REPORT

WALKER ENVIRONMENTAL GROUP INC.

THOROLD, ONTARIO

NOISE AND VIBRATION ASSESSMENT REPORT (DRAFT), SOUTHWESTERN LANDFILL PROPOSAL EVIRONMENTAL ASSESSMENT

RWDI #1800160

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SUBMITTED TO

Joe Tomaino
EA Process Manager
jtomaino@walkerind.com

Walker Environmental Group Inc.
2800 Thorold Townline Road
Thorold, ON N2V 3Y8

T: 905.227-4142

SUBMITTED BY

Brad Bergeron, A.Sc.T., d.E.T.
Senior Project Manager | Principal
Brad.Bergeron@rwdi.com

RWDI AIR Inc.
Consulting Engineers & Scientists
600 Southgate Drive
Guelph, Ontario N1G 4P6

T:519.823.1311 | ext. 2428
F: 519.823.1316

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1 INTRODUCTION

An Environmental Assessment ("EA") is being prepared by Walker Environmental Group Inc. ("Walker") under Ontario's Environmental Assessment Act ("Act") for the 'provision of future landfill capacity at the Carmeuse Lime (Canada) Ltd. (Carmeuse) site in Oxford County for solid, non-hazardous waste generated in the Province of Ontario'.

This is one in a series of technical studies that have been completed by qualified experts to examine the potential effects of the proposed landfill site on the environment, all in accordance with the requirements set out in the Approved Amended Terms of Reference ("ToR") dated May 10, 2016. This report accompanies and supports the Environmental Assessment Report prepared by Walker.

Note that Walker has carried out extensive consultation with government agencies, Indigenous groups and interested members of the public regarding this study; details are provided separately in the EA report.

2 PURPOSE & OBJECTIVES

The purpose of this study is to assess noise and vibration of the landfill proposed by Walker. A glossary of noise and vibration terminology is provided in **Appendix A**.

The overall objectives of the study are listed below, in general accordance with the requirements for the assessment of an undertaking as set out in Section 6.1(2)(c) of the Act, and as specifically detailed in Section 8.1 of the ToR:

a. Describe the environment potentially affected by the proposed undertaking, including both the existing environment as well as the environment that would otherwise be likely to exist in the future without the proposed undertaking.
b. Carry out an evaluation of the environmental effects of the proposed undertaking, using the relevant environmental assessment criteria set out in the ToR (see **Appendix B**).
c. Carry out an evaluation of any additional impact management actions that may be necessary to prevent, change or mitigate any (negative) environmental effects.
d. Prepare a description and evaluation of the environmental advantages and disadvantages of the proposed undertaking, based on the net environmental effects that will result following mitigation.
e. Prepare monitoring, contingency and impact management plans to remedy the environmental effects of the proposed undertaking.

3 THE PROPOSED UNDERTAKING

The landfill proposed by Walker is described in detail in the Environmental Assessment Report. Following is a brief summary for the benefit of the reader, highlighting aspects of the proposal most relevant to this study.

The landfill is to be located on a portion of Carmeuse's landholdings at its Beachville Quarry Operations in the Township of Zorra, Oxford County. Approximately 17.4 million m3 of solid, non-hazardous waste and daily/intermediate cover will be deposited within a footprint of about 59 ha. The balance of the of the 81.6 ha site will be comprised of buffer areas for monitoring, maintenance, environmental controls and other necessary infrastructure. (**Figure 1**).

Landfill construction will proceed progressively in a series of cells, generally from north-to-south (**Figure 1**). The former quarry floor will be backfilled to within about 30 to 40 metres below ground surface with engineered fill, and then a Generic Design Option II – Double Liner system (as specified by the Ministry of Environment, Conservation & Parks in the Landfill Standards under O. Reg. 232/98; see **Figure 2**) will be constructed across the bottom and up the sides of the landfill to contain and collect leachate (**Figure 3**). Up to 850,000 tonnes per year of solid, non-hazardous waste, and up to 250,000 tonnes per year of daily/intermediate cover soils[1] will then be placed and compacted above the liner in a series of small working areas approximately 0.2 ha in size at any given time, in order to minimize the exposed waste. Waste will be covered with soil on a daily basis, and a final cover with vegetation will be applied as the landfill reaches its final height, which peaks at about 15 m above ground (**Figure 4**). A landfill gas collection system will also be installed as the landfill/cell development progresses.

Most of the supporting infrastructure for the landfill will be located in the buffer area along the northern site perimeter, including the leachate and gas treatment plants. Leachate collected from the liner system will be treated on-site and the clean effluent from the treatment plant will be discharged into the Patterson-Robbins Drain next to the treatment plant. Clean precipitation and groundwater that has not come into contact with waste will be segregated and treated in stormwater management ponds before being discharged from the site (**Figure 1**). Landfill gas will be collected in a network of extraction wells and pipes. Initially the landfill gas will be flared (combusted), but when the quantities permit, the gas will be beneficially utilized as a renewable fuel.

The site will be open for waste deliveries from 7:00 a.m. to 5:00 p.m. on weekdays and from 7:00 a.m. to 1:00 p.m. on Saturdays but closed on Sundays and statutory holidays. On-site activities (i.e. snow clearing) may start up to one hour before opening and continue up to two hours after closure. The primary designated haul route (i.e., for all waste trucks except deliveries from the local area, if any) is from Highway 401 north along County Road #6, then west into the quarry property; trucks will then follow a newly constructed haul route across the site to a landfill site entrance at the northwestern corner of the site (**Figure 5**). Vehicle traffic, including waste trucks as well as construction vehicles and staff, is expected to average approximately 210 trips per day.

[1] The daily/intermediate cover soil could consist of acceptable and suitable waste soils, and would be reported as waste, so the total reported waste receipts could be up to 1,100,000 tonnes per year.

Nuisance controls will include speed enforcement, regular haul road cleaning (on- and off-site), litter fencing and pick-up, and bird/pest management, with a public-complaints reporting and response system.

There will be monitoring programs for equipment operations, leachate, groundwater, surface water, air emissions, gas, noise, and particulates (dust).

