APPENDIX N:
AIR QUALITY ASSESSMENT REPORT

GWP 4003-19-00

Prepared for:

Ministry of Transportation Ontario
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Air Quality Assessment Report – Highway 401 Planning Study, Brockville, from 2 km West of Stewart Boulevard to 750 m East of North Augusta Road (GWP 4003-19-00)

File: 165001160
March 28, 2023

Sign-off page

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Executive Summary

The Ontario Ministry of Transportation (MTO) retained Stantec Consulting Ltd. to undertake a Planning, Preliminary Design, and Class Environmental Assessment (Class EA) Study for Highway 401 from 2 km west of Stewart Boulevard to 750 m east of North Augusta Road (about 4.5 km), within the City of Brockville (Study Area). The study will develop a plan for the rehabilitation and/or replacement of five (5) structures, determine the long-term plans for the Stewart Boulevard and North Augusta Road interchanges, and will establish the future footprint for interim six lanes and ultimate eight lanes of Highway 401. As part of the study, improvements to bridges, drainage, interchanges and Highway 401 are being considered. The Highway 401 bridges over CN Rail and Ormond Street, as well as the Highway 401 underpasses of Stewart Boulevard and North Augusta Road, are approaching the end of their service life and will need to be rehabilitated or replaced. A Recommended Plan will be confirmed and designated (protected) at the completion of the study. The project is following the approved planning process for a Group 'B' project in accordance with the *MTO Class EA for Provincial Transportation Facilities (2000)*.

The objective of this study was to characterize existing air pollutant emissions (2022) and predict air quality effects within the Study Area after implementation of the Project in the Future Interim Build (2032) and Future Ultimate Build (2042). The horizon years 2032 and 2042 have been selected for the purpose of analysis only and does not represent the actual timing of the highway modifications. Predicted future emissions and effects with Project implementation are also compared to predicted future emissions and effects without implementation of the Project for five assessment scenarios:

- 2022 – Existing, Highway 401 (4-lanes)
- 2032 – Future Interim No Build, Highway 401 (4-lanes)
- 2032 – Future Interim Build, Highway 401 (6-lanes), replacement of interchanges
- 2042 – Future Ultimate No Build, Highway 401 (6-lanes), replacement of interchanges
- 2042 – Future Ultimate Build, Highway 401 (8-lanes), replacement of interchanges

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Greenhouse gas (GHG) emissions are also assessed for these scenarios. This study has been conducted following guidance from the "Ministry of Transportation Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects" (MTO Guide).

The air contaminants of potential concern (CoPCs) selected for this study are based on the most relevant transportation-related contaminants as listed in the MTO Guide and include nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter with diameter less than 10 micrometres (PM_{10}), particulate matter with diameter less than 2.5 micrometres ($PM_{2.5}$), acrolein, benzene, 1,3-butadiene, benzo(a)pyrene (B(a)P), acetaldehyde and formaldehyde. The potential GHG emissions were assessed and quantified as CO_2 equivalents (CO_2e).

Baseline ambient air quality conditions were characterized by using historical data obtained from the National Air Pollution Surveillance Network and the Ministry of the Environment, Conservation and Parks for stations located near the Study Area.

The latest version of the US EPA's Motor Vehicle Emission Simulator (MOVES3) model was used to estimate current and future emission rates from motor vehicle traffic. The US EPA dispersion model, CAL3QHCR (which is an approved model by the MECP) was used to predict the maximum 1-hour, 8-hour, 24-hour and annual average ground level concentrations at special receptors for the five assessment scenarios.

The predicted ambient air quality results for each scenario are compared against relevant provincial Ambient Air Quality Criteria (AAQC) and Canadian Ambient Air Quality Standards (CAAQS) while the GHG emissions are compared to National and Provincial totals for 2020 and 2030 emissions targets. The following conclusions were made from the air quality and GHG impact assessment:

Operation Phase – Project Alone

- The maximum predicted Project Alone Ground Level Concentrations (GLCs) for all CoPCs are below their relevant AAQC and/or CAAQS, except for B(a)P in the Existing (2022) scenario and NO_2 for the 2025 1-hour and annual CAAQS all five scenarios. The NO_2 concentrations were predicted utilizing the US EPA ARM2 methodology, which provides conservative estimates of NO_2 formation in the atmosphere. Additionally, maximum predicted hourly NO_2 concentrations were compared to the 1-hour CAAQS rather than 98th percentile values as the CAL3QHCR model does not provide outputs of the appropriate statistical measure required for direct comparison to the CAAQS. Therefore, comparisons of the model predictions to the CAAQS are conservative.

- For COPCs other than PM_{10} and $PM_{2.5}$, the predicted maximum concentrations for the future scenarios are lower than the existing scenario due to advances in cleaner fuels and emissions control technology, which are anticipated to lower all vehicle contaminant tailpipe emissions in the future. The modifications to Highway 401 from the Existing Scenario to the Future Ultimate Build Scenario should promote smoother traffic flow that could help to improve air quality by reducing gridlock.

Operation Phase – Cumulative (Project Plus Background Levels)

- Maximum predicted cumulative GLCs (i.e., with background values added) of CoPCs other than NO_2 and B(a)P are below their relevant AAQC and/or CAAQS at all special receptors for all release scenarios.
- Cumulative concentrations of NO_2 exceed the 2025 1-hour and annual CAAQS for all scenarios but remain well below the provincial AAQC. As noted for the Project Alone scenario, the NO_2 concentrations were conservatively estimated using the ARM2 methodology and the maximum predicted concentrations were compared directly to the hourly CAAQS, which is also conservative.
- Maximum predicted cumulative concentrations of B(a)P exceed the 24-hour and annual average AAQCs at all special receptor locations for all scenarios, with the background concentrations alone exceeding the 24-hour and annual average AAQCs. The maximum cumulative B(a)P concentrations are predicted to decrease in the Future Interim and Future Ultimate No Build and Build scenarios relative to the existing scenario due to expected future reductions in vehicle emissions.

Construction Phase

- During Project construction, best management practices should be followed to minimize emissions. With implementation of proper mitigation measures, emissions from the construction phase and resulting adverse changes in local air quality can be mitigated.

Greenhouse Gas

- Annual releases of GHGs from the Project are expected to be insignificant (less than 0.1%) in comparison to the 2020 Canada and Ontario GHG emissions totals and both the Federal and Provincial 2030 emissions targets.

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Acronyms / Abbreviations

AADT	Annual Average Daily Traffic
AAQC	Ambient Air Quality Criteria
ADMGO	Air Dispersion Modelling Guideline for Ontario
AP-42	U.S. Environmental Protection Agency Compilation of Air Pollution Emission Estimation Factors Document
ARM2	Ambient Ratio Method, Version 2
CAAQS	Canadian Ambient Air Quality Standards
CAC	Criteria Air Contaminants
CAS	Chemical Abstracts Service
CCME	Canadian Council of Ministers of the Environment
CoPCs	Contaminants of Potential Concern
ECCC	Environment and Climate Change Canada
EA	Environmental Assessment
EPA	*Environmental Protection Act*
GHG	Greenhouse gas
GLC	Ground Level Concentrations
GWP	Global Warming Potential
Max	Maximum
MECP	Ontario Ministry of the Environment, Conservation and Parks
MTO	Ontario Ministry of Transportation
N/A	Not Applicable
NAPS	National Air Pollution Surveillance
O. Reg.	Ontario Regulation
PCC	Pollution Control Centre
Stantec	Stantec Consulting Ltd.
US EPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VMT	Vehicle Mile Travelled

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Units of Measurement

cm	centimetre
km	kilometre
m	metre
mm	millimetre

Mass/Weight

Re. Orders of Magnitude: x 10^2 = x 100, x10^3 = x 1000, etc.

g	gram	
mg	milligrams	1 x 10^{-3} grams
µg	microgram	1 x 10^{-6} grams
kg	kilogram	1 x 10^3 g
Mg	Megagram	1 x 10^6 g
t	metric tonne	1 x 10^3 kg
lb	pound	1 lb = 453.592 grams

Concentration

ppm	parts per million
µg/m^3	micrograms per cubic metre

Temperature

°C	degrees Celsius

Speed

km/h	kilometres per hour

Time

s	second
hr	hour
yr	year

Compounds

B(a)P	Benzo(a)pyrene
CH_4	Methane
CO	Carbon Monoxide
CO_2e	Carbon Dioxide Equivalent
THC	Total Hydrocarbons
TSP	Total Suspended Particulate
N_2O	Nitrous Oxide
NO_x	Nitrogen Oxides
NO_2	Nitrogen Dioxide
NO	Nitric Oxide
O_3	Ozone
PAH	Polycyclic Aromatic Hydrocarbon
PM	Particulate Matter (also referred to as TSP)
PM_{10}	Particulate Matter smaller than 10 microns
$PM_{2.5}$	Particulate Matter smaller than 2.5 microns
VOC	Volatile Organic Compounds

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Glossary

Term	Description
Air Contaminant Emissions	For stationary sources, the release or discharge of a pollutant from a facility or operation into the ambient air either by means of a stack, vent or as a fugitive dust, mist or vapour.
Canadian Council of Ministers of the Environment (CCME)	A council made up of environmental ministers from provincial and federal levels of government that proposes nationally consistent environmental standards and objectives to achieve high levels of environmental quality for waste management, air pollution, and toxic chemicals across Canada.
Carbon Monoxide (CO)	A colourless, odourless gas produced by incomplete fossil fuel combustion.
Combustion Product	Substance produced during the burning or oxidation of a material.
Combustion	1. Burning, or rapid oxidation, accompanied by the release of energy in the form of heat and light. 2. Refers to controlled burning of waste, in which heat chemically alters organic compounds, converting into stable compounds such as carbon dioxide and water.
Concentration	In air quality, concentration is defined as the abundance (mass or volume) of a substance suspended in a unit volume of ambient air.
Dust	A term used to describe particles of a solid or liquid that are suspended in air. Also referred to as particulate or suspended particulate.
Mitigation	Measures taken to reduce adverse effects on the environment.

Term	Description
Monitoring	Periodic or continuous surveillance or testing to determine the characteristics of a substance or the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, plants, and animals.
Particulate	A particle of a solid or liquid that is suspended in air.
Particulate Matter	A particle in solid or liquid phase that is suspended in air.
Pollutant	Generally, any substance introduced into the environment that can adversely affect the usefulness of a resource or the health of humans, animals, or ecosystems.
Pollution	Generally, the presence of a substance in the environment that because of its chemical composition or quantity can prevent the functioning of natural processes and produce undesirable environmental and health effects
Receptor	A person, plant or wildlife species that may be affected due to exposure to a contaminant.
United States Environmental Protection Agency AP-42 (US EPA AP-42)	US EPA document Compilation of Air Emission Factors, Volume 1: Stationary Point and Area Sources.

Introduction
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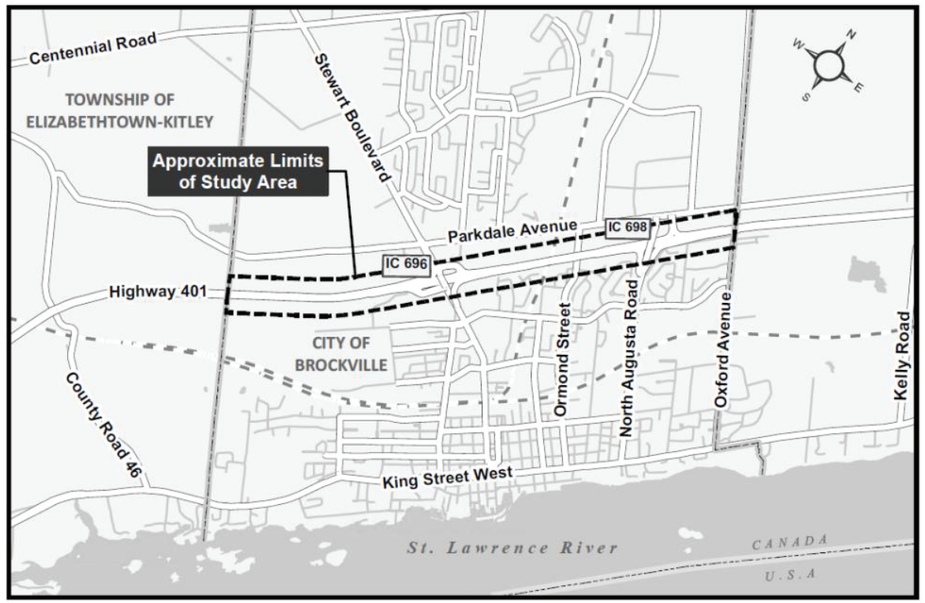
1.0 Introduction

The Ontario Ministry of Transportation (MTO) retained Stantec Consulting Ltd. to undertake a Planning, Preliminary Design, and Class Environmental Assessment (Class EA) Study for Highway 401 from 2 km west of Stewart Boulevard to 750 m east of North Augusta Road (about 4.5 km), within the City of Brockville (Study Area). The study will develop a plan for the rehabilitation and/or replacement of five (5) structures, determine the long-term plans for the Stewart Boulevard and North Augusta Road interchanges, and will establish the future footprint for interim six lanes and ultimate eight lanes of Highway 401. As part of the study, improvements to bridges, drainage, interchanges and Highway 401 are being considered. The Highway 401 bridges over CN Rail and Ormond Street, as well as the Highway 401 underpasses of Stewart Boulevard and North Augusta Road, are approaching the end of their service life and will need to be rehabilitated or replaced. A Recommended Plan will be confirmed and designated (protected) at the completion of the study. The project is following the approved planning process for a Group 'B' project in accordance with the *MTO Class EA for Provincial Transportation Facilities (2000)*.

1.1 Study Area

The Study Area used for assessing potential air contaminant emissions is presented in Figure 1.

Figure 1: Study Area



1.2 Study Objectives

The objective of this study is to characterize existing (2022) air pollutant emissions and predict air quality effects within the Study Area after implementation of the Project in the Future Interim Build (2032) and Future Ultimate Build (2042) scenarios using background air quality and traffic data. Predicted future emissions and effects with Project implementation are also compared to predicted future emissions and effects without implementation (future no build) of the Project for a total of five assessment scenarios. Greenhouse gas (GHG) emissions are also assessed for the five scenarios. This study has been completed following guidance from the “Ministry of Transportation Environmental Guide for Assessing and Mitigating the Air Quality Impacts and Greenhouse Gas Emissions of Provincial Transportation Projects” (MTO, 2020).

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1.3 Project Description

For the purposes of this study, air quality and GHG impacts are evaluated in the Existing (2022) and the Future Interim Build (2032) and Future Ultimate Build (2042) timeframes. Traffic volumes for 2022 were used to project future volumes in 2032 and 2042 (Stantec 2022 and CIMA+ 2022). The years 2032 and 2042 have been selected for analysis purposes only and do not represent the actual timing of the modifications or the reconfiguration of the interchanges. The actual timing of the highway modifications and reconfiguration is not expected to make a significant difference in the air quality assessment. The Preferred Design for the Project is provided in Appendix A.

1.3.1 Highway 401

Highway 401, from 2 km west of Stewart Boulevard to 750 m east of North Augusta Road, currently has a total of four travelled lanes (two in each travel direction).
The Project will include an interim roadway expansion from four travel lanes to six lanes (three lanes in each travel direction) to ultimately eight lanes (four lanes in each travel direction).

1.3.2 Stewart Boulevard Interchange

Stewart Boulevard is a four-lane bridge (two lanes in each travel direction) that serves traffic northbound and southbound over Highway 401. There are four on-ramps (two in the eastbound direction and two in the westbound direction) to Highway 401 accessible to traffic travelling northbound or southbound on Stewart Boulevard. Traffic traveling on Highway 401 eastbound or westbound can access Stewart Boulevard via two off-ramps. Traffic exiting the highway from either travel direction approach a signalized intersection on Stewart Boulevard.

The Project will include an ultimate reconfiguration of the interchange to a single point urban intersection consisting of a replacement bridge (4 lanes, 2 in each travel direction), two off-ramps and two on-ramps. Traffic will approach a single signalized intersection on Stewart Boulevard.

1.3.3 North Augusta Road Interchange

North Augusta Road is a four-lane bridge (two lanes in each travel direction) that serves traffic northbound and southbound over Highway 401. There are two Highway 401 eastbound on-ramps accessible on North Augusta Road from the northbound and southbound directions and one on-ramp to Highway 401 westbound accessible to

vehicles travelling eastbound or westbound on Parkedale Avenue. There is one off-ramp for eastbound traffic on Highway 401 to North Augusta Road and one off-ramp for westbound traffic that exits to a signalized intersection on Parkedale Avenue.

The Project will include an ultimate reconfiguration of the interchange with a new road structure over Highway 401 consisting of 4 lanes (2 in each travel direction), two off-ramps and three on-ramps. There will be no new signalized intersections on North Augusta Road.

The existing Ormond Street structure will be removed and replaced with a new structure spanning both Buells Creek and Ormond Street.

2.0 Methodology

2.1 Overview

The assessment of the Project's potential impacts on air quality was performed by conducting dispersion modelling to predict the downwind concentrations of the most relevant transportation-related air contaminants and comparing these predictions to regulatory criteria and standards.

The assessment of air quality impacts related to the Project consists of the following elements:

- Review the air contaminants of interest for consistency with the MTO Guideline.
- Estimate current background concentrations for each relevant transportation-related contaminant using representative historical monitoring data from the nearest Ministry of the Environment, Conservation and Parks (MECP) or National Air Pollution Surveillance (NAPS) station(s).
- Establish current annual GHG emission levels using published provincial and national GHG emissions data.
- Predict tailpipe emissions using the most recent US EPA Motor Vehicle Emission Simulator (MOVES3) and estimate road dust emissions using the US EPA AP-42 calculation methodology for Project related traffic.
- Identify critical and representative sensitive receptor locations along the modelled highway segment.
- Predict maximum contaminant concentrations using the US EPA CAL3QHCR atmospheric dispersion model (which is an approved model by the MECP) at the critical and sensitive receptors around the modelled interchange and highway segment due to emissions from Project-related traffic for all three scenarios.
- Estimate cumulative air quality concentrations by combining the maximum predicted concentrations with background air quality concentrations and compare the results relative to the applicable current and future ambient air quality criteria and standards.

- For receptors where the maximum combined concentration of relevant air contaminants exceeds a criterion, assess the potential frequency of exceeding the air quality criteria and standards through a more detailed assessment of the combined effect of the Project-related and background concentrations.
- Estimate GHG emissions for each scenario and compare to the provincial and national GHG emissions levels and targets.
- Qualitatively assess the potential air quality impacts during construction and provide recommendations on construction mitigation measures.

2.2 Contaminants of Potential Concern

The air contaminant emission sources expected from the Project are mobile sources that emit combustion gases from burning fossil fuels (e.g., gasoline and diesel) and fugitive dust. Combustion emissions depend on the combustion device type (engine type), the fuel composition, the fuel consumption rate and operating time. Fugitive dust emissions are generated by road traffic during the movement of mobile sources (e.g., cars and trucks). The contaminants of potential concern (CoPCs) selected for this study are based on the most relevant transportation-related contaminants as listed in the MTO Guide (MTO, 2020).

2.3 Air Quality Contaminants

The expected CoPCs that would likely be emitted during the Project construction and operation are primarily criteria air contaminants (CACs), volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs). The CACs include nitrogen oxides (NO_X), carbon monoxide (CO), total suspended particulate matter (TSP), particulate matter less than 10 µm in diameter (PM_{10}) and particulate matter less than 2.5 µm in diameter ($PM_{2.5}$).

NO_x is produced in most combustion processes, consisting of nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colourless gas with no direct effects on health or vegetation at ambient levels and with no regulatory criteria. NO_2 is the regulated form of NO_x. TSP refers to air borne particles with an aerodynamic diameter of less than 44 µm. Particulate effects on human health are primarily associated with PM_{10} and $PM_{2.5}$ as particles of these sizes can become trapped by the upper airways or in the case of $PM_{2.5}$, can make their way deep into the lungs.

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Total hydrocarbons (THC) and volatile organic compounds (VOCs) constitute two other groupings of CoPCs for the Project. Key VOCs from fuel combustion processes which are included in the study include benzene, 1,3-butadiene, formaldehyde, acetaldehyde, and acrolein. The compliance status of these speciated VOCs can be used as representatives for determination of compliance of other VOCs.

Polycyclic aromatic hydrocarbons (PAHs) is a subset of total hydrocarbons, of which the key representative substance is benzo(a)pyrene (B(a)P) which can be considered as a surrogate of total PAHs.

A summary of the applicable Ontario Ambient Air Quality Criteria (AAQC) and Canadian Ambient Air Quality Standards (CAAQS) used in this study are presented in Table 1.

Table 1: Summary of Applicable Air Quality Criteria and Standards

CoPC	CAS	Averaging Period (hours)	Air Quality Criteria/Standard (µg/m^3)	Regulatory Framework
CO	630-08-0	1	36,200	AAQC
		8	15,700	
NO_2	10102-44-0	1	400	AAQC
			119[A, B]	2020 CAAQS
			83[A, B]	2025 CAAQS
		24	200	AAQC
		Annual	34[A, C]	2020 CAAQS
			24[A, C]	2025 CAAQS
PM_{10}	N/A	24	50[D]	AAQC
$PM_{2.5}$	N/A	24	28[E]	2015 CAAQS
		24	27[E]	2020 CAAQS
		Annual	10[F]	2015 CAAQS
		Annual	8.8[F]	2020 CAAQS
Benzene	71-43-2	24	2.3	AAQC
		Annual	0.45	AAQC
Benzo(a)pyrene[G]	50-32-8	24	0.00005	AAQC
		Annual	0.00001	AAQC
1,3-Butadiene	106-99-0	24	10	AAQC
		Annual	2	AAQC
Formaldehyde	50-00-0	24	65	AAQC

CoPC	CAS	Averaging Period (hours)	Air Quality Criteria/Standard (µg/m^3)	Regulatory Framework
Acetaldehyde	75-07-0	0.5	500	AAQC
		24	500	AAQC
Acrolein	107-02-8	1	4.5	AAQC
		24	0.4	AAQC

Notes:

[A] Converted to µg/m^3 assuming 10°C and 760 mmHg, consistent with the approach for converting AAQCs (MTO, 2020).

[B] The 3-year average of the annual 98th percentile daily maximum 1-hour average concentrations.

[C] The average over a single calendar year of all the 1-hour average concentrations.

[D] AAQC for PM_{10} is an interim AAQC provided as a guide for decision-making.

[E] The 3-year average of the annual 98th percentile of the daily 24-hour average concentrations.

[F] The 3-year average of the annual average concentrations.

[G] As a surrogate of total polycyclic aromatic hydrocarbons (PAHs).

2.4 Greenhouse Gases

A greenhouse gas (GHG) is any gas that contributes to potential climate change by trapping heat in the atmosphere. GHGs are known to contribute to warming of the climate, leading to many other changes around the world: in the atmosphere; on land; and in the oceans.

Common GHGs include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Other GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). HFCs and PFCs are used mainly as refrigerants, SF_6 is commonly found in electrical equipment, and NF_3 is used in the plasma etching of silicon wafers. The Project is expected to emit CO_2, CH_4, and N_2O from the combustion of fuels in vehicles and all three of these GHGs are assessed in this study. Other GHGs, such as HFCs, PFCs, SF_6 and NF_3, are not expected to occur in notable quantities related to the Project, and therefore these gases are not assessed further.

GHGs absorb heat radiated by the earth and subsequently warm the atmosphere, leading to what is commonly known as the greenhouse effect. The relative measure of how much heat a GHG absorbs in the atmosphere is characterized as the global warming potential (GWP), relative to CO_2. For this assessment, the GWPs of CO_2, CH_4 and N_2O are 1, 25, and 298, respectively, based on Canada's National Inventory Report 1990-2020 (Environment and Climate Change Canada (ECCC, 2022)). Because different GHGs contribute by different extents to the greenhouse effect, the unit of kilotonnes of carbon dioxide equivalent (kt CO_2e) is used to express the total quantity of

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GHGs. This unit is calculated by multiplying the tonnage emission of each GHG by its global warming potential, then summing the contributions from all relevant GHGs.

As identified in the MTO Guide, "Climate change impacts will be assessed indirectly and on a relative scale by comparing the new GHG emissions of a proposed initiative with relevant benchmarks…". Therefore, evaluation of Project effects will focus on estimation of GHG releases and evaluation of Project GHG releases in relation to provincial (Ontario) and national (Canada) GHG emissions totals and relevant GHG emissions targets.

3.0 Existing Conditions

Ambient air quality in the Study Area is influenced by emissions from vehicular traffic. Meteorology and climatology play an important role in contaminant formation, dispersion, and transport. The local meteorology and ambient air quality data are discussed in this section.

3.1 Climate

The following sections describe the general climatology of the Study Area. The climatology is based on 30-year (1981 to 2010) Canadian Climate Normal data obtained from Environment and Climate Change Canada (ECCC) for: i) the Brockville Pollution Control Plant (PCC), ii) Morrisburg and iii) Ottawa MacDonald-Cartier International Airport stations. These are the closest stations to the centre of the Study Area that contain complete sets of climate normal data.

3.1.1 Temperature

A summary of the daily average, daily maximum and daily minimum temperatures on a monthly basis over the period 1981 to 2010 is presented in Table 2. The daily average temperature for the area varies from -5.6°C to 19.9°C with an annual average temperature of 7.5°C.

Table 2: Summary of Average Temperature Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Daily Average (°C)	-7.8	-6	-1	6.7	13.1	18.2	21.2	20.3	16	9.4	3.4	-3.4	7.5
Daily Maximum (°C)	-3.6	-1.7	3.4	11.3	18.2	23.1	25.9	25	20.4	13.3	6.9	0.2	11.9
Daily Minimum (°C)	-12	-10.4	-5.4	2	8	13.3	16.3	15.6	11.5	5.4	-0.1	-7	3.1

SOURCE: Environment and Climate Change Canada Canadian Climate Normal – Brockville PCC meteorological station.

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3.1.2 Precipitation

A summary of the monthly average rainfall, snowfall, total precipitation (as equivalent rainfall based on a conversion factor for snowfall to equivalent rainfall of 0.1) and average snow depth on a monthly basis over the period 1981 to 2010 is presented in Table 3. The annual average total precipitation for the area is about 986.8 millimetres (mm).

Table 3: Summary of Average Precipitation Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Rainfall [1] (mm)	29.3	25.1	32.3	68.8	84.1	92.9	86.2	82.3	97.7	87.9	79.3	40.9	806.8
Snowfall [1] (cm)	49.1	39	30.8	8.3	0	0	0	0	0	1.2	12.8	38.9	179.9
Precipitation [1] (mm)	78.4	64.2	63	77.1	84.1	92.9	86.2	82.3	97.7	89	92.1	79.8	986.8
Average Snow Depth [2] (cm)	0	29	30	1	0	0	0	0	0	0	0	0	0

Notes:
[1] SOURCE: Environment and Climate Change Canada Canadian Climate Normal – Brockville PCC meteorological station.
[2] SOURCE: Environment and Climate Change Canada Canadian Climate Normal – Morrisburg meteorological station.

3.1.3 Humidity

A summary of the average morning and afternoon relative humidity on a monthly basis over the period 1981 to 2010 is presented in Table 4. The annual average relative humidity in the morning is 80.8% and in the afternoon is 59%.

Table 4: Summary of Average Relative Humidity Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Relative Humidity – 0600LST (%)	76.5	74.9	73.7	73.5	76.1	81.1	84.4	87.9	89.6	86.1	83.5	81.8	80.8
Average Relative Humidity – 1500LST (%)	67.5	61.3	56.6	50.2	49.9	53.1	53.7	55	59.1	61.6	68.1	72.2	59

SOURCE: Environment and Climate Change Canada Canadian Climate Normal – Ottawa MacDonald-Cartier International Airport meteorological station

3.1.4 Wind Speed and Direction

The climate normal data with respect to wind speed and directionality are presented in Table 5. The annual average wind speed for the area is 12.9 km/h and the most frequent direction winds blow from, on an annual basis, is westerly.

Table 5: Summary of Wind Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Speed (km/h)	14.6	14.3	14.4	15	13.1	11.4	10.7	10.2	11.1	12.7	13.8	14.2	12.9
Most Frequent Direction (1)	W	W	W	E	W	W	W	SW	S	W	W	W	W
Max Hourly Speed (km/h)	72	72	72	67	64	67	54	69	64	80	66	61	80
Max Gust Speed (km/h)	100	122	116	93	135	106	129	100	85	100	103	94	135
Direction of Max Gust 1	E	E	W	W	W	W	NW	W	SW	E	NW	SW	E

SOURCE: Environment and Climate Change Canada Canadian Climate Normal – Ottawa MacDonald-Cartier International meteorological station

Note: [1] denotes the direction *from which* the wind is blowing most frequently

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3.2 Special Receptors

Special receptors are placed to assess data at points where human activity more regularly takes place. The MTO Guide recommends that the local air quality impacts be studied within a distance of 500 m from a Project at both sensitive (residences) and critical receptors (hospitals, retirement homes, childcare centres). The special receptors located within the Study Area include existing residences and potential future residences (to be located north of Parkdale Avenue and west of Stewart Blvd.), places of worship, schools/daycare facilities, retirement homes and hotels.

Sixty (60) receptors were identified to be within the Study Area, nineteen of which are critical. These receptors were considered in the assessment.

The receptors considered are the nearest to the Project in each direction and are identified in Table 6. The table also presents the UTM coordinates (NAD 83) for each receptor. The locations of the receptors are shown in a receptor map in Appendix B.

Table 6: Location of Special Receptors

Sensitive Receptor ID	Receptor Description	Receptor Type	UTM Coordinates		
			Zone	Easting (m)	Northing (m)
R001	Holiday Inn Express & Suites on Kent Blvd	Critical	18	443951	4938390
R002	Travelodge on Kent Blvd	Critical	18	444044	4938480
R003	Comfort Inn on Kent Blvd	Critical	18	444088	4938522
R004	Days Inn on Stewart Blvd	Critical	18	444418	4938568
R005	Royal Brock Retirement Living	Critical	18	444738	4938443
R006	Thousand Islands Secondary School on Parkedale Ave	Critical	18	444123	4938978
R007	EduCare Children's Centre on Central Ave W	Critical	18	444742	4938537
R008	Westminster Public School on Central Ave W	Critical	18	444798	4938624
R009	St Mary Catholic High School on Central Ave W	Critical	18	444719	4938750
R010	Brockville Wesleyan Church on Central Ave W	Critical	18	445042	4938793
R011	YMCA of Eastern Ontario, Brockville YMCA on Park St	Critical	18	445136	4939105
R012	The Church of Jesus Christ of Latter-day Saints on Ormond St	Critical	18	445226	4939213

Sensitive Receptor ID	Receptor Description	Receptor Type	UTM Coordinates		
			Zone	Easting (m)	Northing (m)
R013	Brockville Senior Citizen Recreation Centre on Elm Ave	Critical	18	445228	4939339
R014	Community Primary Health Care on Parkdale Ave	Critical	18	445031	4939534
R015	Hampton Inn on Crocker Cres	Critical	18	445227	4940239
R016	J.L. Jordan Catholic School on 1st Ave	Critical	18	446049	4939801
R017	Toniata Public School on Scace Ave	Critical	18	446149	4940184
R018	New Hope Church on Concession 2 Rd	Critical	18	446317	4940783
R019	Residence on Parkdale Ave	Sensitive	18	443660	4938568
R020*	Wellings of Brockville, Independent Living Development on Parkdale Ave	Sensitive	18	443807	4938692
R021	Residence on Parkdale Ave	Sensitive	18	443799	4938635
R022	Residence on Parkdale Ave	Sensitive	18	443831	4938710
R023	Good Shepherd Evangelical Lutheran Church	Critical	18	443863	4938866
R024	Residence on Massey Pl	Sensitive	18	443943	4938985
R025	Residential building on Windsor Dr	Sensitive	18	444233	4939236
R026	Residential building on Parkdale Ave	Sensitive	18	444245	4939063
R027	Residential building on Millwood Ave	Sensitive	18	444417	4939397
R028	St. Lawrence College Residence building on Magedoma Blvd	Sensitive	18	444558	4939603
R029	Residence on Parkdale Ave	Sensitive	18	445865	4940529
R030	Residence on Parkdale Ave	Sensitive	18	445889	4940552
R031	Residence on Parkdale Ave	Sensitive	18	445915	4940571
R032	Residence on Parkdale Ave	Sensitive	18	445941	4940610
R033	Residence on Parkdale Ave	Sensitive	18	445956	4940619
R034	Residence on Oxford Ave	Sensitive	18	446123	4940609
R035	Residence on Oxford Ave	Sensitive	18	446104	4940643
R036	Residence on Oxford Ave	Sensitive	18	446094	4940664
R037	Residence on Concession 2 Rd	Sensitive	18	446412	4940923
R038	Residence on Schofield Ave	Sensitive	18	444389	4938023
R039	Residence on Alexander St	Sensitive	18	444493	4938277
R040	Residence on Alexander St	Sensitive	18	444607	4938374

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Sensitive Receptor ID	Receptor Description	Receptor Type	UTM Coordinates		
			Zone	Easting (m)	Northing (m)
R041	Residential building on Central Ave W	Sensitive	18	444657	4938498
R042	Residential building on Balmoral Pl	Sensitive	18	444668	4938914
R043	Residence on Willow Pl	Sensitive	18	444859	4939122
R044	Residence on Brookview Pl	Sensitive	18	444987	4939245
R045	Residence on Ormond St	Sensitive	18	445187	4939472
R046	Residence on Sussex Pl	Sensitive	18	445414	4939645
R047	Residence on Salisbury Ave	Sensitive	18	445511	4939744
R048	Residence on Salisbury Ave	Sensitive	18	445564	4939788
R049	Residence on Salisbury Ave	Sensitive	18	445600	4939799
R050	Residence on Sevenoaks Ave	Sensitive	18	445639	4939733
R051	Residence on Manor Dr	Sensitive	18	445780	4939721
R052	Residence on Manor Dr	Sensitive	18	445787	4939824
R053	Residence on Waverly Dr	Sensitive	18	445767	4939978
R054	Residence on Baker Pl	Sensitive	18	445791	4940041
R055	Residence on Waverly Dr	Sensitive	18	445845	4940114
R056	Residence on Waverly Dr	Sensitive	18	445879	4940152
R057	Residence on Waverly Dr	Sensitive	18	445916	4940184
R058	Residence on Waverly Dr	Sensitive	18	446006	4940272
R059	Residence on Waverly Dr	Sensitive	18	446153	4940420
R060	Residence on Oxford Cres	Sensitive	18	446389	4940625

Note:
* Indicates a property acquisition for the future build scenario.

3.3 Local Air Quality

3.3.1 Available Published Ambient Air Monitoring Data

Ambient air quality monitoring has been conducted by the National Air Pollution Surveillance Program (NAPS) operated by ECCC in populated regions of Canada. NAPS was established in 1969 with the goal of the program to provide accurate and long-term air quality data of a uniform standard across Canada. The NAPS program continuously measures NO_2, CO, O_3, and $PM_{2.5}$. The NAPS network data between 2014-2020 at the nearest monitoring stations to the Project were reviewed to determine background air quality concentrations. Monitoring station data was reviewed based on

proximity to the Study Area, data completeness, proximity of monitoring station to an existing major roadway, having a similar land use to the Study Area, and/or similar population size. The Study Area is characterized as a suburban/rural location. The population size of Brockville is 22,116 (Statistics Canada 2022). These features were considered in the selection of the appropriate monitoring station to represent background concentrations in the Study Area. The NAPS stations that were considered for this study are presented in Table 7, with the selected stations shaded in grey.

Table 7: NAPS Locations Assessed in the Study

NAPS ID	Location	Station Name	Contaminant [A]	Availability of Data
60104	Rideau & Wurtemburg	Ottawa	CO	2016-2020
60204	467 University Avenue West	Windsor	CO	2016-2020
60430	125 Resources Road	Toronto	CO	2016-2020
60438	401w - 125 Resources Road	Toronto	CO	2016-2020
60440	4905 Dufferin Street	Toronto	CO	2017-2020
60512	Elgin & Kelly	Hamilton	CO	2016-2020
60104	Rideau & Wurtemburg	Ottawa	NO_2, $PM_{2.5}$	2016-2020
60304	Near 23 Beechgrove Lane	Kingston	NO_2, $PM_{2.5}$	2016-2020
61201	Bedford & Third Street	Cornwall	NO_2, $PM_{2.5}$	2016-2020
62601	Experimental Farm	Simcoe	B(a)P	2016-2018[C]
			acetaldehyde, formaldehyde	2014-2015, 2017-2019[D]
			acrolein	2014-2015 & 2017[E]
			benzene, 1,3-butadiene	2014-2015, 2017-2018[F]
60211	College & South Street / 928 South Street	Windsor West	benzene, 1,3-butadiene	2013-2017
65101	Eagle Street & McCaffrey Road	Newmarket	benzene, 1,3-butadiene	2014-2017 & 2019[G]
61502	West Avenue & Homewood	Kitchener	benzene, 1,3-butadiene	2013-2017

Notes:
[A] Only contaminants pertinent to this study are listed.
[B] Grey shaded locations were selected for the study.

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[C] Data availability is less than 75% for 2014, 2015 and 2019.
[D] Data availability is less than 75% for 2016.
[E] Data availability is less than 75% for 2016. No data for 2018 and 2019.
[F] Data for 2014 and 2015 are available for a 24-hour sampling period. Data availability is less than 75% for 2016.
[G] Data for 2017 and 2018 are available for a 4-hour sampling period.
[H] Data availability is less than 75% for 2018 and 2020.

3.3.2 Background Concentration Levels

Background concentrations are used in dispersion modelling to represent the cumulative effect of other emissions sources (i.e., both anthropogenic and biogenic) in addition to the sources being included in the dispersion modelling. The MTO Environmental Guideline for Air Quality (MTO, 2020) recommends that the background pollutant concentration levels to be used in this analysis are the 90th percentile of the most recently measured and complete concentration data from the nearest MECP or ECCC monitoring stations. The use of 90th percentile levels is to account for spatial and temporal variations between the monitoring location(s) and the Study Area, while still providing a conservative assessment. The background levels used in this study were therefore the 90th percentile values for short-term averages. For annual averages, an annual average value was used as the background level.

Background concentrations of the CoPCs were determined from the NAPS station data. The maximum of the 90th percentile concentration over all available years with complete data was considered to be the representative background value for the Project. The maximum, minimum, average and 90th percentile concentrations for applicable time periods for each CoPC are presented in Table 8. The following observations were made from the ambient monitoring data:

- The measured maximum 1-hour and 8-hour average CO concentrations at the Ottawa station were well below the applicable 1-hour and 8-hour AAQC of 36,200 µg/m^3 and 15,700 µg/m^3, respectively.
- The measured maximum 1-hour and 24-hour average NO_2 concentrations at the Kingston station were below the applicable 1-hour and 24-hour AAQC of 400 µg/m^3 and 200 µg/m^3, respectively. The annual average NO_2 concentration is below the current (34 µg/m^3) and future (24 µg/m^3) CAAQS.
- Ambient PM_{10} concentrations were estimated based on $PM_{2.5}$ measurements at the Kingston station using a ratio of $PM_{2.5}$ / PM_{10} = 0.54 (Lall *et al*, 2004). Based on this estimation methodology, PM_{10} background concentrations are below the 24-hour interim AAQC of 50 µg/m^3 for all five years.

- The maximum measured annual average $PM_{2.5}$ concentration is below the 2015 and 2020 CAAQS.
- An exceedance of the 24-hour AAQC for benzene (2.4 µg/m^3) was measured in one of five years at the Newmarket station. The maximum measured annual average concentrations of benzene did not exceed the annual average AAQC of 0.45 µg/m^3.
- The maximum measured 24-hour and annual average concentrations of B(a)P at the Simcoe station are above the AAQC in all three years of data.
- The maximum measured 24-hour and annual average 1,3-butadiene concentrations at the Newmarket station were well below the applicable 24-hour and annual average AAQC of 10 µg/m^3 and 2 µg/m^3, respectively.
- The maximum measured 24-hour average formaldehyde concentration at the Simcoe station was well below the applicable 24-hour AAQC of 65 µg/m^3.
- The maximum measured 24-hour average acetaldehyde concentration at the Simcoe station was well below the 24-hour AAQC of 500 µg/m^3. Since acetaldehyde is not measured for shorter averaging periods, the 24-hour average concentration was converted to a half-hour concentration using the MECP averaging period conversion factor equation (MECP, 2017) and compared to the ½-hour AAQC.
- The maximum measured 24-hour average acrolein concentration at the Simcoe station was well below the applicable 24-hour AAQC of 0.4 µg/m^3, respectively. Since acrolein is not measured for shorter averaging periods, the 24-hour average concentration was converted to a 1-hour concentration using the MECP averaging period conversion factor equation (MECP, 2017) and is well below the 1-hour AAQC of 4.5 µg/m^3.

Table 8: Summary of CoPC Background Concentrations

Contaminant	CAS	Averaging Period	Measured Concentration (µg/m^3)				Air Quality Criteria	Source	% of Criteria
		(hours)	Maximum	Minimum	Mean	90th Percentile	(µg/m^3)		
CO[A]	630-08-0	1	1194	0	226.0	374	36,200	AAQC	1%
		8	844	0	226.0	374	15,700		2%
NO_2[A]	10102-44-0	1	99.6	0	8.1	19.0	400	AAQC	5%
							119	2020 CAAQS	-[B]
							83	2025 CAAQS	-[B]
		24	49.5	1	8.1	16.6	200	AAQC	8%
		Annual	-	-	8.1	-	34	2020 CAAQS	24%
							24	2025 CAAQS	34%
PM_{10}[D]	N/A	24	53.7	0.0	10.4	20.4	50	AAQC	41%
$PM_{2.5}$	N/A	24	29	0	5.6	11.0	28	2015 CAAQS	-[C]
							27	2020 CAAQS	-[C]
		Annual	-	-	5.6	-	10	2015 CAAQS	-[C]
							8.8	2020 CAAQS	-[C]
Benzene	71-43-2	24	2.5	0.074	0.37	0.70	2.3	AAQC	30%
		Annual	-	-	0.37	-	0.45	AAQC	82%
Benzo(a)pyrene	50-32-8	24	0.00043	0	0.000023	0.000053	0.00005	AAQC	106%
		Annual	-	-	0.000023	-	0.00001	AAQC	230%
1,3-Butadiene	106-99-0	24	0.11	0.0019	0.021	0.063	10	AAQC	1%
		Annual	-	-	0.021	-	2	AAQC	1%

Contaminant	CAS	Averaging Period	Measured Concentration (µg/m^3)				Air Quality Criteria	Source	% of Criteria
		(hours)	Maximum	Minimum	Mean	90th Percentile	(µg/m^3)		
Formaldehyde	50-00-0	24	3.5	0.0036	0.62	1.9	65	AAQC	3%
Acetaldehyde[E]	75-07-0	0.5	-	-	-	20.69	500	AAQC	4%
		24	12.1	0	0.79	7.00	500	AAQC	1%
Acrolein[E]	107-02-8	1	-	-	-	0.073	4.5	AAQC	2%
		24	0.072	0	0.0089	0.030	0.4	AAQC	7%

Notes:

[A] The monitoring data was converted to µg/m^3 based on a standard temperature of 10^{o}C and pressure of 1 atm. The 1-hr and 8-hr CO concentrations are the same due to these statistics both being 90th percentiles calculated from measurements that remain relatively constant for extended periods of time.

[B] The background hourly NO_2 concentration is not explicitly compared with the CAAQS as the 1-hour CAAQS for NO_2 is referenced to the three-year average of the annual 98th percentile of the daily maximum one-hour average concentrations while the background concentration is the 90th percentile of hourly values, and therefore the calculation basis for these two parameters are inconsistent.

[C] Background concentrations of $PM_{2.5}$ are not explicitly compared with the CAAQS as the 24-hour and annual standards are referenced to the 98th percentile daily average concentration averaged over 3 consecutive years, and 3-year average of the annual average concentrations, respectively. The background concentrations are 90th percentile of hourly values and single year annual averages and therefore the calculation basis for these parameters are inconsistent.

[D] Background concentrations of PM_{10} are estimated based on a ratio of $PM_{2.5}/PM_{10}$ = 0.54 (Lall et al 2004).

[E] Monitoring data are based on 24-hour measurements. The 24-hour background concentration is converted to the appropriate averaging period following guidance in the Air Dispersion Modelling Guideline of Ontario (ADMGO) (MECP 2017).

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3.4 Existing Greenhouse Gas Emissions

Existing annual national and provincial GHG emission totals were obtained from Canada's 2022 National Inventory Report and are provided in Table 9. The table also shows the national (ECCC, 2022) and provincial (MECP, 2018a) GHG emission reduction targets for 2030.

Table 9: National and Provincial GHG Emissions

Year	GHG Emissions (kt CO2e)			
	Canada		Ontario	
	Total	Road Transport	Total	Road Transport
2015	733,000	142,000	164,000	46,300
2016	715,000	145,000	162,000	46,600
2017	725,000	148,000	159,000	46,800
2018	740,000	152,000	167,000	48,300
2019	738,000	153,000	166,000	49,000
2020	672,000	131,000	150,000	40,100
2030 Target	443,000	N/A	143,000	N/A

4.0 Emission Inventory

The methods and the estimates of the air contaminant and GHG emissions are provided in this section for the existing and future assessment years.

4.1 Vehicle Emissions

The US EPA Motor Vehicle Emission Simulator (MOVES3) was used to estimate existing and future emissions rates from motor vehicle traffic on local roads (US EPA, 2020). MOVES3 is the latest US EPA tool for estimating vehicle emissions due to the combustion of fuel, brake and tire wear, fuel evaporation, permeation and refueling leaks. MOVES3 was used to estimate vehicle emissions based on vehicle type, fuel type, road type, model year, and vehicle speed. Vehicle types, distribution and average travel speed were provided by the project design team (Stantec, 2022). A summary of the MOVES3 input parameters is provided in Table 10.

Table 10: Summary of MOVES Inputs

Parameter	Input
Scale	Project Domain
Years	2022, 2032 and 2042
Months	January and July
Meteorology	• Temperature – Climate Normals from the Brockville PCC meteorological station • Relative Humidity – Climate Normals from the Ottawa MacDonald-Cartier International Airport meteorological station
Source Use Types	• Passenger Car • Single Unit Short-haul Truck • Combination Short-haul Truck
Vehicle Distribution	• Eastbound Hwy 401 – 70.2% passenger cars, 26.6% heavy truck, 3.2% medium truck • Westbound Hwy 401 – 65.9% passenger cars, 27.0% heavy truck, 7.1% medium truck • Stewart Boulevard and North Augusta Road – 68.1% passenger cars, 26.7% heavy truck, 5.2% medium truck
Fuels	Diesel / Gasoline
Age Distribution	MOVES defaults based on modelling year

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Parameter	Input
Pollutants	CO, NO_2, PM_{10}, $PM_{2.5}$, Benzene, Benzo(a)pyrene, 1,3-Butadiene, Formaldehyde, Acetaldehyde, Acrolein, CO_2e
Road Type	Urban Restricted Access, Urban Unrestricted Access
Average Speed	30 km/hr, 40 km/hr, 50 km/hr, 100 km/hr

Emission factors in grams of pollutant emitted per vehicle mile travelled (g/VMT) for the above listed vehicle speeds and three vehicle distributions were obtained from MOVES3 and applied to appropriate links in the dispersion model. Appendix C summarizes the emission factors obtained from MOVES.

Annual average daily traffic (AADT) volumes for the Existing (2022), Future Interim No Build future (2032), Future Interim Build (2032), Future Ultimate No Build (2042) and Future Ultimate build (2042) scenarios were provided by the project design team (Stantec, 2022). The AADT for the Future Ultimate No Build scenario (6 lanes) and the Future Ultimate Build scenario (8 lanes) are projected to be the same even though there is an increase in the number of lanes. The two additional lanes being added in the Future Ultimate Build scenario will accommodate potential increases in traffic beyond the timeframe of this study.

The diurnal variation in traffic levels was provided by traffic engineers CIMA+ and is based on 2016 traffic counts on Highway 401 taken approximately 0.5 km west of North Augusta Road (CIMA+, 2022). Peak hour traffic volumes for all scenarios were estimated using the average peak hour percentage of the AADT for the 2016 sample data. Both AADT and peak hour traffic data were used as inputs to the dispersion model and are provided in Appendix D. The hourly diurnal traffic pattern is also provided in Appendix D.

4.2 Road Dust Emissions

In addition to emissions from exhaust, tire wear, brake and evaporative releases, the re-entrainment of road dust from vehicles travelling over paved roads is considered a source of PM_{10} and $PM_{2.5}$. Emissions resulting from travel on paved roads were quantified using the US EPA AP-42 Chapter 13.2.1 calculation methodology.

The quantity of particulate emissions from resuspension of loose material on the road surface due to vehicles travelling on the Project roadways were calculated using the equation suggested in AP-42, Section 13.2 (US EPA, 2011):

$$E = K \times (SL)^{0.91} \times (w)^{1.02}$$

Where:

E= particulate emission factor (g/VMT)

sL = road surface silt loading (g/m^2):

AADT < 500: 0.6 g/m^2
AADT between 500 – 5,000: 0.2 g/m^2
AADT between 5,000 – 10,000: 0.06 g/m^2
AADT > 10,000: 0.03 g/m^2 and 0.015 g/m^2 on limited access roads

W = average weight (tons) of the vehicles traveling the road:

Passenger cars: 1.8 tons
Heavy Trucks: 20 tons
Medium Trucks: 9 tons

K = particle size multiplier of 0.25 (g/VMT) for $PM_{2.5}$ and 1 (g/VMT) for PM_{10}.

The particulate resuspension emission factors were calculated from the above equation and aggregated with the emission factors generated from MOVES3 for $PM_{2.5}$ and PM_{10}.

The MOVES output emission factors and detailed road dust emissions calculations are presented in Appendix C.

4.3 Greenhouse Gas Emissions

The estimation of GHG emissions for the Project follows the same methodology described for air contaminant emissions, using MOVES3 to predict CO_2e emission factors with the same model inputs for the existing and future no build and build scenarios. These emission factors were then used to calculate total annual emissions both with and without implementation of the Project. The total emissions for each case were based on each link's emission factor (g/VMT) and the predicted annual vehicle miles travelled (based on the length and AADT of each link). The detailed GHG emissions calculations are provided in Appendix E and are summarized in Table 11.

Table 11: Project GHG Emissions – Annual GHG Emissions (kt CO_2e / year)

Existing (2022)	Future Interim No Build (2032)	Future Interim Build (2032)	Future Ultimate No Build (2042)	Future Ultimate Build (2042)
34.5	35.3	35.9	38.9	38.9

The Future Interim Build and Future Ultimate Build scenarios represent an increase in annual GHG emissions of approximately 4% and 13% respectively, compared to the Existing scenario and 2% and 10% respectively, when compared to the 2032 Future Interim No Build scenario. The GHG emissions are equal for the Future Ultimate No Build scenario and the Future Ultimate Build scenario due to the AADT being the same for both scenarios (see Section 4.1).

Due to expected improvements in engine technology and cleaner fuels, overall GHG emissions per vehicle mile travelled are lower in all Future Interim and Future Ultimate No Build and Build scenarios relative to Existing, but are offset by the expected corresponding increase in vehicle traffic. It is noted that the annual GHG emissions do not account for the current trend/goals for electric vehicle usage.

5.0 Air Dispersion Modelling Methodology

Dispersion modelling of CoPCs from vehicle traffic travel on local roads was performed for the following assessment scenarios:

- 2022 – Existing conditions, Highway 401 (4-lanes)
- 2032 – Future Interim No Build, Highway 401 (4-lanes)
- 2032 – Future Interim Build, Highway 401 (6-lanes), replacement of interchanges
- 2042 – Future Ultimate No Build, Highway 401 (6-lanes), replacement of interchanges
- 2042 – Future Ultimate Build, Highway 401 (8-lanes), replacement of interchanges

5.1 Dispersion Model Used

The US EPA CAL3QHCR model (US EPA 2013) was used to predict air quality concentrations at the special receptor locations for all emission scenarios. The model can predict pollutant ground level concentrations (GLCs) from motor vehicles near highways and arterial streets. CAL3QHCR requires inputs such as roadway geometries, receptor locations, meteorological conditions, and vehicular emission factors.

A total of 187 links (road segments) were input into the model for the Existing (2022) and Future Interim No Build scenarios (2032) and 148 links for the Future Interim Build (2032), Future Ultimate No Build (2042) and Future Ultimate Build (2042) scenarios. Detailed link data for each scenario is included in Appendix F. The links were determined based on the preferred design plan presented in Appendix A and available traffic volumes and hourly distribution data provided by the project design team and CIMA+ (presented in Appendix D). Emission factors from MOVES3 in g/VMT were assigned to each link depending on the predicted vehicle distribution and average travel speed. Table 12 summarizes key CAL3QHCR inputs used in the model runs.

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Table 12: Key CAL3QHCR Model Input Parameters

Parameter	Input
Traffic Data	• Peak hourly traffic volumes • AADT volumes coupled with local traffic distribution (see Section 4.1)
Deposition Velocity	• Deposition velocities selected as per the MTO Guide • $PM_{2.5}$: 0.1 cm/s • PM_{10}: 0.5 cm/s • CO, NO_2, BAP and VOCs: 0 cm/s
Settling Velocity	• Settling velocities selected as per MTO Guide • $PM_{2.5}$: 0.02 cm/s • PM_{10}: 0.3 cm/s • CO, NO_2, BAP and VOCs: 0 cm/s
Surface Roughness Length	• The Study Area is a mixture of residential/commercial buildings and open spaces and, therefore, 100 cm for regular coverage with large obstacles, open spaces roughly equal to obstacles heights, suburban houses, villages, and mature forests was selected
Emission Factor	• Emission Factors from MOVES3 were applied to the appropriate links depending on assigned average vehicle speed and vehicle distribution

5.2 Meteorological Data Sources

The local meteorology of the region must be characterized to evaluate the short-term atmospheric dispersion and transport of emissions released by the Project. A five-year (2017-2021) site specific meteorological dataset that was preprocessed by the MECP was used as an input to the dispersion model with upper air and surface data from ECCC's Brockville and Maniwaki stations, respectively. Since CAL3QHCR can only process one year of meteorological data for each run, each of the five years' met data were processed individually and the highest ambient concentrations predicted over the 5-year period were used in the assessment.

