Grawler Tractor/Dozers135 Escavation Straper Grawler Grawler Tractor/Dozers135 Escavation Straper Grawler Grif-highway Trucks600 Escavation Straper Grawler Tractor/Dozers135 Escavation Straper Grawler Grif-highway Trucks600 Escavation Graeneral Equipment Grif-highway Trucks600 Escavation Groncere Truck Grif-highway Trucks600 G	175 175 175 175 19ment175	Diesel Diesel Diesel Diesel Diesel	600 600 100 175	0.59 35.40133 0.59 35.40133 0.59 35.40133 0.59 16.33908 0.59 26.551 0.59 70.80267	3 7.83E-02 3 3.21E-02 3 3.21E-02 3 3.21E-02 8 2.57E-01 1 7.83E-02	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	5.37E+02 5.37E+02 5.37E+02 5.37E+02	1.42E-03 1.42E-03 1.42E-03 1.42E-03	6.32E-03 1.88E-02 8.52E-03 8.52E-03 4.33E-02	0.20E-03 1.82E-02 8.26E-03 8.26E-03 4.20E-02 1.82E-02	1.28-02 0.0 1.10E-02 0.0 1.10E-02 0.0 2.11E-02 0.0 1.23E-02 0.0	.000316 0.0 .000344 0.0 .000444 0.0 .000274 0.0 .000237 0.0	2 7 7 0 1 4	301.636 0.000.77 1.162845 5.74E-06 7.415497 1.96E-05 7.415497 1.96E-05 6.633436 1.7E-06 6.622133 4.3E-06	0.004/88 06 7.57E-05 05 0.000118 05 4.61E-05 06 4.61E-05	0.004643 7.34E-05 0.000114 0.000114 4.47E-05	4.95E-05 0.000152 0.000152 2.25E-05
ro Dump Truck (12 cy) Off-highway Trucks ro Piedup Truck in Polest Trucks rollers 300 off-highway Trucks rollers 300 or 10 Dozer Crawler Tractor/Do. 10 Dozer Crawler Tractor/Do. 10 Dozer Crawler Tractor/Do. 10 Dozer Crawler Tractor/Do. 11 Dozer Crawler Tractor/Do. 12 Dozer Crawler Tractor/Do. 12 Dozer Crawler Tractor/Do. 13 Dozer Crawler Tractor/Do. 14 Dozer Crawler Tractor/Do. 15 Dozer Crawler Tractor/Do. 15 Dozer Crawler Tractor/Do. 16 Dozer Crawler Tractor/Do. 17 Dozer Crawler Tractor/Do. 18 Dozer Crawler Tractor/Do. 18 Dozer Crawler Tractor/Do. 18 Dozer Crawler Tractor/Do. 18 Dozer Crawler Tractor/Dozer Crawler Tractor/Do. 18 Dozer Crawler Tractor/Dozer Crawler Tractor/	175 175 175 ipment175	Diesel Diesel Diesel Diesel Diesel	600 600 100 175			· · · · · ⊢ ·	5.37E+02 5.37E+02	1.42E-03 1.42E-03 1.60E-03	m m 4	∞ ∞ 4 ⊣	0 0 0 0	0 0 0 0	01912 7.415 01912 7.415 01106 0.633 00759 1.622		00 7 2	0.0.4	0.000152 0.000152 2.25E-05
The Pleup Truck Golf Highway Trucks Truck To The Dump Truck (12 cy) Chemical Convert Tractor/Do. To Dump Truck (12 cy) Chemical C	175 175 175 ipment175	Diesel Diesel Diesel Diesel	100			∵ ⊣ '	5.37E+02	1.42E-03 1.60E-03	∞ 4	∞ 4 ⊣	000	0 0 0 0		-	0 7 5	0.4	0.000152 2.25E-05
Included   Crawler Tractor/Do.	175 175 ipment175	Diesel Diesel Diesel	175			Η.		T. 50 E-03	Ŧ	; ⊣	0 0	0 0					7. Z3E-03
ro Dump Truck (12 cy) Off-highway Trucksi Prickan Trucksi Pric	175 ipment175	Diesel Diesel	5			7	5.37E+02	1.42E-03	_			0			٠,		3.71E-05
r Kecavator (Secavators) Tractavator (Prilagramy Trucks) Tractavator (Prilagramy Trucks) Tractavators (Prilagramy Trucks) Tractavators (Prilagramy Tractavators) Tractavators (Prilagramy Tractavators) Tractavators (Prilagramy Trucks) Trucks) Tractavators (Prilagramy Trucks) Trucks) Trucks (Prilagramy	.175 ipment175	Diesel	900			1.38E-01	5.37E+02	1.42E-03	ω	∞	0		003823 14.83	(1)	0		0.000304
re Plekup Truck Rollers, 2007 r Scraper Scrapers Rollers, 2007 r Order Truck Grayler Tractor/Do. of Dozer Cawler Tractor/Do. of Plekup Truck Grayler Truck Grayler Tractors/Loader/Backhoe Tractors/Loader/Backhoe Tractors/Loader/Backhoe Grayler Grayler Tractors/Loader/Backhoe Grayler Tractors/Loader/Backhoe Grayler Grayler Tractors/Loader/Backhoe Grayler Grayler Tractors/Loader/Backhoe Grayler Grayler Tractors/Loader/Backhoe Grayler Tractors/Loader/Backhoe Grayler Tractors/Loader/Backhoe Grayler Tractors/Loader/Backhoe Grayler Grayler Tractors/Loader/Backhoe Grayler Grayler Tractors/Loader/Backhoe Grayler Gra	.175 ipment175		175			7	5.37E+02	1.42E-03	1.54E-02	$\overline{}$	0	0		,	,		2.54E-05
ris Nones  To Sozia  To Dozer  To Dozer  Cowlet Tactor/Do.  Other General Equipment  Cowlet Tractor/Do.  General Equipment  Other Construction  Other Construction  Other Construction  Other General Equipment  Other Construction  Other General Equipment  Other General Tractory  Other General Equipment	.175 ipment175	Diesel	9 60			٦,	5.37E+02	1.42E-03	8.52E-03	∞ <	0 0	.000266 0.0	001147 4.445			<b>D</b>	9.13E-05
ro Dozer  Conrete Truck Conrete Truck Conrete Truck Coher General Equipment Other General Equipment Other General Equipment Other General Equipment Off-highway Trucks Skid Steer Loader Tractors/Loader/Backhoe Tractors/Loader/Backhoe Grader Roller Roller Coher General Equipment Coher Construction Coher General Equipment Coher Construction Coher General Equipment Coher Construction Coher General Equipment Coher C	:175 ipment175	Diesel	009			: 4	5.37E+02	1.46E-03	2.95E-02	2.86E-02	2.64E-02 0.0	0	04233 5.561		, 0	, 0	0.000274
Concrete Truck Off-highway Trucks Other General Equipment Off-highway Trucks Other Construction Pickup Truck Sikd Steer Loader Sikd Steer Loader Tractors/Loader/Backhoe Crawler Tractors/Loader/Backhoe Crawler Roller Construction Other Construction	ipment175	Diesel				7	5.37E+02	1.42E-03	1.88E-02	1.82E-02	1.23E-02 8.9	0	.000286 0.610	_	36 2.14E-05	7	1.4E-05
Dump Truck Of Friginway Trucks Other General Equipment Other Construction Pickup Truck Skid Sker Loader Skid Sker Loader Sackhoe Tractors/Loaders/Backhoe Tractors/Loaders/Backhoe Tractors/Loaders/Backhoe Tractors/Loaders/Backhoe Tractors/Loaders/Backhoe Other Construction of Skid Sker Loader Tractors/Loaders/Backhoe Tra	ipment175	Diesel				H	5.37E+02	1.42E-03	w	8.26E-03	1.10E-02	0.00005 0.0			05 0.000133	0	0.000171
Other General Equipment Other Construction Construction Construction Construction of Constru	t175	Diesel				$\vdash$	5.37E+02	1.42E-03	w	8.26E-03	1.10E-02	0	.008611 33.40	w		0	0.000686
Trickip Tricky T		Diesel		0.43 159.4667		ω,	5.37E+02	1.47E-03	4.71E-02	4.57E-02	3.37E-02 0.0	0 0	007857 7.099		05 0.000623	0.000604	0.000446
John Joseph Loader/ Backhoe Tractors/Loader/spin John Joseph Loader/spin John John Loader/spin John Loader/s	000	Diesel		0.59 159.466		1.38E-01	n d	1.42E-03		8.26E-03	5 6		USBIL 33.40			0	0.000686
Dozer  Grader  Graders Graders Graders (100 poser)  Graders Graders (100 poser)  Roller Stop (100 poser)  Roller Graders (100 poser)  Roller Graders (100 poser)  Roller Graders (100 poser)		Diesel		0.21 159.4667		2.17E+00	6 95F+02	2 03E-03	, ,	2.53E.01	, ,	0.0 555700	0.008028 2.56	- 17		0	0.001071
Graders Graders300 Roller Roller Roller Roller Roller Roller Rollersun Rollersun Rollersun Rollersun Rollersun Rollersun Griffelighway Trucks Griffelighway Trucks Trackor (Pft-Righway Trucks) Cohen General Equipment Griffelighway Trucks Trackor (Dried General Equipment Griffelighway Trucks) Griffelighway Trucks Griffelighw	ers175	Diesel				2.51F-01	ט כ	1.42F-03		1.82F-02	, -	6F-05 0.0	25.2 02000	` -	06 2.22F-0F	٠ ،	1.45E-05
Rollers 100  Rich Face of the Construction  Of Fagway Trucks  Of Fagway Trucks  Loader  Other General Equipment  Other General Equipment  Other General Equipment  Other Construction  Other Construction		Diesel			8 3.81E-02	1.55E-01	5.37E+02	1.42E-03	9.92E-03	9.62E-03	1.23E-02 7.	.71E-05 0.0	000315 1.087537	, ,,	06 2.01E-05	1.95E-05	2.5E-05
et Hydroseeder Other Construction et GFRoad Truck Of Fhighway Trucks Dump Truck Of Fhighway Trucks Loader Tractors/Loaders/BR Other General Equipment Other Construction Other Construction		Diesel			8 2.57E-01	٠.	5.96E+02	1.60E-03	4.33E-02	4.20E-02	. 0	7 2			06 2.93E-0	7	1.43E-05
et Off-Road Truck Off-Injahway Truckst Dump Truck Off-Injahway Truckst Off-Injahway Truckst Truckst Trackory Truckst Usader Trackory Truckst Other General Equipment Other Central Union Truck Truck Off-Injahway Truckst Order Construction Off-Injahway Truckst Off	Equipment600	Diesel			8 4.97E-01	-	5.37E+02	1.57E-03	8.05E-02	7.81E-02	6.92E-02 0.0		0.003988 1.958	,	0.00029	, 0	0.000253
Dump Truck Loader Other General Equipment	_	Diesel			8 3.21E-02	٠.	5.37E+02	1.42E-03	8.52E-03	8.26E-03	0		000505 1.959545	ш,		m	4.02E-05
Loader Other General Equipment Bickum Track		Diesel		~	3 3.21E-02	1.38E-01	5.37E+02	1.42E-03	8.52E-03	∞	1.10E-02 0.0	0			35 0.00016	0	0.000207
Other General Equipment		Diesel		0.59 48.05333	3 8.13E-01	તે	6.26E+02	1.83E-03	7	$\vdash$	0.10	04448 0.0		01	06 0.001031	0.001	0.001112
Dick in Truck	2	Diesel		٧.	3 1.94E-01	5.94E-01	5.37E+02	1.47E-03	٧.	4.57E-02	0 0	.000772 0.0		ш,		0	0.000134
Transport and		Diesel		٧.	3 3.21E-02	1.38E-01	2	1.42E-03	~	∞	0 0	0.0 60900			05 0.00016	0	0.000207
Skid Steer Loader		Diesel		٧.	3 2.74E+00	3.79E+00	9	2.13E-03	,	m	010		.003165 0.579			0.000296	0.000432
ler/Backhoe		Diesel		0.21 48.0533	3 1.99E+00	2.17E+00	6.95E+02	2.03E-03	2.72E-01	2	2.90E-01 0.0	.002209 0.0	0.002419 0.773		0.000303	0	0.000323
Flatbed Truck Off-highway Trucksi		Diesel		0.59 131.218	3 3.21E-02	1.38E-01	5.37E+02	1.42E-03	8.52E-03	8.26E-03	050	.001646 0.0	07086 27.48	-	9	0	0.000564
Other General Equipment Other Construction	pment175	Diesel		0.43 131.218	3 1.94E-01	5.94E-01	5.37E+02	1.47E-03	4.71E-02	4.57E-02	020	02108 0.0	06465 5.84		9	0 0	0.000367
	17E	Diesel		0.59 131.2183	3 3.21E-U2	1.38E-01	5.37E+02	1.42E-U3	8.52E-U3	8.26E-U3	200	0.01446 0.0	0.007086 27.48622			۰ د	7.465.05
Off bighungs Tarreled	Edaibilielitt/3	Diesel		20.50	0 1.345.01	1 205 01	าย	1 475 03	4.7 IE 02	4.375-02	, ,	00141	200454 0.330	, ,	, -	, ,	7 575 0
Other Construction	inment11	Diesel		23.33	8 2 47F±0C	4 18F±00	5 94F±02	2 185-03	2 40E-01	2 33E-01	, ,	000113 00	700 00100	,	1 15-05		3 84E-05
s/loader/Backhoe Tractors/Loaders/B		Diesel		21 8	1 99F+0C	2 17F+00	ı v	2 03F-03	2 72F-01			000405 0.0	00443 0 141	~	_	1 1	5 91F-05
Crawler Tractor/Doz		Diesel		0.59 13.4153	7 7.83E-02	2.51E-01	) L	1.42E-03	1.88F-02		•	0.00012 0.0	0.000384 0.819612		,	, ~	1.87E-05
Taick (12 cv)		Diesel		0 59 94 4044	A 2.21E-02	-	) L	1 42E-03	8 52E-03		_	01184 0 0	05098 19 7			٠ ,	907000
Subbase P Pickup Truck		Diesel			7 3.21E-02	1.38E-01	5.37E+02	1.42F-03	8.52E-03	8.26F-03	1.10F-02 0.0	0.00168 0.0	0.000724 2.81	81011 7.42E-	> ~	2	5.77E-05
		Diesel			8 2.57E-01	٠.	ı ır	1.60F-03	4			0.0 612000	6		3.68F-05		1.8E-05
Crawler Tractor/Do	zers175	Diesel			7 7.83E-02	,	L LC	1.42F-03				000206	00066 1.409747		4	4.78E-05	3.23E-05
Truck Off-highway Trucks	2	Diesel			7 3.21E-02	1.38F-01	5.37F+02	1.42F-03	8.52F-03	8.26F-03		0.00 89 0.0	0.001246 4.83	, –	7. 67E-05	-	9.92F-05
		Diesel			7 3.21F-02	-	) L	1 42F-03	000			0.0 88 0.0	01246 4 833437				9 97F-05
th Bucket	2	Diesel		4 (1	7 6.56F-02	i	5.37F+02	1.42F-03	1.54F-02		1.05F-02 0.0	00023	278.1 97000	, ,	_	٠ ١	3.67E-05
_		Diesel		- 67	7 6.56E-02	2	5.37E+02	1.42E-03	1.54E-02	1.49E-02	1.05E-02 0	00023 0	00076 1.879	7		5.22E-05	3.67E-05
		Diesel		6	3 3.21E-02	1.38E-01	5.37E+02	1.42E-03	8.52E-03	8.26E-03	1.10E-02 0.0	0.000772 0.0	0.003322 12.88768		05 0.000204	0	0.000265
		Diesel		2	5 9.87E-02	7	5.37E+02	1.43E-03	2.44E-02	2.37E-02	1.52E-02	3E-05 8.6	34E-05 0.163	7			4.61E-06
		Diesel		01	2 3.21E-02	Н	5.37E+02	1.42E-03	8.52E-03	8.26E-03	1.10E-02 0.0	0.000121 0.	0.00052 2.03	ш,			4.14E-05
al Equipment Other Construction	ipment175	Diesel			5 1.94E-01	Ŋ	5.37E+02	1.47E-03	4.71E-02	4.57E-02	3.37E-02 8.1	59E-05 0.0		Ψ	7		1.49E-05
Off-highway Trucks		Diesel		7	5 3.21E-02	1.38E-01	2	1.42E-03	8.52E-03	8.26E-03	1.10E-02 3.3	35E-05 0.0	0	_		8.62E-06	1.15E-05
		Diesel		0.59 2.672875	5 2.57E-01	1.04E+00	2	1.60E-03	4.33E-02	4.20E-02	02	4.47E-05 0.0	0	14		7.31E-06	3.67E-06
Skid Steer Loaders7		Diesel		0.21 2.67287	5 2.74E+00	3.79E+00	9	2.13E-03	3.66E-01	3.55E-01	5.18E-01 0.0	00127 0.0	0.000176 0.032	01	38 1.7E-05	1.65E-05	2.4E-05
equipment (Grooving) Other Construction	Equipment25	Diesel		0.59 3.42128	8 1.49E+00	3.76E+00	5.95E+02	2.19E-03	1.71E-01	Η.	3.52E-01 8	.3E-05 0.0	0.000209 0.033107		•	9.23E-06	1.96E-05
Other Construction		Diesel		0.7	6 2.47E+00	4.18E+00	ഗ	2.18E-03	2.40E-01	2	8.38E-01 0.0	0.000126 0.0	00213 0.030	_		1.19E-05	4.27E-05
np Grinder Other Construction	pment100	Diesel		0.43	6 4.65E-01	1.27E+00	Λi	1.63E-03	7.01E-02	ه ف	4.20E-02 0.C	00132 0.	0.00036 0.169	۷,	37 1.99E-05		1.19E-05
Luck	ŀ	Diesel			8 3.21E-02	1.385-01	ח ר	1.42E-03	8.52E-03	χο τ	1.10E-02	0.0 T000.C	00432 1.675755	4	٧,		3.44E-U5
	1/5	Diesel			4 7.83E-02	2.51E-01	5.37E+02	1.42E-03	1.88E-02	1.82E-02	1.23E-02 5.	19E-05 0.0	0.00016/ 0.355	٠, ,	37 1.24E-05		8.14E-06
2026 Apron (GA Drainage - Dump Truck 2006 Apron (GA Drainage - Dump Truck		Diesel		0.59 5.624	4 3.21E-U2	1.30E-U1	n u	1 425 03	1 545 03	1 405 03	2 5	0.0 0.0	0.000314 I.21	, ,			2.35-03
		Diesel			4 8 13E-01	1 46F±00	י ע	1 835-03	1 89F-01	1 835-01	2.03E-01 0.C			916 1 21 E-06			0.000135
2026 Apron (GA Drainage - Other General Foundment Other Construction Foundment 7	u	Diesel			4 194F-01	-	0 10	1.47F-03	4.71F-02	4 57F-02	20	0			5 ^	, ,	1 63E-05
		Diesel			4 3.21E-02	4	5.37E+02	1.42E-03	8.52E-03	8.26E-03	1.10E-02 7.	31E-05 0.0			36 1.94E-05	1.88E-05	2.5E-05
Rollers 100		Diesel			4 2.57E-01	7	5.96E+02	1.60E-03	4	4.20E-02	0	75E-05 0.0	0.000394 0.22				8.01E-06
Truck		Diesel		0.59 3.23555	6 3.21E-02		5.37E+02	1.42E-03	w	∞	1.10E-02 4.0	4.06E-05 0.0	0.000175 0.67775		H	H	1.39E-05
	s175	Diesel		0.59 3.23555	6 8.13E-01		9	1.83E-03	_	Н		0			9		7.49E-05
2026 Apron (GA Drainage - Other General Equipment Other Construction Equipm	nent175	Diesel		0.43 3.23555	6 1.94E-01	5.94E-01	5.37E+02	1.47E-03	4.71E-02	4	3.37E-02 5		0.000159 0.144		Н	1.23E-05	9.05E-06
		Diesel		0.59 3.23555	6 3.21E-02		5	1.42E-03	8.52E-03	$\infty$			0.000175 0.67		H		1.39E-05
2026 Apron (GA Drainage - Tractors/Loader/Backhoe	100	Diesel		0.21 3.23555	6 1.99E+00	7	6.95E+02	2.03E-03	2.72E-01	7		0.000149 0.0	0.000163 0.052066			_	2.17E-05
2026 Apron (GA Dust Conti Water Truck		Diesel		0.59 144	0 3.21E-02		2	1.42E-03	ω	8.26E-03	05 (	0	0.077758 301		o.		0.006191
Crawler Tractor/Do		Diesel		0.59 11.8	8 7.83E-02		5.37E+02	1.42E-03		1.82E-02	-05					2	1.66E-05
12 cy)		Diesel		0.59 11.88	8 3.21E-02	1.38E-01	'n	1.42E-03	w	8.26E-03	05 0	0	.000642 2.488497	497 6.57E-06	m	m	5.11E-05
Truck	00	Diesel		0.59 11.8	8 3.21E-02		5.37E+02	1.42E-03	80	8.26E-03	1.10E-02 0.0	0	.000642 2.488	w.	3	3.83E-05	5.11E-05
		Diesel		0.59 5.48307	7 2.57E-01	$\overline{}$	'n	1.60E-03	٧.	4.20E-02	•	0	.000371 0.212	ш,	Н		7.54E-06
2026 Apron (GA Excavatior Dozer	ers175	Diesel		0.59 8.9	1 7.83E-02	7	5.37E+02	1.42E-03	1.88E-02	1.82E-02	1.23E-02 7.5	0	.000255 0.544		36 1.9E-05		1.25E-05
Truck (12 cy) Off-highway Trucks	200	Diesel			6 3.21E-02	Н	5.37E+02	1.42E-03	8.52E-03	8.26E-03	0	0	.001283 4.976	_		-	0.000102
Excavators175		Diesel			8 6.56E-02	2.17E-01	5.37E+02	1.42E-03	1.54E-02	1.49E-02		0	.000176 0.435489	_		1.21E-05	8.51E-06
2026 Apron (GA Excavatior Pickup Truck	00	Diesel			8 3.21E-02	Н	5.37E+02	1.42E-03	8.52E-03	8.26E-03	1.10E-02 8.5	05 0	00385 1.493	,	7		3.06E-05
		Diesel		0.59 7.128	8 2.57E-01	÷.	5.96E+02	1.60E-03	4.33E-02	4.20E-02	2.11E-02 0.0	0.0 61100	00482 0.27	-	7		9.8E-06
		Diesel		0.59 8.9	÷.	4.09E-01	5.37E+02	1.46E-03	2.95E-02	2.86E-02	2.64E-02 0.0	00555 0.0	01421 1.866	5.09	0.000103	9.95E-05	9.18E-05
or Dozer	175	Diesel		0.59 3.35419	7	2.51E-01	5.37E+02	1.42E-03	1.88E-02	1.82E-02	1.23E-02 2.9	99E-05 9.5	9E-05 0.20	5.4	7.17E-	9	4.69E-06
Concrete Truck		Diesel		0.59 1.91111	m	1.38E-01	5.37E+02	1.42E-03	8.52E-03	8.26E-03	1.10E-02 2	.4E-05 0.0	00103 0.400	9 1.06	E-06 6.35E-06	9	8.22E-06
Dump Truck Off-highway Trucks	00	Diesel		0.59 7.64444	m	1.38E-01	5.37E+02	1.42E-03	8.52E-03	8.26E-03		59E-05 0.0	3	4	36 2.54E-05	7.	3.29E-05
Other General Equipment Other Construction	Equipment175	Diesel	175	0.43 7.644444	4 1.94E-01	5.94E-01	5.37E+02	1.47E-03	4.71E-02	4.57E-02	3.37E-02 0.0	00123 0.0	000377 0.340	.340344 9.31E-07	37 2.99E-05	2.9E-05	2.14E-05
Pickup Truck Off-highway Trucks	. 00	Diesel		0.59 7.64444	m	1.38E-01	5.37E+02	1.42E-03	8.52E-03	8.26E-03	1.10E-02 9.	59E-05 0.0	3 1	4	36 2.54E-05	2.46E-05	3.29E-05

6.8/E-U3 5.13E-05	3.44E-06 5.92E-06	3.39E-06 5.99E-05	9.55E-06 1.63E-05	8.76E-05	1.63E-05	2.54E-05	0.000189	0.000189 2.45E-05	1.59E-05	5.59E-06	1.72E-05 8.74E-06	1.34E-05 6.29E-06	0.000136	6.03E-06	7.56E-05 2.36E-05	2.36E-05	0.000258	0.0000874	6.88E-05	1.72E-05	0.000655	0.000258		0.001248	0	0.000156	3.44E-05	, 0,	0.000344	0.000328	0.000258 6.88E-05	4.23E-05	0.00026	6.9E-06 6.19E-05	2.23E-	5.49E-		6.83E-05	1.91E-	5.5E-05 2.12E-05	2.59E-05	5.96E-05	0.0000247	1.84E-05	6.1E-05 0.000124	4.97E-05	8.05E-05 0.000124	3.26E-05	2.79E-05	0.00054
4./1E-US 4.67E-05	5.11E-06 4.63E-06	6.74E-06 6.77E-05	7.16E-06 1.22E-05	7.88E-05	1.22E-05	2.31E-05	0.000142	0.000142 1.84E-05	2.16E-05	7.58E-06	1.29E-05 2.43E-06	1.22E-05 9.33E-06	0.000102	1.2E-05	1.14E-05 1.77E-05	1.77E-05	0.000193	0.0001416	5.16E-05	3.22E-03	0.001062	0.000193	7.74E-05 0.004247	0.000689	0.000387	8.61E-05	2.58E-05	0.001137	0.000258	0.000531	5.16E-05	6.27E-05	0.000195	1.08E-05 4.64E-05	3.03E-05	1.09E-05		1.9E-05		4.13E-05 3.44E-05	6.21E-06	.08E-05	0.000222	2.87E-05	2.87E-05 9.29E-05	7.76E-05	0.000109 9.29E-05	4.84E-05	3.96E-05	0.000486
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ки эteer Loader ractors/Loader/Backh	Jozer Grader	toller Iydroseeder	Off-Road Truck Jump Truck	oader Ther General Four	ickup Truck	ractors/Loader/	latbed Iruck Xther General Eq	ickup Truck Jistributi ng Tanke	Other General Eq	ther General Ec	ickup Truck 'umps	ractors/Loade Jozer	Jump Truck (12	toller	Jozer Jump Truck	ickup Truck	concrete Read	ork Truck ool Truck	ractor Trail	ractor Trail	ork Truck	ool Truck	ractor Irail ork Truck	Aan Lift ool Truck	ractor Trail	ngn Lift (Fas Aan Lift (Fas	Naterial Deli ractor Trails	lighLift	ool Truck O Ton Crane	ork Truck	ool Iruck ractor Trailer-	Jozer	ickup Truck	sphalt Paver Jump Truck	Other General I	toller	kid Steer Load	thain Saw	hipper/Stump	ickup I ruck ir Compressor	Concrete Saws	Other General Ec	ickup Truck tubber Tired Load	lip Form Paver	urfacing Equipm Concrete Truck	urb/Gutter Pave	Ither General E ickup Truck	Jozer Tenel	xcavator	oader
	rading Dozer rading Grader	rading Roller ydroseec Hydroseeder	ydroseec Off-Road Truck ghting Dump Truck			ghting Tractors/Loader/Backhoe	farkings Flatbed Iruck Tarkings Other General Eq	1arkings Pickup Truck ealing/Fu Distributing Tank€	ealing/Fu Other General Eq	ومسبق/ در دردلاله ۱۲۵۲ الدر الارکار Sil Erosio Other General Ec	oil Erosio Pickup Truck oil Erosio Pumps	oil Erosio Tractors/Loade Jbbase P Dozer	ubbase P Dump Truck (12 Jabase P Pickup Truck	ubbase P Roller	opsoil Ple Dozer opsoil Ple Dump Truck	opsoil Pla Pickup Truck	oncrete F Concrete Read	oncrete F Fork Truck oncrete F Tool Truck	oncrete F Tractor Trail	onstructi Tractor Trail	xterior W Fork Truck	xterior W Tool Truck	xterior W Iractor Irali terior Bt Fork Truck	nterior Bu Man Lift terior Bu Tool Truck	nterior Bu Tractor Trail		oofing Material Deliveries	ø,	ecurity & Tool Truck tructural 40 Ton Crane	tructural Fork Truck	tructural Tool Truck tructural Tractor Trailer-	sphalt De Dozer	sphalt De Pickup Truck	sphalt Pl. Asphalt Paver sphalt Pl. Dump Truck	sphalt Pl. Other General I	sphalt PI. Roller	sphalt Pl. Skid Steer Load	spriateri surracing equip learing a Chain Saw	learing a Chipper/Stump	learing a Pickup Fruck oncrete F Air Compressor	oncrete F Concrete Saws	oncrete F Other General Ec	oncrete F Pickup Truck oncrete F Rubber Tired Load	oncrete F Slip Form Paver	oncrete F Surfacing Equipm urbing Concrete Truck		urbing Other General Equipment urbing Pickup Truck	rainage - Dozer	rainage - Excavator	rainage - Loader
	2026 Apron (GA Grading Dozer 2026 Apron (GA Grading Grader	2026 Apron (GA Grading Roller 2026 Apron (GA Hydroseec Hydroseeder	2026 Apron (GA Hydroseec Off-Road Truck 2026 Apron (GA Lighting Dump Truck				2026 Apron (GA Markings Hatbed Iruck 2026 Apron (GA Markings Other General Equipment	2026 Apron (GA Markings Pickup Truck 2026 Apron (GA Sealing/Fu Distributing Tanker	2026 Apron (GA Sealing/Fu Other General Equipment	2026 Apron (GA Seaing/Fu Pickup i ruck 2026 Apron (GA Soil Erosio Other General Equipment	2026 Apron (GA Soil Erosio Pickup Truck 2026 Apron (GA Soil Erosio Pumps	2026 Apron (GA Soil Erosio Tractors/Loader/Backhoe 2026 Apron (GA Subbase P Dozer	2026 Apron (GA Subbase P Dump Truck (12 cy)	2026 Apron (GA Subbase P Roller	2026 Apron (GA Topsoil Ple Dozer 2026 Apron (GA Topsoil Ple Dump Truck	2026 Apron (GA Topsoil Pla Pickup Truck	2020 Building - Concrete Fooncrete Ready Mix Trucks	2026 Building - Concrete F Fork Truck 2026 Building - Concrete F Tool Truck	2026 Building - Concrete F Tractor Trailer- Material Delivery 2026 Building - Constructs Survey Grow Trucks	2026 Building - Constructi Tractor Trailers Temp Fac.	2026 Building - Exterior W Fork Truck 2026 Building - Exterior W Man Lift		2026 Building - Exterior W Iractor Iraller- Material Delivery 2026 Building - Interior Bt Fork Truck	2026 Building - Interior Bu Man Lift 2026 Building - Interior Bu Tool Truck		- Roofing	- Roofing	Security &	2026 Building - Security & Tool Truck 2026 Building - Structural 40 Ton Crane		2026 Building - Structural 1001 Iruck 2026 Building - Structural Tractor Trailer- Steel Deliveries	2026 Demolitioı Asphalt D€ Dozer 2026 Demolitioı Asphalt D€ Excavator	2026 Demolition Asphalt De Pickup Truck	2026 Access Ro: Asphalt PI: Asphalt Paver 2026 Access Ro: Asphalt PI: Dump Truck	2026 Access Roi Asphalt PL Other General Equipment	2026 Access Ro: Asphalt Pl. Roller	2026 Access Ro: Asphalt PI. Skid Steer Loader	2026 Access Ro: Clearing a Chain Saw	2026 Access Ro: Clearing a Chipper/Stump Grinder	2026 Access Roi Cinearing a Pickup Truck 2026 Access Roi Concrete F Air Compressor	2026 Access Ro: Concrete F Concrete Saws	2026 Access Ro: Concrete F Other General Equipment	2026 Access Roi Concrete Frickup Truck 2026 Access Roi Concrete FRubber Tired Loader	2026 Access Ro: Concrete F Slip Form Paver	2026 Access Roi Concrete FSurfacing Equipment (Grooving) 2026 Access Roi Curbing Concrete Truck		2026 Access Ro: Curbing Other General E 2026 Access Ro: Curbing Pickup Truck	á	2026 Access Roi Drainage - Excavator	2026 Access Ro: Drainage - Loader

Decision	2026 Access Ro: Drainage - Other General Equipment	Other Construction Equipment175	Diesel	175		36 1.94E-	-01 5.94E-01	01 5.37E+0	2 1.47E-	3 4.71E-	02 4.57E-		2 0.00037	5 0.0011	51 1.04002	7 2.85E-06	9.13E-05	8.85E-05	6.53E-05
Content of Content o	ickup Truck	Off-highway Trucks600	Diesel	009		36 3.21E-	٠.,	01 5.37E+0	2 1.42E-	3 8.52E-	∞ •		2 0.00029	3 0.0012	61 4.89320	6 1.29E-05	۲. ۱	7.53E-05	0.000
Other Princial International Planes         131         6.9         1377         1469         1377         1469         1377         1469         1377         1469         1377         1469         1377         1469         1377         1469         1377         1469         1477         1471	umb Truck	Off-highway Trucks600	Diesel	009	12	4 (	٠,	3.30E+0	2 1.80E-	3 8.52F	4 oc		2 0.0003	3 0.0007	0.71844	3 2.43E-06 8 7.18E-06	٧ ٧	4.18F-05	5.58E-05
Other Personnel Speak (1982)         Color (1987)         <	oader	Tractors/Loaders/Backhoes175	Diesel	175	12	80		00 6.26E+0	2 1.83E-		Н		1 0.00120	1 0.00216	16 0.92456	8 2.7E-06	0.000278	0.00027	0.00
Control Cont	ther General Equipment	Other Construction Equipment175	Diesel	175	12	-	-01 5.94E-0	2	Н	7	4		2 0.00020	8 0.0006	39 0.577793		5.07E-05	4.92E-05	3.63E-0
Triangling and participated below   010   02   236   23100   13160   13170   13160   23170   23620	ckup Truck	Off-highway Trucks600	Diesel	009	0.59 12.977	m	-02 1.38E-0	2	Н	w	00		2 0.00016	3 0.0007	01 2.71844		4.31E-05	4.18E-05	5.58E-0
Orientary Transcription         Desired         0.0         3.0<	actors/Loader/Backhoe	Tractors/Loaders/Backhoes100	Diesel	100	0.21 12.977	78 1.99E+	HO0 2.17E+C	9	7		7		1 0.00059	7 0.000653	53 0.20883		8.18E-05	7.93E-05	8.72E-0
Original Diseas         179         28         178         211	ater Truck	Off-highway Trucks600	Diesel	009	0.59 288	m	Н	2	Н	w	œ		2 0.03612	8 0.1555	15 603.27.		0.009573	0.009285	0.01238
Chaptery Tracking   Diseal   Color   St. 2012   St. 2	zer	Crawler Tractor/Dozers175	Diesel	175	0.59 17.	^	7	01 5.37E+0	2 1.42E-	_	Η.		2 0.00015	8 0.0005	08 1.08504			3.68E-05	2.48E-05
Observation	mp Truck (12 cy)	Off-highway Trucks600	Diese	009	0.59 17.	m	Н.	01 5.37E+0	2 1.42E-		00		2 0.00022	3 0.000959	59 3.720177			5.73E-05	7.64E-0
Control   Cont	cup Iruck	Off-highway Irucks600	Diesel	900	0.59 I/	'n	-	)1 5.3/E+0	2 1.42E-		00		2 0.0002	3 0.000959	59 3.72017			5./3E-05	/.64E-0
Control (Control) Control (Con	er		Diese	100	0.59 8.1969	7		30 5.96E+0	2 1.60E-		4		2 0.00013	7 0.000555	55 0.3177		2.31E-05		1.13E-0
Chapter   December	er	Crawler Iractor/Dozers1/5	Diese	175	0.59 I3.	_	-02 2.51E-0	)1 5.3/E+0	2 1.42E-		-		2 0.00011	9 0.000381	81 0.813/85		2.85E-05	2./bE-05	1.86E-0
Control Cont	p Iruck (12 cy)	Off-highway Irucks600	Diese	009	0.59 35.	7	-02 1.38E-0	)1 5.3/E+0	2 1.42E-		× ×		2 0.00044	6 0.001918	18 7.440354		0.000118	0.000115	0.000153
Control Cont	vator	excavators1/5	Diesel	1/5		9 (	-02 2.1/E-0	)1 5.3/E+0	2 1.42E-	_ '				5 0.0002	63 0.65103		1.86E-05	1.81E-05	1.2/E-0
Company Control Cont	ip Truck	Off-highway Trucks600	Diesel	009		m	-02 1.38E-0	)1 5.37E+0	2 1.42E-		œ			4 0.000575	75 2.232106		3.54E-05	3.44E-05	4.58E-0
Sequencing Connectivity Chees (67) 63 133 1160 13610 1	£.	Rollers100	Diesel	100		7		00 5.96E+0	2 1.60E-	4	4		2 0.00017		21 0.41311	٠.	3E-05	2.91E-05	1.46E-0
Consistant Activation	oer .	Scrapers600		009				31 5.37E+0	2 1.46E-		7		2 0.00082		24 2.78989		0.000153	0.000149	0.00013
Other Contractions of the color of	-	Crawler Tractor/Dozers175		175	ш,			31 5.37E+0	2 1.42E-		Н		2 4.47E-C	5 0.000143	43 0.306366		1.07E-05	1.04E-05	7.01E-06
Chief-Newly TrackSom   Sees   See	rete Truck	Off-highway Trucks600		009				31 5.37E+0	2 1.42E-	w	œ		2 0.000		32 1.67575	~	2.66E-05	2.58E-05	3.44E-0
Other Conservation algorithms 175         Deeal         175         0.4         23         216         156         157         157         157         157         157         157         157         157         157         158         23         21         157         157         158 <th< td=""><td>p Truck</td><td>Off-highway Trucks600</td><td></td><td>009</td><td>0.59</td><td>32 3.21E-</td><td></td><td>37E+0</td><td>2 1.42E-</td><td>w</td><td>00</td><td></td><td>2 0.00040</td><td>0</td><td>28 6.70302.</td><td></td><td>0.000106</td><td>0.000103</td><td>0.00013</td></th<>	p Truck	Off-highway Trucks600		009	0.59	32 3.21E-		37E+0	2 1.42E-	w	00		2 0.00040	0	28 6.70302.		0.000106	0.000103	0.00013
Statisticate   Stat	y Gonoral Equipment	Other Construction Equipment 75		77.	7 7 7	22 1 QAE		0.4375.40	2 1 47E		5		2 0 00 5		977 1 77/69			1,000,0	0 055.0
National Procession	delicion equipment	Off highway Tarabago		2 2	7 .	71.0		0.375.0	1475		. 0		200000	0.001337	70507 9 90	1 775 05	0.000163	0.000121	0.000120
Processive Contenting Reports   20	Ip Huck	OII-II BIIWAY I IUCKSOO		3 1	60.03	-317.6 26	-02 T.30E-C	0.37540	2 1.42E-		0 (		0.00040	9 0	20 0.70302.		0.0000.0	0.000000	0.0000
Transfer journalist places   170	Steer Loader	:75		22	0.21	32 2.74E+	H00 3.79E+C	00 6.94E+0	2 2.13E-	.,	m		1 0.00152	0	08 0.385827		0.000203	0.000197	0.00028
Conduction (Control) Deem (	:ors/Loader/Backhoe	Backhoes		100			HOO 2.17EHC	00 6.95E+0	2 2.03E-		7		1 0.00147	0	11 0.5149		0.000202	0.000196	0.00021
Secretarion   Dees   300		Crawler Tractor/Dozers175		175		_	-02 2.51E-C	01 5.37E+0	2 1.42E-		Н		2 3.61E-C	0	16 0.24752		8.66E-06	8.4E-06	5.66E-0
Profile Contraction Glayment Colored Science	e			300		m	-02 1.55E-C	31 5.37E+0	2 1.42E-	0,	6		2 3.01E-C	5 0.000123			7.84E-06	7.61E-06	9.74E-0
Other Controlled (in Figure 1)		Rollers100		100		,	-0.1 1 0.4F+C	0+ 39F + 0f	2 1 60F-	_	4		2 6 78F-C		74 0 15706		1 14F-05	1 11E-05	5.57F-0
Other Polithan Management Control (1984)         Control (1984	3000	Other Continue Caniman		2 2			1 1 005 1	0.275.0	1 575				25000	10000	201010 0		111000	111111111111111111111111111111111111111	1 10 0
OFFINEWAY TRUSTON         DEAST         CORREST         STATE OF TREEDY SECTION         STATE OF TREE	losedel	Ornel Consulaction Equipmentood		300	ń c		-01 I.OBE+C	0.37540	7707	٠.	- 0		0.000,0	0.0013	30 0.70432		0.000113	110000	0.000
Order Construction (Equipment 17)   Decet   Graph   Seg857 3 1240 1 2460 1 57460 1 1260 4 17160 1 45760 3 12160 2 15160 3 1200 0	Road Truck	Off-highway Trucks600		009	0.59 3.6	65 3.21E-	-02 1.38E-0	)1 5.3/E+0	2 1.42E-	~	∞		2 4.58E-C	5 0.0001	97 0.76456		1.21E-05	1.18E-05	1.57E-0
Of the Equation of Children of State (1)         0.45 G SSSS7 3 1450 1 1376 01 1376 03 1376 03 1376 03 1376 03 1376 03 1042 03 1376 03 1376 03 1042 03 03 03 03 03 03 03 03 03 03 03 03 03	bed Truck	Off-highway Trucks600		009	0.59 65.828	57 3.21E-	-02 1.38E-0	31 5.37E+0	2 1.42E-	~	∞		2 0.00082	6 0.003555	55 13.78907	7 3.64E-05	0.000219	0.000212	0.000283
Off-Highway Truckston         Diese         600         0.99         57.6         21.60         13.60	er General Equipment	Other Construction Equipment175		175	0.43 65.828	57 1.94E-	-01 5.94E-C	31 5.37E+0	2 1.47E-	~	4		2 0.00105	7 0.003243	43 2.93079		0.000257	0.000249	0.00018
(γ, ψ, ψ, ψ, γ,	un Truck	Off-highway Trucks600		900	0.59 65.828	57 3.71E-	-02 1.38F-C	31 5.37F+0	7 1.42F-	~	00		2 0.00082	6 0.003555	55 13 7890		0.000219	0.000212	0.00028
Chickipway Traciscon   Desei   600   0.59   576 5.31120   138E01   577F02   147E01   58.2250   54.2520   14.2520	To the control of the	Off highway Hucksoo		3 8	0.00			0.375.0	1 405		o o		2000000		11 17 0654	3 105 05	0.000213	0.000212	0.0002
CHY-NIGWAY   Tracksion   Desired   600   0.59   77.5 3.116.01   376-03   1.426.03   8.526.03   1.108.00   CHY-NIGWAY   Tracksion   Desired   600   0.59   77.5 3.116.01   376-03   1.426.03   8.526.03   2.156.01   2.456.	ncrete Iruck	Orr-ngnway Irucksbuu		000	75 65.0			J1 5.3/E+U	Z 1.42E-	~ .	o o		2 0.000/2		11 12.0554	3. ISE-US	0.000191	0.000186	0.00024
Tractory/Loader/glackhoes/100   Dees   600   0.59   57.5   3.31601   2.01601   2.716	mp Truck	Off-highway Trucks600		009	0.59 57			)1 5.37E+0	2 1.42E-	~	xi		2 0.00072	3 0.00311	11 12.0654	3.19E-05	0.000191	0.000186	0.00024
Tractory/Loader/glackhoes/100  Diese   100   0.13   576 5.5116-00   1376-00   5386-00   2.516-01	cup Truck	Off-highway Trucks600		009	0.59 57	.6 3.21E-	-02 1.38E-C	2		~	∞		2 0.000723		11 12.0654	3.19E-05	0.000191	0.000186	0.00024
Patter Compartion   Dece   10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	ctors/Loader/Backhoe	Tractors/Loaders/Backhoes100		100	0.21 57	.6 1.99E+	HO0 2.17E+C	9			2		U		29 0.92689	2.71E-06	0.000363	0.000352	0.00038
The contraction featlmentally Diesel 10 0.3 3.1 13410 5 9440 1378-00 3456-01 1376-01 1		Diete Community and		3	100		7777	) L	1 (		1 (		, (	20000	0.0000	201717	100000	200000	200000
Off-Heighway Tracks/Good         One-site of the control from Heighmen 115         Deead         175         3.3 13/16/10         3.1146/10 <td>atory compactor</td> <td></td> <td></td> <td>D !</td> <td>0.43</td> <td>.o 2.31E+</td> <td>4.19E+</td> <td>0</td> <td></td> <td>2107 0</td> <td>٧.</td> <td></td> <td></td> <td>0.0000</td> <td>2000.0000</td> <td>3.34E-U/</td> <td>4. TZE-U3</td> <td>3.33E-03</td> <td>0.00013</td>	atory compactor			D !	0.43	.o 2.31E+	4.19E+	0		2107 0	٧.			0.0000	2000.0000	3.34E-U/	4. TZE-U3	3.33E-03	0.00013
Off-heighway Trucksoon         Diesel         600         0.99         64.3 216-01 3.246-01 5.386-01 5.386-01 5.406-01 2.386-01 5.346-01 5.386-01 5.406-01 2.386-01 5.386-01 5.406-01 2.386-01 5.406	er General Equipment	Other Construction Equipment175		175	0.43 3	2 1.94E-		2		3 4.71E-	4			0	58 0.142469	3.9E-07	1.25E-05	1.21E-05	8.95E-06
Other Construction (inpliment 1)         10 a.         3.3 Lyte-of Juleo 5 94Fe 20 124E-0         5.27E-0         2.27E-0         2.27E-0         2.27E-0         2.27E-0         2.34E-0         2.27E-0         2.27E-0 <t< td=""><td>up Truck</td><td>Off-highway Trucks600</td><td></td><td>009</td><td>0.59</td><td>.4 3.21E-</td><td>-02 1.38E-C</td><td>2</td><td></td><td>3 8.52E-</td><td>∞</td><td></td><td></td><td></td><td>46 1.34060</td><td>3.54E-06</td><td>2.13E-05</td><td>2.06E-05</td><td>2.75E-0</td></t<>	up Truck	Off-highway Trucks600		009	0.59	.4 3.21E-	-02 1.38E-C	2		3 8.52E-	∞				46 1.34060	3.54E-06	2.13E-05	2.06E-05	2.75E-0
Tractory Cloadery Backbreston   Diesel   100   0.13   3.1 1996-40   1776-04   0.556-05   0.256-09   0.266-09   0.266-04	sdi	Other Construction Equipment11		11	0.43 3	.2 2.47E+	HO0 4.18E+C	5		3 2.40E-	7			5 6.98E-05	05 0.009907	3.64E-08	4E-06	3.88E-06	1.4E-0
Tractory Louised Proposition   175   2014   178   17	torr // codor/Bookhoo	Office day and collars the coll		5	, ,,	1 1 0051	2175.0	U		307 0 60	c				61 0 0 51 40	1 55 07	303606	1 000 00	2155
Tractory Loaders/Backhees/175   Deese   700   0.39   12.2   23.1E-02   13.8E-02   13.8E-03   13.8	Cost Education	Off highway Tarabagoo		8 8	0.51	2 2775	23 1 305 6	ם כ		22.20 00	4 0				7 4 03191	1 000 00	6 305 05	1.30E-03	0 765 05
National Construction Equipment 175   Diese   175   0.39   1912 1916-01 537E-02 147E-03 457E-03 147E-03 457E-05 337E-02   Other Construction Equipment 175   Diese   175   0.39   1912 1916-01 537E-02 147E-03 457E-03 157E-03 157E-	p i ruck	Ort-Inghway I rucksbuu		900	0.59 IS	.2 3.21E-	-02 1.38E-0	JI 5.3/E+U	2 1.42E-	3 8.52E-	x		_	_	3/ 4.021813	1.0bE-05	6.38E-U5	6.19E-05	8.265-0
Oth Heyenway Trackedov Deser 1075 0.29 130 2312F0 138F0 1 537F0 20 13F0 20 237F0 3 237F0 3 237F0 10F0 Convertine figuly mental 75 0 leser 1070 0.29 130 2312F0 138F0 1 537F0 20 13F0 20 237F0 3 237F0 20 13F0 20 237F0 20 2	er			175	0.59 19	.2 8.13E-	-01 1.46E+C	00 6.26E+0	2 1.83E-	3 1.89E-	Н		0	7 0.003196	96 1.36785	m	0.000412	0.0004	0.000444
Stiff by the year vinciscion         Diese         50         0.23         13.2 3.21E-01         3.78E-01         6.37E-02         13.12E-03         3.12E-02         13.12E-03         23.12E-03         23.13E-03         23.12E-03	r General Equipment	Other Construction Equipment175		175	0.43 19	.2 1.94E-	-01 5.94E-0	01 5.37E+0	2 1.47E-	3 4.71E-	4		O	0	46 0.85481	7		7.28E-05	5.37E-0
Skid Steer Loaders/35         Obesel         75         0.21         19.2 2/44+00         3.794+00         6.946-0         2.714-00         6.946-0         1.746-0         6.946-0         1.746-0         6.946-0         1.746-0         6.946-0         1.746-0         6.946-0         1.746-0         1.826-0         1.746-0         1.826-0         1.746-0         1.826-0         1.746-0         1.966-0         1.746-0         1.826-0 <td>p Truck</td> <td>Off-highway Trucks600</td> <td></td> <td>009</td> <td>0.59 19</td> <td>.2 3.21E-</td> <td>-02 1.38E-C</td> <td>31 5.37E+0</td> <td>2 1.42E-</td> <td>3 8.52E-</td> <td>00</td> <td></td> <td>0</td> <td>0</td> <td>37 4.02181</td> <td><math>\vdash</math></td> <td>w</td> <td>6.19E-05</td> <td>8.26E-0</td>	p Truck	Off-highway Trucks600		009	0.59 19	.2 3.21E-	-02 1.38E-C	31 5.37E+0	2 1.42E-	3 8.52E-	00		0	0	37 4.02181	$\vdash$	w	6.19E-05	8.26E-0
Tractory Loadersy    Tractory Coadersy    Tractor	Steer   coder	Chid Steer Loaders 75		K	0 1 10	2 2 7AE+	7302 2 000	071109 00	2 2 12E	3 2 GGE.			, ,		GE 0.221/JO		0.000122	0.000118	57 1000 0
Tractory/Loader/Saberhoess100   Diesel   175   O.59   6730105   788E-02 1.3EE-01 1.42E-03 1.82E-03 1.26E-03 1.20E-03   O.59   Figural Procession   O.59   A.58 a.12E-02 1.3EE-01 5.3FE-02 1.42E-03 1.82E-03 1.26E-03 1.26E-03   O.59   A.58 a.12E-02 1.3EE-01 5.3FE-02 1.42E-03 1.82E-03 1.26E-03   O.59   O.59   A.58 a.12E-02 1.3EE-01 5.3FE-02 1.42E-03 1.82E-03 1.16E-03   Off-highway Trucks600   O.59   A.59 a.21E-02 1.3EE-02 1.3EE-02 1.42E-03 1.82E-03 1.16E-03   Off-highway Trucks600   O.59	oreel coduct			2 :	0.21	2 2./457		0.34540	201.2 2	,	0		TECONO T	0.001203	03 0.23143		0.000122	0.000110	TOOO!
Griefiginway Trucis600   Diese  175 0.59 6730105 7381202 2.51610 1378102 1.42E03 1.82E03 1.05E03   Griefiginway Trucis600   Diese  600 0.59 6730105 7381202 1.42E03 1.82E03 1.42E03 1.05E03   Griefiginway Trucis600   Diese  600 0.59 6730105 3.21E02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E93 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 6730105 2.13E01 0.537E+02 1.42E03 8.25E03 1.0E-02   Griefiginway Trucis600   Diese  600 0.59 6730105 2.13E01 0.537E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 9.004 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 9.004 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 9.004 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 9.004 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 0.31E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 16 9.31E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 16 9.31E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 16 9.31E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 16 9.31E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 16 9.31E-02 1.38E01 5.37E+02 1.42E03 8.25E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 12 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 12 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 12 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 12 3.21E-02 1.38E01 5.37E+02 1.42E03 8.25E03 8.26E03 1.10E-02   Griefiginway Trucis600   Diese  600 0.59 12 3.21E-02 1.38E01 5.37E+02 1.42E03 8	ors/Loader/Backhoe			100	0.21 19	.2 1.99E+	400 2.1.E.H	JU 6.95E+U	2 2.03E-	٧.	7		. 0.00088	_	b/ 0.30896	,	0.000121	0.00011/	0.000129
Off-Injity way Trucks600         Diesel         600         0.59         6.730 is 21ECJ 1.38ECJ 1.38ECJ 1.24ECJ 8.28ECJ 8.2ECJ 8.22ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.2ECJ 1.2ECJ 8.2ECJ 8.2E				175			-02 2.51E-C	01 5.37E+0	2 1.42E-	_	Н		2 6E-C	0	93 0.41117	٠.	1.44E-05	1.4E-05	9.41E-0
October   Octo	o Truck (12 cy)	Off-highway Trucks600		009	0.59 47.3		-02 1.38E-C	31 5.37E+0	2 1.42E-	w	00		2 0.00059	4 0.002557	57 9.920472		0.000157	0.000153	0.000204
Profile   Prof	p Truck	Off-highway Trucks600		009	9		-02 1.38E-C	01 5.37E+0	2 1.42E-	w	ω		2 8.44E-C	0	63 1.409751	,	2.24E-05	2.17E-05	2.89E-0
Crawler Tractor/Dozers175         Diesel         175         0.59         9.004         3.12E-02         1.38E-03		Rollers100		100	9		-01 1.04E+C	00 5.96E+0	2 1.60E-	7	4		2 0.0001	1 0.0004	44 0.25422	Ψ	1.85E-05	1.79E-05	9.01E-0
Off-lighway TrackS600         Diesel         600         0.39         9.004         3.21E-01         1.38E-01         5.37F-02         1.42E-03         8.52E-03         8.52E-03         1.00E-02           Off-lighway TrackS600         Diesel         600         0.39         9.004         3.21E-01         1.88E-01         5.37F-02         1.42E-03         8.52E-03         8.22E-03         1.00E-02           Off-lighway TrackS600         Diesel         1075         0.43         0         1.94E-01         5.37F-02         1.47E-03         8.25E-03         1.10E-02           Off-lighway TrackS600         Diesel         100         0.23         0         1.93E-00         1.47E-01         1.87E-01         2.47E-01         2.57E-01         2.47E-01         2.47E-01         2.57E-01         2.47E-01         2		Crawler Tractor/Dozers175		175		04 7 83F-	-02 2 51E-C	l L	-		_		2 ROSE-C	5 0 000	58 0 55009		1 92F-05	1 87F-05	1.26F-0
Off-lighway Trackstoon         Diesel         GOO         0.39         0.03 (216.2)         1.150 (21.2)         1.142 (21.3)	300a F	Off-highway Trucks600		209		2 27 5	02 1 395	) L	-		1 0		110000	3 0 000 486	SE 1 886063		2 00 5 05	2 0 5 0 5	2 2 7 5 0
Off-lighway Tracksdoo         Diesel         GOO         Collaboration of Highway Tracksdoo         Collaboration o	70.01	Off-highway Trucks600				2 27 E	02 1 395-0	) L	-		, 0		00000	0000	96 1 88606	- 1	2 00 5 05	205.05	2 9 7 E.O
Ortheriment Floridation Rigidian Profession Diesel (2009) 0.59 (1946-01) 2.00 (19	T T T T T T T T T T T T T T T T T T T	Off-highway Trucketoo		8 9		2275	1 205.7	ט ר	4 -		0		0.00011	1	7		2.335-03	2.3r-03	5.07 5
Orthograms   Ort				3 :		3.215	7 7 247	ר נ	٠,		۰ د		٦ ،				0	0	
Tractors/Loaders/Barchoestoo  Diese  100 0.29   0.1995-00.1377-04.01.567-04.2 132-04.9 32-04-03. 1-10-0-0.0	deller al Equipment		Diesei	277		1 2 2	01 0.3457	ר נ	٠,		1 0		۷ (				0	> 0	
Pavers 175   Pav	p iruck	Ort-righway irucksooo	Diesel	000		0 3.21E-	-02 1.38E-0	n	٠,		0 0		,		0 0		0 0	0 0	
Paves 175   Pave	ors/Loader/Backhoe	ractors/Loaders/Backhoes100	Diesei	100		U I.99E+	NU 2.1/E+	٥	•		7		-		0		0	0	
Of Fligtway Tracks600         Diesel         600         0.59         16 3.21E-02 1.38E-01 3.37F-02 1.42E-03 8.22E-03 8.2E-03 1.10E-02           Of Fligtway Tracks600         Diesel         600         0.59         4 3.21E-02 1.38E-01 5.37F-02 1.42E-03 8.2E-03 8.2E-03 1.10E-02           Of Fligtway Tracks600         Diesel         600         0.59         4 3.21E-02 1.38E-01 5.37F-02 1.42E-03 8.2E-03 8.2E-03 1.10E-03           Of Fligtway Tracks600         Diesel         600         0.59         24 3.21E-02 1.38E-01 5.37F-02 1.42E-03 8.2E-03 8.2E-03 1.10E-03           Of Fligtway Tracks600         Diesel         600         0.59         24 3.21E-02 1.38E-01 1.42E-03 8.2E-03 8.2E-03 8.2E-03 1.10E-03           Off-Regiment Tractor/Locar-175         Diesel         600         0.59         24 3.21E-02 1.38E-01 1.42E-03 8.2E-03 8.2E-03 8.2E-03 1.10E-03           Off-Regiment Tractor/Locar-175         Diesel         600         0.59         24 3.21E-02 1.38E-01 1.42E-03 8.2E-03 8.2E-03 1.10E-03           Off-Regiment Tractor/Locar-175         Diesel         175         0.59         16 3.21E-02 1.3E-02 1.42E-03 8.2E-03 8.2E-03 1.10E-03           Off-Regiment Tractor/Locar-175         Diesel         175         0.59         16 3.21E-02 1.3E-03 1.42E-03 8.2E-03 1.10E-03           Off-Regiment Tractor/Locar-175         Diesel         175         0.43         24 1.2E-00 1.3E-00 1.42E-03 8.2E-03 1.10E-03 <td>ig Machine</td> <td>Pavers1/5</td> <td>Diesel</td> <td>175</td> <td></td> <td></td> <td>-02 2.84E-0</td> <td>2</td> <td></td> <td></td> <td>7</td> <td></td> <td>0.0001</td> <td>8 0.00051/</td> <td>0.97750</td> <td></td> <td>4.44E-05</td> <td>4.31E-05</td> <td>2.76E-U5</td>	ig Machine	Pavers1/5	Diesel	175			-02 2.84E-0	2			7		0.0001	8 0.00051/	0.97750		4.44E-05	4.31E-05	2.76E-U5
Off-Highway Tracks600         Diesel         600         0.59         4 3.21ECJ 1.38ECJ 1.38FCJ 1.42ECJ 8.25ECJ 8.25ECJ 8.26ECJ 1.10E.03           Off-Highway Tracks600         Diesel         600         0.59         4 3.21ECJ 1.38ECJ 1.37FcJ 1.42ECJ 8.25ECJ 8.26ECJ 1.10E.03           Tractors/Loaders/Backhoes75         Diesel         600         0.59         4 3.21ECJ 1.38ECJ 1.42ECJ 8.25ECJ 8.2ECJ 1.10E.03           Off-Highway Tracks600         Diesel         600         0.59         24 3.21ECJ 1.38ECJ 1.42ECJ 8.2ECJ 8.2ECJ 1.10E.03           Off-Highway Tracks600         Diesel         600         0.59         24 3.21ECJ 1.38ECJ 1.42ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.2ECJ 8.1DE.03           Chelwy Off-Highway Tracks600         Diesel         600         0.59         24 3.21ECJ 1.38ECJ 5.37FcJ 1.42ECJ 8.2ECJ 8.2ECJ 8.2ECJ 1.1DE.03           Other Construction Edujament120         Diesel         100         0.59         24 3.21ECJ 1.3ECJ 2.2DE.01 2.2DE.01 2.2ECJ 1.2ECJ	Wheelers- Material Delivery	Off-highway I rucks600		900			-02 1.38E-0	2			x		2 0.00020	1 0.0008	64 3.35151	~	5.32E-05	5.16E-05	6.88E-U
Off-Highway Tracks600         Diesel         600         0.59         4 3.12FeD 1.38ECD 1.38ECD 1.36ECG 2.06ECG 3.05ECG 3.10ECG 3.06ECG 3.0	ey Crew Trucks	Off-highway Trucks600		009			-02 1.38E-0	2			$\infty$		2 5.02E-C	5 0.0002	16 0.837878		1.33E-05	1.29E-05	1.72E-0
Tractors/Loaders/Backhones/75   Diese  75 0.21   24 1.7874-03 2.296-06 6.556-02 2.056-03 2.256-01 2.196-03 1.186-03     Chf-lighway Trucks600   Diese  600 0.59 24 3.2116-02 1.386-01 5.376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  600 0.59 24 3.2116-02 1.386-01 5.376-02 1.426-03 8.256-03 1.106-03     Cawler Tractors/Loaders/Backhoes/100   Diese  100 0.59 24 3.2116-02 1.386-01 5.376-02 1.426-03 8.256-03 1.106-03     Cawler Tractors/Loaders/Backhoes/100   Diese  100 0.59 16 3.216-02 1.386-01 5.376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.59 16 3.216-02 1.386-01 5.376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.59 16 3.216-02 1.386-01 5.376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.59 16 3.216-02 1.386-01 5.376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.59 12 1.366-02 1.386-02 1.3376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.29 12 1.366-02 1.386-02 1.3376-03 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 12 1.366-02 1.3376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 12 1.366-02 1.3376-02 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 12 1.336-03 1.3376-03 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 12 1.336-03 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 12 1.336-03 1.426-03 8.256-03 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 1.206-00 1.136-03 8.256-03 1.426-03 8.256-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 1.206-00 1.136-00 1.336-01 8.336-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 1.206-00 1.136-00 1.336-01 8.336-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 1.206-00 1.136-00 1.336-01 8.336-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 1.206-00 1.136-00 1.336-01 8.336-03 1.106-03     Chf-lighway Trucks600   Diese  100 0.21 1.206-00 1.136-00 1.336	tor Trailers Temp Fac.	Off-highway Trucks600		009		4 3.21E-	-02 1.38E-C	2			œ		2 5.02E-C	5 0.0002	16 0.83787	٠.	1.33E-05	1.29E-05	1.72E-0
Off-highway Trucks600         Diesel         600         0.59         24         3.21E-02         1.38E-01         5.37E-02         1.43E-03         8.22E-03         8.22E-03         8.2E-03         1.10E-03           Pellway Trucks600         Diesel         600         0.59         24         3.21E-02         1.38E-01         1.43E-03         8.2E-03         8.2E-03         1.10E-03           Pellway Off-highway Trucks600         Diesel         100         0.59         24         3.21E-02         1.43E-03         1.43E-03         8.2E-03         8.2E-03         1.10E-03           Off-highway Truck500         Diesel         100         0.59         12         1.13F-02         1.38E-01         5.37F-02         1.42E-03         8.2E-03         8.2E-03         1.10E-03           Off-highway Truck500         Diesel         600         0.59         1.09F-00         1.3F-02         1.38E-01         5.37F-02         1.4F-03         8.2E-03         1.2E-03         1.3F-02           Other Construction Edujoment120         Diesel         100         0.23         2.4         1.39E-00         1.7F-03         8.2E-03         1.2E-03         3.3F-02           Other Construction Edujoment120         Diesel         100         0.21         2.4 <th< td=""><td>Cat</td><td>Tractors/Loaders/Backhoes75</td><td></td><td>72</td><td></td><td>24 1.78E+</td><td>HOO 3.29E+C</td><td>9</td><td></td><td></td><td>7</td><td></td><td>1 0.00074</td><td>3 0.00137</td><td>37 0.28961</td><td>~</td><td>9.41E-05</td><td>9.12E-05</td><td>0.000132</td></th<>	Cat	Tractors/Loaders/Backhoes75		72		24 1.78E+	HOO 3.29E+C	9			7		1 0.00074	3 0.00137	37 0.28961	~	9.41E-05	9.12E-05	0.000132
Off-leghway Tracks600         Diesel         600         0.59         24         3.21E-0.1         3.87E-0.1         1.42E-0.3         8.22E-0.3         8.2AE-0.3         1.10E-0.2           Delevery Off-leghway Tracks600         Diesel         670         0.59         16         1.09E-0.0         1.38E-0.1         1.43E-0.3         8.2E-0.3         8.2E-0.3         1.10E-0.0           Tractors/Loaders/Backhoes100         Diesel         170         0.21         16         1.99E-0.0         2.7E-0.1         2.4E-0.1         2.8E-0.1         2.1AE-0.3         1.2E-0.3         1.2E-0.1         2.8E-0.1         2.1AE-0.3         1.2E-0.1         2.8E-0.1         2.1AE-0.3         1.2E-0.1         2.8E-0.1         2.1AE-0.3         1.2E-0.1         2.8E-0.1         2.1AE-0.3         2.2E-0.1	rete Ready Mix Trucks	Off-highway Trucks600		009		24 3.21E-	-02 1.38E-(	2		w	œ		2 0.00030	1 0.0012	96 5.02726	٠.	7.98E-05	7.74E-05	0.00010
Comparison   Com	rial Deliveries	Off-highway Trucks600		009		24 3.21E-	-02 1.38E-C	31 5.37E+0	2 1.42E-	ω	00		2 0.00030	1 0.0012	96 5.02726	٠.	7.98E-05	7.74E-05	0.000103
Crawler Tractor/Dozers175         Diesel         175         0.59         16         7.88 Foz         2.51 Foz         1.42 Foz	tor Trailer with Boom Hoist- Delivery	Off-highway Trucks600		009		24 3.21E-	-02 1.38E-C	31 5.37E+0	2 1.42E-	00	00		2 0.00030	1 0,001296	96 5.02726	٠, ,	7.98E-05	7.74E-05	0.000103
Tractors/loaders/Backhoes100         Diesel         100         0.21         16 199E+00         2.17E+00         6.95E+02         2.03E+01         2.06E-01         2.06E-01<	lozer	Crawler Tractor/Dozers175		175		16 7.83E-	-02 2.51E-C	2		П	H		2 0.00014	3 0.000458	58 0.9775		3.42E-05	3.32E-05	2.24E-05
Off-lighway Tracks600         Deset         600         0.59         16         3.21f-02         1.38E-01         5.37f-02         1.48E-03         8.52f-02         1.48E-03         8.52f-02         1.48E-03         8.52f-02         1.48E-03         8.52f-02         1.48E-03         8.52f-02         1.48E-03         8.52f-02         1.48E-03         8.52f-03         1.10E-03           Other Construction Equipment10         Diesel         100         0.21         24         1.99f-00         2.07f-00         6.95         44         4.65f-01         2.77f-03         5.87f-02         1.14E-03         8.75f-03         1.14E-03         8.75f-03         1.14E-03         8.75f-03         1.16E-03         9.06F-03         1.06F-03         9.06F-03         1.06F-03         9.06F-03         1.06F-03         9.0F-03         1.06F-03         9.0F-03         1.06F-03         9.0F-03         1.06F-03         9.0F-03         1.0GF-03         9	+ Loader	Tractors/Loaders/Backhoes100		100		16 1 99F+	HOO 2 17F+C	9		0	0		1 0 00073		05 0 2574		0.000101	9 78F-05	0.00010
Other Construction Equipment 13 Dees 10 0.59 24 465E01 127E00 5.97E02 1.47E03 4.57E03 2.2EC03 3.2EC03 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Albadarc	Off-kirhway Trucks600		- CUU		16 3.71E	no 1.38F-C	) L			1 00		2 0 00020	0	64 3 35151	۰ ~	5.32F-05	5.16F-05	6 88F-0
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1740x0/loadery  Backnoss100   Diese   100 0.21   24 1.93e/doi 2.17e/doi 0.55f-0.42 1.23e/doi 2.46e/doi 2.46e/doi 0.54e/doi 2.46e/doi 2.46e/doi 2.46e/doi 2.46e/doi 2.46e/doi 2.46e/doi 1.66e/doi 1.66e/doi 1.67 0.59   40 7.83e/do 1.48e/doi 1.48e/d	iruck	Other Construction Equipment 100	Diesei	3 :		74 4.03E	-01 1.2/E+C	JO 5.90E+U	Z 1.03E-	٠,	0		2 0.000/2	o i	77 0.93034	•	O.UUUUUU	O.UUUTUB	0.335-0
Off-Heighway Track6000 Diesel 600 0.59 12 3.1216-02 1.38F0.1 3.78F0.02 1.4216.9 8.225-69 8.25F6.03 1.40F0.9 8.25F6.03 1.40F0.9 8.25F6.03 1.40F0.9 8.25F6.03 1.40F0.9 8.25F6.03 1.40F0.9 8.25F6.03 1.40F0.9 1.25F0.9 1.40F0.9 8.25F6.03 1.40F0.9 1.25F0.9 1.40F0.9 1.20F0.9 1.20F0	Loader	Tractors/Loaders/Backnoes1UU	Diesel	100		24 1.99E+	100 2.1/E+t	00 6.95E+U	2 2.03E-		7		1 0.00111	0	08 0.386zu:		0.000151	0.000147	0.00016
Crawler Tractor/Dozerst175   Diese   175   0.59   40 7.88E-02 2.51E-01 5.37E-02 1.42E-03 1.88E-02 1.38E-02 1.	tor Trailer- Material Delivery	Off-highway Trucks600	Diesel	009		12 3.21E-	-02 1.38E-C	01 5.37E+0	2 1.42E-	00	8.26E	23	2 0.00015	0	48 2.51363	9	m	3.87E-05	2
Other Construction Equipment 11   0.7   24 JA7F400 4.18F40 05 54F402 2.18F0 3.24F403 2.18F0 3.24F402 2.18F0 3.24F0 3.2	lozer	Crawler Tractor/Dozers175	Diesel	175		_	-02 2.51E-C	01 5.37E+0	2 1.42E-	$\neg$	7	22	2 0.00035	7 0.0011	44 2.443	9	00	8.29E-05	5.59E-05
Dump Trucks         Off-lighway Trucks600         Diesel         600         0.59         40         3.21E-02         1.38E-01         5.37E-02         1.42E-03         5.82E-03         1.42E-03         8.52E-03         1.42E-03         5.82E-03         1.42E-03         8.52E-03         1.42E-03         5.82E-03         1.62E-03         8.22E-03         1.53E-04         1.53E-04         1.53E-04         1.53E-04         1.53E-04         1.53E-04         1.53E-04         1.53E-03         1.54E-03	Saws	_	Diesel	11		7	HO0 4.18E+C	00 5.94E+0	2 2.18E-	~	7	5	1 0.00050	2 0.0008	52 0.12095	4	4	4.74E-05	Ö
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Tractors/Loaders/Backhoes100 Diesel 100 0.21 40 1.99E+00 2.17E+00 6.95E+02 2.03E-03 2.72E-01 2.64E-01 Plate Compactors6 Diesel 6 0.43 16 2.51E+00 4.19E+00 5.88E+02 2.16E-03 2.51E-01 2.44E-01		quipment1	Diesel	100		4	-01 1.27E+0	00 5.96E+0	2 1.63E-	3 7.01E-	02 6.80E-	02 4.20E-0	2 0.00052	8 0.0014	41 0.67804	6 1.86E-06	7.98E-05	7.74E-05	4.78E-0
Plate Compactors6 Diesel 6 0.43 16 2.51E+00 4.19E+00 5.88E+02 2.16E-03 2.51E-01 2.44E-01 8.27E	ctor	Tractors/Loaders/Backhoes100	Diesel	100		40 1.99E+	HO0 2.17EHC	00 6.95E+0	2 2.03E-	3 2.72E-	01 2.64E-	01 2.90E-0	1 0.00183	9 0.0020		1.88	0	0.000244	0.00026
	npacting Equipment	Plate Compactors6	Diesel	9		16 2.51E+	HO0 4.19E+C	00 5.88E+0	2 2.16E-	3 2.51E-	01 2.44E-	01 8.27E-0	1 0.00011	4 0.000191	91 0.026756	6 9.84E-08	Т	1.11E-05	3.76E-0
Crawler Tractor/Dozers175 Diesel 175 0.59 16 7.83E-02 2.51E-01 5.37E+02 1.42E-03 1.88E-02 1.82E-02 1.23E-	2026 Open Park Rough Gra Small Dozer	Crawler Tractor/Dozers175	Diesel	175		7	7	31 5.37E+0	2 1.42E-	3 1.88E-	02 1.82E-	02 1.23E-0	2 0.00014	3 0.0004		2.59	m	3.32E-05	2.24E-0
h Terrain Crans Canas Ca	on Bound Tarrain Craps		Disco	1 50		٠ د	, ,	1 5 31 F±0	7 1 43E	1575	1 48F	0 2 06F-0	2 0 000154	0000	31 1 208082	in	3.46F-05	2 2 CF_05	1 68F.0