The landfill is anticipated to receive waste for approximately 20 years commencing in about 2023. After closure, maintenance and operation of the relevant environmental controls and monitoring will carry on during the post-closure period, until there is no further risk of environmental contamination. The end-use is assumed to be passive green space and agriculture, but the design is flexible to accommodate other potential end-uses.

As noted, the landfill will be constructed in Stages 1 through 4 from north to south, then east to west. Each Stage will contain 2 – 4 cells, that will be individually built.

3.1 Carmeuse Quarry Operations

The proposed landfill site utilizes the depression from the existing Carmeuse quarry, which is adjacent to the existing Carmeuse processing plant. The Carmeuse facility is anticipated to remain in full operation for the entire life of the landfill. Noise and vibration from these operations are therefore included and considered in this assessment. The Carmeuse operations are comprised of two processing plants, and the quarrying and transportation of lime and rock to the processing plants.

The processing plant consists of two separate facilities. The central plant is located west of County Road 6, while the east plant is located close to the 41st Line. The operations and capacity of the processing plants are assumed to be equal to what the plants currently process for the life of the proposed landfill. It is therefore assumed that noise and vibration emissions from the processing plants will not change during the life of the landfill.

Operations of the processing plants are expected to occur during daytime (0700 – 1900h), with some equipment operating in the evening (1900 – 2100h) and nighttime (2100 – 0700h). If a piece of equipment is expected to operate during part of an evening or nighttime hour, it has been conservatively modelled as operating for the entire hour.

The quarry and transportation of quarried material will change over the duration of landfill operation. However, the quantities of quarried materials are not expected to change. The location of future quarrying over time, and the associated routes for movement of quarried material was taken from the Carmeuse Beachville Quarries Amalgamation – Operation Plan Drawing 2 of 5 produced by MHBC. As noted in the operational plan, quarrying operations will occur in Phase A, Phase 1, and Phase 1/2W concurrently with the operations of SWLF.

(**Figure 6**) shows an overview of the proposed landfill, the Carmeuse operations, and the surrounding lands.

4 ENVIRONMENTAL ASSESSMENT CRITERIA & INDICATORS

The environmental assessment criteria, as approved in the ToR, are tabulated in **Appendix B**, Table B-1. In the table, check marks indicate which technical studies are assigned primary ("lead") responsibility for assessing each of the criteria. Following are the EA criteria which are associated with this study:

EA Criteria	Definition/Rationale
Disruption to use and enjoyment of residential properties	Noise from Site (Proposed landfill operations, ancillary sources and construction activities as well as cumulative impact with the Carmeuse Quarry) Noise from the Off-Site Haul Route and On-Site Haul Routes (Traffic related to proposed landfill operations, ancillary sources and construction activities as well as cumulative impact with Carmeuse Quarry)
Disruption to use and enjoyment of public facilities and institutions	Noise from Site (Proposed landfill operations, ancillary sources and construction activities as well as cumulative impact with the Carmeuse Quarry) Noise from the Off-Site Haul Route and On-Site Haul Routes (Traffic related to proposed landfill operations, ancillary sources and construction activities as well as cumulative impact with Carmeuse Quarry)
Displacement/disruption of businesses or farms	Impacts to Aggregate Supply/Operations Impacts on Agricultural Lands
Property value impacts	Impacts on Property Values
Loss/disturbance of terrestrial ecosystems	Impacts to Wildlife/Birds Impacts to Terrestrial Habitat Impacts on Wetlands
Loss/disruption of recreational resources	Impacts on Fish/Aquatic Habitat Impacts on Wetlands

Furthermore, the criteria for this EA were designed to be cross-disciplinary to permit an assessment of cumulative effects. Table B-2 in **Appendix B**, from the ToR, illustrates some (though not necessarily all) of the key interconnectivities between the studies. As a result, this study provides input/data to additional environmental criteria that will be addressed through studies conducted by other experts including (but not limited to):

- Agriculture;
- Ecology;
- Economic / Financial;
- Human Health; and
- Social.

Indicators identify how the potential environmental effects will be measured for each criterion. Following are the indicators that were applied to each of the primary EA criteria addressed in this assessment:

EA Criteria	Proposed Indicators/Measures
Disruption to use and enjoyment of residential properties	MECP Publication NPC-300, MECP Noise Guidelines for Landfill Sites, and MECP Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Sites.
Disruption to use and enjoyment of public facilities and institutions	
Displacement/disruption of businesses or farms	

4.1 Criteria and Cumulative Change

The evaluation of environmental noise for this EA is based both on assessment of individual source types, as well as cumulative noise. The applicable limits are summarized in the following sections.

4.1.1 Landfilling Operations

Limits for sound from landfilling activity are set out in the Noise Guidelines for Landfill Sites (landfill guidelines). The cumulative sound from landfilling activity is evaluated as a One-Hour Energy Equivalent Sound Level (LEQ, 1-hr). The limits are outlined as follows:

- 55 dBA during the daytime (0700 - 1900h); and
- 45 dBA during the evening and nighttime (1900 - 0700h).

Higher limits are allowed for points of reception where background sound levels are elevated due to non-landfill related noise sources, such as road traffic. The background ambient sound level for the hour being evaluated may be used as the limit if it is higher than the limit shown above.

The landfill guidelines direct that ancillary facilities such as a landfill gas collection system, flare or gas-to-energy plant be considered as stationary sources and assessed under the stationary source guidelines. The current stationary source guideline NPC-300 has superseded the NPC-205 guideline specified in the landfill guideline.

4.1.2 Landfill Pest Control Devices

Pest control devices at the proposed landfill site are subject to limits provided in the landfill guidelines. Sound is expected from impulsive sources (e.g., shotgun for bird control purposes) and quasi-steady impulsive sources (e.g., screamers and whistler pyrotechnics). Of the impulsive sources, Walker has indicated that the shotgun will be the primary bird control method. The landfill guideline sets sound level limits for pest control devices at off-site points of reception as listed in **Table 1**.

Table 1: Guideline limits for Pest Control Devices

Type of Pest Control Noise	Applicable Guideline Limit
Impulsive Noise	70 dBAI, $L_{LM, 1\text{-}hr}$
Quasi-Steady Impulsive Noise	60 dBA, $L_{EQ, 1\text{-}hr}$

Notes: LLM - Logarithmic Mean Impulse Level
LEQ- sound energy over a given time period.