5.3 Wind Speed and Direction

The frequency distribution of wind speeds from the site-specific meteorological data set is shown in Figure 2. High wind speeds greater than 8.8 m/s occur infrequently, while wind speeds between 0.5 - 2.1 m/s occur the most frequently. A wind rose plot is presented in Figure 3. Wind roses are an efficient and convenient means of presenting wind data. The length of the radial barbs gives the total percent frequency of winds from the indicated direction, while portions of the barbs of different widths indicate the frequency associated with each wind speed category. Winds blow most frequently from

the southwesterly direction. The wind direction of the site-specific data (southwesterly) is slightly different from the nearest available climate normal data (westerly) taken from the Ottawa MacDonald-Cartier International meteorological station which is approximately 90 km north of the site.

Figure 2: Wind Class Frequency Distribution (2017-2021)

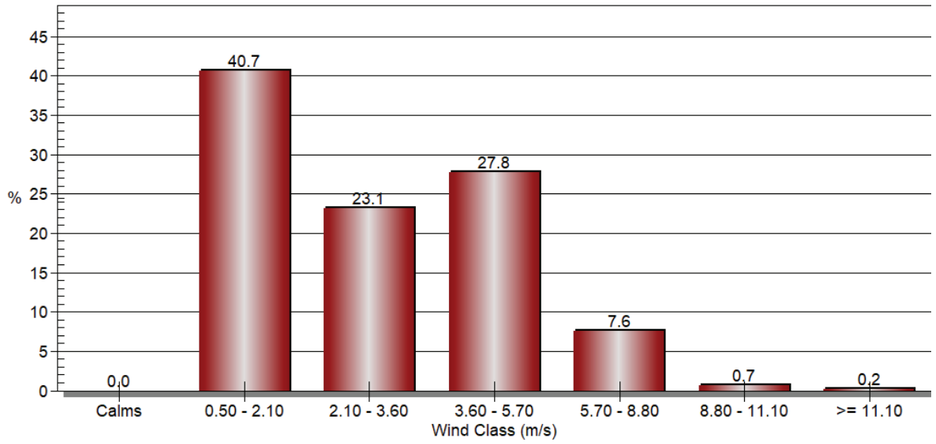
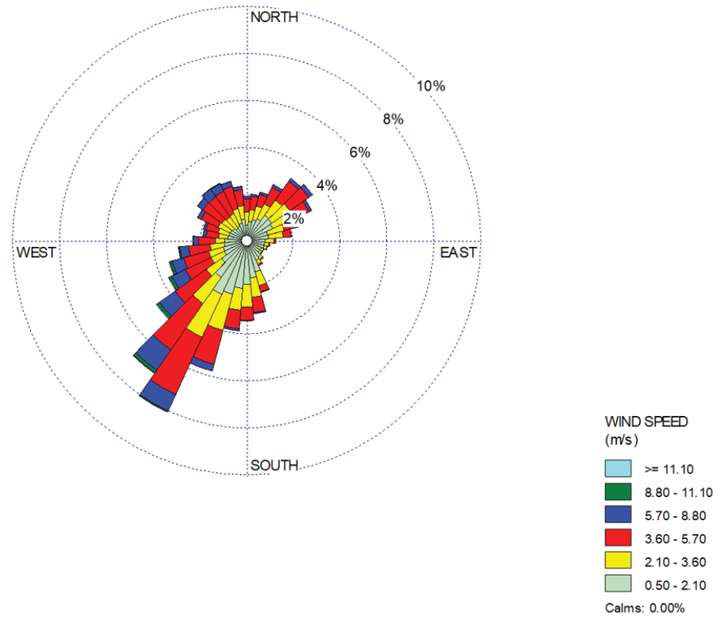


Figure 3: Wind Rose Plot (2017-2021)



5.4 Averaging Periods

The CAL3QHCR dispersion model is capable of predicting concentrations for a variety of averaging times greater than 1-hour. For this Project, the model was run for 1-hour, 8-hour, 24-hour and annual averaging times.

5.5 Receptors

The MTO Guide recommends that the local air quality impacts be studied within a distance of 500 m from the transportation facility, in each direction and at both sensitive (residences) and critical receptors (hospitals, retirement homes, childcare centres). The choice of a 500 m limit is based on empirical evidence for heavily travelled, large highways, which clearly indicates that the concentrations of road-related pollutants drop to within 10% of their background levels over this distance (MTO, 2020). The locations of the representative sensitive (residence) and critical receptors used to assess

compliance with the air quality criteria are shown in Appendix B and identified in Table 6.

5.6 Conversion of Nitrogen Monoxide to Nitrogen Dioxide

Nitrogen oxide (NOx) is comprised of nitrogen monoxide (NO) and nitrogen dioxide (NO_2). However, only NO_2 has ambient air quality criteria. In combustion emissions, typically most of the NOx emissions are NO and only a small percentage are NO_2. Once in the ambient air, NO is irreversibly oxidized by ground level ozone (O_3) to produce nitrogen dioxide (NO_2) as follows:

$$NO + O_3 \rightarrow NO_2 + O_2$$

The following lists different conversion treatments recommended by the US EPA:

- Tier 1 - 100% of emitted NO_X converts to NO_2
- Tier 2 - Ambient Ratio Method (ARM2)
- Tier 3 - Ozone Limiting Method (OLM) or Plume Volume Molar Ratio Method (PVMRM)

In this assessment, the Ambient Ratio Method (ARM2) was used to predict ambient NO_2 concentrations. As the ARM2 methodology is not included in the CAL3QHCR model, application of this methodology was done as a post-processing step to the dispersion modelling results.

The ARM method applies a varying ambient ratio of NO_2 to total NO_X in the atmosphere to calculate NO_2 concentrations based on modelled NO_X concentrations (the ratio decreases with increasing NO_X concentrations). In the application of ARM2, the ratios assume that all NO_x/NO_2 concentrations are expressed in parts per billion (ppb) using the equation (BCMECCS, 2022):

$$\mu g/m^3 = ppb * 1.88$$

Figure 4 presents the ambient ratios and the ARM2 equation (RTP, 2013).

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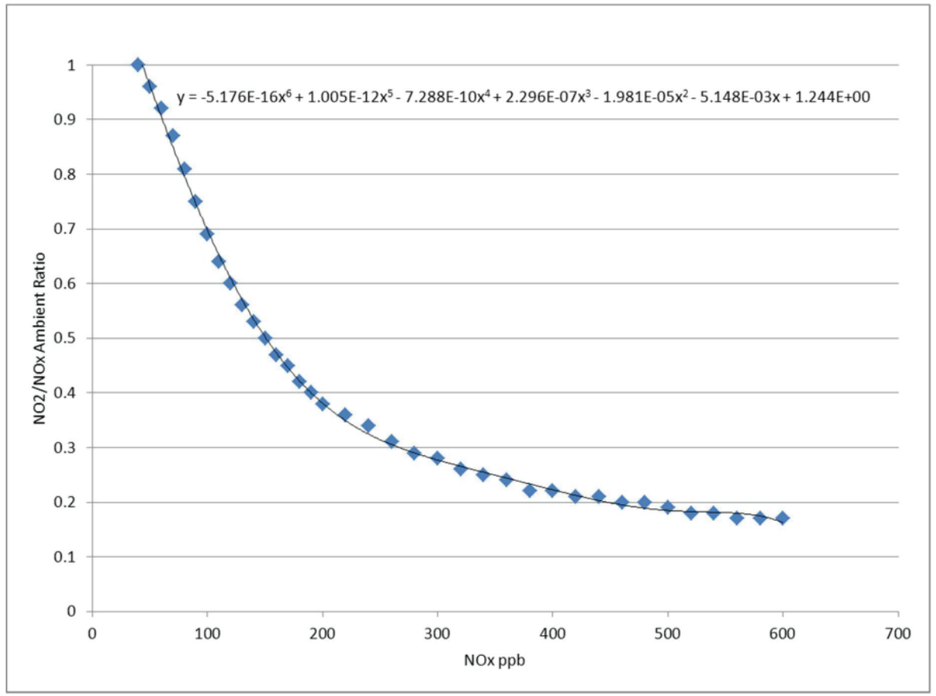
Figure 4: Ambient NO_2/NO_x Ratios and ARM2 Equation



The ratios were constrained to a maximum of 0.90 and a minimum value of 0.50 to maintain an appropriate level of conservatism in the results (based on the current EPA recommendations for maximum and minimum equilibrium ratios).

6.0 Air Dispersion Modelling Results (Project Alone)

In this section, the results of the dispersion modelling are presented for the existing and future scenarios for the Project build and no build configurations at the special receptor locations discussed in Section 3.2. A comparison of the maximum predicted values with the applicable AAQC and/or CAAQS is presented in Table 13. The full data set of the dispersion model predictions at the individual special receptors are included in Appendix G.

Maximum predicted 24-hour average $PM_{2.5}$ concentrations are conservatively compared to the applicable 24-hour CAAQS as the CAL3QHCR model does not provide outputs of the appropriate statistical measure[1] (98^{th} percentile values) required for direct comparison to the CAAQS.

NO_2 concentrations were conservatively estimated from predicted ground level NOx predictions using the ARM2 method described in Section 5.6. As with $PM_{2.5}$, the maximum predicted hourly NO_2 concentrations were directly compared to the 1-hour CAAQS rather than 98^{th} percentile values. Therefore, comparisons of 1-hour average model NO_2 predictions to the CAAQS are very conservative. For annual averages, the maximum annual average concentration across all receptors was used for direct comparison to the 2020 and 2025 annual CAAQS.

The maximum predicted Project Alone GLCs for all CoPCs are below their relevant AAQC and/or CAAQS with noted exceptions for B(a)P in the existing (2022) scenario and NO_2 for the 1-hour and annual 2025 CAAQS all five scenarios. For COPCs other than PM_{10} and $PM_{2.5}$, the predicted maximum concentrations for the future scenarios are lower than the existing scenario due to advances in cleaner fuels and emissions control technology, which are anticipated to lower all vehicle contaminant tailpipe emissions in

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[1] For NO_2, the 3-year average of the annual 98^{th} percentile of the daily maximum one-hour average concentration is to be used for comparison to the 1-hour CAAQS. The average over a single calendar year of all 1-hour average concentrations are to be used for comparison to the annual CAAQS.
For $PM_{2.5}$, the 3-year average of the annual 98^{th} percentile of the daily 24-hour average concentrations is to be used for comparison to the 24-hour CAAQS. The 3-year average of the annual average of the daily 24-hour average concentrations are to be used for comparison to the annual CAAQS.

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the future. The modifications to Highway 401 from the Existing Scenario to the Future Ultimate Build Scenario should promote smoother traffic flow that could help to improve air quality by reducing gridlock.

The predicted Project Alone concentrations for all CoPCs are similar for the Future Ultimate No Build scenario and the Future Ultimate Build scenario due to the projected AADT being the same for both scenarios based on the annual growth rate of 2.1% for the highway and 1% for arterials. Differences in the predictions between these two scenarios results from the mixing zone width used in the dispersion model being larger for the Future Ultimate Build scenario (8 lanes) relative to the Future Ultimate No Build scenario (6 lanes).

CACs

Maximum predicted Project Alone concentrations of CO, PM_{10} and $PM_{2.5}$ are below the relevant AAQC and/or CAAQS for all five scenarios. Maximum predicted CO and $PM_{2.5}$ concentration show a general decrease in the ultimate future build scenario in comparison to existing conditions. CO decreases by 19% from the Future Interim No Build (2032) scenario to the Future Ultimate Build (2042) scenario.

The following incremental increases in the maximum predicted Project Alone concentrations for the Future Ultimate Build (2042) versus the Future Interim No Build (2032) scenario are predicted due to increases in traffic volume:

- PM_{10} – 27%
- $PM_{2.5}$ – 17%

The maximum predicted Project Alone 1-hour NO_2 GLC is 356% of the 2025 CAAQS for the existing scenario, 189% for the Future Interim Build and 181% for the Future Ultimate Build scenario but are below the 1-hour AAQC. The maximum predicted concentration occurs at Receptor 7, a childcare facility on Central Avenue, which is adjacent to Stewart Boulevard. The elevated NO_2 concentrations predicted at this receptor are primarily influenced by traffic on Stewart Boulevard rather than Highway 401 emissions. The maximum Project Alone NO_2 GLCs for receptors within 100 m of Highway 401 are 304% of the 2025 1-hour CAAQS for the Existing scenario, 165% for the Future Interim Build and 158% for the Future Ultimate Build scenarios. As noted above, comparison of the NO_2 predictions to the 1-hour CAAQS is a conservative approach.

The maximum predicted Project Alone annual average NO_2 GLCs are 292% of the 2025 CAAQS for the Existing scenario, 159% for the Future Interim Build scenario and 148% of the Future Ultimate Build scenario. Again, these elevated concentrations occur at Receptor 7 which is primarily influenced by traffic on Stewart Boulevard rather than

Highway 401. The maximum Project Alone NO_2 GLC for receptors within 100 m of Highway 401 is 212% of the 2025 annual CAAQS for the Existing scenario, 85% for the Future Interim Build and 79% for the Future Ultimate Build scenario.

The AAQC is currently used by the MECP and the NO_2 CAAQS have not been adopted as an AAQC in Ontario and are intended for regional air quality planning rather than assessing the local impacts of individual projects. Exceedances of the 2025 1-hour NO_2 CAAQS are predicted at all sensitive and critical receptors for the Existing scenario, fourteen (14) critical receptors and thirty-four (34) sensitive receptors for the Future Interim Build scenario, and eleven (11) critical receptors and twenty-seven (27) sensitive receptors for the Future Ultimate Build scenario. Importantly, the NO_2 concentrations are predicted to decrease by 7% from the Future Interim No Build (2032) scenario to the Future Ultimate Build (2042) scenario.

Volatile Organic Compounds

Maximum predicted Project Alone GLCs of benzene, 1,3-butadiene, formaldehyde, acetaldehyde and acrolein show a general decrease for the Future Interim and Future Ultimate No Build and Build scenarios compared to the Existing scenario. The maximum predicted Project Alone GLCs for the Future Ultimate Build (2042) scenario are less than 1% of their relevant AAQC for all VOCs.

Benzo(a)pyrene

The maximum predicted Project Alone 24-hour and annual average B(a)P concentrations for the Existing scenario are 114% and 231% higher than their respective AAQCs. For the Existing scenario, exceedances of the 24-hour average AAQC are predicted at twelve (12) critical and twenty-five (25) sensitive receptors and exceedances of the annual average AAQC are predicted at thirteen (13) critical and thirty-three (33) sensitive receptors, as shown in Appendix G. At the special receptor where the maximum Project Alone 24-hour average B(a)P GLC occurs, concentrations above the AAQC occur for at least 2% of the time (CAL3QQHCR model output limitations do not allow for an exact calculation of the frequency of exceedance).

The maximum predicted Project Alone B(a)P concentrations decrease for the Future Interim and Future Ultimate No Build and Build scenarios relative to the Existing scenario, with the maximum predicted 24-hour and annual average concentrations being below their AAQCs for all four future scenarios. B(a)P concentration contour plots are presented in Appendix H.

Table 13: Maximum Predicted Ground Level Concentrations – Project Alone

CoPC	CAS	Averaging Period (hours)	Air Quality Objectives/ Criteria (µg/m³)	Regulatory Framework	Maximum Predicted Concentration [A] (µg/m³)					Percentage of Reference Criteria (%)				
					Existing (2022)	Future Interim (2032)		Future Ultimate (2042)		Existing (2022)	Future Interim (2032)		Future Ultimate (2042)	
						No Build	Build	No Build	Build		No Build	Build	No Build	Build
CO	630-08-0	1	36,200	AAQC	593.3	385.4	372.0	323.0	322.9	2%	1%	1%	<1%	<1%
		8	15,700	AAQC	385.8	253.2	241.1	204.9	204.9	2%	2%	2%	1%	1%
NO_2	10102-44-0	1	400	AAQC	295.2	162.5	157.0	150.4	150.4	74%	41%	39%	38%	38%
		1	119	2020 CAAQS	295.2	162.5	157.0	150.4	150.4	**248%**	**137%**	**132%**	**126%**	**126%**
		1	83	2025 CAAQS	295.2	162.5	157.0	150.4	150.4	**356%**	**196%**	**189%**	**181%**	**181%**
		24	200	AAQC	62.7	24.4	24.4	23.2	23.3	31%	12%	12%	12%	12%
		Annual	34	2020 CAAQS	70.1	38.2	38.2	35.5	35.6	**206%**	**112%**	**112%**	**104%**	**105%**
		Annual	24	2025 CAAQS	70.1	38.2	38.2	35.5	35.6	**292%**	**159%**	**159%**	**148%**	**148%**
PM_{10}	N/A	24	50	AAQC	10.8	10.6	11.5	13.2	13.4	22%	21%	23%	26%	27%
$PM_{2.5}$	N/A	24	28	2015 CAAQS	4.4	3.1	3.3	3.5	3.6	16%	11%	12%	13%	13%
		24	27	2020 CAAQS	4.4	3.1	3.3	3.5	3.6	16%	11%	12%	13%	13%
		Annual	10	2015 CAAQS	1.2	0.8	0.8	0.9	0.9	12%	8%	8%	9%	9%
		Annual	8.8	2020 CAAQS	1.2	0.8	0.8	0.9	0.9	13%	9%	9%	10%	10%
Benzo(a)pyrene	50-32-8	24	5.00E-05	AAQC	1.07E-04	2.79E-05	2.99E-05	4.00E-06	4.10E-06	**214%**	56%	60%	8%	8%
		Annual	1.00E-05	AAQC	3.31E-05	7.90E-06	8.60E-06	1.10E-06	1.20E-06	**331%**	79%	86%	11%	12%
Benzene	71-43-2	24	2.3	AAQC	1.38E-01	1.25E-02	1.37E-02	7.77E-03	7.97E-03	6%	<1%	<1%	<1%	<1%
		Annual	0.45	AAQC	5.20E-02	3.50E-03	3.80E-03	2.19E-03	2.28E-03	12%	<1%	<1%	<1%	<1%
1,3-Butadiene	106-99-0	24	10	AAQC	8.20E-03	1.31E-03	1.47E-03	8.50E-06	8.70E-06	<1%	<1%	<1%	<1%	<1%
		Annual	2	AAQC	2.60E-03	4.16E-04	4.09E-04	2.40E-06	2.50E-06	<1%	<1%	<1%	<1%	<1%
Formaldehyde	50-00-0	24	65	AAQC	0.238	0.056	0.063	0.018	0.018	<1%	<1%	<1%	<1%	<1%
Acetaldehyde	75-07-0	0.5	500	AAQC	1.477	0.507	0.491	0.286	0.286	<1%	<1%	<1%	<1%	<1%
		24	500	AAQC	0.116	0.038	0.043	0.025	0.026	<1%	<1%	<1%	<1%	<1%
Acrolein	107-02-8	1	4.5	AAQC	0.21	0.052	0.050	0.021	0.021	5%	1%	1%	<1%	<1%
		24	0.4	AAQC	0.02	0.005	0.006	0.002	0.002	5%	1%	1%	<1%	<1%

Note:
^ Maximum predicted concentration over all special receptors.

7.0 Cumulative Effects Assessment

This section presents the assessment of background air quality and GHG emissions in order to evaluate the Project's emissions cumulatively and in relation to other existing sources of emissions in the Study Area.

7.1 Air Quality

The maximum predicted Project Alone GLCs from the air quality dispersion modelling presented in Section 6.0 were added to the background concentrations presented in Section 3.3.2 in order to assess the cumulative effects of the Project with existing air quality levels in the Study Area. A summary of the maximum modelled predictions including background concentrations and a comparison to their applicable AAQCs and/or CAAQS is presented in Table 14. As with the Project Alone, the comparisons of predicted $PM_{2.5}$ and NO_2 concentrations to the CAAQS are conservative.

- The maximum predicted cumulative GLCs for all CoPCs are below their relevant AAQC and/or CAAQS, except for NO_2 and B(a)P for all five scenarios.
- Similar to the Project Alone assessment, the predicted cumulative concentrations for all CoPCs for the Future Ultimate No Build scenario and the Future Ultimate Build scenario are similar due to the projected AADT being the same for both scenarios based on the annual growth rate of 2.1% for the highway and 1% for arterials.

CACs

The maximum predicted cumulative NO_2 GLC is 379% of the 2025 1-hour CAAQS for the Existing scenario, 212% for the Future Interim Build and 204% for the Future Ultimate Build scenario but remain below the 1-hour AAQC. The maximum concentration occurs at Receptor 7, a childcare facility on Central Avenue, which is adjacent to Stewart Boulevard. The elevated NO_2 concentrations predicted at this receptor are primarily influenced by traffic on Stewart Boulevard rather than Highway 401 emissions. The maximum cumulative 1-hour NO_2 GLCs for receptors within 100 m of Highway 401 are 327% of the 2025 1-hour CAAQS for the Existing scenario, 188% for the Future Interim Build scenario and 181% for the Future Ultimate Build scenario.

Similarly for annual averages, the maximum predicted cumulative NO_2 GLCs are 326% of the 2025 annual CAAQS for the Existing scenario, 193% for the Future Interim Build scenario and 182% of the Future Ultimate Build scenario. Again, these elevated concentrations occur at Receptor 7 which is primarily influenced by traffic on Stewart

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Boulevard rather than Highway 401. The maximum cumulative NO_2 GLCs for receptors within 100m of Highway 401 are 246% of the 2025 annual CAAQS for the Existing scenario, 119% for the Future Interim Build scenario and 113% for the Future Ultimate Build scenario.

The AAQC is currently used by the MECP and the NO_2 CAAQS have not been adopted as an AAQC in Ontario and are intended for regional air quality planning rather than assessing the local impacts of individual projects. Exceedances of the 2025 1-hour NO_2 CAAQS are predicted at all sensitive and critical receptors for the Existing scenario, fourteen (14) critical receptors and thirty-four (34) sensitive receptors for the Future Interim Build scenario and eleven (11) critical receptors and twenty-seven (27) sensitive receptors for the Future Ultimate Build scenario. The NO_2 concentrations decrease by 7% from the Future Interim No Build (2032) scenario to the Future Ultimate Build (2042) scenario.

Maximum predicted cumulative GLCs of CO, PM_{10} and $PM_{2.5}$ are below their relevant AAQC and/or CAAQS for all three scenarios.

Volatile Organic Compounds

Predicted cumulative concentrations of 1,3-butadiene, formaldehyde, acetaldehyde and acrolein are all well below their relevant AAQCs with the addition of background concentrations. The maximum annual average benzene concentration is predicted to be 83% of the AAQC for the Future Interim and Future Ultimate No Build and Build scenarios. The major contributor to the predicted benzene concentrations is the background concentration, with the Project contribution being less than 1%.

Ambient air quality monitoring data suggests a decreasing trend in benzene concentrations in Ontario over the past decade (MECP, 2019). Based on this trend, it is likely that background benzene levels will continue to improve in the future and therefore the background concentrations used in the assessment are likely to be conservative.

Benzo(a)pyrene

The maximum predicted cumulative concentrations of B(a)P exceed the 24-hour and annual average AAQCs at all special receptor locations for all scenarios, with the background concentrations alone exceeding the 24-hour and annual average AAQCs. The maximum cumulative B(a)P concentrations are predicted to decrease in the Future Interim and Future Ultimate No Build and Build scenarios relative to the Existing scenario due to expected future reductions in vehicle emissions.

Table 14: Maximum Predicted Ground Level Concentrations – Cumulative

CoPC	CAS	Averaging Period (hours)	Background Concentrations (µg/m³)	Maximum Predicted Concentration [A] (µg/m³)					Air Quality Objectives/ Criteria (µg/m³)	Regulatory Framework	Percentage of Reference Criteria (%)				
				Existing (2022)	Future Interim (2032)		Future Ultimate (2042)				Existing (2022) No Build	Future Interim (2032)		Future Ultimate (2042)	
					No Build	Build	No Build	Build				Build	No Build	No Build	Build
CO	630-08-0	1	373.7	967.0	759.1	745.8	696.7	696.6	36,200	AAQC	3%	2%	2%	2%	2%
		8	373.7	759.5	626.9	614.8	578.7	578.7	15,700	AAQC	5%	4%	4%	4%	4%
NO_2	10102-44-0	1	19.0	314.2	181.5	176.0	169.4	169.4	400	AAQC	79%	45%	44%	42%	42%
		1	19.0	314.2	181.5	176.0	169.4	169.4	119	2020 CAAQS	**264%**	**153%**	**148%**	**142%**	**142%**
		1	19.0	314.2	181.5	176.0	169.4	169.4	83	2025 CAAQS	**379%**	**219%**	**212%**	**204%**	**204%**
		24	16.6	79.3	41.0	41.0	39.9	40.0	200	AAQC	40%	20%	20%	20%	20%
		Annual	8.1	78.2	46.3	46.3	43.6	43.7	34	2020 CAAQS	**230%**	**136%**	**136%**	**128%**	**128%**
		Annual	8.1	78.2	46.3	46.3	43.6	43.7	24	2025 CAAQS	**326%**	**193%**	**193%**	**182%**	**182%**
PM_{10}	N/A	24	20.4	31.2	30.9	31.9	33.5	33.8	50	AAQC	62%	62%	64%	67%	68%
$PM_{2.5}$	N/A	24	11.0	15.4	14.1	14.3	14.5	14.6	28	2015 CAAQS	55%	50%	51%	52%	52%
		24	11.0	15.4	14.1	14.3	14.5	14.6	27	2020 CAAQS	57%	52%	53%	54%	54%
		Annual	5.6	6.8	6.4	6.4	6.5	6.5	10	2015 CAAQS	68%	64%	64%	65%	65%
		Annual	5.6	6.8	6.4	6.4	6.5	6.5	8.8	2020 CAAQS	77%	73%	73%	74%	74%
Benzo(a)pyrene	50-32-8	24	5.28E-05	1.60E-04	8.07E-05	8.27E-05	0.0	0.0	5.00E-05	AAQC	**319%**	**161%**	**165%**	**114%**	**114%**
		Annual	2.30E-05	5.61E-05	3.09E-05	3.16E-05	0.0	0.0	1.00E-05	AAQC	**561%**	**309%**	**316%**	**241%**	**242%**
Benzene	71-43-2	24	7.00E-01	0.8382	0.7125	0.7137	0.7	0.7	2.3	AAQC	36%	31%	31%	31%	31%
		Annual	3.70E-01	0.4220	0.3735	0.3738	0.4	0.4	0.45	AAQC	94%	83%	83%	83%	83%
1,3-Butadiene	106-99-0	24	6.30E-02	7.12E-02	6.43E-02	6.45E-02	0.1	0.1	10	AAQC	<1%	<1%	<1%	<1%	<1%
		Annual	2.10E-02	2.36E-02	2.14E-02	2.14E-02	0.0	0.0	2	AAQC	1%	1%	1%	1%	1%
Formaldehyde	50-00-0	24	1.9	2.14	1.96	1.96	1.9	1.9	65	AAQC	3%	3%	3%	3%	3%
Acetaldehyde	75-07-0	0.5	20.7	22.2	21.2	21.2	21.0	21.0	500	AAQC	4%	4%	4%	4%	4%
		24	7.0	7.12	7.04	7.04	7.0	7.0	500	AAQC	1%	1%	1%	1%	1%
Acrolein	107-02-8	1	0.073	0.282	0.125	0.123	0.094	0.094	4.5	AAQC	6%	3%	3%	2%	2%
		24	0.030	0.050	0.035	0.036	0.032	0.032	0.4	AAQC	13%	9%	9%	8%	8%

Note:
[A] Maximum predicted concentrations over all special receptors.

7.2 Greenhouse Gases

To evaluate the potential effects of GHG emissions due to the Project, estimated emissions with and without implementation of the Project are compared to the existing annual GHG emissions in Canada and Ontario. Table 15 presents the GHG emissions estimates for each of the five scenarios compared to Canada and Ontario 2020 totals and the Federal and Provincial 2030 emissions targets.

The incremental increase in GHG emissions due to the Future Interim Build scenario, in relation to the Future Interim No Build scenario is 0.66 kt CO_2e per year. This increase represents 0.00044% of 2020 GHG emissions in Ontario and 0.00010% of 2020 GHG in Canada, as well as 0.00046% of Ontario's 2030 target and 0.00015% of Canada's 2030 targets. These potential changes are considered insignificant in relation to the 2020 Canada and Ontario GHG emissions totals and the 2030 emissions targets. There is no difference in GHG emissions when the Future Ultimate Build scenario is compared to the Future Ultimate No Build scenario as both scenarios have the same projected traffic volumes and CO_2e emission factors. The two additional lanes being added in the Future Ultimate Build scenario will accommodate potential increases in traffic beyond the timeframe of this study.

Table 15: GHG Emissions Estimates Compared to Canada and Ontario Totals

Scenario	Project (kt CO_2e)	Canada				Ontario				
		2020 Total (kt CO_2e)	% 2020 Total	2020 Road Transport (kt CO_2e)	% 2020 Road Transport	2030 Target (kt CO_2e)	% Of 2030 Target	2020 Total (kt CO_2e)	% Of 2020 Total	2020 Road Transport (kt CO_2e)	% 2020 Road Transport	2030 Target (kt CO_2e)	% Of 2030 Target
Existing	34.5	672,000	0.0051	131,000	0.026	443,000	0.0078	150,000	0.0230	40,100	0.086	143,000	0.024
Future Interim No Build (2032)	35.3		0.0052		0.027		0.0080		0.0235		0.088		0.025
Future Interim Build (2032)	35.9		0.0053		0.027		0.0081		0.0240		0.090		0.025
Future Ultimate No Build (2042)	38.9		0.0058		0.030		0.0088		0.0260		0.097		0.027
Future Ultimate Build (2042)	38.9		0.0058		0.030		0.0088		0.0260		0.097		0.027

8.0 Potential Impacts and Mitigation During Construction and Operation

8.1 Potential Impacts and Mitigation During Construction

During construction of the Project, particulate matter (dust) will be the primary CoPC. Other CoPCs such as NO_2 and VOCs will also be emitted from equipment used during construction. As the construction activities will be short-term and intermittent, CoPC emissions are expected to be minor provided adequate mitigation measures are implemented. GHGs including CO_2, CH_4 and N_2O are also expected to be emitted from equipment used during construction. The ECCC guideline “Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities” provides recommendations for mitigation measures to reduce construction emissions. These measures include material wetting or use of chemical suppressants to reduce dust, the use of wind barriers to limit exposed areas which may be a source of dust, equipment washing, implementation of anti-idling policies and the use of efficient equipment to reduce the unnecessary release of CoPCs and GHGs. It is recommended that appropriate best management practices be followed during Project construction. With implementation of mitigation measures, the emissions from the construction phase and resulting changes in local air quality can be controlled and reduced.

8.2 Potential Impacts and Mitigation During Operation

The air quality assessment has identified that exceedances of the 1-hour and annual averaging periods 2025 CAAQS for both the project alone and the cumulative NO_2 may occur for all scenarios.

Exceedances of B(a)P are predicted to occur for the Future Interim and Future Ultimate No Build and Build scenarios, with background levels being the major contributor to the cumulative exceedances. However, cumulative B(a)P concentrations are predicted to be lower for the Future Interim and Future Ultimate No Build and Build scenarios relative to the Existing scenario.

While the Project contributions to CoPC exceedances are expected to be small, and the incremental increase in GHG emissions expected to be insignificant, it is expected that with ongoing advancements in on-road vehicles to lower emissions and transitioning to electric vehicles, the quantities of air contaminants and GHGs released to the atmosphere from transportation sources will be lower in the future. Implementation of the Project is expected to improve the future traffic flow on the local road network with less congestion relative to the Future Interim No Build scenario.

Other measures to minimize impacts of particulate matter and NOx emissions that could be considered include incorporating vegetation barriers in the landscaping design of the Project. The effectiveness of trees and plants as physical barriers for particulate matter (dust) or gaseous contaminants control depends on the density and height of the vegetation. In general, a vegetation barrier should be thick (approximately 6-metres or more) and have full leaf and branch coverage from the ground to the top of the canopy with no gaps in-between or underneath the vegetation. Typically, evergreen species are more effective than deciduous for this objective and the barrier should be located close to the emissions sources (US EPA, 2015).

9.0 Conclusions

The following are the main findings from the air quality and GHG impact assessment:

- For the Project Alone case, the maximum predicted GLCs of CoPCs except NO_2 and B(a)P are below their relevant AAQC and/or CAAQS at all special receptors for the future build and future no build scenarios.
- Maximum predicted cumulative GLCs (i.e., with background values added) of CoPCs other than NO_2 and B(a)P are below their relevant AAQC and/or CAAQS at all special receptors for all release scenarios.
- The NO_2 concentrations were predicted using the US EPA ARM2 methodology, which provides conservative estimates of NO_2 formation in the atmosphere. Additionally, maximum predicted hourly NO_2 concentrations were compared to the 1-hour CAAQS rather than 98th percentile values as the CAL3QHCR model does not provide outputs of the appropriate statistical measure required for direct comparison to the CAAQS. Therefore, comparisons of the model predictions to the CAAQS are conservative.
- Predicted project alone and cumulative concentrations of NO_2 exceed the 2025 1-hour and annual CAAQS for all scenarios; however, these values are well below the provincial AAQC.
- Maximum predicted cumulative concentrations of B(a)P exceed the 24-hour and annual average AAQCs at all special receptor locations for all scenarios, with the background concentrations alone exceeding the 24-hour and annual average AAQCs. The maximum cumulative B(a)P concentrations are predicted to decrease in the Future Interim and Future Ultimate No Build and Build scenarios relative to the existing scenario due to expected future reductions in vehicle emissions.
- For all COPCs except PM_{10} and $PM_{2.5}$, the predicted maximum concentrations for the future scenarios are lower than the existing scenario due to advances in cleaner fuels and emissions control technology, which are anticipated to lower all vehicle contaminant tailpipe emissions in the future. The modifications to Highway 401 from the Existing Scenario to the Future Ultimate Build Scenario should promote smoother traffic flow that could help to improve air quality by reducing gridlock.
- During Project construction, best management practices should be followed to minimize emissions. With implementation of appropriate mitigation measures (such as those specified in Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities (Cheminfo Services Inc. 2005)), emissions

from the construction phase and resulting adverse changes in local air quality can be minimized.

- During Project Operation air quality levels are generally predicted to decrease relative to Existing levels. Mitigation measures such as vegetation barriers can be used to further decrease particulates and NO_2 levels. The vegetation barrier should be thick (approximately 6-metres or more) and have full leaf and branch coverage from the ground to the top of the canopy with no gaps in-between or underneath the vegetation and the barrier should be located close to the emissions sources. Evergreen species are more effective than deciduous for this objective.
- Annual releases of GHGs from the Project are expected to be insignificant (less than 0.1%) in comparison to the 2020 Canada and Ontario GHG emissions totals and both the Federal and Provincial 2030 emissions targets.

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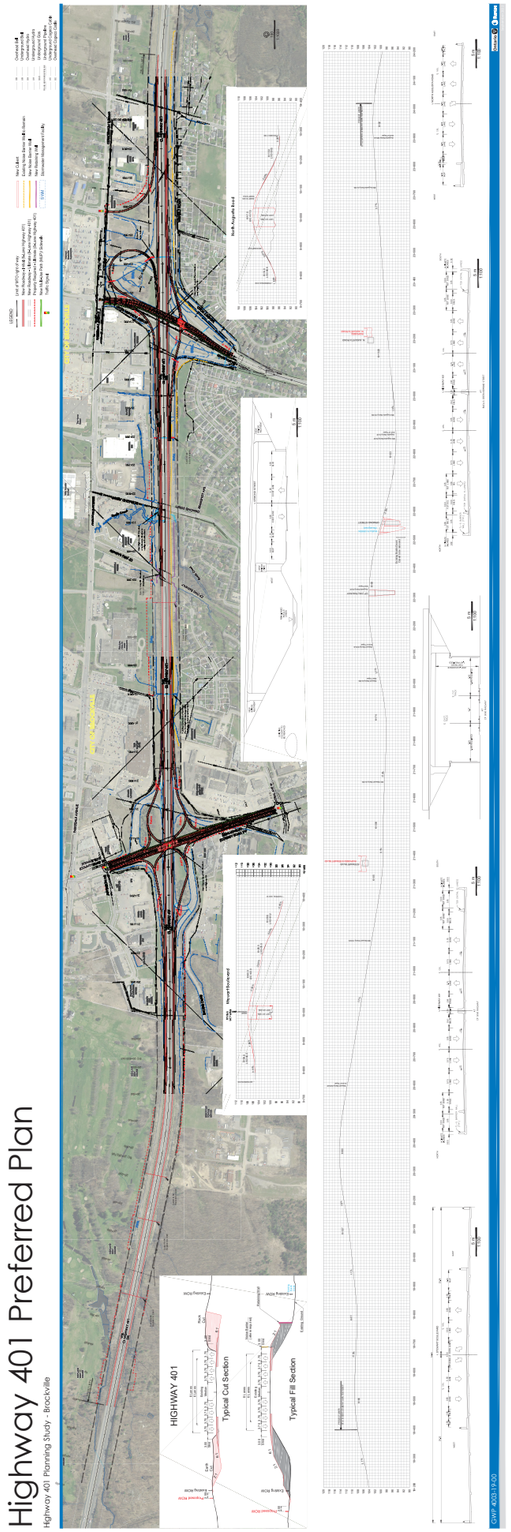
Air Quality Assessment Report – Highway 401 Planning Study, Brockville, from 2 km West of Stewart Boulevard to 750 m East of North Augusta Road (GWP 4003-19-00)

March 28, 2023

Appendix A
Preferred Design Plan



Air Quality Assessment Report – Highway 401 Planning Study, Brockville, from 2 km West of Stewart Boulevard to 750 m East of North Augusta Road (GWP 4003-19-00)

March 28, 2023

Appendix B
Receptor Map

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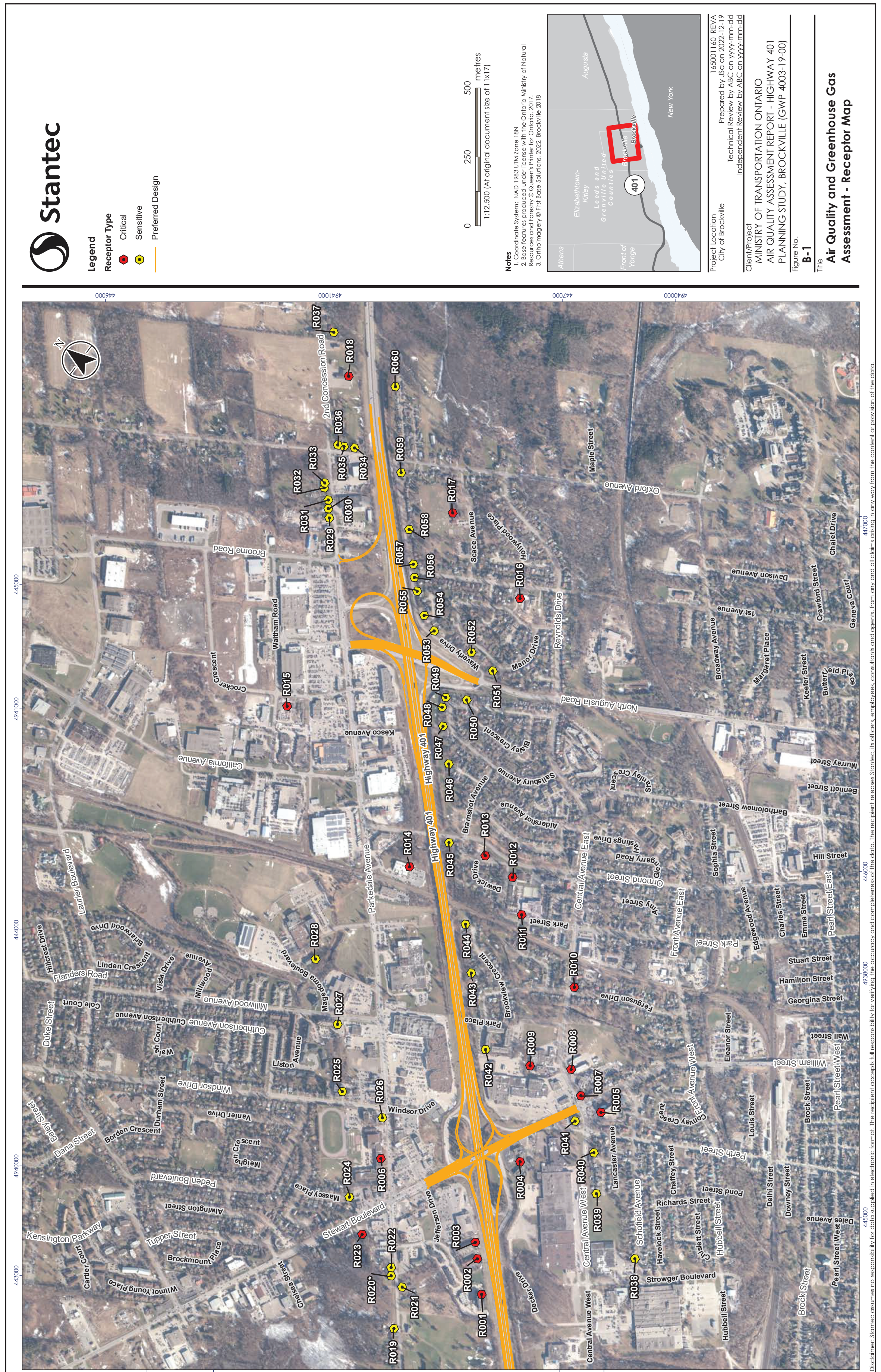

Appendix C
Emission Factors

Summary of g/VMT emission factors by contaminant/ link - 2022 (Including paved road resuspension)

Group Link ID	Link ID	Description	2022 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Pollutant Name and ID: Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
EB1	1	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB1	2	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB1	3	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB1	4	west of Stewart blv	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB2	5	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB2	6	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB2	7	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB2	8	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB2	9	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB2	10	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB3	11	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB3	12	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB3	13	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB3	14	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB3	15	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB3	16	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB3	17	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB4	18	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB4	19	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB4	20	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	0.92034	0.259075	0.120093	615.636
EB4	21	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
R1	22	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	23	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	24	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	25	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	26	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	27	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	28	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	29	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	30	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R1	31	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R2	32	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	33	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	34	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	35	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	36	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	37	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	38	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	39	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	40	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	41	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R2	42	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
IC1	43	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
IC1	44	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
IC1	45	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
IC2	46	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
IC2	47	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
IC2	48	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
IC3	49	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
IC3	50	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	2.039575	0.768885	0.317687	996.11
EB5	51	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB5	52	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB5	53	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB5	54	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB5	55	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB6	56	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB6	57	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB7	58	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB7	59	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB7	60	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB7	61	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB8	62	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB8	63	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB8	64	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB8	65	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
R3	66	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	67	on-ramp NB Stwt Blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	68	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	69	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	70	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	71	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916

Summary of g/VMT emission factors by contaminant/ link - 2022 (Including paved road resuspension)

Group Link ID	Link ID	Description	2022 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Pollutant Name and ID: Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R3	72	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	73	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	74	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	75	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	76	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	77	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	78	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	79	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
R3	80	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	3.5757234	3.8099222	0.002441059	0.000526996	0.014156051	0.00690353	0.001172	0.54998197	7.87894E-06	8.963663	1.980221	0.601644	798.916
IC4	81	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	3.420011	1.032327	0.383547	996.11
IC4	82	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	3.420011	1.032327	0.383547	996.11
IC5	83	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	3.420011	1.032327	0.383547	996.11
IC5	84	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	3.420011	1.032327	0.383547	996.11
IC6	85	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	3.420011	1.032327	0.383547	996.11
IC6	86	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	3.420011	1.032327	0.383547	996.11
IC6	87	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	4.8192481	4.9496782	0.003365235	0.000797722	0.02188477	0.010612824	0.001814	0.77035948	1.01449E-05	3.420011	1.032327	0.383547	996.11
EB9	88	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB9	89	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB9	90	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB9	91	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
EB9	92	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	2.0961348	2.74702652	0.001411833	0.000313976	0.008447131	0.004083927	0.000703	0.29363005	3.68767E-06	1.638716	0.39617	0.154367	615.636
R4	93	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	94	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	95	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	96	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	97	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	98	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	99	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	100	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	101	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	102	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	103	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	104	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R4	105	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	5.2692506	5.2105904	0.003835816	0.000916915	0.02523731	0.012218202	0.00209	0.837165	1.00021E-05	9.155166	2.171724	0.656706	1041.94
R5	106	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R5	107	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R5	108	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R5	109	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R5	110	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R5	111	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R5	112	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R5	113	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	4.4565751	4.3636234	0.002929865	0.000653127	0.01766606	0.008597108	0.001463	0.65576827	9.01588E-06	9.016701	2.033259	0.622952	899.785
R6	114	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	3.2830143	3.6276869	0.002103431	0.000451775	0.012126373	0.00593864	0.001006	0.49816658	7.50128E-06	8.915673	1.932231	0.589825	756.023
R6	115	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	3.2830143	3.6276869	0.002103431	0.000451775	0.012126373	0.00593864	0.001006	0.49816658	7.50128E-06	8.915673	1.932231	0.589825	756.023
R6	116	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	3.2830143	3.6276869	0.002103431	0.000451775	0.012126373	0.00593864	0.001006	0.49816658	7.50128E-06	8.915673	1.932231	0.589825	756.023
R6	117	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	3.2830143	3.6276869	0.002103431	0.000451775	0.012126373	0.00593864	0.001006	0.49816658	7.50128E-06	8.915673	1.932231	0.589825	756.023
R6	118	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	3.2830143	3.6276869	0.002103431	0.000451775	0.012126373	0.00593864	0.001006	0.49816658	7.50128E-06	8.915673	1.932231	0.589825	756.023
R6	119	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	3.2830143	3.6276869	0.002103431	0.000451775	0.012126373	0.00593864	0.001006	0.49816658	7.50128E-06	8.915673	1.932231	0.589825	756.023
R6	120	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	3.2830143	3.6276869	0.002103431	0.000451775	0.012126373	0.00593864	0.001006	0.49816658	7.50128E-06	8.915673	1.932231	0.589825	756.023
WB1	121	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB1	122	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB1	123	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB1	124	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB1	125	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
R7	126	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R7	127	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R7	128	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R7	129	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R7	130	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R7	131	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R8	132	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R8	133	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R8	134	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R8	135	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R8	136	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R8	137	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R8	138	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
WB2	139	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB2	140	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB2	141	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB3	142	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982

MTO Brockville EA - MOVES Run Existing (2022) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2022 (Including paved road resuspension)

Group Link ID	Link ID	Description	2022 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Pollutant Name and ID: Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
WB3	143	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB4	144	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB4	145	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB4	146	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB5	147	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB5	148	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB5	149	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB5	150	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB5	151	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB6	152	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB6	153	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB6	154	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
WB6	155	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	2.0692558	2.89181491	0.001455296	0.000341772	0.009282397	0.004466932	0.000773	0.31003399	3.91274E-06	1.722101	0.41776	0.16385	644.982
R9	156	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	157	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	158	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	159	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	160	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	161	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	162	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	163	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R9	164	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	6.0072087	6.5465584	0.004960368	0.001291839	0.03614175	0.01738698	0.002996	1.0798552	1.22546E-05	9.769276	2.438531	0.738463	1251.23
R10	165	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	166	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	167	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	168	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	169	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	170	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	171	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	172	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	173	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	174	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	175	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	176	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R10	177	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	4.4191702	4.6645054	0.003042494	0.000718336	0.01965468	0.009524645	0.00163	0.70520226	9.60495E-06	25.03181	5.110019	1.400994	944.715
R11	178	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	179	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	180	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	181	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	182	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	183	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	184	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	185	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	186	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924
R11	187	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	3.5485624	4.0618505	0.002519507	0.000576857	0.01568584	0.007616663	0.0013	0.58957779	8.37023E-06	9.411821	2.081075	0.634505	838.924

MTO Brockville EA - MOVES Run Future Interim No Build (2032) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2032 (Including paved road resuspension)

Group Link ID	Link ID	Description	2032 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Pollutant Name and ID: Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
EB1	1	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB1	2	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB1	3	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB1	4	west of Stewart blv	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	5	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	6	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	7	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	8	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	9	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	10	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB3	11	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB3	12	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB3	13	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB3	14	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB3	15	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB3	16	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB3	17	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB4	18	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB4	19	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB4	20	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB4	21	west of Stewart blvd	17910	1522	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
R1	22	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	23	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	24	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	25	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	26	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	27	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	28	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	29	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	30	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R1	31	off-ramp NB/SB St bl	1984	169	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R2	32	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	33	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	34	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	35	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	36	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	37	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	38	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	39	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	40	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	41	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R2	42	on-ramp SB Stwt blvd	1290	110	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
IC1	43	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
IC1	44	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
IC1	45	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
IC2	46	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
IC2	47	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
IC2	48	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
IC3	49	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
IC3	50	NB/SB Stewart blvd	10915	1856	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.856975	0.586286	0.149028	837.607
EB5	51	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	52	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	53	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	54	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	55	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB6	56	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB6	57	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB7	58	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB7	59	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB7	60	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB7	61	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB8	62	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB8	63	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB8	64	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB8	65	west of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
R3	66	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	67	on-ramp NB Stwt Blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	68	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	69	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	70	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	71	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068

MTO Brockville EA - MOVES Run Future Interim No Build (2032) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2032 (Including paved road resuspension)

Group Link ID	Link ID	Description	2032 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Pollutant Name and ID: Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R3	72	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	73	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	74	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	75	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	76	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	77	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	78	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	79	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
R3	80	on-ramp NB Stwt blvd	887	75	40	24.9	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	9	2.05468108	1.7573489	0.00068609	7.39745E-05	0.003247967	0.002186891	0.000286	0.58942125	1.12461E-06	8.817859	1.834417	0.466142	676.068
IC4	81	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC4	82	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC5	83	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC5	84	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC6	85	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC6	86	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC6	87	NB/SB N Augusta	6034	1026	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
EB9	88	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB9	89	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB9	90	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB9	91	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB9	92	east of N Augusta	19412	1650	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832768	0.000387614	3.76239E-05	0.001632298	0.001104366	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
R4	93	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	94	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	95	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	96	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	97	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	98	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	99	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	100	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	101	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	102	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	103	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	104	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R4	105	off-ramp NB/SB N Aug	1112	95	20	12.4	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.1082981	2.8528983	0.00101773	0.000137252	0.005895743	0.003913006	0.000518	0.9838697	1.50105E-06	8.978637	1.995195	0.494185	874.661
R5	106	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	107	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	108	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	109	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	110	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	111	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	112	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	113	on-ramp SB N Aug	969	82	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.00272179	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R6	114	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	1.85690698	1.5496279	0.000591287	6.14912E-05	0.002742469	0.001887882	0.000243	0.51173344	1.04356E-06	8.77408	1.790638	0.458839	641.019
R6	115	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	1.85690698	1.5496279	0.000591287	6.14912E-05	0.002742469	0.001887882	0.000243	0.51173344	1.04356E-06	8.77408	1.790638	0.458839	641.019
R6	116	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	1.85690698	1.5496279	0.000591287	6.14912E-05	0.002742469	0.001887882	0.000243	0.51173344	1.04356E-06	8.77408	1.790638	0.458839	641.019
R6	117	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	1.85690698	1.5496279	0.000591287	6.14912E-05	0.002742469	0.001887882	0.000243	0.51173344	1.04356E-06	8.77408	1.790638	0.458839	641.019
R6	118	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	1.85690698	1.5496279	0.000591287	6.14912E-05	0.002742469	0.001887882	0.000243	0.51173344	1.04356E-06	8.77408	1.790638	0.458839	641.019
R6	119	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	1.85690698	1.5496279	0.000591287	6.14912E-05	0.002742469	0.001887882	0.000243	0.51173344	1.04356E-06	8.77408	1.790638	0.458839	641.019
R6	120	on-ramp NB N Augusta	1071	91	50	31.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	8	1.85690698	1.5496279	0.000591287	6.14912E-05	0.002742469	0.001887882	0.000243	0.51173344	1.04356E-06	8.77408	1.790638	0.458839	641.019
WB1	121	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB1	122	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB1	123	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB1	124	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB1	125	east of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
R7	126	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R7	127	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R7	128	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R7	129	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R7	130	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R7	131	off-ramp Parkdale	1999	166	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R8	132	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R8	133	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R8	134	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R8	135	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R8	136	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R8	137	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R8	138	on-ramp Parkdale	1428	119	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
WB2	139	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB2	140	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB2	141	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB3	142	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705

Summary of g/VMT emission factors by contaminant/ link - 2032 (Including paved road resuspension)

Group Link ID	Link ID	Description	2032 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Pollutant Name and ID: Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
WB3	143	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	144	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	145	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	146	west of N Augusta	18651	1548	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	147	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	148	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	149	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	150	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	151	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	152	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	153	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	154	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	155	west of Stewart blvd	17207	1428	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158281	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
R9	156	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	157	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	158	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	159	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	160	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	161	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	162	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	163	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R9	164	off-ramp NB/SB St bl	2428	202	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191873	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R10	165	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	166	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	167	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	168	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	169	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	170	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	171	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	172	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	173	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	174	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	175	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	176	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R10	177	on-ramp NB Stwt blvd	474	39	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	10	2.5716307	2.2948174	0.000793449	9.94906E-05	0.00430979	0.002890796	0.00038	0.7804728	1.36174E-06	9.298482	1.967736	0.498308	798.694
R11	178	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	179	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	180	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	181	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	182	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	183	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	184	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	185	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	186	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807
R11	187	on-ramp SB Stwt blvd	1020	85	40	24.9	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.04597317	1.8693282	0.000672919	7.90843E-05	0.003443514	0.00231545	0.000303	0.62869197	1.1574E-06	9.25522	1.924474	0.48892	710.807

MTO Brockville EA - MOVES Run Future Interim Build (2032) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2032 (Including paved road resuspension)