0.000258 0.000344	5.16E-05 6.88E-05	3.22E-05 4.3E-05	1.29E-05 1.72E-05	0.001095 0.001062 0.000655	0.000178 0.000172 0.000312	0.000199 0.000193 0.000258	7.74E-05 0.000103	0.004378 0.004247 0.002622	0.000711 0.000689 0.001248	0.000387 0.000516	0.000387 0.000516	0.00044 0.000426 0.000254	8.61E-05 0.000156	2.58E-05 3.44E-05	3.87E-05 5.16E-05	0.001172 0.001137 0.000677	0.000266 0.000258 0.000344	0.00052 0.000504 0.000702	0.000547 0.000531 0.000328	0.000193 0.000258	5.16E-05 6.88E-05	0.002016 0.001955 0.002149	0.000199 0.000193 0.000258	0.001459 0.001416 0.000874	0.000266 0.000258 0.000344	5.16E-05 6.88E-05	3.22E-05 4.3E-05	1.33E-05 1.29E-05 1.72E-05	0.001095 0.001062 0.000655	0.000178 0.000172 0.000312	0.000199 0.000193 0.000258	7.74E-05 0.000103	0.004378 0.004247 0.002622	0.000711 0.000689 0.001248	0.000387 0.000516	0.000399 0.000387 0.000516	0.00044 0.000426 0.000254	8.61E-05 0.000156	2.58E-05 3.44E-05	3.87E-05 5.16E-05	0.001172 0.001137 0.000677	0.000266 0.000258 0.000344	0.000504 0.000702	0.000531 0.000328	0.000193 0.000258		0.197823 0.191888 0.213657
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0.59	0.59	0.59	0.59	0.59	0.21	0.59	0.59	0.59	0.21	0.59	0.59	0.59	0.21	0.59	0.59	0.59	0.59	0.43	0.59	0.59	0.59	0.21	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.21	0.59	0.59	0.59	0.21	0.59	0.59	0.59	0.21	0.59	0.59	0.59	0.59	0.43	0.59	0.59	0.59	
009	009	009	900	100	75	009	009	100	75	009	009	100	75	009	009	100	009	300	100	009	009	100	009	100	900	009	009	909	100	75	009	009	100	75	009	009	100	75	009	009	100	009	300	100	009	009	
Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Other Construction Equipment100 Diesel	Rough Terrain Forklifts75 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Other Construction Equipment100 Diesel	Rough Terrain Forklifts75 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Rough Terrain Forklifts100 Diesel	Rough Terrain Forklifts75 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Rough Terrain Forklifts100 Diesel	Off-highway Trucks600 Diesel	Cranes 300 Diesel	Other Construction Equipment100 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Tractors/Loaders/Backhoes100 Diesel	Off-highway Trucks600 Diesel	Other Construction Equipment100 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Other Construction Equipment100 Diesel	Rough Terrain Forklifts75 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Other Construction Equipment100 Diesel	Rough Terrain Forklifts75 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Rough Terrain Forklifts100 Diesel	Rough Terrain Forklifts75 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	Rough Terrain Forklifts100 Diesel	Off-highway Trucks600 Diesel	Cranes 300 Diesel	Other Construction Equipment100 Diesel	Off-highway Trucks600 Diesel	Off-highway Trucks600 Diesel	
2026 Building - Concrete F Tool Truck	2026 Building - Concrete F Tractor Trailer- Material Delivery	2026 Building - Constructi Survey Crew Trucks	2026 Building - Constructi Tractor Trailers Temp Fac.	2026 Building - Exterior W Fork Truck	2026 Building - Exterior W Man Lift	2026 Building - Exterior W Tool Truck	2026 Building - Exterior W Tractor Trailer- Material Delivery	2026 Building - Interior Bu Fork Truck	2026 Building - Interior Bu Man Lift	2026 Building - Interior B. Tool Truck	2026 Building - Interior Bu Tractor Trailer- Material Delivery	2026 Building - Roofing High Lift	2026 Building - Roofing Man Lift (Fascia Construction)	2026 Building - Roofing Material Deliveries	2026 Building - Roofing Tractor Trailer- Material Delivery	2026 Building - Security & High Lift	2026 Building - Security & Tool Truck	2026 Building - Structural 40 Ton Crane	2026 Building - Structural Fork Truck	2026 Building - Structural Tool Truck	2026 Building - Structural Tractor Trailer-Steel Deliveries	2026 Building - Concrete F Backhoe	2026 Building - Concrete F Concrete Ready Mix Trucks	2026 Building - Concrete F Fork Truck	2026 Building - Concrete F Tool Truck	2026 Building - Concrete F Tractor Trailer- Material Delivery	2026 Building - Constructi Survey Crew Trucks	2026 Building - Constructi Tractor Trailers Temp Fac.	2026 Building - Exterior W Fork Truck	2026 Building - Exterior W Man Lift	2026 Building - Exterior W Tool Truck	2026 Building - Exterior W Tractor Trailer-Material Delivery	2026 Building - Interior Bu Fork Truck	2026 Building - Interior Bu Man Lift	2026 Building - Interior B. Tool Truck	2026 Building - Interior Bu Tractor Trailer-Material Delivery	2026 Building - Roofing High Lift	2026 Building - Roofing Man Lift (Fascia Construction)	2026 Building - Roofing Material Deliveries	2026 Building - Roofing Tractor Trailer- Material Delivery	2026 Building - Security & High Lift	2026 Building - Security & Tool Truck	2026 Building - Structural 40 Ton Crane	2026 Building - Structural Fork Truck	2026 Building - Structural Tool Truck	2026 Building - Structural Tractor Trailer-Steel Deliveries	
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On-Road Sources Units for Non-Greenhouse Gases Emission: Short Ton Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton

MOVES ONROAD Emissions 13 11 12

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stegory	Asphalt 18 Combination Short-haul Truck	Cement M Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	_	Terminal / Asphalt 18 Combination Short-haul Truck	Terminal ≠ Cement M Single Unit Short-haul Truck	Terminal ≠ Dump Tru₁ Single Unit Short-haul Truck	Terminal / Dump Tru: Single Unit Short-haul Truck	_	Terminal / Asphalt 18 Combination Short-haul Truck	Terminal ≠ Cement M Single Unit Short-haul Truck	Terminal ≠ Dump Tru₁ Single Unit Short-haul Truck	Terminal ≠ Dump Tru₁ Single Unit Short-haul Truck	_	Asphalt 18 Combination Short-haul Truck	Cement M Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	_	Asphalt 18 Combination Short-haul Truck	Cement M Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	_	Asphalt 18 Combination Short-haul Truck	Cement M Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	Dump Tru: Single Unit Short-haul Truck	_
Equipmen Equipment Category	Combination	Single Unit Sh	Single Unit Sh	Single Unit Sh	Passenger Passenger Car	Combination	Single Unit Sh	Single Unit Sh	Single Unit Sh	Terminal / Passenger Passenger Car	Combination	Single Unit Sh	Single Unit Sh	Single Unit Sh	Terminal / Passenger Passenger Car	Combination	Single Unit Sh	Single Unit Sh	Single Unit Sh	Passenger Passenger Car	Combination	Single Unit Sh	Single Unit Sh	Single Unit Sh	Passenger Passenger Car	Combination	Single Unit Sh	Single Unit Sh	Single Unit Sh	Passenger Passenger Car
Equipmen						/ Asphalt 18	/ Cement M	/ Dump True	/ Dump True	/ Passenger	/ Asphalt 18	/ Cement M	/ Dump True	/ Dump True	/ Passenger											-				
Project	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Terminal	2026 Terminal	2026 Terminal	2026 Terminal	2026 Terminal	2026 Terminal	2026 Terminal	2026 Terminal	2026 Terminal	2026 Terminal	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways	2026 Taxiways
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Di-road Artivity		SORGEN KIND OF THE DISTRICT OF THE PROPERTY OF	1 4 OU		2	2	200	ALDIA WILDIA	Y 124			2000	RaVMT CO NOX SO3 PM10 PM25
y DieselUrbi	_	- 64	2	1-		129	1650	15					359 2.165782 3.764728 0.005398 0.060051
, DieselUrbi	Diesel Urban Unr	40	2	1		129	1650	15	,	1	,	1	5723 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb: Diesel	sel Urban Unr	40	2	1		129	1650	15	1	ı		1	509 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1-		129	1650	15	:	1	;	,	3053 1.243319 1.725104 0.003352 0.028642 0.026351
	Gasoline Urban Unr	30 -		242	242	129		:	:	1			936540 2.68336 0.051009 0.00205 0.002018 0.001785
Material Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1		129	358	200		ı	1	1	1039 2.165782 3.764728 0.005398 0.060051 0.055247
_	sel Urban Unr	40	2	2		129	358	- 002	1	ı		1	16558 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1-1		129	358	- 200	:	ı	:	1	1472 1.243319 1.725104 0.003352 0.028642 0.026351
DieselUrb	Diesel Urban Unr	40	2	1		129	358	200	1	ı		1	8831 1.243319 1.725104 0.003352 0.028642 0.026351
ute GasolineU	Gasoline Urban Unr	30 -		9/	9/	129		:	:	ı	:	1	294120 2.68336 0.051009 0.00205 0.002018 0.001785
	Diesel Urban Unr	40	2	1-1		129	200	388	:	ı	:	1	1126 2.165782 3.764728 0.005398 0.060051 0.055247
DieselUrb	Diesel Urban Unr	40	2	7		129	200	388	:	1	;	,	17945 1.243319 1.725104 0.003352 0.028642 0.026351
	Diesel Urban Unr	40	2	1		129	200	388	:	ı	:	1	1595 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1-1		129	200	388	:	ı	:	1	9571 1.243319 1.725104 0.003352 0.028642 0.026351
ute Gasoline U	Gasoline Urban Unr	30 -		187	187	129		1		1	;	1	723690 2.68336 0.051009 0.00205 0.002018 0.001785
DieselUrb	Diesel Urban Unr	40	2	1-		129	1220	22	1	ı		1	389 2.165782 3.764728 0.005398 0.060051 0.055247
DieselUrb	Diesel Urban Unr	40	S	1-		129	1220	22		1	;	1	6207 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1-		129	1220	22	1	1	1	1	552 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb; Die	Diesel Urban Unr	40	2	1 :		129	1220	22	:	1		;	3310 1.243319 1.725104 0.003352 0.028642 0.026351
Employee Commute GasolineU Gas	Gasoline Urban Unr	30 -		627	627	129	1	1		ı	1	1	2426490 2.68336 0.051009 0.00205 0.002018 0.001785
DieselUrb	Diesel Urban Unr	40	2	1-1		129	934	18	:	ı	:	1	244 2.165782 3.764728 0.005398 0.060051 0.055247
	Diesel Urban Unr	40	2	1-1		129	934	18	:	1	:	1	3888 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1-1		129	934	18	:	1	:	1	346 1.243319 1.725104 0.003352 0.028642 0.026351
Aaterial Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1		129	934	18		ı	1	1	2073 1.243319 1.725104 0.003352 0.028642 0.026351
	Gasoline Urban Unr	30 -		73	73	129		:	:	ı	:	1	282510 2.68336 0.051009 0.00205 0.002018 0.001785
Material Delivery Diesel Urb: Diese	sel Urban Unr	40	2	1 :		129	3588	16	:	1		;	833 2.165782 3.764728 0.005398 0.060051 0.055247
Material Delivery Diesel Urb: Diese	sel Urban Unr	40	2	2		129	3588	16	:	1		;	13276 1.243319 1.725104 0.003352 0.028642 0.026351
Material Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1-		129	3588	16	1	ı		1	1180 1.243319 1.725104 0.003352 0.028642 0.026351
Aaterial Delivery Diesel Urb: Die	Diesel Urban Unr	40	2	1-1		129	3588	16	:	ı	:	1	7080 1.243319 1.725104 0.003352 0.028642 0.026351
manufactor Community	Cacaline Heban Ha	00		170 2	170	00.0							TOTAL CONTRACTOR CONTR

	2026 DemolitionDump TrucSingle Unit Short-hand Truck	Material Delivery	Diesell Irh; Diesel	lirhan linr	40	Ľ	-	•	200	113					1424 1 243319 1 725104 0 0033	0.003352 0.028642 0.026351	
2020	2026 Domolition Domongor Domongor Cor	Canalogo Committee	Oscilla II Carolina	Irban Ilnr	0 0	,	1 00		92							E 0.003018 0.00130E	
7070	emolition rassenger rassenger Car	Employee Commute	easoline o easoline	Orban Ori	- 00		200.7	7.	- 67	;					0.05100	<i>-</i>	
2026 A	2026 Apron (GA Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	S	1 -		29 172	112			1	1	2.165782 3.764728	0.060051 0.	
2026 A	2026 Apron (GA Cement M Single Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		271 172	112			1	1	4455 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 A	2026 Apron (GA Dump Trusingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1	` '	271 25	112			1	1	396 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 A	2026 Apron (GA Dump Trusingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1	` '	271 25	112			1	1	2376 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 A	2026 Apron (GA Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		89		. 29				1	1	263160 2.68336 0.051009 0.00205	5 0.002018 0.001785	
2026 B	Building - : Cement MSingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		. 29	,	10000	,	1	1	2313 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 B	Building - : Dump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1 -		. 29		10000		1	1	1233 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 B	Building - : Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		6 896	896	. 29				1	1	3746160 2.68336 0.051009 0.00205	5 0.002018 0.001785	
2026 B	Building - :Tractor TraCombination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1		. 29		10000		1	0	0.0016 160 2.165782 3.764728 0.005398	8 0.060051 0.055247	
2026 D	Demolition Dump Truc Single Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		1080	28	,	,	1	1	6720 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 D	Demolition Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		35.2 35	35.2	. 29				1	1	136224 2.68336 0.051009 0.00205	5 0.002018 0.001785	
2026 A	2026 Access Ro: Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1	. •	58 720	40			,	1	418 2.165782 3.764728 0.005398	8 0.060051 0.055247	
2026 A	2026 Access RocCement MSingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1	. •	258 720	40			,	1	6660 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 Av	2026 Access Ro¿Dump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1	. •	258 720	40			,	1	592 1.243319 1.725104 0.003352	2 0.028642 0.026351	
2026 Ac	2026 Access Ro¿Dump Tru،Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1-	. •	258 720	40				•	3552 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 Ac	2026 Access Ro¿ Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		98	98	258	,	,	,	1	1	665640 2.68336 0.051009 0.002	0.00205 0.002018 0.001785	
2026 Op	2026 Open Park Cement MSingle Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1-		. 29	,	10000			•	2313 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 0	2026 Open Park Dump Trui Single Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1-		129	,	10000		1	1	1.243319 1.725104	0.003352 0.028642 0.026351	
2026 Op	2026 Open Park Dump Trus Single Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1	` '	. 29	,	10000		1	1	1233 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 Op	2026 Open Park Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		90.2	90.2	. 29	,			1	1	349074 2.68336 0.051009 0.002	0.00205 0.002018 0.001785	
2026 Op	2026 Open Park Tractor TraCombination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1-		. 29	,	10000			0	0.0012 120 2.165782 3.764728 0.0053	0.005398 0.060051 0.055247	
2026 Fu	Fuel Tanks Asphalt 18 Combination Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1-						1	1	2285 2.165782 3.764728 0.0053	0.005398 0.060051 0.055247	
2026 Fu	Fuel Tanks Cement MSingle Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	- 80		65 1575	100				:	1.243319 1.725104	0.003352 0.028642 0.026351	
2026 Fu	2026 Fuel Tanks Dump Tru. Single Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1							1	1.243319 1.725104	0.003352 0.028642 0.026351	
2026 Fu	2026 Fuel Tanks Dump Truc Single Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	4		65 1575	100	,		1	1	19425 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 FL	2026 Fuel Tanks Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		71	71	- 29	,			1	1	138450 2.68336 0.051009 0.002	0.00205 0.002018 0.001785	
2026 Bi	Building - : Cement MSingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		- 29	;	10000			1	2313 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 Bi	Building - : Dump Tru، Single Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		- 29		10000		,	1	1233 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 Bt	Building - : Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		55	22	- 29				,	1	107250 2.68336 0.051009 0.002	0.00205 0.002018 0.001785	
2026 Bu	Building - :Tractor TraCombination Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		- 29	,	10000		1	0	0.0016 160 2.165782 3.764728 0.0053	0.005398 0.060051 0.055247	
2026 Bu	Building - : Cement MSingle Unit Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		- 29	;	10000			1	2313 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 Bu	Building - : Dump TrucSingle Unit Short-haul Truck	Material Delivery	DieselUrb: Diesel	Urban Unr	40	2	1-		- 99	,	10000		1	1	1233 1.243319 1.725104 0.0033	0.003352 0.028642 0.026351	
2026 Bu	2026 Building - : Passenger Passenger Car	Employee Commute	Gasoline U Gasoline	Urban Unr	30		89.1 89	89.1	- 29	,			1	1	173745 2.68336 0.051009 0.002	0.00205 0.002018 0.001785	
2026 Bi	2026 Building - :Tractor Tr≀Combination Short-haul Truck	Material Delivery	DieselUrb¿Diesel	Urban Unr	40	2	1		- 99	,	10000		1	0	0.0016 160 2.165782 3.764728 0.0053	0.005398 0.060051 0.055247	

Fugitive Sources
Units for Non-Greenhouse Gases Emission: Short Ton
Scenario Il Year Project Fugitive Sc Number of I

PM10	0	0.004101	0.01195	0.0385	0.007	4.99E-09	0	0.01185	0.06125	0.01495	0.0471	0.02025	1.44E-08	0	0.01285	0.0664	0.01495	0.04715	0.02195	1.57E-08	0	0.004448	0.02295	0.01195	0.03795	0.0076	5.42E-09	0	0.002786	0.0144	0.01195	0.03725	0.004759	3.39E-09	0	0.0095	0.0491	0.01495	0.05115	0.01625	1.16E-08	0.002994
202	0	0.000688 0.004101	0	0	0	0	0	0.001991	0	0	0	0	0	0	0.002157	0	0	0	0	0	0	0.000746	0	0	0	0	0	0	0.000468	0	0	0	0	0	0	0.001596	0	0	0	0	0	0
č	0	0.0599 0.003739	0	0	0	0	0	0.0108	0	0	0	0	0	0	0.0117	0	0	0	0	0	0	0.004055	0	0	0	0	0	0	0.00254	0	0	0	0	0	0	0.00865	0	0	0	0	0	0
	0	0.0599	0	0	0	0	0	0.17325	0	0	0	0	0	0	0.18775	0	0	0	0	0	0	0.06495	0	0	0	0	0	0	0.0407	0	0	0	0	0	0	0.1389	0	0	0	0	0	0
8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Fugitive Sc Number of Months	Asphalt Dr	Asphalt St	Material N	Material №	Soil Handli	Jnstabilize	sphalt Dr	sphalt St	Concrete P	/laterial N	/aterial N	oil Handli	Jnstabilize	sphalt Dr	sphalt St	Concrete P	/ Aaterial N	/aterial N	oil Handli	Jnstabilize	Asphalt Dr	Asphalt St	Concrete P	Material №	Material №	Soil Handli	Unstabilize	Asphalt Dr	Asphalt St	Concrete P	Material N	Material №	Soil Handli	Unstabilize	Asphalt Dr	Asphalt Sto	Concrete P	Material N	Material №	Soil Handli	Unstabilize	/aterial N
Project	Ş	Faxiways	2026 Taxiways N	<b>Taxiways</b>	2026 Taxiways S	Taxiways Unstabilize	2026 Terminal AAsphalt Dr	Terminal AAsphalt St	Terminal AConcrete №	2026 Terminal AMaterial №	Terminal AMaterial №	Terminal #Soil Handl	Terminal AUnstabiliz∈	2026 Terminal #Asphalt Dr	Terminal AAsphalt St	2026 Terminal AConcrete №	2026 Terminal AMaterial №	2026 Terminal AMaterial №	2026 Terminal ASoil Handl	Terminal AUnstabiliz∈	Taxiways	<b>Faxiways</b>	2026 Taxiways C	<b>Taxiways</b>	2026 Taxiways N	Taxiways	2026 Taxiways L	Taxiways ₽	<b>Taxiways</b>	2026 Taxiways C	<b>Faxiways</b>	2026 Taxiways N	Faxiways	2026 Taxiways L	Taxiways ₽	2026 Taxiways A	Taxiways (	2026 Taxiways N	2026 Taxiways N		2026 Taxiways L	2026 DemolitiorMaterial N
		5026	5026	5026	5026	5026	5026	. 9202	5026	5026	5026	. 9202	5026	5026	. 9202	5026	5026	5026	5026	5026	5026	. 9202	5026	. 9202	5026	5026	5026	. 9202	5026	5026	5026	5026	. 9202	5026	. 9202	5026	. 9202	5026	2026	5026	2026	2026
enario II Year	1	1	Т	7	1	7	2	2	2	2	2	2	2	m	n	33	33	33	3	3	4	4	4	4	4	4	4	2	5	5	S	S	2	2	9	9	9	9	9	9	9	7

VOC	0.05	0.001855	0	0	0	0	0.05	0.00535	0	0	0	0	0	0.05	0.0058	0	0	0	0	0	0.05	0.002011	0	0	0	0	0	0.05	0.00126	0	0	0	0	0	0.02	0.004302	0	0	0	0	0	0
PM10	0	0.004101	0.01195	0.0385	0.007	4.99E-09	0	0.01185	0.06125	0.01495	0.0471	0.02025	1.44E-08	0	0.01285	0.0664	0.01495	0.04715	0.02195	1.57E-08	0	0.004448	0.02295	0.01195	0.03795	0.0076	5.42E-09	0	0.002786	0.0144	0.01195	0.03725	0.004759	3.39E-09	0	0.0095	0.0491	0.01495	0.05115	0.01625	1.16E-08	0.002994
202	0	0.000688	0	0	0	0	0	0.001991	0	0	0	0	0	0	0.002157	0	0	0	0	0	0	0.000746	0	0	0	0	0	0	0.000468	0	0	0	0	0	0	0.001596	0	0	0	0	0	0
Ň	0	0.003739	0	0	0	0	0	0.0108	0	0	0	0	0	0	0.0117	0	0	0	0	0	0	0.004055	0	0	0	0	0	0	0.00254	0	0	0	0	0	0	0.00865	0	0	0	0	0	0
	0	0.0599	0	0	0	0	0	0.17325	0	0	0	0	0	0	0.18775	0	0	0	0	0	0	0.06495	0	0	0	0	0	0	0.0407	0	0	0	0	0	0	0.1389	0	0	0	0	0	0

7	2026 Demolitior Material N	6	0	0	0	0.00935	0
7	2026 Demolitior Soil Handli	6	0	0	0	0.00655	0
7	2026 Demolitior Unstabilize	6	0	0	0	4.65E-09	0
1	2026 Apron (GA Asphalt Dr	6	0	0	0	0	0.05
1	2026 Apron (GA Asphalt St	6	0.0466		0.000536		0.001444
1	2026 Apron (GA Material N	6	0	0	0	0.01195	0
1	2026 Apron (GA Material N	6	0	0	0	0.03625	0
1	2026 Apron (GA Soil Handli	6	0	0	0	0.00545	0
1	2026 Apron (GA Unstabiliz€	6	0	0	0	3.89E-09	0
2	2026 Building - : Concrete №	6	0	0	0	0.00855	0
2	2026 Building - : Material N	6	0	0	0	0.006	0
2	2026 Building - : Material N	6	0	0	0	0.01765	0
3	2026 Demolitior Material N	6	0	0	0	0.002994	0
3	2026 Demolitior Material N	6	0	0	0	0.00935	0
3	2026 Demolitior Soil Handli	6	0	0	0	0.00855	0
3	2026 Demolitior Unstabilize	6	0	0	0	6.10E-09	0
4	2026 Access Roa Asphalt Dr	12	0	0	0	0	0.05
4	2026 Access Roa Asphalt Sto	12	0.0697	0.004351	0.000801	0.004772	0.002158
4	2026 Access Roa Concrete №	12	0	0	0	0.02465	0
4	2026 Access Roa Material N	12	0	0	0	0.02395	0
4	2026 Access Roa Material N	12	0	0	0	0.07275	0
4	2026 Access Roa Soil Handli	12	0	0	0	0.00815	0
4	2026 Access Roa Unstabilize	12	0	0	0	1.16E-08	0
5	2026 Open Park Asphalt Dr	6	0	0	0	0	0.05
5	2026 Open Park Material N	6	0	0	0	0.009	0
5	2026 Open Park Material N	6	0	0	0	0.02665	0
5	2026 Open Park Soil Handli	6	0	0	0	0.002831	0
5	2026 Open Park Unstabilize	6	0	0	0	2.02E-09	0
6	2026 Fuel Tanks Asphalt Dr	3	0	0	0	0	0.05
6	2026 Fuel Tanks Asphalt Sto	3	0.3811	0.0238	0.004378	0.0261	0.0118
6	2026 Fuel Tanks Concrete ↑	3	0	0	0	0.13475	0
6	2026 Fuel Tanks Material N	3	0	0	0	0.0211	0
6	2026 Fuel Tanks Material N	3	0	0	0	0.0941	0
6	2026 Fuel Tanks Soil Handli	3	0	0	0	0.0446	0
6	2026 Fuel Tanks Unstabilize	3	0	0	0	1.59E-08	0
7	2026 Building - : Concrete ↑	3	0	0	0	0.00855	0
7	2026 Building - : Material N	3	0	0	0	0.003017	0
7	2026 Building - : Material N	3	0	0	0	0.0089	0
8	2026 Building - : Concrete N	3		0	0	0.00855	0
8	2026 Building - : Material N	3		0	0		0
8	2026 Building - : Material N	3	0	0	0	0.0089	0
	-	otals	1.16285	0.072545	0.013359	1.340408	0.535979
	-						

# 2026 Totals

Year	Emission S	со	NOx	SO2		PM10	PN	M2.5	VOC	CO2	CH4	N2O	CO2e
202	6 NonRoad	0.957761	3.101563		0.018688189	0.19782	279 0.	.191888	0.213657	7037.806			
202	6 OnRoad	33.41468	1.046677		0.026093095	0.031812	003 0.	.028386	0.16006	1615.33	0.019075	0.002802	
202	6 Fugitive	1.16285	0.072545		0.013359	1.3404	081		0.535979				
202	6 TOTAL	35,53529	4.220786		0.058140284	1.570042	893 0.	.220274	0.909696	8653,135	0.019075	0.002802	8654.412

# ASSUMPTIONS

Emission factors were developed from the following models:

On-Road Vehicles: MOVES3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

 $14\,U.S.$  Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for:

Asphalt drying
Asphalt storage and batching
Concrete mixing/batching

Soil handling Unstabilized land and wind erosion Material movement (unpaved roads) Material movement (paved roads)

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations.

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available: Asphalt Deliveries/Ten Wheelers

Bulldozer
Concrete Ready Mix Trucks
Concrete Ready Trucks Mix for Cores
Concrete Truck
Crack Filler (Trailer Mounted)
Delivery of Tanks (3)
Distributing Tanker
Dozer
Dump Truck
Dump Truck
Dump Truck (12 cy)

Factors (g	/mile)						MOVES ON	IROAD Emi	ssions (tpy			
14	5	8	9	7	10	13	11	12	14	5	8	9
VOC	CO2	CH4	N2O	CO	NOx	SO2	PM10	PM2.5	VOC	CO2	CH4	N20
0.16006	1615.33	0.019075	0.002802	0.000857	0.00149	2.14E-06	2.38E-05	2.19E-05	6.33E-05	0.639237	7.55E-06	1.11E-06
0.092716	1001.869	0.015167	0.003286	0.007844	0.010883	2.11E-05	0.000181	0.000166	0.000585	6.320352	9.57E-05	2.07E-05
0.092716	1001.869	0.015167	0.003286	0.000698	0.000968	1.88E-06	1.61E-05	1.48E-05	5.2E-05	0.562128	8.51E-06	1.84E-06
0.092716	1001.869	0.015167	0.003286	0.004184	0.005806	1.13E-05	9.64E-05	8.87E-05	0.000312	3.371664	5.1E-05	1.11E-05
0.058187	308.5568	0.006878	0.00167	2.770204	0.05266	0.002116	0.002083	0.001843	0.06007	318.543	0.007101	0.001724
0.16006	1615.33	0.019075	0.002802	0.00248	0.004312	6.18E-06	6.88E-05	6.33E-05	0.000183	1.850049	2.18E-05	3.21E-06
0.092716	1001.869	0.015167	0.003286	0.022693	0.031487	6.12E-05	0.000523	0.000481	0.001692	18.28628	0.000277	6E-05
0.092716	1001.869	0.015167	0.003286	0.002017	0.002799	5.44E-06	4.65E-05	4.28E-05	0.00015	1.625644	2.46E-05	5.33E-06
0.092716	1001.869	0.015167	0.003286	0.012103	0.016793	3.26E-05	0.000279	0.000257	0.000903	9.752757	0.000148	3.2E-05
0.058187	308.5568	0.006878	0.00167	0.869981	0.016538	0.000665	0.000654	0.000579	0.018865	100.0383	0.00223	0.000541
0.16006	1615.33	0.019075	0.002802	0.002688	0.004673	6.7E-06	7.45E-05	6.86E-05	0.000199	2.004962	2.37E-05	3.48E-06
0.092716	1001.869	0.015167	0.003286	0.024594	0.034124	6.63E-05	0.000567	0.000521	0.001834	19.81805	0.0003	6.5E-05
0.092716	1001.869	0.015167	0.003286	0.002186	0.003033	5.89E-06	5.04E-05	4.63E-05	0.000163	1.761482	2.67E-05	5.78E-06
0.092716	1001.869	0.015167	0.003286	0.013117	0.0182	3.54E-05	0.000302	0.000278	0.000978	10.57	0.00016	3.47E-05
0.058187	308.5568	0.006878	0.00167	2.140612	0.040692	0.001635	0.00161	0.001424	0.046418	246.1468	0.005487	0.001332
0.16006	1615.33	0.019075	0.002802	0.000929	0.001614	2.31E-06	2.58E-05	2.37E-05	6.86E-05	0.692656	8.18E-06	1.2E-06
0.092716	1001.869	0.015167	0.003286	0.008507	0.011803	2.29E-05	0.000196	0.00018	0.000634	6.854871	0.000104	2.25E-05
0.092716	1001.869	0.015167	0.003286	0.000757	0.00105	2.04E-06	1.74E-05	1.6E-05	5.64E-05	0.609616	9.23E-06	2E-06
0.092716	1001.869	0.015167	0.003286	0.004536	0.006294	1.22E-05	0.000105	9.61E-05	0.000338	3.655489	5.53E-05	1.2E-05
0.058187	308.5568	0.006878	0.00167	7.177347	0.136437	0.005483	0.005398	0.004775	0.155636	825.3159	0.018398	0.004467
0.16006	1615.33	0.019075	0.002802	0.000583	0.001013	1.45E-06	1.62E-05	1.49E-05	4.31E-05	0.434468	5.13E-06	7.54E-07
0.092716	1001.869	0.015167	0.003286	0.005329	0.007393	1.44E-05	0.000123	0.000113	0.000397	4.29382	6.5E-05	1.41E-05
0.092716	1001.869	0.015167	0.003286	0.000474	0.000658	1.28E-06	1.09E-05	1.01E-05	3.54E-05	0.382115	5.78E-06	1.25E-06
0.092716	1001.869	0.015167	0.003286	0.002841	0.003942	7.66E-06	6.55E-05	6.02E-05	0.000212	2.289374	3.47E-05	7.51E-06
			0.00167									
0.16006	1615.33	0.019075	0.002802	0.001989	0.003457	4.96E-06	5.51E-05	5.07E-05	0.000147	1.483244	1.75E-05	2.57E-06
0.092716	1001.869	0.015167	0.003286	0.018195	0.025246	4.91E-05	0.000419	0.000386	0.001357	14.66172	0.000222	4.81E-05
			0.003286									
0.092716	1001.869	0.015167	0.003286	0.009703	0.013463	2.62E-05	0.000224	0.000206	0.000724	7.818992	0.000118	2.56E-05
0.058187	308.5568	0.006878	0.00167	2.039877	0.038777	0.001558	0.001534	0.001357	0.044233	234.5635	0.005229	0.001269

0.092716 1001.869 0.015167 0.003286 0.000543 0.000753 1.46E-06 1.25E-05 1.15E-05 4.05E-05 0.437333 6.62E-06 1.43E-06 0.092716 1001.869 0.015167 0.003286 0.003256 0.004518 8.78E-06 7.5E-05 6.9E-05 0.000243 2.624001 3.9TE-05 8.61E-06  $0.058187\ \ 308.5568\ \ 0.006878\ \ \ \ 0.00167\ \ \ 0.778404\ \ \ 0.014797\ \ \ 0.000595\ \ \ 0.000585\ \ \ 0.000518\ \ \ 0.016879\ \ \ 89.50794\ \ \ 0.001995\ \ \ 0.000484$ 0.092716 1001.869 0.015167 0.003286 0.00317 0.004398 8.55E-06 7.3E-05 6.72E-05 0.000236 2.554425 3.87E-05 8.38E-06 0.092716 1001.869 0.015167 0.003286 0.00169 0.002345 4.56E-06 3.89E-05 3.58E-05 0.000126 1.361697 2.06E-05 4.47E-06 0.058187 308.5568 0.006878 0.00167 11.08082 0.21064 0.008464 0.008333 0.007372 0.24028 1274.172 0.028404 0.006896 0.16006 1615.33 0.019075 0.002802 0.000382 0.000664 9.52E-07 1.06E-05 9.74E-06 2.82E-05 0.284897 3.36E-06 4.94E-07  $0.092716 \quad 1001.869 \quad 0.015167 \quad 0.003286 \quad 0.00921 \quad 0.012779 \quad 2.48E-05 \quad 0.00921 \quad 0.000195 \quad 0.000687 \quad 7.421417 \quad 0.000112 \quad 2.43E-05 \quad 0.0058187 \quad 308.5568 \quad 0.006878 \quad 0.00167 \quad 0.402939 \quad 0.00766 \quad 0.000308 \quad 0.000303 \quad 0.000268 \quad 0.008737 \quad 46.33352 \quad 0.001033 \quad 0.000251 \quad 0.006879 \quad 0$ 0.16006 1615.33 0.019075 0.002802 0.000998 0.001735 2.49E-06 2.77E-05 2.55E-05 7.38E-05 0.744293 8.79E-06 1.29E-06 0.092716 1001.869 0.015167 0.003286 0.009128 0.012665 2.46E-05 0.00021 0.000193 0.000681 7.355154 0.000111 2.41E-05 0.092716 1001.869 0.015167 0.003286 0.000811 0.001126 2.19E-06 1.87E-05 1.72E-05 6.05E-05 0.653791 9.9E-06 2.14E-06 0.092716 1001.869 0.015167 0.003286 0.004868 0.006755 1.31E-05 0.000112 0.000103 0.000363 3.922749 5.94E-05  $0.058187 \ \ 308.5568 \ \ 0.006878 \quad \ \ 0.00167 \ \ \ 1.968905 \ \ \ 0.037428 \ \ \ 0.001504 \ \ \ 0.001481 \quad \ \ 0.00131 \ \ \ 0.042694 \ \ \ 226.4024 \ \ \ 0.005047 \ \ \ 0.001225$ 0.092716 1001.869 0.015167 0.003286 0.000317 0.000398 8.55E-06 7.3E-05 6.59E-06 0.002376 0.003276 0.003286 0.000317 0.000398 0.55E-06 7.3E-05 6.59E-06 0.000236 0.000317 0.000386 0.000317 0.000398 0.55E-06 7.3E-05 6.59E-06 0.000326 0.000317 0.000386 0.000317 0.000398 0.000399 0.0003 0.092716 1001.869 0.015167 0.003286 0.00169 0.002345 4.56E-06 3.89E-05 3.58E-05 0.000126 1.361697 2.06E-05 4.47E-06  $0.058187 \ \ 308.5568 \ \ 0.006878 \quad 0.00167 \ \ 1.032531 \ \ 0.019628 \ \ 0.000789 \ \ 0.000777 \ \ 0.000687 \quad 0.02239 \ \ 118.7297 \ \ 0.002647 \ \ 0.000643$ 0.16006 1615.33 0.019075 0.002802 0.000286 0.000498 7.14E-07 7.94E-06 7.31E-06 2.12E-05 0.213673 2.52E-06 3.71E-07 0.16006 1615.33 0.019075 0.002802 0.005455 0.009483 1.36E-05 0.000151 0.000139 0.000403 4.068684 4.8E-05 7.06E-06  $0.092716\ 1001.869\ 0.015167\ 0.003286\ 0.049918\ 0.069261\ 0.000135\ 0.00115\ 0.001058\ 0.003722\ 40.22364\ 0.000609\ 0.000132$ 0.092716 1001.869 0.015167 0.003286 0.004438 0.006157 1.2E-05 0.000102 9.41E-05 0.000331 3.575974 5.41E-05 1.17E-05 0.092716 1001.869 0.015167 0.003286 0.026623 0.036939 7.18E-05 0.000613 0.000564 0.001985 21.45253 0.000325 7.04E-05 0.058187 308.5568 0.006878 0.00167 0.409523 0.007785 0.000313 0.000308 0.000272 0.00888 47.09065 0.00105 0.000255  $0.092716 \quad 1001.869 \quad 0.015167 \quad 0.003286 \quad 0.00317 \quad 0.004398 \quad 8.55E-06 \quad 7.3E-05 \quad 6.72E-05 \quad 0.00236 \quad 2.554425 \quad 3.8F-05 \quad 8.38E-06 \quad 0.092716 \quad 1001.869 \quad 0.015167 \quad 0.003286 \quad 0.00169 \quad 0.002345 \quad 4.56E-06 \quad 3.89E-05 \quad 3.58E-05 \quad 0.000126 \quad 1.361697 \quad 2.06E-05 \quad 4.4Fe-06 \quad 0.00126 \quad 0.0$ 0.058187 308.5568 0.006878 0.00167 0.317236 0.00603 0.000242 0.000239 0.000211 0.006879 36.47867 0.000813 0.000197 1615.33 0.019075 0.002802 0.000382 0.000664 9.52E-07 1.06E-05 9.74E-06 2.82E-05 0.284897 3.36E-06 4.94E-07 1001.869 0.015167 0.003286 0.00317 0.004398 8.55E-06 7.3E-05 6.72E-05 0.000236 2.554425 3.87E-05 8.38E-06 0.092716 1001.869 0.015167 0.003286 0.00317 0.004398 8.55E-06 0.092716 1001.869 0.015167 0.003286 0.00169 0.002345 4.56E-06 3.89E-05 3.58E-05 0.000126 1.361697 2.06E-05 4.47E-06 0.058187 308.5568 0.006878 0.00167 0.513923 0.009769 0.000393 0.000387 0.000342 0.011144 59.09545 0.001317 0.00032 0.16006 1615.33 0.019075 0.002802 0.000382 0.000664 9.52E-07 1.06E-05 9.74E-06 2.82E-05 0.284897 3.36E-06 4.94E-07 33.41468 1.046677 0.026093 0.031812 0.028386 0.740219 4045.751 0.088443 0.021368 totals

Airport Construction Emissions Inventory Tool (ACEIT) Run Date & Time: 12/27/2021 1:15:42 PM

..... STUDY

Study Name

Austin Airport

Study Description

2027 Construction Schedule

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EMISSIONS INVENTORY - DETAILS:

Units for Non-Greenhouse Gases Emission: Short Ton

Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton

NONROAD Emission Factors g/-hp-hr NONROAD Emissions (TPY) 11 2 9 FactoHours of ACO NOX CO2 SO2 PM10 PM2.5 VOC CO (tpy) NOX (tpy) CO2 (tpy) SO2 (tpy) PM10 (tpy PM2.5 (tp) VOC Exha 0.59 9.330625 0.083087 0.250139 536.7939 0.001426 0.020077 0.019475 0.012961 8.82E-05 0.000266 0.570053 1.51E-06 2.13E-05 2.07E-05 1.38E-05 Scenario If Year Project Constructi Equipment Movest on Fuel HP Averag Load FactoHours of A CO CO (tov) NOx (tov) CO2 (tov) SO2 (tov) PM10 (tov PM2.5 (tov VOC Exhaust (tov) 2027 Taxiways Asphalt Pla Asphalt Paver Pavers 175 Diese 2027 Taxiways Asphalt Pl; Dump Truck Off-highwa Diesel 600 0.59 33.60495 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000356 0.001663 7.03923 1.86E-05 0.000101 9.79E-05 0.000137 0.43 18.66125 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 2027 Taxiways Asphalt Pl: Other General Equipment Other Con: Diesel 0.00026 0.000775 0.830853 2.26E-06 6.32E-05 0.59 9.330625 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 9.89E-05 0.000462 1.954486 5.16E-06 2.8E-05 2.72E-05 3.81E-05 2027 Taxiways Asphalt Pl; Pickup Truck Off-highwa Diesel 600 2027 Taxiways Asphalt PlaRoller Rollers 100 Diesel 0.59 9.330625 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000103 0.000584 0.361742 9.63E-07 1.87E-05 1.81E-05 9.13E-06 2027 Taxiways Asphalt Pl; Skid Steer Loader Skid Steer Diesel 75 0.21 9.330625 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.000416 0.000599 0.112519 3.42E-07 5.46E-05 5.29E-05 7.77E-05 2027 Taxiways Asphalt PlaSurfacing Equipment (Grooving) 2027 Taxiways Clearing arChain Saw 11.9432 1.489019 3.762538 595.1512 0.002188 0.170468 0.165354 0.351665 0.000289 0.000731 0.11557 4.25E-07 3.31E-05 3.21E-05 6.83E-05 24 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 0.000501 0.000852 0.120953 4.45E-07 4.87E-05 4.72E-05 0.000171 25 0.59 0.7 Other Con: Diesel Other Con: Diesel 11 2027 Taxiways Clearing ar Chipper/Stump Grinder 2027 Taxiways Clearing ar Pickup Truck 100 0.43 24 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.000443 0.001343 0.678069 1.84E-06 6.76E-05 6.56E-05 3.98E-05 32 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000339 0.001584 6.703041 1.77E-05 9.61E-05 9.33E-05 0.000131 Other Con Diesel 600 0.59 Off-highwa Diese 2027 Taxiways Drainage - Dozer Crawler Tr Diesel 175 0.59 60.096 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000476 0.001548 3.671586 9.72F-06 0.000112 0.000109 7.58F-05 60.096 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000637 0.002974 12.58831 3.32E-05 0.000181 0.000175 0.000245 2027 Taxiways Drainage - Dump Truck Off-highwa Diese 2027 Taxiways Drainage - Excavator Excavators Diesel 175 0.59 60.096 0.059583 0.19603 536.8041 0.001417 0.013754 0.013341 0.009662 0.000408 0.001341 3.671622 9.69E-06 9.41E-05 9.13E-05 6.61E-05 60.096 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.004484 0.008401 4.282159 1.22E-05 0.001035 0.001004 0.001125 2027 Taxiways Drainage - Loader Tractors/L Diese 2027 Taxiways Drainage - Other General Equipment 60.096 0.167834 0.50092 536,7479 0.001458 0.040823 0.039598 0.028906 0.000837 0.002497 2.675648 Other Con: Diesel 175 0.43 7.27E-06 0.000203 0.000197 0.000144 60.096 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000637 0.002974 12.58831 3.32E-05 0.000181 0.000175 0.000245 2027 Taxiways Drainage - Pickup Truck Off-highwa Diesel 60.096 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000663 0.003763 2.329883 2027 Taxiways Drainage - Roller Rollers 100 Diesel 100 0.59 6.2E-06 0.00012 0.000117 5.88E-05 Off-highwa Diese 0.59 33.38667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000354 0.001652 6.993506 0.59 33.38667 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.002491 0.004667 2.378977 1.85E-05 0.0001 9.73E-05 0.000136 6.8E-06 0.000575 0.000558 0.000625 2027 Taxiways Drainage - Dump Truck 600 1.85F-05 175 Tractors/L Diesel 2027 Taxiways Drainage - Loader 2027 Taxiways Drainage - Other General Equipment Other Con:Diesel 175 0.43 33.38667 0.167834 0.5092 536.7479 0.001458 0.40823 0.039598 0.028906 0.000465 0.001387 1.486471 4.04E-06 0.000113 0.00011 8.01E-05 0.59 33.38667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.10454 0.000354 0.001652 6.993506 1.85E-05 0.00113 0.00011 8.01E-05 0.00013 0.00145 0.00136 0.001458 0.001458 0.000145 0.000454 0.000454 0.001652 6.993506 1.85E-05 0.00014 0.00136 0.00136 0.00136 0.00136 0.001458 2027 Taxiways Drainage - Pickup Truck Off-highwa Diese 2027 Taxiways Drainage - Tractors/Loader/Backhoe 0.21 33.38667 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.001234 0.001474 0.537395 1.54F-06 0.000175 0.000176 Tractors/LDiesel 100 Off-highw Diesel 2027 Taxiways Dust Contr Water Truck 600 2880 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.030539 0.142543 603.2737 0.001592 0.008653 0.008393 0.011749 2027 Taxiways Excavation Dozer Crawler Tr Diesel 175 0.59 41.46933 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000329 0.001068 2.533583 6.71E-06 7.74E-05 7.51E-05 5.23E-05 2027 Taxiways Excavation Dump Truck (12 cy) 0.59 41.46933 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 Off-highwa Diesel 0.00044 0.002052 8.686583 2.29E-05 0.000125 0.000121 0.000169 2027 Taxiways Excavation Pickup Truck Off-highwa Diesel 600 0.59 41.46933 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000044 0.002052 8.686583 2.29E-05 0.000125 0.000121 0.000169 Rollers 100 Diesel  $0.59 \ 19.13969 \ 0.169521 \ 0.962846 \ 596.1149 \ 0.001587 \ 0.030751 \ 0.029829 \ 0.01505 \ 0.000211 \ 0.001199 \ 0.742033$ 2027 Taxiways Excavation Roller 1.98E-06 3.83E-05 3.71E-05 1.87E-05 175 31.102 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000247 0.000801 1.900188 2027 Taxiways Excavation Dozer Crawler Tr Diesel 0.59 5.03E-06 5.81E-05 5.63E-05 3.92F-05 2027 Taxiways Excavation Dump Truck (12 cy)  $0.59 \ \, 82.93867 \ \, 0.027174 \ \, 0.126836 \ \, 536.7995 \ \, 0.001416 \ \, 0.007699 \ \, 0.007468 \ \, 0.010454 \ \, 0.000879 \ \, 0.004105 \ \, 17.37317 \ \, 0.000879 \ \, 0.00$ 4.58E-05 0.000249 0.000242 0.000338 Off-highwa Diesel 0.59 24.8816 0.059583 0.19603 536.8041 0.001417 0.013754 0.013341 0.009662 0.000169 0.00055 1.520165 4.01E-06 3.89E-05 3.78E-05 2.74E-05 175 2027 Taxiways Excavation Excavator Excavators Diesel Off-highwa Diesel 600 100 2027 Taxiways Excavation Pickup Truck 0.59 24.8816 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000264 0.001231 5.21195 1.38E-05 7.48E-05 7.25E-05 0.000102 Rollers 100 Diese 2.57E-06 4.98E-05 4.83E-05 2.44E-05 2027 Taxiways Excavation Roller 2027 Taxiways ExcavationScraper Scrapers6(Diesel 600 0.59 31.102 0.131479 0.345281 536.7629 0.001454 0.025045 0.024294 0.023055 0.001596 0.004191 6.514493 1.77E-05 0.000304 0.000295 0.00028 0.59 11.70902 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 9.28E-05 0.000302 0.715367 1.89E-06 2.19E-05 2.12E-05 1.48E-05 2027 Taxiways Excavation Dozer Crawler Tr Diesel 175 2027 Taxiways Fencing Concrete Truck Off-highwa Diesel 600 0.59 20.75556 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00022 0.001027 4.347667 1.15E-05 6.24E-05 6.05E-05 8.47E-05 600 175 2027 Taxiways Fencing 0.59 83.02222 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00088 0.004109 17.39067 4.59E-05 0.000249 0.000242 0.000339 Dump Truck Off-highw: Diesel Other General Equipment 2027 Taxiways Fencing Other Con: Diesel 0.43 83.02222 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.001156 0.00345 3.696389 1E-05 0.000281 0.000273 0.000199  $0.59 \quad 83.02222 \quad 0.027174 \quad 0.126836 \quad 536.7995 \quad 0.001416 \quad 0.007699 \quad 0.007468 \quad 0.010454 \quad 0.00088 \quad 0.004109 \quad 17.39067 \quad 4.59E-05 \quad 0.000249 \quad 0.000242 \quad 0.000339 \quad 0.001416 \quad 0.0$ 2027 Taxiways Fencing Pickup Truck Off-highwa Diesel Skid Steer Loader 75 0.21 83.02222 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.003701 0.005326 1.00117 2027 Taxiways Fencing Skid Steer Diesel 3.05E-06 0.000486 0.000471 0.000692 Tractors/LiDiesel 2027 Taxiways Fencing Tractors/Loader/Backhoe 100 0.21 83.02222 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.003069 0.003667 1.336333 3.82E-06 0.000436 0.000423 0.000438 9.5891 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 7.6E-05 0.000247 0.585849 2027 Taxiways Grading 175 1.55E-06 1.79E-05 1.74E-05 1.21E-05 Dozer Crawler Tr Diesel 0.59 9.5891 0.032003 0.140888 536.7963 0.001419 0.008755 0.008492 0.011426 5.99E-05 0.000264 1.004309 2.65E-06 1.64E-05 1.59E-05 2.14E-05 9.5891 0.169521 0.962846 596.1149 0.001587 0.303751 0.29829 0.01505 0.000106 0.00006 0.371763 9.9E-07 1.92E-05 1.86E-05 9.39E-06 2027 Taxiways Grading Grader Graders30 Diesel 300 0.59 2027 Taxiways Grading 100 Rollers 100 Diese 8.6388 0.400345 0.911359 536.6653 0.001534 0.064774 0.062831 0.056777 0.00135 0.003072 1.809117 5.175-06 0.000218 0.000212 0.000191 2027 Taxiways Hydroseec Hydroseeder Other Con Diesel 600 0.59 2027 Taxiways Hydroseec Off-Road Truck Off-highwa Diesel 600 8.6388 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 9.16E-05 0.000428 1.80957 4.78E-06 2.6E-05 2.52E-05 3.52E-05 2027 Taxiways Lighting Dump Truck Off-highwa Diesel 600 0.59 25.38667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000269 0.001256 5.317746 1.4E-05 7.63E-05 7.4E-05 0.000104 0.59 25.38667 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.001894 0.003549 1.808935 2027 Taxiways Lighting Loader Tractors/L Diesel 5.17E-06 0.000437 0.000424 0.000475 Other General Equipment 0.43 25.38667 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000353 0.001055 1.130288 3.07E-06 8.6E-05 8.34E-05 6.09E-05 2027 Taxiways Lighting Other Con:Diesel 175 2027 Taxiways Lighting Off-highwa Diesel 0.59 25.38667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000269 0.001256 5.317746 1.4E-05 7.63E-05 7 4F-05 0 000104 Pickup Truck 75 0.21 25.38667 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.001132 0.001629 0.306139 9.32E-07 0.000148 0.000144 0.000211 2027 Taxiways Lighting Skid Steer Loader Skid Steer Diesel 2027 Taxiways Lighting Tractors/Loader/Backhoe 100 0.21 25,38667 1.596653 1.90781 695,3356 0.00199 0.226892 0.220085 0.227907 0.000938 0.001121 0.408626 1.17F-06 0.000133 0.000129 0.000134 Tractors/L/Diesel 0.59 153.7097 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00163 0.007608 32.19758 2027 Taxiways Markings Flatbed Truck Off-highwa Diesel 8.5E-05 0.000462 0.000448 0.000627 600 2027 Taxiways Markings Other General Equipment Other Con Diesel 175 0.43 153.7097 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.00214 0.006387 6.843601 1.86F-05 0.00052 0.000505 0.000369 Off-highw: Diesel 0.59 153.7097 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00163 0.007608 32.19758 8.5E-05 0.000462 0.000448 0.000627 2027 Taxiways Markings Pickup Truck 600 2027 Taxiways Soil Erosio Other General Equipment Other Con Diesel 175 0.43 8 0.167834 0.50092 536 7479 0.001458 0.040823 0.039598 0.028906 0.000111 0.000332 0.356183 9.68E-07 2.71E-05 2.63E-05 1.92E-05 16 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00017 0.000792 3.351521 8.84E-06 4.81E-05 4.66E-05 6.53E-05 2027 Taxiways Soil Erosio Pickup Truck Off-highwa Diesel 2027 Taxiways Soil Erosio Pumps Other Con: Diesel 8 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 0.000103 0.000175 0.024767 9.11E-08 9.97E-06 9.67E-06 3.49E-05

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2027 Taxiways Soil Erosio Tractors/Loader/Backhoe
                                                      Tractors/L Diesel
                                                                                                    8 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.000296 0.000353 0.128769 3.68E-07
2027 Taxiways Subbase P Dozer
                                                      Crawler Tr Diesel
                                                                               175
                                                                                        0.59 15.71474 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000125 0.000405 0.960097 2.54E-06 2.93E-05 2.85E-05 1.98E-05
                                                                                        0.59 110.5867 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001173 0.005473 23.16459 6.11E-05 0.000332 0.000322
2027 Taxiways Subbase Pl Dump Truck (12 cy)
                                                       Off-highwa Diesel
2027 Taxiways Subbase Pi Pickup Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59 15.71474 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000167 0.000778 3.291766 8.69E-06 4.72E-05 4.58E-05 6.41E-05
                                                                                                                                                                                                      1.58E-06
2027 Taxiways Subbase P Rolle
                                                       Rollers100 Diesel
                                                                                        0.59 15.312 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000169 0.000959 0.593636 1.58E-06 3.06E-05 0.59 21.30933 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.00109 0.000549 1.301901 3.45E-06 3.98E-05
                                                                                                                                                                                                                        2.97E-05
2027 Taxiways Topsoil PlaDozer
                                                      Crawler Tr Diesel
                                                                               175
                                                                                                                                                                                                                        3.86E-05 2.69E-05
                                                                                        0.59 21.30933 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000226 0.001055 4.463667
                                                                                                                                                                                                                        6.21E-05 8.69E-05
2027 Taxiways Topsoil Pla Dump Truck
                                                       Off-highw: Diesel
                                                                                                                                                                                                      1.18E-05
                                                                                                                                                                                                                6.4E-05
                                                                                        0.59\ 21.30933\ 0.027174\ 0.126836\ 536.7995\ 0.001416\ 0.007699\ 0.007468\ 0.010454\ 0.000226\ 0.001055\ 4.463667
                                                                                                                                                                                                                6.4E-05
2027 Taxiways Topsoil PlaPickup Truck
                                                      Off-highwa Diese
                                                                               600
                                                                                                                                                                                                      1.18E-05
                                                                                                                                                                                                                        6.21E-05 8.69E-05
2027 Taxiways Asphalt Pl:Asphalt Paver
                                                                                        0.59 31.8615 0.083087 0.250139 536.7939 0.001426 0.020077 0.019475 0.012961 0.000301 0.000907 1.946572
                                                       Pavers175 Diesel
                                                                               175
                                                                                                                                                                                                      5 17F-06 7 28F-05 7 06F-05
                                                                                                                                                                                                                                   4 7F-05
                                                                                        0.59 114.7516 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001217 0.00568 24.03702
2027 Taxiways Asphalt Pl; Dump Truck
                                                      Off-highwa Diese
                                                                               600
                                                                                                                                                                                                      6.34E-05 0.000345 0.000334 0.000468
2027 Taxiways Asphalt Pl:Other General Equipment
                                                      Other Con Diesel
                                                                               175
                                                                                              63 723 0 167834 0 50092 536 7479 0 001458 0 040823 0 039598 0 028906 0 000887 0 002648 2 837132
                                                                                                                                                                                                     7 71F-06 0 000216 0 000209 0 000153
                                                                                        0.43
2027 Taxiways Asphalt Pli Pickup Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59
                                                                                              31.8615 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000338 0.001577
                                                                                                                                                                                             6.67403
                                                                                                                                                                                                      1.76E-05 9.57E-05
                                                                                                                                                                                                                        9.29E-05
                                                                                                                                                                                                                                   0.00013
2027 Taxiways Asphalt Pl; Roller
                                                      Rollers100 Diesel
                                                                               100
                                                                                        0.59
                                                                                              31.8615 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000351 0.001995 1.23525
                                                                                                                                                                                                     3.29F-06 6.37F-05 6.18F-05 3.12F-05
                                                                                              31.8615 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842
                                                                                                                                                                          0.00142 0.002044
2027 Taxiways Asphalt Pli Skid Steer Loader
                                                                                                                                                                                                      1.17E-06 0.000186 0.000181 0.000265
2027 Taxiways Asphalt Pl: Surfacing Equipment (Grooving)
                                                      Other Con Diese
                                                                                25
                                                                                        0.59 40.78272 1.489019 3.762538 595.1512 0.002188 0.170468 0.165354 0.351665 0.000987 0.002495 0.394641
                                                                                                                                                                                                      1.45E-06 0.000113 0.00011 0.000233
2027 Taxiways Clearing aıChain Saw
                                                                                11
                                                                                         0.7
                                                                                                 82.8 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 0.00173 0.00294 0.417288
                                                                                                                                                                                                      1.53E-06 0.000168 0.000163 0.000589
2027 Taxiways Clearing at Chipper/Stump Grinder
                                                      Other Con Diesel
                                                                               100
                                                                                        0.43
                                                                                                 82.8 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.001529 0.004634 2.339337
                                                                                                                                                                                                     6.36E-06 0.000233 0.000226 0.000137
                                                                                                110.4 \ 0.027174 \ 0.126836 \ 536.7995 \ 0.001416 \ 0.007699 \ 0.007468 \ 0.010454 \ 0.001171 \ 0.005464 \ 23.12549
2027 Taxiways Clearing ar Pickup Truck
                                                       Off-highwa Diese
                                                                               600
                                                                                                                                                                                                       6.1E-05 0.000332 0.000322
                                                                               100
                                                                                               84.964 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.001569 0.004755 2.400477
2027 Taxiways Concrete FAir Compressor
                                                      Other Con Diesel
                                                                                        0.43
                                                                                                                                                                                                     6.52E-06 0.000239 0.000232 0.000141
2027 Taxiways Concrete FConcrete Saws
                                                      Other Con Diese
                                                                                               84.964 0.281744 2.531371 595.8804 0.00157 0.021132 0.020498 0.092708 0.000623 0.005595 1.317081 3.47E-06 4.67E-05 4.53E-05 0.000205
                                                                                        0.59
                                                                                             354.0167 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.003754 0.017522 74.15588 0.000196 0.001064 0.001032 0.001444
2027 Taxiways Concrete F Concrete Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59
2027 Taxiways Concrete FOther General Equipment
                                                      Other Con Diesel
                                                                               175
                                                                                        n 43
                                                                                             169 928 0 167834 0 50092 536 7479 0 001458 0 040823 0 039598 0 028906 0 002366 0 007061 7 565686 2 065-05 0 000575 0 000558 0 000407
                                                                                              254.892 \ \ 0.027174 \ \ 0.126836 \ \ 536.7995 \ \ 0.001416 \ \ 0.007699 \ \ 0.007468 \ \ 0.010454 \ \ 0.002703 \ \ 0.012616 \ \ 53.39224 \ \ 0.000141 \ \ 0.000766 \ \ 0.000743
2027 Taxiways Concrete FPickup Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59
                                                                                                                                                                                                                                  0.00104
2027 Taxiways Concrete FRubber Tired Loader
                                                       Tractors/L Diesel
                                                                               175
                                                                                        0.59
                                                                                               84.964 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.006339 0.011878 6.054137 1.73E-05 0.001463 0.001419 0.00159
                                                                               175
                                                                                               84.964 0.083087 0.250139 536.7939 0.001426 0.020077 0.019475 0.012961 0.000803 0.002419 5.190857
2027 Taxiways Concrete FSlip Form Paver
                                                       Pavers175 Diese
                                                                                        0.59
                                                                                                                                                                                                      1.38E-05 0.000194 0.000188
2027 Taxiways Concrete FSurfacing Equipment (Grooving)
                                                      Other Con Diese
                                                                                25
                                                                                        0.59
                                                                                               84.964 1.489019 3.762538 595.1512 0.002188 0.170468 0.165354 0.351665 0.002057 0.005198 0.822168 3.02E-06 0.000235 0.000228 0.000486
2027 Taxiways Drainage - Dozer
                                                       Crawler Tr Diesel
                                                                               175
                                                                                              229.952 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.001823 0.005923
                                                                                                                                                                                             14.049
                                                                                                                                                                                                      3.72E-05 0.000429 0.000417
2027 Taxiways Drainage - Dump Truck
                                                      Off-highw; Diesel
                                                                               600
                                                                                        0.59
                                                                                             229.952 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.002438 0.011381 48.16805 0.000127 0.000691 0.00067 0.000638
                                                                               175
                                                                                              2027 Taxiways Drainage - Excavator
                                                       Excavators Diesel
                                                                                                                                                                                                               0.00396 0.003841 0.004303
                                                                               175
                                                                                              229.952 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.017157 0.032147 16.3853
2027 Taxiways Drainage - Loader
                                                       Tractors/L Diese
                                                                                        0.59
                                                                                                                                                                                                      4.68E-05
2027 Taxiways Drainage - Other General Equipment
                                                      Other Con Diesel
                                                                               175
                                                                                        0.43
                                                                                             229.952 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.003201 0.009555 10.23813 2.78E-05 0.000779 0.000755 0.000551
                                                                               600
                                                                                              229.952 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.002438 0.011381 48.16805 0.000127 0.000691 0.00067 0.000938
2027 Taxiways Drainage - Pickup Truck
                                                      Off-highwa Diesel
                                                                                        0.59
2027 Taxiways Drainage - Roller
                                                      Rollers100 Diesel
                                                                               100
                                                                                        0.59 229 952 0.169521 0.962846 596 1149 0.001587 0.030751 0.029829 0.01505 0.002535 0.0144 8.915089 2.37F-05 0.00046 0.00046 0.000225
                                                                                        0.59 127.7511 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001355 0.006323 26.76003
                                                                                                                                                                                                      7.06E-05 0.000384 0.000372 0.000521
2027 Taxiways Drainage - Dump Truck
                                                      Off-highwa Diesel
                                                                               600
2027 Taxiways Drainage - Loader
                                                       Tractors/L Diesel
                                                                               175
                                                                                        0.59 127.7511 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.009532 0.01786 9.102946
                                                                                                                                                                                                      2.6F-05 0.0022 0.002134 0.00239
                                                                                                                 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.001779 0.005308 5.687849
                                                                                                                                                                                                      1.55E-05 0.000433
2027 Taxiways Drainage - Other General Equipment
                                                       Other Con Diese
2027 Taxiways Drainage - Pickup Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59 127.7511 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001355 0.006323 26.76003 7.06E-05 0.000384 0.000372 0.000521
2027 Taxiways Drainage - Tractors/Loader/Backhoe
                                                       Tractors/L Diese
                                                                               100
                                                                                        0.21 127.7511 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.004722 0.005642 2.056293
                                                                                                                                                                                                      5.88E-06 0.000671 0.000651 0.000674
2027 Taxiways Dust Contr Water Truck
                                                      Off-highw; Diesel
                                                                               600
                                                                                        0.59
                                                                                                2880 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.030539 0.142543 603.2737 0.001592 0.008653 0.008393 0.011749
                                                                               175
                                                                                        0.59 141.6067 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.001122 0.003647 8.651509
                                                                                                                                                                                                     2.29F-05 0.000264 0.000257 0.000179
2027 Taxiways Excavation Dozen
                                                       Crawler Tr Diese
2027 Taxiways Excavation Dump Truck (12 cy)
                                                                                        0.59 141.6067 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001502 0.007009 29.66235
                                                                               600
                                                                                                                                                                                                      7.83E-05 0.000425 0.000413 0.000578
                                                      Off-highwa Diese
2027 Taxiways Excavation Pickup Truck
                                                                               600
                                                                                        0.59\ 141.6067\ 0.027174\ 0.126836\ 536.7995\ 0.001416\ 0.007699\ 0.007468\ 0.010454\ 0.001502\ 0.007009\ 29.66235\ 7.83E-05\ 0.000425\ 0.000413\ 0.000578
                                                      Off-highwa Diesel
                                                                                        0.59 65.35692 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000721 0.004093 2.533845
2027 Taxiways Excavation Roller
                                                       Rollers100 Diesel
                                                                               100
                                                                                                                                                                                                      6.75E-06 0.000131 0.000127
2027 Taxiways Excavation Dozen
                                                      Crawler Tr Diesel
                                                                               175
                                                                                        0.59 | 106.205 | 0.069639 | 0.226304 | 536.7988 | 0.001421 | 0.016409 | 0.015917 | 0.011077 | 0.000842 | 0.002735 | 6.488632 | 1.72F-05 | 0.000198 | 0.000192 | 0.000134
                                                                                        2027 Taxiways Excavation Dump Truck (12 cy)
                                                      Off-highwa Diesel
                                                                               600
2027 Taxiways Excavation Excavator
                                                       Excavators Diesel
                                                                               175
                                                                                              84 964 0.059583 0.19603 536 8041 0.001417 0.013754 0.013341 0.009662 0.000576 0.001896 5.190956 1.37F-05 0.000133 0.000129 9.34F-05
                                                                                        0.59
                                                                                               84.964 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000901 0.004205 17.79741
                                                                                                                                                                                                       4.7E-05 0.000255 0.000248 0.000347
2027 Taxiways Excavation Pickup Truck
                                                                               600
2027 Taxiways Excavation Roller
                                                                                              84.964 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000937 0.00532 3.293999 8.77E-06 0.00017 0.000165 8.32E-05
                                                      Rollers100 Diesel
                                                                               100
                                                                                        0.59
2027 Taxiways Excavation Scraper
                                                       Scrapers6( Diese
                                                                                              106.205 \ 0.131479 \ 0.345281 \ 536.7629 \ 0.001454 \ 0.025045 \ 0.024294 \ 0.023055 \ 0.005449
                                                                                                                                                                                   0.01431 22.24525 6.03E-05 0.001038 0.001007 0.000955
2027 Taxiwavs Excavation Dozer
                                                      Crawler Tr Diesel
                                                                               175
                                                                                        0.59 39.98306 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000317 0.00103 2.442779 6.47E-06 7.47E-05 7.24E-05 5.04E-05
                       Concrete Truck
                                                                                        0.59 79.73333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000845 0.003946 16.70174 4.41E-05 0.000232 0.000325 0.59 318.9333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00382 0.015785 66.80698 0.000176 0.000958 0.000929 0.001301
2027 Taxiways Fencing
                                                       Off-highw: Diesel
                                                                               600
2027 Taxiways Fencing
                       Dump Truck
                                                      Off-highwa Diese
                                                                               600
2027 Taxiways Fencing
                       Other General Equipment
                                                                               175
                                                                                        0.43 318.9333 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.00444 0.013252 14.19983 3.86E-05 0.00108 0.001048 0.000765
                                                      Other Con Diese
                                                                                        0.59 318.9333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.003382 0.015785 66.80698 0.000176 0.000958 0.000929 0.001301
2027 Taxiways Fencing
                       Pickup Truck
                                                      Off-highwa Diesel
                                                                               600
2027 Taxiways Fencing
                       Skid Steer Loader
                                                       Skid Steer Diesel
                                                                                75
                                                                                        0.21 318,9333 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.014219 0.020461 3.846036 1.17E-05 0.001865 0.001809 0.002657
2027 Taxiways Fencing
                       Tractors/Loader/Backhoe
                                                       Tractors/L Diese
                                                                               100
                                                                                        0.21 318.9333 1.596653
                                                                                                                1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.011788 0.014085 5.133578
                                                                                                                                                                                                      1.47E-05 0.001675 0.001625 0.001683
2027 Taxiways Grading Dozer
                                                      Crawler Tr Diesel
                                                                               175
                                                                                        0.59 33.5011 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000266 0.000863 2.046761 5.42F-06 6.26F-05 6.07F-05 4.22F-05
                                                                                              33.5011 0.032003 0.140888 536.7963 0.001419 0.008755 0.008492 0.011426 0.000209 0.000921 3.508717
                                                                                                                                                                                                      9.27E-06 5.72E-05
2027 Taxiways Grading
2027 Taxiways Grading Roller
                                                      Rollers100 Diesel
                                                                               100
                                                                                        0.59
                                                                                             33,5011 0.169521 0.962846 596,1149 0.001587 0.030751 0.029829 0.01505 0.000369 0.002098 1,298816 3.46E-06
                                                                                                                                                                                                               6.7E-05
                                                                                                                                                                                                                         6.5E-05 3.28E-05
2027 Taxiways Hydroseec Hydroseeder
                                                                                              30.1812 0.400345 0.911359 536.6653 0.001534 0.064774 0.062831 0.056727 0.004715 0.010733 6.320477
                                                                                                                                                                                                      1.81E-05 0.000763
                                                                                                                                                                                                                         0.00074 0.000668
2027 Taxiways Hydroseec Off-Road Truck
                                                      Off-highw; Diesel
                                                                               600
                                                                                        0.59
                                                                                              30.1812 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00032 0.001494 6.322057
                                                                                                                                                                                                      1.67E-05 9.07E-05
                                                                                                                                                                                                                         8.8E-05 0.000123
                                                                                        0.59 96.10667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001019 0.004757 20.13147
                                                                                                                                                                                                      5.31E-05 0.000289
                                                                                                                                                                                                                         0.00028 0.000392
2027 Taxiways Lighting
                       Dump Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59 96.10667 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.007171 0.013436 6.848111
2027 Taxiways Lighting Loader
                                                      Tractors/L Diese
                                                                               175
                                                                                                                                                                                                      1.96E-05 0.001655 0.001605 0.001798
2027 Taxiways Lighting
                       Other General Equipment
                                                       Other Con Diese
                                                                               175
                                                                                        0.43 96.10667 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.001338 0.003993 4.278947 0.59 96.10667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001019 0.004757 20.13147
                                                                                                                                                                                                      1 16E-05 0 000325 0 000316
                                                                                                                                                                                                                                  0.00023
2027 Taxiways Lighting
                       Pickup Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                                                                                                                                      5.31E-05 0.000289 0.00028 0.000392
2027 Taxiways Lighting
                       Skid Steer Loader
                                                      Skid Steer Diesel
                                                                                75
                                                                                        0.21 96,10667 2.567846 3.695226 694,5866 0.002114 0.33683 0.326726 0.479842 0.004285 0.006166 1.158956
                                                                                                                                                                                                     3.53E-06 0.000562 0.000545 0.000801
                       Tractors/Loader/Backhoe
                                                                                        0.21 96.10667 1.596653
                                                                                                                1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.003552 0.004244 1.546941
                                                                                                                                                                                                      4.43E-06 0.000505
                                                                                                                                                                                                                        0.00049 0.000507
2027 Taxiways Lighting
                                                       Tractors/L Diesel
                                                                               100
2027 Taxiways Markings Flathed Truck
                                                      Off-highw; Diesel
                                                                               600
                                                                                        0.59 524.8731 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.005566 0.025978 109.9452
                                                                                                                                                                                                      0.00029 0.001577 0.00153 0.002141
                                                                               175
                                                                                        0.43 524.8731 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.007307 0.021809 23.36887
2027 Taxiways Markings Other General Equipment
                                                                                                                                                                                                      6.35E-05 0.001777 0.001724 0.001259
2027 Taxiways Markings Pickup Truck
                                                      Off-highw; Diesel
                                                                               600
                                                                                        0.59 524.8731 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.005566 0.025978 109.9452
                                                                                                                                                                                                      0.00029 0.001577 0.00153 0.002141
                                                                                                 27.6 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000384 0.001147 1.228832
2027 Taxiways Soil Erosio Other General Equipment
                                                                                                                                                                                                      3.34E-06 9.35E-05
                                                                                                                                                                                                                         9.07E-05
2027 Taxiways Soil Erosio Pickup Truck
                                                      Off-highw; Diesel
                                                                               600
                                                                                        0.59
                                                                                                 55.2 0.027174 0.126836 536,7995 0.001416 0.007699 0.007468 0.010454 0.000585 0.002732 11.56275 3.05E-05 0.000166 0.000161 0.000225
                                                                                                 27.6 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 0.000354 0.000602 0.085445
2027 Taxiways Soil Erosio Pumps
                                                       Other Con Diesel
                                                                                11
                                                                                                                                                                                                      3.14E-07 3.44E-05 3.34E-05 0.000121
2027 Taxiways Soil Erosio Tractors/Loader/Backhoe
                                                       Tractors/L Diese
                                                                               100
                                                                                        0.21
                                                                                                 27.6 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.00102 0.001219 0.444252
                                                                                                                                                                                                      1.27E-06 0.000145 0.000141 0.000146
2027 Taxiways Subbase P Dozer
                                                                               175
                                                                                        0.59 53.66147 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000425 0.001382 3.278466
                                                                                                                                                                                                      8 68F-06
                                                                                                                                                                                                                 0.0001 9.72E-05 6.77E-05
                                                       Crawler Tr Diesel
                                                                                        0.59 377.6178 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.004004 0.01869 79.09961 0.000209 0.001135
2027 Taxiways Subbase Pl Dump Truck (12 cy)
                                                      Off-highwa Diesel
                                                                               600
                                                                                                                                                                                                                          0.0011
2027 Taxiways Subbase P Pickup Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59 53.66147 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000569 0.002656 11.24047 2.97E-05 0.000161 0.000156 0.000219
2027 Taxiways Subbase P Roller
                                                       Rollers100 Diese
                                                                                        0.59 52.28554 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000576 0.003274 2.027076
                                                                                                                                                                                                       5.4E-06 0.000105 0.000101 5.12E-05
                                                                               100
2027 Taxiways Topsoil PlaDozer
                                                       Crawler Tr Diesel
                                                                               175
                                                                                        0.59 74.44667 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.00059 0.001917 4.548345
                                                                                                                                                                                                       1.2F-05 0.000139 0.000135 9.39F-05
                                                                                        0.59 74.44667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000789 0.003685 15.59435
2027 Taxiways Topsoil Pla Dump Truck
                                                       Off-highw: Diese
                                                                                                                                                                                                      4.11E-05 0.000224 0.000217
2027 Taxiways Topsoil PlaPickup Truck
                                                      Off-highwa Diesel
                                                                               600
                                                                                        0.59 74.44667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000789 0.003685 15.59435 4.11E-05 0.000224 0.000217 0.000304
                                                                                        0.59 123.0507 0.059583 0.19603 536.8041 0.001417 0.013754 0.013341 0.009662 0.000834 0.002745 7.517897
2027 Demolitior Concrete [ Excavator with Bucket
                                                       Excavators Diesel
                                                                                                                                                                                                     1.99E-05 0.000193 0.000187 0.000135
2027 DemolitiorConcrete [Excavator with Hoe Ram
                                                      Excavators Diesel
                                                                               175
                                                                                        0.59 123.0507 0.059583 0.19603 536.8041 0.001417 0.013754 0.013341 0.009662 0.000834 0.002745 7.517897
                                                                                                                                                                                                      1.99E-05 0.000193 0.000187 0.000135
                                                                                        0.59\ \ 246.1013\ \ 0.027174\ \ 0.126836\ \ 536.7995\ \ 0.001416\ \ 0.007699\ \ 0.007468\ \ 0.010454\ \ \ \ 0.00261\ \ 0.012181\ \ 51.55085\ \ 0.000136\ \ 0.000739\ \ 0.000717\ \ 0.001004
2027 DemolitiorConcrete [Pickup Truck
                                                      Off-highwa Diesel
```

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2027 Apron (GA Asphalt Pl: Asphalt Paver
                                                                Pavers175 Diese
                                                                                                              10.6915 \quad 0.083087 \quad 0.250139 \quad 536.7939 \quad 0.001426 \quad 0.020077 \quad 0.019475 \quad 0.012961 \quad 0.000101 \quad 0.000304 \quad 0.653195 \quad 1.74E-06 \quad 2.44E-05 \quad 2.37E-05 \quad 1.58E-05 \quad 0.085087 \quad
2027 Apron (GA Asphalt Pl; Dump Truck
                                                                Off-highw; Diesel
                                                                                             600
                                                                                                       0.59 38.50625 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000408 0.001906 8.065905 2.13E-05 0.000116 0.000112 0.000157
2027 Apron (GA Asphalt Pl: Other General Equipment
                                                                Other Con Diese
                                                                                             175
                                                                                                               21.383 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000298 0.000888 0.952033
                                                                                                                                                                                                                                         2.59E-06
                                                                                                                                                                                                                                                   7.24E-05
2027 Apron (GA Asphalt Pl; Pickup Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59
                                                                                                              10.6915 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000113 0.000529 2.239549 5.91E-06 3.21E-05
                                                                                                                                                                                                                                                               3.12E-05
                                                                                                                                                                                                                                                                          4.36F-05
2027 Apron (GA Asphalt Pli Rolle
                                                                 Rollers100 Diese
                                                                                             100
                                                                                                              10.6915 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000118 0.00067 0.414502 10.6915 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.000477 0.000686 0.128929
                                                                                                                                                                                                                                          1.1E-06
                                                                                                                                                                                                                                                   2 14F-05
                                                                                                                                                                                                                                                               2.07E-05
2027 Apron (GA Asphalt Pli Skid Steer Loader
                                                                Skid Steer Diesel
                                                                                              75
                                                                                                       0.21
                                                                                                                                                                                                                                         3.92E-07
                                                                                                                                                                                                                                                   6.25E-05
                                                                                                                                                                                                                                                               6.06E-05 8.91E-05
                                                                                                             13.68512 1.489019 3.762538 595.1512 0.002188 0.170468 0.165354 0.351665 0.000331 0.000837 0.132426 4.87E-07 22.8 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 0.000476 0.00081 0.114905 4.22E-07
2027 Apron (GA Asphalt Pl: Surfacing Equipment (Grooving)
                                                                                              25
11
                                                                                                                                                                                                                                                   3.79E-05
                                                                                                                                                                                                                                                               3.68E-05
                                                                Other Con Diesel
                                                                                                       0.59
                                                                                                                                                                                                                                                                         7.82E-05
2027 Apron (GA Clearing at Chain Saw
                                                                Other Con Diesel
                                                                                                        0.7
                                                                                                                                                                                                                                                   4.62E-05
                                                                                                                                                                                                                                                               4.49E-05 0.000162
2027 Apron (GA Clearing at Chipper/Stump Grinder
                                                                Other Con Diesel
                                                                                             100
600
                                                                                                       0.43
                                                                                                                  22.8 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.000421 0.001276 0.644165 1.75E-06 6.43E-05
                                                                                                                                                                                                                                                               6 23F-05 3 78F-05
                                                                                                                   30.4 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000322 0.001505 6.367889
2027 Apron (GA Clearing at Pickup Truck
                                                                Off-highwa Diese
                                                                                                       0.59
                                                                                                                                                                                                                                         1.68E-05 9.13E-05
                                                                                                                                                                                                                                                               8.86E-05 0.000124
2027 Apron (GA Concrete FAir Compressor
                                                                Other Con Diese
                                                                                             100
                                                                                                       n 43
                                                                                                              28 5104 0 389666 1 180819 596 0566 0 00162 0 059454 0 05767 0 03496 0 000527 0 001596 0 805501
                                                                                                                                                                                                                                         2 19F-06 8 03F-05
                                                                                                                                                                                                                                                               7 79F-05 4 72F-05
                                                                                                              28.5104 0.281744 2.531371 595.8804
2027 Apron (GA Concrete F Concrete Saws
                                                                Other Con Diesel
                                                                                              40
                                                                                                       0.59
                                                                                                                                                           0.00157 0.021132 0.020498 0.092708 0.000209 0.001877 0.441958
                                                                                                                                                                                                                                         1.16E-06
                                                                                                                                                                                                                                                   1.57E-05
                                                                                                                                                                                                                                                               1.52E-05
                                                                                                                                                                                                                                                                          6.88E-05
2027 Apron (GA Concrete F Concrete Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59 118.7933 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00126 0.00588 24.88364
                                                                                                                                                                                                                                         6.57F-05 0.000357 0.000346 0.000485
                                                                                             175
                                                                                                                                    0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000794 0.002369 2.538731
2027 Apron (GA Concrete FOther General Equipment
                                                                Other Con Diese
                                                                                                                                                                                                                                          6.9E-06 0.000193 0.000187
2027 Apron (GA Concrete F Pickup Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59
                                                                                                              85.5312 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000907 0.004233 17.91622 4.73E-05 0.000257 0.000249 0.000349
2027 Apron (GA Concrete FRubber Tired Loader
                                                                Tractors/L Diesel
                                                                                             175
                                                                                                       0.59
                                                                                                              5.81E-06 0.000491 0.000476 0.000533
2027 Apron (GA Concrete FSlip Form Paver
                                                                Pavers175 Diese
                                                                                             175
                                                                                                       0.59
                                                                                                              28.5104 0.083087 0.250139 536.7939 0.001426 0.020077 0.019475 0.012961 0.00027 0.000812 1.741837
                                                                                                                                                                                                                                         4.63E-06 6.51E-05 6.32E-05 4.21E-05
                                                                                            25
175
                                                                                                              28.5104 1.489019 3.762538 595.1512 0.002188 0.170468 0.165354 0.351665 0.00069 0.001744 0.275886  
11.328 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 8.98E-05 0.000292 0.692088
                                                                                                                                                                                                                                         1.01E-06
2027 Apron (GA Concrete FSurfacing Equipment (Grooving)
                                                                Other Con Diesel
                                                                                                                                                                                                                                                     7.9E-05
                                                                                                                                                                                                                                                               7.67E-05 0.000163
                                                                                                                                                                                                                                         1.83E-06 2.12E-05 2.05E-05 1.43E-05
2027 Apron (GA Drainage - Dozer
                                                                Crawler Tr Diesel
                                                                                                       0.59
2027 Apron (GA Drainage - Dump Truck
                                                                                            600
175
                                                                                                                11.328 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454
                                                                                                                                                                                                       0.00012 0.000561 2.372877 6.26E-06
                                                                                                                                                                                                                                                   3.4E-05
1.77E-05
                                                                                                                                                                                                                                                               3.3E-05 4.62E-05
1.72E-05 1.25E-05
                                                                Off-highwa Diesel
                                                                                                       0.59
                                                                                                                11.328 0.059583 0.19603 536.8041 0.001417 0.013754 0.013341 0.009662
                                                                                                                                                                                                       7.68E-05 0.000253 0.692095
2027 Apron (GA Drainage - Excavator
                                                                Excavators Diesel
                                                                                                       0.59
                                                                                                                                                                                                                                         1.83E-06
2027 Apron (GA Drainage - Loader
                                                                Tractors/L Diesel
                                                                                             175
                                                                                                       n 59
                                                                                                                11 328 0 655566 1 228319 626 0668 0 00179 0 151301 0 146762 0 164407 0 000845 0 001584 0 80718
                                                                                                                                                                                                                                         2 315-06 0 000195 0 000189 0 000212
                                                                                                                11.328 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000158 0.000471 0.504355
2027 Apron (GA Drainage - Other General Equipment
                                                                                             175
                                                                                                                                                                                                                                         1.37E-06 3.84E-05
                                                                                                                                                                                                                                                               3.72E-05 2.72E-05
                                                                Other Con Diesel
                                                                                                       0.43
2027 Apron (GA Drainage - Pickup Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59
                                                                                                                11.328 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00012 0.000561 2.372877
                                                                                                                                                                                                                                         6.26F-06
                                                                                                                                                                                                                                                    3.4F-05
                                                                                                                                                                                                                                                                3.3F-05 4.62F-05
                                                                                                                11.328 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000125 0.000709 0.439179
                                                                                                                                                                                                                                                    2.27E-05
                                                                                                                                                                                                                                                                 2.2E-05
2027 Apron (GA Drainage - Roller
                                                                Rollers100 Diese
                                                                                             100
                                                                                                                                                                                                                                         1.17E-06
2027 Apron (GA Drainage - Dump Truck
                                                                Off-highwa Diese
                                                                                             600
                                                                                                       0.59 6.293333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 6.67E-05 0.000311 1.318265
                                                                                                                                                                                                                                         3.48E-06 1.89E-05
                                                                                                                                                                                                                                                               1.83E-05 2.57E-05
2027 Apron (GA Drainage - Loader
                                                                Tractors/L Diesel
                                                                                             175
                                                                                                       0.59 6.293333 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407
                                                                                                                                                                                                       0.00047 0.00088 0.448433
                                                                                                                                                                                                                                         1.28E-06 0.000108 0.000105
                                                                                                                                                                                                                                                                         0.000118
2027 Apron (GA Drainage - Other General Equipment
                                                                Other Con Diesel
                                                                                             175
                                                                                                       0.43 6.293333 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 8.76E-05 0.000261 0.280197
                                                                                                                                                                                                                                         7.61E-07 2.13E-05 2.07E-05 1.51E-05
                                                                                                       0.59 6.293333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 6.67E-05 0.000311 1.318265
                                                                                                                                                                                                                                         3.48E-06
2027 Apron (GA Drainage - Pickup Truck
                                                                Off-highw: Diesel
                                                                                             600
                                                                                                                                                                                                                                                   1.89E-05
                                                                                                                                                                                                                                                               1.83E-05 2.57E-05
2027 Apron (GA Drainage - Tractors/Loader/Backhoe
                                                                                                       0.21 6.293333 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.000233 0.000278 0.101298
                                                                                                                                                                                                                                          2.9E-07
                                                                                                                                                                                                                                                   3.31E-05
                                                                Tractors/L Diesel
                                                                                             100
                                                                                                                                                                                                                                                               3.21E-05
                                                                                                                                                                                                                                                                          3.32E-05
2027 Apron (GA Dust Contr Water Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                                2880 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.030539 0.142543 603.2737 0.001592 0.008653 0.008393 0.011749
2027 Apron (GA Excavation Dozer
                                                                                             175
                                                                                                       0.59\ \ 47.51733\ \ 0.069639\ \ 0.226304\ \ 536.7988\ \ 0.001421\ \ 0.016409\ \ 0.015917\ \ 0.011077\ \ 0.000377\ \ 0.001224\ \ 2.903088
                                                                Crawler Tr Diesel
                                                                                                                                                                                                                                         7.69E-06 8.87E-05 8.61E-05 5.99E-05
2027 Apron (GA Excavation Dump Truck (12 cv)
                                                                Off-highw: Diesel
                                                                                             600
                                                                                                       0.59, 47.51733, 0.027174, 0.126836, 536.7995, 0.001416, 0.007699, 0.007468, 0.010454, 0.000504, 0.002352, 9.953457
                                                                                                                                                                                                                                        2 63E-05 0 000143 0 000138 0 000194
2027 Apron (GA Excavation Pickup Truck
                                                                                                       0.59 47.51733 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000504 0.002352 9.953457
                                                                                                                                                                                                                                         2.63E-05 0.000143 0.000138 0.000194
                                                                Off-highwa Diesel
                                                                                             600
2027 Apron (GA Excavation Roller
                                                                Rollers100 Diesel
                                                                                             100
                                                                                                       0.59 21.93108 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000242 0.001373 0.850254
                                                                                                                                                                                                                                        2.26F-06 4.39F-05 4.25F-05 2.15F-05
                                                                                             175
                                                                                                                35.638 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000282 0.000918 2.177316
2027 Apron (GA Excavation Doze
                                                                Crawler Tr Diese
2027 Apron (GA Excavation Dump Truck (12 cy)
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59 95.03467 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001008 0.004704 19.90691 5.25E-05 0.000286 0.000277 0.000388
2027 Apron (GA Excavation Excavator
                                                                Excavators Diese
                                                                                             175
                                                                                                              4.6E-06 4.46E-05 4.33E-05 3.14E-05
2027 Apron (GA Excavation Pickup Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59
                                                                                                              28.5104 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000302 0.001411 5.972074
                                                                                                                                                                                                                                         1.58E-05 8.57E-05 8.31E-05 0.000116
2027 Apron (GA Excavation Roller
                                                                                                              28.5104 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000314 0.001785 1.10533 35.638 0.131479 0.345281 536.7629 0.001454 0.025045 0.024294 0.023055 0.001828 0.004802 7.464584
                                                                                             100
                                                                                                                                                                                                                                         2.94E-06
                                                                Rollers100 Diesel
                                                                                                                                                                                                                                                     5.7E-05
                                                                                                                                                                                                                                                               5.53E-05 2.79E-05
2027 Apron (GA Excavation Scraper
                                                                                                                                                                                                                                         2.02E-05 0.000348 0.000338 0.000321
                                                                Scrapers6(Diesel
                                                                                             600
                                                                                                       0.59
2027 Apron (GA Excavation Dozer
                                                                Crawler Tr Diesel
                                                                                             175
                                                                                                       2027 Apron (GA Fencing Concrete Truck
                                                                                                       0.59 3.822222 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 4.05E-05 0.000189 0.800641
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                                                                                                                                                         2.11E-06
                                                                                                                                                                                                                                                   1.15E-05
                                                                                                                                                                                                                                                               1.11E-05
2027 Apron (GA Fencing
                           Dump Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59 15 28889 0.027174 0.126836 536 7995 0.001416 0.007699 0.007468 0.010454 0.000162 0.000757 3.202564 8.45E-06 4.59E-05
                                                                                                                                                                                                                                                               4 46F-05 6 24F-05
2027 Apron (GA Fencing
                                                                                             175
                                                                                                       0.43 15.28889 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000213 0.000635 0.680706
                                                                                                                                                                                                                                         1.85E-06 5.18E-05
                                                                                                                                                                                                                                                               5.02E-05 3.67E-05
                           Other General Equipment
                                                                Other Con Diesel
2027 Apron (GA Fencing
                           Pickup Truck
Skid Steer Loader
                                                                Off-highw; Diesel
                                                                                             600
                                                                                                       0.59 15.28889 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000162 0.000757 3.202564 8.45F-06 4.59F-05 4.46F-05 6.24F-05
                                                                                              75
                                                                                                       0.21 15.28889 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.000682 0.000981 0.18437
                                                                                                                                                                                                                                         5.61E-07 8.94E-05
2027 Apron (GA Fencing
                                                                                                                                                                                                                                                               8.67E-05
                                                                                                       0.21 15.28889 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.000565 0.000675 0.246091
2027 Apron (GA Fencing
                           Tractors/Loader/Backhoe
                                                                Tractors/L Diesel
                                                                                             100
                                                                                                                                                                                                                                        7.04E-07 8.03E-05
                                                                                                                                                                                                                                                               7.79E-05 8.07E-05
2027 Apron (GA Grading
                                                                Crawler Tr Diese
                                                                                             175
                                                                                                                1.49E-06
                                                                                                                                                                                                                                                   1.72E-05
                                                                                                                                                                                                                                                               1.67E-05
                           Dozei
2027 Apron (GA Grading Grader
                                                                Graders30 Diesel
                                                                                             300
                                                                                                       0.59
                                                                                                                9.1948 0.032003 0.140888 536.7963 0.001419 0.008755 0.008492 0.011426 5.74E-05 0.000253 0.963012
                                                                                                                                                                                                                                        2.55E-06 1.57E-05
                                                                                                                                                                                                                                                               1.52E-05 2.05E-05
2027 Apron (GA Grading
                                                                                                               9.1948 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000101 0.000576 0.356476 8.2836 0.400345 0.911359 536.6653 0.001534 0.064774 0.062831 0.056727 0.001294 0.002946 1.734732
                                                                                                                                                                                                                                                               1.78E-05
                                                                                             100
                                                                                                                                                                                                                                         9.49F-07
                                                                                                                                                                                                                                                   1.84E-05
                           Roller
                                                                Rollers 100 Diesel
2027 Apron (GA Hydroseec Hydroseeder
                                                                                                                                                                                                                                         4.96E-06 0.000209
                                                                                                                                                                                                                                                               0.000203 0.000183
                                                                Other Con Diesel
                                                                                             600
                                                                                                       0.59
2027 Apron (GA Hydroseec Off-Road Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                                8.2836 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 8.78E-05 0.00041 1.735166 4.58E-06 2.49E-05 2.41E-05 3.38E-05
                                                                                                       0.59
                                                                                             600
                                                                                                       0.59 7.573333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 8.03E-05 0.000375 1.586386
2027 Apron (GA Lighting Dump Truck
                                                                Off-highwa Diesel
                                                                                                                                                                                                                                        4.19E-06 2.28E-05 2.21E-05
                                                                                                                                                                                                                                                                          3.09E-05
2027 Apron (GA Lighting
                           Loader
                                                                Tractors/L Diesel
                                                                                             175
                                                                                                       0.59 7.573333 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.000565 0.001059 0.53964 1.54E-06
                                                                                                                                                                                                                                                    0.00013 0.000127 0.000142
2027 Apron (GA Lighting
                           Other General Equipment
                                                                Other Con Diese
                                                                                             175
                                                                                                                                    0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000105 0.000315 0.337187
                                                                                                                                                                                                                                         9.16E-07
                                                                                                                                                                                                                                                    2.56E-05
                                                                                                                                                                                                                                                               2.49E-05
                                                                                                                                                                                                                                                                          1.82E-05
2027 Apron (GA Lighting
                           Pickup Truck
                                                                Off-highw: Diese
                                                                                             600
                                                                                                       0.59 7.573333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 8.03F-05 0.000375 1.586386
                                                                                                                                                                                                                                        4.19E-06 2.28E-05 2.21E-05 3.09E-05
                                                                                              75
                                                                                                       0.21 7.573333 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.000338 0.000486 0.091327
2027 Apron (GA Lighting
                           Skid Steer Loader
                                                                                                                                                                                                                                        2.78E-07
                                                                                                                                                                                                                                                   4.43E-05
2027 Apron (GA Lighting
                           Tractors/Loader/Backhoe
                                                                Tractors/L Diesel
                                                                                             100
                                                                                                       0.21 7.573333 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.00028 0.000334 0.121901
                                                                                                                                                                                                                                        3.49E-07 3.98E-05 3.86E-05
                                                                                                                                                                                                                                                                             4E-05
2027 Apron (GA Markings Flatbed Truck
                                                                Off-highwa Diese
                                                                                                              176.128 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001868 0.008717 36.89354
                                                                                                                                                                                                                                         9.74E-05
                                                                                                                                                                                                                                                   0.000529 0.000513
2027 Apron (GA Markings Other General Equipment
                                                                Other Con Diesel
                                                                                             175
                                                                                                       0.43
                                                                                                              176.128 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.002452 0.007318 7.841728
                                                                                                                                                                                                                                         2.13E-05 0.000596 0.000579 0.000422
2027 Apron (GA Markings Pickup Truck
                                                                                                              176.128 \  \, 0.027174 \  \, 0.126836 \  \, 536.7995 \  \, 0.001416 \  \, 0.007699 \  \, 0.007468 \  \, 0.010454 \  \, 0.001868 \  \, 0.008717 \  \, 36.89354
                                                                                                                                                                                                                                         9.74E-05 0.000529 0.000513 0.000719
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                       0.59 22.80853 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000242 0.001129 4.777704
2027 Apron (GA Sealing/Fu Distributing Tanker
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                                                                                                                                                         1.26E-05 6.85E-05 6.65E-05
                                                                                                                                                                                                                                                                           9.3E-05
2027 Apron (GA Sealing/Fu Other General Equipment
                                                                Other Con Diese
                                                                                             175
                                                                                                       0.43 22,80853 0.167834 0.50092 536,7479 0.001458 0.040823 0.039598 0.028906 0.000318 0.000948 1.015502
                                                                                                                                                                                                                                         2.76E-06
                                                                                                                                                                                                                                                   7.72E-05
                                                                                                                                                                                                                                                               7.49E-05 5.47E-05
                                                                                                       0.59 22.80853 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000242 0.001129 4.777704
                                                                                                                                                                                                                                                   6.85E-05
2027 Apron (GA Sealing/Fu Pickup Truck
                                                                Off-highwa Diesel
                                                                                             600
                                                                                                                                                                                                                                         1.26E-05
                                                                                                                                                                                                                                                               6.65E-05
                                                                                                                                                                                                                                                                           9.3E-05
2027 Apron (GA Soil Erosio Other General Equipment
                                                                Other Con Diesel
                                                                                             175
                                                                                                       0.43
                                                                                                                   7.6 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000106 0.000316 0.338374
                                                                                                                                                                                                                                         9.19E-07 2.57E-05
                                                                                                                                                                                                                                                               2.5E-05 1.82E-05
2027 Apron (GA Soil Erosio Pickup Truck
                                                                Off-highwa Diesel
                                                                                                                   15.2 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000161 0.000752 3.183945
                                                                                                                                                                                                                                          8.4E-06
                                                                                                                                                                                                                                                   4.57E-05
                                                                                                                                                                                                                                                               4.43E-05
                                                                                             600
                                                                                                       0.59
                                                                                                                                                                                                                                                                           6.2E-05
2027 Apron (GA Soil Frosio Pumps
                                                                Other Con Diesel
                                                                                              11
                                                                                                                   7.6 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 9.75F-05 0.000166 0.023528 8.65F-08
                                                                                                                                                                                                                                                   9.47F-06
                                                                                                                                                                                                                                                               9.19F-06
                                                                                                                                                                                                                                                                          3.32F-05
                                                                                                       0.43
                                                                                             100
                                                                                                                    7.6 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.000281 0.000336 0.12233
                                                                                                                                                                                                                                          3.5E-07
                                                                                                                                                                                                                                                   3.99E-05
                                                                                                                                                                                                                                                               3.87E-05
2027 Apron (GA Soil Erosio Tractors/Loader/Backhoe
                                                                Tractors/L Diese
2027 Apron (GA Subbase P Dozer
                                                                Crawler Tr Diesel
                                                                                             175
                                                                                                       0.59 18,00674 0.069639 0.226304 536,7988 0.001421 0.016409 0.015917 0.011077 0.000143 0.000464 1.100128 2.91E-06 3.36E-05
                                                                                                                                                                                                                                                               3.26E-05 2.27E-05
                                                                                                       0.59 126.7156 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001344 0.006272 26.54311
2027 Apron (GA Subbase Pl Dump Truck (12 cy)
                                                                                                                                                                                                                                                   0.000381
                                                                                                                                                                                                                                                               0.000369
2027 Apron (GA Subbase Pi Pickup Truck
                                                                Off-highwa Diese
                                                                                             600
                                                                                                       0.59 18.00674 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000191 0.000891 3.771872 9.95E-06 5.41E-05
                                                                                                                                                                                                                                                               5.25E-05 7.35E-05
                                                                                                       0.59 17.54523 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000193 0.001099 0.680217
2027 Apron (GA Subbase P Roller
                                                                Rollers100 Diese
                                                                                             100
                                                                                                                                                                                                                                         1.81E-06
                                                                                                                                                                                                                                                   3.51E-05
                                                                                                                                                                                                                                                                 3.4E-05
                                                                                                                                                                                                                                                                          1.72E-05
2027 Apron (GA Topsoil Pla Dozer
                                                                Crawler Tr Diesel
                                                                                             175
                                                                                                       0.59 20.43333 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000162 0.000526 1.248382
                                                                                                                                                                                                                                         3.31E-06
                                                                                                                                                                                                                                                   3.82E-05
                                                                                                                                                                                                                                                                 3.7E-05
                                                                                                                                                                                                                                                                          2.58E-05
2027 Apron (GA Topsoil Pla Dump Truck
                                                                Off-highw: Diesel
                                                                                             600
600
                                                                                                       0.59 20.43333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000217 0.001011 4.280171
                                                                                                                                                                                                                                         1 13F-05
                                                                                                                                                                                                                                                   6 14F-05
                                                                                                                                                                                                                                                               5 95F-05 8 34F-05
                                                                                                       0.59 20.43333 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000217 0.001011 4.280171
2027 Apron (GA Topsoil Pla Pickup Truck
                                                                Off-highwa Diesel
                                                                                                                                                                                                                                         1.13E-05
                                                                                                                                                                                                                                                   6.14E-05
                                                                                                                                                                                                                                                               5.95E-05 8.34E-05
2027 Building - : Concrete FBackhoe
                                                                Tractors/L Diesel
                                                                                             100
                                                                                                       0.21
                                                                                                                   320 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.011827 0.014132 5.150748
                                                                                                                                                                                                                                         1.47E-05 0.001681
                                                                                                                                                                                                                                                               0.00163 0.001688
2027 Building - : Concrete F Concrete Ready Mix Trucks
                                                                                                                    60 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000636
                                                                                                                                                                                                                  0.00297
                                                                                                                                                                                                                              12.5682
                                                                                                                                                                                                                                         3.32E-05
                                                                                                                                                                                                                                                    0.00018
                                                                                                                                                                                                                                                               0.000175 0.000245
                                                                Off-highwa Diese
                                                                                             600
                                                                                                       0.59
2027 Building - Concrete FFork Truck
                                                                Other Con Diesel
                                                                                             100
                                                                                                       0.59
                                                                                                                   320 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.00811 0.024575 12.40498
                                                                                                                                                                                                                                         3.37F-05 0.001237
                                                                                                                                                                                                                                                                 0.0012 0.000728
                                                                                                                                                          0.001416 0.007699 0.007468 0.010454 0.000848
2027 Building - : Concrete FTool Truck
                                                                 Off-highw: Diese
                                                                                                                                                                                                                              16.7576
                                                                                                                                                                                                                                                               0.000233
2027 Building - : Concrete FTractor Trailer- Material Delivery
                                                                Off-highwa Diese
                                                                                             600
                                                                                                       0.59
                                                                                                                     16 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00017 0.000792 3.351521 8.84E-06
                                                                                                                                                                                                                                                    4.81E-05 4.66E-05 6.53E-05
                                                                                                                     10 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000106 0.000495
2027 Building - : Constructi Survey Crew Trucks
                                                                                             600
                                                                                                       0.59
                                                                                                                                                                                                                               2.0947
                                                                                                                                                                                                                                         5.53E-06
                                                                                                                                                                                                                                                               2.91E-05 4.08E-05
2027 Building - : Constructi Tractor Trailers Temp Fac.
                                                                Off-highw; Diesel
                                                                                             600
                                                                                                       0.59
                                                                                                                     4 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 4.24E-05 0.000198 0.83788 2.21E-06
                                                                                                                                                                                                                                                     1.2E-05
                                                                                                                                                                                                                                                               1.17E-05 1.63E-05
2027 Building - : Exterior W Fork Truck
                                                                                             100
                                                                                                       0.59
                                                                                                                   240 0.389666 1.180819 596.0566
                                                                                                                                                          0.000928
                                                                                                                                                                                                                                                                 0.0009 0.000546
```

```
2027 Building - :Exterior W Man Lift
                                                       Rough Ter Diesel
                                                                                         0.21
                                                                                                   240 0.350514 2.628267 595.9461 0.001613 0.036999 0.035889 0.069204 0.001461 0.010951 2.483164 6.72E-06 0.000154
                                                                                                                                                                                                                           0.00015 0.000288
2027 Building - : Exterior W Tool Truck
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59
                                                                                                    60 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000636 0.00297 12.5682 3.32E-05 0.00018 0.000175 0.000245
                                                                                                    24 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000254 0.001188 5.027281
2027 Building - : Exterior W Tractor Trailer- Material Delivery
                                                       Off-highwa Diese
                                                                                         0.59
                                                                                                                                                                                                                 7.21E-05 6.99E-05 9.79E-05
2027 Building - :Interior Bu Fork Truck
                                                       Other Con Diesel
                                                                                100
                                                                                         0.59
                                                                                                   960 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.024329 0.073725 37.21494 0.000101 0.003712 0.003601 0.002183
2027 Building - :Interior Bu Man Lift
                                                                                         0.21
                                                                                                   960 0.350514 2.628267 595.9461 0.001613 0.03699 0.035889 0.069204 0.005842 0.043805 9.932654 2.69E-05 0.000617 120 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001272 0.005939 25.1364 6.63E-05 0.000361
                                                                                                                                                                                                                 0.000617 0.000598
2027 Building - :Interior BuTool Truck
                                                       Off-highwa Diese
                                                                                600
                                                                                         0.59
                                                                                                                                                                                                                           0.00035
                                                                                                                                                                                                                                     0.00049
                                                                                                   120 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.001272 0.005939 25.1364 6.63E-05 0.000361
                                                                                                                                                                                                                            0.00035
2027 Building - Interior BuTractor Trailer- Material Delivery
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                                                                                                                                                     0.00049
                                                                                         0.59
                                                                                                   120 0.296993 1.083208 596.0803 0.001606 0.047198 0.045782 0.026655 0.002318 0.008454 4.652052 1.25E-05 0.000368
2027 Building - : Roofing High Lift
                                                       Rough Ter Diese
                                                                                100
                                                                                                                                                                                                                           0.000357 0.000208
2027 Building - : Roofing
                       Man Lift (Fascia Construction)
                                                       Rough Ter Diesel
                                                                                 75
                                                                                         0.21
                                                                                                   120 0.350514 2.628267 595.9461 0.001613 0.036999 0.035889 0.069204 0.00073 0.005476 1.241582 3.36E-06 7.71E-05 7.48E-05 0.000144
                                                                                600
                                                                                                     8 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 8.48E-05 0.000396 1.67576 4.42E-06
2027 Building - : Roofing Material Deliveries
                                                       Off-highwa Diesel
                                                                                         0.59
                                                                                                                                                                                                                  2.4E-05 2.33E-05 3.26E-05
                       Tractor Trailer- Material Delivery
2027 Building - : Roofing
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                    12 0 027174 0 126836 536 7995 0 001416 0 007699 0 007468 0 010454 0 000127 0 000594
                                                                                                                                                                                              2 51364 6 63F-06 3 61F-05
                                                                                                                                                                                                                            3 5F-05
                                                                                                                                                                                                                                     4 9F-05
2027 Building - : Security & High Lift
                                                       Rough Ter Diesel
                                                                                100
                                                                                         0.59
                                                                                                   320 0.296993 1.083208 596.0803 0.001606 0.047198 0.045782 0.026655 0.006181 0.022543 12.40547
                                                                                                                                                                                                        3.34E-05
                                                                                                                                                                                                                 0.000982
                                                                                                                                                                                                                           0.000953
2027 Building - : Security & Tool Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                    80 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000848 0.00396 16.7576 4.42E-05 0.00024 0.000233 0.000326
                                                       Cranes300 Diesel
                                                                                                   240 0.052989 0.225446 530.9934 0.001419 0.012453 0.01208 0.016841 0.001808 0.007694
2027 Building - : Structural 40 Ton Crane
                                                                                300
                                                                                                                                                                                                                 0.000425 0.000412 0.000575
2027 Building - : Structural Fork Truck
                                                       Other Con Diesel
                                                                                100
                                                                                         0.59
                                                                                                   120 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.003041 0.009216 4.651867 1.26E-05 0.000464 0.00045 0.000273
2027 Building - Structural Tool Truck
                                                       Off-highw: Diesel
                                                                                600
                                                                                         0.59
                                                                                                    60 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000636 0.00297 12.5682
                                                                                                                                                                                                        3.32E-05
                                                                                                                                                                                                                  0.00018 0.000175 0.000245
2027 Building - : Structural Tractor Trailer- Steel Deliveries
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59
                                                                                                    16 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.00017 0.000792 3.351521 8.84E-06 4.81E-05 4.66E-05 6.53E-05
                                                                                               2.24775 0.083087 0.250139 536.7939 0.001426 0.020077 0.019475 0.012961 2.13E-05
                                                                                175
                                                                                                                                                                                                        3.65E-07
                                                                                                                                                                                                                           4.98E-06
2027 Access Roa Asphalt Plasphalt Paver
                                                       Pavers175 Diesel
                                                                                                                                                                                      6.4E-05 0.137326
                                                                                                                                                                                                                 5.14E-06
                                                                                         0.59 8.095442 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 8.58E-05 0.000401 1.695752
                                                                                600
                                                                                                                                                                                                        4.47E-06 2.43E-05 2.36E-05
2027 Access Ro: Asphalt Pl: Dump Truck
                                                       Off-highwa Diesel
                                                                                                                                                                                                                                      3.3E-05
2027 Access Ro: Asphalt Pl: Other General Equipment
                                                                                175
                                                                                                4.4955 0.167834 0.50092 536,7479 0.001458 0.040823 0.039598 0.028906 6.26E-05 0.000187 0.200153 5.44E-07 1.52E-05 1.48E-05 1.08E-05
                                                       Other Con Diesel
                                                                                         0.43
                                                                                               2.24775 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 2.38E-05 0.000111 0.470836
2027 Access Roa Asphalt PlaPickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                                                                                                                        1.24E-06 6.75E-06
                                                                                                                                                                                                                           6.55E-06
                                                                                                                                                                                                                                     9.17F-06
2027 Access Ro: Asphalt Pl: Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         n 59
                                                                                               2 24775 0 169521 0 962846 596 1149 0 001587 0 030751 0 029829 0 01505 2 48F-05 0 000141 0 087144 2 32F-07
                                                                                                                                                                                                                 4 5F-06
                                                                                                                                                                                                                           4 36F-06
                                                                                                                                                                                                                                      2 2F-06
                                                                                               2.24775 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842
2027 Access Ro: Asphalt Pl: Skid Steer Loader
                                                                                                                                                                             0.0001 0.000144 0.027106 8.25E-08
                                                                                                                                                                                                                 1.31E-05
                                                                                                                                                                                                                           1.28E-05
                                                       Skid Steer Diesel
                                                                                 75
                                                                                                                                                                                                                                     1.87E-05
                                                                                         0.21
2027 Access Ro: Asphalt Pl: Surfacing Equipment (Grooving)
                                                       Other Con Diesel
                                                                                 25
11
                                                                                         0.59
                                                                                              2.87712 1.489019 3.762538 595.1512 0.002188 0.170468 0.165354 0.351665 6.97F-05 0.000176 0.027841 1.02F-07
                                                                                                                                                                                                                 7.97F-06
                                                                                                                                                                                                                           7.74F-06
                                                                                                                                                                                                                                     1.65F-05
                                                                                                     6 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 0.000125 0.000213 0.030238
2027 Access Roa Clearing at Chain Saw
                                                                                          0.7
                                                                                                                                                                                                        1.11E-07
                                                                                                                                                                                                                  1.22E-05
                                                                                                                                                                                                                            1.18E-05
2027 Access Roa Clearing at Chipper/Stump Grinder
                                                       Other Con Diesel
                                                                                100
                                                                                         0.43
                                                                                                     6 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.000111 0.000336 0.169517 4.61E-07
                                                                                                                                                                                                                 1.69E-05
                                                                                                                                                                                                                           1.64E-05 9.94E-06
2027 Access Roa Clearing at Pickup Truck
                                                       Off-highw: Diesel
                                                                                600
                                                                                         0.59
                                                                                                     8 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 8.48E-05 0.000396 1.67576
                                                                                                                                                                                                        4.42E-06
                                                                                                                                                                                                                   2.4E-05
                                                                                                                                                                                                                           2.33E-05
                                                                                                                                                                                                                                     3.26E-05
2027 Access Ro: Concrete FAir Compressor
                                                       Other Con Diesel
                                                                                100
                                                                                         0.43
                                                                                                5.9944 0.389666 1.180819 596.0566 0.00162 0.059454 0.05767 0.03496 0.000111 0.000336 0.169359
                                                                                                                                                                                                         4.6E-07
                                                                                                                                                                                                                  1.69E-05
                                                                                                                                                                                                                           1.64E-05 9.93E-06
                                                                                              5.9944 0.281744 2.531371 595.8804 0.00157 0.021132 0.020498 0.092708 4.39E-05 0.000395 0.092923 2.45E-07 24.97667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000265 0.001236 5.231863 1.38E-05
                                                                                 40
                                                                                                                                                                                                                  3.3E-06
7.5E-05
                                                                                                                                                                                                                             3.2E-06
2027 Access Roa Concrete F Concrete Saws
                                                       Other Con Diesel
                                                                                         0.59
                                                                                                                                                                                                                                     1.45E-05
                                                                                600
                                                                                         0.59
2027 Access Ro: Concrete F Concrete Truck
                                                       Off-highwa Diesel
                                                                                                                                                                                                                            7.28E-05 0.000102
2027 Access Roa Concrete F Other General Equipment
                                                       Other Con Diesel
                                                                                175
                                                                                         0.43
                                                                                              11.9888 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000167 0.000498 0.533776 1.45E-06 4.06E-05
                                                                                                                                                                                                                           3.94F-05 2.87F-05
                                                                                               17.9832 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000191 0.00089 3.766942
                                                                                                                                                                                                        9.94E-06
                                                                                                                                                                                                                   5.4E-05
                                                                                                                                                                                                                           5.24E-05
2027 Access Roa Concrete F Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                                                                                                                                                     7.34E-05
2027 Access Ro: Concrete FRubber Tired Loader
                                                       Tractors/L Diesel
                                                                                175
                                                                                         n 59
                                                                                                5 9944 0 655566 1 228319 626 0668 0 00179 0 151301 0 146762 0 164407 0 000447 0 000838 0 427133 1 22F-06 0 000103
                                                                                                                                                                                                                             0.0001 0.000112
                                                       Pavers175 Diesel
                                                                                175
                                                                                                5.9944 0.083087 0.250139 536.7939 0.001426 0.020077 0.019475 0.012961 5.67E-05 0.000171 0.366227
                                                                                                                                                                                                        9.73E-07
2027 Access Roa Concrete FSlip Form Paver
                                                                                         0.59
                                                                                                                                                                                                                 1.37E-05
                                                                                                                                                                                                                           1.33E-05 8.84E-06
2027 Access Roa Concrete F Surfacing Equipment (Grooving)
                                                       Other Con Diesel
                                                                                 25
                                                                                         0.59
                                                                                                5.9944 1.489019 3.762538 595.1512 0.002188 0.170468 0.165354 0.351665 0.000145 0.000367 0.058006
                                                                                                                                                                                                        2.13F-07 1.66F-05
                                                                                                                                                                                                                           1.61F-05 3.43F-05
                                                                                600
                                                                                                  21.6 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000229 0.001069 4.524553
                                                                                                                                                                                                                  6.49E-05
2027 Access Roa Curbing Concrete Truck
                                                       Off-highwa Diesel
                                                                                         0.59
                                                                                                                                                                                                                           6.29E-05
2027 Access Roa Curbing Curb/Gutter Paver
                                                       Pavers175 Diesel
                                                                                175
                                                                                         0.59
                                                                                                  21.6 0.083087 0.250139 536.7939 0.001426 0.020077 0.019475 0.012961 0.000204 0.000615 1.319647
                                                                                                                                                                                                        3.51E-06 4.94E-05
                                                                                                                                                                                                                           4.79E-05 3.19E-05
2027 Access Roa Curbing
                       Other General Equipment
                                                       Other Con Diese
                                                                                175
                                                                                         0.43
                                                                                                   21.6 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000301 0.000898 0.961694
                                                                                                                                                                                                        2.61E-06
                                                                                                                                                                                                                 7.31E-05
                                                                                                                                                                                                                           7.09E-05
2027 Access Ro: Curbing Pickup Truck
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59
                                                                                                  21.6 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000229 0.001069 4.524553
                                                                                                                                                                                                        1.19E-05 6.49E-05
                                                                                                                                                                                                                           6.29E-05 8.81E-05
2027 Access Roa Drainage - Dozer
                                                                                175
                                                                                                   17.6 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 0.000139 0.000453 1.075278
                                                                                                                                                                                                                 3.29E-05
                                                       Crawler Tr Diesel
                                                                                                                                                                                                        2.85E-06
                                                                                                                                                                                                                           3.19E-05
                                                                                                                                                                                                                                     2.22E-05
                                                                                                   17.6 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000187 0.000871 3.686673
2027 Access Roa Drainage - Dump Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                                                                                                                        9.73E-06 5.29E-05
                                                                                                                                                                                                                           5.13E-05
                                                                                                                                                                                                                                     7.18E-05
2027 Access Roa Drainage - Excavator
                                                                                175
                                                                                                  17.6 0.059583 0.19603 536.8041 0.001417 0.013754 0.013341 0.009662 0.000119 0.000393 1.075289 2.84E-06 2.76E-05 2.67E-05 1.94E-05
                                                       Excavators Diesel
                                                                                         0.59
                                                                                                   17.6 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.001313 0.00246 1.254094
2027 Access Roa Drainage - Loader
                                                       Tractors/L Diesel
                                                                                175
                                                                                         0.59
                                                                                                                                                                                                        3.59E-06 0.000303 0.000294 0.000329
2027 Access Ro: Drainage - Other General Equipment
                                                       Other Con Diesel
                                                                                175
                                                                                         n 43
                                                                                                  17.6 0 167834 0 50092 536 7479 0 001458 0 040823 0 039598 0 028906 0 000245 0 000731 0 783603 2 13E-06 5 96E-05 5 78E-05 4 22E-05
2027 Access Roa Drainage - Pickup Truck
                                                                                                   17.6 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000187 0.000871 3.686673
                                                       Off-highwa Diesel
                                                                                600
                                                                                                                                                                                                        9.73E-06 5.29E-05
                                                                                                                                                                                                                           5.13E-05
                                                                                         0.59
                                                                                                                                                                                                                                     7.18E-05
2027 Access Ro; Drainage - Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59
                                                                                                  17.6 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 0.000194 0.001102 0.682341
                                                                                                                                                                                                        1.82F-06 3.52F-05 3.41F-05 1.72F-05
                                                                                         0.59 9.777778 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000104 0.000484 2.048151
                                                                                                                                                                                                                 2.94E-05
                                                                                                                                                                                                                           2.85E-05
2027 Access Roa Drainage - Dump Truck
                                                       Off-highwa Diese
                                                                                600
                                                                                         0.59 9.777778 0.655566 1.228319 626.0668 0.00179 0.151301 0.146762 0.164407 0.00073 0.001367 0.696719
2027 Access Ro; Drainage - Loader
                                                       Tractors/L Diesel
                                                                                175
                                                                                                                                                                                                        1.99E-06 0.000168 0.000163 0.000183
2027 Access Roa Drainage - Other General Equipment
                                                                                         0.43 9.777778 0.167834
                                                                                                                 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000136 0.000406 0.435335
                                                                                                                                                                                                                 3.31E-05
                                                                                                                                                                                                                           3.21E-05
2027 Access Ro: Drainage - Pickup Truck
                                                       Off-highwa Diese
                                                                                600
                                                                                         0.59 9.777778 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000104 0.000484 2.048151
                                                                                                                                                                                                         5.4E-06 2.94E-05 2.85E-05 3.99E-05
2027 Access Roa Drainage - Tractors/Loader/Backhoe
                                                       Tractors/L Diesel
                                                                                100
                                                                                         0.21 9.777778 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.000361 0.000432 0.157384
                                                                                                                                                                                                         4.5F-07
                                                                                                                                                                                                                 5.14E-05 4.98E-05
                                                                                                                                                                                                                                     5.16F-05
                                                                                                 2160 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.022905 0.106907 452.4553 0.001194 0.006489 0.006295 0.008812
2027 Access Ro: Dust Contr Water Truck
                                                       Off-highwa Diesel
                                                                                600
2027 Access Ro: Excavation Dozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59 9.990667 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 7.92E-05 0.000257 0.610383 1.62E-06 1.87E-05 1.81E-05 1.26E-05
2027 Access Ro: Excavation Dump Truck (12 cy)
                                                                                         Off-highwa Diesel
                                                                                600
                                                                                                                                                                                                                    3E-05
                                                                                                                                                                                                                           2.91E-05 4.08E-05
2027 Access Roa Excavation Pickup Truck
                                                       Off-highw: Diese
                                                                                600
                                                                                         0.59 9.990667 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000106 0.000494 2.092745 5.52E-06
                                                                                                                                                                                                                     3E-05
                                                                                                                                                                                                                           2 91F-05 4 08F-05
2027 Access Roa Excavation Roller
                                                       Rollers100 Diese
                                                                                100
                                                                                         0.59 4.611077 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 5.08E-05 0.000289 0.178768
                                                                                                                                                                                                        4.76E-07
                                                                                                                                                                                                                  9.22E-06
                                                                                                                                                                                                                           8.95E-06 4.51E-06
2027 Access Ro: Excavation Dozen
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59
                                                                                                 7.493 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 5.94F-05 0.000193 0.457787 1.21F-06
                                                                                                                                                                                                                   1.4E-05
                                                                                                                                                                                                                           1.36F-05 9.45F-06
                                                                                         0.59 19.98133 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000212 0.000989 4.185491
                                                                                                                                                                                                                           5.82E-05
2027 Access Roz Excavation Dump Truck (12 cy)
                                                       Off-highwa Diese
                                                                                600
2027 Access Ro: Excavation Excavator
                                                       Excavators Diesel
                                                                                175
                                                                                         0.59
                                                                                                5.9944 0.059583 0.19603 536.8041 0.001417 0.013754 0.013341 0.009662 4.07E-05 0.000134 0.366234
                                                                                                                                                                                                        9.67E-07
                                                                                                                                                                                                                 9.38E-06
                                                                                                                                                                                                                            9.1E-06 6.59E-06
2027 Access Roa Excavation Pickup Truck
                                                                                                5.9944 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 6.36E-05 0.000297 1.255647
                                                                                                                                                                                                                  1.8E-05
                                                                                                                                                                                                                           1.75E-05
                                                                                                                                                                                                                                    2.45E-05
2027 Access Ro: Excavation Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59
                                                                                                5.9944 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 6.61E-05 0.000375 0.232399
                                                                                                                                                                                                        6.19E-07
                                                                                                                                                                                                                   1.2E-05
                                                                                                                                                                                                                           1.16E-05
                                                                                                                                                                                                                                     5.87E-06
2027 Access Roa Excavation Scraper
                                                                                                 7.493 \ \ 0.131479 \ \ 0.345281 \ \ 536.7629 \ \ 0.001454 \ \ 0.025045 \ \ \ 0.024294 \ \ \ 0.023055 \ \ \ 0.000384 \ \ \ \ \ 0.00101 \ \ 1.569452 \ \ \ 4.25E-06
                                                                                                                                                                                                                  7.32E-05
                                                                                                                                                                                                                            7.1E-05
                                                       Scrapers6( Diesel
                                                                                600
                                                                                                                                                                                                                                     6.74F-05
                                                                                         0.59 2.820706 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 2.24E-05 7.27E-05 0.172332 4.56E-07
2027 Access Roa Excavation Dozer
                                                       Crawler Tr Diese
                                                                                175
                                                                                                                                                                                                                 5.27E-06
                                                                                                                                                                                                                           5.11E-06 3.56E-06
2027 Access Roa Fencing
                       Concrete Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                                     6 0.027174 0.126836 536,7995 0.001416 0.007699 0.007468 0.010454 6.36E-05 0.000297 1.25682 3.32E-06
                                                                                                                                                                                                                  1.8E-05
                                                                                                                                                                                                                           1.75E-05 2.45E-05
                                                                                         0.59
                                                                                                    24 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000254 0.001188 5.027281
                                                                                                                                                                                                                  7.21E-05
2027 Access Roa Fencing
                       Dump Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                                                                                                                        1.33E-05
                                                                                                                                                                                                                           6.99E-05
                                                                                                                                                                                                                                     9.79E-05
2027 Access Roa Fencing
                       Other General Equipment
                                                       Other Con Diesel
                                                                                175
                                                                                         0.43
                                                                                                    24 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000334 0.000997 1.068549
                                                                                                                                                                                                         2.9E-06 8.13E-05
                                                                                                                                                                                                                           7.88E-05 5.75E-05
                                                       Off-highwa Diesel
                                                                                                    24 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000254 0.001188 5.027281
                                                                                                                                                                                                        1.33E-05
                                                                                                                                                                                                                 7.21E-05
                                                                                                                                                                                                                           6.99E-05 9.79E-05
2027 Access Roa Fencing
                                                                                600
                                                                                         0.59
                       Pickup Truck
2027 Access Ro: Fencing
                       Skid Steer Loader
                                                       Skid Steer Diesel
                                                                                 75
                                                                                         0.21
                                                                                                    24 2.567846 3.695226 694.5866 0.002114 0.33683 0.326726 0.479842 0.00107 0.00154 0.289417 8.81F-07
                                                                                                                                                                                                                 0.00014 0.000136
                                                                                                                                                                                                                                      0.0002
                                                                                100
                                                                                                                 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.000887
                                                                                                                                                                                     0.00106 0.386306
2027 Access Roa Fencing
                       Tractors/Loader/Backhoe
                                                       Tractors/L Diese
                                                                                         0.21
                                                                                                                                                                                                        1.11E-06
                                                                                                                                                                                                                 0.000126 0.000122
2027 Access Ro: Grading Dozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59
                                                                                                 2.442 0.069639 0.226304 536.7988 0.001421 0.016409 0.015917 0.011077 1.94E-05 6.29E-05 0.149195 3.95E-07 4.56E-06 4.42E-06 3.08E-06
                                                                                                 2.442 0.032003 0.140888 536.7963 0.001419 0.008755 0.008492 0.011426 1.52E-05 6.71E-05 0.255761
2027 Access Roa Grading
                                                       Graders30 Diese
                                                                                                                                                                                                        6.76E-07 4.17E-06
                                                                                                                                                                                                                           4.05E-06
2027 Access Roa Grading Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59
                                                                                                 2.442 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505 2.69E-05 0.000153 0.094675 2.52E-07 4.88E-06 4.74E-06 2.39E-06
                                                                                                   2.2 0.400345 0.911359 536.6653 0.001534 0.064774 0.062831 0.056727 0.000344 0.000782 0.460719
2027 Access Ro: Hydroseec Hydroseede
                                                       Other Con Diesel
                                                                                600
                                                                                         0.59
                                                                                                                                                                                                        1.32E-06 5.56E-05 5.39E-05 4.87E-05
2027 Access Ro: Hydroseec Off-Road Truck
                                                       Off-highwa Diese
                                                                                600
                                                                                         0.59
                                                                                                    2.2 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 2.33E-05 0.000109 0.460834
                                                                                                                                                                                                        1.22E-06 6.61E-06
                                                                                                                                                                                                                           6.41E-06 8.97E-06
2027 Access Roa Markings Flatbed Truck
                                                                                600
                                                                                         0.59 37.02857 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000393 0.001833 7.756376
                                                                                                                                                                                                        2.05E-05..0.000111..0.000108..0.000151
                                                       Off-highwa Diesel
2027 Access Roa Markings Other General Equipment
                                                                                175
                                                                                         0.43 37.02857 0.167834 0.50092 536.7479 0.001458 0.040823 0.039598 0.028906 0.000516 0.001539 1.648619
                                                                                                                                                                                                        4.48E-06 0.000125 0.000122 8.88E-05
                                                       Other Con Diesel
2027 Access Ro; Markings Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59 37.02857 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000393 0.001833 7.756376 2.05E-05 0.000111 0.000108 0.000151
2027 Access RoaSidewalks Concrete Truck
                                                       Off-highwa Diesel
                                                                                                   43.2 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000458 0.002138 9.049105
                                                                                                                                                                                                        2.39E-05
                                                                                                                                                                                                                  0.00013 0.000126 0.000176
                                                                                600
                                                                                         0.59
2027 Access Ro; Sidewalks Dump Truck
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59
                                                                                                  43.2 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000458 0.002138 9.049105
                                                                                                                                                                                                        2.39F-05
                                                                                                                                                                                                                  0.00013 0.000126 0.000176
                                                                                                   43.2 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 0.000458 0.002138 9.049105
                                                                                                                                                                                                                   0.00013 0.000126 0.000176
                                                        Off-highw: Diese
2027 Access Ro: Sidewalks Tractors/Loader/Backhoe
                                                       Tractors/L Diesel
                                                                                100
                                                                                         0.21
                                                                                                  43.2 1.596653 1.90781 695.3356 0.00199 0.226892 0.220085 0.227907 0.001597 0.001908 0.695351
                                                                                                                                                                                                        1.99E-06 0.000227 0.00022 0.000228
                                                                                                   43.2 2.507486 4.187553 587.9918 0.002162 0.250004 0.242504 0.830112 0.000308 0.000514 0.072241
2027 Access RoaSidewalks Vibratory Compactor
                                                                                                                                                                                                        2.66E-07
                                                                                                                                                                                                                 3.07E-05 2.98E-05 0.000102
2027 Access Roa Soil Erosio Other General Equipment
                                                       Other Con Diesel
                                                                                175
                                                                                         0.43
                                                                                                     2 0.167834 0.50092 536,7479 0.001458 0.040823 0.039598 0.028906 2.78E-05 8.31E-05 0.089046 2.42E-07 6.77E-06 6.57E-06
                                                                                                                                                                                                                                     4.8E-06
                                                                                                     4 0.027174 0.126836 536.7995 0.001416 0.007699 0.007468 0.010454 4.24E-05 0.000198 0.83788 2.21E-06
2027 Access Roa Soil Erosio Pickup Truck
                                                       Off-highwa Diesel
                                                                                         0.59
                                                                                                                                                                                                                  1.2E-05 1.17E-05 1.63E-05
```