Walker has also noted the development of an integrated wildlife program which will use active falconry to control pests. The falconry pest control is not expected to make impulsive or non-impulsive noises and is considered insignificant.

4.1.3 Steady-State (Stationary Operations)

Sound from non-landfilling sources that are contained within a site are subject to the stationary-source set out in Publication NPC-300. The NPC-300 guidelines set out assessment criteria as the lowest background sound levels at the point of reception, provided these are above the exclusion limits defined in NPC-300. Exclusion limits are defined by location, by time of day and by the type of acoustic environment, or "Class".

Exclusion limits are the facades of the points of reception are defined for three time periods in NPC-300:

- Daytime, 0700 – 1900h;
- Evening, 1900 – 2300h; and
- Nighttime, 2300 – 0700h.

An outdoor point of reception is only assessed during daytime and evening. It may have a different evening exclusion limit than the corresponding façade point of reception.

The type of acoustic environment, or "Class", defines the set of exclusion limits based on the level of urbanization.

- **Class 1**, an acoustical environment which is typical of a major population centre that is dominated by sounds of human activity and traffic.
- **Class 2**, an acoustical environment which is dominated by sounds of human activity and traffic during the daytime (0700 – 1900h) and defined by the natural environmental and infrequent human activity at night (1900 – 0700h).
- **Class 3**, an acoustical environment defined by the natural environmental and infrequent human activity.

The exclusion limits are determined from the level of urbanization, or 'Class', at the noise-sensitive land use. The points of reception for stationary sources in this assessment include both Class 2 and Class 3 acoustic environments.

For points of reception in a Class 2 area, NPC-300 provides the following sound level limits where background sound levels are not shown to be higher:

- 50 dBA for façade and outdoor points of reception, during the daytime;
- 50 dBA for façade points of reception, during the evening;
- 45 dBA for outdoor points of reception, during the evening; and
- 45 dBA for façade points of reception during the nighttime.

Where background sound levels are not shown to be higher, NPC-300 provides the following sound level limits for points of reception in a Class 3 area:

- 45 dBA for façade and outdoor points of reception during the daytime;
- 40 dBA for façade and outdoor points of reception during the evening; and
- 40 dBA for façade points of reception during the nighttime.

The Ontario Road Noise Analysis Method for Environment and Transportation (ORNAMENT 1989) algorithms were used to model sound levels where elevated background sound due to roadway traffic was expected.

In accordance with NPC-300 noise guidelines, the following existing, and zoned-for-future-use land uses will be considered noise sensitive:

- Permanent and seasonal residences, including houses, apartments and cottages;
- Hotels, motels and campgrounds;
- Hospitals and retirement homes;
- Schools, libraries and daycare centers; and
- Churches and places of worship.

Consultation for the EA identified areas to be considered in addition to those set out in NPC-300. A broader definition is therefore used for this EA. Together with other disciplines, common receptor locations were considered to include those locations that represent the following:

1. Residences or neighbourhoods nearest the proposed landfill (nearest residential locations to the north, south, east and west of the site);
2. Residences or neighbourhoods along the haul route;
3. Businesses or commercial/industrial areas, including farms or agricultural areas;
4. Community or institutional facilities nearest the proposed landfill (e.g., schools, community centres, hospitals, cemeteries);
5. Areas or places with a potential view of the proposed landfill;
6. Recreational areas nearest the proposed landfill (e.g., parks, conservation areas, trails);
7. Areas or places of ecological importance; and
8. Areas or places identified for future development (e.g., vacant properties) or currently zoned for sensitive use.

Location and selection information for the points of reception is provided in **Section 6**.

4.1.4 Landfill-Related Traffic on Public Roads

The potential for influence of sound from transportation of site-related materials along public roads is addressed by requirements in the landfill guidelines and guidance from MECP. The proposed offsite haul route was modeled and evaluated to address current and future background levels, quarry trucks and landfill traffic. Sound levels were predicted using the ORNAMENT algorithms. The landfill guidelines prescribe that the change in sound level be evaluated using criteria shown in **Table 2**.

Table 2: Cumulative Effects Qualitative Rating

Sound Level Increase[1] (dB)	Qualitative Rating
1 to 3	Insignificant
3 to 5	Noticeable
5 to 10	Significant
>10 and over	Very Significant

Notes: 1. The increase in sound level at the receptor from the existing condition to the proposed condition

4.1.5 Cumulative Change

To evaluate the change in sound level at points of reception, the cumulative sound level from landfilling and stationary sources is considered. Changes in sound level compare quarry and processing sound levels with the expected future combination of quarry and processing operations, landfill, ancillary sources and construction activities. Criteria for evaluating the change in cumulative sound are taken from the landfill guidelines, as summarized in **Table 2**. The definition of an effect is based on the "Noticeable" sound level of between 3 and 5 dB. In cases where the change in sound level due to the landfill is greater than 3 dB, mitigation is recommended to reduce the net effects experienced.

4.1.6 Vibration Sources

The evaluation of vibration sources from the proposed landfilling activities uses Publication NPC-207 (MOE, 1983) from MECP. On-site proposed operations of the landfill site are not anticipated to have any sources causing significant off-site vibration. Thus, no further vibration evaluation is needed. Blasting would be considered separately from NPC-207 and is not assessed since no blasting is associated with the proposed landfill.

5 STUDY DURATIONS

Two main study durations (or time frames) for the proposed landfill have been identified in the ToR:

Operational Period	The time during which the waste disposal facility is constructed, filled with waste, and capped. These activities are combined since they occur progressively (i.e., overlap) on a cell-by-cell basis, and they have a similar range of potential effects (e.g., there is heavy equipment active on the site).
Post-Closure Period	The time after the site is closed to waste receipt. Activities are normally limited to operation of control systems, routine property maintenance and monitoring, and thus have a more limited range of potential effects.

The approved EA Criteria in Table B-1, **Appendix B** indicate the relevant study duration(s) associated with each of the criteria used in this assessment.