Group Link ID	Link ID	Description	2032 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
EB1	1	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB1	2	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB1	3	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB1	4	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	5	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	6	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	7	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
EB2	8	west of Stewart Blvd	22047	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	0.852106	0.190841	0.057617	520.565
IC1	9	NB/SB Stewart Blvd	12057	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.122328	0.446086	0.113978	837.607
IC1	10	NB/SB Stewart Blvd	12057	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.122328	0.446086	0.113978	837.607
IC2	11	NB/SB Stewart Blvd	12057	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.122328	0.446086	0.113978	837.607
IC3	12	NB/SB Stewart Blvd	12057	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.122328	0.446086	0.113978	837.607
IC3	13	NB/SB Stewart Blvd	12057	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	1.122328	0.446086	0.113978	837.607
R1	14	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	1.284512	0.623247	0.141255	999.533
R1	15	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	1.284512	0.623247	0.141255	999.533
R1	16	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	1.284512	0.623247	0.141255	999.533
R1	17	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	1.284512	0.623247	0.141255	999.533
R1	18	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	1.284512	0.623247	0.141255	999.533
R1	19	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	1.284512	0.623247	0.141255	999.533
R2	20	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	1.284512	0.623247	0.141255	999.533
R2	21	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R2	22	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R2	23	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R2	24	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R3	25	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R3	26	EB off-ramp Stwt Blv	2192	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
EB3	27	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB3	28	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB3	29	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB3	30	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB3	31	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB4	32	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB4	33	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB4	34	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	35	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	36	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	37	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB5	38	west of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
R4	39	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R4	40	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R4	41	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R4	42	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R4	43	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	44	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R5	45	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R6	46	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R6	47	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R6	48	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R6	49	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R6	50	EB on-ramp Stwt blv	2406	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
IC4	51	NB/SB N Augusta	6665	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC4	52	NB/SB N Augusta	6665	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC4	53	NB/SB N Augusta	6665	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC5	54	NB/SB N Augusta	6665	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC5	55	NB/SB N Augusta	6665	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC6	56	NB/SB N Augusta	6665	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
IC6	57	NB/SB N Augusta	6665	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.835902	2.5618245	0.000884835	0.000114253	0.004957613	0.003333352	0.000437	0.8774081	1.44151E-06	3.237412	0.849728	0.214888	837.607
R7	58	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R7	59	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R7	60	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R7	61	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R8	62	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R8	63	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R8	64	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R8	65	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R8	66	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R9	67	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
R9	68	EB off-ramp N Aug	1228	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	3.5308105	3.4573841	0.0012233	0.000179667	0.00764265	0.005032766	0.00067	1.1988876	1.72842E-06	9.097769	2.114327	0.514025	999.533
EB6	69	east of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB6	70	east of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565
EB6	71	east of N Augusta	23896	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	1.10625519	0.75832568	0.000387614	3.76238E-05	0.001632298	0.001104362	0.000144	0.21726572	5.68758E-07	1.570482	0.327936	0.09189	520.565

Summary of g/VMT emission factors by contaminant/ link - 2032 (Including paved road resuspension)

Group Link ID	Link ID	Description	2032 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R10	72	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R10	73	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R10	74	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R11	75	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R11	76	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R11	77	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R11	78	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R12	79	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R12	80	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
R12	81	EB on-ramp N Augusta	2254	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	2.5828099	2.1518246	0.000805867	9.28359E-05	0.004053091	0.0027218	0.000356	0.7297703	1.32324E-06	8.85691	1.873468	0.474766	759.333
WB1	82	east of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB1	83	east of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB1	84	east of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
R13	85	WB off-ramp Parkdale	2209	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R13	86	WB off-ramp Parkdale	2209	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R13	87	WB off-ramp Parkdale	2209	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R13	88	WB off-ramp Parkdale	2209	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R13	89	WB off-ramp Parkdale	2209	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R13	90	WB off-ramp Parkdale	2209	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R14	91	WB off-ramp Parkdale	2209	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R15	92	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R15	93	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R15	94	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R15	95	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R16	96	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R16	97	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R16	98	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R16	99	WB on-ramp N Augusta	568	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
WB2	100	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB2	101	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB2	102	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB3	103	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB3	104	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB3	105	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	106	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	107	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	108	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	109	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB4	110	west of N Augusta	22958	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	111	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	112	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	113	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB5	114	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	115	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	116	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	117	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
WB6	118	west of Stewart Blvd	21182	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	1.09209391	0.79538115	0.000378689	4.03029E-05	0.001725821	0.001158283	0.000152	0.22832565	5.82791E-07	1.64842	0.344079	0.096385	546.705
R17	119	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R17	120	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R18	121	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R18	122	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R18	123	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R18	124	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R18	125	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R18	126	WB on-ramp N Augusta	1010	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R19	127	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R19	128	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R19	129	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R20	130	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R20	131	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R20	132	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R20	133	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R20	134	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R20	135	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R21	136	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R21	137	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R21	138	WB off-ramp Stwt blv	2682	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	3.5491023	3.6920027	0.001217997	0.000191872	0.00811816	0.005343056	0.000713	1.2833367	1.7972E-06	9.553676	2.22293	0.540084	1049.37
R22	139	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R22	140	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R23	141	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R23	142	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.000793449	9.94906E-05	0.00430979	0.002890806	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694

MTO Brockville EA - MOVES Run Future Interim Build (2032) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2032 (including paved road resuspension)																							
									Pollutant Name and ID														
Group Link ID	Link ID	Description	2032 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic LinkID	Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R23	143	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.0007934491	9.94906E-05	0.00430979	0.00289080	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R24	144	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.0007934491	9.94906E-05	0.00430979	0.00289080	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R24	145	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.0007934491	9.94906E-05	0.00430979	0.00289080	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R24	146	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.0007934491	9.94906E-05	0.00430979	0.00289080	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R24	147	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.0007934491	9.94906E-05	0.00430979	0.00289080	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694
R24	148	WB on-ramp Stwt blvd	1651	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.5716307	2.2948175	0.0007934491	9.94906E-05	0.00430979	0.00289080	0.00038	0.7804728	1.36174E-06	9.298483	1.967737	0.498308	798.694

MTO Brockville EA - MOVES Run Future Ultimate No Build (2042) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2042 (including paved road resuspension)																							
									Pollutant Name and ID														
Group Link ID	Link ID	Description	2042 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic LinkID	Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene [1]	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
EB1	1	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
EB1	2	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
EB1	3	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
EB1	4	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
EB2	5	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
EB2	6	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
EB2	7	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
EB2	8	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	0.841562	0.180297	0.047922	466.425
IC1	9	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284569	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	1.0959949	0.419707	0.088748	755.619
IC1	10	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	1.0959949	0.419707	0.088748	755.619
IC2	11	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	1.0959949	0.419707	0.088748	755.619
IC3	12	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	1.0959949	0.419707	0.088748	755.619
IC3	13	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	1.0959949	0.419707	0.088748	755.619
R1	14	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	15	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	16	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	17	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	18	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	19	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R2	20	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R2	21	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R2	22	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924431	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R2	23	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R2	24	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R3	25	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R3	26	E B off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
EB3	27	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB3	28	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB3	29	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB3	30	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB3	31	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB4	32	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB4	33	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB4	34	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB5	35	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB5	36	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB5	37	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB5	38	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
R4	39	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R4	40	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R4	41	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R4	42	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R4	43	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R5	44	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R5	45	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R6	46	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R6	47	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R6	48	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R6	49	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
R6	50	E B on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.9830384	1.8569595	0.0003777767	4.2642E-07	0.0009689	0.0014063	0.000121	0.7838602	1.78284E-07	0.8331664	1.849722	0.451747	684.554
IC4	51	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284569	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC4	52	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC4	53	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC5	54	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC5	55	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC6	56	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284569	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC6	57	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.2284456	2.2453662	0.0003887731	5.18084E-07	0.0011827	0.0017395	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
R7	58	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R7	59	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R7	60	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R7	61	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	62	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	63	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	64	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	65	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	66	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R9	67	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R9	68	E B off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.7829049	3.1070898	0.0004924443	8.4754E-07	0.0017059	0.0025340	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
EB6	69	east of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB6	70	east of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425
EB6	71	east of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.7818797	0.4807233	0.0002023	1.5883E-07	0.0003889	0.0005577	4.81E-05	0.1907161	1.071266-07	1.559939	0.317392	0.082196	466.425

MTO Brockville EA - MOVES Run Future Ultimate No Build (2042) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2042 (Including paved road resuspension)

Group Link ID	Link ID	Description	2042 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic LinkID	Pollutant Name and ID													
									Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene [1]	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R10	72	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R10	73	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R10	74	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R11	75	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R11	76	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R11	77	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R11	78	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R12	79	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R12	80	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
R12	81	E B on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.00037767	4.2642E-07	0.0009689	0.00140638	0.000121	0.7383602	1.7828E-07	0.8331164	1.849722	0.4514747	684.554
WB1	82	east of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB1	83	east of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB1	84	east of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
R13	85	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R13	86	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R13	87	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R13	88	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R13	89	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R13	90	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R14	91	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R15	92	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R15	93	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R15	94	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R15	95	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R16	96	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R16	97	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R16	98	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R16	99	WB on-ramp N Augusta	62.7	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
WB2	100	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB2	101	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB2	102	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB3	103	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB3	104	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB3	105	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB4	106	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB4	107	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB4	108	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB4	109	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB4	110	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB5	111	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB5	112	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB5	113	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB5	114	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB6	115	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB6	116	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB6	117	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
WB6	118	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.00018956	1.6348E-07	0.0003974	0.00057415	4.96E-05	0.20026497	1.005E-07	1.637296	0.332955	0.08615	490.726
R17	119	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R17	120	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R18	121	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R18	122	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R18	123	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R18	124	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R18	125	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R18	126	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R19	127	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R19	128	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R19	129	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R20	130	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R20	131	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R20	132	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R20	133	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R20	134	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R20	135	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R21	136	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R21	137	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R21	138	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.0004622	8.7074E-07	0.0011792	0.00267837	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.5092098	946.445
R22	139	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R22	140	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R23	141	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R23	142	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392

MTO Brockville EA - MOVES Run Future Ultimate No Build (2042) Scenario

Summary of g/VMT emission factors by contaminant/ link - 2042 (Including paved road resuspension)

Group Link ID	Link ID	Description	2042 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic LinkID	Pollutant Name and ID													
									Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene [1]	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R23	143	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R24	144	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R24	145	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R24	146	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R24	147	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392
R24	148	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.00035467	4.3859E-07	0.0010143	0.00148448	0.000128	0.7883117	1.6734E-07	9.273665	1.94292	0.4714154	721.392

Note:
1. 2039 Emission factor used for 1,3-Butadiene since MOVES does not have emission factors for 2042

Summary of g/VMT emission factors by contaminant/ link - 2042 (Including paved road resuspension)

Group Link ID	Link ID	Description	2042 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene [1]	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
EB1	1	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
EB1	2	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
EB1	3	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
EB1	4	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
EB2	5	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
EB2	6	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
EB2	7	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
EB2	8	west of Stewart Blvd	27,140	1874	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	0.841562	0.180297	0.047922	466.425
IC1	9	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	1.095949	0.419707	0.088748	755.619
IC1	10	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	1.095949	0.419707	0.088748	755.619
IC2	11	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	1.095949	0.419707	0.088748	755.619
IC3	12	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	1.095949	0.419707	0.088748	755.619
IC3	13	NB/SB Stewart Blvd	13,319	2050	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	1.095949	0.419707	0.088748	755.619
R1	14	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	15	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	16	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	17	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	18	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R1	19	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R2	20	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	1.254333	0.593068	0.112203	899.675
R2	21	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R2	22	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R2	23	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R2	24	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R3	25	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R3	26	EB off-ramp Stwt Blv	2,421	186	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
EB3	27	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB3	28	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB3	29	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB3	30	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB3	31	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB4	32	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB4	33	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB4	34	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB5	35	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB5	36	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB5	37	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB5	38	west of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
R4	39	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R4	40	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R4	41	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R4	42	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R4	43	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R5	44	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R5	45	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R6	46	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R6	47	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R6	48	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R6	49	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R6	50	EB on-ramp Stwt blv	2,657	205	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
IC4	51	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC4	52	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC4	53	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC5	54	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC5	55	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC6	56	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
IC6	57	NB/SB N Augusta	7,363	1133	25	15.5	68.1% Passenger Cars, 5.2% Medium trucks, 26.7 % Heavy trucks	3	2.22844569	2.2453662	0.000388773	5.18084E-07	0.00118274	0.001739573	0.00015	0.8929652	1.86971E-07	3.211033	0.823349	0.189658	755.619
R7	58	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R7	59	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R7	60	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R7	61	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	62	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	63	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	64	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	65	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R8	66	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R9	67	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
R9	68	EB off-ramp N Aug	1,357	104	15	9.3	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	4	2.78290049	3.1070898	0.000492443	8.47545E-07	0.00170593	0.002534078	0.000219	1.2358917	2.50223E-07	9.06759	2.084148	0.484973	899.675
EB6	69	east of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB6	70	east of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425
EB6	71	east of N Augusta	29,416	2031	100	62.1	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	1	0.78187971	0.48072333	0.00020235	1.58853E-07	0.000388993	0.000557753	4.81E-05	0.19071613	1.07126E-07	1.559939	0.317392	0.082196	466.425

Summary of g/VMT emission factors by contaminant/ link - 2042 (Including paved road resuspension)

Group Link ID	Link ID	Description	2042 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene [1]	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R10	72	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R10	73	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R10	74	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R11	75	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R11	76	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R11	77	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R11	78	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R12	79	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R12	80	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
R12	81	EB on-ramp N Augusta	2,489	192	30	18.6	70.2% Passenger Cars, 3.2% Medium trucks, 26.6 % Heavy trucks	6	1.98304384	1.8569595	0.000377767	4.26427E-07	0.000968891	0.001406383	0.000121	0.7383602	1.78284E-07	8.833164	1.849722	0.451747	684.554
WB1	82	east of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB1	83	east of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB1	84	east of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
R13	85	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R13	86	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R13	87	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R13	88	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R13	89	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R13	90	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R14	91	WB off-ramp Parkdale	2,240	183	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R15	92	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R15	93	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R15	94	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R15	95	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R16	96	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R16	97	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R16	98	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R16	99	WB on-ramp N Augusta	627	47	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
WB2	100	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB2	101	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB2	102	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB3	103	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB3	104	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB3	105	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB4	106	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB4	107	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB4	108	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB4	109	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB4	110	west of N Augusta	28,262	1906	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB5	111	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB5	112	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB5	113	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB5	114	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB6	115	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB6	116	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB6	117	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
WB6	118	west of Stewart Blvd	26,075	1758	100	62.1	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	2	0.7812801	0.50462292	0.000189956	1.63486E-07	0.000397421	0.000574154	4.96E-05	0.20026497	1.00564E-07	1.637296	0.332955	0.08615	490.726
R17	119	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R17	120	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R18	121	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R18	122	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R18	123	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R18	124	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R18	125	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R18	126	WB on-ramp N Augusta	1,115	84	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R19	127	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R19	128	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R19	129	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R20	130	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R20	131	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R20	132	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R20	133	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R20	134	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R20	135	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R21	136	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R21	137	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R21	138	WB off-ramp Stwt blv	2,962	223	15	9.3	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	5	2.83617539	3.3184425	0.00046228	8.70742E-07	0.001792485	0.002678376	0.000231	1.3200539	2.34896E-07	9.521921	2.191175	0.509298	946.445
R22	139	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R22	140	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R23	141	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392
R23	142	WB on-ramp Stwt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.9824007	0.000354627	4.38589E-07	0.001014328	0.001484489	0.000128	0.7883317	1.67364E-07	9.273665	1.94292	0.474154	721.392

MTO Brockville EA - MOVES Run Future Ultimate Build (2042) Scenario

Summary of g/VMT emission factors by contaminant / link - 2042 (including paved road resuspension)

Group Link ID	Link ID	Description	2042 AADT	Peak Vehicle Volume (veh/hour)	Assigned Average Speed km/hr	Assigned Average Speed (mph)	Vehicle Distribution	MOVES Generic Link ID	Pollutant Name and ID											
									Carbon Monoxide	Oxides of Nitrogen (Nox)	Benzene	1,3-Butadiene [1]	Formaldehyde	Acetaldehyde	Acrolein	Nitrogen Dioxide (NO2)	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
									2	3	20	24	25	26	27	33	Benzo(a)pyrene	PM	PM10	PM2.5	CO2 Equivalent
R23	143	WB on-ramp 5Swt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.98243097	0.00035462	4.38389E-07	0.00101432	0.00148448	0.000128	0.7883317	1.67364E-07	9.279665	1.94252	0.474154	721.392
R24	144	WB on-ramp 5Swt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.98243097	0.00035462	4.38389E-07	0.00101432	0.00148448	0.000128	0.7883317	1.67364E-07	9.279665	1.94252	0.474154	721.392
R23	145	WB on-ramp 5Swt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.98243097	0.00035462	4.38389E-07	0.00101432	0.00148448	0.000128	0.7883317	1.67364E-07	9.279665	1.94252	0.474154	721.392
R24	146	WB on-ramp 5Swt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.98243097	0.00035462	4.38389E-07	0.00101432	0.00148448	0.000128	0.7883317	1.67364E-07	9.279665	1.94252	0.474154	721.392
R24	147	WB on-ramp 5Swt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.98243097	0.00035462	4.38389E-07	0.00101432	0.00148448	0.000128	0.7883317	1.67364E-07	9.279665	1.94252	0.474154	721.392
R24	148	WB on-ramp 5Swt blvd	1,824	137	30	18.6	65.9% Passenger Cars, 7.1% Medium trucks, 27.0 % Heavy trucks	7	2.00189321	1.98243097	0.00035462	4.38389E-07	0.00101432	0.00148448	0.000128	0.7883317	1.67364E-07	9.279665	1.94252	0.474154	721.392

Note:
1. 2039 Emission factor used for 1,3 Butadiene since MOVES does not have emission factors for 2042

Appendix D
Traffic Volumes and Hourly Distribution Data

Grade Separation Site	Road Segment	Travel Direction	Existing/Future No Build Posted Speed (km/h)	Assumed Average Future Build Traffic Speed (km/h)	% Passenger Cars	% Heavy Truck	% Medium Truck	MOVES Link ID		CAL3QHCR Group Link ID		MOVES Road Type	2022 Existing Hwy 401 4-lanes Existing configuration at Stewart Blvd & North Augusta			2032 No Build Hwy 401 4-lanes Existing configuration at Stewart Blvd & North Augusta			2032 Build Hwy 401 6-lanes Proposed configuration at Stewart Blvd & North Augusta			2042 No Build Hwy 401 6-lanes Proposed configuration at Stewart Blvd & North Augusta			2042 Build Hwy 401 8-lanes Proposed configuration at Stewart Blvd & North Augusta		
								Existing/Future No Build	Future Build	Existing/ No Build	Build		AADT	AADT for Each Direction of Travel	PM Peak Hour Volume	AADT	AADT for Each Direction of Travel	PM Peak Hour Volume	AADT	AADT for Each Direction of Travel	PM Peak Hour Volume	AADT	AADT for Each Direction of Travel	PM Peak Hour Volume	AADT	AADT for Each Direction of Travel	PM Peak Hour Volume
Highway 401	West of Stewart Blvd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB1	EB1	4_Urban Restricted	35,117	17,910	1,522	43,229	22,047	1,874	43,229	22,047	1,874	53,215	27,140	2,307	53,215	27,140	2,307
	West of Stewart Blvd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB2	EB2	4_Urban Restricted															
	West of Stewart Blvd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB3	-	4_Urban Restricted															
	West of Stewart Blvd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB4	-	4_Urban Restricted															
	West of Stewart Blvd	WB	100	100	65.9%	27.0%	7.1%	2	2	WB5	WB5	4_Urban Restricted		17,207	1,428		21,182	1,758		21,182	1,758		26,075	2,164		26,075	2,164
	West of Stewart Blvd	WB	100	100	65.9%	27.0%	7.1%	2	2	WB6	WB6	4_Urban Restricted															
	West of North Augusta Rd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB5	EB3	4_Urban Restricted	38,063	19,412	1,650	46,854	23,896	2,031	46,854	23,896	2,031	57,678	29,416	2,500	57,678	29,416	2,500
	West of North Augusta Rd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB6	EB4	4_Urban Restricted															
	West of North Augusta Rd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB7	EB5	4_Urban Restricted															
	West of North Augusta Rd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB8	-	4_Urban Restricted															
	East of North Augusta Rd	EB	100	100	70.2%	26.6%	3.2%	1	1	EB9	EB6	4_Urban Restricted															
	West of North Augusta Rd	WB	100	100	65.9%	27.0%	7.1%	2	2	WB2	WB2	4_Urban Restricted		18,651	1,548		22,958	1,906		22,958	1,906		28,262	2,346		28,262	2,346
	West of North Augusta Rd	WB	100	100	65.9%	27.0%	7.1%	2	2	WB3	WB3	4_Urban Restricted															
	West of North Augusta Rd	WB	100	100	65.9%	27.0%	7.1%	2	2	WB4	WB4	4_Urban Restricted															
	East of North Augusta Rd	WB	100	100	65.9%	27.0%	7.1%	2	2	WB1	WB1	4_Urban Restricted															
Stewart Blvd Bridge	North of Hwy 401	NB/SB	25	25	68.1%	26.7%	5.2%	3	3	IC3	IC3	5_Urban Unrestricted	21,830	10,915	1,856	24,114	12,057	2,050	24,114	12,057	2,050	26,637	13,319	2,264	26,637	13,319	2,264
	South of Hwy 401	NB/SB	25	25	68.1%	26.7%	5.2%	3	3	IC2	IC2	5_Urban Unrestricted		10,915			12,057			12,057			13,319			13,319	
	South of Hwy 401	NB/SB	25	25	68.1%	26.7%	5.2%	3	3	IC1	IC1	5_Urban Unrestricted															
Stewart Blvd Ramps	Exit Ramps	EB to NB/SB	20	15	70.2%	26.6%	3.2%	4	4	R1	R1	5_Urban Unrestricted	1,984	1,984	169	2,192	2,192	186	2,192	2,192	186	2,421	2,421	206	2,421	2,421	206
			-	15	70.2%	26.6%	3.2%	-	4	-	R2	5_Urban Unrestricted	-	-	-	-	-	-		2,192	186		2,421	206		2,421	206
			-	15	70.2%	26.6%	3.2%	-	4	-	R3	5_Urban Unrestricted	-	-	-	-	-	-		2,192	186		2,421	206		2,421	206
		WB to NB/SB	15	15	65.9%	27.0%	7.1%	5	5	R9	R19	5_Urban Unrestricted	2,428	2,428	202	2,682	2,682	223	2,682	2,682	223	2,962	2,962	246	2,962	2,962	246
			-	15	65.9%	27.0%	7.1%	-	5	-	R20	5_Urban Unrestricted	-	-	-	-	-	-		2,682	223		2,962	246		2,962	246
			-	15	65.9%	27.0%	7.1%	-	5	-	R21	5_Urban Unrestricted	-	-	-	-	-	-		2,682	223		2,962	246		2,962	246
	On Ramps	NB to EB	40	-	70.2%	26.6%	3.2%	9	-	R3	-	5_Urban Unrestricted	887	887	75	980	980	83	-	-	-	-	-	-	-	-	-
		SB to EB	30	-	70.2%	26.6%	3.2%	6	-	R2	-	5_Urban Unrestricted	1,290	1,290	110	1,425	1,425	121	-	-	-	-	-	-	-	-	-
		NB/SB to EB	-	30	70.2%	26.6%	3.2%	-	6	-	R4	5_Urban Unrestricted	-	-	-	-	-	-	2,406	2,406	205	2,657	2657	226	2,657	2,657	226
			-	30	70.2%	26.6%	3.2%	-	6	-	R5	5_Urban Unrestricted	-	-	-	-	-	-		2,406	205		2657	226		2,657	226
			-	30	70.2%	26.6%	3.2%	-	6	-	R6	5_Urban Unrestricted	-	-	-	-	-	-		2,406	205		2657	226		2,657	226
		NB/SB to WB	-	30	65.9%	27.0%	7.1%	-	7	-	R22	5_Urban Unrestricted	-	-	-	-	-	-	1,651	1,651	137	1,824	1824	151	1,824	1,824	151
			-	30	65.9%	27.0%	7.1%	-	7	-	R23	5_Urban Unrestricted	-	-	-	-	-	-		1,651	137		1824	151		1,824	151
			-	30	65.9%	27.0%	7.1%	-	7	-	R24	5_Urban Unrestricted	-	-	-	-	-	-		1,651	137		1824	151		1,824	151
		SB to WB	40	-	65.9%	27.0%	7.1%	7	-	R11	-	5_Urban Unrestricted	1,020	1,020	85	-	-	-	-	-	-	-	-	-	-	-	-
		NB to WB	30	-	65.9%	27.0%	7.1%	10	-	R10	-	5_Urban Unrestricted	474	474	39	-	-	-	-	-	-	-	-	-	-	-	-
North Augusta Road Bridge	North of Hwy 401	NB/SB	25	25	68.1%	26.7%	5.2%	3	3	IC6	IC6	5_Urban Unrestricted	12,068	6,034	1,026	13,330	6,665	1,133	13,330	6,665	1,133	14,725	7,363	1,252	14,725	7,363	1,252
	South of Hwy 401	NB/SB	25	25	68.1%	26.7%	5.2%	3	3	IC5	IC5	5_Urban Unrestricted		6,034			6,665			6,665			7,363			7,363	
	South of Hwy 401	NB/SB	25	25	68.1%	26.7%	5.2%	3	3	IC4	IC4	5_Urban Unrestricted															
North Augusta Road Ramps	Exit Ramps	EB to NB/SB	20	15	70.2%	26.6%	3.2%	4	4	R4	R7	5_Urban Unrestricted	1,112	1,112	95	1,228	1,228	104	1,228	1,228	104	1,357	1,357	115	1,357	1,357	115
			-	15	70.2%	26.6%	3.2%	-	4	-	R8	5_Urban Unrestricted	-	-	-	-	-	-		1,228	104		1,357	115		1,357	115
			-	15	70.2%	26.6%	3.2%	-	4	-	R9	5_Urban Unrestricted	-	-	-	-	-	-		1,228	104		1,357	115		1,357	115
		WB to Parkdale	15	15	65.9%	27.0%	7.1%	5	5	R7	R13	5_Urban Unrestricted	1,999	1,999	166	2,209	2,209	183	2,209	2,209	183	2,240	2,240	186	2,240	2,240	186
			-	15	65.9%	27.0%	7.1%	-	5	-	R14	5_Urban Unrestricted	-	-	-	-	-	-		2,209	183		2,240	186		2,240	186
	On Ramps	NB to EB	50	-	70.2%	26.6%	3.2%	8	-	R6	-	5_Urban Unrestricted	1,071	1,071	91	1,183	1,183	101	-	-	-	-	-	-	-	-	-
		SB to EB	30	-	70.2%	26.6%	3.2%	9	-	R5	-	5_Urban Unrestricted	969	969	82	1,070	1,070	91	-	-	-	-	-	-	-	-	-
		NB/SB to EB	-	30	70.2%	26.6%	3.2%	-	6	-	R10	5_Urban Unrestricted	-	-	-	-	-	-	2,254	2,254	192	2,489	2,489	212	2,489	2,489	212
			-	30	70.2%	26.6%	3.2%	-	6	-	R11	5_Urban Unrestricted	-	-	-	-	-	-		2,254	192		2,489	212		2,489	212
			-	30	70.2%	26.6%	3.2%	-	6	-	R12	5_Urban Unrestricted	-	-	-	-	-	-		2,254	192		2,489	212		2,489	212
		Parkdale to WB	40	-	65.9%	27.0%	7.1%	7	-	R8	-	5_Urban Unrestricted	1,428	1,428	119	1,578	1,578	131	-	-	-	-	-	-	-	-	-
		SB to WB	-	30	65.9%	27.0%	7.1%	-	7	-	R17	5_Urban Unrestricted	-	-	-	-	-	-	1,010	1,010	84	1,115	1,115	93	1,115	1,115	93
			-	30	65.9%	27.0%	7.1%	-	7	-	R18	5_Urban Unrestricted	-	-	-	-	-	-		1,010	84		1,115	93		1,115	93
		NB to WB	-	30	65.9%	27.0%	7.1%	-	7	-	R15	5_Urban Unrestricted	-	-	-	-	-	-	568	568	47	627	627	52	627	627	52
			-	30	65.9%	27.0%	7.1%	-	7	-	R16	5_Urban Unrestricted	-	-	-	-	-	-		568	47		627	52		627	52

peak hour traffic volumes are used for modelling contaminants with 1-hour averaging periods the rest of the contaminants are modelled using daily traffic volumes

		Traffic Distribution	1.4%	1.1%	0.9%	0.8%	0.8%	1.2%	2.1%	3.3%	4.2%	5.3%	6.4%	7.0%	7.0%	6.9%	7.5%	7.7%	7.5%	6.7%	5.9%	4.8%	4.1%	3.3%	2.5%	1.9%
			Existing (2022) Scenario Hourly Traffic Volumes																							
Group Link ID	Link ID	2022 AADT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
EB1	1	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB1	2	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB1	3	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB1	4	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB2	5	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB2	6	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB2	7	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB2	8	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB2	9	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB2	10	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB3	11	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB3	12	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB3	13	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB3	14	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB3	15	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB3	16	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB3	17	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB4	18	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB4	19	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB4	20	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
EB4	21	17,910	252	190	154	143	140	216	371	584	747	955	1,150	1,252	1,245	1,233	1,337	1,374	1,338	1,203	1,050	863	727	598	447	342
R1	22	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	23	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	24	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	25	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	26	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	27	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	28	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	29	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	30	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R1	31	1,984	28	21	17	16	15	24	41	65	83	106	127	139	138	137	148	152	148	133	116	96	81	66	49	38
R2	32	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	33	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	34	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	35	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	36	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	37	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	38	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	39	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	40	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	41	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
R2	42	1,290	18	14	11	10	10	16	27	42	54	69	83	90	90	89	96	99	96	87	76	62	52	43	32	25
IC1	43	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
IC1	44	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
IC1	45	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
IC2	46	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
IC2	47	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
IC2	48	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
IC3	49	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
IC3	50	10,915	153	116	94	87	85	132	226	356	455	582	701	763	759	752	815	837	816	733	640	526	443	364	272	208
EB5	51	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB5	52	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB5	53	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB5	54	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB5	55	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB6	56	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB6	57	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB7	58	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB7	59	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB7	60	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB7	61	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB8	62	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB8	63	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB8	64	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB8	65	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
R3	66	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	67	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	68	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	69	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	70	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	71	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	72	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	73	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	74	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	75	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	76	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	77	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	78	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	79	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
R3	80	887	12	9	8	7	7	11	18	29	37	47	57	62	62	61	66	68	66	60	52	43	36	30	22	17
IC4	81	6,034	85	64	52	48	47	73	125	197	252	322	387	422	419	416	450	463	451	405	354	291	245	201	151	115
IC4	82	6,034	85	64	52	48	47	73	125	197	252	322	387	422	419	416	450	463	451	405	354	291	245	201	151	115
IC5	83	6,034	85	64	52	48	47	73	125	197	252	322	387	422	419	416	450	463	451	405	354	291	245	201	151	115
IC5	84	6,034	85	64	52	48	47	73	125	197	252	322	387	422	419	416	450	463	451	405	354	291	245	201	151	115
IC6	85	6,034	85	64	52	48	47	73	125	197	252	322	387	422	419	416	450	463	451	405	354	291	245	201	151	115
IC6	86	6,034	85	64	52	48	47	73	125	197	252	322	387	422	419	416	450	463	451	405	354	291	245	201	151	115
IC6	87	6,034	85	64	52	48	47	73	125	197	252	322	387	422	419	416	450	463	451	405	354	291	245	201	151	115
EB9	88	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB9	89	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB9	90	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB9	91	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
EB9	92	19,412	273	206	167	155	151	234	402	633	810	1,035	1,247	1,357	1,349	1,337	1,449	1,489	1,451	1,304	1,138	935	788	648	484	371
R4	93	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	94	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	95	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	96	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	97	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	98	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	99	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	100	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	101	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	102	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	103	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	104	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R4	105	1,112	16	12	10	9	9	13	23	36	46	59	71	78	77	77	83	85	83	75	65	54	45	37	28	21
R5	106	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R5	107	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R5	108	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R5	109	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R5	110	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R5	111	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R5	112	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R5	113	969	14	10	8	8	8	12	20	32	40	52	62	68	67	67	72	74	72	65	57	47	39	32	24	18
R6	114	1,071	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R6	115	1,071	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R6	116	1,071	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R6	117	1,071	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R6	118	1,071	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R6	119	1,071	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R6	120	1,071	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
WB1	121	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB1	122	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB1	123	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB1	124	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB1	125	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
R7	126	1,999	28	21	17	16	16	24	41	65	83	107	128	140	139	138	149	153	149	134	117	96	81	67	50	38
R7	127	1,999	28	21	17	16	16	24	41	65	83	107	128	140	139	138	149	153	149	134	117	96	81	67	50	38
R7	128	1,999	28	21	17	16	16	24	41	65	83	107	128	140	139	138	149	153	149	134	117	96	81	67	50	38
R7	129	1,999	28	21	17	16	16	24	41	65	83	107	128	140	139	138	149	153	149	134	117	96	81	67	50	38
R7	130	1,999	28	21	17	16	16	24	41	65	83	107	128	140	139	138	149	153	149	134	117	96	81	67	50	38
R7	131	1,999	28	21	17	16	16	24	41	65	83	107	128	140	139	138	149	153	149	134	117	96	81	67	50	38
R8	132	1,428	20	15	12	11	11	17	30	47	60	76	92	100	99	98	107	110	107	96	84	69	58	48	36	27
R8	133	1,428	20	15	12	11	11	17	30	47	60	76	92	100	99	98	107	110	107	96	84	69	58	48	36	27
R8	134	1,428	20	15	12	11	11	17	30	47	60	76	92	100	99	98	107	110	107	96	84	69	58	48	36	27
R8	135	1,428	20	15	12	11	11	17	30	47	60	76	92	100	99	98	107	110	107	96	84	69	58	48	36	27
R8	136	1,428	20	15	12	11	11	17	30	47	60	76	92	100	99	98	107	110	107	96	84	69	58	48	36	27
R8	137	1,428	20	15	12	11	11	17	30	47	60	76	92	100	99	98	107	110	107	96	84	69	58	48	36	27
R8	138	1,428	20	15	12	11	11	17	30	47	60	76	92	100	99	98	107	110	107	96	84	69	58	48	36	27
WB2	139	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB2	140	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB2	141	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB3	142	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB3	143	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB4	144	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB4	145	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB4	146	18,651	262	198	160	148	145	225	387	608	778	994	1,198	1,304	1,296	1,284	1,392	1,430	1,394	1,253	1,094	898	757	623	465	356
WB5	147	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB5	148	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB5	149	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB5	150	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB5	151	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB6	152	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB6	153	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB6	154	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
WB6	155	17,207	242	183	148	137	134	208	357	561	718	917	1,105	1,203	1,196	1,185	1,284	1,320	1,286	1,156	1,009	829	698	574	429	328
R9	156	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	157	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	158	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	159	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	160	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	161	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	162	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	163	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R9	164	2,428	34	26	21	19	19	29	50	79	101	129	156	170	169	167	181	186	181	163	142	117	99	81	61	46
R10	165	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	166	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	167	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	168	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	169	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	170	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	171	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	172	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	173	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	174	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	175	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	176	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R10	177	474	7	5	4	4	4	6	10	15	20	25	30	33	33	33	35	36	35	32	28	23	19	16	12	9
R11	178	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	179	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	180	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	181	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	182	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	183	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	184	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	185	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	186	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19
R11	187	1,020	14	11	9	8	8	12	21	33	43	54	65	71	71	70	76	78	76	69	60	49	41	34	25	19

	Traffic Distribution	1.4%	1.1%	0.9%	0.8%	0.8%	1.2%	2.1%	3.3%	4.2%	5.3%	6.4%	7.0%	7.0%	6.9%	7.5%	7.7%	7.5%	6.7%	5.9%	4.8%	4.1%	3.3%	2.5%	1.9%

Future Interim No Build (2032) Scenario Hourly Traffic Volumes

Group Link ID	Link ID	2032 AADT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
EB1	1	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB1	2	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB1	3	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB1	4	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB2	5	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB2	6	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB2	7	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB2	8	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB2	9	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB2	10	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB3	11	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB3	12	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB3	13	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB3	14	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB3	15	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB3	16	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB3	17	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB4	18	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB4	19	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB4	20	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
EB4	21	22,047	310	234	190	176	172	266	457	718	919	1,176	1,416	1,541	1,532	1,518	1,645	1,691	1,648	1,481	1,293	1,062	895	736	550	421
R1	22	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	23	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	24	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	25	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	26	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	27	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	28	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	29	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	30	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	31	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R2	32	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	33	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	34	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	35	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	36	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	37	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	38	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	39	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	40	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	41	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
R2	42	1,425	20	15	12	11	11	17	30	46	59	76	92	100	99	98	106	109	106	96	84	69	58	48	36	27
IC1	43	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC1	44	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC1	45	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC2	46	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC2	47	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC2	48	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC3	49	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC3	50	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
EB5	51	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB5	52	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB5	53	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB5	54	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB5	55	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB6	56	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB6	57	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB7	58	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB7	59	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB7	60	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB7	61	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB8	62	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB8	63	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB8	64	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB8	65	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
R3	66	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	67	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	68	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	69	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	70	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	71	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	72	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	73	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	74	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	75	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	76	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	77	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	78	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	79	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
R3	80	980	14	10	8	8	8	12	20	32	41	52	63	69	68	67	73	75	73	66	57	47	40	33	24	19
IC4	81	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC4	82	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC5	83	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC5	84	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC6	85	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC6	86	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC6	87	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
EB9	88	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB9	89	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB9	90	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB9	91	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
EB9	92	23,896	336	254	206	190	186	289	495	779	997	1,274	1,534	1,671	1,661	1,646	1,783	1,833	1,786	1,605	1,401	1,151	970	798	596	456
R4	93	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	94	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	95	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	96	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	97	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	98	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	99	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	100	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	101	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	102	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	103	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	104	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R4	105	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R5	106	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R5	107	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R5	108	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R5	109	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R5	110	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R5	111	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R5	112	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R5	113	1,070	15	11	9	9	8	13	22	35	45	57	69	75	74	74	80	82	80	72	63	52	43	36	27	20
R6	114	1,183	17	13	10	9	9	14	25	39	49	63	76	83	82	81	88	91	88	79	69	57	48	39	30	23
R6	115	1,183	17	13	10	9	9	14	25	39	49	63	76	83	82	81	88	91	88	79	69	57	48	39	30	23
R6	116	1,183	17	13	10	9	9	14	25	39	49	63	76	83	82	81	88	91	88	79	69	57	48	39	30	23
R6	117	1,183	17	13	10	9	9	14	25	39	49	63	76	83	82	81	88	91	88	79	69	57	48	39	30	23
R6	118	1,183	17	13	10	9	9	14	25	39	49	63	76	83	82	81	88	91	88	79	69	57	48	39	30	23
R6	119	1,183	17	13	10	9	9	14	25	39	49	63	76	83	82	81	88	91	88	79	69	57	48	39	30	23
R6	120	1,183	17	13	10	9	9	14	25	39	49	63	76	83	82	81	88	91	88	79	69	57	48	39	30	23
WB1	121	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB1	122	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB1	123	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB1	124	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB1	125	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
R7	126	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R7	127	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R7	128	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R7	129	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R7	130	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R7	131	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R8	132	1,578	22	17	14	13	12	19	33	51	66	84	101	110	110	109	118	121	118	106	93	76	64	53	39	30
R8	133	1,578	22	17	14	13	12	19	33	51	66	84	101	110	110	109	118	121	118	106	93	76	64	53	39	30
R8	134	1,578	22	17	14	13	12	19	33	51	66	84	101	110	110	109	118	121	118	106	93	76	64	53	39	30
R8	135	1,578	22	17	14	13	12	19	33	51	66	84	101	110	110	109	118	121	118	106	93	76	64	53	39	30
R8	136	1,578	22	17	14	13	12	19	33	51	66	84	101	110	110	109	118	121	118	106	93	76	64	53	39	30
R8	137	1,578	22	17	14	13	12	19	33	51	66	84	101	110	110	109	118	121	118	106	93	76	64	53	39	30
R8	138	1,578	22	17	14	13	12	19	33	51	66	84	101	110	110	109	118	121	118	106	93	76	64	53	39	30
WB2	139	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB2	140	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB2	141	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB3	142	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB3	143	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB4	144	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB4	145	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB4	146	22,958	323	244	198	183	179	277	476	748	957	1,224	1,474	1,605	1,596	1,581	1,713	1,761	1,716	1,542	1,346	1,106	932	766	573	438
WB5	147	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB5	148	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB5	149	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB5	150	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB5	151	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB6	152	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB6	153	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB6	154	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
WB6	155	21,182	298	225	182	169	165	256	439	690	883	1,129	1,360	1,481	1,472	1,459	1,581	1,625	1,583	1,423	1,242	1,020	860	707	528	404
R9	156	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	157	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	158	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	159	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	160	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	161	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	162	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	163	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R9	164	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R10	165	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	166	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	167	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	168	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	169	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	170	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	171	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	172	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	173	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	174	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	175	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	176	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R10	177	524	7	6	5	4	4	6	11	17	22	28	34	37	36	36	39	40	39	35	31	25	21	17	13	10
R11	178	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	179	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	180	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	181	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	182	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	183	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	184	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	185	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	186	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22
R11	187	1,127	16	12	10	9	9	14	23	37	47	60	72	79	78	78	84	86	84	76	66	54	46	38	28	22

	Traffic Distribution	1.4%	1.1%	0.9%	0.8%	0.8%	1.2%	2.1%	3.3%	4.2%	5.3%	6.4%	7.0%	7.0%	6.9%	7.5%	7.7%	7.5%	6.7%	5.9%	4.8%	4.1%	3.3%	2.5%	1.9%

Future Interim Build (2032) Scenario Hourly Traffic Volumes

Group Link ID	Link ID	2032 AADT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
EB1	1	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
EB1	2	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
EB1	3	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
EB1	4	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
EB2	5	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
EB2	6	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
EB2	7	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
EB2	8	22,047	310	234	190	176	172	266	457	718	919	1176	1416	1541	1532	1518	1645	1691	1648	1481	1293	1062	895	736	550	421
IC1	9	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC1	10	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC2	11	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC3	12	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
IC3	13	12,057	170	128	104	96	94	146	250	393	503	643	774	843	838	830	900	925	901	810	707	581	489	402	301	230
R1	14	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	15	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	16	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	17	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	18	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R1	19	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R2	20	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R2	21	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R2	22	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R2	23	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R2	24	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R3	25	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
R3	26	2,192	31	23	19	17	17	26	45	71	91	117	141	153	152	151	164	168	164	147	129	106	89	73	55	42
EB3	27	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB3	28	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB3	29	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB3	30	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB3	31	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB4	32	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB4	33	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB4	34	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB5	35	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB5	36	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB5	37	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB5	38	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
R4	39	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R4	40	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R4	41	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R4	42	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R4	43	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R5	44	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R5	45	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R6	46	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R6	47	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R6	48	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R6	49	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
R6	50	2,406	34	26	21	19	19	29	50	78	100	128	154	168	167	166	180	185	180	162	141	116	98	80	60	46
IC4	51	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC4	52	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC4	53	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC5	54	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC5	55	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC6	56	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
IC6	57	6,665	94	71	57	53	52	80	138	217	278	355	428	466	463	459	497	511	498	448	391	321	270	222	166	127
R7	58	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R7	59	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R7	60	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R7	61	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R8	62	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R8	63	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R8	64	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R8	65	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R8	66	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R9	67	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
R9	68	1,228	17	13	11	10	10	15	25	40	51	65	79	86	85	85	92	94	92	83	72	59	50	41	31	23
EB6	69	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB6	70	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
EB6	71	23,896	336	254	206	190	186	289	495	779	997	1274	1534	1671	1661	1646	1783	1833	1786	1605	1401	1151	970	798	596	456
R10	72	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R10	73	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R10	74	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R11	75	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R11	76	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R11	77	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R11	78	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R12	79	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R12	80	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
R12	81	2,254	32	24	19	18	18	27	47	73	94	120	145	158	157	155	168	173	168	151	132	109	91	75	56	43
WB1	82	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB1	83	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB1	84	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
R13	85	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R13	86	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R13	87	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R13	88	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R13	89	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R13	90	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R14	91	2,209	31	23	19	18	17	27	46	72	92	118	142	154	154	152	165	169	165	148	130	106	90	74	55	42
R15	92	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
R15	93	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
R15	94	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
R15	95	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
R16	96	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
R16	97	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
R16	98	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
R16	99	568	8	6	5	5	4	7	12	19	24	30	36	40	39	39	42	44	42	38	33	27	23	19	14	11
WB2	100	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB2	101	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB2	102	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB3	103	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB3	104	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB3	105	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB4	106	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB4	107	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB4	108	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB4	109	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB4	110	22,958	323	244	198	183	179	277	476	748	957	1224	1474	1605	1596	1581	1713	1761	1716	1542	1346	1106	932	766	573	438
WB5	111	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
WB5	112	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
WB5	113	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
WB5	114	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
WB6	115	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
WB6	116	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
WB6	117	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
WB6	118	21,182	298	225	182	169	165	256	439	690	883	1129	1360	1481	1472	1459	1581	1625	1583	1423	1242	1020	860	707	528	404
R17	119	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R17	120	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R18	121	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R18	122	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R18	123	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R18	124	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R18	125	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R18	126	1,010	14	11	9	8	8	12	21	33	42	54	65	71	70	70	75	77	75	68	59	49	41	34	25	19
R19	127	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R19	128	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R19	129	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R20	130	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R20	131	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R20	132	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R20	133	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R20	134	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R20	135	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R21	136	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R21	137	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R21	138	2,682	38	28	23	21	21	32	56	87	112	143	172	187	186	185	200	206	200	180	157	129	109	90	67	51
R22	139	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R22	140	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R23	141	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R23	142	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R23	143	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R24	144	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R24	145	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R24	146	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R24	147	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32
R24	148	1,651	23	18	14	13	13	20	34	54	69	88	106	115	115	114	123	127	123	111	97	80	67	55	41	32

		Traffic Distribution	1.4%	1.1%	0.9%	0.8%	0.8%	1.2%	2.1%	3.3%	4.2%	5.3%	6.4%	7.0%	7.0%	6.9%	7.5%	7.7%	7.5%	6.7%	5.9%	4.8%	4.1%	3.3%	2.5%	1.9%
			Future Ultimate No Build (2042) Scenario Hourly Traffic Volumes																							
Group Link ID	Link ID	2042 AADT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
EB1	1	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB1	2	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB1	3	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB1	4	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	5	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	6	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	7	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	8	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
IC1	9	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC1	10	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC2	11	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC3	12	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC3	13	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
R1	14	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	15	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	16	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	17	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	18	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	19	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	20	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	21	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	22	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	23	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	24	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R3	25	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R3	26	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
EB3	27	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	28	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	29	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	30	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	31	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB4	32	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB4	33	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB4	34	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	35	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	36	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	37	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	38	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
R4	39	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	40	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	41	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	42	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	43	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R5	44	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R5	45	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	46	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	47	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	48	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	49	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	50	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
IC4	51	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC4	52	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC4	53	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC5	54	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC5	55	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC6	56	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC6	57	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
R7	58	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R7	59	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R7	60	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R7	61	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	62	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	63	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	64	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	65	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	66	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R9	67	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R9	68	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
EB6	69	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB6	70	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB6	71	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
R10	72	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R10	73	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R10	74	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	75	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	76	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	77	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	78	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R12	79	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R12	80	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R12	81	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
WB1	82	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB1	83	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB1	84	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
R13	85	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	86	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	87	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	88	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	89	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	90	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R14	91	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R15	92	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R15	93	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R15	94	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R15	95	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	96	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	97	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	98	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	99	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
WB2	100	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB2	101	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB2	102	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB3	103	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB3	104	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB3	105	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	106	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	107	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	108	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	109	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	110	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB5	111	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB5	112	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB5	113	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB5	114	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	115	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	116	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	117	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	118	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
R17	119	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R17	120	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	121	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	122	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	123	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	124	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	125	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	126	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R19	127	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R19	128	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R19	129	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	130	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	131	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	132	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	133	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	134	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	135	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R21	136	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R21	137	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R21	138	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R22	139	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R22	140	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R23	141	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R23	142	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R23	143	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	144	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	145	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	146	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	147	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	148	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35

		Traffic Distribution	1.4%	1.1%	0.9%	0.8%	0.8%	1.2%	2.1%	3.3%	4.2%	5.3%	6.4%	7.0%	7.0%	6.9%	7.5%	7.7%	7.5%	6.7%	5.9%	4.8%	4.1%	3.3%	2.5%	1.9%
			Future Ultimate Build (2042) Scenario Hourly Traffic Volumes																							
Group Link ID	Link ID	2042 AADT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
EB1	1	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB1	2	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB1	3	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB1	4	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	5	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	6	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	7	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
EB2	8	27,140	382	288	234	216	211	328	563	884	1,132	1,447	1,743	1,897	1,886	1,869	2,026	2,082	2,028	1,823	1,592	1,307	1,101	906	677	518
IC1	9	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC1	10	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC2	11	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC3	12	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
IC3	13	13,319	187	141	115	106	104	161	276	434	555	710	855	931	926	917	994	1,022	995	895	781	642	541	445	332	254
R1	14	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	15	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	16	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	17	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	18	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R1	19	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	20	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	21	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	22	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	23	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R2	24	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R3	25	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
R3	26	2,421	34	26	21	19	19	29	50	79	101	129	155	169	168	167	181	186	181	163	142	117	98	81	60	46
EB3	27	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	28	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	29	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	30	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB3	31	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB4	32	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB4	33	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB4	34	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	35	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	36	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	37	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB5	38	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
R4	39	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	40	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	41	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	42	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R4	43	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R5	44	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R5	45	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	46	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	47	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	48	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	49	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
R6	50	2,657	37	28	23	21	21	32	55	87	111	142	171	186	185	183	198	204	199	179	156	128	108	89	66	51
IC4	51	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC4	52	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC4	53	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC5	54	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC5	55	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC6	56	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
IC6	57	7,363	104	78	63	59	57	89	153	240	307	393	473	515	512	507	550	565	550	495	432	355	299	246	184	141
R7	58	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R7	59	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R7	60	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R7	61	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	62	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	63	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	64	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	65	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R8	66	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R9	67	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
R9	68	1,357	19	14	12	11	11	16	28	44	57	72	87	95	94	93	101	104	101	91	80	65	55	45	34	26
EB6	69	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB6	70	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
EB6	71	29,416	414	312	253	234	229	355	610	959	1,227	1,568	1,889	2,056	2,045	2,026	2,195	2,256	2,198	1,976	1,725	1,417	1,194	982	734	562
R10	72	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R10	73	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R10	74	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	75	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	76	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	77	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R11	78	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R12	79	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R12	80	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
R12	81	2,489	35	26	21	20	19	30	52	81	104	133	160	174	173	171	186	191	186	167	146	120	101	83	62	48
WB1	82	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB1	83	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB1	84	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
R13	85	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	86	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	87	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	88	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	89	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R13	90	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R14	91	2,240	31	24	19	18	17	27	46	73	93	119	144	157	156	154	167	172	167	150	131	108	91	75	56	43
R15	92	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R15	93	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R15	94	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R15	95	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	96	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	97	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	98	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
R16	99	627	9	7	5	5	5	8	13	20	26	33	40	44	44	43	47	48	47	42	37	30	25	21	16	12
WB2	100	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB2	101	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB2	102	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB3	103	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB3	104	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB3	105	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	106	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	107	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	108	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	109	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB4	110	28,262	397	300	243	225	220	341	586	921	1,179	1,507	1,815	1,976	1,964	1,946	2,109	2,168	2,112	1,899	1,657	1,361	1,147	943	705	539
WB5	111	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB5	112	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB5	113	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB5	114	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	115	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	116	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	117	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
WB6	118	26,075	367	277	224	208	203	315	541	850	1,087	1,390	1,674	1,823	1,812	1,796	1,946	2,000	1,949	1,752	1,529	1,256	1,058	870	651	498
R17	119	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R17	120	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	121	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	122	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	123	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	124	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	125	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R18	126	1,115	16	12	10	9	9	13	23	36	47	59	72	78	78	77	83	86	83	75	65	54	45	37	28	21
R19	127	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R19	128	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R19	129	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	130	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	131	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	132	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	133	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	134	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R20	135	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R21	136	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R21	137	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R21	138	2,962	42	31	25	24	23	36	61	97	124	158	190	207	206	204	221	227	221	199	174	143	120	99	74	57
R22	139	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R22	140	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R23	141	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R23	142	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R23	143	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	144	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	145	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	146	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	147	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35
R24	148	1,824	26	19	16	15	14	22	38	59	76	97	117	128	127	126	136	140	136	123	107	88	74	61	46	35

Air Quality Assessment Report – Highway 401 Planning Study, Brockville, from 2 km West of Stewart Boulevard to 750 m East of North Augusta Road (GWP 4003-19-00)