.74E-06	.06E-05	.87E-05	000269	.45E-05	.87E-05	0.00012	7.6E-05	.77E-06	0.000109	.54E-05	.61E-06	6.84E-06	.21E-05	.21E-05	0	0	0	0	126745
2.49E-06 2.42E-06 8.74E-06	1.05E-05 1.02E-05 1.06E-05	4.2E-05 5.87E-05	0.000248 0.000241 0.000269	4.88E-05 4.73E-05 3.45E-05	4.2E-05 5.87E-05	8.17E-05 (	7.34E-05	7.07E-06 6.86E-06 4.77E-06	8E-05 7.76E-05 0.	1.1E-05 1.54E-05	7.16E-06 3.61E-06	9.83E-06 6	1.63E-05 1.58E-05 2.21E-05	3E-06 1.63E-05 1.58E-05 2.21E-05	0	0	0	0	1.66963 4601.215 0.012187 0.108542 0.105286 0.126745
2.49E-06	1.05E-05	4.33E-05	0.000248	4.88E-05	4.33E-05	8.42E-05 8	7.56E-05	7.07E-06	8E-05	1.14E-05	7.38E-06	1.01E-05 9.83E-06	1.63E-05	1.63E-05	0	0	0	0	0.108542 0
	9.21E-08	7.96E-06	2.93E-06 (	1.74E-06	7.96E-06	5.28E-07	6.63E-07	6.12E-07	1.47E-05	2.09E-06	3.81E-07	8.78E-07	3E-06	3E-06	0	0	0	0	0.012187
0.006192	8.83E-05 0.032192	3.016368	1.026077	0.64113	3.016368	0.17365	0.231784	0.231288	5.580282	0.792987	0.143005	0.00014 0.331544	1.136724	1.136724	0	0	0	0	4601.215
4.36E-05	8.83E-05	0.000713	0.002013	0.0002 0.000598	0.000713	0.000924	0.000636	3E-05 9.75E-05 0.231288	0.001319	4.01E-05 0.000187 0.792987	4.07E-05 0.000231 0.143005	0.00014	5.75E-05 0.000269 1.136724	5.75E-05 0.000269 1.136724	0	0	0	0	1.66963
2.57E-05	7.39E-05	0.000153	0.001074		0.000153	0.000642	0.000532		0.000282			4.3E-05		5.75E-05	0	0	0	0	0.483455
5 0.837797	5 0.227907	8 0.010454	2 0.164407	8 0.028906	8 0.010454	6 0.479842	5 0.227907	7 0.011077	8 0.010454	8 0.010454	9 0.01505	7 0.011077	8 0.010454	8 0.010454	8 0.010454	8 0.028906	8 0.010454	5 0.227907	Totals
2 2.461074 4.183513 593.7557 0.002183 0.238964 0.231795 0.837797 2.57E-05 4.36E-05 0.006192 2.28E-08	0.00199 0.226892 0.220085 0.227907 7.39E-05	536.7995 0.001416 0.007699 0.007468 0.010454 0.000153 0.000713 3.016368	0.00179 0.151301 0.146762 0.164407 0.001074 0.002013 1.026077	536.7479 0.001458 0.040823 0.039598 0.028906	536.7995 0.001416 0.007699 0.007468 0.010454 0.000153 0.000713 3.016368	694.5866 0.002114 0.33683 0.326726 0.479842 0.000642 0.000924 0.17365	695.3356 0.00199 0.226892 0.220085 0.227907 0.000532 0.000636 0.231784	536.7988 0.001421 0.016409 0.015917 0.011077	536.7995 0.001416 0.007699 0.007468 0.010454 0.000282 0.001319 5.580282	536.7995 0.001416 0.007699 0.007468 0.010454	51 0.02982	536.7988 0.001421 0.016409 0.015917 0.011077	536.7995 0.001416 0.007699 0.007468 0.010454	536.7995 0.001416 0.007699 0.007468 0.010454	536.7995 0.001416 0.007699 0.007468 0.010454	536.7479 0.001458 0.040823 0.039598 0.028906	536.7995 0.001416 0.007699 0.007468 0.010454	0.00199 0.226892 0.220085 0.227907	
183 0.2389	199 0.2268	116 0.0076	179 0.1513	158 0.0408	116 0.0076	114 0.336	199 0.2268	121 0.0164	116 0.0076	116 0.0076	587 0.0307	121 0.0164	116 0.0076	116 0.0076	116 0.0076	158 0.0408	116 0.0076	199 0.2268	
557 0.002	356 0.003	995 0.001		479 0.0014	995 0.0014	866 0.002:	356 0.003	988 0.001	995 0.001	995 0.001	149 0.001	988 0.001	995 0.001	995 0.001	995 0.001	479 0.0014	995 0.001		
3513 593.7	1.90781 695.3356	5836 536.7	3319 626.0668	0.50092 536.7	5836 536.7		781 695.3	5304 536.7	5836 536.7	5836 536.7	2846 596.1	5304 536.7	5836 536.7	5836 536.7	5836 536.7	0.50092 536.7	0.126836 536.7	1.90781 695.3356	
1074 4.18	1.596653 1.90	14.4 0.027174 0.126836	14.4 0.655566 1.228319		14.4 0.027174 0.126836	14.4 2.567846 3.695226	14.4 1.596653 1.90781	9639 0.226	0.027174 0.126836	7174 0.126	9521 0.96	0.069639 0.226304	7174 0.126	7174 0.126	0.027174 0.126836	0.167834 0.50	0.027174 0.126		
2 2.46	2 1.59	14.4 0.02	14.4 0.65	14.4 0.167834	14.4 0.02	14.4 2.56	14.4 1.59	3.59 3.785684 0.069639 0.226304	26.64 0.02	0.59 3.785684 0.027174 0.126836	3.59 3.688615 0.169521 0.962846 596.1149 0.001587 0.030751 0.029829 0.01505	26667 0.06	0.59 5.426667 0.027174 0.126836	0.59 5.426667 0.027174 0.126836	0 0.02	0 0.16	0 0.02	0 1.596653	
0.43	0.21	0.59	0.59	0.43	0.59	0.21	0.21	0.59 3.7	0.59	0.59 3.7	0.59 3.6	0.59 5.426667	0.59 5.4	0.59 5.4	0.59	0.43	0.59	0.21	
11	100	009	175	175	009	75	100	175	009	009	100	175	009	009	009	175	009	100	
Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	
Other Con Diesel	Tractors/L Diesel	Off-highw:Diesel	Tractors/LiDiese	Other Con: Diese	Off-highw:Diese	Skid Steer Diese	Tractors/L Diesel	Crawler Tr Diesel	Off-highw:Diesel	Off-highw:Diese	Rollers100 Diese	Crawler Tr Diese	Off-highw:Diesel	Off-highw:Diesel	Off-highw: Diesel	Other Con: Diesel	Off-highw: Diesel	Tractors/LDiesel	
	hoe			nent			hoe									nent		thoe	
	Loader/Back	ick		neral Equipr	uck	Loader	Loader/Back		ick (12 cy)	nck			Š	nck	ruck	neral Equipr	nck	Loader/Back	
io Pumps	io Tractors/	gh Dump Tru	gh Loader	gh Other Ge	gh Pickup Tr	gh Skid Stee	gh Tractors/	P Dozer	P Dump Tru	P Pickup Tr	P Roller	7s Dozer	7 Dump Tru	7s Pickup Tr	nt Flatbed T	nt Other Ge	nt Pickup Tr	nt Tractors/	
Ro¿Soil Eros	Ros Soil Eros	Ros Street Li	Ro: Street Li	Ro: Street Li	Ros Street Li	Ros Street Li	Ros Street Li	Ro: Subbase	Ro: Subbase	Ro: Subbase	Ro: Subbase	RocTopsoil	RocTopsoil	RocTopsoil	Ro:Tree Pla	Ro:Tree Pla	Ro:Tree Pla	Ro: Tree Pla	
2027 Access Ro¿Soil Erosio Pumps	2027 Access Ro¿Soil Erosio Tractors/Loader/Backhoe	2027 Access Ro¿Street Ligh Dump Truck	2027 Access RosStreet Ligh Loader	2027 Access Ros Street Ligh Other General Equipment	2027 Access RosStreet Ligh Pickup Truck	2027 Access RosStreet Ligh Skid Steer Loader	2027 Access RosStreet Ligh Tractors/Loader/Backhoe	2027 Access Ro¿Subbase P Dozer	2027 Access Ro¿Subbase P Dump Truck (12 cy)	2027 Access Ro¿Subbase P Pickup Truck	2027 Access Ro¿Subbase P Roller	2027 Access Ro¿Topsoil Pla Dozer	2027 Access Ro¿Topsoil Pla Dump Truck	2027 Access Ro: Topsoil Pla Pickup Truck	2027 Access Ro:Tree Plant Flatbed Truck	2027 Access Ro: Tree Plant Other General Equipment	2027 Access Ro: Tree Plant Pickup Truck	2027 Access Ro: Tree Plant Tractors/Loader/Backhoe	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

On-Road Sources Units for Non-Greenhouse Gases Emission: Short Ton Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton

2027 Taxiways Apatha Lig Combination Shorthaul Trud. 2027 Taxiways Cament M Single Unit Shorthaul Trud. 2027 Taxiways Cament M Single Unit Shorthaul Trud. 2027 Taxiways Cament M Single Unit Shorthaul Trud. 2027 Taxiways Dump Trud Single Unit Shorthaul Trud. 2027 Taxiways Passanger Passenger Car. 2027 Taxiways Passanger Passenger Car. 2027 Taxiways Dump Trud Single Unit Shorthaul Trud. 2027 Taxiways Dump Trud Single Unit Shorthaul Trud. 2027 Taxiways Dump Trud Single Unit Shorthaul Trud. 2027 Demolitor Danaphath Li Gombination Shorthaul Trud. 2027 Demolitor Danaphath Li Gombination Shorthaul Trud. 2027 Apron (GADump Trud Single Unit Shorthaul Trud. 2027 Access Roulement M Single Unit Shorthaul Trud. 2027 Access Roulement M Single Unit Shorthaul Trud. 2027 Access Roulement Trud Single Unit Shorthaul Trud. 2027 Access Roulement Trud Single Unit Shorthaul Trud. 2027 Access Roulement Trud Single Unit Shorthaul Trud. 2027 Access Roulement Passenger Car. 2027 Access Roulement Valingle Unit Shorthaul Trud. 2027 Access Roulement Passenger Car. 2027 Access Roulement Valingle Unit Shorthaul Trud. 2027 Access Roulement Valin Scenario Il Year

Fugitive Sources Units for Non-Greenhouse Gases Emission: Short Ton

scellano ir real	Project	Fugitive Sc Number of Months	Ŭ	8	Ň	202	PM10	VOC
1	2027 Taxiways	Asphalt Dr	12	0	0	0	0	0.05
1	2027 Taxiways	Asphalt St	12	0.1627	0.01015	0.00187	0.01115	0.00505
1	2027 Taxiways	Materially	12	0	0	0	0.02395	_
1	2027 Taxiways	Materially	12	0	0	0	0.07555	_
1	2027 Taxiways	Soil Handl	12	0	0	0	0.01905	_
1	2027 Taxiways	Unstabiliz	12	0	0	0	2.71E-08	_
2	2027 Taxiways	Asphalt Dr	12	0	0	0	0	0.05
2	2027 Taxiways	Asphalt St	12	0.5556	0.0347	0.0064	0.03805	0.0172
2	2027 Taxiways	Concrete l	12	0	0	0	0.1965	_
2	2027 Taxiways	Materially	12	0	0	0	0.0419	Ū
2	2027 Taxiways	Materiall	12	0	0	0	0.1415	Ū
2	2027 Taxiways	Soil Handl	12	0	0	0	0.065	_
2	2027 Taxiways Unstabiliza	Unstabiliz	12	0	0	0	9.27E-08	0
e	2027 Demolitior Material N	Materially	12	0	0	0	0.006	_
m	2027 Demolitior Material N	Materially	12	0	0	0	0.01975	0
e	2027 Demolitior Soil Handl	Soil Handl	12	0	0	0	0.0261	_
e	2027 Demolitior Unstabiliza	Unstabilize	12	0	0	0	3.72E-08	٥
4	2027 Apron (GAAsphalt Dr	Asphalt Dr	12	0	0	0	0	0.05
4	2027 Apron (GAAsphalt St	Asphalt St	12	0.18645	0.01165 0.002142	0.002142	0.01275	0.00575
4	2027 Apron (GA Concrete I	Concrete P	12	0	0	0	0.06595	_
4	2027 Apron (GAMaterial N	Materially	12	0	0	0	0.02395	Ū
4	2027 Apron (GAMaterial N	Materially	12	0	0	0	0.0738	•
4	2027 Apron (GASoil Handl	Soil Handl	12	0	0	0	0.0218	_
4	2027 Apron (GAUnstabilize	Unstabiliz	12	0	0	0	3.11E-08	_
2	2027 Building - : Concrete P	Concrete P	9	0	0	0	0.00855	Ŭ
	Al-14-84 15110 5000	41-14-94	•	•	•	•		

a/mile)	14 5 8	CO2 CH4	4 1584.593 0.018588	8 983.5169 0.014721	8 983.5169 0.014721	8 983.5169 0.014721	4 301.2448 0.006472	4 1584.593 0.018588	8 983.5169 0.014721	8 983.5169 0.014721	8 983.5169 0.014721	4 301.2448 0.006472	8 983.5169 0.014721	4 301.2448 0.006472	4 1584.593 0.018588	8 983.5169 0.014721	8 983.5169 0.014721	8 983.5169 0.014721	4 301.2448 0.006472	8 983.5169 0.014721	8 983.5169 0.014721	4 301.2448 0.006472	4 1584.593 0.018588	4 1584.593 0.018588	8 983.5169 0.014721	8 983.5169 0.014721	8 983.5169 0.014721	4 301.2448 0.006472
MOVES ONBOAD Emissions Eartors (a/mile)	1 12 1	PM2.5 VOC	3 0.050681 0.152434	5 0.02215 0.082888	5 0.02215 0.082888	5 0.02215 0.082888	1 0.001682 0.055754	3 0.050681 0.152434	5 0.02215 0.082888	5 0.02215 0.082888	5 0.02215 0.082888	1 0.001682 0.055754	5 0.02215 0.082888	1 0.001682 0.055754	3 0.050681 0.152434	5 0.02215 0.082888	5 0.02215 0.082888	5 0.02215 0.082888	1 0.001682 0.055754	5 0.02215 0.082888	5 0.02215 0.082888	1 0.001682 0.055754	3 0.050681 0.152434	3 0.050681 0.152434	5 0.02215 0.082888	5 0.02215 0.082888	5 0.02215 0.082888	1 0.001682 0.055754
MOVESONBOA		SO2 PM10	0.005293 0.055088	0.003289 0.024076	0.003289 0.024076	0.003289 0.024076	0.045759 0.002001 0.001901	0.005293 0.055088	0.003289 0.024076	0.003289 0.024076	0.003289 0.024076	0.002001 0.001901	1.22083 1.655109 0.003289 0.024076	0.002001 0.001901	2.134457 3.667581 0.005293 0.055088	0.003289 0.024076	0.003289 0.024076	0.003289 0.024076	0.002001 0.001901	0.003289 0.024076	0.003289 0.024076	0.002001 0.001901	0.005293 0.055088	2.134457 3.667581 0.005293 0.055088	0.003289 0.024076	1.22083 1.655109 0.003289 0.024076	0.003289 0.024076	0.002001 0.001901
	7 10	CO	976 2.134457 3.667581 0.005293 0.055088	1.22083 1.655109 0.003289	2 1.22083 1.655109	1 1.22083 1.655109 0.003289	2.540732	2 2.134457 3.667581	2 1.22083 1.655109 0.003289	0 1.22083 1.655109	1.22083 1.655109 0.003289	5 2.540732 0.045759		5 2.540732 0.045759	3 2.134457 3.667581	9 1.22083 1.655109	t 1.22083 1.655109 0.003289	1.22083 1.655109	3 2.540732 0.045759 0.002001	3 1.22083 1.655109	3 1.22083 1.655109	.004652 2.540732 0.045759 0.002001	2.134457 3.667581	5 2.134457 3.667581	5 1.22083 1.655109		3 1.22083 1.655109	197940 2.540732 0.045759 0.002001 0.001901 0.001682
		VMT	976	15551	1382	8294	783288	3332	53102	4720	28321	2758536	2697	1055736	1118	17819	1584	9504	752638	2313	1233	100465	160	235	3746	333	1998	497940
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		3 H Open	;	1	;	,	,	1	;		1	1	;	1	;	:	:	,			,		1		ı	;	:	
		ect Arı Buildin	,	1	,	1	1	1	,	;	;	;	,	;	,	1	1	1	1	10000	- 00001	;	10000	;	;	,	1	1
		ct Wi Proj	36	36	36	36	1	32	32	32	32	1	224	1	224	224	224	224	1			1		30	30	30	30	1
		ect Ler Proje	1868	1868	1868	1868	:	7176	7176	7176	7176	1	412	1	344	344	344	344	:	:	1	:	1	240	240	540	240	:
		ber of Proj	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	258	129	129	129	129	193	193	193	193	193
		ber o Num					101.2					356.4		136.4					97.24			259.6						98
		er o Num	1	1	1	1-	101.2	1	3	1-1	- 7	356.4	1	136.4	1	1-1	1-1	1-	97.24	1	1-1	229.6	1-1	1	1-1	1	1-1	98
		ce ft Numb	2	2	2	S	ā	2	2	2	2	æ	2	1	2	2	2	2	6	2	2	2	2	2	2	2	2	
		d Trip Distan	4	40	4	4	30 -	40	4	40	40	30 -	4	30 -	4	40	40	40	30 -	40	40	30 -	40	40	40	4	40	30 -
		Roadway 1 Rour	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr	Urban Unr
		On-road A Lookup Fuel	Material DDieselUrb: Diesel	Material D Diesel Urbi Diesel	Material DDieselUrb: Diesel	Material DDieselUrb; Diesel	mployee GasolineU Gasoline	Material DDieselUrb; Diesel	Material DDieselUrb: Diesel	Material DDieselUrb; Diesel	Material DDieselUrb; Diesel	Employee GasolineU Gasoline	Material DDieselUrb: Diesel	Employee GasolineU Gasoline	Material DDieselUrb: Diesel	Material DDieselUrb; Diesel	Material DDieselUrb: Diesel	Material DDieselUrb: Diesel	Employee GasolineU Gasoline	Material DDieselUrb; Diesel	Material DDieselUrb: Diesel	mployee GasolineU Gasoline	Material DDieselUrb; Diesel	Material DDieselUrb; Diesel	Material DDieselUrb; Diesel	Material DDieselUrb: Diesel	Material DDieselUrb: Diesel	Employee GasolineU Gasoline
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0 0 0 0 0.004585 0

0 0 0 0 0.004585 0
2027 Building - Material h. 2027 Building - Material h. 2027 Access Rox Asphalt St. 2027 Access Rox Material h. 2027 Access Rox Omterial h. 2027 Access Rox Guil Handl. 2027 Access Rox Unstabiliza.
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0.038763442 1.115606 0.122115 0.792318 7055.66 0.051536 0.01311 7060.578 0012186554 0.108542 0.10875 VOC CO2 CH4 N2O C 0.012186554 0.108542 0.10878 0.1 202 
 ear
 Emission S CO
 NOx
 SOZ

 2026 NonRead
 0.483455
 1.669663

 2026 OnRead
 0.441565
 0.6539072

 2026 TOTAL
 0.94395
 0.058948

 2026 TOTAL
 2.084305
 2.381649
 2026 Totals Year En

ASSUMPTIONS

Emission factors were developed from the following models:

On-Road Vehicles: MOVES3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

14 U.S. Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for:

Asphalt storage and batching Concrete mixing/batching

Soil handling Unstabilized land and wind erosion

Material movement (unpaved roads) Material movement (paved roads)

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering Judgment.