In addition, common reference periods or milestone dates were also defined for the operational period of the landfill:

Start of Construction	Est. 2020	Just prior to the start of landfill construction and operation, representing the existing baseline conditions.
Mid-Point	Est. 2030	Approximately midway through the landfill construction and operation.
Closure	Est. 2040	At the completion of the landfill construction and operation, representing the full operating size of the proposed landfill.

This assessment considers four operating scenarios that fit within the above noted time frame. A baseline case prior to the start of construction, will capture the existing sound levels, consisting of background traffic and the contributions from quarry and rock processing operations.

Three operating scenarios for the landfill are then examined, corresponding to Stages 1, 3, and 4 of landfilling. These do not have specific dates connected with them but fit into the larger time period just after the Start of Construction to just before the Closure scenario. The key aspect of these stages for noise is the worst-case locations were noise occurs.

6 STUDY AREAS

For the purposes of this EA, three general study areas were established in the ToR:

On-Site and in the Site Vicinity:	*On-site* includes the proposed waste disposal facility plus the associated buffer zones. *Site vicinity* is the area immediately adjacent to the waste disposal facility property that is directly affected by the on-site activities. Its size is variable depending on the particular criteria being addressed.
Along the Haul Route:	The primary route along which the waste disposal facility truck traffic would move between a major provincial highway and the proposed waste disposal facility site entrance, plus the properties directly adjacent to these roads.
Wider Area:	The broader community, generally beyond the immediate site vicinity. Depending on the particular criteria this may include neighbourhoods, local municipalities, Oxford County, or the Province of Ontario.

The tables of approved EA Criteria in **Appendix B** indicate the relevant study duration(s) associated with each of the criteria in this assessment.

Although these three general study areas were common across all of the studies, their actual physical boundaries were not necessarily identical for every study or criterion; therefore, a flexible approach was used and the study area boundaries were adjusted as the work progressed to ensure that they adequately encompassed the potential significant effects of the proposed landfill.

For this noise and vibration assessment, the final study areas are:

On-Site and in the Site Vicinity:	For the purposes of this study, the on-site and in the site vicinity area extends to approximately 5 kilometers from the proposed landfill. This is based on the maximum extent of noise and vibration effects that can be anticipated. However, the modeling will predict the full extent of noise effects from the landfill operations even if they were to extend beyond 5 km, and the study area would then be adjusted accordingly.
Along the Haul Route:	The along the haul route area for this will be limited to 500 metres on both sides of the proposed haul route. The highest predicted noise results will occur within the 500 metre radius of the haul route. Modeling predicts that the full extent of noise effects from the haul route does not extend beyond 500 m so no change to the study area is needed

6.1 Points of Reception On-Site and in the Site Vicinity

Points of reception used in the noise assessment are within 5 km of the proposed landfill site and were selected from the common receptor matrix. From the common receptor matrix, ten points of reception (PoR) were selected, representative of worst-case potential noise impacts (due to the combination of low ambient sound levels and potentially high levels from the proposed landfill).

Table 3 lists the considered PoRs selected from the common receptor matrix. The table specifies the PoR, associated township, location, and the description associated with each location. At PoRs defined by an intersection (ING-1, SWO-3, SWO-4, and ZOR-2), the evaluation location has been conservatively moved towards the nearest actual dwelling in the direction of the project. **Table 3** shows the selected PoRs, the evaluation location, and a description of the receptor. (**Figure 7**) shows the locations of PoRs with respect to the proposed landfill.

Table 3: Identified Points of Reception used in the Assessment

PoR	NAD 83 UTM 17		Location	Descriptor
	X (m)	Y(m)		
Town of Ingersoll				
ING-1	509747	4766652	Intersection of North Town Line E and Pemberton Street	Represents residential neighborhood in the north east portion of the Town of Ingersoll
Township of South-West Oxford				
SWO-3	511770	4767429	Residence at 584142 Beachville Road	Represents multiple residences and agricultural operations along Beachville Road within 1000m south east of the project site as well as ecological receptors along the Thames River (potential endangered and threatened species).
SWO-4	512260	4768431	Intersection of Beachville Road and 37th Line	Represents multiple residential locations and businesses at the intersection of Beachville road along a potential haul road (County Road 6)
SWO-5	512685	4769135	On Beachville Road approximately located in front of 584331 Beachville Road	Represents multiple residences and agricultural operations, east of the project site in vicinity of the Beachville District Museum and Oxford Thames River Trail parking
Township of Zorra				
ZOR-2	508891	4769460	Intersection of 33rd Line and Rd 66	Represents multiple residences and agricultural operations north of the project site along a potential haul route
ZOR-3	510255	4770254	Residence at 663951 Rd 66	Represents one (1) residence and agricultural operation immediately north of the project site and along a potential haul route
ZOR-6	509217	4768365	Residence at 334742 33rd Line	Represents one (1) residence and agricultural operation within 1000m of the project site, along a potential haul route
ZOR-7	512510	4770050	Residence at 414774 41st Line (Domtar Line)	Represents a mixed-use area (no residence) east of the project site (near solar farm) in the vicinity of Oxford Thames River Trail parking
ZOR-9	509501	4767502	Residence at 334647, 334652 and 334655 33rd Line (place dot in middle of the 3 residences)	Represents multiple residences and agricultural operations within 1000m immediately west of the project site
ZOR-11	510454	4767037	Residence at 623851 Rd62/ North Town	Location of the nearest residence and agricultural operation to the project site, within 500m. It also represents ecological receptor (former cliff swallow colony and possible significant wildlife habitat).

The points of reception listed in **Table 3** are considered to be Class 2 acoustic environments due to the proximity of roads, mainline rail or the community. This is consistent with previous acoustic assessments for the Carmeuse quarry (Stantec 2010).

One additional point of reception is terrestrial based on a biology cross discipline input. The point of reception is a heronry located to the south of the proposed landfill as identified in (**Figure 7**).

Additional noise impacts for recreational and terrestrial ecosystems have not been defined; however, noise contours are provided for each modeled scenario can be used to provide interpretation for the surrounding areas. This information can be used to assess impacts for a variety of land-uses.