March 28, 2023

Appendix E
Greenhouse Gas Emissions

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
1	442822	4937463	442889	4937505	79	0.05	17,910	320,784	616	197
2	442889	4937505	442941	4937539	61	0.04	17,910	249,402	616	154
3	442941	4937539	442998	4937575	68	0.04	17,910	275,292	616	169
4	442998	4937575	443059	4937616	73	0.05	17,910	298,368	616	184
5	443059	4937617	443139	4937667	95	0.06	17,910	384,945	616	237
6	443139	4937667	443225	4937722	102	0.06	17,910	415,787	616	256
7	443225	4937722	443299	4937772	89	0.06	17,910	362,770	616	223
8	443299	4937772	443378	4937821	93	0.06	17,910	376,526	616	232
9	443378	4937821	443444	4937867	81	0.05	17,910	327,689	616	202
10	443444	4937867	443503	4937905	70	0.04	17,910	283,588	616	175
11	443502	4937906	443584	4937961	98	0.06	17,910	399,282	616	246
12	443584	4937961	443637	4938001	66	0.04	17,910	269,607	616	166
13	443637	4938001	443690	4938041	67	0.04	17,910	271,588	616	167
14	443690	4938041	443756	4938099	88	0.05	17,910	355,435	616	219
15	443756	4938099	443819	4938159	87	0.05	17,910	352,635	616	217
16	443819	4938159	443903	4938242	118	0.07	17,910	479,211	616	295
17	443903	4938242	443973	4938311	99	0.06	17,910	400,353	616	246
18	443972	4938311	444085	4938426	160	0.10	17,910	651,355	616	401
19	444085	4938426	444179	4938521	134	0.08	17,910	544,970	616	336
20	444179	4938521	444268	4938612	127	0.08	17,910	516,305	616	318
21	444268	4938612	444351	4938695	118	0.07	17,910	477,686	616	294
22	444045	4938386	444064	4938397	22	0.01	1,984	10,054	1042	10
23	444064	4938397	444111	4938439	63	0.04	1,984	28,345	1042	30
24	444111	4938439	444144	4938465	42	0.03	1,984	18,944	1042	20
25	444144	4938465	444175	4938479	33	0.02	1,984	15,010	1042	16
26	444175	4938479	444223	4938486	49	0.03	1,984	21,873	1042	23
27	444223	4938486	444261	4938492	38	0.02	1,984	17,263	1042	18
28	444261	4938492	444279	4938501	20	0.01	1,984	9,199	1042	10
29	444279	4938501	444298	4938523	29	0.02	1,984	12,946	1042	13
30	444298	4938523	444348	4938590	84	0.05	1,984	37,836	1042	39
31	444348	4938590	444404	4938666	95	0.06	1,984	42,628	1042	44
32	444399	4938672	444359	4938620	65	0.04	1,290	19,044	900	17
33	444359	4938620	444292	4938531	111	0.07	1,290	32,581	900	29
34	444292	4938531	444273	4938512	27	0.02	1,290	7,934	900	7
35	444273	4938512	444257	4938503	18	0.01	1,290	5,325	900	5
36	444257	4938503	444234	4938503	23	0.01	1,290	6,808	900	6
37	444234	4938503	444218	4938524	26	0.02	1,290	7,663	900	7
38	444218	4938524	444222	4938547	23	0.01	1,290	6,837	900	6
39	444222	4938547	444240	4938572	31	0.02	1,290	9,173	900	8
40	444240	4938572	444268	4938602	41	0.03	1,290	11,957	900	11
41	444268	4938602	444301	4938635	46	0.03	1,290	13,593	900	12
42	444301	4938635	444313	4938657	25	0.02	1,290	7,403	900	7
43	445027	4938350	444593	4938576	489	0.30	10,915	1,210,229	996	1,206
44	444593	4938576	444522	4938610	79	0.05	10,915	195,934	996	195
45	444522	4938610	444438	4938651	93	0.06	10,915	229,992	996	229
46	444438	4938651	444370	4938686	77	0.05	10,915	190,033	996	189
47	444370	4938686	444332	4938704	42	0.03	10,915	103,904	996	104
48	444332	4938704	444266	4938736	73	0.05	10,915	180,623	996	180
49	444267	4938736	443973	4938875	325	0.20	10,915	804,769	996	802
50	443973	4938875	443602	4939059	414	0.26	10,915	1,024,270	996	1,020
51	444351	4938695	444433	4938777	116	0.07	19,412	509,615	616	314
52	444433	4938777	444519	4938863	121	0.08	19,412	534,499	616	329
53	444519	4938863	444584	4938930	93	0.06	19,412	409,754	616	252
54	444584	4938930	444649	4938996	94	0.06	19,412	412,323	616	254
55	444649	4938996	444719	4939064	97	0.06	19,412	428,737	616	264
56	444719	4939064	444812	4939158	132	0.08	19,412	579,759	616	357
57	444812	4939158	444948	4939297	195	0.12	19,412	856,584	616	527
58	444948	4939297	445029	4939379	116	0.07	19,412	509,922	616	314
59	445029	4939379	445122	4939474	133	0.08	19,412	585,651	616	361
60	445122	4939474	445198	4939551	107	0.07	19,412	473,201	616	291
61	445198	4939551	445221	4939573	32	0.02	19,412	138,913	616	86
62	445220	4939573	445354	4939705	188	0.12	19,412	826,652	616	509
63	445354	4939705	445476	4939827	172	0.11	19,412	758,602	616	467
64	445476	4939827	445549	4939901	104	0.06	19,412	459,774	616	283
65	445549	4939901	445630	4939986	118	0.07	19,412	517,680	616	319
66	444608	4938569	444582	4938592	35	0.02	887	6,968	799	6
67	444582	4938592	444543	4938616	45	0.03	887	9,063	799	7
68	444543	4938616	444506	4938642	46	0.03	887	9,203	799	7
69	444506	4938642	444488	4938667	31	0.02	887	6,161	799	5
70	444488	4938667	444474	4938697	34	0.02	887	6,796	799	5
71	444474	4938697	444469	4938729	32	0.02	887	6,461	799	5
72	444469	4938729	444471	4938754	25	0.02	887	4,971	799	4
73	444471	4938754	444482	4938785	33	0.02	887	6,731	799	5
74	444482	4938785	444494	4938809	26	0.02	887	5,299	799	4
75	444494	4938809	444523	4938845	47	0.03	887	9,379	799	7
76	444523	4938845	444548	4938873	38	0.02	887	7,550	799	6
77	444548	4938873	444591	4938924	67	0.04	887	13,384	799	11
78	444591	4938924	444637	4938973	67	0.04	887	13,497	799	11
79	444637	4938973	444674	4939011	53	0.03	887	10,687	799	9
80	444674	4939011	444684	4939030	21	0.01	887	4,183	799	3
81	445786	4939549	445725	4939731	192	0.12	6,034	262,724	996	262
82	445725	4939731	445650	4939934	217	0.13	6,034	296,526	996	295
83	445650	4939936	445628	4939993	62	0.04	6,034	84,567	996	84
84	445628	4939993	445610	4940047	56	0.04	6,034	77,296	996	77
85	445610	4940047	445587	4940115	72	0.04	6,034	98,960	996	99
86	445587	4940115	445570	4940156	44	0.03	6,034	59,825	996	60
87	445570	4940156	445543	4940193	46	0.03	6,034	62,998	996	63
88	445630	4939986	445805	4940156	244	0.15	19,412	1,073,925	616	661
89	445805	4940156	445943	4940297	197	0.12	19,412	868,423	616	535
90	445943	4940297	446163	4940521	314	0.20	19,412	1,381,973	616	851
91	446163	4940521	446373	4940713	284	0.18	19,412	1,251,950	616	771
92	446373	4940713	446758	4941033	500	0.31	19,412	2,202,598	616	1,356
93	445389	4939740	445418	4939762	36	0.02	1,112	9,124	1042	10
94	445418	4939762	445457	4939799	54	0.03	1,112	13,544	1042	14
95	445457	4939799	445524	4939858	89	0.06	1,112	22,425	1042	23
96	445524	4939858	445543	4939873	24	0.02	1,112	6,119	1042	6
97	445543	4939873	445562	4939879	20	0.01	1,112	5,037	1042	5
98	445562	4939879	445582	4939880	20	0.01	1,112	5,109	1042	5
99	445582	4939880	445601	4939869	21	0.01	1,112	5,335	1042	6

MTO Brockville EA - Greenhouse Gas Emissions Existing (2022) Scenario

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
100	445601	4939869	445625	4939837	41	0.03	1,112	10,283	1042	11
101	445625	4939837	445645	4939802	40	0.02	1,112	10,132	1042	11
102	445645	4939802	445681	4939740	71	0.04	1,112	18,003	1042	19
103	445681	4939740	445692	4939730	15	0.01	1,112	3,850	1042	4
104	445692	4939730	445705	4939730	13	0.01	1,112	3,296	1042	3
105	445705	4939730	445719	4939733	14	0.01	1,112	3,534	1042	4
106	445691	4939818	445689	4939798	20	0.01	969	4,391	900	4
107	445689	4939798	445680	4939786	15	0.01	969	3,342	900	3
108	445680	4939786	445661	4939790	20	0.01	969	4,314	900	4
109	445661	4939790	445597	4939896	124	0.08	969	27,213	900	24
110	445597	4939896	445596	4939923	27	0.02	969	5,900	900	5
111	445596	4939923	445607	4939950	29	0.02	969	6,299	900	6
112	445607	4939950	445622	4939968	24	0.01	969	5,236	900	5
113	445622	4939968	445626	4939982	14	0.01	969	3,167	900	3
114	445707	4939772	445709	4939828	56	0.03	1,071	13,523	756	10
115	445709	4939828	445706	4939994	166	0.10	1,071	40,287	756	30
116	445706	4939994	445714	4940025	33	0.02	1,071	7,940	756	6
117	445714	4940025	445742	4940059	44	0.03	1,071	10,672	756	8
118	445742	4940059	445798	4940125	86	0.05	1,071	20,980	756	16
119	445798	4940125	445888	4940227	136	0.08	1,071	33,106	756	25
120	445888	4940227	445911	4940264	43	0.03	1,071	10,551	756	8
121	446751	4941048	446363	4940725	505	0.31	18,651	2,135,571	645	1,377
122	446363	4940725	446152	4940534	284	0.18	18,651	1,203,128	645	776
123	446152	4940534	445941	4940321	300	0.19	18,651	1,269,050	645	819
124	445941	4940321	445757	4940134	262	0.16	18,651	1,108,915	645	715
125	445757	4940134	445623	4940009	183	0.11	18,651	774,556	645	500
126	445948	4940327	445912	4940299	45	0.03	1,999	20,541	1251	26
127	445912	4940299	445823	4940219	120	0.07	1,999	54,298	1251	68
128	445823	4940219	445795	4940200	33	0.02	1,999	15,132	1251	19
129	445795	4940200	445759	4940194	37	0.02	1,999	16,791	1251	21
130	445759	4940194	445729	4940204	31	0.02	1,999	14,268	1251	18
131	445729	4940204	445645	4940291	121	0.08	1,999	54,826	1251	69
132	445637	4940284	445697	4940217	90	0.06	1,428	29,184	839	24
133	445697	4940217	445718	4940175	47	0.03	1,428	15,069	839	13
134	445718	4940175	445721	4940144	31	0.02	1,428	10,010	839	8
135	445721	4940144	445714	4940117	28	0.02	1,428	9,167	839	8
136	445714	4940117	445698	4940092	29	0.02	1,428	9,514	839	8
137	445698	4940092	445664	4940050	55	0.03	1,428	17,695	839	15
138	445664	4940050	445654	4940038	15	0.01	1,428	4,778	839	4
139	445622	4940011	445507	4939885	171	0.11	18,651	721,470	645	465
140	445507	4939885	445366	4939742	201	0.12	18,651	848,636	645	547
141	445366	4939742	445215	4939587	217	0.13	18,651	916,130	645	591
142	445215	4939587	445072	4939442	203	0.13	18,651	859,842	645	555
143	445072	4939442	444939	4939306	191	0.12	18,651	807,515	645	521
144	444939	4939307	444717	4939084	314	0.20	18,651	1,327,573	645	856
145	444717	4939084	444527	4938889	272	0.17	18,651	1,151,188	645	742
146	444527	4938889	444338	4938702	266	0.17	18,651	1,126,564	645	727
147	444337	4938703	444105	4938463	333	0.21	17,207	1,300,664	645	839
148	444105	4938463	443892	4938251	301	0.19	17,207	1,174,773	645	758
149	443892	4938251	443767	4938128	176	0.11	17,207	684,991	645	442
150	443767	4938128	443691	4938062	100	0.06	17,207	391,221	645	252
151	443691	4938062	443549	4937957	177	0.11	17,207	690,567	645	445
152	443548	4937958	443383	4937845	200	0.12	17,207	779,531	645	503
153	443383	4937845	443090	4937656	350	0.22	17,207	1,364,224	645	880
154	443090	4937656	442900	4937531	227	0.14	17,207	886,016	645	571
155	442900	4937531	442813	4937476	103	0.06	17,207	402,840	645	260
156	444610	4938975	444581	4938954	37	0.02	2,428	20,102	1251	25
157	444581	4938954	444498	4938879	112	0.07	2,428	61,516	1251	77
158	444498	4938879	444471	4938864	31	0.02	2,428	17,050	1251	21
159	444471	4938864	444444	4938862	27	0.02	2,428	14,619	1251	18
160	444444	4938862	444400	4938871	45	0.03	2,428	24,797	1251	31
161	444400	4938871	444367	4938870	33	0.02	2,428	18,366	1251	23
162	444367	4938870	444341	4938857	30	0.02	2,428	16,305	1251	20
163	444341	4938857	444273	4938798	89	0.06	2,428	49,187	1251	62
164	444273	4938798	444240	4938749	59	0.04	2,428	32,639	1251	41
165	444312	4938714	444292	4938736	30	0.02	474	3,202	945	3
166	444292	4938736	444274	4938755	26	0.02	474	2,750	945	3
167	444274	4938755	444272	4938770	15	0.01	474	1,650	945	2
168	444272	4938770	444280	4938789	21	0.01	474	2,274	945	2
169	444280	4938789	444353	4938854	98	0.06	474	10,492	945	10
170	444353	4938854	444372	4938864	22	0.01	474	2,319	945	2
171	444372	4938864	444390	4938864	18	0.01	474	1,931	945	2
172	444390	4938864	444406	4938859	17	0.01	474	1,823	945	2
173	444406	4938859	444420	4938843	21	0.01	474	2,309	945	2
174	444420	4938843	444425	4938825	18	0.01	474	1,955	945	2
175	444425	4938825	444421	4938802	24	0.01	474	2,580	945	2
176	444421	4938802	444371	4938744	76	0.05	474	8,152	945	8
177	444371	4938744	444353	4938718	32	0.02	474	3,473	945	3
178	444168	4938782	444192	4938758	34	0.02	1,020	7,901	839	7
179	444192	4938758	444232	4938735	46	0.03	1,020	10,567	839	9
180	444232	4938735	444246	4938720	21	0.01	1,020	4,763	839	4
181	444246	4938720	444253	4938697	24	0.02	1,020	5,666	839	5
182	444253	4938697	444252	4938679	18	0.01	1,020	4,203	839	4
183	444252	4938679	444235	4938649	34	0.02	1,020	7,940	839	7
184	444235	4938649	444172	4938567	104	0.06	1,020	23,994	839	20
185	444172	4938567	444065	4938439	166	0.10	1,020	38,435	839	32
186	444065	4938439	443990	4938360	109	0.07	1,020	25,285	839	21
187	443990	4938360	443962	4938321	48	0.03	1,020	11,091	839	9
Total	-	-	-	-	-	-	-	-	-	34,529

Notes:

(1) Link ID and coordinates selected based on available road traffic data within study area.

(2) Calculated based on each link's starting and ending coordinates. Sample calculation:Length (m) = SQRT((Y $_2$-Y$_1$)^2+(X$_2$-X$_1$)^2)

(3) 2022 Existing AADT provided by CIMA+.

(4) Annual Vehicle miles travelled in one year (VMT/year) = AADT x Link Length (mil) x 365 day/year

(5) MOVES emission factor assigned to each link.

(6) Annual CO_2 Equivalent Emissions (kg CO_{2e}/ year) = Annual miles travelled per year (VMT/year) x Weighted CO_2 Emission Factor (g/VMT) / 1000 g / kg / 1000 kg/tonne

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Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
1	442822	4937463	442889	4937505	79	0.05	22,047	394,882	521	206
2	442889	4937505	442941	4937539	61	0.04	22,047	307,011	521	160
3	442941	4937539	442998	4937575	68	0.04	22,047	338,881	521	176
4	442998	4937575	443059	4937616	73	0.05	22,047	367,287	521	191
5	443059	4937617	443139	4937667	95	0.06	22,047	473,863	521	247
6	443139	4937667	443225	4937722	102	0.06	22,047	511,829	521	266
7	443225	4937722	443299	4937772	89	0.06	22,047	446,566	521	232
8	443299	4937772	443378	4937821	93	0.06	22,047	463,499	521	241
9	443378	4937821	443444	4937867	81	0.05	22,047	403,382	521	210
10	443444	4937867	443503	4937905	70	0.04	22,047	349,094	521	182
11	443502	4937906	443584	4937961	98	0.06	22,047	491,512	521	256
12	443584	4937961	443637	4938001	66	0.04	22,047	331,883	521	173
13	443637	4938001	443690	4938041	67	0.04	22,047	334,321	521	174
14	443690	4938041	443756	4938099	88	0.05	22,047	437,536	521	228
15	443756	4938099	443819	4938159	87	0.05	22,047	434,089	521	226
16	443819	4938159	443903	4938242	118	0.07	22,047	589,903	521	307
17	443903	4938242	443973	4938311	99	0.06	22,047	492,830	521	257
18	443972	4938311	444085	4938426	160	0.10	22,047	801,810	521	417
19	444085	4938426	444179	4938521	134	0.08	22,047	670,852	521	349
20	444179	4938521	444268	4938612	127	0.08	22,047	635,565	521	331
21	444268	4938612	444351	4938695	118	0.07	22,047	588,026	521	306
22	444045	4938386	444064	4938397	22	0.01	2,192	11,109	875	10
23	444064	4938397	444111	4938439	63	0.04	2,192	31,317	875	27
24	444111	4938439	444144	4938465	42	0.03	2,192	20,930	875	18
25	444144	4938465	444175	4938479	33	0.02	2,192	16,583	875	15
26	444175	4938479	444223	4938486	49	0.03	2,192	24,166	875	21
27	444223	4938486	444261	4938492	38	0.02	2,192	19,073	875	17
28	444261	4938492	444279	4938501	20	0.01	2,192	10,163	875	9
29	444279	4938501	444298	4938523	29	0.02	2,192	14,303	875	13
30	444298	4938523	444348	4938590	84	0.05	2,192	41,802	875	37
31	444348	4938590	444404	4938666	95	0.06	2,192	47,097	875	41
32	444399	4938672	444359	4938620	65	0.04	1,425	21,037	759	16
33	444359	4938620	444292	4938531	111	0.07	1,425	35,990	759	27
34	444292	4938531	444273	4938512	27	0.02	1,425	8,764	759	7
35	444273	4938512	444257	4938503	18	0.01	1,425	5,882	759	4
36	444257	4938503	444234	4938503	23	0.01	1,425	7,520	759	6
37	444234	4938503	444218	4938524	26	0.02	1,425	8,465	759	6
38	444218	4938524	444222	4938547	23	0.01	1,425	7,553	759	6
39	444222	4938547	444240	4938572	31	0.02	1,425	10,133	759	8
40	444240	4938572	444268	4938602	41	0.03	1,425	13,208	759	10
41	444268	4938602	444301	4938635	46	0.03	1,425	15,016	759	11
42	444301	4938635	444313	4938657	25	0.02	1,425	8,178	759	6
43	445027	4938350	444593	4938576	489	0.30	12,057	1,336,851	838	1,120
44	444593	4938576	444522	4938610	79	0.05	12,057	216,434	838	181
45	444522	4938610	444438	4938651	93	0.06	12,057	254,056	838	213
46	444438	4938651	444370	4938686	77	0.05	12,057	209,915	838	176
47	444370	4938686	444332	4938704	42	0.03	12,057	114,776	838	96
48	444332	4938704	444266	4938736	73	0.05	12,057	199,521	838	167
49	444267	4938736	443973	4938875	325	0.20	12,057	888,969	838	745
50	443973	4938875	443602	4939059	414	0.26	12,057	1,131,436	838	948
51	444351	4938695	444433	4938777	116	0.07	23,896	627,332	521	327
52	444433	4938777	444519	4938863	121	0.08	23,896	657,963	521	343
53	444519	4938863	444584	4938930	93	0.06	23,896	504,404	521	263
54	444584	4938930	444649	4938996	94	0.06	23,896	507,566	521	264
55	444649	4938996	444719	4939064	97	0.06	23,896	527,771	521	275
56	444719	4939064	444812	4939158	132	0.08	23,896	713,679	521	372
57	444812	4939158	444948	4939297	195	0.12	23,896	1,054,447	521	549
58	444948	4939297	445029	4939379	116	0.07	23,896	627,710	521	327
59	445029	4939379	445122	4939474	133	0.08	23,896	720,931	521	375
60	445122	4939474	445198	4939551	107	0.07	23,896	582,506	521	303
61	445198	4939551	445221	4939573	32	0.02	23,896	171,000	521	89
62	445220	4939573	445354	4939705	188	0.12	23,896	1,017,602	521	530
63	445354	4939705	445476	4939827	172	0.11	23,896	933,833	521	486
64	445476	4939827	445549	4939901	104	0.06	23,896	565,978	521	295
65	445549	4939901	445630	4939986	118	0.07	23,896	637,259	521	332
66	444608	4938569	444582	4938592	35	0.02	980	7,698	676	5
67	444582	4938592	444543	4938616	45	0.03	980	10,014	676	7
68	444543	4938616	444506	4938642	46	0.03	980	10,168	676	7
69	444506	4938642	444488	4938667	31	0.02	980	6,807	676	5
70	444488	4938667	444474	4938697	34	0.02	980	7,509	676	5
71	444474	4938697	444469	4938729	32	0.02	980	7,139	676	5
72	444469	4938729	444471	4938754	25	0.02	980	5,493	676	4
73	444471	4938754	444482	4938785	33	0.02	980	7,437	676	5
74	444482	4938785	444494	4938809	26	0.02	980	5,855	676	4
75	444494	4938809	444523	4938845	47	0.03	980	10,363	676	7
76	444523	4938845	444548	4938873	38	0.02	980	8,341	676	6
77	444548	4938873	444591	4938924	67	0.04	980	14,788	676	10
78	444591	4938924	444637	4938973	67	0.04	980	14,912	676	10
79	444637	4938973	444674	4939011	53	0.03	980	11,807	676	8
80	444674	4939011	444684	4939030	21	0.01	980	4,621	676	3
81	445786	4939549	445725	4939731	192	0.12	6,665	290,198	838	243
82	445725	4939731	445650	4939934	217	0.13	6,665	327,535	838	274
83	445650	4939936	445628	4939993	62	0.04	6,665	93,410	838	78
84	445628	4939993	445610	4940047	56	0.04	6,665	85,379	838	72
85	445610	4940047	445587	4940115	72	0.04	6,665	109,309	838	92
86	445587	4940115	445570	4940156	44	0.03	6,665	66,081	838	55
87	445570	4940156	445543	4940193	46	0.03	6,665	69,586	838	58
88	445630	4939986	445805	4940156	244	0.15	23,896	1,321,992	521	688
89	445805	4940156	445943	4940297	197	0.12	23,896	1,069,021	521	556
90	445943	4940297	446163	4940521	314	0.20	23,896	1,701,197	521	886
91	446163	4940521	446373	4940713	284	0.18	23,896	1,541,140	521	802
92	446373	4940713	446758	4941033	500	0.31	23,896	2,711,379	521	1,411
93	445389	4939740	445418	4939762	36	0.02	1,228	10,076	875	9
94	445418	4939762	445457	4939799	54	0.03	1,228	14,957	875	13
95	445457	4939799	445524	4939858	89	0.06	1,228	24,764	875	22
96	445524	4939858	445543	4939873	24	0.02	1,228	6,758	875	6
97	445543	4939873	445562	4939879	20	0.01	1,228	5,563	875	5
98	445562	4939879	445582	4939880	20	0.01	1,228	5,642	875	5

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Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
99	445582	4939880	445601	4939869	21	0.01	1,228	5,892	875	5
100	445601	4939869	445625	4939837	41	0.03	1,228	11,356	875	10
101	445625	4939837	445645	4939802	40	0.02	1,228	11,189	875	10
102	445645	4939802	445681	4939740	71	0.04	1,228	19,881	875	17
103	445681	4939740	445692	4939730	15	0.01	1,228	4,252	875	4
104	445692	4939730	445705	4939730	13	0.01	1,228	3,640	875	3
105	445705	4939730	445719	4939733	14	0.01	1,228	3,902	875	3
106	445691	4939818	445689	4939798	20	0.01	1,070	4,848	759	4
107	445689	4939798	445680	4939786	15	0.01	1,070	3,691	759	3
108	445680	4939786	445661	4939790	20	0.01	1,070	4,764	759	4
109	445661	4939790	445597	4939896	124	0.08	1,070	30,050	759	23
110	445597	4939896	445596	4939923	27	0.02	1,070	6,515	759	5
111	445596	4939923	445607	4939950	29	0.02	1,070	6,956	759	5
112	445607	4939950	445622	4939968	24	0.01	1,070	5,781	759	4
113	445622	4939968	445626	4939982	14	0.01	1,070	3,497	759	3
114	445707	4939772	445709	4939828	56	0.03	1,183	14,937	641	10
115	445709	4939828	445706	4939994	166	0.10	1,183	44,500	641	29
116	445706	4939994	445714	4940025	33	0.02	1,183	8,771	641	6
117	445714	4940025	445742	4940059	44	0.03	1,183	11,788	641	8
118	445742	4940059	445798	4940125	86	0.05	1,183	23,174	641	15
119	445798	4940125	445888	4940227	136	0.08	1,183	36,568	641	23
120	445888	4940227	445911	4940264	43	0.03	1,183	11,655	641	7
121	446751	4941048	446363	4940725	505	0.31	22,958	2,628,730	547	1,437
122	446363	4940725	446152	4940534	284	0.18	22,958	1,480,961	547	810
123	446152	4940534	445941	4940321	300	0.19	22,958	1,562,106	547	854
124	445941	4940321	445757	4940134	262	0.16	22,958	1,364,992	547	746
125	445757	4940134	445623	4940009	183	0.11	22,958	953,421	547	521
126	445948	4940327	445912	4940299	45	0.03	2,209	22,699	1049	24
127	445912	4940299	445823	4940219	120	0.07	2,209	60,002	1049	63
128	445823	4940219	445795	4940200	33	0.02	2,209	16,721	1049	18
129	445795	4940200	445759	4940194	37	0.02	2,209	18,554	1049	19
130	445759	4940194	445729	4940204	31	0.02	2,209	15,766	1049	17
131	445729	4940204	445645	4940291	121	0.08	2,209	60,585	1049	64
132	445637	4940284	445697	4940217	90	0.06	1,578	32,249	711	23
133	445697	4940217	445718	4940175	47	0.03	1,578	16,652	711	12
134	445718	4940175	445721	4940144	31	0.02	1,578	11,061	711	8
135	445721	4940144	445714	4940117	28	0.02	1,578	10,130	711	7
136	445714	4940117	445698	4940092	29	0.02	1,578	10,514	711	7
137	445698	4940092	445664	4940050	55	0.03	1,578	19,554	711	14
138	445664	4940050	445654	4940038	15	0.01	1,578	5,280	711	4
139	445622	4940011	445507	4939885	171	0.11	22,958	888,076	547	486
140	445507	4939885	445366	4939742	201	0.12	22,958	1,044,608	547	571
141	445366	4939742	445215	4939587	217	0.13	22,958	1,127,688	547	617
142	445215	4939587	445072	4939442	203	0.13	22,958	1,058,402	547	579
143	445072	4939442	444939	4939306	191	0.12	22,958	993,991	547	543
144	444939	4939307	444717	4939084	314	0.20	22,958	1,634,144	547	893
145	444717	4939084	444527	4938889	272	0.17	22,958	1,417,027	547	775
146	444527	4938889	444338	4938702	266	0.17	22,958	1,386,717	547	758
147	444337	4938703	444105	4938463	333	0.21	21,182	1,601,132	547	875
148	444105	4938463	443892	4938251	301	0.19	21,182	1,446,158	547	791
149	443892	4938251	443767	4938128	176	0.11	21,182	843,231	547	461
150	443767	4938128	443691	4938062	100	0.06	21,182	481,597	547	263
151	443691	4938062	443549	4937957	177	0.11	21,182	850,095	547	465
152	443548	4937958	443383	4937845	200	0.12	21,182	959,611	547	525
153	443383	4937845	443090	4937656	350	0.22	21,182	1,679,374	547	918
154	443090	4937656	442900	4937531	227	0.14	21,182	1,090,696	547	596
155	442900	4937531	442813	4937476	103	0.06	21,182	495,901	547	271
156	444610	4938975	444581	4938954	37	0.02	2,682	22,205	1049	23
157	444581	4938954	444498	4938879	112	0.07	2,682	67,951	1049	71
158	444498	4938879	444471	4938864	31	0.02	2,682	18,834	1049	20
159	444471	4938864	444444	4938862	27	0.02	2,682	16,149	1049	17
160	444444	4938862	444400	4938871	45	0.03	2,682	27,391	1049	29
161	444400	4938871	444367	4938870	33	0.02	2,682	20,287	1049	21
162	444367	4938870	444341	4938857	30	0.02	2,682	18,010	1049	19
163	444341	4938857	444273	4938798	89	0.06	2,682	54,333	1049	57
164	444273	4938798	444240	4938749	59	0.04	2,682	36,054	1049	38
165	444312	4938714	444292	4938736	30	0.02	524	3,540	799	3
166	444292	4938736	444274	4938755	26	0.02	524	3,041	799	2
167	444274	4938755	444272	4938770	15	0.01	524	1,825	799	1
168	444272	4938770	444280	4938789	21	0.01	524	2,514	799	2
169	444280	4938789	444353	4938854	98	0.06	524	11,599	799	9
170	444353	4938854	444372	4938864	22	0.01	524	2,563	799	2
171	444372	4938864	444390	4938864	18	0.01	524	2,135	799	2
172	444390	4938864	444406	4938859	17	0.01	524	2,015	799	2
173	444406	4938859	444420	4938843	21	0.01	524	2,553	799	2
174	444420	4938843	444425	4938825	18	0.01	524	2,161	799	2
175	444425	4938825	444421	4938802	24	0.01	524	2,853	799	2
176	444421	4938802	444371	4938744	76	0.05	524	9,012	799	7
177	444371	4938744	444353	4938718	32	0.02	524	3,839	799	3
178	444168	4938782	444192	4938758	34	0.02	1,127	8,730	711	6
179	444192	4938758	444232	4938735	46	0.03	1,127	11,676	711	8
180	444232	4938735	444246	4938720	21	0.01	1,127	5,263	711	4
181	444246	4938720	444253	4938697	24	0.02	1,127	6,260	711	4
182	444253	4938697	444252	4938679	18	0.01	1,127	4,644	711	3
183	444252	4938679	444235	4938649	34	0.02	1,127	8,773	711	6
184	444235	4938649	444172	4938567	104	0.06	1,127	26,511	711	19
185	444172	4938567	444065	4938439	166	0.10	1,127	42,467	711	30
186	444065	4938439	443990	4938360	109	0.07	1,127	27,937	711	20
187	443990	4938360	443962	4938321	48	0.03	1,127	12,254	711	9
Total	-	-	-	-	-	-		-	-	35,266

Notes:

(1) Link ID and coordinates selected based on available road traffic data within study area.

(2) Calculated based on each link's starting and ending coordinates. Sample calculation:Length (m) = SQRT((Y $_2$-Y$_1$)^2+(X$_2$-X$_1$)^2)

(3) 2032 no build AADT provided by CIMA+.

(4) Annual Vehicle miles travelled in one year (VMT/year) = AADT x Link Length (mil) x 365 day/year

(5) MOVES emission factor assigned to each link.

(6) Annual CO_2 Equivalent Emissions (kg CO_{2e}/ year) = Annual miles travelled per year (VMT/year) x Weighted CO_2 Emission Factor (g/VMT) / 1000 g / kg / 1000 kg/tonne

MTO Brockville EA - Greenhouse Gas Emissions Future Interim Build (2032) Scenario

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
1	442826	4937465	443162	4937684	402	0.25	22,047	2,008,676	521	1,046
2	443162	4937684	443395	4937836	278	0.17	22,047	1,388,508	521	723
3	443395	4937836	443529	4937920	158	0.10	22,047	792,000	521	412
4	443529	4937920	443663	4938028	172	0.11	22,047	860,156	521	448
5	443663	4938028	443818	4938156	201	0.12	22,047	1,004,460	521	523
6	443818	4938156	443980	4938318	229	0.14	22,047	1,147,154	521	597
7	443980	4938318	444153	4938493	246	0.15	22,047	1,230,982	521	641
8	444153	4938493	444354	4938695	284	0.18	22,047	1,422,571	521	741
9	445028	4938349	444696	4938521	373	0.23	12,057	1,021,220	838	855
10	444696	4938521	444493	4938626	229	0.14	12,057	626,572	838	525
11	444493	4938627	444228	4938758	296	0.18	12,057	808,162	838	677
12	444229	4938758	444114	4938810	126	0.08	12,057	344,174	838	288
13	444114	4938810	443597	4939062	576	0.36	12,057	1,573,924	838	1,318
14	444054	4938392	444081	4938407	31	0.02	2,192	15,476	1000	15
15	444081	4938407	444132	4938454	69	0.04	2,192	34,478	1000	34
16	444132	4938454	444180	4938494	63	0.04	2,192	31,219	1000	31
17	444180	4938494	444230	4938531	62	0.04	2,192	30,652	1000	31
18	444230	4938531	444304	4938571	84	0.05	2,192	41,717	1000	42
19	444304	4938571	444332	4938587	32	0.02	2,192	16,006	1000	16
20	444332	4938587	444350	4938610	29	0.02	2,192	14,576	1000	15
21	444350	4938610	444359	4938642	33	0.02	2,192	16,173	1000	16
22	444359	4938642	444357	4938662	20	0.01	2,192	9,938	1000	10
23	444357	4938662	444352	4938681	20	0.01	2,192	10,150	1000	10
24	444352	4938681	444348	4938698	17	0.01	2,192	8,572	1000	9
25	444351	4938616	444364	4938632	21	0.01	2,192	10,319	1000	10
26	444364	4938632	444431	4938655	71	0.04	2,192	35,205	1000	35
27	444354	4938695	444493	4938835	198	0.12	23,896	1,073,647	521	559
28	444493	4938835	444669	4939011	249	0.15	23,896	1,346,842	521	701
29	444669	4939011	444774	4939118	150	0.09	23,896	812,247	521	423
30	444774	4939118	444881	4939226	152	0.09	23,896	825,367	521	430
31	444881	4939226	444949	4939296	97	0.06	23,896	527,134	521	274
32	444949	4939296	445034	4939381	121	0.07	23,896	653,281	521	340
33	445034	4939381	445154	4939504	171	0.11	23,896	927,048	521	483
34	445154	4939504	445242	4939594	126	0.08	23,896	684,194	521	356
35	445242	4939594	445378	4939726	190	0.12	23,896	1,030,799	521	537
36	445378	4939726	445481	4939831	146	0.09	23,896	792,352	521	412
37	445481	4939831	445593	4939941	157	0.10	23,896	851,960	521	444
38	445593	4939941	445651	4939999	82	0.05	23,896	443,619	521	231
39	444340	4938702	444388	4938703	48	0.03	2,406	26,320	759	20
40	444388	4938703	444424	4938705	36	0.02	2,406	19,727	759	15
41	444424	4938705	444458	4938722	38	0.02	2,406	20,782	759	16
42	444458	4938722	444469	4938736	18	0.01	2,406	9,959	759	8
43	444469	4938736	444483	4938772	38	0.02	2,406	20,671	759	16
44	444479	4938631	444457	4938707	79	0.05	2,406	42,999	759	33
45	444457	4938707	444467	4938734	28	0.02	2,406	15,344	759	12
46	444482	4938772	444519	4938833	71	0.04	2,406	38,745	759	29
47	444519	4938833	444584	4938905	98	0.06	2,406	53,381	759	41
48	444584	4938905	444623	4938948	58	0.04	2,406	31,630	759	24
49	444623	4938948	444708	4939038	124	0.08	2,406	67,507	759	51
50	444708	4939038	444711	4939053	15	0.01	2,406	8,206	759	6
51	445836	4939473	445762	4939608	154	0.10	6,665	233,346	838	195
52	445762	4939608	445717	4939742	141	0.09	6,665	213,481	838	179
53	445717	4939742	445689	4939883	144	0.09	6,665	217,039	838	182
54	445689	4939883	445645	4940006	131	0.08	6,665	197,450	838	165
55	445645	4940006	445626	4940071	68	0.04	6,665	102,284	838	86
56	445626	4940071	445577	4940150	93	0.06	6,665	140,631	838	118
57	445577	4940150	445522	4940218	88	0.05	6,665	132,549	838	111
58	445311	4939661	445342	4939677	35	0.02	1,228	9,718	1000	10
59	445342	4939677	445400	4939732	79	0.05	1,228	22,050	1000	22
60	445400	4939732	445448	4939776	66	0.04	1,228	18,331	1000	18
61	445448	4939776	445521	4939837	95	0.06	1,228	26,468	1000	26
62	445521	4939837	445571	4939875	63	0.04	1,228	17,635	1000	18
63	445571	4939875	445625	4939908	64	0.04	1,228	17,718	1000	18
64	445625	4939908	445648	4939926	29	0.02	1,228	8,043	1000	8
65	445648	4939926	445657	4939929	10	0.01	1,228	2,737	1000	3
66	445657	4939929	445677	4939920	22	0.01	1,228	6,175	1000	6
67	445646	4939926	445666	4939947	28	0.02	1,228	7,919	1000	8
68	445666	4939947	445662	4939972	26	0.02	1,228	7,113	1000	7
69	445651	4939999	446132	4940484	683	0.42	23,896	3,702,021	521	1,927
70	446132	4940484	446342	4940684	290	0.18	23,896	1,570,010	521	817
71	446342	4940684	446752	4941034	540	0.34	23,896	2,926,986	521	1,524
72	445678	4939918	445685	4939960	42	0.03	2,254	21,447	759	16
73	445685	4939960	445704	4939983	30	0.02	2,254	15,229	759	12
74	445704	4939983	445749	4940065	93	0.06	2,254	47,565	759	36
75	445664	4939965	445681	4939960	18	0.01	2,254	9,047	759	7
76	445681	4939960	445700	4939985	32	0.02	2,254	16,457	759	12
77	445700	4939985	445723	4940023	43	0.03	2,254	22,149	759	17
78	445723	4940023	445733	4940036	16	0.01	2,254	8,330	759	6
79	445748	4940065	445786	4940117	64	0.04	2,254	32,747	759	25
80	445786	4940117	445864	4940202	116	0.07	2,254	59,533	759	45
81	445864	4940202	445895	4940246	53	0.03	2,254	27,340	759	21
82	446745	4941045	446281	4940658	604	0.38	22,958	3,144,078	547	1,719
83	446281	4940658	445921	4940300	508	0.32	22,958	2,644,494	547	1,446
84	445921	4940300	445641	4940024	393	0.24	22,958	2,047,898	547	1,120
85	446153	4940531	446100	4940490	67	0.04	2,209	33,772	1049	35
86	446100	4940490	446018	4940419	108	0.07	2,209	54,293	1049	57
87	446018	4940419	445952	4940362	87	0.05	2,209	43,650	1049	46
88	445952	4940362	445782	4940384	172	0.11	2,209	86,017	1049	90
89	445782	4940384	445770	4940398	18	0.01	2,209	9,085	1049	10
90	445770	4940398	445774	4940419	21	0.01	2,209	10,410	1049	11
91	445770	4940399	445746	4940402	24	0.02	2,209	12,190	1049	13
92	445632	4940055	445620	4940118	65	0.04	568	8,311	799	7
93	445620	4940118	445604	4940166	50	0.03	568	6,433	799	5
94	445604	4940166	445600	4940193	28	0.02	568	3,548	799	3
95	445600	4940193	445740	4940239	147	0.09	568	18,982	799	15
96	445740	4940240	445752	4940163	78	0.05	568	10,019	799	8
97	445752	4940163	445742	4940143	22	0.01	568	2,856	799	2
98	445742	4940143	445679	4940068	98	0.06	568	12,626	799	10
99	445679	4940068	445653	4940035	42	0.03	568	5,421	799	4
100	445641	4940024	445504	4939885	195	0.12	22,958	1,015,154	547	555

MTO Brockville EA - Greenhouse Gas Emissions Future Interim Build (2032) Scenario

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
101	445504	4939885	445375	4939749	188	0.12	22,958	978,210	547	535
102	445375	4939749	445231	4939603	204	0.13	22,958	1,063,999	547	582
103	445231	4939604	445100	4939470	188	0.12	22,958	978,856	547	535
104	445100	4939470	445006	4939373	135	0.08	22,958	701,925	547	384
105	445006	4939373	444940	4939306	94	0.06	22,958	488,000	547	267
106	444940	4939307	444804	4939169	194	0.12	22,958	1,009,952	547	552
107	444804	4939169	444657	4939024	207	0.13	22,958	1,076,816	547	589
108	444657	4939024	444542	4938907	164	0.10	22,958	851,657	547	466
109	444542	4938907	444385	4938748	224	0.14	22,958	1,167,244	547	638
110	444385	4938748	444338	4938703	65	0.04	22,958	338,270	547	185
111	444338	4938703	444130	4938494	294	0.18	21,182	1,411,601	547	772
112	444130	4938494	443923	4938283	296	0.18	21,182	1,420,562	547	777
113	443923	4938283	443805	4938167	166	0.10	21,182	795,516	547	435
114	443805	4938167	443652	4938045	196	0.12	21,182	942,073	547	515
115	443653	4938046	443540	4937951	148	0.09	21,182	710,285	547	388
116	443540	4937951	443295	4937791	292	0.18	21,182	1,403,224	547	767
117	443295	4937791	443062	4937641	277	0.17	21,182	1,331,304	547	728
118	443062	4937641	442815	4937481	294	0.18	21,182	1,414,197	547	773
119	445583	4940140	445588	4940119	22	0.01	1,010	4,944	799	4
120	445588	4940119	445581	4939993	126	0.08	1,010	28,764	799	23
121	445581	4939994	445574	4939981	14	0.01	1,010	3,279	799	3
122	445574	4939981	445486	4939888	128	0.08	1,010	29,338	799	23
123	445486	4939888	445416	4939814	102	0.06	1,010	23,370	799	19
124	445416	4939814	445347	4939739	102	0.06	1,010	23,299	799	19
125	445347	4939739	445244	4939627	153	0.09	1,010	34,955	799	28
126	445244	4939627	445231	4939605	25	0.02	1,010	5,731	799	5
127	444696	4939062	444615	4938993	106	0.07	2,682	64,474	1049	68
128	444615	4938993	444505	4938894	148	0.09	2,682	90,134	1049	95
129	444505	4938894	444455	4938861	60	0.04	2,682	36,325	1049	38
130	444455	4938861	444377	4938825	86	0.05	2,682	52,211	1049	55
131	444377	4938825	444356	4938810	26	0.02	2,682	16,013	1049	17
132	444356	4938810	444338	4938783	33	0.02	2,682	19,916	1049	21
133	444338	4938783	444334	4938758	25	0.02	2,682	15,208	1049	16
134	444334	4938758	444334	4938741	17	0.01	2,682	10,447	1049	11
135	444334	4938741	444344	4938709	33	0.02	2,682	20,161	1049	21
136	444338	4938785	444323	4938765	24	0.02	2,682	14,765	1049	15
137	444323	4938765	444293	4938749	34	0.02	2,682	20,893	1049	22
138	444293	4938749	444252	4938746	41	0.03	2,682	24,826	1049	26
139	444235	4938754	444253	4938673	83	0.05	1,651	31,213	799	25
140	444253	4938673	444233	4938644	36	0.02	1,651	13,293	799	11
141	444345	4938699	444319	4938693	27	0.02	1,651	10,202	799	8
142	444319	4938693	444289	4938692	30	0.02	1,651	11,051	799	9
143	444289	4938692	444253	4938673	41	0.03	1,651	15,290	799	12
144	444233	4938645	444192	4938587	71	0.04	1,651	26,688	799	21
145	444192	4938587	444163	4938550	47	0.03	1,651	17,487	799	14
146	444163	4938550	444086	4938466	115	0.07	1,651	42,939	799	34
147	444086	4938466	443994	4938367	135	0.08	1,651	50,434	799	40
148	443994	4938367	443973	4938340	34	0.02	1,651	12,734	799	10
Total	-	-	-	-	-	-	-	-	-	35,926

Notes:

(1) Link ID and coordinates selected based on available road traffic data within study area.

(2) Calculated based on each link's starting and ending coordinates. Sample calculation:Length (m) = SQRT((Y $_2$-Y$_1$)^2+(X$_2$-X$_1$)^2)

(3) 2032 build AADT provided by CIMA+.

(4) Annual Vehicle miles travelled in one year (VMT/year) = AADT x Link Length (mil) x 365 day/year

(5) MOVES emission factor assigned to each link.

(6) Annual CO_2 Equivalent Emissions (kg CO_{2e}/ year) = Annual miles travelled per year (VMT/year) x Weighted CO_2 Emission Factor (g/VMT) / 1000 g / kg / 1000 kg/tonne

MTO Brockville EA - Greenhouse Gas Emissions Future Ultimate No Build (2042) Scenario

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
1	442826	4937465	443162	4937684	402	0.25	27,140	2,472,693	466	1,153
2	443162	4937684	443395	4937836	278	0.17	27,140	1,709,262	466	797
3	443395	4937836	443529	4937920	158	0.10	27,140	974,957	466	455
4	443529	4937920	443663	4938028	172	0.11	27,140	1,058,857	466	494
5	443663	4938028	443818	4938156	201	0.12	27,140	1,236,497	466	577
6	443818	4938156	443980	4938318	229	0.14	27,140	1,412,154	466	659
7	443980	4938318	444153	4938493	246	0.15	27,140	1,515,346	466	707
8	444153	4938493	444354	4938695	284	0.18	27,140	1,751,194	466	817
9	445028	4938349	444696	4938521	373	0.23	13,319	1,128,111	756	852
10	444696	4938521	444493	4938626	229	0.14	13,319	692,155	756	523
11	444493	4938627	444228	4938758	296	0.18	13,319	892,752	756	675
12	444229	4938758	444114	4938810	126	0.08	13,319	380,199	756	287
13	444114	4938810	443597	4939062	576	0.36	13,319	1,738,666	756	1,314
14	444054	4938392	444081	4938407	31	0.02	2,421	17,093	900	15
15	444081	4938407	444132	4938454	69	0.04	2,421	38,080	900	34
16	444132	4938454	444180	4938494	63	0.04	2,421	34,480	900	31
17	444180	4938494	444230	4938531	62	0.04	2,421	33,854	900	30
18	444230	4938531	444304	4938571	84	0.05	2,421	46,075	900	41
19	444304	4938571	444332	4938587	32	0.02	2,421	17,678	900	16
20	444332	4938587	444350	4938610	29	0.02	2,421	16,099	900	14
21	444350	4938610	444359	4938642	33	0.02	2,421	17,863	900	16
22	444359	4938642	444357	4938662	20	0.01	2,421	10,976	900	10
23	444357	4938662	444352	4938681	20	0.01	2,421	11,210	900	10
24	444352	4938681	444348	4938698	17	0.01	2,421	9,467	900	9
25	444351	4938616	444364	4938632	21	0.01	2,421	11,397	900	10
26	444364	4938632	444431	4938655	71	0.04	2,421	38,883	900	35
27	444354	4938695	444493	4938835	198	0.12	29,416	1,321,661	466	616
28	444493	4938835	444669	4939011	249	0.15	29,416	1,657,963	466	773
29	444669	4939011	444774	4939118	150	0.09	29,416	999,877	466	466
30	444774	4939118	444881	4939226	152	0.09	29,416	1,016,028	466	474
31	444881	4939226	444949	4939296	97	0.06	29,416	648,902	466	303
32	444949	4939296	445034	4939381	121	0.07	29,416	804,190	466	375
33	445034	4939381	445154	4939504	171	0.11	29,416	1,141,197	466	532
34	445154	4939504	445242	4939594	126	0.08	29,416	842,243	466	393
35	445242	4939594	445378	4939726	190	0.12	29,416	1,268,915	466	592
36	445378	4939726	445481	4939831	146	0.09	29,416	975,386	466	455
37	445481	4939831	445593	4939941	157	0.10	29,416	1,048,763	466	489
38	445593	4939941	445651	4939999	82	0.05	29,416	546,095	466	255
39	444340	4938702	444388	4938703	48	0.03	2,657	29,066	685	20
40	444388	4938703	444424	4938705	36	0.02	2,657	21,785	685	15
41	444424	4938705	444458	4938722	38	0.02	2,657	22,950	685	16
42	444458	4938722	444469	4938736	18	0.01	2,657	10,998	685	8
43	444469	4938736	444483	4938772	38	0.02	2,657	22,827	685	16
44	444479	4938631	444457	4938707	79	0.05	2,657	47,485	685	33
45	444457	4938707	444467	4938734	28	0.02	2,657	16,944	685	12
46	444482	4938772	444519	4938833	71	0.04	2,657	42,787	685	29
47	444519	4938833	444584	4938905	98	0.06	2,657	58,950	685	40
48	444584	4938905	444623	4938948	58	0.04	2,657	34,929	685	24
49	444623	4938948	444708	4939038	124	0.08	2,657	74,550	685	51
50	444708	4939038	444711	4939053	15	0.01	2,657	9,062	685	6
51	445836	4939473	445762	4939608	154	0.10	7,363	257,783	756	195
52	445762	4939608	445717	4939742	141	0.09	7,363	235,838	756	178
53	445717	4939742	445689	4939883	144	0.09	7,363	239,769	756	181
54	445689	4939883	445645	4940006	131	0.08	7,363	218,128	756	165
55	445645	4940006	445626	4940071	68	0.04	7,363	112,996	756	85
56	445626	4940071	445577	4940150	93	0.06	7,363	155,358	756	117
57	445577	4940150	445522	4940218	88	0.05	7,363	146,430	756	111
58	445311	4939661	445342	4939677	35	0.02	1,357	10,739	900	10
59	445342	4939677	445400	4939732	79	0.05	1,357	24,366	900	22
60	445400	4939732	445448	4939776	66	0.04	1,357	20,257	900	18
61	445448	4939776	445521	4939837	95	0.06	1,357	29,249	900	26
62	445521	4939837	445571	4939875	63	0.04	1,357	19,487	900	18
63	445571	4939875	445625	4939908	64	0.04	1,357	19,579	900	18
64	445625	4939908	445648	4939926	29	0.02	1,357	8,888	900	8
65	445648	4939926	445657	4939929	10	0.01	1,357	3,024	900	3
66	445657	4939929	445677	4939920	22	0.01	1,357	6,824	900	6
67	445646	4939926	445666	4939947	28	0.02	1,357	8,751	900	8
68	445666	4939947	445662	4939972	26	0.02	1,357	7,861	900	7
69	445651	4939999	446132	4940484	683	0.42	29,416	4,557,192	466	2,126
70	446132	4940484	446342	4940684	290	0.18	29,416	1,932,684	466	901
71	446342	4940684	446752	4941034	540	0.34	29,416	3,603,123	466	1,681
72	445678	4939918	445685	4939960	42	0.03	2,489	23,683	685	16
73	445685	4939960	445704	4939983	30	0.02	2,489	16,817	685	12
74	445704	4939983	445749	4940065	93	0.06	2,489	52,524	685	36
75	445664	4939965	445681	4939960	18	0.01	2,489	9,990	685	7
76	445681	4939960	445700	4939985	32	0.02	2,489	18,173	685	12
77	445700	4939985	445723	4940023	43	0.03	2,489	24,458	685	17
78	445723	4940023	445733	4940036	16	0.01	2,489	9,198	685	6
79	445748	4940065	445786	4940117	64	0.04	2,489	36,162	685	25
80	445786	4940117	445864	4940202	116	0.07	2,489	65,740	685	45
81	445864	4940202	445895	4940246	53	0.03	2,489	30,191	685	21
82	446745	4941045	446281	4940658	604	0.38	28,262	3,870,456	491	1,899
83	446281	4940658	445921	4940300	508	0.32	28,262	3,255,452	491	1,598
84	445921	4940300	445641	4940024	393	0.24	28,262	2,521,025	491	1,237
85	446153	4940531	446100	4940490	67	0.04	2,240	34,246	946	32
86	446100	4940490	446018	4940419	108	0.07	2,240	55,055	946	52
87	446018	4940419	445952	4940362	87	0.05	2,240	44,263	946	42
88	445952	4940362	445782	4940384	172	0.11	2,240	87,224	946	83
89	445782	4940384	445770	4940398	18	0.01	2,240	9,213	946	9
90	445770	4940398	445774	4940419	21	0.01	2,240	10,556	946	10
91	445770	4940399	445746	4940402	24	0.02	2,240	12,361	946	12
92	445632	4940055	445620	4940118	65	0.04	627	9,174	721	7
93	445620	4940118	445604	4940166	50	0.03	627	7,101	721	5
94	445604	4940166	445600	4940193	28	0.02	627	3,916	721	3
95	445600	4940193	445740	4940239	147	0.09	627	20,954	721	15
96	445740	4940240	445752	4940163	78	0.05	627	11,059	721	8
97	445752	4940163	445742	4940143	22	0.01	627	3,152	721	2
98	445742	4940143	445679	4940068	98	0.06	627	13,938	721	10

MTO Brockville EA - Greenhouse Gas Emissions Future Ultimate No Build (2042) Scenario

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
99	445679	4940068	445653	4940035	42	0.03	627	5,984	721	4
100	445641	4940024	445504	4939885	195	0.12	28,262	1,249,686	491	613
101	445504	4939885	445375	4939749	188	0.12	28,262	1,204,207	491	591
102	445375	4939749	445231	4939603	204	0.13	28,262	1,309,815	491	643
103	445231	4939604	445100	4939470	188	0.12	28,262	1,205,002	491	591
104	445100	4939470	445006	4939373	135	0.08	28,262	864,091	491	424
105	445006	4939373	444940	4939306	94	0.06	28,262	600,743	491	295
106	444940	4939307	444804	4939169	194	0.12	28,262	1,243,282	491	610
107	444804	4939169	444657	4939024	207	0.13	28,262	1,325,593	491	651
108	444657	4939024	444542	4938907	164	0.10	28,262	1,048,416	491	514
109	444542	4938907	444385	4938748	224	0.14	28,262	1,436,914	491	705
110	444385	4938748	444338	4938703	65	0.04	28,262	416,421	491	204
111	444338	4938703	444130	4938494	294	0.18	26,075	1,737,679	491	853
112	444130	4938494	443923	4938283	296	0.18	26,075	1,748,708	491	858
113	443923	4938283	443805	4938167	166	0.10	26,075	979,279	491	481
114	443805	4938167	443652	4938045	196	0.12	26,075	1,159,690	491	569
115	443653	4938046	443540	4937951	148	0.09	26,075	874,359	491	429
116	443540	4937951	443295	4937791	292	0.18	26,075	1,727,365	491	848
117	443295	4937791	443062	4937641	277	0.17	26,075	1,638,833	491	804
118	443062	4937641	442815	4937481	294	0.18	26,075	1,740,873	491	854
119	445583	4940140	445588	4940119	22	0.01	1,115	5,458	721	4
120	445588	4940119	445581	4939993	126	0.08	1,115	31,755	721	23
121	445581	4939994	445574	4939981	14	0.01	1,115	3,620	721	3
122	445574	4939981	445486	4939888	128	0.08	1,115	32,388	721	23
123	445486	4939888	445416	4939814	102	0.06	1,115	25,800	721	19
124	445416	4939814	445347	4939739	102	0.06	1,115	25,721	721	19
125	445347	4939739	445244	4939627	153	0.09	1,115	38,589	721	28
126	445244	4939627	445231	4939605	25	0.02	1,115	6,327	721	5
127	444696	4939062	444615	4938993	106	0.07	2,962	71,205	946	67
128	444615	4938993	444505	4938894	148	0.09	2,962	99,544	946	94
129	444505	4938894	444455	4938861	60	0.04	2,962	40,117	946	38
130	444455	4938861	444377	4938825	86	0.05	2,962	57,661	946	55
131	444377	4938825	444356	4938810	26	0.02	2,962	17,685	946	17
132	444356	4938810	444338	4938783	33	0.02	2,962	21,995	946	21
133	444338	4938783	444334	4938758	25	0.02	2,962	16,796	946	16
134	444334	4938758	444334	4938741	17	0.01	2,962	11,538	946	11
135	444334	4938741	444344	4938709	33	0.02	2,962	22,266	946	21
136	444338	4938785	444323	4938765	24	0.02	2,962	16,306	946	15
137	444323	4938765	444293	4938749	34	0.02	2,962	23,075	946	22
138	444293	4938749	444252	4938746	41	0.03	2,962	27,418	946	26
139	444235	4938754	444253	4938673	83	0.05	1,824	34,483	721	25
140	444253	4938673	444233	4938644	36	0.02	1,824	14,686	721	11
141	444345	4938699	444319	4938693	27	0.02	1,824	11,271	721	8
142	444319	4938693	444289	4938692	30	0.02	1,824	12,209	721	9
143	444289	4938692	444253	4938673	41	0.03	1,824	16,892	721	12
144	444233	4938645	444192	4938587	71	0.04	1,824	29,485	721	21
145	444192	4938587	444163	4938550	47	0.03	1,824	19,319	721	14
146	444163	4938550	444086	4938466	115	0.07	1,824	47,439	721	34
147	444086	4938466	443994	4938367	135	0.08	1,824	55,719	721	40
148	443994	4938367	443973	4938340	34	0.02	1,824	14,068	721	10
Total	-	-	-	-	-	-		-	-	38,928

Notes:

(1) Link ID and coordinates selected based on available road traffic data within study area.