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerars were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available: Asphalt Deliveries/Ten Wheelers

Concrete Ready Trucks Mix for Cores Bulldozer Concrete Ready Mix Trucks

Crack Filler (Trailer Mounted)

Delivery of Tanks (3) Distributing Tanker

Dump Truck (12 cy)

### MOVES ONROAD Emissions (tpv)

| N20 | Part | N20 0.003286 0.071462 0.09682 0.000192 0.001409 0.001297 0.004852 57.5704 0.000862 0.000192 0.003286 0.000193 0.001852 0.000193 0.000193 0.000862 0.000862 0.000862 0.000862 0.000862 0.000862 0.000 0.001659 7.725812 0.139142 0.006085 0.005781 0.005114 0.169536 916.0196 0.019681 0.005043 0.003286 0.007667 0.010394 2.07E-05 0.000151 0.000139 0.000521 6.176388 9.24E-05 2.06E-05 0.001659 2.956792 0.053252 0.002329 0.002213 0.001957 0.064884 350.5754 0.007532 0.00193 0.002802 0.00263 0.00452 6.52E-06 6.79E-05 6.25E-05 0.00188 1.952837 2.29E-05 3.45E-06 0.003286 0.02398 0.02351 6.46E-05 0.000473 0.000435 0.001628 19.31842 0.000289 6.45E-05 0.003286 0.00132 0.00289 5.45E-06 4.2E-05 3.87E-05 0.000145 1.71729 2.57E-05 0.003286 0.01279 0.01734 3.45E-05 0.000252 0.000252 0.000252 0.000569 0.03276 0.03286 0.00179 0.01739 0.01659 0.00159 0.04625 249.9265 0.0537 0.01376 
 0.003286
 0.003113
 0.00422
 8.38E-06
 6.14E-05
 5.65E-05
 0.00201
 2.507633
 3.75E-05
 8.38E-06

 0.003286
 0.001659
 0.00225
 4.47E-06
 3.27E-05
 3.01E-05
 0.00113
 1.336754
 2E-05
 4.47E-06

 0.001659
 2.813721
 0.050675
 0.00216
 0.002106
 0.00183
 0.061745
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 0.002802 0.000376 0.000647 9.34E-07 9.72E-06 8.94E-06 2.69E-05 0.279476 3.28E-06 4.94E-07 0.002802 0.000553 0.00095 1.37E-06 1.43E-05 1.31E-05 3.95E-05 0.41048 4.82E-06 7.26E-07 0.003286 0.005041 0.006834 1.36E-05 9.94E-05 9.15E-05 0.000342 4.061216 6.08E-05 1.36E-05 0.003286 0.000448 0.000608 1.21E-06 8.84E-06 8.13E-06 3.04E-05 0.361021 5.4E-06 1.21E-06 0.003286 0.002689 0.003645 7.24E-06 5.3E-05 4.88E-05 0.000183 2.166127 3.24E-05 7.24E-06 0.001659 1.394577 0.025116 0.001098 0.001044 0.000923 0.030603 165.3496 0.003553 0.00091 Totals 19.41565 0.653072 0.015715 0.018845 0.016829 0.436359 2454.445 0.051536 0.01311

Airport Construction Emissions Inventory Tool (ACEIT) Version 1.0 Run Date & Time: 12/27/2021 1:25:11 PM

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STUDY

Study Name

Austin Airport

Study Description

2028 Construction Schedule

EMISSIONS INVENTORY - DETAILS:

Non-Road Sources
Units for Non-Greenhouse Gases Emission: Short Ton
Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton

NONROAD Emission Factors g/-hp-hr 6 2 9 7 8 11 NONROAD Emissions (TPY) 3

							3	6	2	9	7	8	11								
Scenario II Year		Constructi Equipment	MovesLoo Fuel	HP Averag Load																OC Exhaust (tp	y)
		Asphalt Pla Asphalt Paver	Pavers175 Diesel	175	0.59	5.2485						1.67E-02						1.03E-05		6.89E-06	
		Asphalt Pla Dump Truck	Off-highwa Diesel	600								6.84E-03							5.04E-05		
		Asphalt Pl Other General Equipment	Other Con Diesel	175	0.43	10.497						3.45E-02						3.1E-05		2.16E-05	
	,	Asphalt Pl: Pickup Truck	Off-highw: Diesel	600	0.59							6.84E-03						1.44E-05	1.4E-05		
		Asphalt Pl: Roller	Rollers100 Diesel	100	0.59	5.2485	1.31E-01		5.96E+02							0.203484				4.21E-06	
	,	Asphalt Pl: Skid Steer Loader	Skid Steer Diesel	75	0.21					2.10E-03		3.07E-01				0.0633			2.8E-05		
		Asphalt Pl: Surfacing Equipment (Grooving)	Other Con Diesel	25 11	0.59												2.39E-07		1.8E-05 2.83E-05 (		
		Clearing at Chain Saw Clearing at Chipper/Stump Grinder	Other Con: Diesel Other Con: Diesel	100	0.7					1.61E-03								3.45E-05		2.01E-05	
		Clearing ar Pickup Truck	Off-highw: Diesel	600	0.43													5.45E-05 5.28E-05		7.5E-05	
_	,	Drainage - Dozer	Crawler Tr Diesel	175	0.59														7.42E-05		
		Drainage - Dump Truck	Off-highwa Diesel	600	0.59					1.42E-03		6.84E-03									
		Drainage - Excavator	Excavators Diesel	175	0.59	45.152				1.42E-03							7.28E-06			4.65E-05	
_	,	Drainage - Loader	Tractors/L Diesel	175	0.59							1.28E-01						0.000679		0.00073	
	,	Drainage - Other General Equipment	Other Con Diesel	175	0.43														0.000129		
		Drainage - Pickup Truck	Off-highw: Diesel	600	0.59														0.00012		
		Drainage - Roller	Rollers100 Diesel	100	0.59	45.152	1.31E-01	9.30E-01	5.96E+02	1.58E-03	2.51E-02	2.43E-02	1.23E-02	0.000386	0.00273	1.750539	4.64E-06	7.36E-05	7.14E-05	3.62E-05	
1	2028 Taxiways	Drainage - Dump Truck	Off-highw: Diesel	600	0.59	25.08444	2.34E-02	1.19E-01	5.37E+02	1.42E-03	7.05E-03	6.84E-03	1.00E-02	0.000229	0.001164	5.254454	1.39E-05	6.9E-05	6.69E-05	9.8E-05	
		Drainage - Loader	Tractors/L Diesel	175	0.59	25.08444	5.68E-01	1.09E+00	6.26E+02	1.77E-03	1.32E-01	1.28E-01	1.42E-01	0.001621	0.003119	1.787585	5.06E-06	0.000377	0.000366	0.000406	
		Drainage - Other General Equipment	Other Con Diesel	175	0.43	25.08444	1.46E-01	4.22E-01	5.37E+02	1.45E-03	3.55E-02	3.45E-02	2.48E-02	0.000303	0.000877	1.116856	3.02E-06	7.4E-05	7.18E-05	5.16E-05	
1	2028 Taxiways	Drainage - Pickup Truck	Off-highw: Diesel	600	0.59	25.08444	2.34E-02	1.19E-01	5.37E+02	1.42E-03	7.05E-03	6.84E-03	1.00E-02	0.000229	0.001164	5.254454	1.39E-05	6.9E-05	6.69E-05	9.8E-05	
1	2028 Taxiways	Drainage - Tractors/Loader/Backhoe	Tractors/L Diesel	100	0.21	25.08444	1.39E+00	1.77E+00	6.95E+02	1.97E-03	1.99E-01	1.93E-01	1.96E-01	0.000806	0.001029	0.403816	1.14E-06	0.000116	0.000112	ე.000114	
1	2028 Taxiways	Dust Contr Water Truck	Off-highw: Diesel	600	0.59	2160	2.34E-02	1.19E-01	5.37E+02	1.42E-03	7.05E-03	6.84E-03	1.00E-02	0.019722	0.10025	452.4566	0.001193	0.005942	0.005764	ე.008437	
		Excavation Dozer	Crawler Tr Diesel	175															3.83E-05		
	,	Excavation Dump Truck (12 cy)	Off-highw: Diesel	600							7.05E-03							6.42E-05		9.11E-05	
		Excavation Pickup Truck	Off-highw: Diesel	600							7.05E-03							6.42E-05		9.11E-05	
		ExcavationRoller	Rollers100 Diesel	100								2.43E-02					1.11E-06		1.7E-05		
		Excavation Dozer	Crawler Tr Diesel	175 600	0.59														2.88E-05		
	,	Excavation Dump Truck (12 cy)	Off-highwa Diesel			46.65333					7.05E-03								0.000124 (		
		Excavation Excavator Excavation Pickup Truck	Excavators Diesel Off-highwa Diesel	175 600	0.59							1.22E-02							1.94E-05 3.73E-05		
		Excavation Roller	Rollers100 Diesel	100	0.59														2.21E-05		
		ExcavationScraper	Scrapers6(Diesel	600	0.59	17.495						2.09E-02							0.000143 (		
		Excavation Dozer	Crawler Tr Diesel	175		6.586353						1.44E-02							1.08E-05		
	2028 Taxiways		Off-highw: Diesel	600	0.59	15.56667						6.84E-03							4.15E-05		
	2028 Taxiways		Off-highw: Diesel	600	0.59	62.26667	2.34E-02	1.19E-01	5.37E+02	1.42E-03	7.05E-03	6.84E-03	1.00E-02	0.000569	0.00289	13.04304	3.44E-05	0.000171	0.000166	0.000243	
	2028 Taxiways		Other Con Diesel	175	0.43	62.26667	1.46E-01	4.22E-01	5.37E+02	1.45E-03	3.55E-02	3.45E-02	2.48E-02	0.000753	0.002177	2.772351	7.49E-06	0.000184	0.000178	0.000128	
1	2028 Taxiways	Fencing Pickup Truck	Off-highw: Diesel	600	0.59	62.26667	2.34E-02	1.19E-01	5.37E+02	1.42E-03	7.05E-03	6.84E-03	1.00E-02	0.000569	0.00289	13.04304	3.44E-05	0.000171	0.000166	0.000243	
1	2028 Taxiways	Fencing Skid Steer Loader	Skid Steer Diesel	75	0.21	62.26667	2.44E+00	3.62E+00	6.95E+02	2.10E-03	3.16E-01	3.07E-01	4.51E-01	0.002632	0.003916	0.75097	2.27E-06	0.000342	0.000332	ე.000487	
1	2028 Taxiways	Fencing Tractors/Loader/Backhoe	Tractors/L Diesel	100	0.21	62.26667	1.39E+00	1.77E+00	6.95E+02	1.97E-03	1.99E-01	1.93E-01	1.96E-01	0.002002	0.002554	1.002385	2.84E-06	0.000287	0.000278	ე.000282	
	2028 Taxiways		Crawler Tr Diesel	175	0.59							1.44E-02							9.53E-06		
	2028 Taxiways	-	Graders30 Diesel	300	0.59							7.77E-03							8.78E-06		
	2028 Taxiways		Rollers100 Diesel	100	0.59														9.16E-06		
		Hydroseec Hydroseeder	Other Con Diesel	600	0.59	5.2207				1.52E-03									0.000112 (		
	,	Hydroseec Off-Road Truck	Off-highwa Diesel	600	0.59														1.39E-05		
	2028 Taxiways 2028 Taxiways		Off-highwa Diesel Tractors/La Diesel	600 175	0.59					1.42E-03									5.08E-05 0.000278 (		
_	2028 Taxiways		Other Con Diesel	175	0.59							3.45E-02								3.91E-05	
	2028 Taxiways		Off-highwa Diesel	600	0.59						7.05E-03							5.24E-05		7.44E-05	
	2028 Taxiways		Skid Steer Diesel	75	0.21														0.000101		
_	2028 Taxiways		Tractors/L Diesel	100	0.21														8.51E-05		
_		Markings Flatbed Truck	Off-highwa Diesel	600				1.19E-01											0.000231		
		Markings Other General Equipment	Other Con Diesel	175															0.000247		
		Markings Pickup Truck	Off-highwa Diesel	600															0.000231		
		Soil Erosio Other General Equipment	Other Con Diesel	175	0.43	4.8	1.46E-01	4.22E-01	5.37E+02	1.45E-03	3.55E-02	3.45E-02	2.48E-02	5.81E-05	0.000168	0.213714	5.77E-07	1.42E-05	1.37E-05	9.87E-06	
1	2028 Taxiways	Soil Erosio Pickup Truck	Off-highw: Diesel	600	0.59	9.6	2.34E-02	1.19E-01	5.37E+02	1.42E-03	7.05E-03	6.84E-03	1.00E-02	8.77E-05	0.000446	2.010918	5.3E-06	2.64E-05	2.56E-05	3.75E-05	
1	2028 Taxiways	Soil Erosio Pumps	Other Con: Diesel	11	0.43	4.8	2.46E+00	4.18E+00	5.94E+02	2.18E-03	2.39E-01	2.32E-01	8.38E-01	6.16E-05	0.000105	0.01486	5.46E-08	5.97E-06	5.79E-06	2.1E-05	

```
2028 Taxiways Soil Erosio Tractors/Loader/Backhoe
                                                       Tractors/L Diesel
                                                                                                    4.8 1.39E+00 1.77E+00 6.95E+02 1.97E-03 1.99E-01 1.93E-01 1.96E-01 0.000154 0.000197 0.077272 2.19E-07 2.21E-05 2.15E-05 2.15E-05
2028 Taxiways Subbase P Dozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59 8.839579 6.40E-02 2.08E-01 5.37E+02 1.42E-03 1.49E-02 1.44E-02 1.03E-02 6.44E-05 0.000209 0.54006 1.43E-06
                                                                                                                                                                                                                  1.5E-05 1.45E-05 1.04E-05
2028 Taxiways Subbase Pl Dump Truck (12 cy)
                                                       Off-highwa Diesel
                                                                                         0.59 62.20444
                                                                                                        2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                  1.00E-02 0.000568 0.002887
                                                                                                                                                                                                        3.44E-05
                                                                                                                                                                                                                 0.000171 0.000166
2028 Taxiways Subbase Pi Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59 8.839579
                                                                                                       2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03
                                                                                                                                                                 1.00E-02 8.07E-05 0.00041 1.851632
                                                                                                                                                                                                        4.88E-06 2.43E-05 2.36E-05 3.45E-05
2028 Taxiways Subbase P Rolle
                                                       Rollers100 Diese
                                                                                         0.59 8.612923
                                                                                                        1.31E-01
                                                                                                                 9.30E-01 5.96E+02
                                                                                                                                      1.58E-03
                                                                                                                                              2 51F-02
                                                                                                                                                        2.43E-02
                                                                                                                                                                  1.23E-02 7.36E-05 0.000521 0.333922
                                                                                                                                                                                                        8.86E-07
                                                                                                                                                                                                                   1.4E-05
                                                                                                                                                                                                                           1.36E-05
                                                                                                                                                                                                                                     6.91E-06
2028 Taxiways Topsoil PlaDozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59 12.87733 6.40E-02
                                                                                                                 2.08E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              1.49E-02 1.44E-02
                                                                                                                                                                 1.03E-02 9.38E-05 0.000305 0.78675 2.08E-06 2.18E-05 2.12E-05 1.51E-05
                                                                                         0.59 12.87733
                                                                                                       2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                  1.00E-02 0.000118 0.000598 2.697423
                                                                                                                                                                                                                 3.54E-05
                                                                                                                                                                                                                           3.44E-05
2028 Taxiways Topsoil Pla Dump Truck
                                                       Off-highw: Diesel
                                                                                                                                              7.05E-03
                                                                                                                                                                                                        7.11E-06
                                                                                                                                                                                                                                     5.03E-05
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                                        6.84E-03
2028 Taxiways Topsoil PlaPickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59 12.87733
                                                                                                       2.34E-02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                                 1.00E-02 0.000118 0.000598 2.697423
                                                                                                                                                                                                        7.11E-06 3.54E-05
                                                                                                                                                                                                                           3.44E-05
                                                                                                                                                                                                                                     5.03E-05
2028 Taxiways Asphalt Pli Asphalt Paver
                                                       Pavers175 Diesel
                                                                                175
                                                                                         n 59
                                                                                               17 922
                                                                                                       7.28E-02 2.27E-01 5.37E+02
                                                                                                                                     1 42F-03 1 73F-02 1 67F-02
                                                                                                                                                                 1 15F-02 0 000149 0 000462 1 094948
                                                                                                                                                                                                         2.9E-06 3.52E-05 3.42E-05 2.35E-05
                                                                                         0.59 64.54744
                                                                                                                                                                 1.00E-02 0.000589 0.002996 13.52079
2028 Taxiways Asphalt Pl; Dump Truck
                                                       Off-highwa Diese
                                                                                600
                                                                                                       2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03
                                                                                                                                                                                                        3.56E-05 0.000178 0.000172 0.000252
2028 Taxiways Asphalt Pli Other General Equipment
                                                       Other Con Diesel
                                                                                175
                                                                                         n 43
                                                                                                35 844
                                                                                                       1 46F-01
                                                                                                                 4 22F-01 5 37F+02
                                                                                                                                     1 45F-03
                                                                                                                                              3 55F-02
                                                                                                                                                        3 45F-02
                                                                                                                                                                 2.48F-02 0.000434 0.001253 1.595913
                                                                                                                                                                                                        4 315-06 0 000106 0 000103 7 375-05
2028 Taxiways Asphalt Pli Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                17.922
                                                                                                        2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                  1.00E-02 0.000164 0.000832 3.754133
                                                                                                                                                                                                         9.9E-06 4.93E-05
                                                                                                                                                                                                                           4.78E-05
2028 Taxiways Asphalt Pl; Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59
                                                                                                17.922 1.31F-01 9.30F-01 5.96F+02
                                                                                                                                     1.58F-03 2.51F-02 2.43F-02
                                                                                                                                                                 1.23F-02 0.000153 0.001084 0.694834
                                                                                                                                                                                                        1.84F-06 2.92F-05 2.83F-05 1.44F-05
                                                                                                       2.44E+00 3.62E+00 6.95E+02
2028 Taxiways Asphalt Pl; Skid Steer Loader
                                                                                                                                     2.10E-03
                                                                                                                                              3.16E-01
                                                                                                                                                        3.07E-01
                                                                                                                                                                  4.51E-01 0.000758 0.001127 0.216149
                                                                                                                                                                                                                           9.55E-05
2028 Taxiways Asphalt Pl: Surfacing Equipment (Grooving)
                                                       Other Con Diese
                                                                                 25
                                                                                         0.59 22.94016 1.49E+00 3.76E+00 5.95E+02
                                                                                                                                     2.19E-03 1.70E-01 1.65E-01
                                                                                                                                                                 3.52E-01 0.000555 0.001403 0.221984 8.16E-07 6.35E-05 6.16E-05 0.000131
2028 Taxiways Clearing aıChain Saw
                                                       Other Con Diesel
                                                                                 11
                                                                                          0.7
                                                                                                  50.4 2.46E+00 4.18E+00 5.94E+02
                                                                                                                                     2.18E-03
                                                                                                                                              2.39E-01
                                                                                                                                                        2.32E-01
                                                                                                                                                                 8.38E-01 0.001052 0.00179 0.254001
                                                                                                                                                                                                        9.34E-07 0.000102
                                                                                                                                                                                                                            9.9E-05 0.000358
2028 Taxiways Clearing at Chipper/Stump Grinder
                                                       Other Con Diesel
                                                                                100
                                                                                         0.43
                                                                                                  50.4 3.26E-01 1.11E+00 5.96E+02
                                                                                                                                     1.61E-03
                                                                                                                                              5.06E-02 4.91E-02
                                                                                                                                                                 2.94E-02 0.000779 0.002651 1.423983
                                                                                                                                                                                                        3.85E-06 0.000121 0.000117 7.02E-05
                                                                                               67.2 2.34E-02 1.19E-01 5.37E+02
47.792 3.26E-01 1.11E+00 5.96E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                                                                        3.71E-05 0.000185 0.000179
2028 Taxiways Clearing at Pickup Truck
                                                       Off-highwa Diese
                                                                                600
                                                                                                                                                        6.84E-03
                                                                                                                                                                  1.00E-02 0.000614 0.003119 14.07643
                                                                                                                                                                                                                                    0.000262
                                                                                                                                                                                                        3.65E-06 0.000115 0.000111 6.66E-05
2028 Taxiways Concrete FAir Compressor
                                                       Other Con Diesel
                                                                                100
                                                                                         0.43
                                                                                                                                     1.61E-03
                                                                                                                                              5.06E-02 4.91E-02
                                                                                                                                                                 2.94E-02 0.000738 0.002514 1.350298
2028 Taxiways Concrete FConcrete Saws
                                                       Other Con Diese
                                                                                                47.792 2.79E-01 2.53E+00 5.96E+02
                                                                                                                                     1 57E-03 2 05E-02 1 98E-02 9 25E-02 0 000347 0 003144 0 740856
                                                                                                                                                                                                        1.95E-06 2.54E-05 2.47E-05 0.000115
                                                                                 40
                                                                                         0.59
                                                                                                       2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                        6.84E-03
                                                                                                                                                                                                        0.00011 0.000548 0.000531 0.000778
2028 Taxiways Concrete F Concrete Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59 199.1333
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                                 1.00E-02 0.001818 0.009242 41.71258
2028 Taxiways Concrete FOther General Equipment
                                                       Other Con Diesel
                                                                                175
                                                                                         n 43
                                                                                                95 584
                                                                                                       1 46F-01 4 22F-01 5 37F+02
                                                                                                                                     1.45E-03 3.55E-02 3.45E-02
                                                                                                                                                                 2.48F-02 0.001156 0.003342 4.255767
                                                                                                                                                                                                        1 155-05 0 000282 0 000273 0 000197
                                                                                                       2.34E-02 1.19E-01 5.37E+02
2028 Taxiways Concrete FPickup Truck
                                                       Off-highwa Diesel
                                                                                              143.376
                                                                                                                                              7.05E-03 6.84E-03
                                                                                                                                                                 1.00E-02 0.001309 0.006654 30.03306
                                                                                                                                                                                                        7.92E-05 0.000394 0.000383
                                                                                600
                                                                                         0.59
                                                                                                                                     1.42E-03
                                                                                                                                                                                                                                     0.00056
2028 Taxiways Concrete FRubber Tired Loader
                                                       Tractors/L Diesel
                                                                                175
                                                                                         0.59
                                                                                                47.792 5.68F-01 1.09F+00 6.26F+02
                                                                                                                                     1.77F-03 1.32F-01 1.28F-01
                                                                                                                                                                 1.42F-01 0.003089 0.005943 3.405786
                                                                                                                                                                                                        9.63F-06 0.000719 0.000697 0.000773
                                                                                175
                                                                                                47.792
                                                                                                        7.28E-02
                                                                                                                 2.27E-01 5.37E+02
                                                                                                                                                        1.67E-02
                                                                                                                                                                                                        7.74E-06 9.39E-05 9.11E-05 6.27E-05
2028 Taxiways Concrete FSlip Form Paver
                                                        Pavers175 Diese
                                                                                         0.59
                                                                                                                                     1.42E-03
                                                                                                                                              1.73E-02
                                                                                                                                                                  1.15E-02 0.000396 0.001233 2.919862
2028 Taxiways Concrete FSurfacing Equipment (Grooving)
                                                       Other Con Diese
                                                                                 25
                                                                                         0.59
                                                                                                47.792 1.49E+00 3.76E+00 5.95E+02
                                                                                                                                     2.19E-03 1.70E-01 1.65E-01
                                                                                                                                                                 3.52E-01 0.001156 0.002924 0.462467
                                                                                                                                                                                                         1.7E-06 0.000132 0.000128 0.000273
2028 Taxiways Drainage - Dozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59
                                                                                              172.544
                                                                                                        6.40E-02 2.08E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              1.49E-02
                                                                                                                                                        1.44E-02
                                                                                                                                                                  1.03E-02 0.001256 0.004089 10.5417 2.79E-05 0.000292 0.000284 0.000202
2028 Taxiways Drainage - Dump Truck
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59
                                                                                              172,544
                                                                                                       2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03
                                                                                                                                                                 1.00E-02 0.001575 0.008008 36.1429 9.53E-05 0.000475 0.00046 0.000674
                                                                                175
                                                                                               172.544
                                                                                                       5.52E-02 1.81E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                                        1.22E-02
                                                                                                                                                                  9.05E-03 0.001084 0.00356 10.54177
                                                                                                                                                                                                        2.78E-05 0.000247 0.000239 0.000178
2028 Taxiways Drainage - Excavator
                                                       Excavators Diese
                                                                                         0.59
                                                                                                                                              1.26E-02
                                                                                175
                                                                                               172.544
                                                                                                        5.68E-01 1.09E+00 6.26E+02
2028 Taxiways Drainage - Loader
                                                       Tractors/L Diese
                                                                                         0.59
                                                                                                                                     1.77E-03
                                                                                                                                              1.32E-01
                                                                                                                                                        1.28E-01
                                                                                                                                                                 1.42E-01 0.011151 0.021457 12.29595
                                                                                                                                                                                                        3.48E-05 0.002595 0.002517 0.002791
2028 Taxiways Drainage - Other General Equipment
                                                       Other Con Diesel
                                                                                175
                                                                                         0.43
                                                                                              172.544
                                                                                                        1.46E-01 4.22E-01 5.37E+02
                                                                                                                                     1.45F-03 3.55F-02
                                                                                                                                                        3.45F-02
                                                                                                                                                                 2.48E-02 0.002087 0.006033 7.682322 2.08E-05 0.000509 0.000494 0.000355
                                                                                              172.544
                                                                                                       2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                                 1.00E-02 0.001575 0.008008 36.1429
                                                                                                                                                                                                        9.53E-05 0.000475 0.00046 0.000674
2028 Taxiways Drainage - Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03
2028 Taxiways Drainage - Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59 172.544 1.31F-01 9.30F-01 5.96F+02
                                                                                                                                     1 58F-03 2 51F-02 2 43F-02
                                                                                                                                                                 1 23F-02 0 001474 0 010433 6 689514
                                                                                                                                                                                                        1 77F-05 0 000281 0 000273 0 000138
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                                                 1.00E-02 0.000875 0.004449 20.07939
                                                                                                                                                                                                        5.29E-05 0.000264 0.000256 0.000374
2028 Taxiways Drainage - Dump Truck
                                                       Off-highwa Diesel
                                                                                         0.59 95.85778
                                                                                                       2.34E-02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                600
2028 Taxiways Drainage - Loader
                                                       Tractors/L Diesel
                                                                                175
                                                                                         0.59 95.85778 5.68F-01 1.09F+00 6.26F+02
                                                                                                                                     1.77F-03 1.32F-01 1.28F-01
                                                                                                                                                                 1.42F-01 0.006195 0.01192 6.831082
                                                                                                                                                                                                        1.93F-05 0.001442 0.001398 0.00155
                                                                                175
                                                                                                        1.46E-01
                                                                                                                 4.22E-01 5.37E+02
2028 Taxiways Drainage - Other General Equipment
                                                       Other Con Diese
                                                                                         0.43 95.85778
                                                                                                                                      1.45E-03
                                                                                                                                               3.55E-02
                                                                                                                                                                  2.48E-02 0.001159 0.003352 4.267957
                                                                                                                                                                                                        1.15E-05 0.000283 0.000274 0.00019
2028 Taxiways Drainage - Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59 95.85778 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03 1.00E-02 0.000875 0.004449 20.07939
                                                                                                                                                                                                        5.29E-05 0.000264 0.000256 0.000374
2028 Taxiways Drainage - Tractors/Loader/Backhoe
                                                       Tractors/L Diese
                                                                                100
                                                                                         0.21 95.85778
                                                                                                       1.39E+00
                                                                                                                 1.77E+00 6.95E+02
                                                                                                                                     1.97E-03
                                                                                                                                               1.99E-01
                                                                                                                                                        1.93E-01
                                                                                                                                                                  1.96E-01 0.003082 0.003933 1.543144
                                                                                                                                                                                                        4.37E-06 0.000442 0.000428 0.000435
2028 Taxiways Dust Contr Water Truck
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59
                                                                                                2160 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                 1.00E-02 0.019722 0.10025 452.4566 0.001193 0.005942 0.005764 0.008437
                                                                                                                                                        1.44E-02
                                                                                175
                                                                                         0.59 79.65333
                                                                                                        6.40E-02 2.08E-01 5.37E+02
                                                                                                                                      1.42E-03
                                                                                                                                              1.49F-02
                                                                                                                                                                  1.03F-02 0.00058 0.001888 4.866477
                                                                                                                                                                                                        1.29E-05 0.000135 0.000131 9.33E-05
2028 Taxiways Excavation Dozen
                                                       Crawler Tr Diesel
2028 Taxiways Excavation Dump Truck (12 cy)
                                                                                                                                                                 1.00E-02 0.000727 0.003697 16.68503
                                                                                600
                                                                                         0.59 79.65333 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                              7.05E-03 6.84E-03
                                                       Off-highwa Diesel
                                                                                                                                     1.42E-03
                                                                                                                                                                                                         4.4E-05 0.000219 0.000213 0.000311
2028 Taxiways Excavation Pickup Truck
                                                       Off-highw: Diesel
                                                                                600
                                                                                         0.59 79.65333 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1 42F-03
                                                                                                                                              7.05F-03 6.84F-03
                                                                                                                                                                 1.00E-02 0.000727 0.003697 16.68503
                                                                                                                                                                                                         4.4E-05 0.000219 0.000213 0.000311
                                                                                                                 9.30E-01 5.96E+02
2028 Taxiways Excavation Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59 36.76308
                                                                                                        1.31E-01
                                                                                                                                     1.58E-03
                                                                                                                                              2.51E-02
                                                                                                                                                        2.43E-02
                                                                                                                                                                 1.23E-02 0.000314 0.002223 1.425301
                                                                                                                                                                                                        3.78E-06 5.99E-05 5.81E-05 2.95E-05
2028 Taxiways Excavation Dozen
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         n 59
                                                                                                59 74
                                                                                                       6.40F-02 2.08F-01 5.37F+02
                                                                                                                                     1 42F-03 1 49F-02 1 44F-02
                                                                                                                                                                 1.03F-02.0.000435.0.001416.3.649858
                                                                                                                                                                                                        9.65F-06.0.000101. 9.82F-05
                                                                                                                                                                                                                                      7F-05
                                                                                         0.59 159.3067
                                                                                                       2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                              7.05E-03 6.84E-03
                                                                                                                                                                 1.00E-02 0.001455 0.007394 33.37007
                                                                                                                                                                                                         8.8E-05 0.000438 0.000425 0.000622
2028 Taxiways Excavation Dump Truck (12 cy)
                                                       Off-highwa Diese
                                                                                                                                     1.42E-03
                                                                                600
2028 Taxiways Excavation Excavator
                                                       Excavators Diesel
                                                                                175
                                                                                         0.59
                                                                                                47.792 5.52F-02 1.81F-01 5.37F+02
                                                                                                                                     1.42F-03 1.26F-02 1.22F-02 9.05F-03
                                                                                                                                                                           0.0003 0.000986 2.919905
                                                                                                                                                                                                         7.7F-06 6.83F-05 6.63F-05 4.92F-05
                                                                                                47.792
                                                                                                        2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                               7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                  1.00E-02 0.000436 0.002218 10.01102
                                                                                                                                                                                                          .64E-05 0.000131 0.000128 0.000187
2028 Taxiways Excavation Pickup Truck
                                                                                600
                                                                                         0.59
2028 Taxiways Excavation Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59
                                                                                                47,792
                                                                                                       1.31E-01 9.30E-01 5.96E+02
                                                                                                                                     1.58E-03
                                                                                                                                              2.51E-02 2.43E-02
                                                                                                                                                                 1.23E-02 0.000408 0.00289 1.852891
                                                                                                                                                                                                        4.92E-06 7.79E-05 7.55E-05 3.83E-05
2028 Taxiways ExcavationScraper
                                                        Scrapers6( Diese
                                                                                600
                                                                                                        1.10E-01
                                                                                                                 3.00E-01 5.37E+02
                                                                                                                                     1.45E-03
                                                                                                                                              2.15E-02
                                                                                                                                                        2.09E-02
                                                                                                                                                                  2.04E-02 0.002562 0.006994 12.51306
                                                                                                                                                                                                        3.37E-05 0.000502 0.000487 0.000476
2028 Taxiways Excavation Dozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59 22.49035
                                                                                                        6.40E-02
                                                                                                                 2.08E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              1.49E-02 1.44E-02
                                                                                                                                                                 1.03E-02 0.000164 0.000533 1.374064
                                                                                                                                                                                                        3.63E-06 3.81E-05
                                                                                                                                                                                                                           3.7E-05 2.63E-05
                       Concrete Truck
                                                                                                                 1.19E-01 5.37E+02
1.19E-01 5.37E+02
                                                                                                                                                                                                       3.3E-05 0.000165 0.00016 0.000234
0.000132 0.000658 0.000638 0.000934
                                                                                                       2.34E-02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                 1.00E-02 0.000546 0.002775 12.52634
2028 Taxiways Fencing
                                                       Off-highw: Diesel
                                                                                600
                                                                                         0.59
                                                                                                  59.8
                                                                                                                                                        6.84E-03
                                                                                         0.59
                                                                                                        2.34E-02
                                                                                                                                     1.42E-03
                                                                                                                                                                 1.00E-02 0.002184 0.011102 50.10537
2028 Taxiways Fencing
                       Dump Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                                 239.2
                                                                                                                                              7.05E-03
2028 Taxiways Fencing
                       Other General Equipment
                                                       Other Con Diese
                                                                                175
                                                                                                 239.2
                                                                                                       1 46F-01
                                                                                                                 4.22E-01 5.37E+02
                                                                                                                                     1.45E-03 3.55E-02 3.45E-02
                                                                                                                                                                 2.48E-02 0.002893 0.008364 10.6501 2.88E-05 0.000705 0.000684 0.000492
                                                                                         0.43
                                                                                                                 1.19E-01 5.37E+02
2028 Taxiways Fencing
                       Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                 239.2
                                                                                                        2.34E-02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                 1.00E-02 0.002184 0.011102 50.10537 0.000132 0.000658 0.000638 0.000934
2028 Taxiways Fencing
                       Skid Steer Loader
                                                       Skid Steer Diesel
                                                                                 75
                                                                                         0.21
                                                                                                 239.2 2.44E+00 3.62E+00 6.95E+02
                                                                                                                                     2.10E-03
                                                                                                                                              3.16E-01
                                                                                                                                                        3.07E-01
                                                                                                                                                                 4.51E-01 0.010112 0.015044 2.884882 8.73E-06 0.001313 0.001274 0.001873
2028 Taxiways Fencing
                        Tractors/Loader/Backhoe
                                                       Tractors/L Diese
                                                                                100
                                                                                         0.21
                                                                                                 239.2
                                                                                                       1.39E+00
                                                                                                                 1.77E+00 6.95E+02
                                                                                                                                     1.97E-03
                                                                                                                                              1.99E-01
                                                                                                                                                        1.93E-01
                                                                                                                                                                  1.96E-01 0.007689 0.009813 3.850704
                                                                                                                                                                                                        1.09E-05 0.001102 0.001069 0.001084
2028 Taxiways Grading Dozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59
                                                                                               20.3494 6.40F-02 2.08F-01 5.37F+02
                                                                                                                                     1.42F-03 1.49F-02
                                                                                                                                                        1.44F-02
                                                                                                                                                                 1.03F-02 0.000148 0.000482 1.243261
                                                                                                                                                                                                        3.29E-06 3.45E-05 3.35E-05 2.38E-05
                                                                                300
                                                                                                                 1.31E-01 5.37E+02
                                                                                                                                                                  1.08E-02 0.000111 0.00052 2.131294
                                                                                                                                                                                                        5.63E-06 3.18E-05 3.08E-05 4.31E-05
2028 Taxiways Grading
                                                                                         0.59
                                                                                               20.3494
                                                                                                                                     1.42E-03
                                                                                                                                              8.01E-03
                                                                                                                                                        7.77E-03
2028 Taxiways Grading Roller
                                                       Rollers100 Diesel
                                                                                100
                                                                                         0.59
                                                                                               20.3494
                                                                                                       1.31E-01 9.30E-01 5.96E+02
                                                                                                                                     1.58E-03 2.51E-02 2.43E-02 1.23E-02 0.000174 0.00123 0.788944
                                                                                                                                                                                                        2.09E-06 3.32E-05 3.22E-05 1.63E-05
2028 Taxiways Hydroseec Hydroseeder
                                                                                600
                                                                                         0.59
                                                                                               18.3328
                                                                                                        3.46E-01
                                                                                                                 8.05E-01 5.37E+02
                                                                                                                                     1.52E-03
                                                                                                                                              5.65E-02
                                                                                                                                                        5.48E-02
                                                                                                                                                                  4.96E-02 0.002475 0.005762 3.839356
                                                                                                                                                                                                        1.09E-05 0.000404 0.000392 0.000355
2028 Taxiways Hydroseec Off-Road Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                               18.3328
                                                                                                       2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                 1.00E-02 0.000167 0.000851 3.840183
                                                                                                                                                                                                        1.01E-05 5.04E-05 4.89E-05 7.16E-05
                                                                                                                                                        6.84E-03
                                                                                                        2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                                  1.00E-02 0.000658 0.003345 15.09864
                                                                                                                                                                                                        3.98E-05 0.000198 0.000192 0.000282
2028 Taxiways Lighting
                       Dump Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                 72.08
2028 Taxiways Lighting Loader
                                                       Tractors/L Diesel
                                                                                175
                                                                                         0.59
                                                                                                 72.08
                                                                                                       5.68E-01 1.09E+00 6.26E+02
                                                                                                                                     1.77E-03
                                                                                                                                              1.32E-01 1.28E-01
                                                                                                                                                                 1.42E-01 0.004658 0.008963 5.136614
                                                                                                                                                                                                        1.45E-05 0.001084 0.001051 0.001166
2028 Taxiways Lighting
                       Other General Equipment
                                                       Other Con Diese
                                                                                175
                                                                                         n 43
                                                                                                 72 08
                                                                                                        1 46F-01
                                                                                                                 4.22E-01 5.37E+02
                                                                                                                                     1 45F-03
                                                                                                                                              3 55F-02
                                                                                                                                                        3 45F-02
                                                                                                                                                                 2.48F-02 0.000872 0.00252 3.209279
                                                                                                                                                                                                        8 675-06 0 000213 0 000206 0 000148
                                                                                                                 1.19E-01 5.37E+02
2028 Taxiways Lighting
                       Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59
                                                                                                 72.08
                                                                                                        2.34E-02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                 1.00E-02 0.000658 0.003345 15.09864
                                                                                                                                                                                                        3.98E-05 0.000198 0.000192 0.000282
2028 Taxiways Lighting
                       Skid Steer Loader
                                                       Skid Steer Diesel
                                                                                 75
                                                                                         0.21
                                                                                                 72.08 2.44E+00 3.62E+00 6.95E+02
                                                                                                                                     2.10E-03 3.16E-01 3.07E-01
                                                                                                                                                                 4.51E-01 0.003047 0.004533 0.869324 2.63E-06 0.000396 0.000384 0.000564
                       Tractors/Loader/Backhoe
                                                                                100
                                                                                                       1.39E+00 1.77E+00 6.95E+02
                                                                                                                                     1.97E-03
                                                                                                                                              1.99E-01
                                                                                                                                                        1.93E-01
                                                                                                                                                                 1.96E-01 0.002317 0.002957 1.160363
                                                                                                                                                                                                        3.28E-06 0.000332 0.000322 0.000327
2028 Taxiways Lighting
                                                       Tractors/L Diesel
                                                                                                 72.08
                                                                                         0.21
2028 Taxiways Markings Flathed Truck
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59 295.2411 2.34F-02 1.19F-01 5.37F+02
                                                                                                                                     1.42F-03
                                                                                                                                              7.05F-03 6.84F-03
                                                                                                                                                                 1.00F-02 0.002696 0.013703 61.84435 0.000163 0.000812 0.000788 0.001153
                                                                                175
                                                                                         0.43 295.2411
                                                                                                        1.46E-01
                                                                                                                 4.22E-01 5.37E+02
                                                                                                                                     1.45E-03
                                                                                                                                              3.55E-02
                                                                                                                                                        3.45E-02
2028 Taxiways Markings Other General Equipment
                                                                                                                                                                 2.48E-02 0.003571 0.010323 13.14527
                                                                                                                                                                                                        3.55E-05 0.000871 0.000844 0.000607
2028 Taxiways Markings Pickup Truck
                                                       Off-highw; Diesel
                                                                                600
                                                                                         0.59 295.2411 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03 7.05E-03 6.84E-03
                                                                                                                                                                 1.00E-02 0.002696 0.013703 61.84435 0.000163 0.000812 0.000788 0.001153
2028 Taxiways Soil Erosio Other General Equipment
                                                                                                        1.46E-01
                                                                                                                 4.22E-01 5.37E+02
                                                                                                                                     1.45E-03
                                                                                                                                              3.55E-02
                                                                                                                                                        3.45E-02
                                                                                                                                                                  2.48E-02 0.000203 0.000587 0.748001
                                                                                                                                                                                                        2.02E-06 4.95E-05 4.81E-05 3.45E-05
2028 Taxiways Soil Erosio Pickup Truck
                                                       Off-highwa Diese
                                                                                600
                                                                                         0.59
                                                                                                  33.6 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03 1.00E-02 0.000307 0.001559 7.038213 1.86E-05 9.24E-05 8.97E-05 0.000131
                                                                                                   16.8 2.46E+00 4.18E+00 5.94E+02
                                                                                                                                                        2.32E-01
2028 Taxiways Soil Erosio Pumps
                                                       Other Con Diesel
                                                                                 11
                                                                                         0.43
                                                                                                                                     2.18E-03
                                                                                                                                              2.39E-01
                                                                                                                                                                 8.38E-01 0.000215 0.000366 0.05201
                                                                                                                                                                                                        1.91E-07 2.09E-05 2.03E-05 7.34E-05
                                                                                                                                                                                                                 7.74E-05
2028 Taxiways Soil Erosio Tractors/Loader/Backhoe
                                                       Tractors/L Diese
                                                                                100
                                                                                         0.21
                                                                                                  16.8 1.39E+00 1.77E+00 6.95E+02
                                                                                                                                     1.97E-03
                                                                                                                                              1.99E-01
                                                                                                                                                        1.93E-01
                                                                                                                                                                 1.96E-01 0.00054 0.000689 0.270451
                                                                                                                                                                                                        7.66E-07
                                                                                                                                                                                                                           7.51E-05
                                                                                                                                                                                                                                     7.62F-05
2028 Taxiways Subbase P Dozer
                                                                                175
                                                                                         0 59 30 18442
                                                                                                       6.40E-02 2.08E-01 5.37E+02
                                                                                                                                     1 42F-03
                                                                                                                                              1 49F-02
                                                                                                                                                        1 44F-02
                                                                                                                                                                  1.03E-02 0.00022 0.000715 1.844139
                                                                                                                                                                                                        4 88F-06 5 12F-05 4 96F-05 3 54F-05
                                                       Crawler Tr Diesel
2028 Taxiways Subbase Pl Dump Truck (12 cy)
                                                       Off-highwa Diesel
                                                                                         0.59 212.4089 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                        6.84E-03
                                                                                                                                                                 1.00E-02 0.001939 0.009858 44.49342 0.000117 0.000584 0.000567
                                                                                600
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                                                                                                     0.00083
2028 Taxiways Subbase P Pickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59 30.18442 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03
                                                                                                                                                                 1.00E-02 0.000276 0.001401 6.32275 1.67E-05
                                                                                                                                                                                                                  8.3E-05 8.05E-05 0.000118
2028 Taxiways Subbase P Roller
                                                       Rollers100 Diese
                                                                                         0.59 29.41046
                                                                                                        1.31E-01
                                                                                                                 9.30E-01 5.96E+02
                                                                                                                                     1.58E-03
                                                                                                                                              2.51E-02
                                                                                                                                                        2.43E-02
                                                                                                                                                                  1.23E-02 0.000251 0.001778 1.140241
                                                                                                                                                                                                        3.02E-06
                                                                                                                                                                                                                  4.79E-05
                                                                                                                                                                                                                           4.65E-05 2.36E-05
                                                                                100
2028 Taxiways Topsoil PlaDozer
                                                       Crawler Tr Diesel
                                                                                175
                                                                                         0.59 45.22133 6.40F-02
                                                                                                                 2.08F-01 5.37F+02
                                                                                                                                     1.42F-03
                                                                                                                                              1.49F-02
                                                                                                                                                        1.44F-02
                                                                                                                                                                 1.03F-02 0.000329 0.001072 2.76283
                                                                                                                                                                                                         7.3F-06 7.66F-05
                                                                                                                                                                                                                           7.43F-05
                                                                                                                                                                                                                                      5.3F-05
                                                                                                        2.34E-02
                                                                                                                                      1.42E-03
                                                                                                                                                        6.84E-03
                                                                                                                                                                                                                 0.000124
2028 Taxiways Topsoil Pla Dump Truck
                                                        Off-highw: Diese
                                                                                                                  1.19E-01 5.37E+02
                                                                                                                                               7.05E-03
                                                                                                                                                                  1.00E-02 0.000413 0.002099 9.472541
                                                                                                                                                                                                                           0.000121
2028 Taxiways Topsoil PlaPickup Truck
                                                       Off-highwa Diesel
                                                                                600
                                                                                         0.59 45.22133 2.34E-02
                                                                                                                 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03 6.84E-03
                                                                                                                                                                 1.00E-02 0.000413 0.002099 9.472541
                                                                                                                                                                                                         2.5E-05 0.000124 0.000121 0.000177
2028 Demolitior Concrete [ Excavator with Bucket
                                                       Excavators Diesel
                                                                                                        5.52E-02
                                                                                                                 1.81E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              1.26E-02
                                                                                                                                                        1.22E-02
                                                                                                                                                                  9.05E-03 0.000435 0.001428 4.228828
                                                                                                                                                                                                                  9.9E-05
                                                                                                                                                                                                                            9.6E-05 7.13E-05
2028 DemolitiorConcrete Excavator with Hoe Ram
                                                       Excavators Diesel
                                                                                175
                                                                                         0.59
                                                                                                69.216 5.52E-02 1.81E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              1.26E-02
                                                                                                                                                        1.22E-02 9.05E-03 0.000435 0.001428 4.228828
                                                                                                                                                                                                        1.12E-05
                                                                                                                                                                                                                   9.9E-05
                                                                                                                                                                                                                            9.6E-05
                                                                                                                                                                                                                                     7.13E-05
2028 DemolitiorConcrete [Pickup Truck
                                                       Off-highwa Diesel
                                                                                              138.432 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                     1.42E-03
                                                                                                                                              7.05E-03
                                                                                                                                                        6.84E-03 1.00E-02 0.001264 0.006425 28.99744 7.64E-05 0.000381 0.000369 0.000541
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1.42E-03 1.73E-02 1.67E-02 1.15E-02 4.99E-05 0.000155 0.367427 9.74E-07
2028 Apron (GA Asphalt Pl; Dump Truck
                                                        Off-highw; Diesel
                                                                                  600
                                                                                           0.59 21.65988 2.34E-02 1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02 0.000198 0.001005 4.537108
                                                                                                                                                                                                               1.2E-05 5.96E-05
                                                                                                                                                                                                                                  5.78E-05 8.46E-05
2028 Apron (GA Asphalt Pl: Other General Equipment
                                                         Other Con Diese
                                                                                  175
                                                                                            0.43
                                                                                                            1.46E-01
                                                                                                                     4.22E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3.55E-02
                                                                                                                                                             3.45E-02
                                                                                                                                                                       2.48E-02 0.000145 0.000421 0.535533
                                                                                                                                                                                                                         3.55E-05
                                                                                                                                                                                                                                  3.44E-05
                                                                                                                                                                                                                                            2.47E-05
2028 Apron (GA Asphalt Pl; Pickup Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                    6.014
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 5.49E-05 0.000279 1.259756
                                                                                                                                                                                                              3.32E-06
                                                                                                                                                                                                                        1.65E-05
                                                                                                                                                                                                                                   1.6E-05
                                                                                                                                                                                                                                            2.35E-05
                                                                                                                                                             2.43E-02
2028 Apron (GA Asphalt Pl Rolle
                                                         Rollers 100 Diesel
                                                                                  100
                                                                                            0.59
                                                                                                            1.31E-01
                                                                                                                     9.30E-01 5.96E+02
                                                                                                                                          1.58E-03
                                                                                                                                                   2 51F-02
                                                                                                                                                                       1.23E-02
                                                                                                                                                                                5.14E-05 0.000364 0.233162
                                                                                                                                                                                                               6.19E-07
                                                                                                                                                                                                                         9.8E-06
                                                                                                                                                                                                                                   9.51E-06
                                                                                                                                                                                                                                            4 83F-06
2028 Apron (GA Asphalt Pli Skid Steer Loader
                                                         Skid Steer Diesel
                                                                                   75
                                                                                           0.21
                                                                                                    6.014 2.44E+00 3.62E+00 6.95E+02
                                                                                                                                         2.10E-03
                                                                                                                                                   3.16E-01
                                                                                                                                                             3.07E-01
                                                                                                                                                                       4.51E-01 0.000254 0.000378 0.072532 2.19E-07
                                                                                                                                                                                                                         3.3E-05
                                                                                                                                                                                                                                   3.2E-05
                                                                                                                                                                                                                                            4.71E-05
2028 Apron (GA Asphalt Pli Surfacing Equipment (Grooving)
                                                                                                     69792 1.49E+00 3.76E+00 5.95E+02
13.2 2.46E+00 4.18E+00 5.94E+02
                                                                                   25
11
                                                                                                                                                   1.70E-01
                                                                                                                                                                       3.52E-01 0.000186 0.000471 0.07449
                                                                                                                                                                                                                        2.13E-05
                                                                                                                                                                                                                                  2.07E-05
                                                         Other Con Diesel
                                                                                            0.59
                                                                                                    69792
                                                                                                                                         2.19E-03
                                                                                                                                                             1.65E-01
                                                                                                                                                                                                              2.74E-07
                                                                                                                                                                                                                                             4.4E-05
                                                                                                                                                                       8.38E-01 0.000276 0.000469 0.066524
2028 Apron (GA Clearing at Chain Saw
                                                         Other Con Diesel
                                                                                            0.7
                                                                                                                                         2.18E-03
                                                                                                                                                   2.39E-01
                                                                                                                                                             2.32E-01
                                                                                                                                                                                                              2.45E-07
                                                                                                                                                                                                                        2.67E-05
                                                                                                                                                                                                                                  2.59E-05
                                                                                                                                                                                                                                            9.39E-05
2028 Apron (GA Clearing at Chipper/Stump Grinder
                                                         Other Con Diesel
                                                                                  100
600
                                                                                           0.43
                                                                                                      13.2
                                                                                                           3.26E-01 1.11E+00 5.96E+02
                                                                                                                                         1.61E-03
                                                                                                                                                   5.06F-02
                                                                                                                                                             4.91E-02
                                                                                                                                                                       2.94E-02 0.000204 0.000694 0.372948
                                                                                                                                                                                                              1.01E-06
                                                                                                                                                                                                                        3 17F-05
                                                                                                                                                                                                                                  3.07E-05
                                                                                                                                                                                                                                            1 84F-05
                                                                                                           2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                                       1.00E-02 0.000161 0.000817 3.686683
                                                                                                                                                                                                              9.72E-06
2028 Apron (GA Clearing at Pickup Truck
                                                         Off-highwa Diese
                                                                                           0.59
                                                                                                     17.6
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                                                                        4.84E-05
                                                                                                                                                                                                                                   4.7E-05
                                                                                                                                                                                                                                            6.87F-05
2028 Apron (GA Concrete FAir Compressor
                                                         Other Con Diesel
                                                                                  100
                                                                                           n 43
                                                                                                  16.0376
                                                                                                           3 26F-01 1 11F+00 5 96F+02
                                                                                                                                         1 61F-03
                                                                                                                                                   5.06F-02
                                                                                                                                                             4 91F-02
                                                                                                                                                                       2 94F-02 0 000248 0 000844 0 453121
                                                                                                                                                                                                              1 22F-06
                                                                                                                                                                                                                        3 85F-05
                                                                                                                                                                                                                                  3 73F-05 2 23F-05
2028 Apron (GA Concrete F Concrete Saws
                                                         Other Con Diesel
                                                                                   40
                                                                                           0.59
                                                                                                  16.0376
                                                                                                            2.79E-01 2.53E+00 5.96E+02
                                                                                                                                         1.57E-03
                                                                                                                                                   2.05E-02
                                                                                                                                                             1.98E-02
                                                                                                                                                                       9.25E-02 0.000116 0.001055 0.248609
                                                                                                                                                                                                               6.55E-07
                                                                                                                                                                                                                        8.54E-06
                                                                                                                                                                                                                                  8.28E-06
                                                                                                                                                                                                                                            3.86E-05
2028 Apron (GA Concrete F Concrete Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                 66.82333
                                                                                                           2.34F-02 1.19F-01 5.37F+02
                                                                                                                                         1.42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03
                                                                                                                                                                       4.22E-01 5.37E+02
                                                                                  175
                                                                                                                                                                       2.48E-02 0.000388 0.001122 1.428111
2028 Apron (GA Concrete F Other General Equipment
                                                         Other Con Diese
                                                                                            0.43
                                                                                                  32.0752
                                                                                                            1.46E-01
                                                                                                                                          1.45E-03
                                                                                                                                                             3.45E-02
                                                                                                                                                                                                               3.86E-06
                                                                                                                                                                                                                        9.46E-05
2028 Apron (GA Concrete F Pickup Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                 48.1128
                                                                                                           2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03 6.84E-03
                                                                                                                                                                       1.00E-02 0.000439 0.002233 10.07822 2.66E-05 0.000132 0.000128 0.000188
2028 Apron (GA Concrete FRubber Tired Loader
                                                         Tractors/L Diesel
                                                                                  175
                                                                                            0.59
                                                                                                  16.0376
                                                                                                            5.68E-01 1.09E+00 6.26E+02
                                                                                                                                         1.77E-03
                                                                                                                                                   1.32E-01
                                                                                                                                                             1.28E-01
                                                                                                                                                                       1.42E-01 0.001036 0.001994 1.142882
                                                                                                                                                                                                               3.23E-06 0.000241 0.000234
                                                                                                                                                                                                                                           0.000259
2028 Apron (GA Concrete FSlip Form Paver
                                                         Pavers175 Diesel
                                                                                  175
                                                                                           0.59
                                                                                                  16.0376
                                                                                                           7.28E-02 2.27E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   1.73E-02
                                                                                                                                                             1.67E-02
                                                                                                                                                                       1.15E-02 0.000133 0.000414 0.979821
                                                                                                                                                                                                               2.6E-06 3.15E-05 3.06E-05
                                                                                                                                                                                                                                            2 1F-05
                                                                                  25
175
                                                                                                          1.49E+00 3.76E+00 5.95E+02
6.40E-02 2.08E-01 5.37E+02
                                                                                                                                         2.19E-03
                                                                                                                                                   1.70E-01
                                                                                                                                                                       3.52E-01 0.000388 0.000981 0.15519
                                                                                                                                                                                                               5.71E-07 4.44E-05
2028 Apron (GA Concrete F Surfacing Equipment (Grooving)
                                                         Other Con Diesel
                                                                                                  16.0376
                                                                                                                                                             1.65E-01
                                                                                                                                                                                                                                  4.31E-05
                                                                                                                                         1.42E-03
                                                                                                                                                                       1.03E-02 6.24E-05 0.000203 0.523957
                                                                                                                                                                                                              1.39E-06 1.45E-05
2028 Apron (GA Drainage - Dozer
                                                        Crawler Tr Diesel
                                                                                           0.59
                                                                                                    8.576
                                                                                                                                                   1.49E-02
                                                                                                                                                             1.44E-02
                                                                                                                                                                                                                                  1.41E-05
                                                                                                                                                                                                                                               1E-05
2028 Apron (GA Drainage - Dump Truck
                                                                                  600
175
                                                                                                    8.576 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1 42F-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6 84F-03

    1.00E-02
    7.83E-05
    0.000398
    1.79642
    4.74E-06
    2.36E-05
    2.29E-05
    3.35E-05

    9.05E-03
    5.39E-05
    0.000177
    0.52396
    1.38E-06
    1.23E-05
    1.19E-05
    8.83E-06

                                                         Off-highwa Diesel
                                                                                           0.59
                                                                                                                     1.81E-01 5.37E+02
                                                                                                                                                             1.22E-02
2028 Apron (GA Drainage - Excavator
                                                         Excavators Diesel
                                                                                           0.59
                                                                                                    8.576
                                                                                                           5.52E-02
                                                                                                                                         1.42E-03
                                                                                                                                                   1.26E-02
2028 Apron (GA Drainage - Loader
                                                         Tractors/L Diesel
                                                                                  175
                                                                                           n 59
                                                                                                    8 576
                                                                                                           5.68E-01 1.09E+00 6.26E+02
                                                                                                                                         1 77F-03
                                                                                                                                                   1 32F-01
                                                                                                                                                             1 28F-01
                                                                                                                                                                       1.425-01 0.000554 0.001066 0.611149
                                                                                                                                                                                                              1 735-06 0 000129 0 000125 0 000139
                                                                                                                                                                                           0.0003 0.381836
                                                                                                                                                                                                                                  2.45E-05
2028 Apron (GA Drainage - Other General Equipment
                                                                                  175
                                                                                                           1.46E-01 4.22E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3.55E-02
                                                                                                                                                             3.45E-02
                                                                                                                                                                       2.48E-02 0.000104
                                                                                                                                                                                                              1.03E-06 2.53E-05
                                                         Other Con Diesel
                                                                                           0.43
                                                                                                    8.576
                                                                                                                                                                                                                                            1.76E-05
2028 Apron (GA Drainage - Pickup Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                    8.576
                                                                                                           2.34F-02 1.19F-01 5.37F+02
                                                                                                                                         1.42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03
                                                                                                                                                                      1.00F-02 7.83F-05 0.000398 1.79642 4.74F-06
                                                                                                                                                                                                                        2.36F-05
                                                                                                                                                                                                                                  2.29F-05
                                                                                                                                                                                                                                            3.35F-05
                                                                                                                     9.30E-01 5.96E+02
                                                                                                                                                   2.51E-02
                                                                                                                                                             2.43E-02
                                                                                                                                                                                                              8.82E-07
                                                                                                                                                                                                                         1.4E-05
2028 Apron (GA Drainage - Roller
                                                         Rollers100 Diese
                                                                                  100
                                                                                            0.59
                                                                                                            1.31E-01
                                                                                                                                          1.58E-03
                                                                                                                                                                       1.23E-02
                                                                                                                                                                                7.33E-05 0.000519
                                                                                                                                                                                                                                   1.36E-05
2028 Apron (GA Drainage - Dump Truck
                                                        Off-highwa Diese
                                                                                  600
                                                                                           0.59 4.764444
                                                                                                           2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 4.35E-05 0.000221 0.998011 2.63E-06
                                                                                                                                                                                                                        1.31E-05
                                                                                                                                                                                                                                  1.27E-05
                                                                                                                                                                                                                                            1.86E-05
                                                                                                                                                                                                                                   6.95E-05
2028 Apron (GA Drainage - Loader
                                                         Tractors/L Diesel
                                                                                  175
                                                                                           0.59 4.764444
                                                                                                            5.68E-01 1.09E+00 6.26E+02
                                                                                                                                          1.77E-03
                                                                                                                                                   1.32E-01
                                                                                                                                                             1.28E-01
                                                                                                                                                                       1.42E-01 0.000308 0.000592 0.339527
                                                                                                                                                                                                               9.6E-07
                                                                                                                                                                                                                        7.17E-05
                                                                                                                                                                                                                                            7.71E-05
2028 Apron (GA Drainage - Other General Equipment
                                                        Other Con Diese
                                                                                  175
                                                                                           0.43 4.764444
                                                                                                           1.46E-01
                                                                                                                     4.22E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3.55E-02
                                                                                                                                                             3.45E-02
                                                                                                                                                                       2.48E-02 5.76E-05 0.000167 0.212131
                                                                                                                                                                                                              5.73E-07
                                                                                                                                                                                                                         1.4E-05
                                                                                                                                                                                                                                  1.36E-05
                                                                                                                                                                                                                                             9.8E-06
                                                                                            0.59 4.764444
                                                                                                           2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 4.35E-05 0.000221 0.998011
                                                                                                                                                                                                                         1.31E-05
2028 Apron (GA Drainage - Pickup Truck
                                                         Off-highw: Diesel
                                                                                  600
                                                                                                                                                                                                              2.63E-06
                                                                                                                                                                                                                                  1.27E-05
                                                                                                                                                                                                                                            1.86E-05
2028 Apron (GA Drainage - Tractors/Loader/Backhoe
                                                                                           0.21 4.764444
                                                                                                           1.39E+00 1.77E+00 6.95E+02
                                                                                                                                         1.97E-03
                                                                                                                                                             1.93E-01
                                                                                                                                                                       1.96E-01 0.000153 0.000195 0.076699
                                                         Tractors/L Diesel
                                                                                  100
                                                                                                                                                   1.99E-01
                                                                                                                                                                                                              2.17E-07
                                                                                                                                                                                                                         2.2E-05
                                                                                                                                                                                                                                  2.13E-05
                                                                                                                                                                                                                                            2.16E-05
2028 Apron (GA Dust Contr Water Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                   2160 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1.42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03
                                                                                                                                                                       1.00E-02 0.019722 0.10025 452.4566 0.001193 0.005942 0.005764 0.008437
                                                                                  175
                                                                                           0.59 26.72933 6.40E-02 2.08E-01 5.37E+02
                                                                                                                                                             1.44E-02
                                                                                                                                                                       1.03E-02 0.000195 0.000633 1.633048 4.32E-06 4.53E-05
2028 Apron (GA Excavation Dozer
                                                         Crawler Tr Diesel
                                                                                                                                         1.42E-03
                                                                                                                                                   1.49E-02
                                                                                                                                                                                                                                  4.39E-05 3.13E-05
2028 Apron (GA Excavation Dump Truck (12 cv)
                                                         Off-highw: Diesel
                                                                                  600
                                                                                           0.59 26 72933 2 34F-02 1 19F-01 5 37F+02
                                                                                                                                         1 42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03
                                                                                                                                                                       1.00E-02 0.000244 0.001241 5.59901 1.48E-05
                                                                                                                                                                                                                        7 35F-05
                                                                                                                                                                                                                                  7 13F-05 0 000104
                                                                                           0.59 26.72933
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000244 0.001241
                                                                                                                                                                                                    5.59901
                                                                                                                                                                                                               1.48E-05
2028 Apron (GA Excavation Pickup Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                                                                                        7.35E-05
                                                                                                                                                                                                                                  7.13E-05 0.000104
2028 Apron (GA Excavation Roller
                                                         Rollers100 Diesel
                                                                                  100
                                                                                           0.59 12.33662
                                                                                                           1.31E-01
                                                                                                                     9.30F-01 5.96F+02
                                                                                                                                         1.58F-03
                                                                                                                                                   2.51F-02
                                                                                                                                                             2.43F-02
                                                                                                                                                                       1.23F-02 0.000105 0.000746 0.478289
                                                                                                                                                                                                              1.27E-06 2.01E-05
                                                                                                                                                                                                                                  1.95F-05
                                                                                                                                                                                                                                             9.9F-06
                                                                                                                                                                                                                                    3.3E-05
                                                                                  175
                                                                                                   20.047
                                                                                                            6.40E-02
                                                                                                                     2.08E-01 5.37E+02
                                                                                                                                          1.42E-03
                                                                                                                                                                                                                         3.4E-05
2028 Apron (GA Excavation Doze
                                                         Crawler Tr Diese
                                                                                                                                                   1.49E-02
                                                                                                                                                                       1.03E-02 0.000146 0.000475 1.224786
2028 Apron (GA Excavation Dump Truck (12 cy)
                                                         Off-highwa Diese
                                                                                  600
                                                                                           0.59 53.45867
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000488 0.002481 11.19802 2.95E-05 0.000147 0.000143 0.000209
2028 Apron (GA Excavation Excavator
                                                         Excavators Diese
                                                                                  175
                                                                                            0.59
                                                                                                 16.0376
                                                                                                            5.52E-02
                                                                                                                     1.81E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   1.26E-02
                                                                                                                                                             1.22E-02
                                                                                                                                                                       9.05E-03 0.000101 0.000331 0.979835
                                                                                                                                                                                                               2.58E-06
                                                                                                                                                                                                                        2.29E-05
                                                                                                                                                                                                                                  2.22E-05
2028 Apron (GA Excavation Pickup Truck
                                                         Off-highwa Diese
                                                                                  600
                                                                                           0.59
                                                                                                 16.0376
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000146 0.000744 3.359406
                                                                                                                                                                                                              8.86E-06
                                                                                                                                                                                                                        4.41E-05
                                                                                                                                                                                                                                  4.28E-05
                                                                                                                                                                                                                                            6.26F-05
2028 Apron (GA Excavation Roller
                                                                                                  16.0376
                                                                                                                                                             2.43E-02
                                                                                  100
                                                                                                            1.31E-01
                                                                                                                     9.30E-01 5.96E+02
                                                                                                                                          1.58E-03
                                                                                                                                                   2.51E-02
                                                                                                                                                                       1.23E-02 0.000137 0.00097 0.621776
                                                                                                                                                                                                               1.65E-06
                                                                                                                                                                                                                        2.61E-05
                                                         Rollers100 Diesel
                                                                                            0.59
                                                                                                                                                                                                                                  2.53E-05
                                                                                                                                                                                                                                            1.29F-05
                                                                                                                                                                      2.04E-02 0.00086 0.002347 4.199018
2028 Apron (GA Excavation Scraper
                                                                                                   20.047
                                                                                                                     3.00E-01 5.37E+02
                                                         Scrapers6(Diesel
                                                                                  600
                                                                                           0.59
                                                                                                           1.10E-01
                                                                                                                                         1.45E-03
                                                                                                                                                   2.15E-02 2.09E-02
                                                                                                                                                                                                              1.13E-05 0.000168 0.000163
                                                                                                                                                                                                                                            0.00016
2028 Apron (GA Excavation Dozer
                                                         Crawler Tr Diesel
                                                                                  175
                                                                                           0.59 7.54698
                                                                                                           6.40E-02
                                                                                                                    2.08E-01 5.37E+02
                                                                                                                                         1 42F-03
                                                                                                                                                   1 49F-02
                                                                                                                                                             1 44F-02
                                                                                                                                                                      1 03F-02
                                                                                                                                                                                 5 5F-05 0 000179 0 461088
                                                                                                                                                                                                              1 22F-06
                                                                                                                                                                                                                        1.28E-05 1.24E-05
                                                                                                                                                                                                                                            8 84F-06
                                                                                                                                                                                                                        7.89E-06
2028 Apron (GA Fencing Concrete Truck
                                                                                                           2.34E-02
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59 2.866667
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02
                                                                                                                                                                                2.62E-05 0.000133 0.600482
                                                                                                                                                                                                               1.58E-06
                                                                                                                                                                                                                                  7.65E-06
                                                                                                                                                                                                                                            1.12E-05
2028 Apron (GA Fencing
                        Dumn Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59 11.46667 2.34F-02 1.19F-01 5.37F+02
                                                                                                                                         1 42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03
                                                                                                                                                                       1.005-02.0.000105.0.000532. 2.40193. 6.335-06. 3.155-05.
                                                                                                                                                                                                                                  3.06F-05
                                                                                                                                                                                                                                            4 48F-05
2028 Apron (GA Fencing
                                                                                  175
                                                                                           0.43 11.46667
                                                                                                                     4.22E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3.55E-02
                                                                                                                                                             3.45E-02
                                                                                                                                                                       2.48E-02 0.000139 0.000401 0.51054
                                                                                                                                                                                                                                  3.28E-05
                        Other General Equipment
                                                         Other Con Diesel
                                                                                                           1.46E-01
                                                                                                                                                                                                              1.38E-06
                                                                                                                                                                                                                        3.38E-05
                                                                                                                                                                                                                                            2.36E-05
2028 Apron (GA Fencing
                        Pickup Truck
Skid Steer Loader
                                                         Off-highw; Diese
                                                                                  600
                                                                                           0.59 11.46667
                                                                                                           2.34F-02 1.19F-01 5.37F+02
                                                                                                                                         1.42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03 1.00F-02 0.000105 0.000532 2.40193 6.33F-06 3.15F-05
                                                                                                                                                                                                                                  3.06F-05 4.48F-05
                                                                                   75
                                                                                            0.21 11.46667
                                                                                                           2.44E+00
                                                                                                                     3.62E+00 6.95E+02
                                                                                                                                                             3.07E-01
                                                                                                                                                                       4.51E-01 0.000485 0.000721 0.138294
                                                                                                                                                                                                               4.18E-07
                                                                                                                                                                                                                         6.3E-05
                                                                                                                                                                                                                                  6.11E-05
2028 Apron (GA Fencing
                                                                                                                                         2.10E-03
                                                                                                                                                   3.16E-01
2028 Apron (GA Fencing
                        Tractors/Loader/Backhoe
                                                         Tractors/L Diesel
                                                                                  100
                                                                                           0.21 11.46667 1.39E+00 1.77E+00 6.95E+02
                                                                                                                                         1.97E-03
                                                                                                                                                   1.99E-01
                                                                                                                                                             1.93E-01
                                                                                                                                                                       1.96E-01 0.000369 0.00047 0.184593
                                                                                                                                                                                                              5.23E-07
                                                                                                                                                                                                                        5.28E-05
                                                                                                                                                                                                                                  5.13E-05
                                                                                                                                                                                                                                             5.2E-05
2028 Apron (GA Grading
                                                         Crawler Tr Diese
                                                                                  175
                                                                                            0.59
                                                                                                   5.2951
                                                                                                            6.40E-02
                                                                                                                     2.08E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   1.49E-02
                                                                                                                                                             1.44E-02
                                                                                                                                                                       1.03E-02 3.86E-05 0.000125 0.323508
                                                                                                                                                                                                               8.55E-07
                                                                                                                                                                                                                        8.97E-06
                                                                                                                                                                                                                                    8.7E-06
                        Dozer
2028 Apron (GA Grading Grader
                                                         Graders30 Diesel
                                                                                  300
                                                                                           0.59
                                                                                                   5.2951
                                                                                                           2.80E-02
                                                                                                                     1.31E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   8.01E-03
                                                                                                                                                             7.77E-03
                                                                                                                                                                       1.08E-02 2.89E-05 0.000135 0.554582
                                                                                                                                                                                                              1.46E-06
                                                                                                                                                                                                                        8.27E-06
                                                                                                                                                                                                                                  8.02E-06
                                                                                                                                                                                                                                            1.12E-05
2028 Apron (GA Grading
                                                                                                                    9.30E-01 5.96E+02
8.05E-01 5.37E+02
                                                                                                                                         1.58E-03
1.52E-03
                                                                                                                                                             2.43E-02
5.48E-02
                                                                                  100
                                                                                                           1.31E-01
                                                                                                                                                   2.51E-02
                                                                                                                                                                       1.23E-02 4.52E-05 0.00032 0.205291
                                                                                                                                                                                                               5.45F-07
                                                                                                                                                                                                                        8.63E-06
                                                                                                                                                                                                                                  8.37E-06
                        Roller
                                                         Rollers100 Diesel
                                                                                            0.59
                                                                                                   5.2951
                                                                                                                                                                                                                                            4.25F-06
2028 Apron (GA Hydroseec Hydroseeder
                                                                                           0.59
                                                                                                                                                                       4.96E-02 0.000644 0.001499 0.999044
                                                                                                                                                                                                               2.82E-06 0.000105
                                                                                                                                                                                                                                  0.000102
                                                         Other Con Diesel
                                                                                  600
                                                                                                   4.7704
                                                                                                            3.46E-01
                                                                                                                                                   5.65E-02
                                                                                                                                                                                                                                            9.24E-05
2028 Apron (GA Hydroseec Off-Road Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                           2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1 42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03
                                                                                                                                                                       1.00E-02 4.36E-05 0.000221 0.999259 2.63E-06 1.31E-05 1.27E-05
                                                                                                   4.7704
                                                                                                                                                                                                                                            1 86F-05
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                                                                                              3.14E-06
2028 Apron (GA Lighting
                        Dump Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                     5.68
                                                                                                           2.34E-02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 5.19E-05 0.000264 1.189793
                                                                                                                                                                                                                        1.56E-05
                                                                                                                                                                                                                                  1.52E-05
                                                                                                                                                                                                                                            2.22E-05
2028 Apron (GA Lighting
                        Loader
                                                         Tractors/L Diesel
                                                                                  175
                                                                                           0.59
                                                                                                     5.68
                                                                                                            5.68E-01 1.09E+00 6.26E+02
                                                                                                                                         1.77E-03
                                                                                                                                                   1.32E-01
                                                                                                                                                             1.28E-01
                                                                                                                                                                       1.42E-01 0.000367 0.000706 0.404772
                                                                                                                                                                                                              1.14E-06
                                                                                                                                                                                                                        8.54E-05
                                                                                                                                                                                                                                  8.29E-05
                                                                                                                                                                                                                                            9.19E-05
2028 Apron (GA Lighting
                        Other General Equipment
                                                         Other Con Diese
                                                                                  175
                                                                                           0.43
                                                                                                      5.68
                                                                                                            1.46E-01
                                                                                                                     4.22E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3.55E-02
                                                                                                                                                             3.45E-02
                                                                                                                                                                       2.48E-02
                                                                                                                                                                                6.87E-05 0.000199 0.252895
                                                                                                                                                                                                               6.83E-07
                                                                                                                                                                                                                        1.67E-05
                                                                                                                                                                                                                                  1.62E-05
2028 Apron (GA Lighting
                        Pickup Truck
                                                        Off-highw: Diese
                                                                                  600
                                                                                           0.59
                                                                                                     5.68
                                                                                                           2.34F-02 1.19F-01 5.37F+02
                                                                                                                                         1.42F-03
                                                                                                                                                   7.05F-03
                                                                                                                                                             6.84F-03
                                                                                                                                                                       1.00F-02 5.19F-05 0.000264 1.189793 3.14F-06
                                                                                                                                                                                                                        1.56F-05
                                                                                                                                                                                                                                  1.52F-05
                                                                                                                                                                                                                                            2.22F-05
                                                                                   75
                                                                                                           2.44E+00 3.62E+00 6.95E+02
                                                                                                                                                                                 0.00024 0.000357 0.068504
2028 Apron (GA Lighting
                        Skid Steer Loader
                                                                                            0.21
                                                                                                                                         2.10E-03
                                                                                                                                                   3.16E-01
                                                                                                                                                             3.07E-01
                                                                                                                                                                       4.51E-01
                                                                                                                                                                                                               2.07E-07
                                                                                                                                                                                                                        3.12E-05
2028 Apron (GA Lighting
                        Tractors/Loader/Backhoe
                                                         Tractors/L Diesel
                                                                                  100
                                                                                           0.21
                                                                                                     5.68 1.39E+00 1.77E+00 6.95E+02
                                                                                                                                         1.97E-03
                                                                                                                                                   1.99E-01
                                                                                                                                                             1.93E-01
                                                                                                                                                                       1.96E-01 0.000183 0.000233 0.091438 2.59E-07
                                                                                                                                                                                                                        2.62E-05
                                                                                                                                                                                                                                  2.54E-05 2.57E-05
2028 Apron (GA Markings Flatbed Truck
                                                         Off-highwa Diese
                                                                                  600
                                                                                            0.59
                                                                                                   99.072
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000905 0.004598 20.75267
                                                                                                                                                                                                               5.47E-05
                                                                                                                                                                                                                        0.000273
                                                                                                                                                                                                                                  0.000264
2028 Apron (GA Markings Other General Equipment
                                                         Other Con Diesel
                                                                                  175
                                                                                           0.43
                                                                                                   99.072
                                                                                                           1.46E-01
                                                                                                                     4.22E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3.55E-02
                                                                                                                                                             3.45E-02
                                                                                                                                                                       2.48E-02 0.001198 0.003464 4.411066
                                                                                                                                                                                                               1.19E-05 0.000292 0.000283 0.000204
2028 Apron (GA Markings Pickup Truck
                                                                                                   99.072
                                                                                                           2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000905 0.004598 20.75267
                                                                                                                                                                                                               5.47E-05 0.000273 0.000264 0.000387
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59
2028 Apron (GA Sealing/Fu Distributing Tanker
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59 12.82987
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03 6.84E-03
                                                                                                                                                                       1.00E-02 0.000117 0.000595 2.68748
                                                                                                                                                                                                              7.08E-06 3.53E-05 3.42E-05 5.01E-05
2028 Apron (GA Sealing/Fu Other General Equipment
                                                         Other Con Diese
                                                                                  175
                                                                                           0.43 12.82987
                                                                                                            1 46F-01
                                                                                                                    4.22E-01 5.37E+02
1.19E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3 55F-02
                                                                                                                                                             3 45F-02
                                                                                                                                                                       2.48F-02. 0.000155. 0.000449. 0.571235.
                                                                                                                                                                                                               1 54F-06
                                                                                                                                                                                                                        3.78E-05
                                                                                                                                                                                                                                  3.67E-05 2.64E-05
2028 Apron (GA Sealing/Fu Pickup Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59 12.82987
                                                                                                            2.34E-02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000117 0.000595 2.68748
                                                                                                                                                                                                               7.08E-06
                                                                                                                                                                                                                        3.53E-05
                                                                                                                                                                                                                                  3.42E-05
                                                                                                                                                                                                                                            5.01E-05
2028 Apron (GA Soil Erosio Other General Equipment
                                                         Other Con Diesel
                                                                                  175
                                                                                           0.43
                                                                                                      4.4
                                                                                                           1.46E-01
                                                                                                                     4.22E-01 5.37E+02
                                                                                                                                         1.45E-03
                                                                                                                                                   3.55E-02
                                                                                                                                                             3.45E-02
                                                                                                                                                                       2.48E-02 5.32E-05 0.000154 0.195905
                                                                                                                                                                                                              5.29E-07
                                                                                                                                                                                                                         1.3E-05
                                                                                                                                                                                                                                  1.26E-05
                                                                                                                                                                                                                                            9.05E-06
2028 Apron (GA Soil Erosio Pickup Truck
                                                         Off-highwa Diesel
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 8.03E-05 0.000408 1.843342
                                                                                                                                                                                                              4.86E-06
                                                                                                                                                                                                                        2.42E-05
                                                                                                                                                                                                                                  2.35E-05
                                                                                                                                                                                                                                            3.44E-05
                                                                                  600
                                                                                           0.59
                                                                                                       8.8
2028 Apron (GA Soil Frosio Pumps
                                                         Other Con Diesel
                                                                                   11
                                                                                           0.43
                                                                                                      4.4 2.46F+00 4.18F+00 5.94F+02
                                                                                                                                         2.18F-03
                                                                                                                                                   2.39F-01
                                                                                                                                                            2.32F-01
                                                                                                                                                                      8.38F-01 5.64F-05
                                                                                                                                                                                          9.6F-05 0.013622
                                                                                                                                                                                                              5.01F-08
                                                                                                                                                                                                                        5.48F-06
                                                                                                                                                                                                                                  5.31F-06
                                                                                                                                                                                                                                            1.92F-05
                                                                                  100
                                                                                                           1.39E+00 1.77E+00 6.95E+02
                                                                                                                                                             1.93E-01
                                                                                                                                                                       1.96E-01 0.000141 0.000181 0.070832
                                                                                                                                                                                                                 2E-07
                                                                                                                                                                                                                        2.03E-05
                                                                                                                                                                                                                                   1.97E-05
                                                         Tractors/L Diese
                                                                                            0.21
                                                                                                       4.4
                                                                                                                                         1.97E-03
                                                                                                                                                   1.99E-01
2028 Apron (GA Subbase P Dozer
                                                         Crawler Tr Diesel
                                                                                  175
                                                                                           0.59 10.12884 6.40E-02 2.08E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                  1.49E-02
                                                                                                                                                             1.44E-02
                                                                                                                                                                       1.03E-02 7.38E-05 0.00024 0.618829
                                                                                                                                                                                                              1.64E-06 1.72E-05
                                                                                                                                                                                                                                  1.66E-05 1.19E-05
                                                                                            0.59 71.27556
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
2028 Apron (GA Subbase Pl Dump Truck (12 cy)
                                                         Off-highwa Diese
                                                                                                                                          1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000651 0.003308 14.93014
                                                                                                                                                                                                               3.94E-05
                                                                                                                                                                                                                        0.000196
                                                                                                                                                                                                                                   0.00019
                                                                                                                                                                                                                                            0.000278
2028 Apron (GA Subbase Pi Pickup Truck
                                                        Off-highw; Diesel
                                                                                  600
                                                                                           0.59 10.12884 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03 6.84E-03
                                                                                                                                                                      1.00E-02 9.25E-05 0.00047 2.121695
                                                                                                                                                                                                              5.59E-06 2.79E-05
                                                                                                                                                                                                                                   2.7E-05 3.96E-05
                                                                                                                     9.30E-01 5.96E+02
                                                                                                                                                             2.43E-02
                                                                                                                                                                                                               1.02E-06
2028 Apron (GA Subbase P Roller
                                                         Rollers100 Diese
                                                                                  100
                                                                                            0.59 9.868923
                                                                                                           1.31E-01
                                                                                                                                         1.58E-03
                                                                                                                                                   2.51E-02
                                                                                                                                                                       1.23E-02 8.43E-05 0.000597 0.382617
                                                                                                                                                                                                                        1.61E-05
                                                                                                                                                                                                                                  1.56E-05
                                                                                                                                                                                                                                            7.92E-06
2028 Apron (GA Topsoil Pla Dozer
                                                         Crawler Tr Diesel
                                                                                  175
                                                                                           0.59 11.76667
                                                                                                            6.40E-02
                                                                                                                     2.08E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   1.49E-02
                                                                                                                                                             1.44E-02
                                                                                                                                                                       1.03E-02 8.57E-05 0.000279 0.718893
                                                                                                                                                                                                               1.9E-06
                                                                                                                                                                                                                        1.99E-05
                                                                                                                                                                                                                                  1.93E-05
                                                                                                                                                                                                                                            1.38E-05
2028 Apron (GA Topsoil Pla Dump Truck
                                                         Off-highw: Diesel
                                                                                  600
                                                                                            0.59 11 76667
                                                                                                           2 34F-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1 42F-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6 84F-03
                                                                                                                                                                       1 00F-02 0 000107 0 000546 2 464771
                                                                                                                                                                                                                6 5F-06 3 24F-05
                                                                                                                                                                                                                                  3 14F-05
                                                                                                                                                                                                                                             4.6E-05
4.6E-05
                                                                                  600
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000107 0.000546 2.464771
                                                                                                                                                                                                               6.5E-06
2028 Apron (GA Topsoil Pla Pickup Truck
                                                         Off-highwa Diesel
                                                                                           0.59 11.76667
                                                                                                            2.34E-02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                                                                                        3.24E-05
                                                                                                                                                                                                                                  3.14E-05
2028 Building - : Concrete FBackhoe
                                                         Tractors/L Diesel
                                                                                  100
                                                                                           0.21
                                                                                                      320 1.39E+00 1.77E+00 6.95E+02
                                                                                                                                         1.97E-03
                                                                                                                                                   1.99E-01
                                                                                                                                                            1.93E-01
                                                                                                                                                                       1.96E-01 0.010287 0.013128 5.151444
                                                                                                                                                                                                              1.46E-05 0.001475
                                                                                                                                                                                                                                  0.00143 0.001451
2028 Building - : Concrete F Concrete Ready Mix Trucks
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 0.000548 0.002785 12.56824
                                                                                                                                                                                                               3.31E-05 0.000165
                                                                                                                                                                                                                                   0.00016 0.000234
                                                         Off-highwa Diese
                                                                                  600
                                                                                           0.59
                                                                                                       60
2028 Building - Concrete FFork Truck
                                                         Other Con Diesel
                                                                                  100
                                                                                           0.59
                                                                                                      320
                                                                                                           3.26F-01 1.11F+00 5.96F+02
                                                                                                                                         1.61F-03
                                                                                                                                                   5.06F-02
                                                                                                                                                             4.91F-02
                                                                                                                                                                       2.94F-02 0.006784 0.023095 12.40532
                                                                                                                                                                                                              3.35F-05 0.001053 0.001021 0.000612
                                                                                                            2.34E-02
                                                                                                                                          1.42E-03
2028 Building - : Concrete FTool Truck
                                                         Off-highw: Diese
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                                   7.05E-03
                                                                                                                                                                       1.00E-02
                                                                                                                                                                                 0.00073 0.003713 16.75765
                                                                                                                                                                       1.00E-02 0.000146 0.000743 3.35153 8.84E-06
2028 Building - : Concrete FTractor Trailer- Material Delivery
                                                        Off-highwa Diese
                                                                                  600
                                                                                           0.59
                                                                                                       16
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03 6.84E-03
                                                                                                                                                                                                                         4.4E-05 4.27E-05 6.25E-05
2028 Building - : Constructi Survey Crew Trucks
                                                                                  600
                                                                                            0.59
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03
                                                                                                                                                             6.84E-03
                                                                                                                                                                       1.00E-02 9.13E-05 0.000464 2.094706
                                                                                                                                                                                                              5.52E-06
                                                                                                                                                                                                                         2.75E-05
                                                                                                                                                                                                                                  2.67E-05
2028 Building - : Constructi Tractor Trailers Temp Fac.
                                                        Off-highw; Diesel
                                                                                  600
                                                                                           0.59
                                                                                                           2.34E-02
                                                                                                                     1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                   7.05E-03 6.84E-03
                                                                                                                                                                      1.00E-02 3.65E-05 0.000186 0.837883 2.21E-06
                                                                                                                                                                                                                         1.1E-05 1.07E-05
                                                                                                                                                                                                                                            1.56E-05
2028 Building - : Exterior W Fork Truck
                                                                                  100
                                                                                           0.59
                                                                                                           3.26E-01 1.11E+00 5.96E+02
                                                                                                                                         1.61E-03
                                                                                                                                                   5.06E-02
                                                                                                                                                             4.91E-02
                                                                                                                                                                       2.94E-02 0.005088 0.017321 9.303989 2.51E-05
                                                                                                                                                                                                                         0.00079 0.000766 0.000459
```