6.2 Points of Reception Along the Haul Route

To address the study area along the haul route, 23 points of reception were identified. These noise-sensitive locations were residences selected for analysis according the noise workplan, and which are within 500 m of the proposed haul route along County Road 6. The majority of these are not identified receptors on the common receptor matrix, but were identified using publicly available satellite imagery. (**Figure 8**) shows the identified points of receptions for the haul route analysis and the 500 m buffer from the proposed haul route.

7 METHODOLOGIES

The subsequent sections describe the assessment methodology and assumptions used herein. The evaluation of environmental noise for this EA is based both on threshold-type limits as well as the degree of change in the cumulative noise. Numerical values are provided in tables at specific points of reception, with sound level contour mapping demonstrating sound levels for the others.

7.1 Background Sound Environment

Background sound is considered in a number of parts of the EA. How it is addressed is determined by the applicable guidance.

The NPC-300 guideline and landfill guideline consider background sound level in determining limits. Where background sound levels during daytime, evening or nighttime periods are sustained above the default or exclusion limits in the guideline, the quietest 1-hour background sound in the period can be used as the limit. Since road traffic is the dominant source of background sound, the quietest daytime, evening and nighttime hours were modelled at the points of reception. Only the vehicles not associated with the quarry and processing facility or the proposed landfill are considered part of the background for the purposes of considering elevated sound level limits.

When considering cumulative sound levels from Carmeuse and Walker operations, the quarry and rock processing operations are considered background.

The impulsive pest control evaluation does not make use of elevated background sound to determine the limits. However, the impulsive sound in the acoustic environment at a heronry was characterized by measurement.

7.2 Landfilling

The assessment of environmental noise from landfill activity considered landfilling operations, cell construction operations, and vehicle movements as the major activities. The noise assessment was completed by:

- Reviewing available land use, traffic, and design data;
- Determining the noise sources associated with the landfill footprint;
- Estimating sound emissions from sources using measured or theoretical methods;
- Establishing a three-dimensional acoustic model to predict landfill sound levels; and
- Comparing predicted sound levels to the applicable criteria.

Operation of landfilling is described by four operating stages. Three operating stages have been selected to reflect the predictable worst-case effect at receptors:

- **Stage 1**: Landfilling of the northwest corner of the landfill, with simultaneous quarrying and overburden removal activities in the existing quarry pit.
- **Stage 3**: Landfilling in the southwest corner of the landfill, with simultaneous quarrying and overburden removal activities in the northern future development.
- **Stage 4**: Landfilling in the southeast corner of the landfill, with simultaneous quarrying and overburden removal activities in the northern future development.

Landfilling-related activity is assessed against criteria from the landfilling guidelines. The separate criteria in the landfilling guidelines addressing pest control devices are applied to the pest control devices. Sound sources ancillary to landfilling are assessed separately from landfilling against the stationary source guidelines. The assessment of cumulative effect includes landfilling, ancillary sources and landfill cell construction.

7.3 Steady-State

Steady-state sound levels are those associated with quarry and rock processing operations and facilities ancillary to landfilling. The noise assessment of steady-state sources was completed by:

- Reviewing available land use, traffic, design data and existing facility data;
- Determining the noise sources associated with quarry and rock processing operations;
- Determining the noise sources that are ancillary to landfilling;
- Estimating sound emissions from sources using measured or theoretical methods;
- Establishing a three-dimensional acoustic model to predict stationary-source sound levels; and
- Comparing predicted sound levels to the stationary-source guideline criteria.

Quarrying activity progresses through Phases A, 1W and 1W/2W during the time that landfilling is planned for Stages 1, 3 and 4. These phases of quarrying are therefore assessed. Individual contributions from Carmeuse operations and from landfill ancillary sources are shown. The combination of these sources is compared with the stationary-source guidelines.

7.4 Cumulative Sound

To develop a total cumulative sound level for the concurrent progression of landfilling activity and quarry activity, it is necessary to understand how they progress concurrently. The progression of both landfilling and quarrying is described by four cases which were developed for combination of landfill and quarry sound. Each case incorporates the results from the landfill with the existing and future contributions from the quarry. As the landfill develops, the quarry will change. Locations of equipment and the haul routes for the quarry will move on to new quarry bench locations and routes, changing the impacts overtime.

The first operating scenario considered is the existing operation with the quarry alone. This base case stage captures all the sound from the exiting process plants, portable mining equipment and on-site hauling as it currently exists.

The subsequent case used in the stationary source and cumulative analysis correspond to the stages considered for landfilling (Stages 1, 3, and 4), but model the corresponding changes to the quarry equipment. These locational changes follow the operational plan, received from Carmeuse.

During operational Case 1, Stage 1 of the landfill and it's first cell is being developed, while the quarrying activities will still be active in the Phase A bench.

In operational Case 2, the landfill Stage 3 development will extend into the southwestern corner of the Phase A bench. At this time, it is assumed the quarrying activities will have moved into the Phase 1W portion of the quarry, located north of the landfill cells. For this operating scenario, the hauling traffic for the quarry rock and overburden have been rerouted to this new location.

For operational Case 3, stage 4 of the SWLF, the quarry operations are assumed to have progressed little in the Phase 1W portion of the quarry and are considered to not have greatly changed from the operation Stage 3. T**able 4** lists the assumed working areas for the four considered operation scenarios. The locations of these working areas can be seen in (**Figure 6**).

Table 4: Four considered operating scenarios.

Case Name	Landfill Cell (SWLF Operation Plan)	Quarrying Location (Carmeuse Operational Plan)
Base Case	not operating	Phase A
Case 1	Stage 1	Phase A
Case 2	Stage 3	Phase 1W
Case 3	Stage 4	Phase 1W/2W

The total cumulative sound is the combination of Carmeuse manufacturing and quarrying, with landfilling sources ancillary to landfilling and landfill cell construction. Existing cumulative sound is the Carmeuse manufacturing and quarrying activity that would occur in the absence of landfilling. The cumulative effect is the change in sound level from existing cumulative sound to the total cumulative sound. The change in sound level is compared with the change criteria set out in the landfill guidelines.