(2) Calculated based on each link's starting and ending coordinates. Sample calculation:Length (m) = SQRT((Y $_2$-Y$_1$)^2+(X$_2$-X$_1$)^2)

(3) 2042 no build AADT provided by CIMA+.

(4) Annual Vehicle miles travelled in one year (VMT/year) = AADT x Link Length (mil) x 365 day/year

(5) MOVES emission factor assigned to each link.

(6) Annual CO_2 Equivalent Emissions (kg CO_{2e}/ year) = Annual miles travelled per year (VMT/year) x Weighted CO_2 Emission Factor (g/VMT) / 1000 g / kg / 1000 kg/tonne

MTO Brockville EA - Greenhouse Gas Emissions Future Ultimate Build (2042) Scenario

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
1	442826	4937465	443162	4937684	402	0.25	27,140	2,472,693	466	1,153
2	443162	4937684	443395	4937836	278	0.17	27,140	1,709,262	466	797
3	443395	4937836	443529	4937920	158	0.10	27,140	974,957	466	455
4	443529	4937920	443663	4938028	172	0.11	27,140	1,058,857	466	494
5	443663	4938028	443818	4938156	201	0.12	27,140	1,236,497	466	577
6	443818	4938156	443980	4938318	229	0.14	27,140	1,412,154	466	659
7	443980	4938318	444153	4938493	246	0.15	27,140	1,515,346	466	707
8	444153	4938493	444354	4938695	284	0.18	27,140	1,751,194	466	817
9	445028	4938349	444696	4938521	373	0.23	13,319	1,128,111	756	852
10	444696	4938521	444493	4938626	229	0.14	13,319	692,155	756	523
11	444493	4938627	444228	4938758	296	0.18	13,319	892,752	756	675
12	444229	4938758	444114	4938810	126	0.08	13,319	380,199	756	287
13	444114	4938810	443597	4939062	576	0.36	13,319	1,738,666	756	1,314
14	444054	4938392	444081	4938407	31	0.02	2,421	17,093	900	15
15	444081	4938407	444132	4938454	69	0.04	2,421	38,080	900	34
16	444132	4938454	444180	4938494	63	0.04	2,421	34,480	900	31
17	444180	4938494	444230	4938531	62	0.04	2,421	33,854	900	30
18	444230	4938531	444304	4938571	84	0.05	2,421	46,075	900	41
19	444304	4938571	444332	4938587	32	0.02	2,421	17,678	900	16
20	444332	4938587	444350	4938610	29	0.02	2,421	16,099	900	14
21	444350	4938610	444359	4938642	33	0.02	2,421	17,863	900	16
22	444359	4938642	444357	4938662	20	0.01	2,421	10,976	900	10
23	444357	4938662	444352	4938681	20	0.01	2,421	11,210	900	10
24	444352	4938681	444348	4938698	17	0.01	2,421	9,467	900	9
25	444351	4938616	444364	4938632	21	0.01	2,421	11,397	900	10
26	444364	4938632	444431	4938655	71	0.04	2,421	38,883	900	35
27	444354	4938695	444493	4938835	198	0.12	29,416	1,321,661	466	616
28	444493	4938835	444669	4939011	249	0.15	29,416	1,657,963	466	773
29	444669	4939011	444774	4939118	150	0.09	29,416	999,877	466	466
30	444774	4939118	444881	4939226	152	0.09	29,416	1,016,028	466	474
31	444881	4939226	444949	4939296	97	0.06	29,416	648,902	466	303
32	444949	4939296	445034	4939381	121	0.07	29,416	804,190	466	375
33	445034	4939381	445154	4939504	171	0.11	29,416	1,141,197	466	532
34	445154	4939504	445242	4939594	126	0.08	29,416	842,243	466	393
35	445242	4939594	445378	4939726	190	0.12	29,416	1,268,915	466	592
36	445378	4939726	445481	4939831	146	0.09	29,416	975,386	466	455
37	445481	4939831	445593	4939941	157	0.10	29,416	1,048,763	466	489
38	445593	4939941	445651	4939999	82	0.05	29,416	546,095	466	255
39	444340	4938702	444388	4938703	48	0.03	2,657	29,066	685	20
40	444388	4938703	444424	4938705	36	0.02	2,657	21,785	685	15
41	444424	4938705	444458	4938722	38	0.02	2,657	22,950	685	16
42	444458	4938722	444469	4938736	18	0.01	2,657	10,998	685	8
43	444469	4938736	444483	4938772	38	0.02	2,657	22,827	685	16
44	444479	4938631	444457	4938707	79	0.05	2,657	47,485	685	33
45	444457	4938707	444467	4938734	28	0.02	2,657	16,944	685	12
46	444482	4938772	444519	4938833	71	0.04	2,657	42,787	685	29
47	444519	4938833	444584	4938905	98	0.06	2,657	58,950	685	40
48	444584	4938905	444623	4938948	58	0.04	2,657	34,929	685	24
49	444623	4938948	444708	4939038	124	0.08	2,657	74,550	685	51
50	444708	4939038	444711	4939053	15	0.01	2,657	9,062	685	6
51	445836	4939473	445762	4939608	154	0.10	7,363	257,783	756	195
52	445762	4939608	445717	4939742	141	0.09	7,363	235,838	756	178
53	445717	4939742	445689	4939883	144	0.09	7,363	239,769	756	181
54	445689	4939883	445645	4940006	131	0.08	7,363	218,128	756	165
55	445645	4940006	445626	4940071	68	0.04	7,363	112,996	756	85
56	445626	4940071	445577	4940150	93	0.06	7,363	155,358	756	117
57	445577	4940150	445522	4940218	88	0.05	7,363	146,430	756	111
58	445311	4939661	445342	4939677	35	0.02	1,357	10,739	900	10
59	445342	4939677	445400	4939732	79	0.05	1,357	24,366	900	22
60	445400	4939732	445448	4939776	66	0.04	1,357	20,257	900	18
61	445448	4939776	445521	4939837	95	0.06	1,357	29,249	900	26
62	445521	4939837	445571	4939875	63	0.04	1,357	19,487	900	18
63	445571	4939875	445625	4939908	64	0.04	1,357	19,579	900	18
64	445625	4939908	445648	4939926	29	0.02	1,357	8,888	900	8
65	445648	4939926	445657	4939929	10	0.01	1,357	3,024	900	3
66	445657	4939929	445677	4939920	22	0.01	1,357	6,824	900	6
67	445646	4939926	445666	4939947	28	0.02	1,357	8,751	900	8
68	445666	4939947	445662	4939972	26	0.02	1,357	7,861	900	7
69	445651	4939999	446132	4940484	683	0.42	29,416	4,557,192	466	2,126
70	446132	4940484	446342	4940684	290	0.18	29,416	1,932,684	466	901
71	446342	4940684	446752	4941034	540	0.34	29,416	3,603,123	466	1,681
72	445678	4939918	445685	4939960	42	0.03	2,489	23,683	685	16
73	445685	4939960	445704	4939983	30	0.02	2,489	16,817	685	12
74	445704	4939983	445749	4940065	93	0.06	2,489	52,524	685	36
75	445664	4939965	445681	4939960	18	0.01	2,489	9,990	685	7
76	445681	4939960	445700	4939985	32	0.02	2,489	18,173	685	12
77	445700	4939985	445723	4940023	43	0.03	2,489	24,458	685	17
78	445723	4940023	445733	4940036	16	0.01	2,489	9,198	685	6
79	445748	4940065	445786	4940117	64	0.04	2,489	36,162	685	25
80	445786	4940117	445864	4940202	116	0.07	2,489	65,740	685	45
81	445864	4940202	445895	4940246	53	0.03	2,489	30,191	685	21
82	446745	4941045	446281	4940658	604	0.38	28,262	3,870,456	491	1,899
83	446281	4940658	445921	4940300	508	0.32	28,262	3,255,452	491	1,598
84	445921	4940300	445641	4940024	393	0.24	28,262	2,521,025	491	1,237
85	446153	4940531	446100	4940490	67	0.04	2,240	34,246	946	32
86	446100	4940490	446018	4940419	108	0.07	2,240	55,055	946	52
87	446018	4940419	445952	4940362	87	0.05	2,240	44,263	946	42
88	445952	4940362	445782	4940384	172	0.11	2,240	87,224	946	83
89	445782	4940384	445770	4940398	18	0.01	2,240	9,213	946	9
90	445770	4940398	445774	4940419	21	0.01	2,240	10,556	946	10
91	445770	4940399	445746	4940402	24	0.02	2,240	12,361	946	12
92	445632	4940055	445620	4940118	65	0.04	627	9,174	721	7
93	445620	4940118	445604	4940166	50	0.03	627	7,101	721	5
94	445604	4940166	445600	4940193	28	0.02	627	3,916	721	3
95	445600	4940193	445740	4940239	147	0.09	627	20,954	721	15
96	445740	4940240	445752	4940163	78	0.05	627	11,059	721	8
97	445752	4940163	445742	4940143	22	0.01	627	3,152	721	2
98	445742	4940143	445679	4940068	98	0.06	627	13,938	721	10
99	445679	4940068	445653	4940035	42	0.03	627	5,984	721	4
100	445641	4940024	445504	4939885	195	0.12	28,262	1,249,686	491	613

Link [1]	Start of Link		End of Link		Length [2] (m)	Length (miles)	AADT [3]	Annual Miles travelled [4] (VMT/ year)	CO2 Equivalent Emission Factor [5] (g/VMT)	Annual CO2 Equivalent Emissions [6] (t CO2e/ year)
	Easting (m)	Northing (m)	Easting (m)	Northing (m)						
101	445504	4939885	445375	4939749	188	0.12	28,262	1,204,207	491	591
102	445375	4939749	445231	4939603	204	0.13	28,262	1,309,815	491	643
103	445231	4939604	445100	4939470	188	0.12	28,262	1,205,002	491	591
104	445100	4939470	445006	4939373	135	0.08	28,262	864,091	491	424
105	445006	4939373	444940	4939306	94	0.06	28,262	600,743	491	295
106	444940	4939307	444804	4939169	194	0.12	28,262	1,243,282	491	610
107	444804	4939169	444657	4939024	207	0.13	28,262	1,325,593	491	651
108	444657	4939024	444542	4938907	164	0.10	28,262	1,048,416	491	514
109	444542	4938907	444385	4938748	224	0.14	28,262	1,436,914	491	705
110	444385	4938748	444338	4938703	65	0.04	28,262	416,421	491	204
111	444338	4938703	444130	4938494	294	0.18	26,075	1,737,679	491	853
112	444130	4938494	443923	4938283	296	0.18	26,075	1,748,708	491	858
113	443923	4938283	443805	4938167	166	0.10	26,075	979,279	491	481
114	443805	4938167	443652	4938045	196	0.12	26,075	1,159,690	491	569
115	443653	4938046	443540	4937951	148	0.09	26,075	874,359	491	429
116	443540	4937951	443295	4937791	292	0.18	26,075	1,727,365	491	848
117	443295	4937791	443062	4937641	277	0.17	26,075	1,638,833	491	804
118	443062	4937641	442815	4937481	294	0.18	26,075	1,740,873	491	854
119	445583	4940140	445588	4940119	22	0.01	1,115	5,458	721	4
120	445588	4940119	445581	4939993	126	0.08	1,115	31,755	721	23
121	445581	4939994	445574	4939981	14	0.01	1,115	3,620	721	3
122	445574	4939981	445486	4939888	128	0.08	1,115	32,388	721	23
123	445486	4939888	445416	4939814	102	0.06	1,115	25,800	721	19
124	445416	4939814	445347	4939739	102	0.06	1,115	25,721	721	19
125	445347	4939739	445244	4939627	153	0.09	1,115	38,589	721	28
126	445244	4939627	445231	4939605	25	0.02	1,115	6,327	721	5
127	444696	4939062	444615	4938993	106	0.07	2,962	71,205	946	67
128	444615	4938993	444505	4938894	148	0.09	2,962	99,544	946	94
129	444505	4938894	444455	4938861	60	0.04	2,962	40,117	946	38
130	444455	4938861	444377	4938825	86	0.05	2,962	57,661	946	55
131	444377	4938825	444356	4938810	26	0.02	2,962	17,685	946	17
132	444356	4938810	444338	4938783	33	0.02	2,962	21,995	946	21
133	444338	4938783	444334	4938758	25	0.02	2,962	16,796	946	16
134	444334	4938758	444334	4938741	17	0.01	2,962	11,538	946	11
135	444334	4938741	444344	4938709	33	0.02	2,962	22,266	946	21
136	444338	4938785	444323	4938765	24	0.02	2,962	16,306	946	15
137	444323	4938765	444293	4938749	34	0.02	2,962	23,075	946	22
138	444293	4938749	444252	4938746	41	0.03	2,962	27,418	946	26
139	444235	4938754	444253	4938673	83	0.05	1,824	34,483	721	25
140	444253	4938673	444233	4938644	36	0.02	1,824	14,686	721	11
141	444345	4938699	444319	4938693	27	0.02	1,824	11,271	721	8
142	444319	4938693	444289	4938692	30	0.02	1,824	12,209	721	9
143	444289	4938692	444253	4938673	41	0.03	1,824	16,892	721	12
144	444233	4938645	444192	4938587	71	0.04	1,824	29,485	721	21
145	444192	4938587	444163	4938550	47	0.03	1,824	19,319	721	14
146	444163	4938550	444086	4938466	115	0.07	1,824	47,439	721	34
147	444086	4938466	443994	4938367	135	0.08	1,824	55,719	721	40
148	443994	4938367	443973	4938340	34	0.02	1,824	14,068	721	10
Total	-	-	-	-	-	-	-	-	-	38,928

Notes:

(1) Link ID and coordinates selected based on available road traffic data within study area.

(2) Calculated based on each link's starting and ending coordinates. Sample calculation:Length (m) = SQRT($(Y_{2}-Y_1)^2+(X_2-X_1)^2$)

(3) 2032 build AADT provided by CIMA+.

(4) Annual Vehicle miles travelled in one year (VMT/year) = AADT x Link Length (mil) x 365 day/year

(5) MOVES emission factor assigned to each link.

(6) Annual CO_2 Equivalent Emissions (kg CO_{2e}/ year) = Annual miles travelled per year (VMT/year) x Weighted CO_2 Emission Factor (g/VMT) / 1000 g / kg / 1000 kg/tonne

Appendix F
CAL3QHCR Links

PROJECT TITLE:

MTO Hwy 401 Brockville EA

Figure F-1: Existing/Future Interim Future No Build CAL3QHCR Links

COMMENTS:

MODEL: **CAL3QHCR**

LINKS: **187**

RECEPTORS: **60**

COMPANY NAME: **Stantec Consulting Ltd.**

DATE: **2/3/2023**

SCALE: 1:30,000

0 1 m

PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_2022_existing\BV_2022_existing.clv

PROJECT TITLE:

MTO Hwy 401 Brockville EA

Figure F-2: Future Interim Build/Ultimate No Build/ Ultimate Build CAL3QHCR Links

COMMENTS:

MODEL: **CAL3QHCR**

LINKS: **148**

RECEPTORS: **60**

COMPANY NAME: **Stantec Consulting Ltd.**

DATE: **2/3/2023**

SCALE: 1:30,000

0 1 m

PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_2032_BUILD\BV_2032_BUILD.clv

EXISTING (2022) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
1	AG	442822	4937463	442889	4937505	0.40	13.5	79	west of Stewart blvd	EB1
2	AG	442889	4937505	442941	4937539	0.40	13.5	61	west of Stewart blvd	EB1
3	AG	442941	4937539	442998	4937575	0.40	13.5	68	west of Stewart blvd	EB1
4	AG	442998	4937575	443059	4937616	0.40	13.5	73	west of Stewart blv	EB1
5	AG	443059	4937617	443139	4937667	0.40	13.5	95	west of Stewart blvd	EB2
6	AG	443139	4937667	443225	4937722	0.40	13.5	102	west of Stewart blvd	EB2
7	AG	443225	4937722	443299	4937772	0.40	13.5	89	west of Stewart blvd	EB2
8	AG	443299	4937772	443378	4937821	0.40	13.5	93	west of Stewart blvd	EB2
9	AG	443378	4937821	443444	4937867	0.40	13.5	81	west of Stewart blvd	EB2
10	AG	443444	4937867	443503	4937905	0.40	13.5	70	west of Stewart blvd	EB2
11	AG	443502	4937906	443584	4937961	0.40	13.5	98	west of Stewart blvd	EB3
12	AG	443584	4937961	443637	4938001	0.40	13.5	66	west of Stewart blvd	EB3
13	AG	443637	4938001	443690	4938041	0.40	13.5	67	west of Stewart blvd	EB3
14	AG	443690	4938041	443756	4938099	0.40	13.5	88	west of Stewart blvd	EB3
15	AG	443756	4938099	443819	4938159	0.40	13.5	87	west of Stewart blvd	EB3
16	AG	443819	4938159	443903	4938242	0.40	13.5	118	west of Stewart blvd	EB3
17	AG	443903	4938242	443973	4938311	0.40	13.5	99	west of Stewart blvd	EB3
18	AG	443972	4938311	444085	4938426	0.40	13.5	160	west of Stewart blvd	EB4
19	AG	444085	4938426	444179	4938521	0.40	13.5	134	west of Stewart blvd	EB4
20	AG	444179	4938521	444268	4938612	0.40	13.5	127	west of Stewart blvd	EB4
21	AG	444268	4938612	444351	4938695	0.40	13.5	118	west of Stewart blvd	EB4
22	AG	444045	4938386	444064	4938397	0.40	9.5	22	off-ramp NB/SB St bl	R1
23	AG	444064	4938397	444111	4938439	0.40	9.5	63	off-ramp NB/SB St bl	R1
24	AG	444111	4938439	444144	4938465	0.40	9.5	42	off-ramp NB/SB St bl	R1
25	AG	444144	4938465	444175	4938479	0.40	9.5	33	off-ramp NB/SB St bl	R1
26	AG	444175	4938479	444223	4938486	0.40	9.5	49	off-ramp NB/SB St bl	R1
27	AG	444223	4938486	444261	4938492	0.40	9.5	38	off-ramp NB/SB St bl	R1
28	AG	444261	4938492	444279	4938501	0.40	9.5	20	off-ramp NB/SB St bl	R1
29	AG	444279	4938501	444298	4938523	0.40	9.5	29	off-ramp NB/SB St bl	R1
30	AG	444298	4938523	444348	4938590	0.40	9.5	84	off-ramp NB/SB St bl	R1
31	AG	444348	4938590	444404	4938666	0.40	9.5	95	off-ramp NB/SB St bl	R1
32	AG	444399	4938672	444359	4938620	0.40	9.5	65	on-ramp SB Stwt blvd	R2
33	AG	444359	4938620	444292	4938531	0.40	9.5	111	on-ramp SB Stwt blvd	R2
34	AG	444292	4938531	444273	4938512	0.40	9.5	27	on-ramp SB Stwt blvd	R2
35	AG	444273	4938512	444257	4938503	0.40	9.5	18	on-ramp SB Stwt blvd	R2
36	AG	444257	4938503	444234	4938503	0.40	9.5	23	on-ramp SB Stwt blvd	R2
37	AG	444234	4938503	444218	4938524	0.40	9.5	26	on-ramp SB Stwt blvd	R2
38	AG	444218	4938524	444222	4938547	0.40	9.5	23	on-ramp SB Stwt blvd	R2
39	AG	444222	4938547	444240	4938572	0.40	9.5	31	on-ramp SB Stwt blvd	R2
40	AG	444240	4938572	444268	4938602	0.40	9.5	41	on-ramp SB Stwt blvd	R2
41	AG	444268	4938602	444301	4938635	0.40	9.5	46	on-ramp SB Stwt blvd	R2
42	AG	444301	4938635	444313	4938657	0.40	9.5	25	on-ramp SB Stwt blvd	R2
43	AG	445027	4938350	444593	4938576	0.42	25.0	489	NB/SB Stwart blvd	IC1
44	BR	444593	4938576	444522	4938610	3.92	25.0	79	NB/SB Stwart blvd	IC1
45	BR	444522	4938610	444438	4938651	3.92	25.0	93	NB/SB Stwart blvd	IC1
46	BR	444438	4938651	444370	4938686	7.42	25.0	77	NB/SB Stwart blvd	IC2
47	BR	444370	4938686	444332	4938704	7.42	25.0	42	NB/SB Stwart blvd	IC2
48	BR	444332	4938704	444266	4938736	7.42	25.0	73	NB/SB Stwart blvd	IC2
49	BR	444267	4938736	443973	4938875	3.92	25.0	325	NB/SB Stwart blvd	IC3
50	AG	443973	4938875	443602	4939059	0.42	25.0	414	NB/SB Stwart blvd	IC3
51	AG	444351	4938695	444433	4938777	0.40	13.5	116	west of N Augusta	EB5
52	AG	444433	4938777	444519	4938863	0.40	13.5	121	west of N Augusta	EB5
53	AG	444519	4938863	444584	4938930	0.40	13.5	93	west of N Augusta	EB5
54	AG	444584	4938930	444649	4938996	0.40	13.5	94	west of N Augusta	EB5
55	AG	444649	4938996	444719	4939064	0.40	13.5	97	west of N Augusta	EB5
56	AG	444719	4939064	444812	4939158	0.40	13.5	132	west of N Augusta	EB6
57	BR	444812	4939158	444948	4939297	4.90	13.5	195	west of N Augusta	EB6
58	BR	444948	4939297	445029	4939379	9.40	13.5	116	west of N Augusta	EB7
59	BR	445029	4939379	445122	4939474	9.40	13.5	133	west of N Augusta	EB7
60	BR	445122	4939474	445198	4939551	9.40	13.5	107	west of N Augusta	EB7
61	BR	445198	4939551	445221	4939573	9.40	13.5	32	west of N Augusta	EB7
62	BR	445220	4939573	445354	4939705	4.90	13.5	188	west of N Augusta	EB8
63	AG	445354	4939705	445476	4939827	0.40	13.5	172	west of N Augusta	EB8
64	AG	445476	4939827	445549	4939901	0.40	13.5	104	west of N Augusta	EB8
65	AG	445549	4939901	445630	4939986	0.40	13.5	118	west of N Augusta	EB8
66	AG	444608	4938569	444582	4938592	0.40	9.5	35	on-ramp NB Stwt blvd	R3
67	AG	444582	4938592	444543	4938616	0.40	9.5	45	on-ramp NB Stwt Blvd	R3
68	AG	444543	4938616	444506	4938642	0.40	9.5	46	on-ramp NB Stwt blvd	R3
69	AG	444506	4938642	444488	4938667	0.40	9.5	31	on-ramp NB Stwt blvd	R3
70	AG	444488	4938667	444474	4938697	0.40	9.5	34	on-ramp NB Stwt blvd	R3
71	AG	444474	4938697	444469	4938729	0.40	9.5	32	on-ramp NB Stwt blvd	R3
72	AG	444469	4938729	444471	4938754	0.40	9.5	25	on-ramp NB Stwt blvd	R3
73	AG	444471	4938754	444482	4938785	0.40	9.5	33	on-ramp NB Stwt blvd	R3
74	AG	444482	4938785	444494	4938809	0.40	9.5	26	on-ramp NB Stwt blvd	R3
75	AG	444494	4938809	444523	4938845	0.40	9.5	47	on-ramp NB Stwt blvd	R3
76	AG	444523	4938845	444548	4938873	0.40	9.5	38	on-ramp NB Stwt blvd	R3
77	AG	444548	4938873	444591	4938924	0.40	9.5	67	on-ramp NB Stwt blvd	R3
78	AG	444591	4938924	444637	4938973	0.40	9.5	67	on-ramp NB Stwt blvd	R3
79	AG	444637	4938973	444674	4939011	0.40	9.5	53	on-ramp NB Stwt blvd	R3
80	AG	444674	4939011	444684	4939030	0.40	9.5	21	on-ramp NB Stwt blvd	R3
81	AG	445786	4939549	445725	4939731	0.42	23.5	192	NB/SB N Augusta	IC4
82	BR	445725	4939731	445650	4939934	3.92	23.5	217	NB/SB N Augusta	IC4
83	BR	445650	4939936	445628	4939993	7.42	23.5	62	NB/SB N Augusta	IC5
84	BR	445628	4939993	445610	4940047	7.42	23.5	56	NB/SB N Augusta	IC5
85	BR	445610	4940047	445587	4940115	3.92	23.5	72	NB/SB N Augusta	IC6
86	AG	445587	4940115	445570	4940156	0.42	23.5	44	NB/SB N Augusta	IC6
87	AG	445570	4940156	445543	4940193	0.42	23.5	46	NB/SB N Augusta	IC6
88	AG	445630	4939986	445805	4940156	0.40	13.5	244	east of N Augusta	EB9
89	AG	445805	4940156	445943	4940297	0.40	13.5	197	east of N Augusta	EB9
90	AG	445943	4940297	446163	4940521	0.40	13.5	314	east of N Augusta	EB9
91	AG	446163	4940521	446373	4940713	0.40	13.5	284	east of N Augusta	EB9
92	AG	446373	4940713	446758	4941033	0.40	13.5	500	east of N Augusta	EB9
93	AG	445389	4939740	445418	4939762	0.40	9.5	36	off-ramp NB/SB N Aug	R4
94	AG	445418	4939762	445457	4939799	0.40	9.5	54	off-ramp NB/SB N Aug	R4
95	AG	445457	4939799	445524	4939858	0.40	9.5	89	off-ramp NB/SB N Aug	R4
96	AG	445524	4939858	445543	4939873	0.40	9.5	24	off-ramp NB/SB N Aug	R4
97	AG	445543	4939873	445562	4939879	0.40	9.5	20	off-ramp NB/SB N Aug	R4
98	AG	445562	4939879	445582	4939880	0.40	9.5	20	off-ramp NB/SB N Aug	R4
99	AG	445582	4939880	445601	4939869	0.40	9.5	21	off-ramp NB/SB N Aug	R4
100	AG	445601	4939869	445625	4939837	0.40	9.5	41	off-ramp NB/SB N Aug	R4
101	AG	445625	4939837	445645	4939802	0.40	9.5	40	off-ramp NB/SB N Aug	R4
102	AG	445645	4939802	445681	4939740	0.40	9.5	71	off-ramp NB/SB N Aug	R4
103	AG	445681	4939740	445692	4939730	0.40	9.5	15	off-ramp NB/SB N Aug	R4
104	AG	445692	4939730	445705	4939730	0.40	9.5	13	off-ramp NB/SB N Aug	R4
105	AG	445705	4939730	445719	4939733	0.40	9.5	14	off-ramp NB/SB N Aug	R4
106	AG	445691	4939818	445689	4939798	0.40	9.5	20	on-ramp SB N Aug	R5
107	AG	445689	4939798	445680	4939786	0.40	9.5	15	on-ramp SB N Aug	R5
108	AG	445680	4939786	445661	4939790	0.40	9.5	20	on-ramp SB N Aug	R5
109	AG	445661	4939790	445597	4939896	0.40	9.5	124	on-ramp SB N Aug	R5
110	AG	445597	4939896	445596	4939923	0.40	9.5	27	on-ramp SB N Aug	R5
111	AG	445596	4939923	445607	4939950	0.40	9.5	29	on-ramp SB N Aug	R5
112	AG	445607	4939950	445622	4939968	0.40	9.5	24	on-ramp SB N Aug	R5
113	AG	445622	4939968	445626	4939982	0.40	9.5	14	on-ramp SB N Aug	R5
114	AG	445707	4939772	445709	4939828	0.40	9.5	56	on-ramp NB N Augusta	R6
115	AG	445709	4939828	445706	4939994	0.40	9.5	166	on-ramp NB N Augusta	R6
116	AG	445706	4939994	445714	4940025	0.40	9.5	33	on-ramp NB N Augusta	R6
117	AG	445714	4940025	445742	4940059	0.40	9.5	44	on-ramp NB N Augusta	R6
118	AG	445742	4940059	445798	4940125	0.40	9.5	86	on-ramp NB N Augusta	R6
119	AG	445798	4940125	445888	4940227	0.40	9.5	136	on-ramp NB N Augusta	R6
120	AG	445888	4940227	445911	4940264	0.40	9.5	43	on-ramp NB N Augusta	R6
121	AG	446751	4941048	446363	4940725	0.44	13.5	505	east of N Augusta	WB1
122	AG	446363	4940725	446152	4940534	0.44	13.5	284	east of N Augusta	WB1
123	AG	446152	4940534	445941	4940321	0.44	13.5	300	east of N Augusta	WB1
124	AG	445941	4940321	445757	4940134	0.44	13.5	262	east of N Augusta	WB1
125	AG	445757	4940134	445623	4940009	0.44	13.5	183	east of N Augusta	WB1
126	AG	445948	4940327	445912	4940299	0.44	9.5	45	off-ramp Parkdale	R7
127	AG	445912	4940299	445823	4940219	0.44	9.5	120	off-ramp Parkdale	R7
128	AG	445823	4940219	445795	4940200	0.44	9.5	33	off-ramp Parkdale	R7
129	AG	445795	4940200	445759	4940194	0.44	9.5	37	off-ramp Parkdale	R7
130	AG	445759	4940194	445729	4940204	0.44	9.5	31	off-ramp Parkdale	R7
131	AG	445729	4940204	445645	4940291	0.44	9.5	121	off-ramp Parkdale	R7

EXISTING (2022) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
132	AG	445637	4940284	445697	4940217	0.44	9.5	90	on-ramp Parkdale	R8
133	AG	445697	4940217	445718	4940175	0.44	9.5	47	on-ramp Parkdale	R8
134	AG	445718	4940175	445721	4940144	0.44	9.5	31	on-ramp Parkdale	R8
135	AG	445721	4940144	445714	4940117	0.44	9.5	28	on-ramp Parkdale	R8
136	AG	445714	4940117	445698	4940092	0.44	9.5	29	on-ramp Parkdale	R8
137	AG	445698	4940092	445664	4940050	0.44	9.5	55	on-ramp Parkdale	R8
138	AG	445664	4940050	445654	4940038	0.44	9.5	15	on-ramp Parkdale	R8
139	AG	445622	4940011	445507	4939885	0.44	13.5	171	west of N Augusta	WB2
140	AG	445507	4939885	445366	4939742	0.44	13.5	201	west of N Augusta	WB2
141	BR	445366	4939742	445215	4939587	4.94	13.5	217	west of N Augusta	WB2
142	BR	445215	4939587	445072	4939442	9.44	13.5	203	west of N Augusta	WB3
143	BR	445072	4939442	444939	4939306	9.44	13.5	191	west of N Augusta	WB3
144	BR	444939	4939307	444717	4939084	4.94	13.5	314	west of N Augusta	WB4
145	AG	444717	4939084	444527	4938889	0.44	13.5	272	west of N Augusta	WB4
146	AG	444527	4938889	444338	4938702	0.44	13.5	266	west of N Augusta	WB4
147	AG	444337	4938703	444105	4938463	0.44	13.5	333	west of Stewart blvd	WB5
148	AG	444105	4938463	443892	4938251	0.44	13.5	301	west of Stewart blvd	WB5
149	AG	443892	4938251	443767	4938128	0.44	13.5	176	west of Stewart blvd	WB5
150	AG	443767	4938128	443691	4938062	0.44	13.5	100	west of Stewart blvd	WB5
151	AG	443691	4938062	443549	4937957	0.44	13.5	177	west of Stewart blvd	WB5
152	AG	443548	4937958	443383	4937845	0.44	13.5	200	west of Stewart blvd	WB6
153	AG	443383	4937845	443090	4937656	0.44	13.5	350	west of Stewart blvd	WB6
154	AG	443090	4937656	442900	4937531	0.44	13.5	227	west of Stewart blvd	WB6
155	AG	442900	4937531	442813	4937476	0.44	13.5	103	west of Stewart blvd	WB6
156	AG	444610	4938975	444581	4938954	0.44	13.5	37	off-ramp NB/SB St bl	R9
157	AG	444581	4938954	444498	4938879	0.44	13.5	112	off-ramp NB/SB St bl	R9
158	AG	444498	4938879	444471	4938864	0.44	13.5	31	off-ramp NB/SB St bl	R9
159	AG	444471	4938864	444444	4938862	0.44	13.5	27	off-ramp NB/SB St bl	R9
160	AG	444444	4938862	444400	4938871	0.44	13.5	45	off-ramp NB/SB St bl	R9
161	AG	444400	4938871	444367	4938870	0.44	13.5	33	off-ramp NB/SB St bl	R9
162	AG	444367	4938870	444341	4938857	0.44	13.5	30	off-ramp NB/SB St bl	R9
163	AG	444341	4938857	444273	4938798	0.44	13.5	89	off-ramp NB/SB St bl	R9
164	AG	444273	4938798	444240	4938749	0.44	13.5	59	off-ramp NB/SB St bl	R9
165	AG	444312	4938714	444292	4938736	0.44	9.5	30	on-ramp NB Stwt blvd	R10
166	AG	444292	4938736	444274	4938755	0.44	9.5	26	on-ramp NB Stwt blvd	R10
167	AG	444274	4938755	444272	4938770	0.44	9.5	15	on-ramp NB Stwt blvd	R10
168	AG	444272	4938770	444280	4938789	0.44	9.5	21	on-ramp NB Stwt blvd	R10
169	AG	444280	4938789	444353	4938854	0.44	9.5	98	on-ramp NB Stwt blvd	R10
170	AG	444353	4938854	444372	4938864	0.44	9.5	22	on-ramp NB Stwt blvd	R10
171	AG	444372	4938864	444390	4938864	0.44	9.5	18	on-ramp NB Stwt blvd	R10
172	AG	444390	4938864	444406	4938859	0.44	9.5	17	on-ramp NB Stwt blvd	R10
173	AG	444406	4938859	444420	4938843	0.44	9.5	21	on-ramp NB Stwt blvd	R10
174	AG	444420	4938843	444425	4938825	0.44	9.5	18	on-ramp NB Stwt blvd	R10
175	AG	444425	4938825	444421	4938802	0.44	9.5	24	on-ramp NB Stwt blvd	R10
176	AG	444421	4938802	444371	4938744	0.44	9.5	76	on-ramp NB Stwt blvd	R10
177	AG	444371	4938744	444353	4938718	0.44	9.5	32	on-ramp NB Stwt blvd	R10
178	AG	444168	4938782	444192	4938758	0.44	9.5	34	on-ramp SB Stwt blvd	R11
179	AG	444192	4938758	444232	4938735	0.44	9.5	46	on-ramp SB Stwt blvd	R11
180	AG	444232	4938735	444246	4938720	0.44	9.5	21	on-ramp SB Stwt blvd	R11
181	AG	444246	4938720	444253	4938697	0.44	9.5	24	on-ramp SB Stwt blvd	R11
182	AG	444253	4938697	444252	4938679	0.44	9.5	18	on-ramp SB Stwt blvd	R11
183	AG	444252	4938679	444235	4938649	0.44	9.5	34	on-ramp SB Stwt blvd	R11
184	AG	444235	4938649	444172	4938567	0.44	9.5	104	on-ramp SB Stwt blvd	R11
185	AG	444172	4938567	444065	4938439	0.44	9.5	166	on-ramp SB Stwt blvd	R11
186	AG	444065	4938439	443990	4938360	0.44	9.5	109	on-ramp SB Stwt blvd	R11
187	AG	443990	4938360	443962	4938321	0.44	9.5	48	on-ramp SB Stwt blvd	R11

Notes:
(1) AG - at grade, BR - bridge
(2) Weighted average of assumed vehicle exhaust height is 0.40 m for east bound traffic on the 401 and ramps, 0.44 m for west bound traffic on the 401 and ramps and 0.42 m on Stewart Blvd and North Augusta Road. Bridge height is approximately 7 m at Stewart Blvd and North Augusta road. Bridge height is approximately 9 m at CP rail tracks and Ormond Street
(3) Mixing zone widths are based on lane width * # of lanes + 6m.
(4) Calculated based on each link's starting and ending coordinates. Sample calculation: Length (m) = SQRT((Y2-Y1)^2+(X2-X1)^2)

Future Interim No Build (2032) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
1	AG	442822	4937463	442889	4937505	0.40	13.5	79	west of Stewart blvd	EB1
2	AG	442889	4937505	442941	4937539	0.40	13.5	61	west of Stewart blvd	EB1
3	AG	442941	4937539	442998	4937575	0.40	13.5	68	west of Stewart blvd	EB1
4	AG	442998	4937575	443059	4937616	0.40	13.5	73	west of Stewart blv	EB1
5	AG	443059	4937617	443139	4937667	0.40	13.5	95	west of Stewart blvd	EB2
6	AG	443139	4937667	443225	4937722	0.40	13.5	102	west of Stewart blvd	EB2
7	AG	443225	4937722	443299	4937772	0.40	13.5	89	west of Stewart blvd	EB2
8	AG	443299	4937772	443378	4937821	0.40	13.5	93	west of Stewart blvd	EB2
9	AG	443378	4937821	443444	4937867	0.40	13.5	81	west of Stewart blvd	EB2
10	AG	443444	4937867	443503	4937905	0.40	13.5	70	west of Stewart blvd	EB2
11	AG	443502	4937906	443584	4937961	0.40	13.5	98	west of Stewart blvd	EB3
12	AG	443584	4937961	443637	4938001	0.40	13.5	66	west of Stewart blvd	EB3
13	AG	443637	4938001	443690	4938041	0.40	13.5	67	west of Stewart blvd	EB3
14	AG	443690	4938041	443756	4938099	0.40	13.5	88	west of Stewart blvd	EB3
15	AG	443756	4938099	443819	4938159	0.40	13.5	87	west of Stewart blvd	EB3
16	AG	443819	4938159	443903	4938242	0.40	13.5	118	west of Stewart blvd	EB3
17	AG	443903	4938242	443973	4938311	0.40	13.5	99	west of Stewart blvd	EB3
18	AG	443972	4938311	444085	4938426	0.40	13.5	160	west of Stewart blvd	EB4
19	AG	444085	4938426	444179	4938521	0.40	13.5	134	west of Stewart blvd	EB4
20	AG	444179	4938521	444268	4938612	0.40	13.5	127	west of Stewart blvd	EB4
21	AG	444268	4938612	444351	4938695	0.40	13.5	118	west of Stewart blvd	EB4
22	AG	444045	4938386	444064	4938397	0.40	9.5	22	off-ramp NB/SB St bl	R1
23	AG	444064	4938397	444111	4938439	0.40	9.5	63	off-ramp NB/SB St bl	R1
24	AG	444111	4938439	444144	4938465	0.40	9.5	42	off-ramp NB/SB St bl	R1
25	AG	444144	4938465	444175	4938479	0.40	9.5	33	off-ramp NB/SB St bl	R1
26	AG	444175	4938479	444223	4938486	0.40	9.5	49	off-ramp NB/SB St bl	R1
27	AG	444223	4938486	444261	4938492	0.40	9.5	38	off-ramp NB/SB St bl	R1
28	AG	444261	4938492	444279	4938501	0.40	9.5	20	off-ramp NB/SB St bl	R1
29	AG	444279	4938501	444298	4938523	0.40	9.5	29	off-ramp NB/SB St bl	R1
30	AG	444298	4938523	444348	4938590	0.40	9.5	84	off-ramp NB/SB St bl	R1
31	AG	444348	4938590	444404	4938666	0.40	9.5	95	off-ramp NB/SB St bl	R1
32	AG	444399	4938672	444359	4938620	0.40	9.5	65	on-ramp SB Stwt blvd	R2
33	AG	444359	4938620	444292	4938531	0.40	9.5	111	on-ramp SB Stwt blvd	R2
34	AG	444292	4938531	444273	4938512	0.40	9.5	27	on-ramp SB Stwt blvd	R2
35	AG	444273	4938512	444257	4938503	0.40	9.5	18	on-ramp SB Stwt blvd	R2
36	AG	444257	4938503	444234	4938503	0.40	9.5	23	on-ramp SB Stwt blvd	R2
37	AG	444234	4938503	444218	4938524	0.40	9.5	26	on-ramp SB Stwt blvd	R2
38	AG	444218	4938524	444222	4938547	0.40	9.5	23	on-ramp SB Stwt blvd	R2
39	AG	444222	4938547	444240	4938572	0.40	9.5	31	on-ramp SB Stwt blvd	R2
40	AG	444240	4938572	444268	4938602	0.40	9.5	41	on-ramp SB Stwt blvd	R2
41	AG	444268	4938602	444301	4938635	0.40	9.5	46	on-ramp SB Stwt blvd	R2
42	AG	444301	4938635	444313	4938657	0.40	9.5	25	on-ramp SB Stwt blvd	R2
43	AG	445027	4938350	444593	4938576	0.42	25.0	489	NB/SB Stewart blvd	IC1
44	BR	444593	4938576	444522	4938610	3.92	25.0	79	NB/SB Stewart blvd	IC1
45	BR	444522	4938610	444438	4938651	3.92	25.0	93	NB/SB Stewart blvd	IC1
46	BR	444438	4938651	444370	4938686	7.42	25.0	77	NB/SB Stewart blvd	IC2
47	BR	444370	4938686	444332	4938704	7.42	25.0	42	NB/SB Stewart blvd	IC2
48	BR	444332	4938704	444286	4938736	7.42	25.0	73	NB/SB Stewart blvd	IC2
49	BR	444267	4938736	443973	4938875	3.92	25.0	325	NB/SB Stewart blvd	IC3
50	AG	443973	4938875	443602	4939059	0.42	25.0	414	NB/SB Stewart blvd	IC3
51	AG	444351	4938695	444433	4938777	0.40	13.5	116	west of N Augusta	EB5
52	AG	444433	4938777	444519	4938863	0.40	13.5	121	west of N Augusta	EB5
53	AG	444519	4938863	444584	4938930	0.40	13.5	93	west of N Augusta	EB5
54	AG	444584	4938930	444649	4938996	0.40	13.5	94	west of N Augusta	EB5
55	AG	444649	4938996	444719	4939064	0.40	13.5	97	west of N Augusta	EB5
56	AG	444719	4939064	444812	4939158	0.40	13.5	132	west of N Augusta	EB6
57	BR	444812	4939158	444948	4939297	4.90	13.5	195	west of N Augusta	EB6
58	BR	444948	4939297	445029	4939379	9.40	13.5	116	west of N Augusta	EB7
59	BR	445029	4939379	445122	4939474	9.40	13.5	133	west of N Augusta	EB7
60	BR	445122	4939474	445198	4939551	9.40	13.5	107	west of N Augusta	EB7
61	BR	445198	4939551	445221	4939573	9.40	13.5	32	west of N Augusta	EB7
62	BR	445220	4939573	445354	4939705	4.90	13.5	188	west of N Augusta	EB8
63	AG	445354	4939705	445476	4939827	0.40	13.5	172	west of N Augusta	EB8
64	AG	445476	4939827	445549	4939901	0.40	13.5	104	west of N Augusta	EB8
65	AG	445549	4939901	445630	4939986	0.40	13.5	118	west of N Augusta	EB8
66	AG	444608	4938569	444582	4938592	0.40	9.5	35	on-ramp NB Stwt blvd	R3
67	AG	444582	4938592	444543	4938616	0.40	9.5	45	on-ramp NB Stwt Blvd	R3
68	AG	444543	4938616	444506	4938642	0.40	9.5	46	on-ramp NB Stwt blvd	R3
69	AG	444506	4938642	444488	4938667	0.40	9.5	31	on-ramp NB Stwt blvd	R3
70	AG	444488	4938667	444474	4938697	0.40	9.5	34	on-ramp NB Stwt blvd	R3
71	AG	444474	4938697	444469	4938729	0.40	9.5	32	on-ramp NB Stwt blvd	R3
72	AG	444469	4938729	444471	4938754	0.40	9.5	25	on-ramp NB Stwt blvd	R3
73	AG	444471	4938754	444482	4938785	0.40	9.5	33	on-ramp NB Stwt blvd	R3
74	AG	444482	4938785	444494	4938809	0.40	9.5	26	on-ramp NB Stwt blvd	R3
75	AG	444494	4938809	444523	4938845	0.40	9.5	47	on-ramp NB Stwt blvd	R3
76	AG	444523	4938845	444548	4938873	0.40	9.5	38	on-ramp NB Stwt blvd	R3
77	AG	444548	4938873	444591	4938924	0.40	9.5	67	on-ramp NB Stwt blvd	R3
78	AG	444591	4938924	444637	4938973	0.40	9.5	67	on-ramp NB Stwt blvd	R3
79	AG	444637	4938973	444674	4939011	0.40	9.5	53	on-ramp NB Stwt blvd	R3
80	AG	444674	4939011	444684	4939030	0.40	9.5	21	on-ramp NB Stwt blvd	R3
81	AG	445786	4939549	445725	4939731	0.42	23.5	192	NB/SB N Augusta	IC4
82	BR	445725	4939731	445650	4939934	3.92	23.5	217	NB/SB N Augusta	IC4
83	BR	445650	4939936	445628	4939993	7.42	23.5	62	NB/SB N Augusta	IC5
84	BR	445628	4939993	445610	4940047	7.42	23.5	56	NB/SB N Augusta	IC5
85	BR	445610	4940047	445587	4940115	3.92	23.5	72	NB/SB N Augusta	IC6
86	AG	445587	4940115	445570	4940156	0.42	23.5	44	NB/SB N Augusta	IC6
87	AG	445570	4940156	445543	4940193	0.42	23.5	46	NB/SB N Augusta	IC6
88	AG	445630	4939986	445805	4940156	0.40	13.5	244	east of N Augusta	EB9
89	AG	445805	4940156	445943	4940297	0.40	13.5	197	east of N Augusta	EB9
90	AG	445943	4940297	446163	4940521	0.40	13.5	314	east of N Augusta	EB9
91	AG	446163	4940521	446373	4940713	0.40	13.5	284	east of N Augusta	EB9
92	AG	446373	4940713	446758	4941033	0.40	13.5	500	east of N Augusta	EB9
93	AG	445389	4939740	445418	4939762	0.40	9.5	36	off-ramp NB/SB N Aug	R4
94	AG	445418	4939762	445457	4939799	0.40	9.5	54	off-ramp NB/SB N Aug	R4
95	AG	445457	4939799	445524	4939858	0.40	9.5	89	off-ramp NB/SB N Aug	R4
96	AG	445524	4939858	445543	4939873	0.40	9.5	24	off-ramp NB/SB N Aug	R4
97	AG	445543	4939873	445562	4939879	0.40	9.5	20	off-ramp NB/SB N Aug	R4
98	AG	445562	4939879	445582	4939880	0.40	9.5	20	off-ramp NB/SB N Aug	R4
99	AG	445582	4939880	445601	4939869	0.40	9.5	21	off-ramp NB/SB N Aug	R4
100	AG	445601	4939869	445625	4939837	0.40	9.5	41	off-ramp NB/SB N Aug	R4
101	AG	445625	4939837	445645	4939802	0.40	9.5	40	off-ramp NB/SB N Aug	R4
102	AG	445645	4939802	445681	4939740	0.40	9.5	71	off-ramp NB/SB N Aug	R4
103	AG	445681	4939740	445692	4939730	0.40	9.5	15	off-ramp NB/SB N Aug	R4
104	AG	445692	4939730	445705	4939730	0.40	9.5	13	off-ramp NB/SB N Aug	R4
105	AG	445705	4939730	445719	4939733	0.40	9.5	14	off-ramp NB/SB N Aug	R4
106	AG	445691	4939818	445689	4939798	0.40	9.5	20	on-ramp SB N Aug	R5
107	AG	445689	4939798	445680	4939786	0.40	9.5	15	on-ramp SB N Aug	R5
108	AG	445680	4939786	445661	4939790	0.40	9.5	20	on-ramp SB N Aug	R5
109	AG	445661	4939790	445597	4939896	0.40	9.5	124	on-ramp SB N Aug	R5
110	AG	445597	4939896	445596	4939923	0.40	9.5	27	on-ramp SB N Aug	R5
111	AG	445596	4939923	445607	4939950	0.40	9.5	29	on-ramp SB N Aug	R5
112	AG	445607	4939950	445622	4939968	0.40	9.5	24	on-ramp SB N Aug	R5
113	AG	445622	4939968	445626	4939982	0.40	9.5	14	on-ramp SB N Aug	R5
114	AG	445707	4939772	445709	4939828	0.40	9.5	56	on-ramp NB N Augusta	R6
115	AG	445709	4939828	445706	4939994	0.40	9.5	166	on-ramp NB N Augusta	R6
116	AG	445706	4939994	445714	4940025	0.40	9.5	33	on-ramp NB N Augusta	R6
117	AG	445714	4940025	445742	4940059	0.40	9.5	44	on-ramp NB N Augusta	R6
118	AG	445742	4940059	445796	4940125	0.40	9.5	86	on-ramp NB N Augusta	R6
119	AG	445798	4940125	445888	4940227	0.40	9.5	136	on-ramp NB N Augusta	R6
120	AG	445888	4940227	445911	4940264	0.40	9.5	43	on-ramp NB N Augusta	R6
121	AG	446751	4941048	446363	4940725	0.44	13.5	505	east of N Augusta	WB1
122	AG	446363	4940725	446152	4940534	0.44	13.5	284	east of N Augusta	WB1
123	AG	446152	4940534	445941	4940321	0.44	13.5	300	east of N Augusta	WB1
124	AG	445941	4940321	445757	4940134	0.44	13.5	262	east of N Augusta	WB1
125	AG	445757	4940134	445623	4940009	0.44	13.5	183	east of N Augusta	WB1
126	AG	445948	4940327	445912	4940299	0.44	9.5	45	off-ramp Parkdale	R7
127	AG	445912	4940299	445823	4940219	0.44	9.5	120	off-ramp Parkdale	R7
128	AG	445823	4940219	445795	4940200	0.44	9.5	33	off-ramp Parkdale	R7
129	AG	445795	4940200	445759	4940194	0.44	9.5	37	off-ramp Parkdale	R7
130	AG	445759	4940194	445729	4940204	0.44	9.5	31	off-ramp Parkdale	R7
131	AG	445729	4940204	445645	4940291	0.44	9.5	121	off-ramp Parkdale	R7

Future Interim No Build (2032) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
132	AG	445637	4940284	445697	4940217	0.44	9.5	90	on-ramp Parkdale	R8
133	AG	445697	4940217	445718	4940175	0.44	9.5	47	on-ramp Parkdale	R8
134	AG	445718	4940175	445721	4940144	0.44	9.5	31	on-ramp Parkdale	R8
135	AG	445721	4940144	445714	4940117	0.44	9.5	28	on-ramp Parkdale	R8
136	AG	445714	4940117	445698	4940092	0.44	9.5	29	on-ramp Parkdale	R8
137	AG	445698	4940092	445664	4940050	0.44	9.5	55	on-ramp Parkdale	R8
138	AG	445664	4940060	445654	4940038	0.44	9.5	15	on-ramp Parkdale	R8
139	AG	445622	4940011	445507	4939885	0.44	13.5	171	west of N Augusta	WB2
140	AG	445507	4939885	445366	4939742	0.44	13.5	201	west of N Augusta	WB2
141	BR	445366	4939742	445215	4939587	4.94	13.5	217	west of N Augusta	WB2
142	BR	445215	4939587	445072	4939442	9.44	13.5	203	west of N Augusta	WB3
143	BR	445072	4939442	444939	4939306	9.44	13.5	191	west of N Augusta	WB3
144	BR	444939	4939307	444717	4939084	4.94	13.5	314	west of N Augusta	WB4
145	AG	444717	4939084	444527	4938889	0.44	13.5	272	west of N Augusta	WB4
146	AG	444527	4938889	444338	4938702	0.44	13.5	266	west of N Augusta	WB4
147	AG	444337	4938703	444105	4938463	0.44	13.5	333	west of Stewart blvd	WB5
148	AG	444105	4938463	443892	4938251	0.44	13.5	301	west of Stewart blvd	WB5
149	AG	443892	4938251	443767	4938128	0.44	13.5	176	west of Stewart blvd	WB5
150	AG	443767	4938128	443691	4938062	0.44	13.5	100	west of Stewart blvd	WB5
151	AG	443691	4938062	443549	4937957	0.44	13.5	177	west of Stewart blvd	WB5
152	AG	443548	4937958	443383	4937845	0.44	13.5	200	west of Stewart blvd	WB6
153	AG	443383	4937845	443290	4937656	0.44	13.5	350	west of Stewart blvd	WB6
154	AG	443090	4937656	442900	4937531	0.44	13.5	227	west of Stewart blvd	WB6
155	AG	442900	4937531	442813	4937476	0.44	13.5	103	west of Stewart blvd	WB6
156	AG	444610	4938975	444581	4938954	0.44	13.5	37	off-ramp NB/SB St bl	R9
157	AG	444581	4938954	444498	4938879	0.44	13.5	112	off-ramp NB/SB St bl	R9
158	AG	444498	4938879	444471	4938864	0.44	13.5	31	off-ramp NB/SB St bl	R9
159	AG	444471	4938864	444444	4938862	0.44	13.5	27	off-ramp NB/SB St bl	R9
160	AG	444444	4938862	444400	4938871	0.44	13.5	45	off-ramp NB/SB St bl	R9
161	AG	444400	4938871	444367	4938870	0.44	13.5	33	off-ramp NB/SB St bl	R9
162	AG	444367	4938870	444341	4938857	0.44	13.5	30	off-ramp NB/SB St bl	R9
163	AG	444341	4938857	444273	4938798	0.44	13.5	89	off-ramp NB/SB St bl	R9
164	AG	444273	4938798	444240	4938749	0.44	13.5	59	off-ramp NB/SB St bl	R9
165	AG	444312	4938714	444292	4938736	0.44	9.5	30	on-ramp NB Stwt blvd	R10
166	AG	444292	4938736	444274	4938755	0.44	9.5	26	on-ramp NB Stwt blvd	R10
167	AG	444274	4938755	444272	4938770	0.44	9.5	15	on-ramp NB Stwt blvd	R10
168	AG	444272	4938770	444280	4938789	0.44	9.5	21	on-ramp NB Stwt blvd	R10
169	AG	444280	4938789	444353	4938854	0.44	9.5	98	on-ramp NB Stwt blvd	R10
170	AG	444353	4938854	444372	4938864	0.44	9.5	22	on-ramp NB Stwt blvd	R10
171	AG	444372	4938864	444390	4938864	0.44	9.5	18	on-ramp NB Stwt blvd	R10
172	AG	444390	4938864	444406	4938859	0.44	9.5	17	on-ramp NB Stwt blvd	R10
173	AG	444406	4938859	444420	4938843	0.44	9.5	21	on-ramp NB Stwt blvd	R10
174	AG	444420	4938843	444425	4938825	0.44	9.5	18	on-ramp NB Stwt blvd	R10
175	AG	444425	4938825	444421	4938802	0.44	9.5	24	on-ramp NB Stwt blvd	R10
176	AG	444421	4938802	444371	4938744	0.44	9.5	76	on-ramp NB Stwt blvd	R10
177	AG	444371	4938744	444353	4938718	0.44	9.5	32	on-ramp NB Stwt blvd	R10
178	AG	444168	4938782	444192	4938758	0.44	9.5	34	on-ramp SB Stwt blvd	R11
179	AG	444192	4938758	444232	4938735	0.44	9.5	46	on-ramp SB Stwt blvd	R11
180	AG	444232	4938735	444246	4938720	0.44	9.5	21	on-ramp SB Stwt blvd	R11
181	AG	444246	4938720	444253	4938697	0.44	9.5	24	on-ramp SB Stwt blvd	R11
182	AG	444253	4938697	444252	4938679	0.44	9.5	18	on-ramp SB Stwt blvd	R11
183	AG	444252	4938679	444235	4938649	0.44	9.5	34	on-ramp SB Stwt blvd	R11
184	AG	444235	4938649	444172	4938567	0.44	9.5	104	on-ramp SB Stwt blvd	R11
185	AG	444172	4938567	444065	4938439	0.44	9.5	166	on-ramp SB Stwt blvd	R11
186	AG	444065	4938439	443990	4938360	0.44	9.5	109	on-ramp SB Stwt blvd	R11
187	AG	443990	4938360	443962	4938321	0.44	9.5	48	on-ramp SB Stwt blvd	R11