7.28E-02 2.27E-01 5.37E+02

1.18E-05

1.15E-05 7.89E-06

2028 Apron (GA Asphalt Pl: Asphalt Paver

Pavers175 Diese

175

0.59

6.014

```
2028 Building - :Exterior W Man Lift
                                                        Rough Ter Diesel
                                                                                           0.21
                                                                                                     240 3.06E-01 2.61E+00 5.96E+02
                                                                                                                                       1.60E-03 3.19E-02 3.10E-02 6.42E-02 0.001275 0.010856 2.483229 6.68E-06 0.000133 0.000129 0.000268
                                                                                   75
2028 Building - : Exterior W Tool Truck
                                                        Off-highw; Diesel
                                                                                  600
                                                                                           0.59
                                                                                                      60 2.34E-02 1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02 0.000548 0.002785 12.56824 3.31E-05 0.000165 0.00016 0.000234
                                                                                                                                                            6.84E-03
2028 Building - : Exterior W Tractor Trailer- Material Delivery
                                                        Off-highwa Diese
                                                                                           0.59
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                                      1.00E-02 0.000219 0.001114 5.027295
2028 Building - Interior Bu Fork Truck
                                                        Other Con Diesel
                                                                                  100
                                                                                           0.59
                                                                                                     960
                                                                                                          3.26E-01 1.11E+00 5.96E+02
                                                                                                                                        1.61E-03
                                                                                                                                                  5.06E-02 4.91E-02
                                                                                                                                                                     2.94E-02 0.020351 0.069284 37.21596 0.000101 0.003159 0.003064 0.001835
2028 Building - :Interior Bu Man Lift
                                                                                           0.21
                                                                                                           3.06E-01 2.61E+00 5.96E+02
                                                                                                                                         1.60E-03
                                                                                                                                                  3.19E-02
                                                                                                                                                            3.10E-02
                                                                                                                                                                      6.42E-02 0.005098 0.043425 9.932917 2.67E-05
                                                                                                                                                                                                                       0.000532 0.000516
                                                                                                                                                                     1.00E-02 0.001096 0.005569 25.13648 6.63E-05
2028 Building - :Interior BuTool Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                     120 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03 6.84E-03
                                                                                                                                                                                                                       0.00033
                                                                                                                                                                                                                                 0.00032 0.000469
                                                                                                     120 2.34E-02 1.19E-01 5.37E+02
120 2.25E-01 1.02E+00 5.96E+02
                                                                                                                                                                      1.00E-02 0.001096 0.005569 25.13648 6.63E-05
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                                                                                 0.00032 0.000469
2028 Building - Interior BuTractor Trailer- Material Delivery
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                                                                                                                                       0.00033
2028 Building - : Roofing High Lift
                                                        Rough Ter Diese
                                                                                  100
                                                                                           0.59
                                                                                                                                        1.60E-03
                                                                                                                                                  3.74E-02
                                                                                                                                                            3.63E-02
                                                                                                                                                                     2.09E-02 0.001758 0.007947 4.65219
                                                                                                                                                                                                             1.25E-05 0.000292 0.000283 0.000163
2028 Building - : Roofing
                       Man Lift (Fascia Construction)
                                                        Rough Ter Diesel
                                                                                   75
                                                                                           0.21
                                                                                                      120 3.06E-01 2.61E+00 5.96E+02
                                                                                                                                        1 60F-03
                                                                                                                                                  3 19F-02
                                                                                                                                                            3 10F-02
                                                                                                                                                                     6.42E-02 0.000637 0.005428 1.241615 3.34E-06 6.65E-05 6.45E-05 0.000134
                                                                                  600
                                                                                                                                                                                7.3E-05 0.000371 1.675765 4.42E-06
2028 Building - : Roofing Material Deliveries
                                                        Off-highwa Diesel
                                                                                           0.59
                                                                                                          2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                     1.00E-02
                                                                                                                                                                                                                       2.2E-05 2.13E-05 3.12E-05
                        Tractor Trailer- Material Delivery
2028 Building - : Roofing
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                      12
                                                                                                          2 34F-02 1 19F-01 5 37F+02
                                                                                                                                        1 42F-03
                                                                                                                                                  7.05F-03
                                                                                                                                                            6.84F-03
                                                                                                                                                                     1.00F-02 0.00011 0.000557 2.513648 6.63F-06
                                                                                                                                                                                                                        3 3F-05
                                                                                                                                                                                                                                 3 2F-05 4 69F-05
2028 Building - : Security & High Lift
                                                        Rough Ter Diesel
                                                                                  100
                                                                                           0.59
                                                                                                      320 2.25E-01 1.02E+00 5.96E+02
                                                                                                                                        1.60E-03
                                                                                                                                                  3.74E-02
                                                                                                                                                            3.63E-02
                                                                                                                                                                      2.09E-02 0.004687 0.021192 12.40584
                                                                                                                                                                                                             3.32E-05
                                                                                                                                                                                                                       0.000778
                                                                                                                                                                                                                                 0.000755 0.000436
2028 Building - : Security & Tool Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                      80 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42F-03
                                                                                                                                                  7.05F-03
                                                                                                                                                            6.84F-03
                                                                                                                                                                     1.00F-02 0.00073 0.003713 16.75765
                                                                                                                                                                                                             4.42F-05 0.00022 0.000213 0.000312
                                                        Cranes300 Diesel
                                                                                                                    1.86E-01 5.31E+02
                                                                                                                                        1.41E-03
                                                                                                                                                            9.74E-03
2028 Building - : Structural 40 Ton Crane
                                                                                  300
                                                                                                           4.06E-02
                                                                                                                                                  1.00E-02
                                                                                                                                                                      1.40E-02 0.001385 0.006331 18.12187
                                                                                                                                                                                                             4.81E-05 0.000343 0.000332 0.000478
2028 Building - : Structural Fork Truck
                                                        Other Con Diesel
                                                                                  100
                                                                                           0.59
                                                                                                     120 3.26E-01 1.11E+00 5.96E+02
                                                                                                                                        1.61E-03
                                                                                                                                                  5.06E-02 4.91E-02
                                                                                                                                                                     2.94E-02 0.002544 0.008661 4.651995
                                                                                                                                                                                                             1.26E-05 0.000395 0.000383 0.000229
2028 Building - : Structural Tool Truck
                                                         Off-highw: Diesel
                                                                                  600
                                                                                           0.59
                                                                                                      60 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                      1.00E-02 0.000548 0.002785 12.56824
                                                                                                                                                                                                             3.31E-05 0.000165 0.00016 0.000234
2028 Building - : Structural Tractor Trailer- Steel Deliveries
                                                        Off-highw; Diesel
                                                                                  600
                                                                                           0.59
                                                                                                      16 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03 6.84E-03
                                                                                                                                                                     1.00E-02 0.000146 0.000743 3.35153 8.84E-06
                                                                                                                                                                                                                       4.4E-05
                                                                                                                                                                                                                                4.27E-05 6.25E-05
                                                                                           0.59 2.898375 7.28E-02 2.27E-01 5.37E+02 
0.59 10.43872 2.34E-02 1.19E-01 5.37E+02
                                                                                  175
                                                                                                                                        1.42E-03
                                                                                                                                                  1.73E-02
                                                                                                                                                            1.67E-02
                                                                                                                                                                                                             4.69E-07
                                                                                                                                                                                                                        5.7E-06
                                                                                                                                                                                                                                 5.52E-06
2028 Access Ro: Asphalt Pl: Asphalt Paver
                                                         Pavers175 Diesel
                                                                                                                                                                      1.15E-02
                                                                                                                                                                                2.4E-05 7.48E-05 0.177077
                                                                                                                                                                     1.00E-02 9.53E-05 0.000484 2.186605
                                                                                  600
                                                                                                                                                                                                             5.76E-06 2.87E-05 2.79E-05 4.08E-05
2028 Access Ro: Asphalt Pl: Dump Truck
                                                        Off-highwa Diesel
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03 6.84E-03
2028 Access Ro: Asphalt Pl: Other General Equipment
                                                                                  175
                                                                                           0.43 5.79675 1.46E-01 4.22E-01 5.37E+02
                                                                                                                                        1 45F-03
                                                                                                                                                  3 55F-02 3 45F-02
                                                                                                                                                                     2.48E-02 7.01E-05 0.000203 0.258094
                                                                                                                                                                                                             6 97F-07
                                                                                                                                                                                                                      1.71E-05 1.66E-05 1.19E-05
                                                         Other Con Diesel
                                                                                                                                                            6.84E-03
2028 Access Roa Asphalt PlaPickup Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59 2.898375
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                                     1.00E-02
                                                                                                                                                                               2.65E-05 0.000135 0.607124
                                                                                                                                                                                                              1.6E-06
                                                                                                                                                                                                                       7.97E-06
                                                                                                                                                                                                                                 7.73E-06
                                                                                                                                                                                                                                           1.13F-05
2028 Access Ro: Asphalt Pl: Roller
                                                        Rollers100 Diesel
                                                                                  100
                                                                                           0.59 2.898375 1.31F-01 9.30F-01 5.96E+02
                                                                                                                                        1 58F-03 2 51F-02 2 43F-02
                                                                                                                                                                     1 23F-02 2 48F-05 0 000175 0 11237
                                                                                                                                                                                                             2 98F-07 4 72F-06
                                                                                                                                                                                                                                4 58F-06
                                                                                                                                                                                                                                           2 33F-06
                                                                                           0.21 2.898375 2.44E+00 3.62E+00 6.95E+02
2028 Access Ro: Asphalt Pl: Skid Steer Loader
                                                                                                                                        2.10E-03
                                                                                                                                                            3.07E-01
                                                                                                                                                                     4.51E-01 0.000123 0.000182 0.034956
                                                                                                                                                                                                             1.06E-07
                                                                                                                                                                                                                       1.59E-05
                                                                                                                                                                                                                                 1.54E-05
                                                         Skid Steer Diesel
                                                                                   75
                                                                                                                                                  3.16E-01
                                                                                                                                                                                                                                          2.27E-05
2028 Access Ro: Asphalt Pl: Surfacing Equipment (Grooving)
                                                        Other Con Diesel
                                                                                   25
11
                                                                                           0.59 3.70992 1.49E+00 3.76E+00 5.95E+02
                                                                                                                                       2.19F-03 1.70F-01
                                                                                                                                                           1.65F-01
                                                                                                                                                                     3.52F-01 8.98F-05 0.000227 0.0359
                                                                                                                                                                                                             1.32F-07 1.03F-05 9.96F-06 2.12F-05
                                                                                                          2.46E+00 4.18E+00 5.94E+02
                                                                                                                                                  2.39E-01
                                                                                                                                                            2.32E-01
                                                                                                                                                                      8.38E-01
                                                                                                                                                                                0.00015 0.000256 0.036286
                                                                                                                                                                                                                       1.46E-05
2028 Access Roa Clearing at Chain Saw
                                                                                            0.7
                                                                                                                                        2.18E-03
                                                                                                                                                                                                             1.33E-07
                                                                                                                                                                                                                                 1.41E-05
2028 Access Roa Clearing at Chipper/Stump Grinder
                                                        Other Con Diesel
                                                                                  100
                                                                                           0.43
                                                                                                      7.2 3.26E-01 1.11E+00 5.96E+02
                                                                                                                                        1.61E-03 5.06E-02 4.91E-02
                                                                                                                                                                     2.94E-02 0.000111 0.000379 0.203426
                                                                                                                                                                                                              5.5E-07
                                                                                                                                                                                                                      1.73E-05
                                                                                                                                                                                                                                1.67E-05
                                                                                                                                                                                                                                             1E-05
2028 Access Roa Clearing at Pickup Truck
                                                         Off-highw: Diesel
                                                                                  600
                                                                                           0.59
                                                                                                          2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                     1.00E-02 8.77E-05 0.000446 2.010918
                                                                                                                                                                                                              5.3E-06 2.64E-05
                                                                                                                                                                                                                                 2.56E-05 3.75E-05
2028 Access Ro: Concrete FAir Compressor
                                                        Other Con Diesel
                                                                                  100
                                                                                           0.43
                                                                                                  7.7288 3.26E-01 1.11E+00 5.96E+02
                                                                                                                                        1.61E-03
                                                                                                                                                  5.06E-02 4.91E-02
                                                                                                                                                                     2.94E-02 0.000119 0.000407 0.218367
                                                                                                                                                                                                              5.9E-07 1.85E-05
                                                                                                                                                                                                                                 1.8E-05 1.08E-05
                                                                                                          2.79E-01 2.53E+00 5.96E+02
2.34E-02 1.19E-01 5.37E+02
                                                                                   40
                                                                                                  7.7288
                                                                                                                                        1.57E-03
                                                                                                                                                  2.05E-02
                                                                                                                                                                     9.25E-02 5.61E-05 0.000509 0.119809
                                                                                                                                                                                                             3.15E-07 4.11E-06
2028 Access Roa Concrete F Concrete Saws
                                                         Other Con Diesel
                                                                                           0.59
                                                                                                                                                           1.98E-02
                                                                                                                                                                                                                                 3.99E-06
                                                                                                                                                                                                                                           1.86F-05
                                                                                  600
                                                                                           0.59 32.20333
                                                                                                                                                                     1.00E-02 0.000294 0.001495 6.745653
2028 Access Ro: Concrete F Concrete Truck
                                                        Off-highwa Diesel
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                                                             1.78E-05 8.86E-05
                                                                                                                                                                                                                                 8.59E-05 0.000126
2028 Access Roa Concrete F Other General Equipment
                                                        Other Con Diesel
                                                                                  175
                                                                                           0.43
                                                                                                 15.4576
                                                                                                          1.46E-01 4.22E-01 5.37E+02
                                                                                                                                        1.45F-03 3.55F-02 3.45F-02
                                                                                                                                                                     2.48E-02 0.000187 0.00054 0.688232
                                                                                                                                                                                                             1.86F-06 4.56F-05 4.42F-05 3.18F-05
                                                                                                 23.1864
                                                                                                          2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                                     1.00E-02 0.000212 0.001076 4.85687
                                                                                                                                                                                                             1.28E-05 6.38E-05
2028 Access Roa Concrete F Pickup Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03 6.84E-03
                                                                                                                                                                                                                                6.19E-05 9.06E-05
2028 Access Ro: Concrete FRubber Tired Loader
                                                         Tractors/L Diesel
                                                                                  175
                                                                                           n 59
                                                                                                  7 7288
                                                                                                          5.68E-01 1.09E+00 6.26E+02
                                                                                                                                        1 77F-03 1 32F-01
                                                                                                                                                           1 28F-01
                                                                                                                                                                     1.425-01 0.000499 0.000961 0.550775
                                                                                                                                                                                                             1 56F-06 0 000116 0 000113 0 000125
                                                         Pavers175 Diesel
                                                                                  175
                                                                                                           7.28E-02 2.27E-01 5.37E+02
                                                                                                                                                            1.67E-02
                                                                                                                                                                      1.15E-02 6.41E-05 0.000199 0.472193
                                                                                                                                                                                                             1.25E-06 1.52E-05
2028 Access Roa Concrete FSlip Form Paver
                                                                                           0.59
                                                                                                                                        1.42E-03
                                                                                                                                                  1.73E-02
                                                                                                                                                                                                                                1.47E-05 1.01E-05
                                                                                                   7.7288
2028 Access Roa Concrete F Surfacing Equipment (Grooving)
                                                        Other Con Diesel
                                                                                   25
                                                                                           0.59
                                                                                                   7.7288
                                                                                                          1.49F+00 3.76F+00 5.95F+02
                                                                                                                                        2.19F-03
                                                                                                                                                  1.70F-01
                                                                                                                                                           1.65F-01
                                                                                                                                                                      3.52F-01 0.000187 0.000473 0.074789
                                                                                                                                                                                                             2.75F-07 2.14F-05 2.08F-05
                                                                                                                                                                                                                                          4.42F-05
                                                                                                          2.34E-02
                                                                                  600
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                      1.00E-02 0.000231 0.001175 5.303796
                                                                                                                                                                                                                                 6.76E-05
2028 Access RoaCurbing Concrete Truck
                                                         Off-highwa Diesel
                                                                                           0.59
                                                                                                                                                  7.05E-03
                                                                                                                                                                                                              1.4E-05
                                                                                                                                                                                                                       6.97E-05
2028 Access Roa Curbing Curb/Gutter Paver
                                                        Pavers175 Diesel
                                                                                  175
                                                                                           0.59
                                                                                                   25.32 7.28E-02 2.27E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                 1.73E-02 1.67E-02
                                                                                                                                                                     4.1E-06 4.98E-05 4.83E-05 3.32E-05
2028 Access Roa Curbing
                        Other General Equipment
                                                         Other Con Diese
                                                                                  175
                                                                                           0.43
                                                                                                   25.32
                                                                                                           1.46E-01
                                                                                                                    4.22E-01 5.37E+02
                                                                                                                                        1.45E-03
                                                                                                                                                  3.55E-02
                                                                                                                                                            3.45E-02
                                                                                                                                                                      2.48E-02 0.000306 0.000885 1.127344
                                                                                                                                                                                                             3.05E-06
                                                                                                                                                                                                                      7.47E-05
                                                                                                                                                                                                                                7.24E-05
                                                                                                                                                                                                                                           5.21E-05
2028 Access Ro: Curbing Pickup Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                   25.32
                                                                                                          2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                     1.00E-02 0.000231 0.001175 5.303796
                                                                                                                                                                                                              1.4E-05 6.97E-05
                                                                                                                                                                                                                                 6.76E-05
                                                                                                                                                                                                                                           9.89E-05
                                                                                                                                                                                                                      3.49E-05
                                                                                                  20.576 6.40E-02 2.08E-01 5.37E+02
20.576 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                            1.44E-02
                                                                                  175
                                                                                                                                         1.42E-03
                                                                                                                                                  1.49E-02
                                                                                                                                                                      1.03E-02 0.00015 0.000488 1.257105
                                                                                                                                                                                                             3.32E-06
                                                                                                                                                                                                                                 3.38E-05
2028 Access Roa Drainage - Dozei
                                                         Crawler Tr Diesel
                                                                                           0.59
                                                                                                                                                                                                                                           2.41F-05
2028 Access Roa Drainage - Dump Truck
                                                                                                                                                                     1.00E-02 0.000188 0.000955 4.310068
                                                                                                                                                  7.05E-03 6.84E-03
                                                                                                                                                                                                             1.14E-05 5.66E-05
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59
                                                                                                                                        1.42E-03
                                                                                                                                                                                                                                5.49E-05 8.04E-05
2028 Access Roa Drainage - Excavator
                                                                                  175
                                                                                           0.59
                                                                                                   20.576 5.52E-02 1.81E-01 5.37E+02
                                                                                                                                        1 42F-03
                                                                                                                                                  1.26E-02 1.22E-02
                                                                                                                                                                     9.05E-03 0.000129 0.000425 1.257114
                                                                                                                                                                                                             3 32F-06 2 94F-05 2 85F-05 2 12F-05
                                                         Excavators Diesel
2028 Access RoaDrainage - Loader
                                                         Tractors/L Diesel
                                                                                  175
                                                                                           0.59
                                                                                                  20.576
                                                                                                          5.68E-01 1.09E+00 6.26E+02
                                                                                                                                        1.77E-03
                                                                                                                                                  1.32E-01
                                                                                                                                                            1.28E-01
                                                                                                                                                                     1.42E-01 0.00133 0.002559 1.466301
                                                                                                                                                                                                             4.15E-06 0.000309
                                                                                                                                                                                                                                  0.0003 0.000333
2028 Access Ro: Drainage - Other General Equipment
                                                        Other Con Diesel
                                                                                  175
                                                                                           n 43
                                                                                                  20 576
                                                                                                          1 46F-01 4 22F-01 5 37F+02
                                                                                                                                        1.45F-03 3.55F-02
                                                                                                                                                            3 45F-02
                                                                                                                                                                     2 48F-02 0 000249 0 000719 0 916123 2 47F-06 6 07F-05
                                                                                                                                                                                                                                5.89F-05 4.23F-05
2028 Access Roa Drainage - Pickup Truck
                                                        Off-highwa Diesel
                                                                                                  20.576 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                  7.05E-03 6.84E-03
                                                                                                                                                                     1.00E-02 0.000188 0.000955 4.310068
                                                                                                                                                                                                             1.14E-05 5.66E-05
                                                                                  600
                                                                                                                                        1.42E-03
                                                                                                                                                                                                                                5.49E-05 8.04E-05
                                                                                           0.59
2028 Access Ro; Drainage - Roller
                                                         Rollers100 Diesel
                                                                                  100
                                                                                           0.59
                                                                                                  20.576 1.31F-01 9.30F-01 5.96F+02
                                                                                                                                        1.58F-03 2.51F-02 2.43F-02
                                                                                                                                                                     1.23F-02 0.000176 0.001244 0.79773 2.12F-06 3.35F-05 3.25F-05 1.65F-05
                                                                                           0.59 11.43111
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                                                             6.31E-06
                                                                                                                                                                                                                       3.14E-05
                                                                                                                                                                                                                                 3.05E-05
2028 Access Roa Drainage - Dump Truck
                                                         Off-highwa Diese
                                                                                  600
                                                                                                                                                                      1.00E-02 0.000104 0.000531 2.394482
2028 Access Ro; Drainage - Loader
                                                         Tractors/L Diesel
                                                                                  175
                                                                                           0.59 11.43111 5.68E-01 1.09E+00 6.26E+02
                                                                                                                                        1.77E-03
                                                                                                                                                  1.32E-01 1.28E-01
                                                                                                                                                                     1.42E-01 0.000739 0.001422 0.814612
                                                                                                                                                                                                             2.3E-06 0.000172 0.000167 0.000185
2028 Access Ro: Drainage - Other General Equipment
                                                                                           0.43 11.43111
                                                                                                          1.46E-01
                                                                                                                    4.22E-01 5.37E+02
                                                                                                                                        1.45E-03
                                                                                                                                                  3.55E-02
                                                                                                                                                            3.45E-02
                                                                                                                                                                      2.48E-02 0.000138
                                                                                                                                                                                           0.0004 0.508957
                                                                                                                                                                                                             1.37E-06 3.37E-05
                                                                                                                                                                                                                                 3.27E-05
2028 Access Ro: Drainage - Pickup Truck
                                                        Off-highw; Diesel
                                                                                  600
                                                                                           0.59 11.43111 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03 6.84E-03
                                                                                                                                                                     1.00E-02 0.000104 0.000531 2.394482
                                                                                                                                                                                                             6.31E-06 3.14E-05
                                                                                                                                                                                                                                3.05E-05 4.46E-05
2028 Access Roa Drainage - Tractors/Loader/Backhoe
                                                                                           0.21 11.43111 1.39E+00 1.77E+00 6.95E+02
0.59 2160 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                                                     1.96E-01 0.000367 0.000469 0.184021 5.21E-07 5.27E-05 1.00E-02 0.019722 0.10025 452.4566 0.001193 0.005942
                                                                                  100
                                                                                                                                        1.97E-03
                                                                                                                                                  1.99E-01
                                                                                                                                                            1.93E-01
                                                                                                                                                                                                                                5.11E-05 5.18E-05
                                                         Tractors/L Diesel
                                                                                                                                                                                                                                0.005764
                                                                                                                                        1.42E-03
                                                                                                                                                            6.84E-03
2028 Access Ro: Dust Contr Water Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                                                                                  7.05E-03
                                                                                                                                                                                                                                          0.008437
2028 Access Roa Excavation Dozen
                                                         Crawler Tr Diesel
                                                                                  175
                                                                                           0.59 12.88133 6.40E-02 2.08E-01 5.37E+02
                                                                                                                                        1 42F-03
                                                                                                                                                  1 49F-02 1 44F-02
                                                                                                                                                                     1.03E-02 9.38E-05 0.000305 0.786994 2.08E-06 2.18E-05 2.12E-05 1.51E-05
2028 Access Ro: Excavation Dump Truck (12 cy)
                                                                                                                                                                                                             7.11E-06 3.54E-05
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59 12.88133 2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                     1.00E-02 0.000118 0.000598 2.698261
                                                                                                                                                                                                                                3.44E-05
                                                                                                                                                                                                                                          5.03E-05
2028 Access Roa Excavation Pickup Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59 12.88133
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03 6.84E-03
                                                                                                                                                                     1.00E-02 0.000118 0.000598 2.698261
                                                                                                                                                                                                             7.11E-06
                                                                                                                                                                                                                      3.54E-05
                                                                                                                                                                                                                                3 44F-05 5 03F-05
2028 Access Roa Excavation Roller
                                                         Rollers100 Diese
                                                                                  100
                                                                                           0.59 5.945231
                                                                                                          1.31E-01
                                                                                                                    9.30E-01 5.96E+02
                                                                                                                                        1.58E-03
                                                                                                                                                  2.51E-02
                                                                                                                                                            2.43E-02
                                                                                                                                                                      1.23E-02 5.08E-05 0.000359 0.230496
                                                                                                                                                                                                             6.11E-07
                                                                                                                                                                                                                       9.69E-06
                                                                                                                                                                                                                                  9.4E-06
2028 Access Ro: Excavation Dozen
                                                        Crawler Tr Diesel
                                                                                  175
                                                                                           0.59
                                                                                                   9.661
                                                                                                          6.40F-02 2.08F-01 5.37F+02
                                                                                                                                        1.42F-03 1.49F-02
                                                                                                                                                            1.44F-02
                                                                                                                                                                     1.03F-02 7.03F-05 0.000229 0.590246 1.56F-06 1.64F-05
                                                                                                                                                                                                                                 1.59F-05 1.13F-05
                                                                                           0.59 25.76267
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                      1.00E-02 0.000235 0.001196 5.396522
                                                                                                                                                                                                             1.42E-05
2028 Access Roz Excavation Dump Truck (12 cy)
                                                         Off-highwa Diese
                                                                                  600
                                                                                                                                                  7.05E-03
                                                                                                                                                                                                                       7.09E-05
                                                                                                                                                                                                                                 6.87E-05
2028 Access Ro: Excavation Excavator
                                                        Excavators Diesel
                                                                                  175
                                                                                           0.59
                                                                                                 7.7288
                                                                                                          5.52E-02 1.81E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  1.26E-02 1.22E-02
                                                                                                                                                                     9.05E-03 4.85E-05 0.000159
                                                                                                                                                                                                    0.4722
                                                                                                                                                                                                             1.25E-06
                                                                                                                                                                                                                       1.1E-05
                                                                                                                                                                                                                                1.07E-05 7.96E-06
                                                                                                   7.7288
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                      1.00E-02 7.06E-05 0.000359 1.618957
                                                                                                                                                                                                             4.27E-06
                                                                                                                                                                                                                       2.13E-05
                                                                                                                                                                                                                                 2.06E-05
2028 Access Ro: Excavation Roller
                                                         Rollers100 Diesel
                                                                                  100
                                                                                           0.59
                                                                                                  7.7288
                                                                                                          1.31E-01
                                                                                                                    9.30E-01 5.96E+02
                                                                                                                                        1.58E-03
                                                                                                                                                  2.51E-02 2.43E-02
                                                                                                                                                                     1.23E-02
                                                                                                                                                                                6.6E-05 0.000467 0.299645
                                                                                                                                                                                                             7.95E-07
                                                                                                                                                                                                                       1.26E-05
                                                                                                                                                                                                                                 1.22E-05
                                                                                                                                                                                                                                            6.2E-06
                                                                                                                                                  2.15E-02
                                                                                                                                                                                                                                7.88E-05
                                                                                                   9.661
                                                                                                          1.10E-01 3.00E-01 5.37E+02
                                                                                                                                        1.45E-03
                                                                                                                                                            2.09E-02
                                                                                                                                                                     2.04E-02 0.000414 0.001131 2.02358
                                                                                                                                                                                                             5.45E-06
                                                                                                                                                                                                                      8.12E-05
2028 Access Roa Excavation Scraper
                                                         Scrapers6( Diesel
                                                                                  600
                                                                                           0.59
                                                                                                                                                                                                                                            7.7F-05
                                                                                           0.59 3.637176 6.40E-02 2.08E-01 5.37E+02
2028 Access Roa Excavation Dozer
                                                        Crawler Tr Diese
                                                                                  175
                                                                                                                                        1.42E-03
                                                                                                                                                  1.49E-02 1.44E-02
                                                                                                                                                                     1.03E-02 2.65E-05 8.62E-05 0.222216
                                                                                                                                                                                                             5.87E-07
                                                                                                                                                                                                                      6.16E-06
                                                                                                                                                                                                                                5.98E-06
                                                                                                                                                                                                                                          4.26E-06
2028 Access Roa Fencing
                        Concrete Truck
                                                         Off-highwa Diesel
                                                                                  600
                                                                                           0.59 7.033333 2.34E-02
                                                                                                                    1.19E-01 5.37E+02
1.19E-01 5.37E+02
                                                                                                                                        1 42F-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6 84F-03
                                                                                                                                                                     1.00E-02 6.42E-05 0.000326 1.473277
                                                                                                                                                                                                             3 88F-06
                                                                                                                                                                                                                       1.93E-05
                                                                                                                                                                                                                                 1 88F-05 2 75F-05
                                                                                                          2.34E-02
                                                                                                                                                                                                                       7.74E-05
                                                                                  600
                                                                                                                                                            6.84E-03
2028 Access Roa Fencing
                        Dump Truck
                                                        Off-highwa Diesel
                                                                                           0.59 28.13333
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                                     1.00E-02 0.000257 0.001306 5.893107
                                                                                                                                                                                                             1.55E-05
                                                                                                                                                                                                                                 7.51E-05
                                                                                                                                                                                                                                           0.00011
2028 Access Roa Fencing
                        Other General Equipment
                                                        Other Con Diesel
                                                                                  175
                                                                                           0.43 28.13333 1.46E-01
                                                                                                                    4.22E-01 5.37E+02
                                                                                                                                        1.45E-03
                                                                                                                                                  3.55E-02 3.45E-02
                                                                                                                                                                     2.48E-02 0.00034 0.000984 1.252604
                                                                                                                                                                                                             3.38E-06
                                                                                                                                                                                                                       8.3E-05
                                                                                                                                                                                                                                8.05E-05
                                                                                                                                                                                                                                           5.78E-05
2028 Access Roa Fencing
                                                        Off-highwa Diesel
                                                                                           0.59 28.13333
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                      1.00E-02 0.000257 0.001306 5.893107
                                                                                                                                                                                                             1.55E-05
                                                                                                                                                                                                                       7.74E-05
                                                                                                                                                                                                                                 7.51E-05
                                                                                  600
                                                                                                                                                                                                                                           0.00011
                        Pickup Truck
2028 Access Ro: Fencing
                        Skid Steer Loader
                                                         Skid Steer Diesel
                                                                                   75
                                                                                           0.21 28.13333 2.44F+00 3.62F+00 6.95F+02
                                                                                                                                        2.10F-03
                                                                                                                                                 3.16F-01 3.07F-01
                                                                                                                                                                     4.51F-01 0.001189 0.001769 0.339303
                                                                                                                                                                                                             1.03F-06 0.000154
                                                                                                                                                                                                                                 0.00015
                                                                                                                                                                                                                                           0.00022
                                                                                  100
                                                                                                          1.39E+00 1.77E+00 6.95E+02
                                                                                                                                                  1.99E-01
                                                                                                                                                            1.93E-01
                                                                                                                                                                     1.96E-01 0.000904 0.001154 0.452898
                                                                                                                                                                                                             1.28E-06
                                                                                                                                                                                                                                 0.000126
2028 Access Roa Fencing
                        Tractors/Loader/Backhoe
                                                         Tractors/L Diese
                                                                                           0.21 28.13333
                                                                                                                                        1.97E-03
                                                                                                                                                                                                                       0.00013
2028 Access Ro: Grading Dozer
                                                        Crawler Tr Diese
                                                                                  175
                                                                                           0.59
                                                                                                   3.069 6.40E-02 2.08E-01 5.37E+02
                                                                                                                                        1.42E-03 1.49E-02
                                                                                                                                                            1.44E-02
                                                                                                                                                                     1.03E-02 2.23E-05 7.27E-05 0.187503 4.96E-07
                                                                                                                                                                                                                       5.2E-06 5.04E-06
                                                                                                                                                                                                                                           3.6E-06
                                                                                                                    1.31E-01 5.37E+02
                                                                                                                                                            7.77E-03
2028 Access Roa Grading
                                                         Graders30 Diese
                                                                                                    3.069
                                                                                                           2.80E-02
                                                                                                                                         1.42E-03
                                                                                                                                                  8.01E-03
                                                                                                                                                                      1.08E-02
                                                                                                                                                                               1.68E-05 7.84E-05 0.321432
                                                                                                                                                                                                             8.49E-07
                                                                                                                                                                                                                       4.79E-06
                                                                                                                                                                                                                                 4.65E-06
2028 Access Ro: Grading Roller
                                                        Rollers100 Diesel
                                                                                  100
                                                                                           0.59
                                                                                                   3.069 1.31E-01 9.30E-01 5.96E+02
                                                                                                                                        1.58E-03
                                                                                                                                                  2.51E-02 2.43E-02 1.23E-02 2.62E-05 0.000186 0.118985 3.16E-07
                                                                                                                                                                                                                         5E-06 4.85E-06 2.46E-06
                                                                                                                    8.05E-01 5.37E+02
                                                                                                                                                            5.48E-02
                                                                                                                                                                      4.96E-02 0.000373 0.000869 0.579041
2028 Access Ro: Hydroseec Hydroseede
                                                         Other Con Diesel
                                                                                  600
                                                                                           0.59
                                                                                                  2.7649
                                                                                                           3.46E-01
                                                                                                                                        1.52E-03
                                                                                                                                                  5.65E-02
                                                                                                                                                                                                             1.64E-06
                                                                                                                                                                                                                        6.1E-05 5.91E-05 5.35E-05
2028 Access Ro: Hydroseec Off-Road Truck
                                                        Off-highwa Diese
                                                                                  600
                                                                                           0.59
                                                                                                  2.7649
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                     1.00E-02 2.52E-05 0.000128 0.579165
                                                                                                                                                                                                             1.53E-06
                                                                                                                                                                                                                       7.61E-06
                                                                                                                                                                                                                                7.38E-06
                                                                                                                                                                                                                                          1.08E-05
2028 Access Roa Markings Flatbed Truck
                                                                                  600
                                                                                           0 59 47 74629
                                                                                                          2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1 42F-03
                                                                                                                                                  7.05F-03
                                                                                                                                                            6 84F-03
                                                                                                                                                                      1 00F-02 0 000436 0 002216 10 00144
                                                                                                                                                                                                             2 645-05 0 000131 0 000127 0 000186
                                                         Off-highwa Diesel
                                                                                  175
                                                                                           0.43 47.74629
                                                                                                                    4.22E-01 5.37E+02
                                                                                                                                        1.45E-03
                                                                                                                                                            3.45E-02
                                                                                                                                                                     2.48E-02 0.000578 0.001669 2.125848
2028 Access RoaMarkings Other General Equipment
                                                        Other Con Diesel
                                                                                                          1.46E-01
                                                                                                                                                  3.55E-02
                                                                                                                                                                                                             5.74E-06 0.000141 0.000137 9.82E-05
2028 Access Roa Markings Pickup Truck
                                                        Off-highwa Diesel
                                                                                  600
                                                                                           0.59 47.74629
                                                                                                          2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03 6.84E-03 1.00E-02 0.000436 0.002216 10.00144
                                                                                                                                                                                                             2.64E-05 0.000131 0.000127 0.000186
2028 Access RoaSidewalks Concrete Truck
                                                         Off-highwa Diesel
                                                                                                           2.34E-02
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                      1.00E-02 0.000462
                                                                                                                                                                                          0.00235 10.60759
                                                                                                                                                                                                              2.8E-05 0.000139 0.000135 0.000198
                                                                                  600
                                                                                           0.59
                                                                                                   50.64
2028 Access Ro; Sidewalks Dump Truck
                                                        Off-highw; Diesel
                                                                                  600
                                                                                           0.59
                                                                                                   50.64
                                                                                                          2.34F-02
                                                                                                                    1.19F-01 5.37F+02
                                                                                                                                        1.42F-03
                                                                                                                                                  7.05F-03 6.84F-03
                                                                                                                                                                     1.00F-02 0.000462
                                                                                                                                                                                          0.00235 10.60759
                                                                                                                                                                                                              2.8F-05 0.000139 0.000135 0.000198
                                                                                                                    1.19E-01 5.37E+02
                                                                                                                                         1.42E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                                                               2.8E-05 0.000139 0.000135 0.000198
                                                         Off-highw: Diese
                                                                                                           2.34E-02
                                                                                                                                                                      1.00E-02 0.000462
                                                                                                                                                                                          0.00235 10.60759
2028 Access Ro: Sidewalks Tractors/Loader/Backhoe
                                                         Tractors/L Diesel
                                                                                  100
                                                                                           0.21
                                                                                                   50.64 1.39E+00 1.77E+00 6.95E+02
                                                                                                                                        1.97E-03
                                                                                                                                                  1.99E-01 1.93E-01
                                                                                                                                                                     1.96E-01 0.001628 0.002078 0.815216 2.31E-06 0.000233 0.000226
                                                                                                                                                                                                                                           0.00023
2028 Access RocSidewalks Vibratory Compactor
                                                                                                          2.50E+00 4.19E+00 5.88E+02
                                                                                                                                        2.16E-03
                                                                                                                                                  2.48E-01
                                                                                                                                                            2.41E-01
                                                                                                                                                                      8.33E-01
                                                                                                                                                                                0.00036 0.000603 0.084681
                                                                                                                                                                                                             3.11E-07 3.58E-05 3.47E-05
2028 Access Ro: Soil Erosio Other General Equipment
                                                        Other Con Diesel
                                                                                  175
                                                                                           0.43
                                                                                                     2.4 1.46E-01 4.22E-01 5.37E+02
                                                                                                                                        1.45E-03 3.55E-02 3.45E-02 2.48E-02
                                                                                                                                                                               2.9E-05 8.39E-05 0.106857 2.89E-07 7.08E-06 6.86E-06
                                                                                                                                                                                                                                           4.93E-06
2028 Access Roa Soil Erosio Pickup Truck
                                                        Off-highwa Diesel
                                                                                           0.59
                                                                                                      4.8 2.34E-02 1.19E-01 5.37E+02
                                                                                                                                        1.42E-03
                                                                                                                                                  7.05E-03
                                                                                                                                                            6.84E-03
                                                                                                                                                                     1.00E-02 4.38E-05 0.000223 1.005459 2.65E-06 1.32E-05 1.28E-05 1.87E-05
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1.05E-05	1.09E-05	6.56E-05	0.000272	3.45E-05	6.56E-05	0.000132	7.62E-05	5.72E-06	0.000134	1.91E-05	3.82E-06	7.99E-06	2.66E-05	2.66E-05	0	0	0	0	0.0889
2.9E-06 1.05E-05	1.07E-05 1.09E-05	1.48E-05	.000245 (	1.81E-05	1.48E-05	3.95E-05 (	7.51E-05	3.02E-06	9.17E-05 0.000134	1.3E-05 1.91E-05	7.52E-06	12E-05	82E-05	82E-05	0	0	0	0	.071695
2.99E-06	1.11E-05	9.28E-06 4.62E-05 4.48E-05 6.56E-05	0.000253 0.000245 0.000272	4.95E-05 4.81E-05 3.45E-05	4.62E-05 4.48E-05 6.56E-05	9.22E-05 8.95E-05 0.000132	7.74E-05 7.51E-05 7.62E-05	8.27E-06 8.02E-06 5.72E-06	9.45E-05 9	1.34E-05	7.75E-06 7.52E-06 3.82E-06	1.16E-05 1.12E-05 7.99E-06	6.23E-05 0.000317 1.42859 3.77E-06 1.88E-05 1.82E-05 2.66E-05	6.23E-05 0.000317 1.42859 3.77E-06 1.88E-05 1.82E-05 2.66E-05	0	0	0	0	0.322691 1.198882 3445.847 0.009113 0.073912 0.071695
2.73E-08	1.09E-07	3.28E-06	3.39E-06 (	2.02E-06	9.28E-06	6.13E-07	7.66E-07	7.88E-07	1.9E-05	2.7E-06	4.89E-07	1.1E-06	3.77E-06	3.77E-06	0	0	0	0	.009113 (
0.00743 2.73E-08 2.99E-06	.038636			0.748001		0.202617	270451	. 298237	.195549	.022525		.416673	1.42859	1.42859	0	0	0	0	445.847 0
. 23E-05	3.85E-05 0	0.00078 3	.002089	0 000587 0	0.00078 3	.001057 0	0 689000	.000116 0	.001594 7	.000227	.000288 0	.000162 0	.000317	.000317	0	0	0	0	.198882
3.08E-05	7.72E-05 9	.000153	.001086 0	.000203 0	.000153	0.00071 0.001057	0.00054 0.000689 0.270451 7.66E-07	3.55E-05 0	.000314 0	1.46E-05 0	4.06E-05 0.000288 0.184402	4.97E-05 0.000162 0.416673	3.23E-05 0	3.23E-05 0	0	0	0	0	.322691 1
3.38E-01	1.96E-01 7	1.00E-02 0	1.42E-01 0	2.48E-02 0	1.00E-02 0.000153 0.00078 3.519107			1.03E-02	1.00E-02 0	1.00E-02 <sup>2</sup>	1.23E-02 <sup>4</sup>	1.03E-02 <sup>4</sup>			1.00E-02	2.48E-02	1.00E-02	1.96E-01	Fotals 0
.32E-01	93E-01	3.84E-03	1.28E-01 1	3.45E-02	.84E-03 1	3.07E-01 4	93E-01	1.44E-02	3.84E-03	3.84E-03	.43E-02	1.44E-02	3.84E-03	3.84E-03	.84E-03 1	3.45E-02 2.48E-02	.84E-03 1	93E-01	ŭ
.39E-01 2	.99E-01 1	.05E-03 6	.32E-01 1	.55E-02 3	.05E-03 6	.16E-01 3	.99E-01 1	.49E-02 1	.05E-03 6	.05E-03 6	.51E-02	.49E-02 1	.05E-03 6	.05E-03 6	.05E-03 6	.55E-02 3	.05E-03 6	.99E-01 1	
2.4 2.46E+00 4.18E+00 5.94E+02 2.18E-03 2.39E-01 2.32E-01 8.38E-01 3.08E-05 5.23E-05	2.4 1.39E+00 1.77E+00 6.95E+02 1.97E-03 1.99E-01 1.93E-01 1.96E-01 7.72E-05 9.85E-05 0.038636	1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02 0.000153 0.00078 3.519107	1.77E-03 1.32E-01 1.28E-01 1.42E-01 0.001086 0.002089 1.197213	4.22E-01 5.37E+02 1.45E-03 3.55E-02 3.45E-02 2.48E-02 0.000203 0.000587	1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03	2.10E-03 3.16E-01 3.07E-01 4.51E-01	16.8 1.39E+00 1.77E+00 6.95E+02 1.97E-03 1.99E-01 1.93E-01 1.96E-01	0.59 4.881474 6.40E-02 2.08E-01 5.37E+02 1.42E-03 1.49E-02 1.44E-02 1.03E-02 3.55E-05 0.000116 0.298237 7.88E-07	1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02 0.000314 0.001594 7.195549	1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02 4.46E-05 0.000227 1.022525	9.30E-01 5.96E+02 1.58E-03 2.51E-02 2.43E-02 1.23E-02	2.08E-01 5.37E+02 1.42E-03 1.49E-02 1.44E-02 1.03E-02	1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02	1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02	1.42E-03 7.05E-03 6.84E-03 1.00E-02	1.45E-03 3.55E-02	1.19E-01 5.37E+02 1.42E-03 7.05E-03 6.84E-03 1.00E-02	0 1.39E+00 1.77E+00 6.95E+02 1.97E-03 1.99E-01 1.93E-01 1.96E-01	
.94E+02 2	.95E+02 1	.37E+02 1	.26E+02 1	.37E+02 1	.37E+02 1	.95E+02 2	.95E+02 1	.37E+02 1	.37E+02 1	.37E+02 1	.96E+02 1	.37E+02 1	.37E+02 1	.37E+02 1	.37E+02 1	5.37E+02 1	.37E+02 1	.95E+02 1	
.18E+00 5	.77E+00 6	1.19E-01 5	5.68E-01 1.09E+00 6.26E+02	1.22E-01 5	19E-01 5	16.8 2.44E+00 3.62E+00 6.95E+02	.77E+00 6	.08E-01 5	1.19E-01 5	1.19E-01 5	30E-01 5	.08E-01 5	19E-01 5	19E-01 5	1.19E-01 5.37E+02	4.22E-01 5	19E-01 5	.77E+00 6	
46E+00 4	39E+00 1	2.34E-02 1	.68E-01 1	1.46E-01 4	2.34E-02 1	44E+00 3	39E+00 1	.40E-02 2		2.34E-02 1	1.31E-01 g	6.40E-02 2	6.82 2.34E-02 1	2.34E-02 1	2.34E-02 1	1.46E-01 4	2.34E-02 1	39E+00 1	
2.4 2	2.4 1	16.8 2	16.8 5	16.8 1	16.8 2	16.8 2	16.8 1	881474 6	34.35111 2.34E-02	4.881474 2	0.59 4.756308 1	6.82	6.82	6.82	0 2	0	0 2	0 1	
0.43	0.21	0.59	0.59	0.43	0.59	0.21	0.21	0.59 4.	0.59 3	0.59 4.	0.59 4.	0.59	0.59	0.59	0.59	0.43	0.59	0.21	
11	100	009	175	175	009	75	100	175	009	009	100	175	009	009	009	175	009	100	
n: Diesel	L/Diesel	v:Diesel	LiDiesel	n: Diesel	v:Diesel	r Diesel	L/Diesel	r Diesel	v:Diesel	v:Diesel	0Diesel	r Diesel	v:Diesel	v:Diesel	v:Diesel	n: Diesel	v:Diesel	L Diesel	
Other Con Diesel	Tractors/LdDiese	Off-highw; Diesel	Tractors/LiDiese	Other Con: Diese	Off-highw: Diesel	Skid Steer Diese	Tractors/L Diesel	Crawler Tr Diese	Off-highw: Diesel	Off-highw: Diese	Rollers100 Diese	Crawler Tr Diese	Off-highw:Diesel	Off-highw; Diesel	Off-highw:Diesel	Other Con: Diese	Off-highw:Diesel	Tractors/LdDiese	
	r/Backhoe			:028 Access Ro¿Street Ligh Other General Equipment		e	r/Backhoe		2 cy)							028 Access Ro: Tree Plant Other General Equipment		r/Backhoe	
sdı	:028 Access Ro¿Soil Erosio Tractors/Loader/Backhoe	np Truck	der	er General	cup Truck	:028 Access Ro¿Street Ligh Skid Steer Loader	:028 Access RosStreet Ligh Tractors/Loader/Backhoe	er	1028 Access Ro¿Subbase P Dump Truck (12 cy)	cup Truck	er	er	np Truck	up Truck	bed Truck	er General	up Truck	1028 Access Ro: Tree Plant Tractors/Loader/Backhoe	
Erosio Pun	Erosio Trac	et Ligh Dun	et Ligh Loa	et Ligh Oth	et Ligh Pick	et Ligh Skid	et Ligh Trac	base P Doz	base P Dur	base P Pick	base P Roll	soil Pla Doz	soil Pla Dun	soil Pla Pick	Plant Flat	Plant Oth	Plant Pick	Plant Trac	
2028 Access Ro¿Soil Erosio Pumps	ss RocSoil	:028 Access RosStreet Ligh Dump Truck	1028 Access Ros Street Ligh Loader	ss RocStre	1028 Access Ros Street Ligh Pickup Truck	ss RocStre	ss RosStre	2028 Access Ros Subbase P Dozer	ss RocSubi	028 Access Ro¿Subbase P Pickup Truck	2028 Access Ro¿Subbase P Roller	2028 Access RocTopsoil Pla Dozer	:028 Access Ro: Topsoil Pla Dump Truck	2028 Access Ro: Topsoil Pla Pickup Truck	:028 Access RocTree Plant Flatbed Truck	ss RocTree	:028 Access Ro:Tree Plant Pickup Truck	ss RocTree	
2028 Acce	2028 Acce	2028 Acce	2028 Acce	2028 Acc€	2028 Acc€	2028 Acce	2028 Acce	2028 Acc€	2028 Acce	2028 Acce	2028 Acce	2028 Acce	2028 Acce	2028 Acce	2028 Acce	2028 Acc€	2028 Acce	2028 Acc€	
9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	

On-Road Sources Units for Non-Greenhouse Gases Emission: Short Ton Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton

2008 Taxiways cement M. Grinde Unit Sh. 2008 Taxiways Cement M. Gringe Unit Sh. 2008 Taxiways Dump Trus Single Unit Sh. 2008 Taxiways Dump Trus Single Unit Sh. 2008 Taxiways Asphalt 18 Combination S. 2008 Taxiways Cement M. Single Unit Sh. 2008 Taxiways Dump Trus Single Unit Sh.	Appraisa Communication and an area Communication and an area Communication and area Communication and area Communication and area Communication Short-haul Truck Asphalt 18 Combination Short-haul Truck Comert MS ingle Unit Short-haul Truck Comert MS ingle Unit Short-haul Truck Dump Trus Single Unit Short-haul Truck Dump Trus Single Unit Short-haul Truck Dump Trus Single Unit Short-haul Truck Passenger Passenger Car Druck Truck Communication and Communication and Communication Short-haul Truck Passenger Passenger Car Druck Communication and Communication and Communication Short-haul Truck Communication Short-haul T	Materi Materi Materi Materi Materi Materi Materi Employ
Taxiways Taxiways Taxiways Taxiways Taxiways Taxiways	Inti Short-haul Truck Inti Short-haul Truck ation Short-haul Truck Inti Short-haul Truck ger Car	Materi Materi Materi Materi Materi Employ
Taxiways Taxiways Taxiways Taxiways Taxiways	Init Short-haul Truck ger Car init Short-haul Truck ger Car init Short-haul Truck	Materi Employ Materi Materi Materi Employ
Taxiways Taxiways Taxiways Taxiways	ger Car ation Short-haul Truck Init Short-haul Truck Init Short-haul Truck ger Car Init Short-haul Truck ger Car	Employ Materi Materi Materi Employ Employ
Taxiways Taxiways Taxiways Taxiways	ation Short-haul Truck Init Short-haul Truck Init Short-haul Truck Init Short-haul Truck ger Car Init Short-haul Truck Init Short-haul Truck	Materi Materi Materi Employ Employ
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Taxiways Taxiways	Jnit Short-haul Truck Jnit Short-haul Truck ger Car Jnit Short-haul Truck Jnit Short-haul Truck	Materi Materi Employ Materi Employ
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	ger Car Jnit Short-haul Truck ger Car	Emplo Materi Emplo
2028 Taxiways Passenger Passenger Car	Jnit Short-haul Truck ger Car	Materi
2028 Demolitior Dump Trus Single Unit Short-haul Truck	ger Car	Emplo
2028 Demolitior Passenger Passenger Car	derest treat treats a site.	
2028 Apron (GAAsphalt 18 Combination Short-haul Truck	ation short-haur rruck	Materi
2028 Apron (GA Cement M Single Unit Short-haul Truck	Jnit Short-haul Truck	Materi
2028 Apron (GADump Tru: Single Unit Short-haul Truck	Jnit Short-haul Truck	Materi
2028 Apron (GA Dump Tru: Single Unit Short-haul Truck	Init Short-haul Truck	Materi
2028 Apron (GA Passenger Passenger Car	ger Car	Employ
2028 Building - : Cement M Single Unit Short-haul Truck	Jnit Short-haul Truck	Materi
2028 Building - : Dump Tru: Single Unit Short-haul Truck	Init Short-haul Truck	Materi
2028 Building -: Passenger Passenger Car	ger Car	Employ
2028 Building - :Tractor Tr Combination Short-haul Truck	ation Short-haul Truck	Materi
2028 Access Ro¿Asphalt 18 Combination Short-haul Truck	ation Short-haul Truck	Materi
2028 Access Ro: Cement M Single Unit Short-haul Truck	Jnit Short-haul Truck	Materi
2028 Access Ro¿Dump Tru: Single Unit Short-haul Truck	Jnit Short-haul Truck	Materi
2028 Access Roz Dump Trus Single Unit Short-haul Truck	Jnit Short-haul Truck	Materi
2028 Access Ro¿Passenger Passenger Car	ger Car	Employ

Fugitive Sources Units for Non-Greenhouse Gases Emission: Short Ton

Scenario II Year	. Project	Fugitive Sc Number of Months	_	00	Ň	202	PM10	VOC
1	2028 Taxiways	Asphalt Dr	6	0	0	0	0	0.02
1	2028 Taxiways	Asphalt St	6	0.0915	0.0057	0.0057 0.001052	0.00625	0.00625 0.002835
1	2028 Taxiways	MaterialN	6	0	0	0	0.0179	
1	2028 Taxiways	MaterialN	6	0	0	0	0.0561	
1	2028 Taxiways	Soil Handl	6	0	0	0	0.0107	
1	2028 Taxiways	Unstabiliza	6	0	0	0	1.14E-08	
2	2028 Taxiways	Asphalt Dr	6	0	0	0	0	0.0
2	2028 Taxiways	Asphalt St	6	0.31255	0.0195	0.0195 0.003591	0.0214	0.009
2	2028 Taxiways	Concrete P	6	0	0	0	0.1105	
2	2028 Taxiways	MaterialN	6	0	0	0	0.02685	
2	2028 Taxiways	MaterialN	6	0	0	0	0.09125	
2	2028 Taxiways	Soil Handl	6	0	0	0	0.03655	
2	2028 Taxiways Unstabiliza	Unstabilize	6	0	0	0	3.91E-08	
6	2028 Demolitior Material №	rMaterial№	6	0	0	0	0.004479	
e	2028 Demolitior Material N	rMaterial∿	6	0	0	0	0.0144	
6	2028 Demolitior Soil Handl	rSoil Handl	6	0	0	0	0.0147	
3	2028 Demolitior Unstabilize	rUnstabiliz	6	0	0	0	1.57E-08	
4	2028 Apron (GAAsphalt Dr	Asphalt Dr	6	0	0	0	0	0.05
4	2028 Apron (GAAsphalt St	Asphalt St	6	0.10485	0.00655	0.00655 0.001205	0.0072	0.0072 0.003248
4	2028 Apron (GA Concrete I	\Concrete ₽	6	0	0	0	0.0371	
4	2028 Apron (GAMaterial №	\Material N	6	0	0	0	0.0179	
4	2028 Apron (GAMaterial N	∖MaterialN	6	0	0	0	0.0547	
4	2028 Apron (GASoil Handl	Soil Handl	6	0	0	0	0.01225	
4	2028 Apron (GAUnstabilize	Unstabilize	6	0	0	0	1.31E-08	
2	2028 Building - : Concrete	:Concrete l	12	0	0	0	0.00855	
L								

ric Ton aul Truck Il Truck	On-road A Lookup Fuel Material DDiesel Urb: Diesel Material DDiesel Urb: Diesel	Roadway 16 Urban Unr Urban Unr	Round Triț D 40 40	istance ft 5 5	Number o'N 1 - 1 -	Roadway 1 Round Trif Distance fi Number o Number of Project Lei Project Avr Building H Open Spac Number o Activity Ra VMT Urban Uni 40 5 1- 193 1401 27	ber of Proje 193	ct Ler Projec 1401 1401	:t Wi Projec 27 – 27 –	t Arı Buildir - -	ig H Open S 	pac Number -	· o Activity Ra	MOVES ONROAD Emissions Factors (g/mile) 7 10 13 11 12 14 5 8 VMT CO NOX 502 PM10 PM2.5 VOC CO2 CH4 549 2.105683 5.786x 70.005196 0.050547 0.046503 0.145679 1555.883 0.018172 8/47 1.1.202134 1.595537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
Truck	Material DieselUrb: Diesel	Urban Unr	8 4	יטי			193	1401	27 75					0.017522 0.074911
ıı ıruck aul Truck	Material Dueseloro, Diesel Employee GasolineU Gasoline Material DDieselUrb: Diesel		9 49	u ru	75.9	75.9	193 -	1401	24			1 1 1		0.017322 0.074911 906.6415 0.001648 0.051642 294.5739 0.046503 0.145679 1555.883
Truck	Material DDieselUrb: Diesel Material DDieselUrb: Diesel	Urban Unr Urban Unr	<del>8</del> <del>8</del>	N N	2 -	, ,	193	5382 5382	24 24	1 1	1 1	1 1		29870 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329 2655 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
l Truck	Material DDieselUrb: Diesel		40	S	2 -			5382	24	ı	ı	ı	1	0.019046 0.017522 0.074911 966.8415 0
l Truck	Employee GasolineU Gasoline Material DDieselUrb: Diesel	Urban Unr Urban Unr	30 +	5	267.3	267.3	193 193	309	- 168	1 1	1 1	1 1	1 1	1547667 2.400919 0.037571 0.001957 0.001863 0.001648 0.051642 294.5739 0.00601 3204 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
	Employee GasolineU Gasoline		30 -		102.3	102.3	193					ı		2.400919 0.037571 0.001957 0.001863 0.001648 0.051642 294.5739
aul Truck I Truck	Material DDieselUrb: Diesel Material DDieselUrb: Diesel	Urban Unr Urban Unr	<b>4</b> 4	ഗവ	 -		193	258 258	168 168					629 2.106583 3.578527 0.005196 0.050547 0.046503 0.145679 1555.883 0.018172 10023 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
Fruck	Material D Diesel Urb: Diesel	Urban Unr	40	S	1-		193	258	168	1	;	1	;	891 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
Truck	Material D Diesel Urb: Diesel		40	Ŋ	1-		193	258	168	ı	ı	ı	;	0.017522 0.074911 966.8415 0
Truck	Employee GasolineU Gasoline	Urban Unr	30	u	76	9.2	193		- 01	- 0000		1 1	: :	440040 2.400919 0.037571 0.001957 0.001863 0.001648 0.051642 294,5739 0.00601
Truck	Material DDieselUrb: Diesel	Urban Unr	9	'n	-		258	ı	10	00001	ı	ı		1.599537 0.003231 0.019046 0.017522 0.074911 966.8415
	Employee GasolineU Gasoline		30 -		386.1	386.1	258	,	1	,	,	1	,	2988414 2.400919 0.037571 0.001957 0.001863 0.001648 0.051642 294.5739 0.00601
aul Truck	Material DDieselUrbi Diesel	Urban Unr	40	2	1-		258	,	10	- 00001	ì	ı	0.0016	160 2.106583 3.578527 0.005196 0.050547 0.046503 0.145679 1555.883 0.018172
aul Truck	Material DDieselUrbi Diesel	Urban Unr	40	2	1-		193	633	33	;	,	1	1	303 2.106583 3.578527 0.005196 0.050547 0.046503 0.145679 1555.883 0.018172
Truck	Material DDieselUrb: Diesel	Urban Unr	40	2	1-		193	633	33	,	,	1	1	4831 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
Truck	Material D Diesel Urb: Diesel	Urban Unr	40	2	1-	,	193	633	33	1	,	1	1	429 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
Truck	Material DDieselUrb: Diesel	Urban Unr	40	2	1,	,	193	633	33	1		1	1	2576 1.202134 1.599537 0.003231 0.019046 0.017522 0.074911 966.8415 0.014329
	Employee GasolineU Gasoline	Urban Unr	30 -		768.9	768.9	193	,	;	,	,	ı	:	4451931 2.400919 0.037571 0.001957 0.001863 0.001648 0.051642 294.5739 0.00601

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2028 Building - : Material N
                                                                                     0 0.03535
                                                      12
                                                                 0
                                                                           0
2028 Access Ro: Asphalt Dr
                                                                                                      0.05
2028 Access Roa Asphalt Sto
                                                          0.05055 0.003156 0.000581 0.003461 0.001565
2028 Access Roa Concrete N
                                                                           0
                                                                                        0.01785
2028 Access Roa Material N
                                                                                         0.0179
2028 Access Roa Material N
                                                                           ٥
                                                                                        0.05455
                                                                                                         ٥
2028 Access Roa Soil Handli
                                                                                         0.0059
                                                                 0
                                                                           0
2028 Access Roa Unstabilize
                                                                                       6 32F-09
                                                                                        0.69574 0.217348
```