7.5 Haul Route

The influence of additional road traffic along the haul route due to the landfill is evaluated by comparison of road traffic sound levels. Quarry traffic and all other non-landfilling traffic is identified as Existing Haul Route Traffic. Landfill-related traffic is identified as New Haul Route Traffic. The sum of the Existing and New Haul Route Traffic is identified as Total Haul Route Traffic.

Haul route influence is assessed by the change in sound level from Existing Haul Route Traffic to Total Haul Route Traffic. The change in sound level is compared with the criteria set out in the landfill guidelines.

7.6 Assumptions Used in Assessment

Walker provided an initial set of working assumptions regarding the design and operations of the proposed landfill (Facility Characteristics Report; March 2018; now incorporated into the Environmental Assessment Report, Section 7.2). The following key aspects were taken from the Facility Characteristics Report and used in this study:

- Topography of the proposed landfill (Section 1.1.6);
- Site Development Stages (Section 1.2):
    - 4 Main Stages with each stage with 5 Cells;
    - Proposed phasing plan;
    - One designated working face for waste placement within active cell at any given time; and
    - Average height of lift will be 5.5 m.
- Infrastructure (Section 1.3):
    - Haul Route & Site Entrance (Section 1.3.1)
        - Primary designated haul route will be Highway 401 Exit#222, north along County Road 6 and the west into Carmeuse property;
        - Secondary haul routes for any local deliveries will follow the most appropriate County roads; and
        - Site entrance will be in the northwestern corner of property.
    - Internal Roads (Section 1.3.2):
        - Primary internal access road will be constructed and originate at the landfill site entrance and will be located to provide access to weigh scales located in the northwestern corner of site;
        - Site perimeter road will continue past the scale along the northern boundary and around the site; and
        - Site perimeter road will be used for maintenance and operation purposes and for access to other landfill facilities such as landfill gas, leachate management and storm water systems.

- Buildings, Structures, and Supporting Infrastructure:
  - Most buildings and structures will be located along the northern perimeter and northeast corner of the site within the buffer area of interest:
    - Leachate Management facilities;
    - Landfill gas management facilities; and
    - Equipment parking & maintenance shops.
- Final Cover (Section 1.6):
  - At least 0.6m of soils that will permit a minimum infiltration rate of 0.15m/year;
  - At least 0.15m of topsoil; and
  - Vegetation that will prevent wind and water erosion.
- Leachate Management (Section 1.7):
  - Leachate Treatment (Section 1.7.3);
  - Leachate will flow by gravity drainage to the low point in the leachate collection system at the northwestern corner of the waste fill area;
  - Leachate will be pumped via force main to a leachate balancing /pretreatment pond(s) located northeast of the landfill;
  - Following pre-treatment in the aeration pond(s), the leachate will be pumped to the leachate treatment facility that will utilize a combination of physical, chemical and biological treatment technologies to treat the leachate prior to discharge to the environment;
  - Treated water from the leachate treatment plant may be stored in balancing/polishing pond(s) before being released to the environment
  - Treated water will be discharged directly or indirectly to the Thames River; and
  - Onsite uses of treated water (e.g., road watering for dust control) will be considered to minimize the need for using existing ground water and surface water sources.
- Gas Management (Section 1.8):
  - Gas Qualities (Section 1.8.1):
    - Landfill gas will start being generated several months after waste is placed in the landfill and increase through the operational period as more waste is added;
    - Landfill generation rate is expected to peak within a few years after the landfill is closed with all of its final cover in place, and then slowly decline as the organic material in the landfill decomposes; and
    - Peak landfill gas generation rates estimated to be about 20,000 cubic metres per hour.
  - Landfill Gas Collection & Destruction (Section 1.8.3):
    - A series of horizontal and vertical wells, along with pumps, are proposed to provide a vacuum to the landfill to collect landfill gas generated by the site;
    - Landfill gas collection efficiency is expected to be 85% of the total gas production;

- The collected gas will be incinerated in fully enclosed flare(s) approximately 4.0m in diameter and 15.0m high; one flare is initially needed, but up to three (3) landfill gas flares maybe required over the lifespan of the landfill;
- Flares will be designed to operation at temperatures between 875 to 950 degrees Celsius with a residence time of 0.75 seconds;
- Automated monitoring and fail-safe systems will be incorporated;
- At start, 100% of the landfill gas collected will be sent to a landfill gas flare;
- After 5 years of operation, landfill gas utilization can be used for the following:
    - Direct-use as fuel for nearby industries (e.g., lime kilns);
    - Fuel reciprocating engines for renewable electricity; and
    - Processing to meet natural gas pipeline specifications and injecting into nearby natural gas distribution or transmission pipelines.
    - Any utilization projects are expected to be similar or better in terms of destruction capabilities in comparison to the landfill gas flare; and
    - Any renewable projects expected to have several positive impacts (e.g., displacement of non-renewable energy sources).

- Construction (Section 2.0):
    - Initial Preparation (Section 2.1); and
    - Cell Construction (Section 2.2.1).
- Operations (Section 3.0):
    - Anticipated Start-Up and Duration (Section 3.1);
    - Waste Acceptance (Section 3.2);
    - Traffic Volumes (Section 3.3);
    - Hours of Operation (Section 3.4);
    - Waste Placement (Section 3.5);
    - Daily and Intermediate Cover (Section 3.6);
    - Nuisance Controls (Section 3.7);
    - Monitoring (Section 3.8); and
    - Equipment Requirements (Section 3.10).

Carmeuse operations were assumed to remain consistent with the existing approvals. Noise emissions from manufacturing were assumed to remain consistent with the Acoustic Assessment conducted by Stantec (Stantec, 2010). The quarry operations were assumed to continue following the Carmeuse Beachville Quarries Amalgamation – Operation Plan. Portable cap rock crushing operations were assumed to remain north of the quarry face once Stage 1 of landfilling commences.

8 DATA COLLECTION

8.1 Background Data

8.1.1 Road Traffic

A key input to the noise study was road traffic data. Traffic consultant HDR Inc. conducted a traffic study for County Road 6 and adjacent roads which was used as input information (HDR 2020). The traffic study provided peak hourly traffic volumes for current and future background levels, peak hourly traffic volumes for Carmeuse, and the predicted peak hourly traffic volumes for the landfill. The study provided a detailed breakdown of the types of traffic in terms of automobiles, medium trucks, and heavy trucks to be used for the noise assessment.