Notes:
(1) AG - at grade, BR - bridge
(2) Weighted average of assumed vehicle exhaust height is 0.40 m for east bound traffic on the 401 and ramps, 0.44 m for west bound traffic on the 401 and ramps and 0.42 m on Stewart Blvd and North Augusta Road. Bridge height is approximately 7 m at Stewart Blvd and North Augusta road. Bridge height is approximately 9 m at CP rail tracks and Ormond Street
(3) Mixing zone widths are based on lane width * # of lanes + 6m.
(4) Calculated based on each link's starting and ending coordinates. Sample calculation: Length (m) = $SQRT((Y2-Y1)^2+(X2-X1)^2)$

Future Interim Build (2032) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
1	AG	442826	4937465	443162	4937684	0.40	17.3	402	west of Stewart Blvd	EB1
2	AG	443162	4937684	443395	4937836	0.40	17.3	278	west of Stewart Blvd	EB1
3	AG	443395	4937836	443529	4937920	0.40	17.3	158	west of Stewart Blvd	EB1
4	AG	443529	4937920	443663	4938028	0.40	17.3	172	west of Stewart Blvd	EB1
5	AG	443663	4938028	443818	4938156	0.40	17.3	201	west of Stewart Blvd	EB2
6	AG	443818	4938156	443980	4938318	0.40	17.3	229	west of Stewart Blvd	EB2
7	AG	443980	4938318	444153	4938493	0.40	17.3	246	west of Stewart Blvd	EB2
8	AG	444153	4938493	444354	4938695	0.40	17.3	284	west of Stewart Blvd	EB2
9	AG	445028	4938349	444696	4938521	0.42	25.0	373	NB/SB Stewart Blvd	IC1
10	BR	444696	4938521	444493	4938626	3.92	25.0	229	NB/SB Stewart Blvd	IC1
11	BR	444493	4938627	444228	4938758	7.42	25.0	296	NB/SB Stewart Blvd	IC2
12	BR	444229	4938758	444114	4938810	3.92	25.0	126	NB/SB Stewart Blvd	IC3
13	AG	444114	4938810	443597	4939062	0.42	25.0	576	NB/SB Stewart Blvd	IC3
14	AG	444054	4938392	444081	4938407	0.40	9.5	31	EB off-ramp Stwt Blv	R1
15	AG	444081	4938407	444132	4938454	0.40	9.5	69	EB off-ramp Stwt Blv	R1
16	AG	444132	4938454	444180	4938494	0.40	9.5	63	EB off-ramp Stwt Blv	R1
17	AG	444180	4938494	444230	4938531	0.40	9.5	62	EB off-ramp Stwt Blv	R1
18	AG	444230	4938531	444304	4938571	0.40	9.5	84	EB off-ramp Stwt Blv	R1
19	AG	444304	4938571	444332	4938587	0.40	9.5	32	EB off-ramp Stwt Blv	R1
20	BR	444332	4938587	444350	4938610	7.40	9.5	29	EB off-ramp Stwt Blv	R2
21	BR	444350	4938610	444359	4938642	7.40	9.5	33	EB off-ramp Stwt Blv	R2
22	BR	444359	4938642	444357	4938662	7.40	9.5	20	EB off-ramp Stwt Blv	R2
23	BR	444357	4938662	444352	4938681	7.40	9.5	20	EB off-ramp Stwt Blv	R2
24	BR	444352	4938681	444348	4938698	7.40	9.5	17	EB off-ramp Stwt Blv	R2
25	BR	444351	4938616	444364	4938632	7.40	9.5	21	EB off-ramp Stwt Blv	R3
26	BR	444364	4938632	444431	4938655	7.40	9.5	71	EB off-ramp Stwt Blv	R3
27	AG	444354	4938695	444493	4938835	0.40	17.3	198	west of N Augusta	EB3
28	AG	444493	4938835	444669	4939011	0.40	17.3	249	west of N Augusta	EB3
29	AG	444669	4939011	444774	4939118	0.40	17.3	150	west of N Augusta	EB3
30	AG	444774	4939118	444881	4939226	0.40	17.3	152	west of N Augusta	EB3
31	BR	444881	4939226	444949	4939296	4.90	17.3	97	west of N Augusta	EB3
32	BR	444949	4939296	445034	4939381	9.40	17.3	121	west of N Augusta	EB4
33	BR	445034	4939381	445154	4939504	9.40	17.3	171	west of N Augusta	EB4
34	BR	445154	4939504	445242	4939594	9.40	17.3	126	west of N Augusta	EB4
35	BR	445242	4939594	445378	4939726	4.90	17.3	190	west of N Augusta	EB5
36	AG	445378	4939726	445481	4939831	0.40	17.3	146	west of N Augusta	EB5
37	AG	445481	4939831	445593	4939941	0.40	17.3	157	west of N Augusta	EB5
38	AG	445593	4939941	445651	4939999	0.40	17.3	82	west of N Augusta	EB5
39	BR	444340	4938702	444388	4938703	7.40	9.5	48	EB on-ramp Stwt blv	R4
40	BR	444388	4938703	444424	4938705	7.40	9.5	36	EB on-ramp Stwt blv	R4
41	BR	444424	4938705	444458	4938722	7.40	9.5	38	EB on-ramp Stwt blv	R4
42	BR	444458	4938722	444469	4938736	7.40	9.5	18	EB on-ramp Stwt blv	R4
43	BR	444469	4938736	444483	4938772	7.40	9.5	38	EB on-ramp Stwt blv	R4
44	BR	444479	4938631	444457	4938707	7.40	9.5	79	EB on-ramp Stwt blv	R5
45	BR	444457	4938707	444467	4938734	7.40	9.5	28	EB on-ramp Stwt blv	R5
46	AG	444482	4938772	444519	4938833	0.40	9.5	71	EB on-ramp Stwt blv	R6
47	AG	444519	4938833	444584	4938905	0.40	9.5	98	EB on-ramp Stwt blv	R6
48	AG	444584	4938905	444623	4938948	0.40	9.5	58	EB on-ramp Stwt blv	R6
49	AG	444623	4938948	444708	4939038	0.40	9.5	124	EB on-ramp Stwt blv	R6
50	AG	444708	4939038	444711	4939053	0.40	9.5	15	EB on-ramp Stwt blv	R6
51	AG	445836	4939473	445762	4939608	0.42	23.5	154	NB/SB N Augusta	IC4
52	AG	445762	4939608	445717	4939742	0.42	23.5	141	NB/SB N Augusta	IC4
53	BR	445717	4939742	445689	4939883	3.92	23.5	144	NB/SB N Augusta	IC4
54	BR	445689	4939883	445645	4940006	7.42	23.5	131	NB/SB N Augusta	IC5
55	BR	445645	4940006	445626	4940071	7.42	23.5	68	NB/SB N Augusta	IC5
56	BR	445626	4940071	445577	4940150	3.92	23.5	93	NB/SB N Augusta	IC6
57	AG	445577	4940150	445522	4940218	0.42	23.5	88	NB/SB N Augusta	IC6
58	AG	445311	4939661	445342	4939677	0.40	9.5	35	EB off-ramp N Aug	R7
59	AG	445342	4939677	445400	4939732	0.40	9.5	79	EB off-ramp N Aug	R7
60	AG	445400	4939732	445448	4939776	0.40	9.5	66	EB off-ramp N Aug	R7
61	AG	445448	4939776	445521	4939837	0.40	9.5	95	EB off-ramp N Aug	R7
62	BR	445521	4939837	445571	4939875	7.40	9.5	63	EB off-ramp N Aug	R8
63	BR	445571	4939875	445625	4939908	7.40	9.5	64	EB off-ramp N Aug	R8
64	BR	445625	4939908	445648	4939926	7.40	9.5	29	EB off-ramp N Aug	R8
65	BR	445648	4939926	445657	4939929	7.40	9.5	10	EB off-ramp N Aug	R8
66	BR	445657	4939929	445677	4939920	7.40	9.5	22	EB off-ramp N Aug	R8
67	BR	445646	4939926	445666	4939947	7.40	9.5	28	EB off-ramp N Aug	R9
68	BR	445666	4939947	445662	4939972	7.40	9.5	26	EB off-ramp N Aug	R9
69	AG	445651	4939999	446132	4940484	0.40	17.3	683	east of N Augusta	EB6
70	AG	446132	4940484	446342	4940684	0.40	17.3	290	east of N Augusta	EB6
71	AG	446342	4940684	446752	4941034	0.40	17.3	540	east of N Augusta	EB6
72	BR	445678	4939918	445685	4939960	7.40	9.5	42	EB on-ramp N Augusta	R10
73	BR	445685	4939960	445704	4939983	7.40	9.5	30	EB on-ramp N Augusta	R10
74	BR	445704	4939983	445749	4940065	7.40	9.5	93	EB on-ramp N Augusta	R10
75	BR	445664	4939965	445681	4939960	7.40	9.5	18	EB on-ramp N Augusta	R11
76	BR	445681	4939960	445700	4939985	7.40	9.5	32	EB on-ramp N Augusta	R11
77	BR	445700	4939985	445723	4940023	7.40	9.5	43	EB on-ramp N Augusta	R11
78	BR	445723	4940023	445733	4940036	7.40	9.5	16	EB on-ramp N Augusta	R11
79	AG	445748	4940065	445786	4940117	0.40	9.5	64	EB on-ramp N Augusta	R12
80	AG	445786	4940117	445864	4940202	0.40	9.5	116	EB on-ramp N Augusta	R12
81	AG	445864	4940202	445895	4940246	0.40	9.5	53	EB on-ramp N Augusta	R12
82	AG	446745	4941045	446281	4940658	0.44	17.3	604	east of N Augusta	WB1
83	AG	446281	4940658	445921	4940300	0.44	17.3	508	east of N Augusta	WB1
84	AG	445921	4940300	445641	4940024	0.44	17.3	393	east of N Augusta	WB1
85	AG	446153	4940531	446100	4940490	0.44	9.5	67	WB off-ramp Parkdale	R13
86	AG	446100	4940490	446018	4940419	0.44	9.5	108	WB off-ramp Parkdale	R13
87	AG	446018	4940419	445952	4940362	0.44	9.5	87	WB off-ramp Parkdale	R13
88	AG	445952	4940362	445782	4940384	0.44	9.5	172	WB off-ramp Parkdale	R13
89	AG	445782	4940384	445770	4940398	0.44	9.5	18	WB off-ramp Parkdale	R13
90	AG	445770	4940398	445774	4940419	0.44	9.5	21	WB off-ramp Parkdale	R13
91	AG	445770	4940399	445746	4940402	0.44	9.5	24	WB off-ramp Parkdale	R14
92	BR	445632	4940055	445620	4940118	7.44	9.5	65	WB on-ramp N Augusta	R15
93	BR	445620	4940118	445604	4940166	7.44	9.5	50	WB on-ramp N Augusta	R15
94	BR	445604	4940166	445600	4940193	7.44	9.5	28	WB on-ramp N Augusta	R15
95	BR	445600	4940193	445740	4940239	7.44	9.5	147	WB on-ramp N Augusta	R15
96	AG	445740	4940240	445752	4940163	0.44	9.5	78	WB on-ramp N Augusta	R16
97	AG	445752	4940163	445742	4940143	0.44	9.5	22	WB on-ramp N Augusta	R16
98	AG	445742	4940143	445679	4940068	0.44	9.5	98	WB on-ramp N Augusta	R16
99	AG	445679	4940068	445653	4940035	0.44	9.5	42	WB on-ramp N Augusta	R16
100	AG	445641	4940024	445504	4939885	0.44	17.3	195	west of N Augusta	WB2
101	AG	445504	4939885	445375	4939749	0.44	17.3	188	west of N Augusta	WB2
102	BR	445375	4939749	445231	4939603	4.94	17.3	204	west of N Augusta	WB2
103	BR	445231	4939604	445100	4939470	9.44	17.3	188	west of N Augusta	WB3
104	BR	445100	4939470	445006	4939373	9.44	17.3	135	west of N Augusta	WB3
105	BR	445006	4939373	444940	4939306	9.44	17.3	94	west of N Augusta	WB3
106	BR	444940	4939307	444804	4939169	4.94	17.3	194	west of N Augusta	WB4
107	AG	444804	4939169	444657	4939024	0.44	17.3	207	west of N Augusta	WB4
108	AG	444657	4939024	444542	4938907	0.44	17.3	164	west of N Augusta	WB4
109	AG	444542	4938907	444385	4938748	0.44	17.3	224	west of N Augusta	WB4
110	AG	444385	4938748	444338	4938703	0.44	17.3	65	west of N Augusta	WB4
111	AG	444338	4938703	444130	4938494	0.44	17.3	294	west of Stewart Blvd	WB5
112	AG	444130	4938494	443923	4938283	0.44	17.3	296	west of Stewart Blvd	WB5
113	AG	443923	4938283	443805	4938167	0.44	17.3	166	west of Stewart Blvd	WB5
114	AG	443805	4938167	443652	4938045	0.44	17.3	196	west of Stewart Blvd	WB5
115	AG	443653	4938046	443540	4937951	0.44	17.3	148	west of Stewart Blvd	WB6
116	AG	443540	4937951	443295	4937791	0.44	17.3	282	west of Stewart Blvd	WB6
117	AG	443295	4937791	443062	4937641	0.44	17.3	277	west of Stewart Blvd	WB6
118	AG	443062	4937641	442815	4937481	0.44	17.3	294	west of Stewart Blvd	WB6
119	BR	445583	4940140	445588	4940119	7.44	9.5	22	WB on-ramp N Augusta	R17
120	BR	445588	4940119	445581	4939993	7.44	9.5	126	WB on-ramp N Augusta	R17
121	AG	445581	4939994	445574	4939981	0.44	9.5	14	WB on-ramp N Augusta	R18
122	AG	445574	4939981	445486	4939888	0.44	9.5	128	WB on-ramp N Augusta	R18
123	AG	445486	4939888	445416	4939814	0.44	9.5	102	WB on-ramp N Augusta	R18
124	AG	445416	4939814	445347	4939739	0.44	9.5	102	WB on-ramp N Augusta	R18
125	AG	445347	4939739	445244	4939627	0.44	9.5	153	WB on-ramp N Augusta	R18
126	AG	445244	4939627	445231	4939605	0.44	9.5	25	WB on-ramp N Augusta	R18
127	AG	444696	4939062	444615	4938993	0.44	9.5	106	WB off-ramp Stwt blv	R19
128	AG	444615	4938993	444505	4938894	0.44	9.5	148	WB off-ramp Stwt blv	R19
129	AG	444505	4938894	444455	4938861	0.44	9.5	60	WB off-ramp Stwt blv	R19
130	BR	444455	4938861	444377	4938825	7.44	9.5	86	WB off-ramp Stwt blv	R20
131	BR	444377	4938825	444356	4938810	7.44	9.5	26	WB off-ramp Stwt blv	R20
132	BR	444356	4938810	444338	4938783	7.44	9.5	33	WB off-ramp Stwt blv	R20
133	BR	444338	4938783	444334	4938758	7.44	9.5	25	WB off-ramp Stwt blv	R20
134	BR	444334	4938758	444334	4938741	7.44	9.5	17	WB off-ramp Stwt blv	R20
135	BR	444334	4938741	444344	4938709	7.44	9.5	33	WB off-ramp Stwt blv	R20
136	BR	444338	4938785	444323	4938765	7.44	9.5	24	WB off-ramp Stwt blv	R21

Future Interim Build (2032) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
137	BR	444323	4938765	444293	4938749	7.44	9.5	34	WB off-ramp Stwt blv	R21
138	BR	444293	4938749	444252	4938746	7.44	9.5	41	WB off-ramp Stwt blv	R21
139	BR	444235	4938754	444253	4938673	7.44	9.5	83	WB on-ramp Stwt blvd	R22
140	BR	444253	4938673	444233	4938644	7.44	9.5	36	WB on-ramp Stwt blvd	R22
141	BR	444345	4938699	444319	4938693	7.44	9.5	27	WB on-ramp Stwt blvd	R23
142	BR	444319	4938693	444289	4938692	7.44	9.5	30	WB on-ramp Stwt blvd	R23
143	BR	444289	4938692	444253	4938673	7.44	9.5	41	WB on-ramp Stwt blvd	R23
144	AG	444233	4938645	444192	4938587	0.44	9.5	71	WB on-ramp Stwt blvd	R24
145	AG	444192	4938587	444163	4938550	0.44	9.5	47	WB on-ramp Stwt blvd	R24
146	AG	444163	4938550	444086	4938466	0.44	9.5	115	WB on-ramp Stwt blvd	R24
147	AG	444086	4938466	443994	4938367	0.44	9.5	135	WB on-ramp Stwt blvd	R24
148	AG	443994	4938367	443973	4938340	0.44	9.5	34	WB on-ramp Stwt blvd	R24

Notes:
(1) AG - at grade, BR - bridge
(2) Weighted average of assumed vehicle exhaust height is 0.40 m for east bound traffic on the 401 and ramps, 0.44 m for west bound traffic on the 401 and ramps and 0.42 m on Stewart Blvd and North Augusta Road. Bridge height is approximately 7 m at Stewart Blvd and North Augusta road. Bridge height is approximtaely 9 m at CP rail tracks and Ormond Street
(3) Mixing zone widths are based on lane width * # of lanes + 6m
(4) Calculated based on each link's starting and ending coordinates. Sample calculation: Length (m) = SQRT((Y2-Y1²)+(X2-X1²)

Future Ultimate No Build (2042) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
1	AG	442826	4937465	443162	4937684	0.40	17.3	402	west of Stewart Blvd	EB1
2	AG	443162	4937684	443395	4937836	0.40	17.3	278	west of Stewart Blvd	EB1
3	AG	443395	4937836	443529	4937920	0.40	17.3	158	west of Stewart Blvd	EB1
4	AG	443529	4937920	443663	4938028	0.40	17.3	172	west of Stewart Blvd	EB1
5	AG	443663	4938028	443818	4938156	0.40	17.3	201	west of Stewart Blvd	EB2
6	AG	443818	4938156	443980	4938318	0.40	17.3	229	west of Stewart Blvd	EB2
7	AG	443980	4938318	444153	4938493	0.40	17.3	246	west of Stewart Blvd	EB2
8	AG	444153	4938493	444354	4938695	0.40	17.3	284	west of Stewart Blvd	EB2
9	AG	445028	4938349	444696	4938521	0.42	25.0	373	NB/SB Stewart Blvd	IC1
10	BR	444696	4938521	444493	4938626	3.92	25.0	229	NB/SB Stewart Blvd	IC1
11	BR	444493	4938627	444228	4938758	7.42	25.0	296	NB/SB Stewart Blvd	IC2
12	BR	444229	4938758	444114	4938810	3.92	25.0	126	NB/SB Stewart Blvd	IC3
13	AG	444114	4938810	443597	4939062	0.42	25.0	576	NB/SB Stewart Blvd	IC3
14	AG	444054	4938392	444081	4938407	0.40	9.5	31	EB off-ramp Stwt Blv	R1
15	AG	444081	4938407	444132	4938454	0.40	9.5	69	EB off-ramp Stwt Blv	R1
16	AG	444132	4938454	444180	4938494	0.40	9.5	63	EB off-ramp Stwt Blv	R1
17	AG	444180	4938494	444230	4938531	0.40	9.5	62	EB off-ramp Stwt Blv	R1
18	AG	444230	4938531	444304	4938571	0.40	9.5	84	EB off-ramp Stwt Blv	R1
19	AG	444304	4938571	444332	4938587	0.40	9.5	32	EB off-ramp Stwt Blv	R1
20	BR	444332	4938587	444350	4938610	7.40	9.5	29	EB off-ramp Stwt Blv	R2
21	BR	444350	4938610	444359	4938642	7.40	9.5	33	EB off-ramp Stwt Blv	R2
22	BR	444359	4938642	444357	4938662	7.40	9.5	20	EB off-ramp Stwt Blv	R2
23	BR	444357	4938662	444352	4938681	7.40	9.5	20	EB off-ramp Stwt Blv	R2
24	BR	444352	4938681	444348	4938698	7.40	9.5	17	EB off-ramp Stwt Blv	R2
25	BR	444351	4938616	444364	4938632	7.40	9.5	21	EB off-ramp Stwt Blv	R3
26	BR	444364	4938632	444431	4938655	7.40	9.5	71	EB off-ramp Stwt Blv	R3
27	AG	444354	4938695	444493	4938835	0.40	17.3	198	west of N Augusta	EB3
28	AG	444493	4938835	444669	4939011	0.40	17.3	249	west of N Augusta	EB3
29	AG	444669	4939011	444774	4939118	0.40	17.3	150	west of N Augusta	EB3
30	AG	444774	4939118	444881	4939226	0.40	17.3	152	west of N Augusta	EB3
31	BR	444881	4939226	444949	4939296	4.90	17.3	97	west of N Augusta	EB3
32	BR	444949	4939296	445034	4939381	9.40	17.3	121	west of N Augusta	EB4
33	BR	445034	4939381	445154	4939504	9.40	17.3	171	west of N Augusta	EB4
34	BR	445154	4939504	445242	4939594	9.40	17.3	126	west of N Augusta	EB4
35	BR	445242	4939594	445378	4939726	4.90	17.3	190	west of N Augusta	EB5
36	AG	445378	4939726	445481	4939831	0.40	17.3	146	west of N Augusta	EB5
37	AG	445481	4939831	445593	4939941	0.40	17.3	157	west of N Augusta	EB5
38	AG	445593	4939941	445651	4939999	0.40	17.3	82	west of N Augusta	EB5
39	BR	444340	4938702	444388	4938703	7.40	9.5	48	EB on-ramp Stwt blv	R4
40	BR	444388	4938703	444424	4938705	7.40	9.5	36	EB on-ramp Stwt blv	R4
41	BR	444424	4938705	444458	4938722	7.40	9.5	38	EB on-ramp Stwt blv	R4
42	BR	444458	4938722	444469	4938736	7.40	9.5	18	EB on-ramp Stwt blv	R4
43	BR	444469	4938736	444483	4938772	7.40	9.5	38	EB on-ramp Stwt blv	R4
44	BR	444479	4938631	444457	4938707	7.40	9.5	79	EB on-ramp Stwt blv	R5
45	BR	444457	4938707	444467	4938734	7.40	9.5	28	EB on-ramp Stwt blv	R5
46	AG	444482	4938772	444519	4938833	0.40	9.5	71	EB on-ramp Stwt blv	R6
47	AG	444519	4938833	444584	4938905	0.40	9.5	98	EB on-ramp Stwt blv	R6
48	AG	444584	4938905	444623	4938948	0.40	9.5	58	EB on-ramp Stwt blv	R6
49	AG	444623	4938948	444708	4939038	0.40	9.5	124	EB on-ramp Stwt blv	R6
50	AG	444708	4939038	444711	4939053	0.40	9.5	15	EB on-ramp Stwt blv	R6
51	AG	445836	4939473	445762	4939608	0.42	23.5	154	NB/SB N Augusta	IC4
52	AG	445762	4939608	445717	4939742	0.42	23.5	141	NB/SB N Augusta	IC4
53	BR	445717	4939742	445689	4939883	3.92	23.5	144	NB/SB N Augusta	IC4
54	BR	445689	4939883	445645	4940006	7.42	23.5	131	NB/SB N Augusta	IC5
55	BR	445645	4940006	445626	4940071	7.42	23.5	68	NB/SB N Augusta	IC5
56	BR	445626	4940071	445577	4940150	3.92	23.5	93	NB/SB N Augusta	IC6
57	AG	445577	4940150	445522	4940218	0.42	23.5	88	NB/SB N Augusta	IC6
58	AG	445311	4939661	445342	4939677	0.40	9.5	35	EB off-ramp N Aug	R7
59	AG	445342	4939677	445400	4939732	0.40	9.5	79	EB off-ramp N Aug	R7
60	AG	445400	4939732	445448	4939776	0.40	9.5	66	EB off-ramp N Aug	R7
61	AG	445448	4939776	445521	4939837	0.40	9.5	95	EB off-ramp N Aug	R7
62	BR	445521	4939837	445571	4939875	7.40	9.5	63	EB off-ramp N Aug	R8
63	BR	445571	4939875	445625	4939908	7.40	9.5	64	EB off-ramp N Aug	R8
64	BR	445625	4939908	445648	4939926	7.40	9.5	29	EB off-ramp N Aug	R8
65	BR	445648	4939926	445657	4939929	7.40	9.5	10	EB off-ramp N Aug	R8
66	BR	445657	4939929	445677	4939920	7.40	9.5	22	EB off-ramp N Aug	R8
67	BR	445646	4939926	445666	4939947	7.40	9.5	28	EB off-ramp N Aug	R9
68	BR	445666	4939947	445662	4939972	7.40	9.5	26	EB off-ramp N Aug	R9
69	AG	445651	4939999	446132	4940484	0.40	17.3	683	east of N Augusta	EB6
70	AG	446132	4940484	446342	4940684	0.40	17.3	290	east of N Augusta	EB6
71	AG	446342	4940684	446752	4941034	0.40	17.3	540	east of N Augusta	EB6
72	BR	445678	4939918	445685	4939960	7.40	9.5	42	EB on-ramp N Augusta	R10
73	BR	445685	4939960	445704	4939983	7.40	9.5	30	EB on-ramp N Augusta	R10
74	BR	445704	4939983	445749	4940065	7.40	9.5	93	EB on-ramp N Augusta	R10
75	BR	445664	4939965	445681	4939960	7.40	9.5	18	EB on-ramp N Augusta	R11
76	BR	445681	4939960	445700	4939985	7.40	9.5	32	EB on-ramp N Augusta	R11
77	BR	445700	4939985	445723	4940023	7.40	9.5	43	EB on-ramp N Augusta	R11
78	BR	445723	4940023	445733	4940036	7.40	9.5	16	EB on-ramp N Augusta	R11
79	AG	445748	4940065	445786	4940117	0.40	9.5	64	EB on-ramp N Augusta	R12
80	AG	445786	4940117	445864	4940202	0.40	9.5	116	EB on-ramp N Augusta	R12
81	AG	445864	4940202	445895	4940246	0.40	9.5	53	EB on-ramp N Augusta	R12
82	AG	446745	4941045	446281	4940658	0.44	17.3	604	east of N Augusta	WB1
83	AG	446281	4940658	445921	4940300	0.44	17.3	508	east of N Augusta	WB1
84	AG	445921	4940300	445641	4940024	0.44	17.3	393	east of N Augusta	WB1
85	AG	446153	4940531	446100	4940490	0.44	9.5	67	WB off-ramp Parkdale	R13
86	AG	446100	4940490	446018	4940419	0.44	9.5	108	WB off-ramp Parkdale	R13
87	AG	446018	4940419	445952	4940362	0.44	9.5	87	WB off-ramp Parkdale	R13
88	AG	445952	4940362	445782	4940384	0.44	9.5	172	WB off-ramp Parkdale	R13
89	AG	445782	4940384	445770	4940398	0.44	9.5	18	WB off-ramp Parkdale	R13
90	AG	445770	4940398	445774	4940419	0.44	9.5	21	WB off-ramp Parkdale	R13
91	AG	445770	4940399	445746	4940402	0.44	9.5	24	WB off-ramp Parkdale	R14
92	BR	445632	4940055	445620	4940118	7.44	9.5	65	WB on-ramp N Augusta	R15
93	BR	445620	4940118	445604	4940166	7.44	9.5	50	WB on-ramp N Augusta	R15
94	BR	445604	4940166	445600	4940193	7.44	9.5	28	WB on-ramp N Augusta	R15
95	BR	445600	4940193	445740	4940239	7.44	9.5	147	WB on-ramp N Augusta	R15
96	AG	445740	4940240	445752	4940163	0.44	9.5	78	WB on-ramp N Augusta	R16
97	AG	445752	4940163	445742	4940143	0.44	9.5	22	WB on-ramp N Augusta	R16
98	AG	445742	4940143	445679	4940068	0.44	9.5	98	WB on-ramp N Augusta	R16
99	AG	445679	4940068	445653	4940035	0.44	9.5	42	WB on-ramp N Augusta	R16
100	AG	445641	4940024	445504	4939885	0.44	17.3	195	west of N Augusta	WB2
101	AG	445504	4939885	445375	4939749	0.44	17.3	188	west of N Augusta	WB2
102	BR	445375	4939749	445231	4939603	4.94	17.3	204	west of N Augusta	WB2
103	BR	445231	4939604	445100	4939470	9.44	17.3	188	west of N Augusta	WB3
104	BR	445100	4939470	445006	4939373	9.44	17.3	135	west of N Augusta	WB3
105	BR	445006	4939373	444940	4939306	9.44	17.3	94	west of N Augusta	WB3
106	BR	444940	4939307	444804	4939169	4.94	17.3	194	west of N Augusta	WB4
107	AG	444804	4939169	444657	4939024	0.44	17.3	207	west of N Augusta	WB4
108	AG	444657	4939024	444542	4938907	0.44	17.3	164	west of N Augusta	WB4
109	AG	444542	4938907	444385	4938748	0.44	17.3	224	west of N Augusta	WB4
110	AG	444385	4938748	444338	4938703	0.44	17.3	65	west of N Augusta	WB4
111	AG	444338	4938703	444130	4938494	0.44	17.3	294	west of Stewart Blvd	WB5
112	AG	444130	4938494	443923	4938283	0.44	17.3	296	west of Stewart Blvd	WB5
113	AG	443923	4938283	443805	4938167	0.44	17.3	166	west of Stewart Blvd	WB5
114	AG	443805	4938167	443652	4938045	0.44	17.3	196	west of Stewart Blvd	WB5
115	AG	443653	4938046	443540	4937951	0.44	17.3	148	west of Stewart Blvd	WB6
116	AG	443540	4937951	443295	4937791	0.44	17.3	282	west of Stewart Blvd	WB6
117	AG	443295	4937791	443062	4937641	0.44	17.3	277	west of Stewart Blvd	WB6
118	AG	443062	4937641	442815	4937481	0.44	17.3	294	west of Stewart Blvd	WB6
119	BR	445583	4940140	445588	4940119	7.44	9.5	22	WB on-ramp N Augusta	R17
120	BR	445588	4940119	445581	4939993	7.44	9.5	126	WB on-ramp N Augusta	R17
121	AG	445581	4939994	445574	4939981	0.44	9.5	14	WB on-ramp N Augusta	R18
122	AG	445574	4939981	445486	4939888	0.44	9.5	128	WB on-ramp N Augusta	R18
123	AG	445486	4939888	445416	4939814	0.44	9.5	102	WB on-ramp N Augusta	R18
124	AG	445416	4939814	445347	4939739	0.44	9.5	102	WB on-ramp N Augusta	R18
125	AG	445347	4939739	445244	4939627	0.44	9.5	153	WB on-ramp N Augusta	R18
126	AG	445244	4939627	445231	4939605	0.44	9.5	25	WB on-ramp N Augusta	R18
127	AG	444696	4939062	444615	4938993	0.44	9.5	106	WB off-ramp Stwt blv	R19
128	AG	444615	4938993	444505	4938894	0.44	9.5	148	WB off-ramp Stwt blv	R19
129	AG	444505	4938894	444455	4938861	0.44	9.5	60	WB off-ramp Stwt blv	R19
130	BR	444455	4938861	444377	4938825	7.44	9.5	86	WB off-ramp Stwt blv	R20
131	BR	444377	4938825	444356	4938810	7.44	9.5	26	WB off-ramp Stwt blv	R20
132	BR	444356	4938810	444338	4938783	7.44	9.5	33	WB off-ramp Stwt blv	R20
133	BR	444338	4938783	444334	4938758	7.44	9.5	25	WB off-ramp Stwt blv	R20
134	BR	444334	4938758	444334	4938741	7.44	9.5	17	WB off-ramp Stwt blv	R20
135	BR	444334	4938741	444344	4938709	7.44	9.5	33	WB off-ramp Stwt blv	R20
136	BR	444338	4938785	444323	4938765	7.44	9.5	24	WB off-ramp Stwt blv	R21

Future Ultimate No Build (2042) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
137	BR	444323	4938765	444293	4938749	7.44	9.5	34	WB off-ramp Stwt blv	R21
138	BR	444293	4938749	444252	4938746	7.44	9.5	41	WB off-ramp Stwt blv	R21
139	BR	444235	4938754	444253	4938673	7.44	9.5	83	WB on-ramp Stwt blvd	R22
140	BR	444253	4938673	444233	4938644	7.44	9.5	36	WB on-ramp Stwt blvd	R22
141	BR	444345	4938699	444319	4938693	7.44	9.5	27	WB on-ramp Stwt blvd	R23
142	BR	444319	4938693	444289	4938692	7.44	9.5	30	WB on-ramp Stwt blvd	R23
143	BR	444289	4938692	444253	4938673	7.44	9.5	41	WB on-ramp Stwt blvd	R23
144	AG	444233	4938645	444192	4938587	0.44	9.5	71	WB on-ramp Stwt blvd	R24
145	AG	444192	4938587	444163	4938550	0.44	9.5	47	WB on-ramp Stwt blvd	R24
146	AG	444163	4938550	444086	4938466	0.44	9.5	115	WB on-ramp Stwt blvd	R24
147	AG	444086	4938466	443994	4938367	0.44	9.5	135	WB on-ramp Stwt blvd	R24
148	AG	443994	4938367	443973	4938340	0.44	9.5	34	WB on-ramp Stwt blvd	R24

Notes:
(1) AG - at grade, BR - bridge
(2) Weighted average of assumed vehicle exhaust height is 0.40 m for east bound traffic on the 401 and ramps, 0.44 m for west bound traffic on the 401 and ramps and 0.42 m on Stewart Blvd and North Augusta Road. Bridge height is approximately 7 m at Stewart Blvd and North Augusta road. Bridge height is approximately 9 m at CP rail tracks and Ormond Street.
(3) Mixing zone widths are based on lane width * # of lanes + 6m
(4) Calculated based on each link's starting and ending coordinates. Sample calculation: Length (m) = SQRT((Y2-Y1²)+(X2-X1²)

Future Ultimate Build (2042) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
1	AG	442826	4937465	443162	4937684	0.40	21.0	402	west of Stewart Blvd	EB1
2	AG	443162	4937684	443395	4937836	0.40	21.0	278	west of Stewart Blvd	EB1
3	AG	443395	4937836	443529	4937920	0.40	21.0	158	west of Stewart Blvd	EB1
4	AG	443529	4937920	443663	4938028	0.40	21.0	172	west of Stewart Blvd	EB1
5	AG	443663	4938028	443818	4938156	0.40	21.0	201	west of Stewart Blvd	EB2
6	AG	443818	4938156	443980	4938318	0.40	21.0	229	west of Stewart Blvd	EB2
7	AG	443980	4938318	444153	4938493	0.40	21.0	246	west of Stewart Blvd	EB2
8	AG	444153	4938493	444354	4938695	0.40	21.0	284	west of Stewart Blvd	EB2
9	AG	445028	4938349	444696	4938521	0.42	25.0	373	NB/SB Stewart Blvd	IC1
10	BR	444696	4938521	444493	4938626	3.92	25.0	229	NB/SB Stewart Blvd	IC1
11	BR	444493	4938627	444228	4938758	7.42	25.0	296	NB/SB Stewart Blvd	IC2
12	BR	444229	4938758	444114	4938810	3.92	25.0	126	NB/SB Stewart Blvd	IC3
13	AG	444114	4938810	443597	4939062	0.42	25.0	576	NB/SB Stewart Blvd	IC3
14	AG	444054	4938392	444081	4938407	0.40	9.5	31	EB off-ramp Stwt Blv	R1
15	AG	444081	4938407	444132	4938454	0.40	9.5	69	EB off-ramp Stwt Blv	R1
16	AG	444132	4938454	444180	4938494	0.40	9.5	63	EB off-ramp Stwt Blv	R1
17	AG	444180	4938494	444230	4938531	0.40	9.5	62	EB off-ramp Stwt Blv	R1
18	AG	444230	4938531	444304	4938571	0.40	9.5	84	EB off-ramp Stwt Blv	R1
19	AG	444304	4938571	444332	4938587	0.40	9.5	32	EB off-ramp Stwt Blv	R1
20	BR	444332	4938587	444350	4938610	7.40	9.5	29	EB off-ramp Stwt Blv	R2
21	BR	444350	4938610	444359	4938642	7.40	9.5	33	EB off-ramp Stwt Blv	R2
22	BR	444359	4938642	444357	4938662	7.40	9.5	20	EB off-ramp Stwt Blv	R2
23	BR	444357	4938662	444352	4938681	7.40	9.5	20	EB off-ramp Stwt Blv	R2
24	BR	444352	4938681	444348	4938698	7.40	9.5	17	EB off-ramp Stwt Blv	R2
25	BR	444351	4938616	444364	4938632	7.40	9.5	21	EB off-ramp Stwt Blv	R3
26	BR	444364	4938632	444431	4938655	7.40	9.5	71	EB off-ramp Stwt Blv	R3
27	AG	444354	4938695	444493	4938835	0.40	21.0	198	west of N Augusta	EB3
28	AG	444493	4938835	444669	4939011	0.40	21.0	249	west of N Augusta	EB3
29	AG	444669	4939011	444774	4939118	0.40	21.0	150	west of N Augusta	EB3
30	AG	444774	4939118	444881	4939226	0.40	21.0	152	west of N Augusta	EB3
31	BR	444881	4939226	444949	4939296	4.90	21.0	97	west of N Augusta	EB3
32	BR	444949	4939296	445034	4939381	9.40	21.0	121	west of N Augusta	EB4
33	BR	445034	4939381	445154	4939504	9.40	21.0	171	west of N Augusta	EB4
34	BR	445154	4939504	445242	4939594	9.40	21.0	126	west of N Augusta	EB4
35	BR	445242	4939594	445378	4939726	4.90	21.0	190	west of N Augusta	EB5
36	AG	445378	4939726	445481	4939831	0.40	21.0	146	west of N Augusta	EB5
37	AG	445481	4939831	445593	4939941	0.40	21.0	157	west of N Augusta	EB5
38	AG	445593	4939941	445651	4939999	0.40	21.0	82	west of N Augusta	EB5
39	BR	444340	4938702	444388	4938703	7.40	9.5	48	EB on-ramp Stwt blv	R4
40	BR	444388	4938703	444424	4938705	7.40	9.5	36	EB on-ramp Stwt blv	R4
41	BR	444424	4938705	444458	4938722	7.40	9.5	38	EB on-ramp Stwt blv	R4
42	BR	444458	4938722	444469	4938736	7.40	9.5	18	EB on-ramp Stwt blv	R4
43	BR	444469	4938736	444483	4938772	7.40	9.5	38	EB on-ramp Stwt blv	R4
44	BR	444479	4938631	444457	4938707	7.40	9.5	79	EB on-ramp Stwt blv	R5
45	BR	444457	4938707	444467	4938734	7.40	9.5	28	EB on-ramp Stwt blv	R5
46	AG	444482	4938772	444519	4938833	0.40	9.5	71	EB on-ramp Stwt blv	R6
47	AG	444519	4938833	444584	4938905	0.40	9.5	98	EB on-ramp Stwt blv	R6
48	AG	444584	4938905	444623	4938948	0.40	9.5	58	EB on-ramp Stwt blv	R6
49	AG	444623	4938948	444708	4939038	0.40	9.5	124	EB on-ramp Stwt blv	R6
50	AG	444708	4939038	444711	4939053	0.40	9.5	15	EB on-ramp Stwt blv	R6
51	AG	445836	4939473	445762	4939608	0.42	23.5	154	NB/SB N Augusta	IC4
52	AG	445762	4939608	445717	4939742	0.42	23.5	141	NB/SB N Augusta	IC4
53	BR	445717	4939742	445689	4939883	3.92	23.5	144	NB/SB N Augusta	IC4
54	BR	445689	4939883	445645	4940006	7.42	23.5	131	NB/SB N Augusta	IC5
55	BR	445645	4940006	445626	4940071	7.42	23.5	68	NB/SB N Augusta	IC5
56	BR	445626	4940071	445577	4940150	3.92	23.5	93	NB/SB N Augusta	IC6
57	AG	445577	4940150	445522	4940218	0.42	23.5	88	NB/SB N Augusta	IC6
58	AG	445311	4939661	445342	4939677	0.40	9.5	35	EB off-ramp N Aug	R7
59	AG	445342	4939677	445400	4939732	0.40	9.5	79	EB off-ramp N Aug	R7
60	AG	445400	4939732	445448	4939776	0.40	9.5	66	EB off-ramp N Aug	R7
61	AG	445448	4939776	445521	4939837	0.40	9.5	95	EB off-ramp N Aug	R7
62	BR	445521	4939837	445571	4939875	7.40	9.5	63	EB off-ramp N Aug	R8
63	BR	445571	4939875	445625	4939908	7.40	9.5	64	EB off-ramp N Aug	R8
64	BR	445625	4939908	445648	4939926	7.40	9.5	29	EB off-ramp N Aug	R8
65	BR	445648	4939926	445657	4939929	7.40	9.5	10	EB off-ramp N Aug	R8
66	BR	445657	4939929	445677	4939920	7.40	9.5	22	EB off-ramp N Aug	R8
67	BR	445646	4939926	445666	4939947	7.40	9.5	28	EB off-ramp N Aug	R9
68	BR	445666	4939947	445662	4939972	7.40	9.5	26	EB off-ramp N Aug	R9
69	AG	445651	4939999	446132	4940484	0.40	21.0	683	east of N Augusta	EB6
70	AG	446132	4940484	446342	4940684	0.40	21.0	290	east of N Augusta	EB6
71	AG	446342	4940684	446752	4941034	0.40	21.0	540	east of N Augusta	EB6
72	BR	445678	4939918	445685	4939960	7.40	9.5	42	EB on-ramp N Augusta	R10
73	BR	445685	4939960	445704	4939983	7.40	9.5	30	EB on-ramp N Augusta	R10
74	BR	445704	4939983	445749	4940065	7.40	9.5	93	EB on-ramp N Augusta	R10
75	BR	445664	4939965	445681	4939960	7.40	9.5	18	EB on-ramp N Augusta	R11
76	BR	445681	4939960	445700	4939985	7.40	9.5	32	EB on-ramp N Augusta	R11
77	BR	445700	4939985	445723	4940023	7.40	9.5	43	EB on-ramp N Augusta	R11
78	BR	445723	4940023	445733	4940036	7.40	9.5	16	EB on-ramp N Augusta	R11
79	AG	445748	4940065	445786	4940117	0.40	9.5	64	EB on-ramp N Augusta	R12
80	AG	445786	4940117	445864	4940202	0.40	9.5	116	EB on-ramp N Augusta	R12
81	AG	445864	4940202	445895	4940246	0.40	9.5	53	EB on-ramp N Augusta	R12
82	AG	446745	4941045	446281	4940658	0.44	21.0	604	east of N Augusta	WB1
83	AG	446281	4940658	445921	4940300	0.44	21.0	508	east of N Augusta	WB1
84	AG	445921	4940300	445641	4940024	0.44	21.0	393	east of N Augusta	WB1
85	AG	446153	4940531	446100	4940490	0.44	9.5	67	WB off-ramp Parkdale	R13
86	AG	446100	4940490	446018	4940419	0.44	9.5	108	WB off-ramp Parkdale	R13
87	AG	446018	4940419	445952	4940362	0.44	9.5	87	WB off-ramp Parkdale	R13
88	AG	445952	4940362	445782	4940384	0.44	9.5	172	WB off-ramp Parkdale	R13
89	AG	445782	4940384	445770	4940398	0.44	9.5	18	WB off-ramp Parkdale	R13
90	AG	445770	4940398	445774	4940419	0.44	9.5	21	WB off-ramp Parkdale	R13
91	AG	445770	4940399	445746	4940402	0.44	9.5	24	WB off-ramp Parkdale	R14
92	BR	445632	4940055	445620	4940118	7.44	9.5	65	WB on-ramp N Augusta	R15
93	BR	445620	4940118	445604	4940166	7.44	9.5	50	WB on-ramp N Augusta	R15
94	BR	445604	4940166	445600	4940193	7.44	9.5	28	WB on-ramp N Augusta	R15
95	BR	445600	4940193	445740	4940239	7.44	9.5	147	WB on-ramp N Augusta	R15
96	AG	445740	4940240	445752	4940163	0.44	9.5	78	WB on-ramp N Augusta	R16
97	AG	445752	4940163	445742	4940143	0.44	9.5	22	WB on-ramp N Augusta	R16
98	AG	445742	4940143	445679	4940068	0.44	9.5	98	WB on-ramp N Augusta	R16
99	AG	445679	4940068	445653	4940035	0.44	9.5	42	WB on-ramp N Augusta	R16
100	AG	445641	4940024	445504	4939885	0.44	21.0	195	west of N Augusta	WB2
101	AG	445504	4939885	445375	4939749	0.44	21.0	188	west of N Augusta	WB2
102	BR	445375	4939749	445231	4939603	4.94	21.0	204	west of N Augusta	WB2
103	BR	445231	4939604	445100	4939470	9.44	21.0	188	west of N Augusta	WB3
104	BR	445100	4939470	445006	4939373	9.44	21.0	135	west of N Augusta	WB3
105	BR	445006	4939373	444940	4939306	9.44	21.0	94	west of N Augusta	WB3
106	BR	444940	4939307	444804	4939169	4.94	21.0	194	west of N Augusta	WB4
107	AG	444804	4939169	444657	4939024	0.44	21.0	207	west of N Augusta	WB4
108	AG	444657	4939024	444542	4938907	0.44	21.0	164	west of N Augusta	WB4
109	AG	444542	4938907	444385	4938748	0.44	21.0	224	west of N Augusta	WB4
110	AG	444385	4938748	444338	4938703	0.44	21.0	65	west of N Augusta	WB4
111	AG	444338	4938703	444130	4938494	0.44	21.0	294	west of Stewart Blvd	WB5
112	AG	444130	4938494	443923	4938283	0.44	21.0	296	west of Stewart Blvd	WB5
113	AG	443923	4938283	443805	4938167	0.44	21.0	166	west of Stewart Blvd	WB5
114	AG	443805	4938167	443652	4938045	0.44	21.0	196	west of Stewart Blvd	WB5
115	AG	443653	4938046	443540	4937951	0.44	21.0	148	west of Stewart Blvd	WB6
116	AG	443540	4937951	443295	4937791	0.44	21.0	282	west of Stewart Blvd	WB6
117	AG	443295	4937791	443062	4937641	0.44	21.0	277	west of Stewart Blvd	WB6
118	AG	443062	4937641	442815	4937481	0.44	21.0	294	west of Stewart Blvd	WB6
119	BR	445583	4940140	445588	4940119	7.44	9.5	22	WB on-ramp N Augusta	R17
120	BR	445588	4940119	445581	4939993	7.44	9.5	126	WB on-ramp N Augusta	R17
121	AG	445581	4939994	445574	4939981	0.44	9.5	14	WB on-ramp N Augusta	R18
122	AG	445574	4939981	445486	4939888	0.44	9.5	128	WB on-ramp N Augusta	R18
123	AG	445486	4939888	445416	4939814	0.44	9.5	102	WB on-ramp N Augusta	R18
124	AG	445416	4939814	445347	4939739	0.44	9.5	102	WB on-ramp N Augusta	R18
125	AG	445347	4939739	445244	4939627	0.44	9.5	153	WB on-ramp N Augusta	R18
126	AG	445244	4939627	445231	4939605	0.44	9.5	25	WB on-ramp N Augusta	R18
127	AG	444696	4939062	444615	4938993	0.44	9.5	106	WB off-ramp Stwt blv	R19
128	AG	444615	4938993	444505	4938894	0.44	9.5	148	WB off-ramp Stwt blv	R19
129	AG	444505	4938894	444455	4938861	0.44	9.5	60	WB off-ramp Stwt blv	R19
130	BR	444455	4938861	444377	4938825	7.44	9.5	86	WB off-ramp Stwt blv	R20
131	BR	444377	4938825	444356	4938810	7.44	9.5	26	WB off-ramp Stwt blv	R20
132	BR	444356	4938810	444338	4938783	7.44	9.5	33	WB off-ramp Stwt blv	R20
133	BR	444338	4938783	444334	4938758	7.44	9.5	25	WB off-ramp Stwt blv	R20
134	BR	444334	4938758	444334	4938741	7.44	9.5	17	WB off-ramp Stwt blv	R20
135	BR	444334	4938741	444344	4938709	7.44	9.5	33	WB off-ramp Stwt blv	R20
136	BR	444338	4938785	444323	4938765	7.44	9.5	24	WB off-ramp Stwt blv	R21

Future Ultimate Build (2042) SCENARIO										
Link	Link Type [1]	Start of Link Easting (m)	Start of Link Northing (m)	End of Link Easting (m)	End of Link Northing (m)	Link Height [2] (m)	Mixing Zone Width [3] (m)	Link Length [4] (m)	Link Description	Traffic Volume ID
137	BR	444323	4938765	444293	4938749	7.44	9.5	34	WB off-ramp Stwt blv	R21
138	BR	444293	4938749	444252	4938746	7.44	9.5	41	WB off-ramp Stwt blv	R21
139	BR	444235	4938754	444253	4938673	7.44	9.5	83	WB on-ramp Stwt blvd	R22
140	BR	444253	4938673	444233	4938644	7.44	9.5	36	WB on-ramp Stwt blvd	R22
141	BR	444345	4938699	444319	4938693	7.44	9.5	27	WB on-ramp Stwt blvd	R23
142	BR	444319	4938693	444289	4938692	7.44	9.5	30	WB on-ramp Stwt blvd	R23
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146	AG	444163	4938550	444086	4938466	0.44	9.5	115	WB on-ramp Stwt blvd	R24
147	AG	444086	4938466	443994	4938367	0.44	9.5	135	WB on-ramp Stwt blvd	R24
148	AG	443994	4938367	443973	4938340	0.44	9.5	34	WB on-ramp Stwt blvd	R24

Notes:
(1) AG - at grade, BR - bridge
(2) Weighted average of assumed vehicle exhaust height is 0.40 m for east bound traffic on the 401 and ramps, 0.44 m for west bound traffic on the 401 and ramps and 0.42 m on Stewart Blvd and North Augusta Road. Bridge height is approximately 7 m at Stewart Blvd and North Augusta road. Bridge height is approximtaely 9 m at CP rail tracks and Ormond Street
(3) Mixing zone widths are based on lane width * # of lanes + 6m
(4) Calculated based on each link's starting and ending coordinates. Sample calculation: Length (m) = SQRT((Y2-Y1²)+(X2-X1²)

Air Quality Assessment Report – Highway 401 Planning Study, Brockville, from 2 km West of Stewart Boulevard to 750 m East of North Augusta Road (GWP 4003-19-00)