2028 Totals

Emission SCO Year NOx SO2 PM10 PM2.5 VOC CO2 CH4 N20 CO2e 2028 NonRoad 0.322691 1.198882 0.009113367 0.073912 0.071695 0.0889 3445.847 0.022915986 0.023636 0.020986 0.603719 3502.121 0.070847 0.019239 2028 OnRoad 27.81477 0.611901 2028 Fugitive 2028 TOTAL 0.55945 0.034906 0.0064275 0.69574 0.217348 --28.69691 1.84568 092681 0.909967 6947.967 0.070847 0.019239 6955.05

## ASSUMPTIONS

Emission factors were developed from the following models:

On-Road Vehicles: MOVES3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

14 U.S. Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for:

Asphalt drying
Asphalt storage and batching
Concrete mixing/batching
Soil handling
Unstabilized land and wind erosion
Material movement (unpaved roads)
Material movement (paved roads)

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available:

Asphalt Deliveries/Ten Wheelers
Bulldozer
Concrete Ready Mix Trucks
Concrete Ready Trucks Mix for Cores
Concrete Truck
Crack Filler (Trailer Mounted)
Delivery of Tanks (3)
Distributing Tanker
Dozer
Dump Truck
Dump Truck (12 cy)

## MOVES ONROAD Emissions (tpy)

| No. | No.

Airport Construction Emissions Inventory Tool (ACEIT)

Version 1.0

Run Date & Time: 12/27/2021 1:32:58 PM

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STUDY

Study Name

Austin Airport

Study Description

2025 Construction Schedule

\_\_\_\_\_\_

EMISSIONS INVENTORY - DETAILS:

on-Road Sources

Units for Non-Greenhouse Gases Emission: Short Ton

Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton

9 7 8 PM10 PM2.5 VOC Scenario II Year Project Constructi Equipment MovesLookup Fuel HP Averag Load Facto Hours of ACO NOx CO2 SO2 CO (tpy) NOx (tpy) CO2 (tpy) SO2 (tpy) PM10 (tpy PM2.5 (tp) VOC Exhaust (tpy) 2029 Building - Concrete F Backhoo Tractors/Loaders/Bac Diesel 100 0.21 320 1.204004 1.655201 695.5091 0.00195 0.173153 0.167959 0.168602 0.008919 0.012261 5.152033 1.44E-05 0.001283 0.001244 0.001249 2029 Building - : Concrete F Concrete Ready Mix Trucks Off-highway Trucks60 Diesel 600 0.59 60 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000492 0.002686 12.56826 3.31E-05 0.000155 0.00015 0.000227 320 0.257143 1.051294 596.0884 0.0016 0.041189 0.039953 0.023925 0.005352 0.021879 12.40564 3.33E-05 0.000857 0.000831 2029 Building - : Concrete F Fork Truck Other Construction Ec Diese 100 0.59 0.000498 80 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000655 0.003581 16.75768 2029 Building - : Concrete FTool Truck Off-highway Trucks60 Diesel 600 0.59 4.41E-05 0.000206 0.0002 0.000303 2029 Building - : Concrete FTractor Trailer- Material Delivery Off-highway Trucks60 Diesel 600 0.59 16 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000131 0.000716 3.351535 8.83E-06 4.13E-05 4F-05 6.06F-05 10 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 8.19E-05 0.000448 2.09471 5.52E-06 2.58E-05 2.5E-05 3.79E-05 2029 Building - : Constructi Survey Crew Trucks Off-highway Trucks60 Diesel 600 0.59 2029 Building - : Constructi Tractor Trailers Temp Fac. Off-highway Trucks60 Diesel 600 0.59 4 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 3.28E-05 0.000179 0.837884 2.21E-06 1.03E-05 1F-05 1 52F-05 240 0.257143 1.051294 596.0884 0.0016 0.041189 0.039953 0.023925 0.004014 0.016409 9.30423 2.5E-05 0.000643 2029 Building - : Exterior W Fork Truck Other Construction Ec Diesel 100 0.59 0.000624 0.000373 2029 Building - : Exterior W Man Lift Rough Terrain Forklift Diesel 75 0.21 240 0.26762 2.585271 595.9726 0.001593 0.027378 0.026556 0.059924 0.001115 0.010772 2.483274 6.64E-06 0.000114 0.000111 0.00025 600 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000492 0.002686 12.56826 2029 Building - : Exterior W Tool Truck Off-highway Trucks60 Diesel 0.59 3.31E-05 0.000155 2029 Building - : Exterior W Tractor Trailer- Material Delivery Off-highway Trucks60 Diesel 600 0.59 24 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000197 0.001074 5.027303 1.32E-05 6.19E-05 6.01E-05 9.09E-05 2029 Building - :Interior BuFork Truck Other Construction Ec Diesel 100 0.59 960 0.257143 1.051294 596.0884 0.0016 0.041189 0.039953 0.023925 0.016055 0.065638 37.21692 9.99E-05 0.002572 0.002494 2029 Building - :Interior Bu Man Lift Rough Terrain Forklift Diesel 75 0.21 960 0.26762 2.585271 595.9726 0.001593 0.027378 0.026556 0.059924 0.00446 0.043089 9.933096 2.66E-05 0.000456 0.000443 0.000999 Interior BuTool Truck 120 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000983 0.005372 25.13651 120 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000983 0.005372 25.13651 Off-highway Trucks60 Diesel 2029 Building -600 0.59 6.62E-05 0.00031 0.0003 0.000455 2029 Building - :Interior BuTractor Trailer- Material Delivery Off-highway Trucks60 Diesel 600 0.59 6.62E-05 0.00031 0.0003 0.000455 Rough Terrain Forklift Diesel 2029 Building - : Roofing High Lift 100 120 0.170347 0.968289 596.1103 0.001587 0.029969 0.029069 0.016298 0.001329 0.007557 4.652286 1.24E-05 0.000234 0.000227 0.000127 0.59 Rough Terrain Forklift Diesel 0.26762 2.585271 595.9726 0.001593 0.027378 0.026556 0.059924 0.000558 0.005386 1.241637 2029 Building - : Roofing Man Lift (Fascia Construction) 75 0.21 3.32E-06 5.7E-05 5.53E-05 0.000125 2029 Building - : Roofing Material Deliveries Off-highway Trucks60 Diesel 600 0.59 8 0 020997 0 114717 536 8019 0 001414 0 006612 0 006413 0 00971 6 555-05 0 000358 1 675768 4 41F-06 2 06F-05 2F-05 3 03F-05 Tractor Trailer- Material Delivery Off-highway Trucks60 Diesel 600 12 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 9.83E-05 0.000537 2.513651 6.62E-06 3E-05 4.55E-05 2029 Building - : Roofing 0.59 3.1E-05 2029 Building - :Security & High Lift 2029 Building - :Security & Tool Truck Rough Terrain Forklift Diesel 100 0.59 320 0.170347 0.968289 596.1103 0.001587 0.029969 0.029069 0.016298 0.003545 0.020152 12.4061 3.3F-05 0.000624 0.000605 0.000339 600 0.59 80 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000655 0.003581 16.75768 4.41E-05 0.000206 Off-highway Trucks60 Diesel 2029 Building - : Structural 40 Ton Crane Cranes300 Diesel 300 0.43 4.8E-05 0.000293 0.000285 0.000421 2029 Building - : Structural Fork Truck Other Construction Ec Diesel 100 0.59 120 0.257143 1.051294 596.0884 0.0016 0.041189 0.039953 0.023925 0.002007 0.008205 4.652115 1.25E-05 0.000321 0.000312 2029 Building - : Structural Tool Truck Off-highway Trucks60 Diesel 600 0.59 60 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000492 0.002686 12.56826 3.31E-05 0.000155 0.00015 0.000227 16 0.02097 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000131 0.000716 3.351535 320 1.204004 1.655201 695.5091 0.00195 0.173153 0.167959 0.168602 0.008919 0.012261 5.152033 2029 Building - :Structural Tractor Trailer- Steel Deliveries Off-highway Trucks60 Diesel 600 8.83E-06 4.13E-05 0.59 4F-05 6.06F-05 Tractors/Loaders/Bac Diesel 1.44E-05 0.001283 0.001244 0.001249 2029 Building - : Concrete F Backhoe 100 0.21 2029 Building - : Concrete F Concrete Ready Mix Trucks Off-highway Trucks60 Diesel 600 60 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000492 0.002686 12.56826 3.31E-05 0.000155 0.00015 0.000227 0.59 0.0016 0.041189 0.039953 0.023925 0.005352 0.021879 12.40564 2029 Building - : Concrete FFork Truck Other Construction Ec Diesel 100 0.59 320 0.257143 1.051294 596.0884 3.33E-05 0.000857 0.000831 0.000498 2029 Building - : Concrete FTool Truck Off-highway Trucks60 Diesel 600 0.59 80 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000655 0.003581 16.75768 4.41E-05 0.000206 0.0002 0.000303 2029 Building - : Concrete FTractor Trailer- Material Delivery Off-highway Trucks60 Diesel 600 0.59 16 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000131 0.000716 3.351535 8.83E-06 4.13E-05 4E-05 2029 Building - : Constructi Survey Crew Trucks Off-highway Trucks60 Diesel 600 0.59 10 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 8.19E-05 0.000448 2.09471 5.52E-06 2.58E-05 2.5E-05 3.79E-05 600 4 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 3.28E-05 0.000179 0.837884 2.21E-06 1.03E-05 1E-05 2029 Building - : Constructi Tractor Trailers Temp Fac. Off-highway Trucks60 Diesel 0.59 2029 Building - : Exterior W Fork Truck Other Construction Ec Diesel 100 0.59 240 0.257143 1.051294 596.0884 0.0016 0.041189 0.039953 0.023925 0.004014 0.016409 9.30423 2.5E-05 0.000643 0.000624 0.000373 2029 Building - : Exterior W Man Lift Rough Terrain Forklift Diese 75 0.21 240 0.26762 2.585271 595.9726 0.001593 0.027378 0.026556 0.059924 0.001115 0.010772 2.483274 6.64E-06 0.000114 0.000111 2029 Building - : Exterior W Tool Truck Off-highway Trucks60 Diesel 600 0.59 60 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000492 0.002686 12,56826 3.31E-05 0.000155 0.00015 0.000227 1.32E-05 6.19E-05 2029 Building - : Exterior W Tractor Trailer- Material Delivery 600 24 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000197 0.001074 5.027303 Off-highway Trucks60 Diesel 0.59 6.01E-05 9.09E-05 2029 Building - :Interior BuFork Truck Other Construction Ec Diesel 100 0.59 2029 Building - ∶Interior BuMan Lift Rough Terrain Forklift Diesel 75 600 0.21 960 0.26762 2.585271 595.9726 0.001593 0.027378 0.026556 0.059924 0.00446 0.043089 9.933096 2.66E-05 0.000456 0.000443 0.000999 120 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000983 0.005372 25.13651 0.0003 0.000455 2029 Building - : Interior BuTool Truck Off-highway Trucks60 Diesel 0.59 6.62E-05 0.00031 2029 Building - Interior BuTractor Trailer- Material Delivery Off-highway Trucks60 Diesel 600 0.59 120 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000983 0.005372 25.13651 6.62E-05 0.00031 0.0003 0.000455 Rough Terrain Forklift Diesel 100 120 0.170347 0.968289 596.1103 0.001587 0.029969 0.029069 0.016298 0.001329 0.007557 4.652286 1.24E-05 0.000234 0.000227 0.000127 2029 Building - : Roofing High Lift 0.59 2029 Building - : Roofing Man Lift (Fascia Construction) Rough Terrain Forklift Diesel 75 0.21 120 0.26762 2.585271 595.9726 0.001593 0.027378 0.026556 0.059924 0.000558 0.005386 1.241637 3.32F-06 5.7F-05 5.53E-05 0.000125 2029 Building - : Roofing 600 0.59 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 6.55E-05 0.000358 1.675768 Material Deliveries Off-highway Trucks60 Diesel 4.41E-06 2.06E-05 2E-05 2029 Building - : Roofing Tractor Trailer- Material Delivery Off-highway Trucks60 Diesel 600 0.59 12 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 9.83E-05 0.000537 2.513651 6.62E-06 3.1E-05 3E-05 4.55E-05  $0.170347 \ 0.968289 \ 596.1103 \ 0.001587 \ 0.029969 \ 0.029069 \ 0.016298 \ 0.003545 \ 0.020152$ 2029 Building - : Security & High Lift Rough Terrain Forklift Diese 100 3.3E-05 0.000624 0.000339 2029 Building - : Security & Tool Truck Off-highway Trucks60 Diesel 600 0.59 80 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000655 0.003581 16.75768 4.41E-05 0.000206 0.0002 0.000303 300 0.0086 0.008342 0.012334 0.001129 0.005487 18.12203 2029 Building - : Structural 40 Ton Crane Cranes300 0.43 240 0.033092 0.160772 531.0059 0.001406 4.8E-05 0.000293 0.000285 0.000421 0.0016 0.041189 0.039953 0.023925 0.002007 0.008205 4.652115 2029 Building - : Structural Fork Truck Other Construction Ec Diesel 100 0.59 120 0.257143 1.051294 596.0884 1.25E-05 0.000321 0.000312 0.000187 2029 Building - : Structural Tool Truck Off-highway Trucks60 Diesel 600 60 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000492 0.002686 12.56826 16 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000131 0.000716 3.351535 3.31E-05 0.000155 0.000227 n 59 0.00015 2029 Building - : Structural Tractor Trailer- Steel Deliveries 600 8.83E-06 4.13E-05 Off-highway Trucks60 Diesel 0.59 4E-05 6.06E-05 2029 Access Roa Asphalt Pla Asphalt Paver Pavers175 175 0.59 4.68425 0.065376 0.208257 536.8005 0.00142 0.015231 0.014774 0.010497 3.49E-05 0.000111 0.286187 7.57E-07 8.12E-06 7.88E-06 5.6E-06 Diesel 2029 Access Roa Asphalt Pla Dump Truck Off-highway Trucks60 Diesel 600 0.59 16.87068 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 0.000138 0.000755 3.533918 9.31E-06 4.22E-05 6.39E-05 4.35E-05 2029 Access Roz Asphalt Pla Other General Equipment Other Construction Fc Diesel 175 0.43 9.3685 0.121776 0.362552 536.7719 0.001441 0.029478 0.028594 0.020568 9.46E-05 0.000282 0.417131 1.12F-06 2.29F-05 2.22F-05 1.6F-05 .68425 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971 3.84E-05 0.00021 0.981214 2029 Access Roa Asphalt Pla Pickup Truck Off-highway Trucks60 Diesel 4.68425 0.107665 0.909124 596.1259 0.001578 0.021121 0.020487 0.010897 3.28E-05 0.000277 0.181609 4.81E-07 6.43E-06 2029 Access RoaAsphalt PlaRoller Rollers100 Diesel 100 0.59 6.24E-06 3.32E-06 Skid Steer Loaders75 Diesel 4.68425 2.296732 3.549123 694.7574 0.002087 0.295893 0.287016 0.421988 0.000187 0.000289 0.056502 2029 Access Ro: Asphalt Pl: Skid Steer Loader 75 1.7E-07 2.41E-05 2.33E-05 2029 Access Roa Asphalt Pla Surfacing Equipment (Grooving) Other Construction Ec Diesel 25 0.59 5.99584 1.488865 3.762482 595.1518 0.002188 0.170484 0.16537 0.351645 0.000145 0.000367 0.05802 2.13E-07 1.66E-05 1.61E-05 3.43E-05 2029 Access Roz Clearing at Chain Saw Other Construction Ec Diese 12 2.460678 4.183555 593.7556 0.002183 0.238948 0.23178 0.837843 0.000251 0.000426 0.060476 2.22E-07 2.43E-05

NONROAD Emission Factors g/-hp-hr

NONROAD Emissions (TPY)

0.000598 0.339052 9.1E-07 2.34E-05 2.27E-05	0.000716 3.351535 8.83E-06 4.13E-05	0.000622 0.352931 9.48E-07 2.44E-05 2.37E-05	0.000822 0.193634 5.1E-07 6.58E-06 6.39E-06	0.00233 10.90226 2.87E-05 0.000134	0.000751 1.112338 2.99E-06 6.11E-05 5.93E-05	0.001677 7.849631 2.07E-05 9.67E-05 9.38E-05	0.001384 0.890237 2.49E-06 0.000164 0.000159	0.000296 0.763157 2.02E-06 2	0.000764 0.120873 4.44E-07 3.46E-05 3.36E-05	0.001511 /.0/1/39 1.86E-05 8./1E-05 8.45E-05	0.0008 2.062585 5.45E-06 5.85E-05 5.68E-05	0.001015 1.50316 4.03E-06 8.26E-05 8.01E-05	0.001511 /.0/1/39 1.86E-05 8./1E-05 8.45E-05	0.000603 1.669629 4.41E-06 4.23E-05	0.001223 5.724422 1.51E-05 7.05E-05 6.84E-05	0.000538 1.669638 4.4E-06 3.62E-05 3.51E-05	0.003027 1.947643 5.46E-06 0.000358 (	0.000822 1.216776 3.27E-06 6.68E-05 6.48E-05	0.001223 5.724422 1.51E-05 7.05E-05 6.84E-05	0.001616	0.00068 3.180235 8.38E-06 3.92E-05 3.8E-05	77 U.UULB8Z I.UBZUZ4 3.U3E-UB U.UULISS U.UUULISS U.UUUZIZ	0.00045/ 0.0/358/ I.SIE-00 3./IE-03 3.0E-03	0.000582 0.244435 6.85E-07 6.09E-05 5.9E-05	0.128922 603.2763 0.001589 0.007431 0.007208	0.000459 1.271935 3.36E-06 3.23E-05 3.13E-05	0.000932 4.360906 1.15E-05 5.37E-05 5.21E-05	0.000932 4.360906 1.15E-05 5.37E-05 5.21E-05	0.000568 0.372527 9.86E-07 1.32E-05 1.28E-05	0.000345 0.953952 2.52E-06 2.42E-05 2.35E-05	0.001864 8.721812 2.3E-05 0.000107 0.000104	0.000246 0.763165 2.01E-06 1.66E-05 1.61E-05	0.000559 2.616544 6.89E-06 3.22E-05 3.13E-05	0.000739 0.484285 1.28E-06 1.72E-05 1.66E-05	0.001576 3.270529 8.77E-06 0.000111 0.000108	0.00013 0.359139 9.48E-07 9.11E-06 8.83E-06	0.00042 1.964372 5.18E-06 2.42E-05 2.35E-05	0.0011679 1.657466	0.001128 1.6/01/8 4.48E-06 9.1/E-05 8.9E-05	0.0016/9 /.85/468 2.0/E-03 9.88E-03 9.39E-03	0.001437 0.603933 1.69E-06 0.00015 0.000146	0.000105 0.289576 7.65E-07 7.34E-06 7.12E-06	0.000114	0.00028 0.183758 4.86E-07 6.51E-06 6.32E-06	0.001185 0.894277	0.000191 0.894441 2.38E-08 I.I.E-03 I.O/E-03	0.002321 3.435794 9.22E-06 0.000189 0.000183	0.003454 16.16398 4.26E-05 0.000199 0.000193	0.003023 14.14348 3.73E-05 0.000174 0.000169	0.003023	0.002587 1.087079 3.05E-06 0.000271 0.000263	0.000804 0.112907 4.15E-07 4.7E-05 4.56E-05	0.00012 0.1781 4.78E-07 9.78E-06 9.49E-06	0.000358 1.675768 4.41E-06 2.06E-05 2E-05	8.73E-05 0.012383 4.55E-08 4.98E-06 4.83E-06	0.000153 0.0644 1.81E-07 1.6E-05	0.001003 4.692149 1.24E-05 5.78E-05 5.61E-05	0.002462 1.336423 4.47E-08 0.000233 0.000263	0.000074 0.337.337 2.88E-03 3.48E-03 3.31E-03	0.00138 0.270189 8.12E-07 0.000115 0.000112	0.000858 0.360642 1.01E-06 8.98E-05	0.000174 0.482002 1.27E-06 1.22E-05 1.19E-05	0.002485 11.6289	0.000353 1.652571 4.35E-06 2.04E-05 1.97E-05	0.000454 0.298017 7.89E-07 1.06E-05 1.02E-05	0.000232 0.643544 1.7E-06 1.63E-05 1.58E-05	35 0.000472 2.206427 5.81E-06 2.72E-05 2.64E-05 3.99E-05	0.000472 2.206427 5.81E-06 2.72E-05 2.64E-05	0 0 0 0 0 0	0 0 0 0	
12 0.257143 1.051294 596.0884 0.0016 0.041189	0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	12.4912 0.257143 1.051294 596.0884 0.0016 0.041189 0.039953 0.023925	0.278246 2.528487 595.8806 0.001569 0.020263 0.019655 0.092416	52.04667 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	24.9824 0.121776 0.362552 536.7719 0.001441 0.029478 0.028594 0.020568	37.4736 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	12.4912 0.490102 0.973368 626.1882 0.001754 0.115067 0.111614 0.122803	0.065376 0.208257 536.8005 0.00142 0.015231 0.014774	12.4912 1.488865 3.762482 595.1518 0.002188 0.170484 0.16537 0.351645	0.02099/ 0.114/1/ 536.8019 0.001414 0.006612 0.006413 0.009/1	33.76 0.065376 0.208257 536.8005 0.00142 0.015231 0.014774 0.010497	33./b U.121//b U.362552 536.//19 U.0U1441 U.0294/8 U.028594 U.02U568	33./6 0.02099/ 0.114/1/ 536.8019 0.001414 0.006612 0.006413 0.009/1	059269 0.193919 536.8038 0.001417 0.013613	27.328 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	0.051833 0.172817 536.8066 0.001415 0.011645 0.011296 0.008583	27.328 0.490102 0.973368 626.1882 0.001754 0.115067 0.111614	27.328 0.121776 0.362552 536.7719 0.001441 0.029478 0.028594 0.020568	27.328 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	0.909124 596.1259 0.001578 0	15.18222 0.02099/ 0.114/1/ 536.8019 0.001414 0.006612 0.006413 0.009/1	0.39 IS.18222 0.490102 0.9/3368 025.1882 0.001/34 0.11306/ 0.111614 0.122803 0.00084/	15.18222 0.121//0 0.302332 330://19 0.001441 0.0234/8 0.028334 0.020308 15.18232 0.0234/8 0.028334 0.020308	1.204004 1.655201 695.5091 0.00195 0.173153 0.167959 0.168602	2880 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	20.81867 0.059269 0.193919 536.8038 0.001417 0.013613 0.013204 0.009638	20.81867 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	9.608615 0.107665 0.909124 596.1259 0.001578 0.021121 0.020487 0.010897	15.614 0.059269 0.193919 536.8038 0.001417 0.013613 0.013204 0.009638	0.020997 0.114717 536.8019 0.001414 0.006612 0.006413	12.4912 0.051833 0.172817 536.8066 0.001415 0.011645 0.011296 0.008583	12.4912 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	0.107665 0.909124 596.1259 0.001578 0.021121 0.020487 0.010897	15.614 0.089874 0.258601 536.7772 0.001439 0.018204 0.017658 0.017979	5.878275 0.059269 0.193919 536.8038 0.001417 0.013613 0.013204 (	0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	57.51111 0.02099/ 0.114/1/ 550.6019 0.001414 0.006012 0.006415 0.009/1	37.51111 U.121//b U.362552 536.//19 U.UU1441 U.U294/8	3/.31111 0.02039/ 0.114/1/ 336.8019 0.001414 0.006012 0.006413 0.009/1 37 51111 2 29523 3 54013 604 7574 0.000087 0.395893 0.387016 0.431088	37.51111 1.204004 1.655201 695.5091 0.00195 0.173153 0.167959 0.168602	4.7397 0.059269 0.193919 536.8038 0.001417 0.013613 0.013204 0.009638	0.02483 0.123305 536.8004 0.001416 0.007398 0.007176	4.7397 0.107665 0.909124 596.1259 0.001578 0.021121 0.020487 0.010897	4.27 0.298338 0.710908 536.7034 0.001503 0.049231 0.047754 0.043468	4,2/ 0.02039/ 0.114/1/ 538.5013 0.001414 0.006812 0.006413 0.003/1 77 16571 0.006613 0.114717 536.8019 0.001414 0.006613 0.006413 0.00671	77.16571 0.121776 0.362552 536.7719 0.001441 0.029478 0.028594 0.020568	77.16571 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	67.52 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	67.52 0.020997 0.114717 536.8019 0.001414 0.006612	67.52 1.204004 1.655201 695.5091 0.00195 0.173153 0.167959 0.168602	67.52 2.483815 4.184782 587.978 0.002162 0.244757 0.237415 0.83438	4 0.121776 0.362552 536.7719 0.001441 0.029478 0.028594 0.020568	8 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	4 2,460678 4,183555 593,7556 0,002183 0,238948 0,23178 0,837843	4 1.204004 1.655201 695.5091 0.00195 0.173153 0.167959 0.168602	0.59	22.4 U-49U1U2 U-3/3386 020.1882 U.UUI/34 U.II3U6/ U.II1014 U.IZ28U3	22.4 0.121//0 0.302332 338://13 0.001441 0.0234/8 0.028334 0.020308	2.296732 3.549123 694.7574 0.002087 0.295893 0.287016 0.421988	22.4 1.204004 1.655201 695.5091 0.00195	7.889263 0.059269 0.193919 536.8038 0.001417 0.013613 0.013204 0.009638	55.51556 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	$7.889263 \ 0.020997 \ 0.114717 \ 536.8019 \ 0.001414 \ 0.006612 \ 0.006413$	7.686769 0.107665 0.909124 596.1259 0.001578 0.021121 0.020487 0.010897	10.53333 0.059269 0.193919 536.8038 0.001417 0.013613 0.013204 0.009638	10.53333 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413	10.53333 0.020997 0.114717 536.8019 0.001414 0.006612 0.006413 0.00971	020997 0.114717 536.8019 0.001414 0.006612 0.006413	0 0.121776 0.362552 536.7719 0.001441	
2029 Access Roc Clearing at Chipper/Stump Grinder Other Construction Ec Diesel 100		n Other Construction Ec Diesel	Other Construction Ec Diesel	Off-highway Trucks60 Diesel	al Equipment Other Constr	Off-highway Trucks60 Diesel	aders/Bac Diesel	Pavers 175 Diesel	Surfacing Equipment (Grooving) Other Construction EcDiesel	Concrete Iruck Off-highway Irucksbu Diesel	Curb/Gutter Paver	Other General Equipment Other Construction Ec Diesel	Iruck Off-highway IrucksbU Diesel	2029 Access Ro¿Drainage - Dozer 175	:k Off-highway Trucks60 Diesel	.or	Tractors/Loaders/Bac Diesel	al Equipment Other Construction EcDiesel	Truck Off-highway Trucks60 Diesel		ruck Off-highway IrucksbUDiesel	2029 Access Rochramage - Loader		der/Backhoe Tractors/Loaders/Bac Diesel	Off-highway Trucks60 Diesel	2029 Access Ro¿Excavatior Dozer Crawler Tractor/Doze Diesel 175		Truck Off-highway Trucks60 Diesel	2029 Access Ro¿Excavation Roller 100 Diesel 100	Crawler Tractor/Doze Diesel	ck (12 cy) Off-highway Trucks60	Excavators175 Diesel	Truck Off-highway Trucks60 Diesel	Rollers100 Diesel	-	or Dozer Crawler Tractor/Doze Diesel	Concrete Truck Off-highway Trucks60 Diesel	Out of the Control of	2029 Access Kor-Fencing Other General Equipment Other Construction Eculese 175	Fickup Truck Off-nignway Trucksouplesel Skid Stear Loader Stear Colored	Tractors/Loader/Backhoe Tractors/Loaders/Bac	Dozer Crawler Tractor/Doze Diesel	Grader Graders300	Rollers100 Diesel	uction EcDiesel	Off-highway TrucksODiesel	Other General Equipment	Off-highway Trucks60 Diesel	ick Off-highway Trucks60 Diesel	2029 Access Rossidewalks Dump Truck Off-highway TrucksbUDiesel 600	der/Backhoe Tractors/Loaders/Bac Diesel	Plate Compactors6 Diesel	I Equipment Other Construction EcDiesel 1	Fruck Off-highway Trucks60 Diesel	Other Construction Ec	der/Backhoe Tractors/Loaders/Bac Diesel	ZOZY Access Rosstreet Light London Truck  Troops Access Rosstreet Light London 1175	I actions/Loaders/ Described Content of Cont	2029 Access Notstreet tign Other General Equipment Other Construction EtDiesel 173 2009 Access Ros Street Ligh Pickin Truck 600	ader Skid Steer Loaders 75 Diesel	ackhoe Tractors/Loaders/Bac Diesel	Crawler Tractor/Doze Diesel	Truck (12 cy) Off-highway Trucks60 Diesel	rruck Off-highway Trucks60 Diesel		Crawler Tractor/Doze Diesel	Off-highway Trucks60 Diesel	Off-highway Trucks60 Diesel		nstr	

Fugitive Sources Units for Non-Greenhouse Gases Emission: Short Ton

VOC	0	0	0	0	0	0	0.05	0.00253	0	0	0	0	0	0.05253
PM10 \	0.00855	0.01195	0.03535	0.00855	0.006	0.01765	0	0.0056	0.0289	0.02395	0.0731	0.00955	1.36E-08	0.22915
S02 F	0	0	0	0	0	0	0	.000939	0	0	0	0	0	0.0051 0.000939
NOX S	0	0	0	0	0	0	0	0.0051 0.000939	0	0	0	0	0	0.0051
ž	0	0	0	0	0	0	0	0.0817	0	0	0	0	0	0.0817
9	12	12	12	9	9	9	12	12	12	12	12	12	12	
Project Fugitive Sc Number of Months	2029 Building -: Concrete I	2029 Building -: Material N	2029 Building -: Material N	2029 Building -: Concrete (	2029 Building -: Material N	2029 Building -: Material N	2029 Access Ro¿Asphalt Dr	2029 Access RocAsphalt St	2029 Access Ro¿Concrete I	2029 Access Ro≀Material N	2029 Access RocMaterial N	2029 Access Ro¿Soil Handl	2029 Access Ro¿Unstabiliza	Totals
Scenario II Year	1 20	1 20	1 20	2 20	2 20	2 20	3 20	3 20	3 20	3 20	3 20	3 20	3 20	

ASSUMPTIONS

PM2.5 VOC COZ CH4 N2O COZe
0.03157538 0.030628 0.035167 1359.339 -- -0.0017385532 0.0154 0.0495 2686.60 0.05757 0.01474
0.293150014 -- - - - - - - - - 0.278111084 0.046028 0.582646 4045.994 0.05757 0.01474 4051.512

PM10

**S02** 

2029 Totals Year Em

0.003595034 0.017771921 0.0009385

ear Emission SCO NOX SO2 2029 NonRead 0.157303 0.70655 2029 OnRead 22.459 0.443943 2029 Fugitive 0.0817 0.0051 2029 TOTAL 22.734 1.155593

Emission factors were developed from the following models:

On-Road Vehicles: MOVES3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

14 U.S. Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Fugitive emissions are only modeled for: Asphalt drying Asphalt storage and batching

Concrete mixing/batching Soil handling

Unstabilized land and wind erosion Material movement (unpaved roads) Material movement (paved roads)

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations.