An hourly traffic count was obtained from the County of Oxford, for County Road 6 north of the Beachville Road intersection. The count reported on eleven days of road traffic, including quantities and details on the type of vehicle that passed that point. This data was used in determining the hours with the least traffic volume, which in turn result in the quietest background sound levels.

8.1.2 Stationary Sources

Stationary source information for quarry manufacturing operations were obtained from an Acoustic Assessment conducted by Stantec (Stantec, 2010). This information was used as input information and supplemented with on-site measurements.

Operational information for the quarry was obtained from the Carmeuse Beachville Quarries Amalgamation – Operation Plan produced by MHBC.

Where sound level information was not available by measurement of the sources, data was obtained from one of the following sources:

- selecting similar equipment from RWDI's database of measurements taken at comparable sites;
- manufacturer data; or
- published engineering calculations.

8.2 Field Data Collection / Sources / Modelling

8.2.1 Carmeuse Lime Quarry Noise Sources and Modelling

The existing quarry is expected to remain active for the entire development and operation of the proposed landfill. The considered onsite noise sources from Carmeuse consist of three parts;

- the processing plants;
- mobile quarrying activities; and
- onsite hauling of materials

The processing plant is split into two sections divided by County Rd 6; the central plant operations located to the west, and the east plant operations located to the east. Both processing plants operate in concert to produce various lime products, with materials moved from one plant to the other by truck, and offsite.

8.2.1.1 Processing Plants

On-site measurements of the Carmeuse processing sources were used together with the Stantec Acoustic Assessment (Stantec 2010), representative data, manufacturer data, and engineering calculations. Sound pressure level (SPL) measurement procedures were derived from the ISO 3744:1994 and ISO 3746:1995 (ISO, 1994 and 1995) measurement standards, and the applicable portions of the Publication NPC 103 (MOE, 1977). Measurement equipment and weather conditions meet the requirements set out in Publication NPC-103.

Modelling combined the previous assessment and current measurements to create an updated noise model representative of current conditions. The major structures of the processing plants match the Stantec report. Sources identified in the Stantec report were added and adjusted to current operations using the September 2019 RWDI measurements.

Sources that have characteristics considered to be particularly annoying receive additional consideration in accordance with Publication NPC-104 (MOE, 1977) and NPC-103 guidelines. Consistent with NPC-103, a penalty is applied for tonal, cyclically varying, or quasi-steady impulsive sound characteristics that would be audible at a point of reception.

The listing of modelled sources can be found in **Appendix C**. **Appendix C** lists the linear octave band data, source of the data. Sources marked as tonal in the Stantec assessment have the tonal penalties added for the final assessment.

8.2.1.2 Mobile Quarry Sources

Equipment associated with the quarry operations are not included in the Stantec report. RWDI performed measurements of mobile quarrying equipment on the September 28, 2019 site visit. This equipment includes large earth moving equipment, portable crushers, conveyors, and generators used in active areas of the quarry or at overburden removal locations. The mobile quarry sources will change in location as the quarry and the landfill progress, and thus will change locations as the quarrying progresses. The SPL to PWL conversions, octave band sound power data, measurement weather conditions, and information pertaining to the sound level measurement equipment are detailed in **Appendix C**.

8.2.1.3 Onsite Material Hauling

Onsite hauling of materials that is part of the Carmeuse quarry consists of three main activities:

- moving of overburden from quarry to stockpiles or for off-site deliveries;
- transporting process rock to the process plants,
- transporting final processed materials offsite

The noise model addresses the emissions form these sources spatially by modelling the routes travelled as line sources on the approximate routes the truck will take on site. The line sources incorporate travelling speeds, truck height, and the number of pass-bys per direction. All on site equipment moving process rock and overburden have been modelled at 3 m above ground, and travel at 40 km/h and 30 km/h for empty and loaded equipment respectively.

The number of overburden movements is based on the maximum allowed tonnage of overburden to be moved between sections of the quarry per year and is modelled using a CAT 735 hauler. The number of process rock movements is based on the maximum operation capacity of the process plant and any stockpiling that may occur for process rock and is modelled using a CAT 735 hauler.

The truck movements for materials carried off site as sales have been modelled as line sources 3 m above the ground, entering and exiting from the existing Carmeuse north and south driveways. Sound emissions for the transport trucks is based on proxy data in the RWDI measurement database.

The source sound power levels and modelling parameters for onsite material hauling can be found in **Appendix C**.

8.2.2 Landfill Noise Sources and Modelling

The proposed landfill comprises the following types of sound:

- trucks delivering waste to the site;
- landfilling activities;
- pest control devices;
- ancillary activity; and
- construction activities.

8.2.2.1 Off-site Waste Import

Off-site waste import to the landfill will occur along a perimeter road from County Road 6 primary gate, to the secondary gate and weigh scale, and then to the active face of the landfill area. The trucks are modelled as line sources along the perimeter road, through the weigh station and along the centre of the landfill to the active face. All waste import trucks have been conservatively modelled at 3 m above ground, and travel at 40 km/h and 30 km/h for empty and loaded trucks respectively. Sound emissions for the transport trucks is based on previous RWDI measurements of standard transport trucks.

The model also considers the nighttime noise emissions of idling waste import trucks arriving before the opening of the landfill in the early morning. MECP guidance considers time prior to 7 am as nighttime hours. Idling trucks are modelled along the perimeter haul route from County Road 6 to the entrance at the weigh station at 25 m spacing as a worst-case scenario spatially. Sound emissions for the idling transport trucks is based on previous RWDI measurements of standard transport trucks idling.

8.2.2.2 Landfilling

The landfilling operation will require specific earth moving and compaction equipment, as outlined in the Walkers Facilities Characteristic Assumptions. The main activities include the construction of the clay liner system, compaction of the waste, and the addition of daily cover at the end of each day. Bulldozers and excavators have been modelled as point sources. The landfill compactors have been modelled as an area source, and are modelled as a CAT 836K, at a height of 3 m.