March 28, 2023

Appendix G
Special Receptor Modelled Results

165001160

EXISTING (2022) SCENARIO																		
Background Concentration (µg/m³)	**374**	**374**	**19.0**	**16.6**	**8.1**	**20.4**	**11.0**	**5.6**	**5.3E-05**	**2.3E-05**	**0.70**	**0.37**	**0.063**	**0.021**	**1.9**	**20.7**	**7.0**	**0.073**	**0.030**
Predicted Project Concentrations (µg/m³)																			
Receptor ID	**CO**	**CO**	**NO_2**	**NO_2**	**NO_2**	**PM_{10}**	**$PM_{2.5}$**	**$PM_{2.5}$**	**B(a)P**	**B(a)P**	**Benzene**	**Benzene**	**1,3-Butadiene**	**1,3-Butadiene**	**Formaldehyde**	**Acetaldehyde**	**Acetaldehyde**	**Acrolein**	**Acrolein**
	1-hr	**8-hr**	**1-hr**	**24-hr**	**annual**	**24-hr**	**24-hr**	**annual**	**24-hr**	**annual**	**24-hr**	**annual**	**24-hr**	**annual**	**24-hr**	**0.5-hr**	**24-hr**	**1-hr**	**24-hr**
R001	383.1	289.3	232.2	57.2	43.3	9.5	3.9	0.9	**9.7E-05**	**2.5E-05**	0.109	0.0261	0.0074	0.0019	0.22	0.9	0.10	0.13	0.018
R002	405.9	301.4	245.2	60.4	47.9	10.3	4.2	1.1	**1.0E-04**	**2.8E-05**	0.118	0.0294	0.0079	0.0021	0.23	1.0	0.11	0.14	0.019
R003	419.1	325.5	252.6	62.7	50.9	10.8	4.4	1.2	**1.1E-04**	**3.0E-05**	0.123	0.0315	0.0082	0.0023	0.24	1.0	0.12	0.15	0.020
R004	342.0	253.2	176.8	48.4	42.7	8.6	3.4	0.9	**8.9E-05**	**2.3E-05**	0.108	0.0293	0.0069	0.0018	0.20	0.8	0.10	0.12	0.016
R005	410.9	289.3	205.8	39.2	40.1	6.8	2.8	0.7	**8.2E-05**	**2.0E-05**	0.110	0.0292	0.0065	0.0015	0.18	1.0	0.09	0.15	0.015
R006	229.4	180.8	138.9	26.9	32.8	5.1	2.0	0.6	**5.2E-05**	**1.6E-05**	0.071	0.023	0.0041	0.0012	0.12	0.6	0.06	0.08	0.010
R007	593.3	385.8	295.2	43.0	70.1	7.1	3.0	1.1	**9.1E-05**	**3.3E-05**	0.138	0.052	0.0072	0.0026	0.20	1.5	0.10	0.21	0.016
R008	250.8	192.9	140.5	26.0	32.6	4.4	1.8	0.5	**5.0E-05**	**1.5E-05**	0.069	0.0233	0.0039	0.0012	0.11	0.6	0.05	0.09	0.009
R009	225.4	180.8	140.5	27.2	31.0	5.0	2.0	0.6	**5.0E-05**	**1.5E-05**	0.062	0.0213	0.0039	0.0012	0.11	0.5	0.05	0.08	0.009
R010	149.7	120.6	126.6	18.8	17.0	3.2	1.3	0.3	3.4E-05	8.2E-06	0.040	0.0115	0.0027	0.0006	0.08	0.4	0.04	0.05	0.006
R011	168.4	120.6	133.1	20.2	17.3	3.2	1.3	0.3	3.4E-05	8.9E-06	0.035	0.0111	0.0026	0.0007	0.08	0.4	0.04	0.06	0.006
R012	167.9	120.6	133.3	20.9	17.0	3.3	1.4	0.3	3.5E-05	8.8E-06	0.034	0.0108	0.0027	0.0007	0.08	0.4	0.04	0.06	0.007
R013	205.4	132.6	139.7	27.0	20.6	4.2	1.8	0.4	4.5E-05	**1.1E-05**	0.041	0.0128	0.0034	0.0008	0.10	0.5	0.05	0.07	0.008
R014	249.7	204.9	151.8	35.3	32.6	5.5	2.3	0.7	**5.8E-05**	**1.8E-05**	0.064	0.0197	0.0044	0.0014	0.13	0.6	0.06	0.09	0.011
R015	105.2	84.4	107.8	14.7	13.2	2.5	1.0	0.3	2.5E-05	6.8E-06	0.027	0.0082	0.002	0.0005	0.06	0.3	0.03	0.04	0.005
R016	155.8	108.5	128.4	16.6	12.1	2.9	1.2	0.2	2.9E-05	6.2E-06	0.036	0.0078	0.0022	0.0005	0.06	0.4	0.03	0.05	0.005
R017	194.9	132.6	138.1	20.0	16.1	3.5	1.4	0.4	3.4E-05	8.7E-06	0.038	0.01	0.0026	0.0007	0.08	0.5	0.04	0.07	0.006
R018	348.7	265.2	214.5	43.3	34.1	6.4	2.7	0.8	**7.0E-05**	**2.0E-05**	0.066	0.02	0.0053	0.0015	0.16	0.8	0.08	0.12	0.013
R019	160.1	144.7	129.8	19.5	15.0	3.0	1.3	0.3	3.4E-05	7.6E-06	0.053	0.0096	0.0027	0.0006	0.08	0.4	0.04	0.06	0.006
R020	186.6	156.7	135.2	23.0	19.6	3.8	1.6	0.3	4.2E-05	9.7E-06	0.064	0.013	0.0033	0.0007	0.09	0.5	0.05	0.07	0.008
R021	182.5	156.7	134.9	22.6	18.8	3.7	1.5	0.3	4.1E-05	9.5E-06	0.063	0.0123	0.0032	0.0007	0.09	0.4	0.04	0.06	0.008
R022	190.5	168.8	135.8	24.0	20.8	4.0	1.6	0.4	4.4E-05	**1.0E-05**	0.067	0.0139	0.0034	0.0008	0.10	0.5	0.05	0.07	0.008
R023	402.3	301.4	202.0	34.8	37.8	5.8	2.4	0.6	**7.0E-05**	**1.8E-05**	0.107	0.0272	0.0055	0.0014	0.15	1.0	0.07	0.14	0.013
R024	323.3	217.0	163.1	34.1	40.7	5.7	2.4	0.6	**7.0E-05**	**1.9E-05**	0.097	0.0295	0.0055	0.0015	0.15	0.8	0.07	0.11	0.013
R025	122.4	120.6	111.6	19.8	19.4	3.5	1.4	0.3	3.7E-05	9.3E-06	0.042	0.0131	0.0029	0.0007	0.08	0.3	0.04	0.04	0.007
R026	166.2	156.7	128.2	25.5	27.0	4.7	1.9	0.5	4.8E-05	**1.3E-05**	0.055	0.0184	0.0038	0.001	0.11	0.4	0.05	0.06	0.009
R027	111.6	108.5	108.1	19.2	17.2	3.3	1.4	0.3	3.5E-05	8.5E-06	0.038	0.0113	0.0028	0.0007	0.08	0.3	0.04	0.04	0.007
R028	104.0	96.4	104.6	16.5	14.5	2.7	1.1	0.3	3.0E-05	7.2E-06	0.033	0.0094	0.0023	0.0006	0.07	0.3	0.03	0.04	0.006
R029	201.1	168.8	138.9	26.6	22.6	4.8	1.9	0.5	4.5E-05	**1.2E-05**	0.054	0.014	0.0035	0.001	0.10	0.5	0.05	0.07	0.009
R030	201.0	168.8	138.9	26.3	22.3	4.6	1.8	0.5	4.5E-05	**1.2E-05**	0.053	0.0138	0.0035	0.0009	0.10	0.5	0.05	0.07	0.009
R031	203.1	168.8	139.2	26.6	22.3	4.5	1.8	0.5	4.6E-05	**1.2E-05**	0.053	0.0137	0.0035	0.0009	0.10	0.5	0.05	0.07	0.009
R032	197.1	156.7	138.5	25.9	21.3	4.2	1.8	0.5	4.4E-05	**1.2E-05**	0.051	0.013	0.0034	0.0009	0.10	0.5	0.05	0.07	0.008
R033	198.9	168.8	138.8	26.2	21.3	4.2	1.8	0.5	4.5E-05	**1.2E-05**	0.051	0.013	0.0035	0.0009	0.10	0.5	0.05	0.07	0.008
R034	323.0	253.2	196.6	42.3	35.6	6.6	2.8	0.8	**7.0E-05**	**2.0E-05**	0.068	0.0211	0.0054	0.0015	0.16	0.8	0.08	0.11	0.013
R035	265.3	217.0	160.3	35.0	28.3	5.5	2.3	0.6	**5.8E-05**	**1.6E-05**	0.058	0.0169	0.0045	0.0012	0.13	0.6	0.06	0.09	0.011
R036	242.4	192.9	145.8	32.1	25.5	5.0	2.1	0.6	**5.4E-05**	**1.4E-05**	0.054	0.0153	0.0041	0.0011	0.12	0.6	0.06	0.08	0.010
R037	285.5	217.0	174.6	35.1	25.2	5.1	2.2	0.6	**5.7E-05**	**1.4E-05**	0.053	0.0148	0.0044	0.0011	0.13	0.7	0.06	0.10	0.011
R038	133.3	108.5	119.9	17.8	10.8	3.0	1.2	0.2	3.2E-05	5.5E-06	0.038	0.0071	0.0025	0.0004	0.07	0.3	0.03	0.05	0.006
R039	164.4	132.6	130.4	23.1	16.7	3.9	1.6	0.3	4.3E-05	8.3E-06	0.053	0.0112	0.0033	0.0006	0.09	0.4	0.05	0.06	0.008
R040	204.7	168.8	135.5	26.5	21.6	4.4	1.9	0.4	**5.1E-05**	**1.1E-05**	0.067	0.015	0.004	0.0008	0.11	0.5	0.05	0.07	0.009
R041	477.5	349.6	238.9	47.0	48.3	8.2	3.4	0.8	**9.8E-05**	**2.4E-05**	0.126	0.0352	0.0078	0.0019	0.22	1.2	0.10	0.17	0.018
R042	331.1	253.2	198.6	47.5	42.2	8.1	3.1	1.0	**7.7E-05**	**2.4E-05**	0.077	0.0269	0.0059	0.0018	0.17	0.8	0.08	0.11	0.015
R043	353.0	253.2	214.8	49.0	38.7	7.5	3.1	0.9	**7.9E-05**	**2.2E-05**	0.071	0.0236	0.006	0.0017	0.17	0.8	0.08	0.12	0.015
R044	337.6	241.1	206.0	44.9	34.0	6.9	2.8	0.8	**7.2E-05**	**2.0E-05**	0.065	0.0207	0.0055	0.0015	0.16	0.8	0.08	0.12	0.014
R045	369.3	265.2	228.3	51.2	35.3	7.9	3.3	0.8	**8.3E-05**	**2.1E-05**	0.070	0.0212	0.0062	0.0016	0.18	0.9	0.09	0.13	0.015
R046	273.4	192.9	168.2	42.0	30.6	6.9	2.8	0.7	**7.0E-05**	**1.7E-05**	0.064	0.0187	0.0053	0.0013	0.15	0.7	0.07	0.09	0.013
R047	271.7	204.9	167.6	44.0	33.4	7.6	3.0	0.8	**7.4E-05**	**1.9E-05**	0.069	0.0207	0.0057	0.0014	0.16	0.6	0.08	0.09	0.014
R048	265.8	204.9	161.5	44.0	34.7	8.0	3.1	0.8	**7.5E-05**	**2.0E-05**	0.072	0.0219	0.0058	0.0015	0.17	0.6	0.08	0.09	0.014
R049	262.9	217.0	152.7	42.4	34.9	8.1	3.2	0.8	**7.4E-05**	**2.0E-05**	0.076	0.0226	0.0057	0.0015	0.16	0.6	0.08	0.09	0.014
R050	218.0	192.9	139.6	33.4	29.2	7.2	2.7	0.7	**6.1E-05**	**1.6E-05**	0.067	0.0195	0.0048	0.0012	0.14	0.5	0.07	0.08	0.011
R051	244.6	192.9	141.2	28.9	36.3	5.9	2.3	0.7	**5.6E-05**	**1.8E-05**	0.074	0.0258	0.0044	0.0014	0.12	0.6	0.06	0.09	0.010
R052	237.6	180.8	141.2	27.1	30.3	5.5	2.1	0.6	5.0E-05	**1.6E-05**	0.063	0.0207	0.0038	0.0012	0.11	0.6	0.05	0.08	0.009
R053	314.5	241.1	185.6	36.8	37.4	6.5	2.6	0.9	**6.4E-05**	**2.1E-05**	0.073	0.0242	0.0049	0.0016	0.14	0.8	0.07	0.11	0.012
R054	350.3	265.2	209.4	44.3	39.9	7.6	3.0	1.0	**7.3E-05**	**2.3E-05**	0.080	0.0252	0.0056	0.0017	0.16	0.8	0.08	0.12	0.014
R055	369.5	277.3	222.7	49.1	41.4	8.3	3.3	1.0	**8.0E-05**	**2.4E-05**	0.085	0.0255	0.0061	0.0019	0.18	0.9	0.09	0.13	0.015
R056	370.1	277.3	223.8	49.5	41.1	8.5	3.3	1.0	**8.1E-05**	**2.4E-05**	0.084	0.0252	0.0062	0.0019	0.18	0.9	0.09	0.13	0.015
R057	359.1	265.2	217.4	46.3	38.9	7.8	3.1	1.0	**7.8E-05**	**2.3E-05**	0.081	0.0238	0.0059	0.0018	0.17	0.9	0.08	0.12	0.014
R058	351.4	253.2	213.6	45.2	35.6	7.5	3.1	0.8	**7.6E-05**	**2.1E-05**	0.075	0.0215	0.0059	0.0016	0.17	0.8	0.08	0.12	0.014
R059	350.5	253.2	214.1	43.1	33.0	6.7	2.8	0.8	**7.1E-05**	**1.9E-05**	0.070	0.0196	0.0054	0.0015	0.16	0.8	0.08	0.12	0.013
R060	300.9	217.0	183.6	36.2	27.6	5.3	2.3	0.6	**5.9E-05**	**1.6E-05**	0.061	0.0162	0.0045	0.0012	0.13	0.7	0.06	0.10	0.011
Maximum	593.3	385.8	295.2	62.7	70.1	10.8	4.4	1.2	1.1E-04	3.3E-05	0.138	0.052	0.0082	0.0026	0.24	1.5	0.12	0.21	0.020

Notes:

1. Maximum predicted concentrations are presented in the table.
2. Maximum predicted concentrations in bold are predicted to exceed the air quality criteria.

FUTURE INTERIM NO BUILD (2032) SCENARIO

Background Concentration (μg/m³)	374	374	19.0	16.6	8.1	20.4	11.0	5.6	5.28E-05	2.30E-05	7.00E-01	3.70E-01	6.30E-02	2.10E-02	1.90	20.7	7.0	0.073	0.030
	Predicted Project Concentrations (μg/m³)																		
Receptor ID	CO	CO	NO_2	NO_2	NO_2	PM_{10}	$PM_{2.5}$	$PM_{2.5}$	B(a)P	B(a)P	Benzene	Benzene	1,3-Butadiene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acetaldehyde	Acrolein	Acrolein
	1-hr	8-hr	1-hr	24-hr	annual	24-hr	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	0.5-hr	24-hr	1-hr	24-hr
R001	248.7	192.9	128.8	21.8	16.3	9.3	2.7	0.6	2.6E-05	7.0E-06	0.011	3.0E-03	1.2E-03	3.0E-04	0.051	0.31	0.035	0.033	4.5E-03
R002	263.5	204.9	131.7	23.2	18.7	10.0	2.9	0.7	2.7E-05	7.6E-06	0.012	3.3E-03	1.3E-03	3.4E-04	0.054	0.33	0.037	0.035	4.8E-03
R003	272.1	204.9	133.1	24.2	20.2	10.6	3.1	0.8	2.8E-05	7.9E-06	0.013	3.5E-03	1.3E-03	3.6E-04	0.056	0.34	0.038	0.036	5.0E-03
R004	222.1	168.8	129.7	20.8	20.4	8.2	2.3	0.6	2.0E-05	4.7E-06	0.010	2.5E-03	1.1E-03	2.9E-04	0.047	0.29	0.032	0.030	4.0E-03
R005	266.9	192.9	137.5	20.2	21.2	6.0	1.7	0.4	1.3E-05	3.0E-06	0.009	2.0E-03	1.0E-03	2.4E-04	0.045	0.35	0.030	0.036	3.7E-03
R006	149.0	120.6	107.6	12.6	16.2	4.6	1.3	0.3	1.0E-05	2.9E-06	0.006	1.7E-03	6.6E-04	1.9E-04	0.028	0.20	0.019	0.020	2.4E-03
R007	385.4	253.2	162.5	22.7	**38.2**	6.3	1.7	0.6	1.4E-05	4.6E-06	0.009	3.4E-03	1.1E-03	4.2E-04	0.050	0.51	0.033	0.052	4.0E-03
R008	163.0	120.6	113.1	12.0	16.7	4.1	1.2	0.3	9.6E-06	2.7E-06	0.006	1.6E-03	6.2E-04	1.9E-04	0.027	0.21	0.018	0.022	2.3E-03
R009	136.6	108.5	99.2	11.8	14.8	4.7	1.3	0.4	1.1E-05	3.2E-06	0.006	1.7E-03	6.2E-04	1.9E-04	0.027	0.18	0.018	0.018	2.3E-03
R010	95.0	72.3	69.0	8.1	7.9	3.0	0.9	0.2	7.6E-06	1.8E-06	0.004	9.0E-04	4.3E-04	1.0E-04	0.018	0.12	0.013	0.013	1.6E-03
R011	100.8	84.4	72.2	7.6	7.3	3.1	1.0	0.2	9.2E-06	2.2E-06	0.004	1.0E-03	4.1E-04	1.1E-04	0.018	0.12	0.012	0.013	1.5E-03
R012	101.4	72.3	71.5	7.9	7.1	3.3	1.0	0.2	9.5E-06	2.3E-06	0.004	1.0E-03	4.3E-04	1.1E-04	0.018	0.13	0.013	0.013	1.6E-03
R013	126.0	84.4	86.6	9.9	8.2	4.2	1.3	0.3	1.3E-05	3.0E-06	0.005	1.3E-03	5.4E-04	1.3E-04	0.023	0.16	0.016	0.016	2.0E-03
R014	160.6	132.6	103.9	12.7	12.4	5.6	1.7	0.5	1.7E-05	5.1E-06	0.007	2.2E-03	7.0E-04	2.2E-04	0.030	0.20	0.021	0.021	2.7E-03
R015	68.0	60.3	45.7	5.8	5.3	2.5	0.7	0.2	6.5E-06	1.8E-06	0.003	8.0E-04	3.1E-04	8.4E-05	0.013	0.09	0.009	0.009	1.2E-03
R016	97.2	72.3	69.1	6.7	5.2	2.8	0.8	0.2	7.1E-06	1.5E-06	0.003	7.0E-04	3.6E-04	7.6E-05	0.015	0.12	0.010	0.013	1.3E-03
R017	122.6	84.4	83.5	7.6	6.4	3.6	1.0	0.3	9.2E-06	2.4E-06	0.004	1.0E-03	4.1E-04	1.1E-04	0.018	0.15	0.012	0.016	1.5E-03
R018	225.2	168.8	123.2	15.5	12.2	6.5	2.0	0.6	2.0E-05	5.9E-06	0.009	2.4E-03	8.5E-04	2.4E-04	0.036	0.28	0.025	0.030	3.3E-03
R019	104.0	84.4	70.8	7.9	6.3	2.9	0.9	0.2	8.3E-06	1.9E-06	0.004	9.0E-04	4.2E-04	9.3E-05	0.018	0.13	0.012	0.014	1.6E-03
R020	121.3	96.4	83.9	9.8	8.9	3.6	1.0	0.2	9.3E-06	2.2E-06	0.005	1.1E-03	5.2E-04	1.2E-04	0.022	0.15	0.015	0.016	1.9E-03
R021	118.6	96.4	81.1	9.4	8.3	3.5	1.0	0.2	9.4E-06	2.2E-06	0.005	1.1E-03	5.0E-04	1.2E-04	0.022	0.15	0.015	0.016	1.9E-03
R022	123.8	108.5	87.5	10.3	9.5	3.8	1.1	0.2	9.6E-06	2.3E-06	0.005	1.2E-03	5.4E-04	1.3E-04	0.023	0.16	0.016	0.016	2.0E-03
R023	261.4	192.9	136.8	17.0	19.6	5.3	1.5	0.4	1.2E-05	3.0E-06	0.007	1.9E-03	8.7E-04	2.3E-04	0.038	0.34	0.025	0.035	3.1E-03
R024	210.1	144.7	128.1	17.2	21.4	5.1	1.4	0.4	1.1E-05	3.0E-06	0.007	2.0E-03	8.7E-04	2.3E-04	0.038	0.28	0.025	0.028	3.1E-03
R025	79.6	72.3	57.7	8.8	9.0	3.3	0.9	0.2	7.8E-06	2.0E-06	0.004	1.0E-03	4.7E-04	1.2E-04	0.020	0.10	0.014	0.011	1.7E-03
R026	108.0	96.4	79.3	11.4	12.7	4.3	1.2	0.3	1.0E-05	2.8E-06	0.005	1.5E-03	6.0E-04	1.6E-04	0.026	0.14	0.018	0.015	2.2E-03
R027	72.5	60.3	51.1	8.3	7.6	3.1	0.9	0.2	7.8E-06	2.0E-06	0.004	1.0E-03	4.4E-04	1.1E-04	0.019	0.09	0.013	0.010	1.6E-03
R028	67.6	60.3	47.1	6.9	6.2	2.6	0.8	0.2	6.9E-06	1.8E-06	0.003	8.0E-04	3.7E-04	8.9E-05	0.016	0.09	0.011	0.009	1.4E-03
R029	130.0	108.5	86.8	10.3	8.9	4.8	1.4	0.4	1.2E-05	3.3E-06	0.005	1.5E-03	5.6E-04	1.5E-04	0.024	0.16	0.016	0.017	2.1E-03
R030	130.0	108.5	86.6	10.3	8.8	4.6	1.3	0.4	1.2E-05	3.3E-06	0.005	1.4E-03	5.6E-04	1.5E-04	0.024	0.16	0.016	0.017	2.1E-03
R031	131.2	108.5	87.4	10.4	8.7	4.5	1.3	0.4	1.2E-05	3.3E-06	0.005	1.4E-03	5.6E-04	1.5E-04	0.024	0.16	0.016	0.018	2.1E-03
R032	127.4	108.5	84.7	10.0	8.2	4.2	1.3	0.3	1.2E-05	3.2E-06	0.005	1.4E-03	5.5E-04	1.4E-04	0.023	0.16	0.016	0.017	2.1E-03
R033	128.5	108.5	85.4	10.2	8.2	4.2	1.3	0.3	1.2E-05	3.2E-06	0.005	1.4E-03	5.5E-04	1.4E-04	0.024	0.16	0.016	0.017	2.1E-03
R034	208.2	168.8	119.8	15.6	12.9	6.6	2.0	0.6	2.0E-05	5.9E-06	0.008	2.5E-03	8.6E-04	2.5E-04	0.036	0.26	0.025	0.028	3.3E-03
R035	171.1	132.6	108.3	13.1	10.4	5.5	1.7	0.5	1.6E-05	4.6E-06	0.007	1.9E-03	7.2E-04	1.9E-04	0.031	0.21	0.021	0.023	2.7E-03
R036	156.6	132.6	102.7	12.1	9.5	5.0	1.5	0.4	1.5E-05	4.1E-06	0.006	1.7E-03	6.6E-04	1.7E-04	0.028	0.19	0.019	0.021	2.5E-03
R037	184.0	132.6	111.9	12.7	9.0	5.1	1.6	0.4	1.6E-05	4.2E-06	0.007	1.7E-03	7.0E-04	1.7E-04	0.030	0.23	0.021	0.024	2.7E-03
R038	86.6	72.3	59.4	7.5	4.8	2.8	0.8	0.1	7.3E-06	1.3E-06	0.004	6.0E-04	4.0E-04	6.8E-05	0.017	0.11	0.012	0.011	1.5E-03
R039	106.8	84.4	73.7	10.1	7.7	3.7	1.1	0.2	9.1E-06	1.8E-06	0.005	9.0E-04	5.3E-04	1.0E-04	0.023	0.13	0.016	0.014	2.0E-03
R040	133.0	108.5	98.4	12.1	10.6	4.1	1.2	0.2	9.9E-06	2.1E-06	0.006	1.2E-03	6.3E-04	1.3E-04	0.027	0.17	0.018	0.018	2.3E-03
R041	310.3	229.1	140.7	24.4	25.5	7.4	2.0	0.5	1.5E-05	3.6E-06	0.010	2.5E-03	1.2E-03	3.0E-04	0.054	0.41	0.036	0.042	4.4E-03
R042	201.1	156.7	121.0	17.2	17.7	7.9	2.2	0.7	2.2E-05	6.0E-06	0.009	2.8E-03	9.4E-04	2.9E-04	0.040	0.24	0.028	0.025	3.5E-03
R043	219.1	156.7	124.2	17.1	15.0	7.5	2.2	0.6	2.3E-05	6.1E-06	0.010	2.6E-03	9.5E-04	2.7E-04	0.040	0.27	0.028	0.028	3.5E-03
R044	209.3	156.7	121.6	15.8	13.0	6.9	2.0	0.5	2.1E-05	5.5E-06	0.009	2.3E-03	8.7E-04	2.4E-04	0.037	0.26	0.026	0.027	3.3E-03
R045	231.5	168.8	125.7	18.0	13.2	8.0	2.4	0.6	2.4E-05	6.0E-06	0.010	2.5E-03	1.0E-03	2.5E-04	0.042	0.28	0.029	0.029	3.7E-03
R046	170.8	120.6	108.6	15.4	11.8	6.9	2.1	0.5	2.0E-05	4.8E-06	0.008	2.1E-03	8.5E-04	2.1E-04	0.036	0.21	0.025	0.022	3.1E-03
R047	170.3	132.6	108.0	16.5	13.3	7.6	2.2	0.6	2.0E-05	5.1E-06	0.009	2.2E-03	9.0E-04	2.3E-04	0.038	0.21	0.026	0.022	3.3E-03
R048	172.5	132.6	109.0	17.0	14.3	8.0	2.3	0.6	2.0E-05	5.1E-06	0.009	2.3E-03	9.2E-04	2.4E-04	0.039	0.21	0.027	0.022	3.4E-03
R049	170.6	132.6	109.4	16.9	15.0	8.1	2.3	0.6	1.9E-05	4.8E-06	0.009	2.2E-03	9.1E-04	2.4E-04	0.039	0.21	0.027	0.022	3.4E-03
R050	141.4	120.6	97.4	14.4	13.2	7.1	2.0	0.5	1.4E-05	3.6E-06	0.007	1.8E-03	7.6E-04	1.9E-04	0.033	0.18	0.022	0.019	2.8E-03
R051	153.7	132.6	107.7	13.5	18.4	5.7	1.6	0.5	1.1E-05	3.2E-06	0.006	2.0E-03	6.9E-04	2.3E-04	0.030	0.20	0.020	0.020	2.5E-03
R052	149.5	108.5	104.3	11.6	14.4	5.4	1.5	0.4	1.1E-05	3.2E-06	0.006	1.7E-03	6.0E-04	1.9E-04	0.026	0.19	0.018	0.020	2.2E-03
R053	198.9	156.7	119.3	14.6	16.1	6.4	1.9	0.6	1.7E-05	5.0E-06	0.007	2.4E-03	7.8E-04	2.5E-04	0.033	0.25	0.023	0.026	2.9E-03
R054	221.9	168.8	124.5	16.2	16.4	7.7	2.2	0.7	2.1E-05	5.8E-06	0.009	2.6E-03	8.8E-04	2.8E-04	0.037	0.27	0.026	0.028	3.3E-03
R055	234.8	180.8	126.7	17.7	16.4	8.4	2.4	0.8	2.3E-05	6.5E-06	0.010	2.8E-03	9.7E-04	2.9E-04	0.041	0.29	0.029	0.030	3.6E-03
R056	235.3	180.8	126.6	17.9	16.0	8.6	2.4	0.7	2.4E-05	6.6E-06	0.010	2.9E-03	9.8E-04	2.9E-04	0.042	0.29	0.029	0.030	3.6E-03
R057	228.3	168.8	125.0	17.3	15.1	7.9	2.3	0.7	2.2E-05	6.3E-06	0.009	2.7E-03	9.4E-04	2.8E-04	0.040	0.28	0.028	0.029	3.5E-03
R058	223.6	168.8	123.6	17.0	13.5	7.5	2.2	0.6	2.1E-05	5.9E-06	0.009	2.5E-03	9.3E-04	2.5E-04	0.040	0.27	0.027	0.028	3.4E-03
R059	223.4	168.8	123.3	15.8	12.1	6.7	2.0	0.6	2.0E-05	5.6E-06	0.009	2.3E-03	8.7E-04	2.3E-04	0.037	0.27	0.025	0.028	3.2E-03
R060	191.6	144.7	114.9	13.1	9.9	5.4	1.7	0.5	1.7E-05	4.8E-06	0.007	2.0E-03	7.2E-04	1.9E-04	0.031	0.23	0.021	0.024	2.7E-03
Maximum	385.4	253.2	162.5	24.4	38.2	10.6	3.1	0.8	2.8E-05	7.9E-06	0.013	3.5E-03	1.3E-03	4.2E-04	0.056	0.51	0.038	0.052	5.0E-03

Notes:
1. Maximum predicted concentrations are presented in the table.
2. Maximum predicted concentrations in bold are predicted to exceed the air quality criteria.

FUTURE INTERIM BUILD (2032) SCENARIO

Background Concentration (μg/m³)	374	374	19.0	16.6	8.1	20.4	11.0	5.6	5.28E-05	2.30E-05	7.00E-01	3.70E-01	6.30E-02	2.10E-02	1.90	20.7	7.0	0.073	0.030
	Predicted Project Concentrations (μg/m³)																		
Receptor ID	CO	CO	NO_2	NO_2	NO_2	PM_{10}	$PM_{2.5}$	$PM_{2.5}$	B(a)P	B(a)P	Benzene	Benzene	1,3-Butadiene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acetaldehyde	Acrolein	Acrolein
	1-hr	8-hr	1-hr	24-hr	annual	24-hr	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	0.5-hr	24-hr	1-hr	24-hr
R001	269.9	204.9	133.0	21.8	16.3	9.8	2.9	0.7	2.8E-05	7.5E-06	0.012	3.2E-03	1.3E-03	3.2E-04	0.056	0.34	0.038	0.037	5.1E-03
R002	287.3	217.0	135.6	23.2	18.7	10.8	3.2	0.8	2.9E-05	8.2E-06	0.013	3.6E-03	1.4E-03	3.7E-04	0.060	0.36	0.041	0.039	5.5E-03
R003	296.6	229.1	136.7	24.2	20.2	11.5	3.3	0.8	3.0E-05	8.6E-06	0.014	3.8E-03	1.5E-03	4.0E-04	0.063	0.37	0.043	0.041	5.7E-03
R004	218.8	168.8	129.2	20.8	20.4	8.7	2.4	0.5	2.0E-05	4.9E-06	0.010	2.7E-03	1.2E-03	3.0E-04	0.051	0.29	0.034	0.030	4.4E-03
R005	279.9	192.9	138.7	20.2	21.2	5.5	1.5	0.3	1.3E-05	3.1E-06	0.009	2.4E-03	1.1E-03	2.5E-04	0.047	0.37	0.031	0.038	3.9E-03
R006	156.6	132.6	110.8	12.6	16.2	4.2	1.2	0.3	1.0E-05	3.0E-06	0.006	2.5E-03	7.0E-04	2.0E-04	0.030	0.21	0.020	0.021	2.6E-03
R007	372.0	241.1	157.0	22.7	**38.2**	4.9	1.4	0.5	1.4E-05	4.6E-06	0.009	3.4E-03	1.1E-03	4.1E-04	0.048	0.49	0.032	0.050	3.9E-03
R008	176.0	120.6	117.8	12.0	16.7	3.5	1.0	0.3	9.7E-06	2.8E-06	0.006	2.3E-03	6.3E-04	2.0E-04	0.027	0.23	0.018	0.024	2.3E-03
R009	144.1	120.6	101.9	11.8	14.8	5.0	1.4	0.4	1.2E-05	3.4E-06	0.006	2.3E-03	7.0E-04	2.0E-04	0.030	0.18	0.020	0.019	2.6E-03
R010	97.0	84.4	69.9	8.1	7.9	3.0	0.9	0.2	8.0E-06	1.9E-06	0.004	2.1E-03	4.6E-04	1.1E-04	0.020	0.13	0.013	0.013	1.7E-03
R011	112.2	84.4	74.6	7.6	7.3	3.3	1.0	0.2	9.6E-06	2.4E-06	0.004	1.6E-03	4.4E-04	1.2E-04	0.019	0.14	0.013	0.015	1.7E-03
R012	114.2	84.4	75.7	7.9	7.1	3.5	1.1	0.2	9.9E-06	2.4E-06	0.004	1.8E-03	4.5E-04	1.2E-04	0.019	0.14	0.013	0.015	1.7E-03
R013	143.9	96.4	94.6	9.9	8.2	4.6	1.4	0.3	1.3E-05	3.2E-06	0.006	1.7E-03	5.8E-04	1.4E-04	0.025	0.18	0.017	0.019	2.2E-03
R014	171.7	132.6	108.5	12.7	12.4	6.1	1.8	0.5	1.7E-05	5.3E-06	0.007	2.5E-03	7.4E-04	2.3E-04	0.032	0.21	0.022	0.023	2.9E-03
R015	71.9	60.3	48.6	5.8	5.3	2.8	0.8	0.2	6.8E-06	1.9E-06	0.003	2.8E-03	3.4E-04	9.0E-05	0.014	0.09	0.010	0.010	1.3E-03
R016	105.4	72.3	72.3	6.7	5.2	3.1	0.9	0.2	7.4E-06	1.6E-06	0.004	2.9E-03	3.9E-04	8.5E-05	0.017	0.13	0.011	0.014	1.5E-03
R017	129.4	84.4	85.7	7.6	6.4	3.7	1.1	0.3	9.8E-06	2.5E-06	0.004	2.9E-03	4.5E-04	1.2E-04	0.019	0.16	0.013	0.017	1.7E-03
R018	237.9	180.8	126.6	15.5	12.2	7.1	2.2	0.6	2.2E-05	6.3E-06	0.009	2.8E-03	9.3E-04	2.6E-04	0.040	0.30	0.027	0.032	3.6E-03
R019	107.5	96.4	73.5	7.9	6.3	2.8	0.8	0.2	8.5E-06	2.0E-06	0.004	2.6E-03	4.4E-04	9.7E-05	0.019	0.14	0.013	0.014	1.7E-03
R020	123.6	108.5	85.6	9.8	8.9	3.3	1.0	0.2	9.6E-06	2.2E-06	0.005	2.5E-03	5.4E-04	1.2E-04	0.023	0.16	0.016	0.016	2.0E-03
R021	122.7	108.5	84.3	9.4	8.3	3.3	1.0	0.2	9.8E-06	2.3E-06	0.005	2.0E-03	5.3E-04	1.2E-04	0.023	0.15	0.015	0.016	2.0E-03
R022	125.7	108.5	89.9	10.3	9.5	3.5	1.0	0.2	9.9E-06	2.3E-06	0.005	1.2E-03	5.7E-04	1.3E-04	0.024	0.16	0.017	0.017	2.1E-03
R023	262.6	192.9	137.0	17.0	19.6	4.6	1.3	0.3	1.2E-05	3.0E-06	0.007	1.9E-03	8.8E-04	2.3E-04	0.038	0.35	0.025	0.036	3.2E-03
R024	223.3	144.7	131.0	17.2	21.4	4.7	1.3	0.3	1.2E-05	3.1E-06	0.008	2.0E-03	9.4E-04	2.4E-04	0.041	0.30	0.027	0.030	3.4E-03
R025	82.2	72.3	59.5	8.8	9.0	3.1	0.9	0.2	7.9E-06	2.1E-06	0.004	1.1E-03	4.8E-04	1.2E-04	0.021	0.11	0.014	0.011	1.8E-03
R026	106.8	96.4	77.7	11.4	12.7	4.0	1.1	0.3	1.0E-05	2.9E-06	0.005	1.5E-03	6.1E-04	1.7E-04	0.026	0.14	0.018	0.015	2.3E-03
R027	73.5	72.3	52.4	8.3	7.6	3.1	0.9	0.2	8.1E-06	2.1E-06	0.004	1.0E-03	4.7E-04	1.1E-04	0.020	0.10	0.014	0.010	1.7E-03
R028	68.6	60.3	48.3	6.9	6.2	2.7	0.8	0.2	7.2E-06	1.9E-06	0.004	9.0E-04	3.9E-04	9.5E-05	0.017	0.09	0.012	0.010	1.5E-03
R029	140.6	120.6	95.1	10.3	8.9	5.4	1.5	0.4	1.3E-05	3.6E-06	0.006	1.6E-03	6.2E-04	1.7E-04	0.027	0.18	0.018	0.019	2.4E-03
R030	139.5	120.6	94.0	10.3	8.8	5.2	1.5	0.4	1.3E-05	3.5E-06	0.006	1.6E-03	6.1E-04	1.7E-04	0.026	0.18	0.018	0.019	2.3E-03
R031	140.1	120.6	94.1	10.4	8.7	5.1	1.5	0.4	1.3E-05	3.6E-06	0.006	1.6E-03	6.2E-04	1.7E-04	0.026	0.18	0.018	0.019	2.3E-03
R032	135.6	108.5	90.9	10.0	8.2	4.8	1.4	0.4	1.2E-05	3.4E-06	0.006	1.5E-03	5.9E-04	1.6E-04	0.025	0.17	0.017	0.018	2.3E-03
R033	136.6	108.5	91.5	10.2	8.2	4.8	1.4	0.4	1.2E-05	3.4E-06	0.006	1.5E-03	6.0E-04	1.6E-04	0.025	0.17	0.017	0.019	2.3E-03
R034	217.0	168.8	122.0	15.6	12.9	7.8	2.2	0.7	2.1E-05	6.4E-06	0.009	2.7E-03	9.3E-04	2.8E-04	0.040	0.27	0.027	0.030	3.6E-03
R035	178.8	144.7	111.0	13.1	10.4	6.3	1.8	0.5	1.7E-05	4.9E-06	0.007	2.1E-03	7.7E-04	2.2E-04	0.033	0.22	0.023	0.024	3.0E-03
R036	163.7	132.6	105.8	12.1	9.5	5.7	1.6	0.5	1.5E-05	4.4E-06	0.007	1.9E-03	7.1E-04	1.9E-04	0.030	0.20	0.021	0.022	2.7E-03
R037	194.2	144.7	115.5	12.7	9.0	5.5	1.7	0.4	1.7E-05	4.5E-06	0.007	1.8E-03	7.5E-04	1.9E-04	0.032	0.24	0.022	0.026	2.9E-03
R038	89.1	72.3	61.3	7.5	4.8	2.7	0.8	0.1	7.5E-06	1.4E-06	0.004	7.0E-04	4.2E-04	7.1E-05	0.018	0.11	0.012	0.012	1.6E-03
R039	109.5	84.4	75.7	10.1	7.7	3.7	1.1	0.2	9.4E-06	1.9E-06	0.005	1.0E-03	5.6E-04	1.1E-04	0.024	0.14	0.016	0.015	2.1E-03
R040	132.6	108.5	98.6	12.1	10.6	4.0	1.2	0.2	1.0E-05	2.1E-06	0.006	1.2E-03	6.6E-04	1.4E-04	0.028	0.17	0.019	0.018	2.4E-03
R041	321.0	229.1	141.2	24.4	25.5	6.6	1.8	0.4	1.5E-05	3.6E-06	0.010	2.4E-03	1.3E-03	2.9E-04	0.055	0.42	0.036	0.044	4.5E-03
R042	235.4	180.8	126.6	17.2	17.7	9.0	2.6	0.8	2.5E-05	6.7E-06	0.011	3.1E-03	1.1E-03	3.3E-04	0.045	0.29	0.031	0.031	4.0E-03
R043	253.7	180.8	129.8	17.1	15.0	8.3	2.5	0.7	2.5E-05	6.8E-06	0.010	2.9E-03	1.0E-03	3.0E-04	0.044	0.31	0.031	0.033	3.9E-03
R044	241.0	168.8	127.3	15.8	13.0	7.4	2.2	0.6	2.2E-05	5.9E-06	0.009	2.5E-03	9.3E-04	2.6E-04	0.039	0.30	0.027	0.032	3.5E-03
R045	257.8	180.8	129.6	18.0	13.2	8.8	2.6	0.6	2.5E-05	6.3E-06	0.011	2.7E-03	1.1E-03	2.7E-04	0.045	0.32	0.031	0.033	4.0E-03
R046	188.3	132.6	112.7	15.4	11.8	7.8	2.3	0.6	2.1E-05	5.2E-06	0.009	2.3E-03	9.3E-04	2.3E-04	0.039	0.23	0.027	0.025	3.5E-03
R047	188.2	132.6	114.2	16.5	13.3	8.5	2.5	0.6	2.2E-05	5.5E-06	0.010	2.4E-03	9.9E-04	2.5E-04	0.042	0.23	0.029	0.025	3.7E-03
R048	187.9	132.6	114.6	17.0	14.3	8.5	2.5	0.6	2.1E-05	5.3E-06	0.009	2.4E-03	9.8E-04	2.5E-04	0.042	0.23	0.029	0.025	3.7E-03
R049	171.4	132.6	109.9	16.9	15.0	7.9	2.3	0.6	1.9E-05	4.8E-06	0.009	2.3E-03	9.1E-04	2.4E-04	0.039	0.21	0.027	0.023	3.4E-03
R050	137.0	120.6	94.3	14.4	13.2	5.8	1.6	0.4	1.3E-05	3.5E-06	0.006	1.7E-03	6.9E-04	1.9E-04	0.030	0.17	0.020	0.018	2.6E-03
R051	173.4	132.6	116.6	13.5	18.4	5.0	1.4	0.5	1.1E-05	3.3E-06	0.006	2.0E-03	6.6E-04	2.3E-04	0.029	0.23	0.019	0.023	2.4E-03
R052	159.3	120.6	106.5	11.6	14.4	5.1	1.4	0.5	1.1E-05	3.4E-06	0.006	1.8E-03	6.3E-04	2.1E-04	0.027	0.20	0.018	0.021	2.3E-03
R053	208.0	168.8	120.6	14.6	16.1	8.1	2.3	0.7	1.8E-05	5.4E-06	0.008	2.6E-03	8.7E-04	2.8E-04	0.037	0.26	0.025	0.027	3.3E-03
R054	257.8	192.9	131.4	16.2	16.4	8.7	2.5	0.8	2.2E-05	6.3E-06	0.010	3.0E-03	1.0E-03	3.1E-04	0.044	0.32	0.030	0.034	3.8E-03
R055	273.5	204.9	133.3	17.7	16.4	9.4	2.7	0.8	2.4E-05	7.0E-06	0.011	3.1E-03	1.1E-03	3.2E-04	0.047	0.34	0.032	0.036	4.1E-03
R056	271.7	204.9	132.8	17.9	16.0	9.3	2.7	0.8	2.5E-05	7.1E-06	0.011	3.1E-03	1.1E-03	3.2E-04	0.047	0.33	0.032	0.035	4.1E-03
R057	261.1	192.9	131.1	17.3	15.1	8.8	2.6	0.8	2.4E-05	6.7E-06	0.010	2.9E-03	1.0E-03	3.0E-04	0.045	0.32	0.031	0.034	3.9E-03
R058	249.8	180.8	128.7	17.0	13.5	7.9	2.4	0.7	2.3E-05	6.4E-06	0.010	2.7E-03	9.8E-04	2.8E-04	0.042	0.31	0.029	0.032	3.6E-03
R059	242.7	180.8	127.0	15.8	12.1	7.6	2.3	0.7	2.2E-05	6.3E-06	0.009	2.7E-03	9.7E-04	2.7E-04	0.041	0.30	0.028	0.031	3.6E-03
R060	205.1	144.7	117.8	13.1	9.9	5.9	1.8	0.5	1.8E-05	5.1E-06	0.008	2.1E-03	7.8E-04	2.1E-04	0.033	0.25	0.023	0.027	2.9E-03
Maximum	372.0	241.1	157.0	24.4	**38.2**	11.5	3.3	0.8	3.0E-05	8.6E-06	0.014	3.8E-03	1.5E-03	4.1E-04	0.063	0.49	0.043	0.050	5.7E-03

Notes:
1. Maximum predicted concentrations are presented in the table.
2. Maximum predicted concentrations in bold are predicted to exceed the air quality criteria.

FUTURE ULTIMATE NO BUILD (2042) SCENARIO

Background Concentration (μg/m³)	374	374	19.0	16.6	8.1	20.4	11.0	5.6	5.28E-05	2.30E-05	7.00E-01	3.70E-01	6.30E-02	2.10E-02	1.90	20.7	7.0	0.073	0.030
	Predicted Project Concentrations (μg/m³)																		
Receptor ID	CO	CO	NO_2	NO_2	NO_2	PM_{10}	$PM_{2.5}$	$PM_{2.5}$	B(a)P	B(a)P	Benzene	Benzene	1,3-Butadiene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acetaldehyde	Acrolein	Acrolein
	1-hr	8-hr	1-hr	24-hr	annual	24-hr	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	0.5-hr	24-hr	1-hr	24-hr
R001	235.7	180.8	125.3	20.2	14.3	11.2	3.1	0.7	3.7E-06	1.0E-06	0.007	1.9E-03	7.7E-06	2.0E-06	0.016	0.20	0.023	0.014	2.0E-03
R002	250.8	192.9	129.0	21.9	17.0	12.4	3.4	0.8	3.9E-06	1.1E-06	0.008	2.1E-03	8.3E-06	2.2E-06	0.017	0.21	0.025	0.015	2.1E-03
R003	258.8	192.9	130.7	22.9	18.5	13.2	3.5	0.9	4.0E-06	1.1E-06	0.008	2.2E-03	8.5E-06	2.4E-06	0.018	0.22	0.025	0.016	2.2E-03
R004	190.2	144.7	126.2	19.9	18.5	9.8	2.5	0.6	2.9E-06	7.0E-07	0.006	1.4E-03	6.5E-06	1.6E-06	0.014	0.17	0.020	0.012	1.7E-03
R005	243.0	168.8	137.6	19.8	20.6	6.0	1.5	0.3	2.3E-06	5.0E-07	0.004	1.1E-03	5.5E-06	1.3E-06	0.012	0.22	0.018	0.015	1.6E-03
R006	136.1	108.5	107.0	12.3	15.5	4.6	1.2	0.3	1.6E-06	5.0E-07	0.003	9.3E-04	3.7E-06	1.1E-06	0.008	0.12	0.012	0.009	1.0E-03
R007	323.0	204.9	150.4	20.9	**35.5**	5.3	1.3	0.5	2.3E-06	9.0E-07	0.005	1.7E-03	5.6E-06	2.1E-06	0.013	0.29	0.019	0.021	1.6E-03
R008	153.0	108.5	114.3	10.9	15.7	4.0	1.0	0.3	1.5E-06	5.0E-07	0.003	8.8E-04	3.4E-06	1.0E-06	0.007	0.13	0.011	0.010	9.3E-04
R009	125.6	108.5	94.3	11.7	14.0	5.6	1.5	0.4	1.7E-06	5.0E-07	0.003	9.8E-04	3.9E-06	1.1E-06	0.008	0.11	0.012	0.008	1.0E-03
R010	84.4	72.3	64.2	7.6	7.4	3.4	0.9	0.2	1.1E-06	3.0E-07	0.002	5.3E-04	2.6E-06	6.0E-07	0.005	0.07	0.008	0.005	6.8E-04
R011	97.9	72.3	64.3	6.7	6.8	3.9	1.1	0.3	1.3E-06	3.0E-07	0.002	6.3E-04	2.6E-06	7.0E-07	0.005	0.08	0.008	0.006	6.7E-04
R012	99.6	72.3	65.0	6.9	6.5	4.0	1.1	0.3	1.3E-06	3.0E-07	0.003	6.3E-04	2.7E-06	7.0E-07	0.005	0.08	0.008	0.006	6.9E-04
R013	125.6	84.4	80.6	8.7	7.5	5.3	1.5	0.3	1.7E-06	4.0E-07	0.003	8.1E-04	3.5E-06	9.0E-07	0.007	0.11	0.010	0.008	8.9E-04
R014	149.9	120.6	94.8	11.1	10.8	7.1	2.0	0.6	2.2E-06	7.0E-07	0.004	1.3E-03	4.5E-06	1.4E-06	0.009	0.13	0.013	0.009	1.1E-03
R015	62.7	48.2	42.2	5.3	4.8	3.2	0.9	0.2	9.0E-07	3.0E-07	0.002	4.9E-04	1.9E-06	5.0E-07	0.004	0.05	0.006	0.004	5.0E-04
R016	91.9	60.3	63.9	6.3	5.1	3.5	1.0	0.2	1.0E-06	2.0E-07	0.002	4.5E-04	2.2E-06	5.0E-07	0.005	0.08	0.007	0.006	5.8E-04
R017	112.8	72.3	73.4	6.7	6.0	4.3	1.2	0.3	1.3E-06	3.0E-07	0.002	6.5E-04	2.7E-06	7.0E-07	0.005	0.10	0.008	0.007	6.7E-04
R018	207.1	156.7	116.2	13.7	10.6	8.3	2.3	0.7	2.7E-06	8.0E-07	0.005	1.5E-03	5.6E-06	1.6E-06	0.011	0.18	0.016	0.013	1.4E-03
R019	93.7	84.4	64.8	7.1	5.7	3.2	0.9	0.2	1.2E-06	3.0E-07	0.002	5.2E-04	2.5E-06	6.0E-07	0.005	0.08	0.008	0.006	6.6E-04
R020	107.5	96.4	77.9	8.9	8.1	3.8	1.0	0.2	1.4E-06	3.0E-07	0.003	6.3E-04	3.0E-06	7.0E-07	0.006	0.09	0.009	0.007	8.1E-04
R021	106.9	84.4	74.6	8.6	7.5	3.8	1.0	0.2	1.4E-06	3.0E-07	0.003	6.3E-04	3.0E-06	7.0E-07	0.006	0.09	0.009	0.007	7.9E-04
R022	109.5	96.4	83.6	9.4	8.8	3.9	1.0	0.2	1.4E-06	3.0E-07	0.003	6.6E-04	3.2E-06	7.0E-07	0.007	0.09	0.010	0.007	8.4E-04
R023	228.0	168.8	135.5	15.7	18.1	5.1	1.3	0.3	2.0E-06	5.0E-07	0.004	9.9E-04	4.6E-06	1.2E-06	0.010	0.20	0.015	0.015	1.3E-03
R024	193.9	132.6	128.8	17.1	20.9	5.1	1.3	0.3	2.0E-06	5.0E-07	0.004	1.0E-03	4.8E-06	1.3E-06	0.011	0.17	0.016	0.012	1.4E-03
R025	71.5	72.3	54.8	8.0	8.4	3.5	0.9	0.2	1.2E-06	3.0E-07	0.002	6.0E-04	2.6E-06	7.0E-07	0.006	0.06	0.008	0.005	7.1E-04
R026	92.9	84.4	71.9	10.3	11.8	4.6	1.2	0.3	1.5E-06	4.0E-07	0.003	8.3E-04	3.4E-06	9.0E-07	0.007	0.08	0.010	0.006	9.0E-04
R027	64.0	60.3	47.4	7.7	7.0	3.6	1.0	0.2	1.2E-06	3.0E-07	0.002	5.6E-04	2.6E-06	6.0E-07	0.005	0.06	0.008	0.004	6.9E-04
R028	59.8	60.3	43.3	6.4	5.8	3.0	0.8	0.2	1.0E-06	3.0E-07	0.002	5.0E-04	2.2E-06	5.0E-07	0.005	0.05	0.007	0.004	5.9E-04
R029	122.1	96.4	81.9	9.7	8.5	6.1	1.6	0.4	1.6E-06	5.0E-07	0.003	9.1E-04	3.6E-06	1.0E-06	0.007	0.11	0.011	0.008	9.2E-04
R030	121.3	96.4	80.8	9.6	8.3	5.9	1.6	0.4	1.6E-06	5.0E-07	0.003	9.0E-04	3.5E-06	1.0E-06	0.007	0.10	0.011	0.008	9.1E-04
R031	121.9	96.4	80.7	9.6	8.1	5.8	1.6	0.4	1.6E-06	5.0E-07	0.003	9.0E-04	3.6E-06	1.0E-06	0.007	0.10	0.011	0.008	9.2E-04
R032	118.0	96.4	78.0	9.2	7.7	5.5	1.5	0.4	1.6E-06	4.0E-07	0.003	8.6E-04	3.4E-06	9.0E-07	0.007	0.10	0.010	0.007	8.8E-04
R033	118.9	96.4	78.3	9.2	7.7	5.5	1.5	0.4	1.6E-06	4.0E-07	0.003	8.7E-04	3.5E-06	9.0E-07	0.007	0.10	0.010	0.007	8.9E-04
R034	189.0	156.7	111.3	13.9	11.9	8.9	2.4	0.7	2.6E-06	8.0E-07	0.005	1.6E-03	5.6E-06	1.7E-06	0.011	0.16	0.016	0.012	1.4E-03
R035	155.9	132.6	98.4	11.6	9.5	7.2	1.9	0.6	2.1E-06	6.0E-07	0.004	1.2E-03	4.5E-06	1.3E-06	0.009	0.13	0.013	0.010	1.2E-03
R036	142.7	120.6	90.9	10.7	8.7	6.5	1.8	0.5	2.0E-06	6.0E-07	0.004	1.1E-03	4.2E-06	1.2E-06	0.008	0.12	0.012	0.009	1.1E-03
R037	169.1	132.6	104.1	11.0	7.8	6.4	1.9	0.5	2.2E-06	6.0E-07	0.004	1.1E-03	4.5E-06	1.1E-06	0.009	0.14	0.013	0.010	1.1E-03
R038	77.5	60.3	54.2	6.9	4.4	3.1	0.8	0.1	1.1E-06	2.0E-07	0.002	3.7E-04	2.4E-06	4.0E-07	0.005	0.07	0.007	0.005	6.2E-04
R039	95.2	72.3	67.3	9.4	7.2	4.1	1.1	0.2	1.4E-06	3.0E-07	0.003	5.3E-04	3.1E-06	6.0E-07	0.007	0.08	0.010	0.006	8.3E-04
R040	115.3	96.4	92.8	11.3	9.9	4.5	1.2	0.2	1.6E-06	3.0E-07	0.003	6.4E-04	3.6E-06	7.0E-07	0.008	0.10	0.011	0.007	9.7E-04
R041	278.8	204.9	140.5	23.2	23.2	7.2	1.8	0.4	2.7E-06	6.0E-07	0.005	1.2E-03	6.4E-06	1.5E-06	0.015	0.25	0.021	0.018	1.8E-03
R042	205.2	156.7	117.6	16.2	17.0	10.5	2.9	0.8	3.1E-06	9.0E-07	0.006	1.8E-03	6.5E-06	1.9E-06	0.013	0.17	0.019	0.012	1.6E-03
R043	221.2	156.7	120.9	15.0	13.9	9.8	2.7	0.7	3.2E-06	9.0E-07	0.006	1.7E-03	6.4E-06	1.8E-06	0.013	0.19	0.018	0.013	1.6E-03
R044	210.4	144.7	117.8	13.4	11.7	8.7	2.4	0.6	2.8E-06	8.0E-07	0.006	1.5E-03	5.7E-06	1.6E-06	0.011	0.18	0.016	0.013	1.4E-03
R045	225.2	156.7	119.4	15.4	11.5	10.3	2.8	0.7	3.2E-06	8.0E-07	0.006	1.6E-03	6.5E-06	1.7E-06	0.013	0.19	0.019	0.014	1.6E-03
R046	164.4	120.6	99.5	13.9	10.8	9.1	2.5	0.6	2.7E-06	7.0E-07	0.005	1.3E-03	5.6E-06	1.4E-06	0.011	0.14	0.016	0.010	1.4E-03
R047	163.6	120.6	103.9	15.0	12.2	9.8	2.7	0.7	2.8E-06	7.0E-07	0.006	1.4E-03	5.9E-06	1.5E-06	0.012	0.14	0.017	0.010	1.5E-03
R048	163.2	120.6	104.9	15.1	12.7	9.8	2.6	0.7	2.8E-06	7.0E-07	0.005	1.4E-03	5.8E-06	1.5E-06	0.012	0.14	0.017	0.010	1.5E-03
R049	148.8	120.6	99.8	14.2	12.8	9.1	2.4	0.6	2.5E-06	7.0E-07	0.005	1.3E-03	5.3E-06	1.4E-06	0.011	0.13	0.016	0.009	1.4E-03
R050	119.0	96.4	83.5	11.3	11.6	6.5	1.7	0.5	1.8E-06	5.0E-07	0.004	9.7E-04	4.0E-06	1.1E-06	0.008	0.10	0.012	0.007	1.0E-03
R051	150.7	108.5	112.9	11.8	17.6	5.6	1.5	0.5	1.6E-06	5.0E-07	0.003	1.0E-03	3.5E-06	1.2E-06	0.008	0.13	0.011	0.010	9.8E-04
R052	138.9	108.5	95.9	10.9	14.0	5.8	1.5	0.5	1.6E-06	5.0E-07	0.003	9.9E-04	3.5E-06	1.1E-06	0.007	0.12	0.011	0.009	9.4E-04
R053	181.4	144.7	111.2	14.0	16.0	9.2	2.4	0.7	2.4E-06	8.0E-07	0.005	1.5E-03	5.0E-06	1.6E-06	0.010	0.15	0.015	0.011	1.3E-03
R054	224.6	168.8	124.0	16.1	16.0	10.0	2.7	0.8	2.8E-06	9.0E-07	0.006	1.7E-03	5.9E-06	1.8E-06	0.012	0.19	0.018	0.014	1.5E-03
R055	238.3	180.8	125.8	17.1	15.3	10.8	2.9	0.9	3.1E-06	9.0E-07	0.006	1.8E-03	6.5E-06	1.9E-06	0.013	0.20	0.019	0.014	1.7E-03
R056	236.9	180.8	125.0	17.0	14.7	10.8	2.9	0.9	3.1E-06	9.0E-07	0.006	1.8E-03	6.5E-06	1.9E-06	0.013	0.20	0.019	0.014	1.7E-03
R057	227.6	168.8	122.7	16.1	13.7	10.1	2.8	0.8	3.0E-06	9.0E-07	0.006	1.7E-03	6.2E-06	1.8E-06	0.013	0.19	0.018	0.014	1.6E-03
R058	217.8	156.7	119.5	14.8	12.2	9.1	2.5	0.7	2.8E-06	8.0E-07	0.006	1.6E-03	5.9E-06	1.7E-06	0.012	0.18	0.017	0.013	1.5E-03
R059	211.7	156.7	117.0	14.5	11.3	8.8	2.5	0.7	2.8E-06	8.0E-07	0.005	1.6E-03	5.8E-06	1.7E-06	0.012	0.18	0.017	0.013	1.5E-03
R060	179.0	132.6	106.4	11.6	8.6	6.8	2.0	0.5	2.3E-06	6.0E-07	0.004	1.3E-03	4.7E-06	1.3E-06	0.010	0.15	0.014	0.011	1.2E-03
Maximum	323.0	204.9	150.4	23.2	**35.5**	13.2	3.5	0.9	4.0E-06	1.1E-06	0.008	2.2E-03	8.5E-06	2.4E-06	0.018	0.29	0.025	0.021	2.2E-03

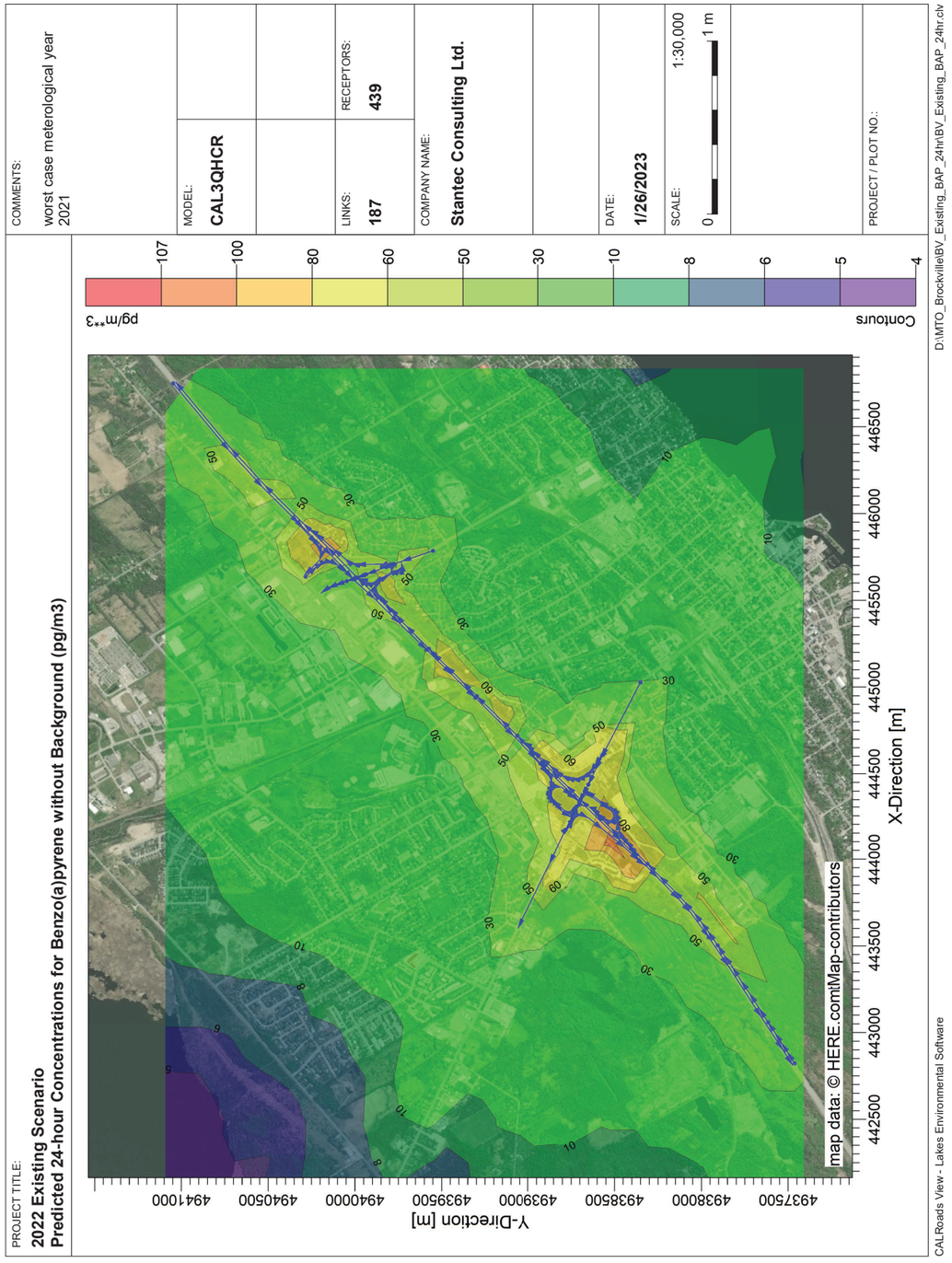
Notes:
1. Maximum predicted concentrations are presented in the table.
2. Maximum predicted concentrations in bold are predicted to exceed the air quality criteria.