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available:
 Asphalt Deliveries/Ten Wheelers
 Bulldozer
 Concrete Ready Mix Trucks
 Concrete Ready Trucks Mix for Cores
 Concrete Truck
 Crack Filler (Trailer Mounted)
 Delivery of Tanks (3)
 Distributing Tanker
 Dozer Dozer Dump Truck Dump Truck (12 cy)

MOVES ONROAD Emissions (tpy)
8 9 7 10 13 11 12 14 5 8 9

Airport Construction Emissions Inventory Tool (ACEIT)

Version 1.0

Run Date & Time: 12/27/2021 1:35:55 PM

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STUDY

Study Name

Austin Airport

Study Description

2030 Construction Schedule

EMISSIONS INVENTORY - DETAILS:

Non-Road Sources

Units for Non-Greenhouse Gases Emission: Short Ton

Units for Greenhouse Gases (CO2, CH4, and N2O) Emission: Metric Ton NONROAD Emissions (TPY)

9 7 8 PM10 PM2.5 VOC 2 Scenario II Year Project Constructi Equipment MovesLoo Fuel HP Averag Load Facto Hours of ACO NOx CO2 SO2 CO (tpy) NOx (tpy) CO2 (tpy) SO2 (tpy) PM10 (tpy PM2.5 (tp) VOC Exhaust (tpy) 2030 Building - Concrete F Backhoe Tractors/L Diesel 0.21 320 1.038687 1.547273 695.5805 0.001933 0.149671 0.145181 0.144229 0.007694 0.011462 5.152561 1.43E-05 0.001109 0.001075 0.001068 2030 Building - : Concrete F Concrete Ready Mix Trucks Off-highwa Diesel 600 0.59 60 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000464 0.002637 12.56826 3.31E-05 0.00015 0.000145 0.000224 320 0.195476 0.994937 596.1029 0.001591 0.032726 0.031744 0.019038 0.004068 0.020706 12.40594 3.31E-05 0.000681 0.000661 0.000396 80 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000618 0.003516 16.75768 4.41E-05 0.000199 0.000193 0.000298 2030 Building - : Concrete F Fork Truck Other Con: Diesel 0.59 2030 Building - : Concrete FTool Truck Off-highwa Diesel 600 0.59 2030 Building - : Concrete FTractor Trailer- Material Delivery Off-highwa Diesel 600 0.59 16 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000124 0.000703 3.351536 8.83E-06 3.99E-05 3.87E-05 5.97E-05 2030 Building - : Constructi Survey Crew Trucks 10 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 7.73E-05 0.00044 2.09471 5.52E-06 2.49E-05 2.42E-05 3.73E-05 Off-highwa Diesel 600 0.59 2030 Building - : Constructi Tractor Trailers Temp Fac. Off-highwa Diesel 600 0.59 4 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 3.095-05 0.000176 0.837884 2.215-06 9.975-06 9.675-06 1.495-05 240 0.195476 0.994937 596.1029 0.001591 0.032726 0.031744 0.019038 0.003051 0.01553 9.304457 2.48E-05 0.000511 0.000495 0.000297 2030 Building - : Exterior W Fork Truck Other Con: Diesel 0.59 100 2030 Building - : Exterior W Man Lift Rough Ter Diesel 75 0.21 240 0.237794 2.569426 595.9823 0.001586 0.023765 0.023052 0.056571 0.000991 0.010706 2.483314 6.61F-06 9.9F-05 9.61F-05 0.000236 536.802 0.001414 0.006387 0.006196 0.009561 0.000464 0.002637 12.56826 2030 Building - : Exterior W Tool Truck Off-highwa Diese 600 0.59 3.31E-05 0.00015 0.000145 0.000224 2030 Building - : Exterior W Tractor Trailer- Material Delivery Off-highwa Diesel 600 0.59 24 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000185 0.001055 5.027304 1.32E-05 5.98E-05 5.8E-05 8.95E-05 2030 Building :Interior Bu Fork Truck 100 0.59 960 0.195476 0.994937 596.1029 0.001591 0.032726 0.031744 0.019038 0.012205 0.062119 37.21783 9.93E-05 0.002043 0.001982 0.001189 2030 Building - :Interior Bu Man Lift Rough Ter Diesel 75 0.21 960 0.237794 2.569426 595.9823 0.001586 0.023765 0.023052 0.056571 0.003963 0.042825 9.933257 2.64E-05 0.000396 0.000384 0.000943 2030 Building - :Interior BuTool Truck 600 120 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000927 0.005275 25.13652 6.62E-05 0.000299 Off-highwa Diesel 0.59 0.00029 0.000448 536.802 0.001414 0.006387 0.006196 0.009561 0.000927 0.005275 25.13652 2030 Building - :Interior BuTractor Trailer- Material Delivery Off-highwa Diesel 600 120 0.019804 0.112642 0.00029 0.000448 0.59 6.62E-05 0.000299 Rough Ter Diesel 2030 Building - : Roofing High Lift 120 0.130506 0.931858 596.1206 0.001581 0.024524 0.023789 0.012905 0.001019 0.007273 4.652366 1.23E-05 0.000191 0.000186 0.000101 100 0.59 120 0.237794 2.569426 595.9823 0.001586 0.023765 0.023052 0.056571 0.000495 0.005353 1.241657 2030 Building - : Roofing Man Lift (Fascia Construction) Rough Ter Diesel 75 0.21 3.3E-06 4.95E-05 4.8E-05 0.000118 2030 Building - : Roofing Material Deliveries Off-highw: Diesel 600 0.59 8 0.019804 0.112642 536 802 0.001414 0.006387 0.006196 0.009561 6.18E-05 0.000352 1.675768 4.41E-06 1.99E-05 1.93E-05 2.98E-05 Tractor Trailer- Material Delivery Off-highwa Diesel 12 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 9.27E-05 0.000527 2.513652 6.62E-06 2.99E-05 2030 Building - : Roofing 600 0.59 2.9E-05 4.48E-05 2030 Building - : Security & High Lift Rough Ter Diesel 100 0.59 320 0.130506 0.931858 596 1206 0.001581 0.024524 0.023789 0.012905 0.002716 0.019394 12 40631 3.29F-05 0.00051 0.000495 0.000269 2030 Building - : Security & Tool Truck 600 0.59 536.802 0.001414 0.006387 0.006196 0.009561 0.000618 0.003516 16.75768 Off-highwa Diese 80 0.019804 0.112642 4.41E-05 0.000199 0.000193 0.000298 2030 Building - : Structural 40 Ton Crane Cranes300 Diesel 300 0.43 240 0.028647 0.145715 531.0089 0.001404 0.007779 0.007545 0.011403 0.000978 0.004973 18.12213 4.79E-05 0.000265 0.000258 0.000389 2030 Building - : Structural Fork Truck Other Con Diese 100 0.59 120 0.195476 0.994937 596.1029 0.001591 0.032726 0.031744 0.019038 0.001526 0.007765 4.652229 1.24E-05 0.000255 0.000248 0.000149 2030 Building - : Structural Tool Truck Off-highwa Diesel 600 0.59 60 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000464 0.002637 12.56826 3.31E-05 0.00015 0.000145 0.000224 16 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000124 0.000703 3.351536 320 1.038687 1.547273 695.5805 0.001933 0.149671 0.145181 0.144229 0.007694 0.011462 5.152561 2030 Building - :Structural Tractor Trailer- Steel Deliveries 8.83E-06 3.99E-05 3.87E-05 5.97E-05 Off-highwa Diesel 600 0.59 0.21 1.43E-05 0.001109 0.001075 0.001068 2030 Building - : Concrete F Backhoe Tractors/L Diesel 100 2030 Building - : Concrete F Concrete Ready Mix Trucks 0.59 60 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000464 0.002637 12.56826 3.31E-05 0.00015 0.000145 0.000224 Off-highwa Diesel 600 320 0.195476 0.994937 596.1029 0.001591 0.032726 0.031744 0.019038 0.004068 0.020706 12.40594 2030 Building - : Concrete FFork Truck Other Con: Diesel 100 0.59 3.31E-05 0.000681 0.000661 0.000396 2030 Building - : Concrete FTool Truck Off-highw: Diesel 600 0.59 80 0.019804 0.112642 536 802 0 001414 0 006387 0 006196 0 009561 0 000618 0 003516 16 75768 4.41E-05 0.000199 0.000193 0.000298 2030 Building - : Concrete FTractor Trailer- Material Delivery Off-highwa Diese 600 0.59 16 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000124 0.000703 3.351536 8.83E-06 3.99E-05 3.87E-05 5.97E-05 2030 Building - : Constructi Survey Crew Trucks Off-highw; 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:Interior Bu Man Lift Rough Ter Diesel 75 0.21 960 0.237794 2.569426 595.9823 0.001586 0.023765 0.023052 0.056571 0.003963 0.042825 9.933257 2.64E-05 0.000396 0.000384 0.000943 120 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000927 0.005275 25.13652 0.00029 0.000448 2030 Building - :Interior BuTool Truck Off-highwa Diesel 600 0.59 6.62E-05 0.000299 2030 Building - Interior BuTractor Trailer- Material Delivery Off-highwa Diesel 600 0.59 120 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000927 0.005275 25.13652 6.62E-05 0.000299 0.00029 0.000448 2030 Building - : Roofing High Lift 120 0.130506 0.931858 596.1206 0.001581 0.024524 0.023789 0.012905 0.001019 0.007273 4.652366 1.23E-05 0.000191 0.000186 0.000101 Rough Ter Diesel 100 0.59 2030 Building - : Roofing Man Lift (Fascia Construction) Rough Ter Diesel 75 0.21 120 0.237794 2.569426 595.9823 0.001586 0.023765 0.023052 0.056571 0.000495 0.005353 1.241657 3.3F-06 4.95F-05 4.8F-05 0.000118 0.59 536.802 0.001414 0.006387 0.006196 0.009561 6.18E-05 0.000352 1.675768 4.41E-06 1.99E-05 2030 Building - 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: Structural Tool Truck 0.59 60 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000464 0.002637 12.56826 3.31E-05 0.00015 0.000145 0.000224 Off-highwa Diesel 600 16 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 0.000124 0.000703 3.351536 8.83E-06 3.99E-05 3.87E-05 5.97E-05 2030 Building - : Structural Tractor Trailer- Steel Deliveries Off-highwa Diesel 600 0.59 2030 Access Ro: Asphalt Pl: Asphalt Paver Pavers175 Diesel 175 0.59 1.171 0.060462 0.194501 536.8032 0.001418 0.013881 0.013465 0.009825 8.06E-06 2.59E-05 0.071543 1.89E-07 1.85E-06 1.79E-06 1.31E-06 2030 Access Ro: Asphalt Pl: Dump Truck 600 0.59 17445 0.019804 0.112642 536.802 0.001414 0.006387 0.006196 0.009561 3.26E-05 0.000185 0.883433 2.33E-06 1.05E-05 1.02E-05 Off-highwa Diesel 1.57E-05 2030 Access Ro: Asphalt Pl: Other General Equipment Other Con Diesel 175 0.43 2.342 0.099762 0.310391 536.7827 0.001433 0.023905 0.023188 0.016649 1.94F-05 6.03F-05 0.104279 2.78F-07 4.64F-06 4.5F-06 3.23F-06 Off-highwa Diesel 536.802 0.001414 0.006387 0.006196 0.009561 9.05E-06 5.15E-05 0.245291 2030 Access Roa Asphalt Pla Pickup Truck 6.46E-07 2.92E-06 2.83E-06 2030 Access Roa Asphalt PlaRoller Rollers100 Diesel 100 0.59 1.171 0.088501 0.892622 596.1304 0.001575 0.017975 0.017436 0.009766 6.74E-06 6.8E-05 0.0454 1.2E-07 1.37E-06 1.33E-06 7.44E-07 1.171 2.123612 3.461035 694.8576 0.002069 0.272086 0.263923 0.388167 4.32E-05 7.04E-05 0.014127 2030 Access Ro: Asphalt Pl: Skid Steer Loader 4.21E-08 5.53E-06 5.37E-06 2030 Access Ro: Asphalt Pl: Surfacing Equipment (Grooving) Other Con: Diesel 25 0.59 1.49888 1.488299 3.762404 595.1504 0.002188 0.170313 0.165204 0.35162 3.63E-05 9.17E-05 0.014504 5.33E-08 4.15E-06 4.03E-06 8.57E-06 3.6 2.459739 4.183456 593.7551 0.002183 0.238707 0.231546 0.837781 7.52E-05 0.000128 0.018143 6.67E-08 2030 Access Roa Clearing at Chain Saw 7.29E-06 7.08E-06 2.56E-05

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)OC	0.063055	0.063055	0.045149	0.135046	0.063055	0.063055	0.045149	0.135046	0.135046	0.063055	0.063055	0.063055	0.045149
PM2.5 \	0.012747	0.012747	0.001541	0.040354	0.012747	0.012747	0.001541	0.040354	0.040354	0.012747	0.012747	0.012747	0.001541
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Roadway   Round		Diesel Urban Unr 40 5	Gasoline Urban Unr 30 –	Diesel Urban Unr 40 5	Diesel Urban Unr 40 5		Gasoline Urban Unr 30 –	Diesel Urban Unr 40		Diesel Urban Unr 40 5		Diesel Urban Unr 40	Gasoline Urban Unr 30 –
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Fugitive Sources Units for Non-Greenhouse Gases Emission: Short Ton

VOC	0	0	0	0	0	0	0.02	0.000633	0	0	0	0	0	0.050633
PM10	0.00855	0.006	0.01765	0.00855	9000	0.01765	0	0.0204 0.001275 0.000235 0.001399	0 0.0072	0.01195	0.03625	0 0.002389	0 1.70E-09	0.0204 0.001275 0.000235 0.123588 0.050633
S02 F	0	0	0	0	0	0	0	0.000235	0	0	0	0	0	0.000235
NOX	0	0	0	0	0	0	0	.001275 0	0	0	0	0	0	.001275 0
	0	0	0	0	0	0	0	0.0204 0	0	0	0	0	0	0.0204 0
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ear Project Fugitive Sc Number of Months	2030 Building - : Concrete ₽	2030 Building -: Material N	2030 Building -: Material N	2030 Building - :Concrete ₽	2030 Building -: Material N	2030 Building -: Material N	2030 Access Ro¿Asphalt Dr	2030 Access RocAsphalt St	2030 Access Ro¿Concrete I	2030 Access Ro≀Material N	2030 Access Ro≀Material N	2030 Access RocSoil Handl	2030 Access Roc Unstabiliza	Totals
Scenario Il Year	1	1	1	2	2	2	3	3	3	3	3	3	3	

0.008970851 0.150888 0.025974 0.226022 1867.938 0.017652 0.005329 1869.845 C02e **SO2** ear Emission SCO NOX SO2 2030 NonRead 0.108467 0.569752 2030 OnRead 0.705896 0.104231 2030 Fugitive 0.0204 0.001275 2030 TOTAL 7.182763 0.675257 2030 Totals Year Em

ASSUMPTIONS

Emission factors were developed from the following models:

On-Road Vehicles: MOVES3.0.2, revised September 2021

Non-Road Equipment: MOVES3.0.2 September 2021

In addition to the overall project size dimensions (e.g., Length and width) provided by the user, an additional 10 ft length and 10 ft width is added to account for disturbance areas.

The number of employees is based on the higher of two methods: (1) number of equipment, and (2) multiply the project cost in million by 11.

The average employee travels 30 miles round-trip from home to construction site each day.

The average on-road material delivery round-trip distance per truck is 40 miles per day.

For calculating fugitive, re-entrained PM emissions from on-road and non-road material delivery and handling equipment, a nominal VMT of 5 miles is used for each vehicle per day.

In deriving emission factors from NONROAD, the horsepower for each equipment represents the most popular in each equipment category.

The total length of each modeled scenario is used to define the number of days associated with vehicle/equipment evaporative emissions.

The choice of location and season are assumed to adequately represent differences in fuel characteristics affecting emissions.

Only two seasons (Summer and Winter) are used to represent all seasons.

14 U.S. Counties are used to represent all other counties in the U.S. (all other counties are mapped to the 14).

The default methods assume that all construction equipment use diesel as well as heavy-duty on-road vehicles, while passenger vehicles (including motorcycles) use gasoline.

Asphalt drying
Asphalt storage and batching
Concrete mixing/batching
Soil handling
Unstablized land and wind erosion
Material movement (unpaved roads)
Material movement (paved roads)

Fugitive emissions are only modeled for:

On-Road vehicle speeds are not explicitly modeled. The associated emission factors for each modeled vehicle from MOVES represent averages over the driving cycles, the roadway type, and daily temperature variations.

The default equipment hours-of-use data are developed based on the overall size of the project provided by the user and activity rates based on expert engineering judgment.

Under the Construction Activity Type list (Activity Tab), when a choice between asphalt and concrete materials occurs, asphalt is always selected as default. To choose concrete, de-select the aphalt item and select the corresponding concrete item.

Two trips per day were assumed for each on-road material handling trucks.

Only CO2, CH4, and N2O are used to represent greenhouse gas emissions. Other potential greenhouse gases including air conditioning refrigerants were not included.

The following equipment are always modeled using diesel emission factors since gasoline-based emission factors are not available:
Asphalt Deliveries/Ten Wheelers
Bulldozer
Concrete Ready Mix Trucks

Asphalt Deliveries/Ten Wheelers Bulldozer Concrete Ready Mix Trucks Concrete Ready Trucks Mix for Cores Concrete Truck Crack Filler (Trailer Mounted) Delivery of Tanks (3) Distributing Tanker Dozer Dump Truck

Dump Truck (12 cy)

MOVES ONROAD Emissions (tpy)
9 7 10 13 11 12 14 5 8 9

 N2O
 CO
 NOX
 SO2
 PM10
 PM2.5
 VOC
 CO2
 CH4
 N2O

 0.003286
 0.00297
 0.003845
 7.98E-06
 3.53E-05
 3.25E-05
 0.00161
 2.389774
 3.51E-05
 8.38E-06

 0.003286
 0.001597
 0.00205
 4.25E-06
 1.88E-05
 0.04577
 3.06131
 0.005731
 0.00734

 0.002802
 0.003286
 0.003295
 0.003807
 7.74E-06
 7.12E-06
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 0.268581
 3.12E-06
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 3.25E-05
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 0.00116
 0.000116
 0.00116
 0.003392
 0.000119

 0.002802
 0.000287
 0.004036
 6.77E-06
 7.14E-06
 7.12E-06
 7.238E-06
 3.27E-07

PM 2.5 (ST PM 10 (ST) 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 3.29E-01 4.43E+04 1.74E+04 1.64E+01 1.39E+00 1.39E+00 6.61E+04 2.59E+04 2.45E+01 2.44E+00 2.44E+00 4.65E-01 7.84E+04 3.07E+04 2.91E+01 3.06E+00 3.06E+00 AUS 2019 Climb Belo 34222.39 520382.4 23739:02: 4.32E+02 8.47E+01 9.77E+01 9.77E+01 9.76E+01 5.30E+02 2.27E+06 3.71E+22 1.48E+00 5.74E-01 1.08E+05 4.23E+04 4.01E+01 4.55E+00 4.55E+00 4.55E+00 8.54E+00 6.97E-03 2.60E+00 2.30E+00 1.10E+00 7.89E-01 6.17E-01 1.12E-01 1.06E+00 1.13E+00 8.54E+00 6.97E-03 2.60E+00 2.30E+00 1.10E+00 7.89E-01 6.17E-01 1.12E+01 0.00E+00 0.00E+00 3.86E+00 3.05E+00 9.01E+00 7.29E+00 8.49E-02 2.36E+01 1.21E+01 6.89E+01 2.73E+01 9.63E+01 TOG (ST) VOC (ST) NMHC (ST NOX (ST) nvPM Mas nvPM Nun PMSO (ST)PMFO (ST)CO2 (ST) H2O (ST) SOX (ST) 0.00E+00 0.00E+00 2.37E+00 1.30E+00 1.86E+05 7.28E+04 5.41E-01 1.98E+03 8.73E+16 2.61E-03 2.18E-03 2.29E+02 8.97E+01 7.34E+04 2.88E+04 6.36E+04 2.49E+04 3.26E+04 1.28E+04 2.43E+04 9.52E+03 2.69E-01 1.46E-01 1.96E+04 7.70E+03 2.59E+05 1.02E+05 4.10E-01 5.14E-01 4.20E-01 2.39E-01 1.65E-01 3.35E+00 1.81E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 AUS\_2019 Climb Belo 24853.42 183659.7 21904:24: 4.01E+02 8.33E+01 9.62E+01 9.56E+01 9.61E+01 3.12E+02 1.38E+06 3.03E+22 1.07E+00 4.45E-01 6.07E-01 9.05E-01 9.82E-01 8.69E-01 3.32E-01 1.02E+02 1.09E+03 4.42E+06 5.32E+22 2.20E+02 1.02E+06 2.77E+22 20148.04 1440464 58:59.5 3.07E+02 3.46E+01 3.98E+01 3.94E+01 3.97E+01 1.51E+02 9.20E+05 4.34E+22 0 20311:44: 3.79E+02 5.75E+01 6.64E+01 6.59E+01 6.63E+01 5.57E+01 4.15E+05 2.32E+22 4.73E+01 1.67E+02 1.01E+06 4.72E+22 56:01.5 2.07E+02 2.74E+01 3.15E+01 3.13E+01 3.14E+01 6.65E+01 3.75E+05 1.89E+22 4.10E+01 2.65E+05 1.39E+22 19:18.0 1.68E+02 2.55E+01 2.94E+01 2.92E+01 2.94E+01 1.47E+01 1.84E+05 1.03E+22 1.26E+03 5.43E+06 1.00E+23 V ∀ 2.83E+01 0.00E+00 N/A 0 227439:44 2.03E+02 0.00E+00 8.07E+00 7.41E+00 7.09E+00 2.27E+01 N/A 0 24026:10: 2.35E+01 1.30E+00 1.51E+00 1.50E+00 1.51E+00 2.90E+01 N/A 1.23E-01 1.24E-01 9.55E+01 1.49E+02 2.99E+01 0 00:00.0 0.00E+00 2.45E+01 2.83E+01 2.82E+01 1987118 29494:10: 5.40E+02 8.86E+01 1.02E+02 1.01E+02 2576355 11750:06:: 4.06E+02 4.13E+01 4.75E+01 4.70E+01 9.50E+01 44:40.1 1.73E+02 2.59E+01 2.99E+01 2.97E+01 1.48E+02 12961.1 19:02.8 1.81E+00 1.07E-01 1.24E-01 4576434 41284:35: 9.48E+02 1.30E+02 1.50E+02 9.56E+01 AUS\_2019 Climb Grot 20949.5 68465.81 21166:37:1 3.87E+02 8.28E+01 THC (ST) Fuel (ST) Distance (r Duration CO (ST) 0 AUS 2019 Descend B 10317.63 295139.5 7692.85 51157.19 AUS\_2019 Climb Belo 58847.18 AUS 2019 Above 100 72.51349 82198.96 23279.27 0 0 14042.73 6225.238 AUS\_2019 Descend G AUS\_2019 Descend B AUS\_2019 Descend B AUS\_2019 Full Flight AUS 2019 Taxi Out AUS\_2019 GSE LTO AUS 2019 Taxi In AUS\_2019 Startup Operation Mode AUS 2019 APU

CO VOC NOX PM2.5 PM10 CO2 965.071 173.5071 732.288 10.969 11.0348 171537

11.0348

10.969

67256 67.64756

171537

0.99374

2.34672

732.288

965.071 145.0449 175.3661 173.5071 174.131

54370.43 1960847

Public   ST   Distance (IDuration CO   ST   TOG   ST   VOC   ST   NOMHC   ST   NOW   MAIS invPM Num PMSO   ST   PMEO   ST   COCE-00
Fuel (5T) Distance (I Duration CO (5T) THC (5T) TOG (5T) NOMHC (ST NOX (5T) NVPM Mas:nvPM Nun PMSO (5T) PMC (5T
1) H2O (ST) 00 0.00E+0 04 2.15E+0 04 3.22E+0 04 3.82E+1 05 5.37E+1 05 5.31E+1 06 3.09E+1 07 1.37E+1 08 1.57E+1 09 1.57E+1
9MFO (ST) CO2 (ST) H2O (ST) CO00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+01 0.
0.00E+00 0.001 7.50E-01 3.51 1.13E+00 4.44 1.13E+00 5.06 1.84E+00 6.33 2.95E+00 1.53 1.69E-03 1.41 1.22E+00 5.56 1.08E+00 4.43 5.47E-01 2.50 4.12E-01 1.76 3.32E-01 1.55 4.17E+00 2.09l 0.00E+00 0.00l
N/A 0.00 2.82E+22 7.5 2.832E+22 1.1 3.39E+22 1.1 3.71E+22 1.3 3.71E+22 1.3 5.75E+21 2.0 5.75E+21 2.0 5.75E+22 1.0 5.75E+22 3.3 6.70E+22 4.1 6.70E+22
V/A N/A N/A 1.25E+06 3 1.25E+06 3 1.68E+06 3 1.25E+06 4 5.39E+03 8 1.22E+03 8 1.22E+05 5 1.12E+06 5 5 1.12E+06 5 1.22E+05 1 1.2E+05 1 1.
NOX (ST) NVPI 0.006+00 N/A 6.95E+01 4.99 2.82E+02 1.22 3.97E+02 1.65 1.38E+03 5.39 3.54E-01 1.23 1.88E+02 1.12 1.88E+02 1.12 1.88E+01 1.22 1.88E+01 4.55 5.12E+01 3.2 3.08E+01 2.2 3.08E+01 2.2 3.08E+01 2.2 3.08E+01 3.2
3.51E+01 3.51E+01 3.51E+01 3.51E+02 3.2 1.07E+02 3.2 1.08E+02 3.2 1.08E+02 3.2 1.08E+02 3.2 1.08E+02 3.3 1.1E+01 3.3 4E+01 3.3 4E+01 3.3 4E+01 3.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3
THC (5T) TOG (5T) VOC (5T) NMHC (5T NOX (5T) INVPM Mas:nVPM Nun PMSO (5T) PMFO (5T) COZ (5T) H2O (5T) 3.04E+01 3.51E+01 3.50E+01 3.51E+01 0.00E+00 N/A 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+01 3.51E+01 7.03E+01 7.03E+01 7.05E+01 4.99E+05 2.82E+22 7.50E-01 3.51E-01 5.48E+04 2.15E+04 9.27E+01 1.07E+02 1.07E+02 1.07E+02 1.28E+02 1.25E+06 3.39E+22 1.33E+00 4.44E-01 8.23E+04 2.15E+04 9.33E+01 1.09E+02 1.07E+02 1.09E+02 2.37E+02 1.25E+06 3.39E+22 1.33E+00 4.44E-01 8.23E+04 3.22E+04 9.33E+01 1.09E+02 1.09E+02 1.09E+02 2.76E+06 4.54E+22 1.33E+00 6.33E-01 1.34E+02 1.14E+02 1.14E+02 1.14E+02 1.14E+02 1.14E+02 1.38E+03 5.39E+06 6.53E+22 2.95E+00 1.33E+00 2.31E+03 9.03E+01 1.14E+02 1.14E+02 1.14E+02 1.38E+03 1.25E+06 6.53E+22 2.95E+00 1.32E+00 2.31E+03 9.09E+04 1.20E+01 4.29E+01 4.29E+01 4.29E+01 4.29E+01 1.29E+03 8.80E+16 1.69E+03 1.20E+00 2.56E-01 9.08E+04 3.09E+04 3.09E+04 3.09E+04 3.09E+01 4.29E+01 4.29E+01 4.29E+01 4.29E+01 4.29E+01 4.29E+01 3.32E+01 3.32E
7HC (\$T) TOG (\$3.04E+01 3.51E 6.14E+01 7.08E 9.27E+01 1.07E 9.33E+01 1.08E 9.93E+01 1.04E+01 7.95E+01 1.04E+01 5.35E 7.95E+01 3.35E 7.25E+01 3.25E 7.25E+01 3.25E 7.25E+01 3.25E 7.25E+01 3.25E 7.25E+01
0(5T) THC 00E+00 3.0 50E+02 6.1 59E+02 9.2 73E+02 9.3 73E+02 9.4 10E+00 6.8 64E+02 9.7 74E+02 3.7 99E+02 2.7 99E+02 2.7 99E+02 2.7 99E+02 2.7 99E+03 1.4
Fuel (5T) Distance (1Duration CO (5T) THC (5T) TOG (5T) NVDC (5T) NMHC (5T NOX (5T) NVPN 0 00:00.0 0.000E+00 3.04E+01 3.51E+01 3.50E+01 3.51E+01 0.00E+00 N/A 17353.97 0.20038.45: 4.50E+02 6.14E+01 7.08E+01 7.03E+01 7.07E+01 6.95E+01 4.99 26669.82 83179.86 20879:00: 4.59E+02 9.27E+01 1.07E+02 1.06E+02 1.07E+02 1.05E+02 1.25 30893.35 20978 21608:59: 4.78E+02 9.38E+01 1.08E+02 1.07E+02 1.08E+02 1.07E+02 1.08E+02 1.07E+02 1.08E+02 1.07E+02 1.08E+02 1.07E+02 1.07
Distance (II)  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Fuel (ST) 0 17353.97 26069.82 26069.82 30893.35 42590.77 73342.17 46.97204 11 25005.23 12680.54 9528.544 7693.271 102174.6 0
ANS_2027 Startup  ANS_2027 Startup  ANS_2027 Startup  ANS_2027 Startup  ANS_2027 Taxl Out  ANS_2027 Descend Below Nixing Height  ANS_2027 Taxl Out  ANS_2027 Descend Below 10000ft Are  ANS_2027 Descend Below 1000ft Are  ANS_2027 Descend Below 1000ft Are  ANS_2027 Descend Below 1000ft Are  ANS_2027 Taxl Out
Operation Mode AUS_2027 Startup AUS_2027 Taxi Out AUS_2027 Climb Ground AUS_2027 Climb Below 1000 ft AFE AUS_2027 Climb Below 1000 ft AFE AUS_2027 Climb Below 1000 ft AFE AUS_2027 Climb Below 10000 ft AFE AUS_2027 Descend Below 10000 ft AF AUS_2027 Descend Below 1000 ft AF AUS_2027 Descend Below 1000 ft AFI AUS_2027 Descend Ground AUS_2027 Taxi In AUS_2027 Taxi In AUS_2027 Taxi In AUS_2027 Full Flight AUS_2027 Full Flight
Operation Mode AUS_2027 Startup AUS_2027 Taxi Out AUS_2027 Climb Gro AUS_2027 Climb Belt AUS_2027 Climb Belt AUS_2027 Climb Belt AUS_2027 Descend B AUS_2027 Descend B AUS_2027 Descend B AUS_2027 Descend B AUS_2027 Taxi In

1.06E+03 1.34E+02 1.61E+02 159.582 1.60E+02 9.15E+02 #VALUE! #VALUE! 2.92E+00 1.08E+00 2.13E+05 8.36E+04 8.42E+01 1.30E+01 1.31E+01

<del>(</del> 0 0	0 0	. 0	1	3	0	0	0	1	1	1	0	0
1 10 (S 00E+0 72E+0	3.05E+00	5.68E+00	07E+0	.52E-0	3.24E+00	87E+0	34E+0	9.81E-01	.64E-0	40E+0	1.04E+00	85E+0
(ST PN 00 0.	99 99	90 5.	01 1.	03 4	90 3.	00 2.	00 1.	01 9	01 7	01 1.	01 1.	3.
M 2.5 0.00E+ 1.72E+	3.05E+	5.68E+	1.07E+	4.52E-	3.24E+	2.87E+	1.34E+	9.81E-	7.64E-	1.40E+	9.66E-	3.85E+
ST) P	3.18E+01 3.05E+00	+01	+01	E-02	+01	+01	+01	:+01	00+:	+02	E-01	00+
SOx (§ 0.00E 2.11E	3.18	5.19	8.94E	5.51	3.50	3.05E	1.54	1.16E	9.37E	1.24€	1.44	5.06E
(ST) DE+00 3E+04	5E+04 8F+04	3E+04	4E+04	2E+01	)E+04	2E+04	3E+04	3E+04	)E+03	1E+05	00+3C	00+3C
H2O 0 0.00 4 2.23	4 3.3(	5 5.4	5 9.4	2 5.8	4 3.7	4 3.2	4 1.6	4 1.2	4 9.9	5 1.3	0.0	0.0
)2 (ST) 00E+0 70E+0	57E+0	40E+0	41E+0	48E+0	44E+0	21E+0	15E+0	13E+0	52E+0	35E+0	00E+0	00E+0
PMSO (ST) PMFO (ST) CO2 (ST) H2O (ST) SOX (ST) PM 2.5 (ST PM 10 (ST 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 7.80E-01 3.67E-01 5.70E+04 2.23E+04 2.11E+01 1.72E+00 1.72E+00	01 8.	-01 1.	-00 2.	-03 1.	-01 9.	-01 8.	-01 4.	-01 3.	-01 2.	-00 3.	0.00E+00 0.00E+00 0.00E+00 1.44E-01 9.66E-01	0.00E+00 0.00E+00 0.00E+00 5.06E+00 3.85E+00 3.85E+00
0.00E+	4.62E	6.53E	1.59E+	1.41E	5.74E	4.58E	2.59E	1.84E	1.63E	2.17E4	0.00E+	0.00E
ST) FE+00	E+00	E+00	E+00	E-03	E+00	E+00	E-01	E-01	E-01	E+00	0.00E+00	0.00E+00
0.00 7.80	1.17	1.91	3.07	1.69	1.26	1.12	5.67	4.28	3.46	4.34	0.00	0.00
nvPM Nui N/A 3.00E+22	59E+22	78E+22	35E+22	13E+16	)0E+22	3E+22	39E+22	79E+22	33E+22	28E+23	_	_
1as nvF N/ <i>A</i> 05 3.0	3.5	06 4.7	90 6.8	33 9.1	06 6.0	36 5.5	05 2.3	05 1.7	05 1.3	06 1.2	N/A	N/A
VPM N/A/5.22E+	1.29E+	2.82E+	5.51E+	I.29E+i	L.27E+	l.17E+i	1.69E+	3.35€+	2.32E+	3.78E+	∀/	₹
ST) n :+00 N :+01	+02	+05	+03	E-01	+05	+05	+01 2	+01	+01	+03 (	+01 N	+01 N
NOx (3 0.00E 7.23E	2.97E	7.06E	1.45E	3.551	2.16E	1.96E	8.47E	5.31E	3.21E	1.66E	1.49E	3.88E
HC (ST 6E+01 0E+01	1.12E+02 2.97E+02 1.29E+06 3.59E+22 1.17E+00 4.62E-01 8.57E+04 3.36E+04 1.7E+07 4.16E+07 1.72E+06 3.93E+72 1.39E+00 5.28E+01 1.01E+05 3.98E+04	4E+02	9E+02	96E-02	8E+01	9E+01	0E+01	4E+01	8E+01	3E+02	2E+00	7E+00
NM ( 11 3.6 11 7.4	1.1	22 1.1	1.1	22 7.9	)1 5.3	11 4.4	3.5	3.3	3.2	1.7	00 6.4	00 1.8
Fuel (ST) Distance (r Duration CO (ST) THC (ST) TOG (ST) VOC (ST) NMHC (ST NOX (ST) nvPM Mas nvPM Nun PMSO (ST) PMFO (ST) COE+00 0.00E+00	2032_NA_Climb Gro; 27168.82 86411.47 20392:19; 4.81E+02 9.68E+01 1.12E+02 1.11E+02 1.12E+02 2.97E+02 1.29E+06 3.59E+22 1.17E+00 4.62E-01 8.57E+04 3.36E+04 3.38E+01 3.05E+00 0033 NA_Climb Rele 32161.29 2.16857 5.21108:38: 4.95E+02 9.24E+01 1.12E+02 1.12E+02 1.15E+02 1.75E+06 3.93E+22 1.39E+01 5.25E+01 1.01E+05 3.98E+04 3.72E+01 3.81E+00	2032_NA_Climb Belo 44307.27 622583.8 22882:54: 5.28E+02 9.90E+01 1.14E+02 1.13E+02 1.14E+02 7.06E+02 2.82E+06 4.78E+22 1.91E+00 6.53E-01 1.40E+05 5.48E+04 5.19E+01 5.68E+00	2032_NA_ Climb Belo 76298.72 2390437 28478:34: 6.45E+02 1.04E+02 1.19E+02 1.18E+02 1.18E+02 1.45E+03 5.51E+06 6.85E+22 3.07E+00 1.59E+00 2.41E+05 9.44E+04 8.94E+01 1.07E+01 1.07E+01 1.07E+01	2032_NA_Above 100 47.04548 8420.11 19:02.8 1.16E+00 6.89E-02 7.96E-02 7.96E-02 7.96E-02 3.55E-01 1.29E+03 9.13E+16 1.69E-03 1.41E-03 1.48E+02 5.82E+01 5.51E-02 4.52E-03 4.52E-03	2032_NA_Descend B 29906.19 3166366 11350:07: 4.85E+02 4.69E+01 5.39E+01 5.39E+01 5.38E+01 2.16E+02 1.27E+06 6.00E+22 1.26E+00 5.74E-01 9.44E+04 3.70E+04 3.50E+01 3.24E+00	2032_NA_Descend B 26030.79 1782323 57:14.9 3.70E+02 3.91E+01 4.50E+01 4.46E+01 4.49E+01 1.96E+02 1.17E+06 5.53E+22 1.12E+00 4.58E-01 8.21E+04 3.02E+01 2.87E+00 2.87E+00 2.87E+00 2.87E+00	2032_NA_Descend B 13149.85 340742.3 24:06.5 2.50E+02 3.04E+01 3.50E+01 3.50E+01 3.50E+01 8.47E+01 4.69E+05 2.39E+22 5.67E-01 2.59E-01 4.59E+02 1.59E-01 4.59E+02 1.59E+04 1.54E+00 1.34E+00 1.34	2032_NA_Descend G 9907.72 65731.89 01:56.4 2.15E+02 2.89E+01 3.34E+01 3.34E+01 5.31E+01 3.35E+05 1.79E+22 4.28E-01 3.38E+01 3.34E+01 9.81E-01 9.81E-01	8002.336 0 40:21.0 2.09E+02 2.85E+01 3.28E+01 3.2	106252 5565224 39869:00: 1.13E+03 1.51E+02 1.73E+02 1.72E+02 1.73E+02 1.66E+03 6.78E+06 1.28E+23 4.34E+00 2.17E+00 3.35E+05 1.31E+05 1.24E+02 1.40E+01 1.40E+01	0 214708:48 1.71E+02 0.00E+00 7.28E+00 6.73E+00 6.42E+00 1.49E+01 N/A	0 22878:42:( 2.77E+01 1.62E+00 1.87E+00 1.86E+00 1.87E+00 3.88E+01 N/A
(ST) ' SE+01 LE+01	E+02	E+02	E+02	5E-02	E+01	E+01	E+01	E+01	8E+01	3E+02	3E+00	7E+00
TOG 1 3.66 1 7.41	1.12	1.14	2 1.19	2 7.9	1 5.39	1 4.50	1 3.50	1 3.34	1 3.28	2 1.73	7.28	0 1.87
HC (ST) 3.17E+0 6.42E+0	9.68E+0	9.90E+0	1.04E+0	6.89E-0	4.69E+0	3.91E+0	3.04E+0	2.89E+0	2.85E+0	1.51E+0	0.00E+0	1.62E+0
T) T E+00 E+02	E+02	E+02	E+02	E+00	E+02 ,	E+02	E+02	E+02	E+02	E+03	E+02	E+01
CO (S 0.001	4.81	5.28	6.45	1.16	4.85	3.70	2.50	2.15	2.09	, 1.13	3 1.71	17.7
ation 0:00.0 74:39:	92:19:	82:54:	78:34:	9:02.8	50:07:	7:14.9	4:06.5	1:56.4	0:21.0	:00:69	708:48	78:42:
(r Dur 0 0 0 195	17 203 5 211	.8 228	37 284	11 1	56 113	23 5	.3	39 0	0	24 398	0 214	0 228
istance	6411.4	22583	239043	8420.1	316636	178232	40742	5731.8		55652		
5T) Di 0 1.12	3.82 8	7.27	3.72	548	5.19	. 67.0	9.85 3	7.72 6	336	252	0	0
Operation Mode Fuel (ST) 2032_NA_Startup 0 2032_NA_Taxi Out 18051.12	3716	4430,	76298	47.04	29906	26030	1314	.066	8002.	106		
	b Grot	b Belo	b Belo	ve 100	end B	end B	end B	end G	드	Flight	LT0	
n Moc Start Taxi	Clim	Gir	Clim	Abo	Desc	Desc	Desc	Desc	Taxi	Full	GSE	\_ APU
Operation Mode 2032_NA_ Startup 2032_NA_ Taxi Out	32_NA	32_NA	32_NA	32_NA	32_NA	32_NA	32_NA	32_NA	2032_NA_ Taxi In	2032_NA_ Full Flight	2032_NA_GSE LTO	2032_NA_ APU
, 8 8 9 8 9	2 2	20	20	20	20	70	70	70	20	20	20	70

3.037 1.11048 221917 87008 87.58144 13.36351 13.4362

1097.712 139.6562 168.3265 166.601 167.2028 956.318

70338.06 2404907

PM 2.5 (STPM 10 (ST) 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 6.25E+04 2.45E+04 2.32E+01 1.87E+00 1.87E+00 9.45E+04 3.70E+04 3.51E+01 3.35E+00 3.35E+00 AUS 2032 Climb Belo 35484.31 234764.5 20912:58; 5.36E+02 1.05E+02 1.21E+02 1.20E+02 1.21E+02 4.63E+02 1.91E+06 4.32E+22 1.53E+00 5.60E-01 1.12E+05 4.39E+04 4.16E+01 4.20E+00 4.20E+00 4.20E+00 9.89E+01 1.19E+01 1.19E+01 4.52E-03 3.55E+00 3.14E+00 3.14E+00 4.67E-01 1.93E-01 3.41E+04 1.34E+04 1.27E+01 1.06E+00 1.06E+00 8.23E-01 0.00E+00 0.00E+00 0.00E+00 0.00E+00 5.61E+00 4.27E+00 4.27E+00 1.46E+00 6.26E+00 4.52E-03 3.55E+00 8.23E-01 1.54E+01 0.00E+00 0.00E+00 1.60E-01 1.07E+00 5.51E-02 3.36E+01 3.76E-01 1.70E-01 2.74E+04 1.08E+04 1.02E+01 3.71E+05 1.45E+05 1.38E+02 5.73E+01 3.86E+01 1.69E+01 SOx (ST) 6.99E-01 1.54E+05 6.06E+04 AUS\_2032 Climb Belo 84467.72 2586507 28282:54: 6.89E+02 1.11E+02 1.28E+02 1.27E+02 1.28E+02 1.61E+03 6.11E+06 7.56E+22 3.40E+00 1.74E+00 2.67E+05 1.04E+05 7.96E-02 3.55E-01 1.29E+03 9.13E+16 1.69E-03 1.41E-03 1.48E+02 5.82E+01 6.09E-01 1.04E+05 4.07E+04 4.81E-01 9.05E+04 3.55E+04 4.54E+04 1.78E+04 THC (ST) TOG (ST) VOC (ST) NMHC (ST NOX (ST) nVPM Mas nVPM Nun PMSO (ST) PMFO (ST) CO2 (ST) H2O (ST) 3.87E-01 1.29E+00 4.92E-01 2.71E-01 4.79E+00 2.35E+00 0.00E+00 0.00E+00 2.11E+00 3447014 11248:58:! 5.16E+02 4.94E+01 5.68E+01 5.63E+01 5.67E+01 2.39E+02 1.40E+06 6.62E+22 1.39E+00 1945111 48:59.9 3.95E+02 4.11E+01 4.73E+01 4.69E+01 4.71E+01 2.17E+02 1.29E+06 6.10E+22 1.24E+00 8.55E-01 6.21E-01 673523.9 22687:14.: 5.70E+02 1.06E+02 1.23E+02 1.22E+02 1.22E+02 7.85E+02 3.12E+06 5.27E+22 AUS\_2032,Climb Groi 29941.48 94946.33 20196:39: 5.21E+02 1.04E+02 1.20E+02 1.19E+02 1.20E+02 3.30E+02 1.42E+06 3.94E+22 3.66E+01 9.33E+01 5.15E+05 2.62E+22 6041941 39572:12: 1.21E+03 1.61E+02 1.85E+02 1.83E+02 1.85E+02 1.85E+03 7.51E+06 1.42E+23 0 19379:00:4 5.12E+02 6.78E+01 7.82E+01 7.77E+01 7.82E+01 7.95E+01 5.73E+05 3.29E+22 53:41.4 2.31E+02 3.03E+01 3.49E+01 3.47E+01 3.49E+01 5.83E+01 3.67E+05 1.95E+22 32:06.0 2.24E+02 2.98E+01 3.43E+01 3.41E+01 3.43E+01 3.49E+01 2.52E+05 1.44E+22 V/A ĕ,N 0 00:00.0 0.00E+00 3.50E+01 4.05E+01 4.03E+01 4.05E+01 0.00E+00 N/A 0 214708:48 1.90E+02 0.00E+00 8.06E+00 7.46E+00 7.11E+00 1.65E+01 N/A 0 22878:42:1 3.00E+01 1.80E+00 2.08E+00 2.06E+00 2.08E+00 4.32E+01 N/A 7.92E-02 3.63E+01 8420.11 19:02.8 1.16E+00 6.89E-02 7.96E-02 15:51.5 2.67E+02 3.18E+01 3.66E+01 Fuel (ST) Distance (r Duration CO (ST) AUS\_2032 Descend G 10814.69 72436.55 0 14388.57 365547.7 AUS\_2032 Descend B 32940.74 AUS\_2032 Descend B 28680.28 117455.5 AUS\_2032 Above 100 47.04548 0 19801.11 AUS\_2032 Climb Belo 48963.89 8694.676 AUS\_2032 Descend B AUS\_2032 Full Flight AUS\_2032 Taxi Out AUS 2032 GSE LTO AUS\_2032 Startup AUS\_2032 Taxi In Operation Mode AUS\_2032 APU

1184.35 178.0873 1062.186 14.7418 14.8223 244966 96.70424 C02 PM10 PM2.5 š V0C

Action

149.008 179.9342 178.0873 178.7184 1062.186

1184.35

77644.17 2618635

14.8223

96045 96.70424 14.7418

244966

1.17975

3.3527

221917 87.58144 166.601 956.318 13.36351 13.4362 No Action 1097.712

9.1228 23049 1.3861 Net Chang 86.638 11.4863 105.868 1.37829

	Usage per Sq. ft. (MM cubic ft of NG)	0.00002
33	Building Size (sq.ft.)	1,000,000
Air Emissions 2019 2019 Water Heate	MM cubic feet	19.5440
ral Gas Usage FOR 201	cubic feet	19,544,000
Existing CUP Natu	Hundred cubic feet	195,440

(ton/yr) Š (lb/10<sup>6</sup> scf) (ton/yr) (lb/Yr) 53.7460 53.7460 700 EF (lb/10<sup>6</sup> scf) 5.5 5.5 9.7720 12.25 9.7720 12.25 TOTAL Actual emissions from boilers Max Heat Input (MMBTU/Hr) Annual Fuel Usage (MMscf/Year) Soiler# 193548 - Large Terminal - bldg 7360 (B1) - 9815 Service Rd Soiler# 193549 - Large Terminl - bldg 7360 (B2) - 9815 Service Rd Air Emissions Sources ACTUAL EMISSIONS
[Tons Per Year]

Estimated Natural Gas Usage for New CUP (based or	ed on 2019 usage b	ut projected to 2.5	i million sq/ft)	
Hundred cubic feet	cubic feet	MM cubic feet	Building Size (sq.ft.)	Usage per Sq. ft. (MM cubic ft of NG)
488,600	48,860,000	48.8600	2,500,000	0.00002

	Hundred cubic feet	cubic feet	MM cubic feet	Building Size (sq.ft.)	cubic ft of NG)			
	488,600	48,860,000	48.8600	2,500,000	0.00002			
S		Annual Fuel Usage	Max Heat Input		VOC			NOx
	Air Emissions Sources	(MMscf/Year)	(MMBTU/Hr)	EF	EMISSION RATE	ATE	EF	EM
iissi Iiss				(lb/10 <sup>6</sup> scf)	(Ib/Yr)	(ton/yr)	(lb/10 <sup>6</sup> scf)	(Ib/Yr)
	Boiler# 1 New CUP	9.7720	12.5	5.5	53.7460	0.0269	20	488.600
	Boiler# 2 New CUP	9.7720	12.5	5.5	53.7460	0.0269	20	488.600
	Boiler# 3 New CUP	9.7720	12.5	5.5	53.7460	0.0269	20	488.600
	Boiler# 4 New CUP	9.7720	12.5	5.5	53.7460	0.0269	20	488.600
ld	Boiler# 5 New CUP	9.7720	12.5	5.5	53.7460	0.0269	20	488.600
		TOTAL A LATOR	TOTAL A.A			2222		

PROJECTED EMISSIONS

Assumption: - boiler is operating 100% percent of the time at 100% of it's capacity, since calculating for PTE not actual operations

Notes: AP-42,

- Tables 1.4-1 and 1.4-2, Controlled - Low NOx burners - noted tables, July 1998 - heating value of natural gas = 1020 BTU/scf

# DOA Air Emissions From Boilers and Water Heaters

	Σ	_	_	_	
Methane	EMISS	(IP/Ar)	22.4756	22.4756	
	EF	(lb/10 <sup>6</sup> scf)	2.3	2.3	
	N RATE	(metric ton/yr)	586.3200	586.3200	1063.8014
CO2	EMISSION RATE	(Ib/Yr)	1172640.0000	1172640.0000	
	EF	(lb/10 <sup>6</sup> scf)	120000	120000	
	EMISSION RATE	(ton/yr)	0.0537	0.0537	0.1075
T0C	EMISSIO	(JA/qI)	107.4920	107.4920	
	EF	(lb/10 <sup>6</sup> scf)	11	11	
	EMISSION RATE	(ton/yr)	0.0371	0.0371	0.0743
PM (total)	EMISSIO	(Ib/Yr)	74.2672	74.2672	
	EF	(lb/10 <sup>6</sup> scf)	7.6	7.6	
	MISSION RATE	(ton/yr)	0.4104	0.4104	0.8208
00	EMISSIC	(IP/Ar)	820.8480	820.8480	
	EF	(lb/10 <sup>6</sup> scf)	84	84	
	MISSION RATE	(ton/yr)	0.0029	0.0029	0.0059
205	EMISSIC	(IP/Ar)	5.8632	5.8632	
	EF	(lb/10 <sup>6</sup> scf)	9.0	9.0	

ne	EMISS	П				П		
Methane	Э	(Ib/Yr)	22.4756	22.4756	32.2476	42.0196	51.7916	
	EF	(lb/10 <sup>6</sup> scf)	2.3	2.3	3.3	4.3	5.3	
	N RATE	(metric ton/yr)	586.3200	586.3200	586.3249	586.3298	586.3347	2659.5301
CO2	EMISSION RATE	(Ib/Yr)	1172640.0000	1172640.0000	1172649.7720	1172659.5440	1172669.3160	
	EF	(lb/10 <sup>6</sup> scf)	120000	120000	120001	120002	120003	
	N RATE	(ton/yr)	0.0537	0.0537	0.0537	0.0537	0.0537	0.2687
T0C	EMISSION RATE	(lb/Yr)	107.4920	107.4920	107.4920	107.4920	107.4920	
	EF	(lb/10 <sup>6</sup> scf)	11	11	11	11	11	
	EMISSION RATE	(ton/yr)	0.0371	0.0371	0.0371	0.0371	0.0371	0.1857
PM (total)	EMISSIO	(Ib/Yr)	74.2672	74.2672	74.2672	74.2672	74.2672	
	EF	(lb/10 <sup>6</sup> scf)	9.7	7.6	7.6	7.6	7.6	
	N RATE	(ton/yr)	0.4104	0.4104	0.4104	0.4104	0.4104	2.0521
8	EMISSION RATE	(Ib/Yr)	820.8480	820.8480	820.8480	820.8480	820.8480	
	EF	(lb/10 <sup>6</sup> scf)	84	84	84	84	84	
	EMISSION RATE	(ton/yr)	0.0029	0.0029	0.0029	0.0029	0.0029	0.0147
SO <sub>2</sub>	EMISSIC	(Ib/Yr)	5.8632	5.8632	5.8632	5.8632	5.8632	
	EF	(lb/10 <sup>6</sup> scf)	9.0	9.0	9.0	9.0	9.0	

Net Change 1,596

## DOA Air Emissions From Boilers and Water Heaters

		Nitrous Oxide		CO2 Equivalent (Metric Tons)
ON RATE	EF	EMISS	EMISSION RATE	
(metric ton/yr)	(lb/10 <sup>6</sup> scf)	(Ib/Yr)	(metric ton/yr)	
0.0112	0.64	6.2541	0.0031	
0.0112	0.64	6.2541	0.0031	
0.0204			0.0057	1,066.0

		Nitrous Oxide		CO2 Equivalent (Metric Tons)
ION RATE	EF	EMISS	EMISSION RATE	()
(metric ton/yr)	(lb/10 <sup>6</sup> scf)	(lb/Yr)	(metric ton/yr)	
0.0112	0.64	6.2541	0.0031	
0.0112	0.64	6.2541	0.0031	
0.0161	1.64	16.0261	0800'0	
0.0210	2.64	25.7981	0.0129	
0.0259	3.64	35.5701	0.0178	
0.0776			0.0408	2,673.6

0.04 1,608

90.0

				AUS Gro	AUS Ground Access Venicles	venicles			
				MOVES3 2032 Emis	032 Emissi	on Factors			
VMT	00	×ON	PM10	PM2.5	20/	xos	CH4	N20	C02
3230	2.63	0.0145	0.0015	0.00138	0.0113	0.001798	0.00596	0.001317	270.662
3586	2.63	0.0145	0.0015	0.00138	0.0113	0.001798	0.00596	0.001317	270.662
3260	8.81	0.031	0.00745	0.00659	0.0373	0.0105	0.0195	0.0158	1587

323 326 326

2,719

**AUS Ground Access Vehicles** 

Totals

Incoming Outgoing Idle

Average Speeds assuming 30 mph Idling assumings 5 minutes per hour per vehicle ADT assumes Peak PM values represent 10 percent of daily traffic

#### **AUS Ground Access Vehicles**

СО	NOx	PM10	PM2.5	VOC	SO2	CH4	N2O	CO2
3.415402	0.01883	0.001948	0.001792	0.014675	0.002335	0.00774	0.00171	351.4903
3.791836	0.020906	0.002163	0.00199	0.016292	0.002592	0.008593	0.001899	390.2304
0.962267	0.003386	0.000814	0.00072	0.004074	0.001147	0.00213	0.001726	173.3392

8.169506 0.043122 0.004924 0.004502 0.035041 0.006074 0.018463 0.005335 915.06 GWP 0.516954 1.413734 915.06 916.9906

AUS New Parking Area

			Pro	<b>Proposed Action</b>	ion				
		l otal Parking	lotal Parking Total Per					lotal Distance	l otal Distance
Location	Levels	Build	Level	Length	Width	Half In	Half Out	(ft)	(mile)
New Employee Parking	1	3150	3150	2450	200	1475	1475	2950	95'0

**AUS New Parking Area** 

		0	
	C02	404.600	
	NZO	0.003	
	CH4	0.008	
<b>MOVES3 2032 Emission Factors</b>	Sox	0.003	
032 Emissi	NOC	0.015	
MOVES3 2	PM2.5	0.002	
	PM10	0.002	
	NOx	0.017	
	CO	.760	

#### **AUS New Parking Area**

	MOVES3 2032 Emissions TPY										
со	NOx	PM10	PM2.5	VOC	SO2	CH4	N2O	CO2			
2.660542	0.012312	0.001698	0.001415	0.010614	0.001896	0.005661	0.002123	286.2913			
2.66	0.012	0.002	0.001	0.011 GWP	0.002	0.005 0.143895	0.002 0.510697	259.91 259.9095 260.5641			

#### Notes

- 1. Assumes the vehicles travel 15 mph and assumes vehicles enter halfway in and halfway out
- 2. Assumes parking area is filled every day for 365 days per year.
- 3. GHG emissions totals are Metric Tons

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