FUTURE ULTIMATE BUILD (2042) SCENARIO

Background Concentration (μg/m³)	374	374	19.0	16.6	8.1	20.4	11.0	5.6	5.28E-05	2.30E-05	7.00E-01	3.70E-01	6.30E-02	2.10E-02	1.90	20.7	7.0	0.073	0.030
	Predicted Project Concentrations (μg/m³)																		
Receptor ID	CO	CO	NO_2	NO_2	NO_2	PM_{10}	$PM_{2.5}$	$PM_{2.5}$	B(a)P	B(a)P	Benzene	Benzene	1,3-Butadiene	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acetaldehyde	Acrolein	Acrolein
	1-hr	8-hr	1-hr	24-hr	annual	24-hr	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	annual	24-hr	0.5-hr	24-hr	1-hr	24-hr
R001	237.7	180.8	125.6	20.6	14.7	11.4	3.1	0.7	3.7E-06	1.0E-06	0.007	1.9E-03	7.9E-06	2.0E-06	0.016	0.20	0.023	0.015	2.0E-03
R002	252.9	192.9	129.3	22.4	17.4	12.7	3.4	0.9	4.0E-06	1.1E-06	0.008	2.2E-03	8.4E-06	2.3E-06	0.017	0.22	0.025	0.016	2.2E-03
R003	261.1	192.9	131.0	23.3	19.0	13.4	3.6	0.9	4.1E-06	1.2E-06	0.008	2.3E-03	8.7E-06	2.5E-06	0.018	0.22	0.026	0.016	2.3E-03
R004	191.0	144.7	126.4	20.1	18.6	10.0	2.6	0.6	3.0E-06	7.0E-07	0.006	1.4E-03	6.6E-06	1.7E-06	0.014	0.17	0.020	0.012	1.8E-03
R005	243.5	168.8	137.6	19.9	20.7	6.0	1.5	0.3	2.3E-06	6.0E-07	0.004	1.1E-03	5.5E-06	1.3E-06	0.012	0.22	0.018	0.016	1.6E-03
R006	136.5	108.5	107.1	12.4	15.6	4.7	1.2	0.3	1.6E-06	5.0E-07	0.003	9.4E-04	3.8E-06	1.1E-06	0.008	0.12	0.012	0.009	1.0E-03
R007	322.9	204.9	150.4	20.9	**35.6**	5.4	1.3	0.5	2.4E-06	9.0E-07	0.005	1.7E-03	5.6E-06	2.1E-06	0.013	0.29	0.019	0.021	1.6E-03
R008	153.0	108.5	114.3	11.0	15.8	4.0	1.0	0.3	1.5E-06	5.0E-07	0.003	8.9E-04	3.5E-06	1.1E-06	0.008	0.13	0.011	0.010	9.5E-04
R009	126.3	108.5	94.0	11.8	14.1	5.7	1.5	0.4	1.7E-06	5.0E-07	0.003	1.0E-03	3.9E-06	1.1E-06	0.008	0.11	0.012	0.008	1.0E-03
R010	84.6	72.3	64.4	7.7	7.5	3.4	0.9	0.2	1.2E-06	3.0E-07	0.002	5.4E-04	2.6E-06	6.0E-07	0.005	0.07	0.008	0.005	6.9E-04
R011	98.5	72.3	64.6	6.8	6.9	3.9	1.1	0.3	1.3E-06	3.0E-07	0.002	6.4E-04	2.7E-06	7.0E-07	0.005	0.08	0.008	0.006	6.8E-04
R012	100.2	72.3	65.3	7.0	6.6	4.1	1.2	0.3	1.3E-06	3.0E-07	0.003	6.5E-04	2.7E-06	7.0E-07	0.006	0.09	0.008	0.006	7.0E-04
R013	126.3	84.4	81.0	8.9	7.6	5.4	1.5	0.4	1.7E-06	4.0E-07	0.003	8.3E-04	3.6E-06	9.0E-07	0.007	0.11	0.010	0.008	9.0E-04
R014	151.2	120.6	95.4	11.2	11.0	7.2	2.0	0.6	2.2E-06	7.0E-07	0.004	1.4E-03	4.6E-06	1.5E-06	0.009	0.13	0.013	0.009	1.2E-03
R015	62.9	48.2	42.3	5.3	4.9	3.2	0.9	0.2	9.0E-07	3.0E-07	0.002	5.0E-04	2.0E-06	5.0E-07	0.004	0.05	0.006	0.004	5.1E-04
R016	92.1	60.3	64.1	6.3	5.2	3.6	1.0	0.2	1.1E-06	2.0E-07	0.002	4.6E-04	2.3E-06	5.0E-07	0.005	0.08	0.007	0.006	5.9E-04
R017	113.4	72.3	73.7	6.8	6.1	4.4	1.2	0.3	1.3E-06	3.0E-07	0.003	6.7E-04	2.7E-06	7.0E-07	0.005	0.10	0.008	0.007	6.9E-04
R018	209.0	156.7	116.7	13.9	11.0	8.5	2.4	0.7	2.8E-06	8.0E-07	0.005	1.6E-03	5.7E-06	1.7E-06	0.011	0.18	0.017	0.013	1.4E-03
R019	94.0	84.4	65.0	7.1	5.8	3.3	0.9	0.2	1.2E-06	3.0E-07	0.002	5.3E-04	2.6E-06	6.0E-07	0.005	0.08	0.008	0.006	6.7E-04
R020	107.9	96.4	78.2	9.0	8.2	3.8	1.0	0.2	1.4E-06	3.0E-07	0.003	6.4E-04	3.1E-06	7.0E-07	0.006	0.09	0.009	0.007	8.1E-04
R021	107.3	84.4	74.8	8.6	7.6	3.8	1.0	0.2	1.4E-06	3.0E-07	0.003	6.4E-04	3.0E-06	7.0E-07	0.006	0.09	0.009	0.007	8.0E-04
R022	109.8	96.4	84.2	9.4	8.8	3.9	1.1	0.2	1.4E-06	3.0E-07	0.003	6.7E-04	3.2E-06	7.0E-07	0.007	0.09	0.010	0.007	8.5E-04
R023	228.3	168.8	135.5	15.7	18.2	5.1	1.3	0.3	2.0E-06	5.0E-07	0.004	1.0E-03	4.6E-06	1.2E-06	0.010	0.20	0.015	0.015	1.3E-03
R024	194.2	132.6	128.9	17.2	20.9	5.1	1.3	0.3	2.0E-06	5.0E-07	0.004	1.0E-03	4.9E-06	1.3E-06	0.011	0.17	0.016	0.012	1.4E-03
R025	72.0	72.3	55.1	8.1	8.5	3.5	0.9	0.2	1.2E-06	3.0E-07	0.002	6.1E-04	2.6E-06	7.0E-07	0.006	0.06	0.008	0.005	7.1E-04
R026	93.2	84.4	72.1	10.4	11.9	4.6	1.2	0.3	1.5E-06	4.0E-07	0.003	8.4E-04	3.4E-06	1.0E-06	0.007	0.08	0.011	0.006	9.2E-04
R027	64.1	60.3	47.5	7.7	7.1	3.6	1.0	0.2	1.2E-06	3.0E-07	0.002	5.8E-04	2.6E-06	6.0E-07	0.006	0.06	0.008	0.004	6.9E-04
R028	59.7	60.3	43.2	6.5	5.8	3.1	0.8	0.2	1.0E-06	3.0E-07	0.002	5.0E-04	2.3E-06	6.0E-07	0.005	0.05	0.007	0.004	5.9E-04
R029	122.7	96.4	82.3	9.8	8.6	6.2	1.7	0.5	1.7E-06	5.0E-07	0.003	9.4E-04	3.7E-06	1.0E-06	0.007	0.11	0.011	0.008	9.3E-04
R030	121.9	96.4	81.2	9.7	8.4	6.0	1.6	0.4	1.7E-06	5.0E-07	0.003	9.2E-04	3.6E-06	1.0E-06	0.007	0.10	0.011	0.008	9.2E-04
R031	122.5	96.4	81.0	9.7	8.3	5.9	1.6	0.4	1.7E-06	5.0E-07	0.003	9.3E-04	3.6E-06	1.0E-06	0.007	0.11	0.011	0.008	9.3E-04
R032	118.6	96.4	78.3	9.3	7.8	5.6	1.5	0.4	1.6E-06	5.0E-07	0.003	8.9E-04	3.5E-06	1.0E-06	0.007	0.10	0.010	0.007	8.9E-04
R033	119.6	96.4	78.7	9.3	7.8	5.6	1.5	0.4	1.6E-06	5.0E-07	0.003	8.9E-04	3.5E-06	1.0E-06	0.007	0.10	0.010	0.007	9.0E-04
R034	190.6	156.7	111.8	14.1	12.2	9.2	2.5	0.8	2.7E-06	8.0E-07	0.005	1.6E-03	5.7E-06	1.8E-06	0.011	0.16	0.016	0.012	1.4E-03
R035	157.0	132.6	99.0	11.7	9.8	7.4	2.0	0.6	2.2E-06	6.0E-07	0.004	1.3E-03	4.6E-06	1.4E-06	0.009	0.13	0.013	0.010	1.2E-03
R036	143.7	120.6	91.4	10.8	8.9	6.7	1.8	0.5	2.0E-06	6.0E-07	0.004	1.1E-03	4.2E-06	1.2E-06	0.009	0.12	0.012	0.009	1.1E-03
R037	170.5	132.6	104.5	11.2	8.0	6.5	1.9	0.5	2.2E-06	6.0E-07	0.004	1.1E-03	4.6E-06	1.2E-06	0.009	0.14	0.013	0.010	1.1E-03
R038	77.8	60.3	54.4	6.9	4.4	3.1	0.8	0.1	1.1E-06	2.0E-07	0.002	3.8E-04	2.4E-06	4.0E-07	0.005	0.07	0.007	0.005	6.3E-04
R039	95.6	72.3	67.5	9.5	7.2	4.2	1.1	0.2	1.4E-06	3.0E-07	0.003	5.4E-04	3.1E-06	6.0E-07	0.007	0.08	0.010	0.006	8.4E-04
R040	115.5	96.4	92.9	11.4	10.0	4.5	1.2	0.2	1.6E-06	3.0E-07	0.003	6.5E-04	3.6E-06	8.0E-07	0.008	0.10	0.011	0.007	9.8E-04
R041	279.3	204.9	140.6	23.3	23.2	7.2	1.8	0.4	2.7E-06	6.0E-07	0.005	1.3E-03	6.5E-06	1.5E-06	0.015	0.25	0.021	0.018	1.8E-03
R042	207.0	156.7	118.0	16.5	17.3	10.7	2.9	0.8	3.2E-06	9.0E-07	0.006	1.8E-03	6.7E-06	2.0E-06	0.013	0.17	0.019	0.013	1.7E-03
R043	223.4	156.7	121.4	15.3	14.3	10.1	2.7	0.8	3.3E-06	9.0E-07	0.006	1.8E-03	6.6E-06	1.9E-06	0.013	0.19	0.019	0.014	1.6E-03
R044	212.4	156.7	118.3	13.7	11.9	9.0	2.4	0.7	2.9E-06	8.0E-07	0.006	1.5E-03	5.9E-06	1.6E-06	0.012	0.18	0.017	0.013	1.5E-03
R045	227.5	156.7	119.9	15.7	11.7	10.5	2.8	0.7	3.3E-06	8.0E-07	0.006	1.6E-03	6.6E-06	1.7E-06	0.013	0.19	0.019	0.014	1.7E-03
R046	165.9	120.6	100.2	14.2	11.1	9.3	2.5	0.6	2.7E-06	7.0E-07	0.005	1.4E-03	5.7E-06	1.5E-06	0.011	0.14	0.017	0.010	1.4E-03
R047	165.0	120.6	104.4	15.3	12.4	10.0	2.7	0.7	2.9E-06	8.0E-07	0.006	1.5E-03	6.0E-06	1.6E-06	0.012	0.14	0.018	0.010	1.5E-03
R048	164.7	120.6	105.4	15.4	12.9	10.0	2.7	0.7	2.8E-06	7.0E-07	0.006	1.4E-03	5.9E-06	1.6E-06	0.012	0.14	0.017	0.010	1.5E-03
R049	150.0	120.6	100.5	14.4	13.0	9.2	2.5	0.6	2.6E-06	7.0E-07	0.005	1.3E-03	5.4E-06	1.4E-06	0.011	0.13	0.016	0.009	1.4E-03
R050	119.8	96.4	83.8	11.5	11.7	6.6	1.8	0.5	1.9E-06	5.0E-07	0.004	1.0E-03	4.0E-06	1.1E-06	0.008	0.10	0.012	0.007	1.1E-03
R051	151.4	108.5	113.1	11.9	17.6	5.6	1.5	0.5	1.6E-06	5.0E-07	0.003	1.1E-03	3.6E-06	1.2E-06	0.008	0.13	0.012	0.010	9.9E-04
R052	139.5	108.5	96.3	11.0	14.1	5.9	1.5	0.5	1.7E-06	5.0E-07	0.003	1.0E-03	3.6E-06	1.1E-06	0.008	0.12	0.011	0.009	9.6E-04
R053	182.6	144.7	111.5	14.3	16.3	9.4	2.5	0.8	2.4E-06	8.0E-07	0.005	1.5E-03	5.1E-06	1.7E-06	0.011	0.16	0.015	0.011	1.3E-03
R054	226.3	168.8	124.3	16.5	16.3	10.2	2.8	0.9	2.9E-06	9.0E-07	0.006	1.8E-03	6.1E-06	1.9E-06	0.013	0.19	0.018	0.014	1.6E-03
R055	240.4	180.8	126.2	17.4	15.6	11.0	3.0	0.9	3.2E-06	1.0E-06	0.006	1.9E-03	6.6E-06	2.0E-06	0.014	0.20	0.020	0.015	1.7E-03
R056	238.8	180.8	125.4	17.4	15.1	11.0	3.0	0.9	3.2E-06	1.0E-06	0.006	1.9E-03	6.7E-06	2.0E-06	0.014	0.20	0.020	0.015	1.7E-03
R057	229.5	168.8	123.1	16.5	14.0	10.4	2.8	0.8	3.1E-06	9.0E-07	0.006	1.8E-03	6.4E-06	1.9E-06	0.013	0.19	0.019	0.014	1.6E-03
R058	219.8	156.7	119.9	15.2	12.6	9.3	2.6	0.8	2.9E-06	9.0E-07	0.006	1.7E-03	6.0E-06	1.8E-06	0.012	0.18	0.018	0.013	1.5E-03
R059	213.5	156.7	117.4	14.8	11.7	9.0	2.5	0.7	2.9E-06	8.0E-07	0.006	1.6E-03	6.0E-06	1.7E-06	0.012	0.18	0.017	0.013	1.5E-03
R060	180.5	132.6	106.8	11.8	8.9	7.0	2.0	0.6	2.3E-06	7.0E-07	0.005	1.3E-03	4.9E-06	1.4E-06	0.010	0.15	0.014	0.011	1.2E-03
Maximum	322.9	204.9	150.4	23.3	**35.6**	13.4	3.6	0.9	4.1E-06	1.2E-06	0.008	2.3E-03	8.7E-06	2.5E-06	0.018	0.29	0.026	0.021	2.3E-03

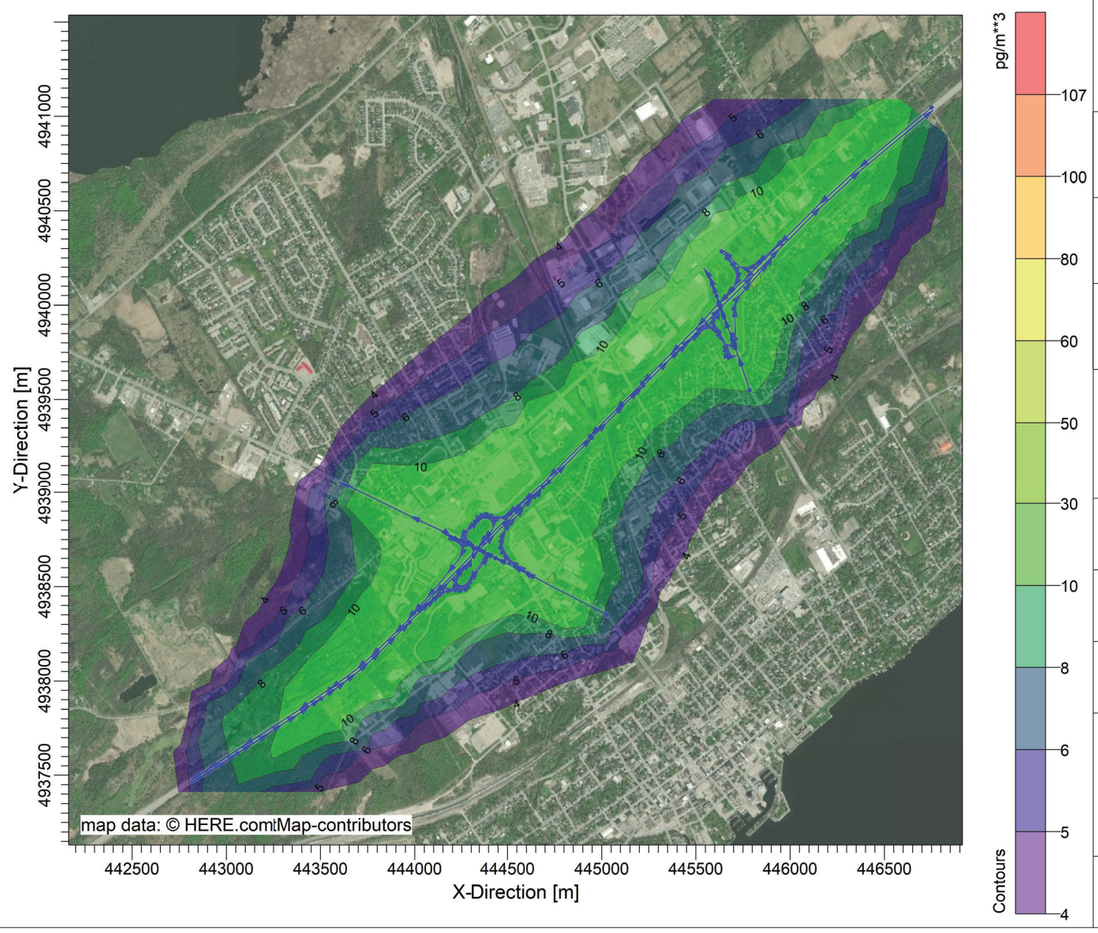
Notes:
1. Maximum predicted concentrations are presented in the table.
2. Maximum predicted concentrations in bold are predicted to exceed the air quality criteria.

Appendix H
Benzo(a)pyrene Contour Plots



PROJECT TITLE:

2022 Existing Scenario
Predicted Annual Concentrations for Benzo(a)pyrene without Background (pg/m3)



COMMENTS:

worst case meterological year 2021

MODEL:

CAL3QHCR

LINKS: **187**

RECEPTORS: **439**

COMPANY NAME:

Stantec Consulting Ltd.

DATE:

1/26/2023

SCALE: 1:30,000

0 1 m

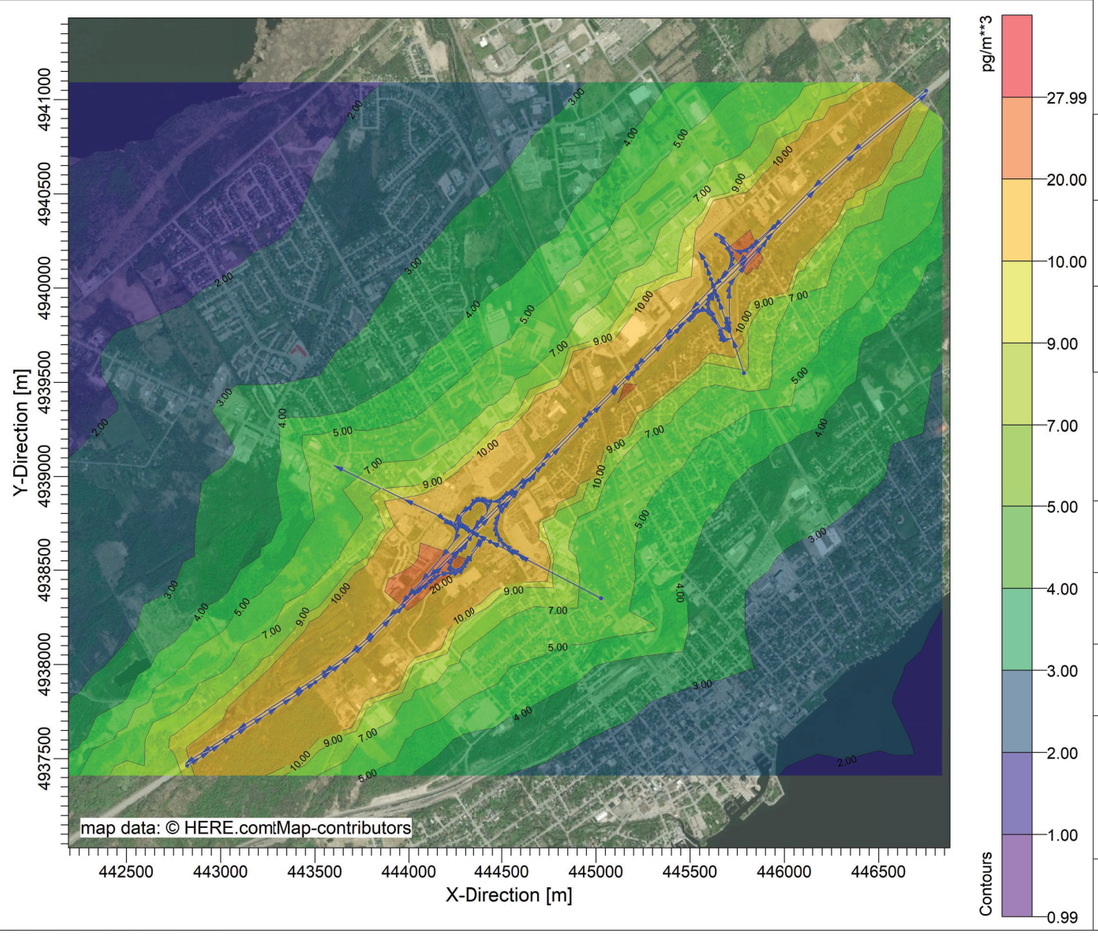
PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_Existing_BAP_24hr\BV_Existing_BAP_24hr.clv

PROJECT TITLE:

2032 Future Interim No Build Scenario
Predicted 24-hour Concentrations for Benzo(a)pyrene without Background (pg/m3)



COMMENTS:

worst case meterological year 2021

MODEL:

CAL3QHCR

LINKS: **187**

RECEPTORS: **439**

COMPANY NAME:

Stantec Consulting Ltd.

DATE:

1/26/2023

SCALE: 1:30,000

0 1 m

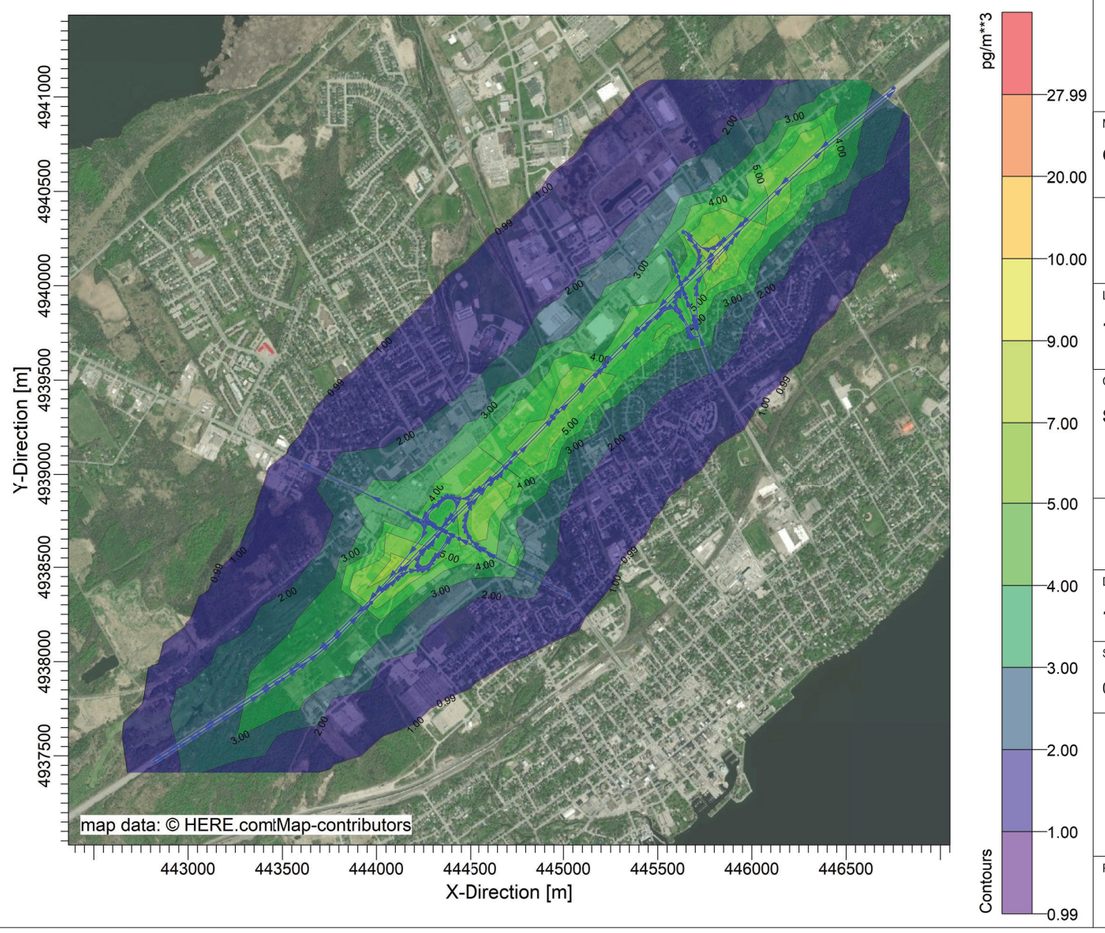
PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_INB_BAP\BV_INB_BAP.clv

PROJECT TITLE:

2032 Future Interim No Build Scenario
Predicted Annual Concentrations for Benzo(a)pyrene without Background (pg/m3)



COMMENTS:

worst case meterological year 2021

MODEL:

CAL3QHCR

LINKS: **187**

RECEPTORS: **439**

COMPANY NAME:

Stantec Consulting Ltd.

DATE:

1/26/2023

SCALE: 1:30,000

0 1 m

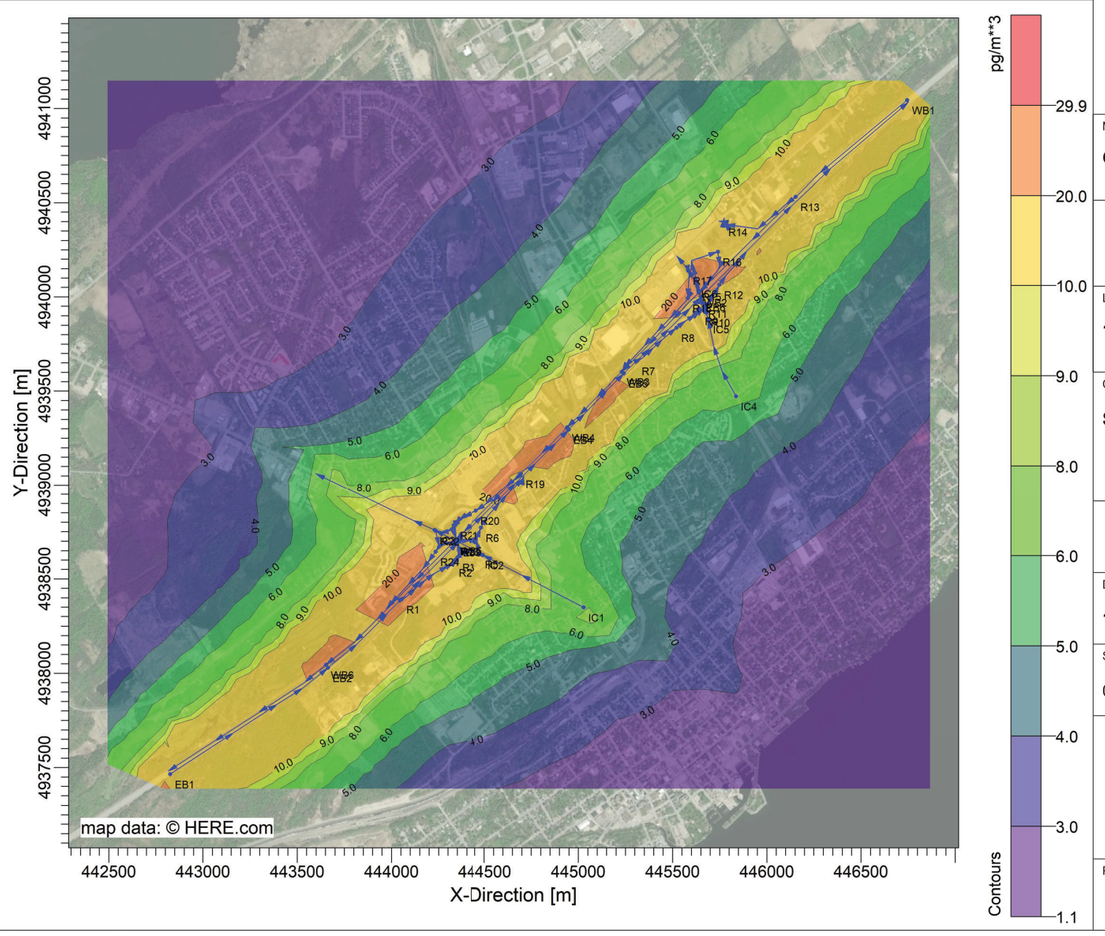
PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_INB_BAP\BV_INB_BAP.clv

PROJECT TITLE:

2032 Future Interim Build Scenario
Predicted 24-hour Concentrations Benzo(a)pyrene without Bacground (pg/m3)



COMMENTS:

worst case meteorological year 2021

MODEL:

CAL3QHCR

LINKS: **148**

RECEPTORS: **911**

COMPANY NAME:

Stantec Consulting Ltd.

DATE:

1/26/2023

SCALE: 1:30,000

0 1 m

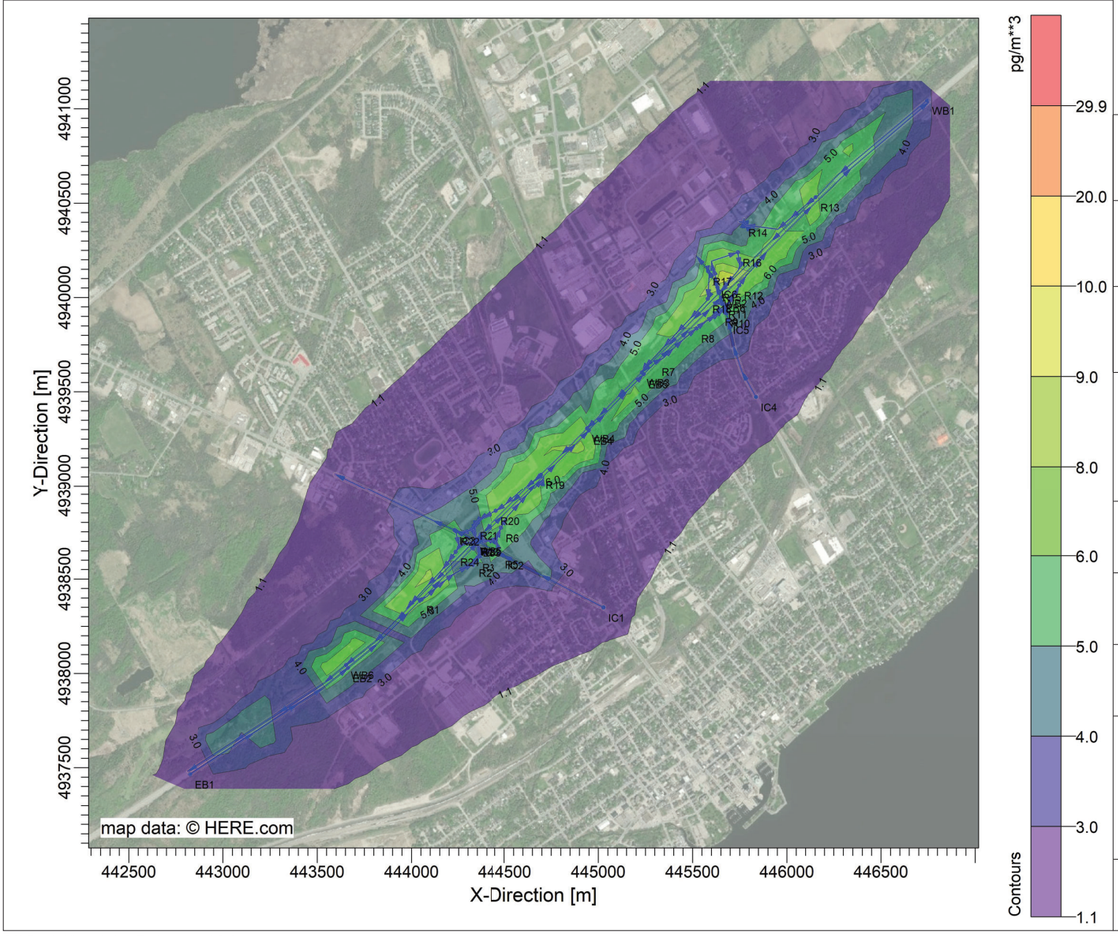
PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_IB_BAP\BV_IB_BAP.clv

PROJECT TITLE:

2032 Future Interim Build Scenario
Predicted Annual Concentrations Benzo(a)pyrene without Bacground (pg/m3)



COMMENTS:

worst case meteorological year 2021

MODEL:

CAL3QHCR

LINKS: **148**

RECEPTORS: **911**

COMPANY NAME:

Stantec Consulting Ltd.

DATE:

1/26/2023

SCALE: 1:30,000

0 1 m

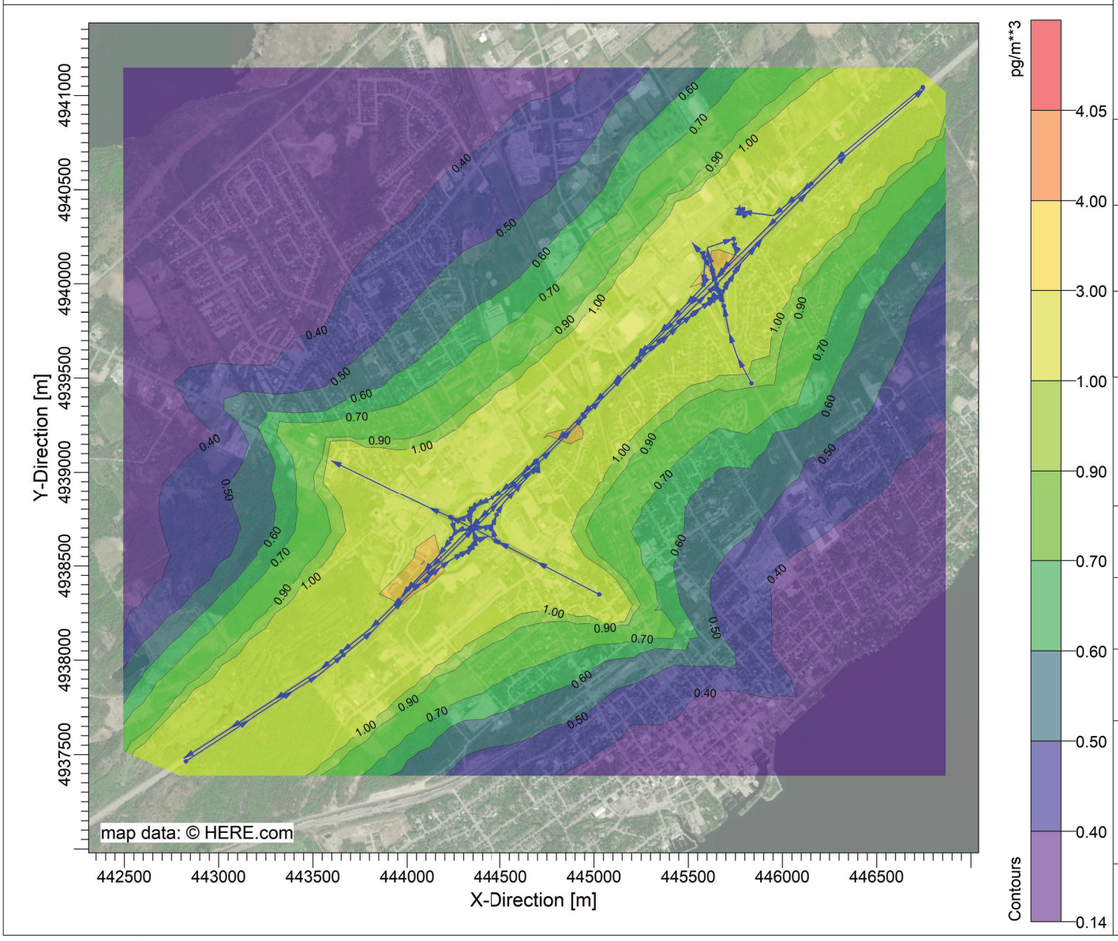
PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_IB_BAP\BV_IB_BAP.clv

PROJECT TITLE:

2042 Future Ultimate No Build Scenario
Predicted 24-hour Concentrations Benzo(a)pyrene without Bacground (pg/m3)



COMMENTS:

worst case meteorological year 2021

MODEL:

CAL3QHCR

LINKS: **148**

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COMPANY NAME:

Stantec Consulting Ltd.

DATE:

1/26/2023

SCALE: 1:30,000

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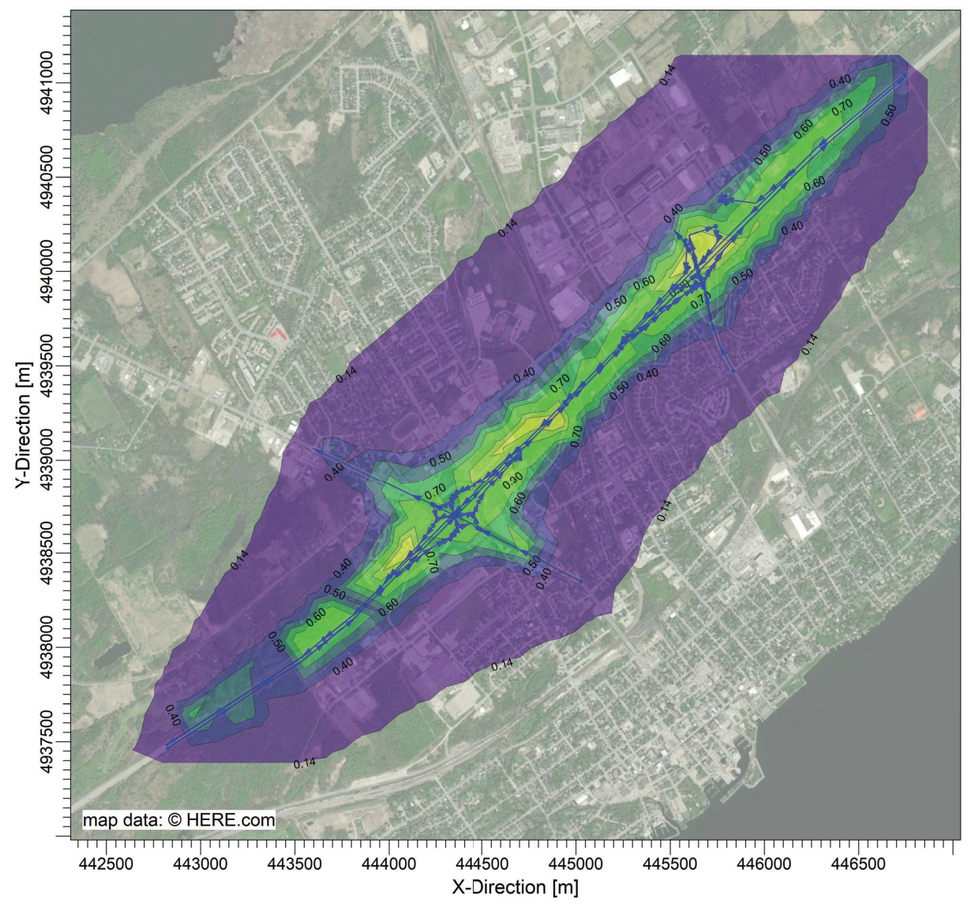
PROJECT / PLOT NO.:

CALRoads View - Lakes Environmental Software

D:\MTO_Brockville\BV_UNB_BAP\BV_UNB_BAP.clv

PROJECT TITLE:

2042 Future Ultimate No Build Scenario
Predicted Annual Concentrations Benzo(a)pyrene without Bacground (pg/m3)



COMMENTS:

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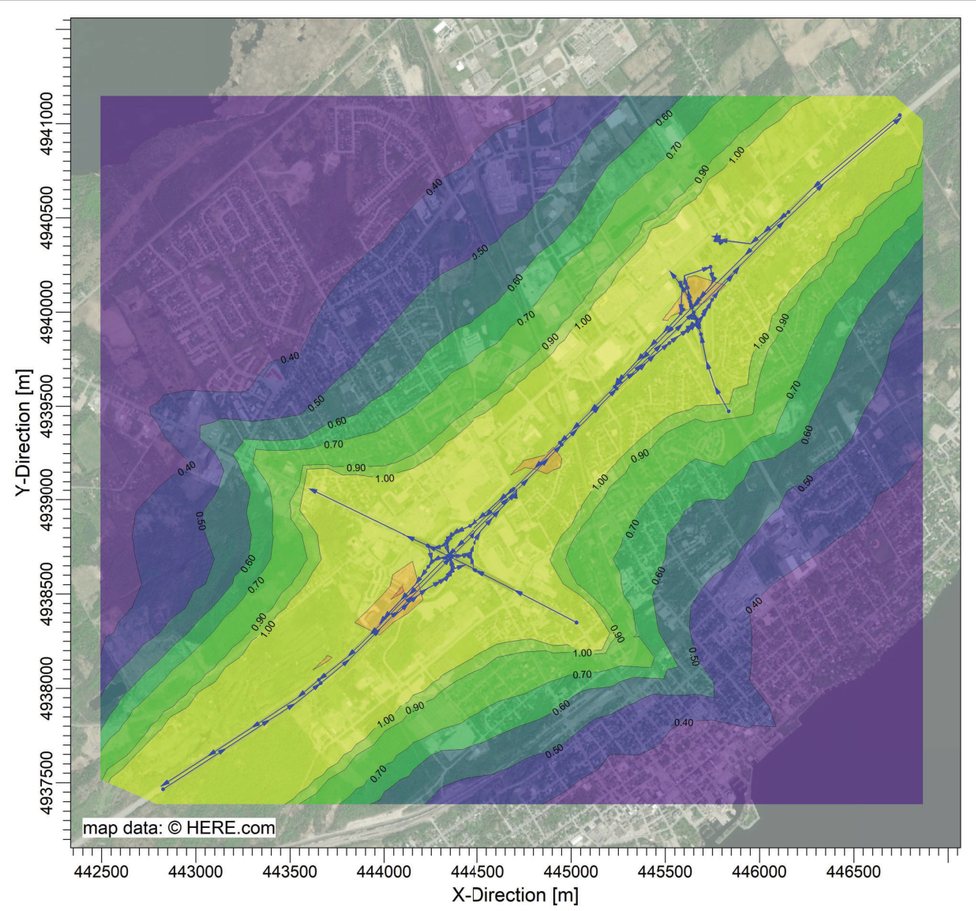
2042 Future Ultimate Build Scenario
Predicted 24-hour Concentrations Benzo(a)pyrene without Bacground (pg/m3)



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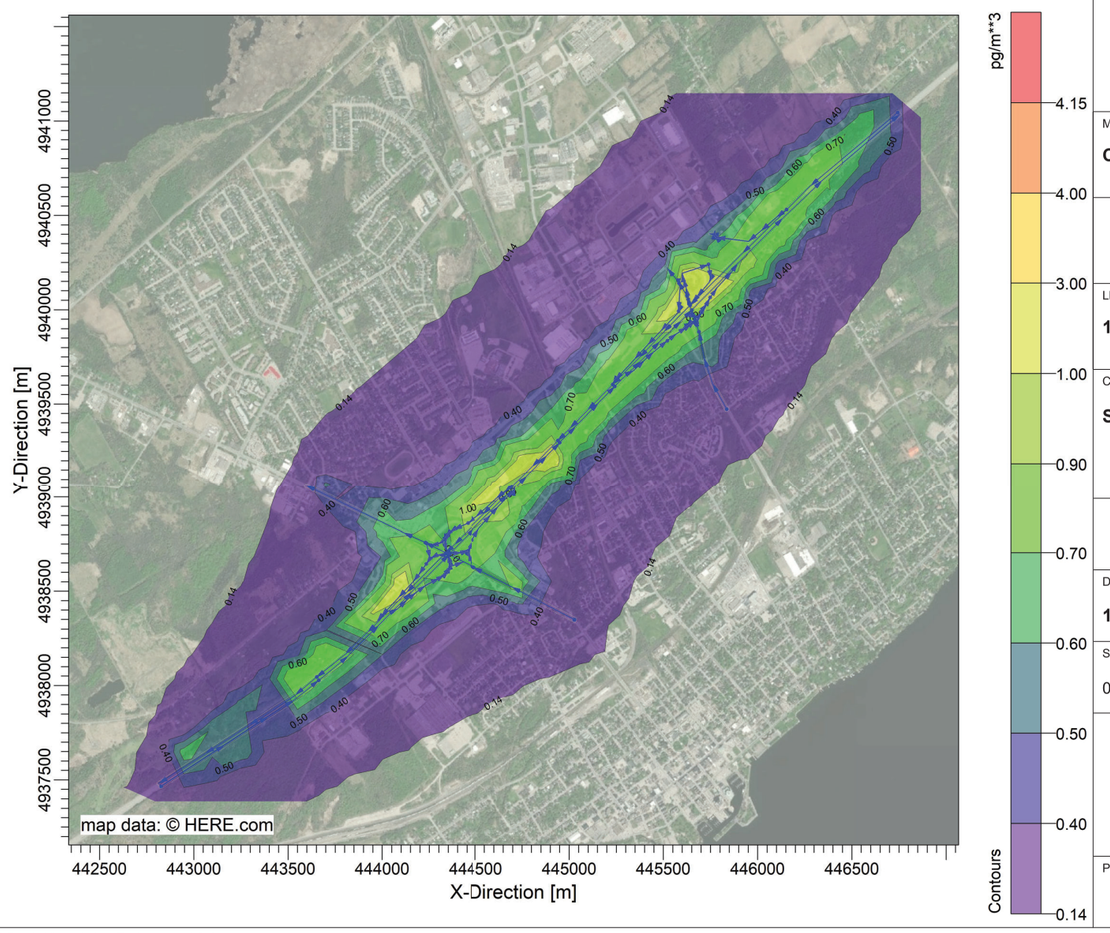
PROJECT TITLE:

2042 Future Ultimate Build Scenario
Predicted Annual Concentrations Benzo(a)pyrene without Bacground (pg/m3)



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