Haul trucks for the daily cover have been modelled as area line sources, travelling from the northern overburden pile to the active landfill face. The daily waste cover haul trucks have been conservatively modelled at 3 m above ground, and travel at 40 km/h and 30 km/h for empty and loaded trucks respectively and is modelled using a CAT 735 hauler. A listing of modelled equipment can be found in **Appendix C**

Potential nighttime movements of compactors and dozers to the working area location has been considered and modelled.

8.2.2.3 Pest Control Devices

Pest control devices used at the landfill will include impulsive sources such as a shotgun, as well as quasi-steady impulsive sources such as screamer and whistler pyrotechnics. These occur as individual, infrequent events. Worst-case locations have been considered by modelling single events around the north, west and southern perimeter of the landfill, or in the worst-case locations with respect to PoRs.

Sound data emissions and levels are based on measurements of similar sources at other locations, and guidance from Walker. The shotgun has been modelled with an overall sound power of 144 dBAI.

Other environmental disciplines have indicated concern that the herons may be disturbed by these management devices. The heronry is located in an acoustic environment that includes a number of existing anthropogenic noise sources, many of which are impulsive in nature. These include existing activity at Carmeuse, rail activity and road traffic. Quarry noises include such things as blasts, crushed material drops, and the movement of heavy machinery. There are rail lines both to the north and south of the heronry. The Ontario Southland railway operates on the line approximately 100 m to the south. Less than 350 m north of the heronry is the active CN main rail line, with multiple daily freight trains as well as several sidings. The location is less than 200 m from Beachville Rd, with a posted speed limit of 80 km/hr. Measurements were therefore conducted to quantify the impulsive characteristics of the acoustic environment at the heronry.

A long-term impulsive noise measurement was conducted from September 19 through 26, 2019 at the identified heronry located 450 m south of the proposed landfill. The measurement took place on the southern edge of an existing water-filled quarry.

The long-term measurement was designed to capture impulsive sounds in the existing environment. The sound level meter was set to record equivalent sound levels (LEQ) at a rate of 20 milliseconds per sample or 50 Hz. The recorded sound levels were filtered for wind induced noise and precipitation. Since pest control impulsive sound is not predicted to exceed 65 dBAI, the count of the number of impulses only considered impulses at or above the 65 dBAI.

8.2.2.4 Ancillary Facilities

Stationary landfilling noises are associated with the leachate facility. The leachate flaring stack has been modelled as operating continuously 24 hours a day. Review of other noise emitting equipment associated with the leachate plant are considered insignificant and have not been modelled.

8.2.2.5 Construction

Construction of the landfill liner is considered to occur in the landfill stage following the one being filled. Thus, when landfill cell is being filled, typically the next cell is being constructed. The following equipment was assumed to be running simultaneously for construction of the landfill liner along with active landfilling (actual liner construction may use different equipment and quantities):

- 1 excavator,
- 4 articulated trucks,
- 2 dozers,
- 2 compactors,
- 1 water truck, and
- 1 loader.

As with the landfilling sources, the assumed locations of the construction equipment were placed in worst case locations, having the greatest impact at nearby receptors. Cell liner construction has been modelled during daytime hours only.

8.2.3 Modelling Software

Modelling of all sources of sound on the Walker and Carmeuse site was conducted in the Cadna software package. Cadna implements the ISO 9613 (ISO, 1996) sound propagation algorithms. The model considers three-dimensional sound propagation and incorporates the following factors:

- Source sound power level and directivity;
- Distance attenuation;
- Source-receptor geometry including heights, elevations and topography;
- Barrier effects of the site and surrounding buildings;
- Duration of events;
- Ground and air (atmospheric) attenuation;
- Temperature and humidity effects on propagation; and
- Moderate downwind or inversion conditions (per the ISO 9613 standard, where sound contributions at a receptor from multiple sources are calculated under a downwind condition, regardless of spatial orientation).

Key parameters used in the model and sample calculations are summarized in **Appendix D**.

Base elevations and topography for the modelling are based on the publicly available Canadian Digital Elevation Model (CDEM). Changing elevations for the landfill were manually generated based on sections provided in (**Figure 3**).

Localized ground absorption was used to account for hard surfaces (e.g., ponds, asphalt and gravel) on the site and on land between the landfill site and points of reception. Ground absorption is otherwise considered soft, due to large grassy areas.

8.2.4 Road Traffic Modelling

In accordance with the MECP's "Noise Guidelines for Landfill Sites", the potential impact of the proposed offsite haul route was modeled. Noise levels for the proposed off-site haul route were modelled using the Ontario Road Noise Assessment Method for Environmental Noise from Transportation (ORNAMENT, 1989) modelling procedure. The haul route assessed is along County Road 6, from Highway 401 to the landfill primary entrance, 800 m south of Road 66. Key model inputs that were used are:

- Hourly predicted landfill haul route traffic volumes on the proposed haul roads;
- Hourly Carmeuse haul route traffic volumes on the proposed haul roads;
- Hourly non-Carmeuse, non-landfill traffic volumes on the proposed haul roads;
- Traffic types broken down into light vehicles, medium trucks and heavy trucks;
- Posted speed limits;
- Road gradient; and
- Road-to-receptor distance.

Simplified 1-hour road traffic noise contours for existing and future conditions (with the landfill in place) are estimated and presented in figures. The peak traffic volumes during daytime and nighttime were modelled to account for the highest sound levels at points of reception. All receptors were conservatively modelled at 1.5 m height on flat ground with no shielding effects and a 180-degree exposure to the road.

Four traffic volumes are considered for the analysis; the existing haul route traffic attributed to Carmeuse, the future haul route traffic due to SWLF, the existing background traffic, and the future background traffic. The four volumes are identified as follows:

- EHR – Existing Haul Route (Carmeuse)
- FHR – Future Haul Route (SWLF)
- EBT – Existing Background Traffic (Excluding Carmeuse)
- FBT – Future Background Traffic

(**Figure 9**) shows the distribution of automobiles, medium, and heavy trucks, for the four considered volume along the different sections of County Road 6 during the peak nighttime hours. (**Figure 10**) shows the distribution of automobiles, medium, and heavy trucks, for the four considered volume along the different sections of County Road 6 during the peak nighttime hours.

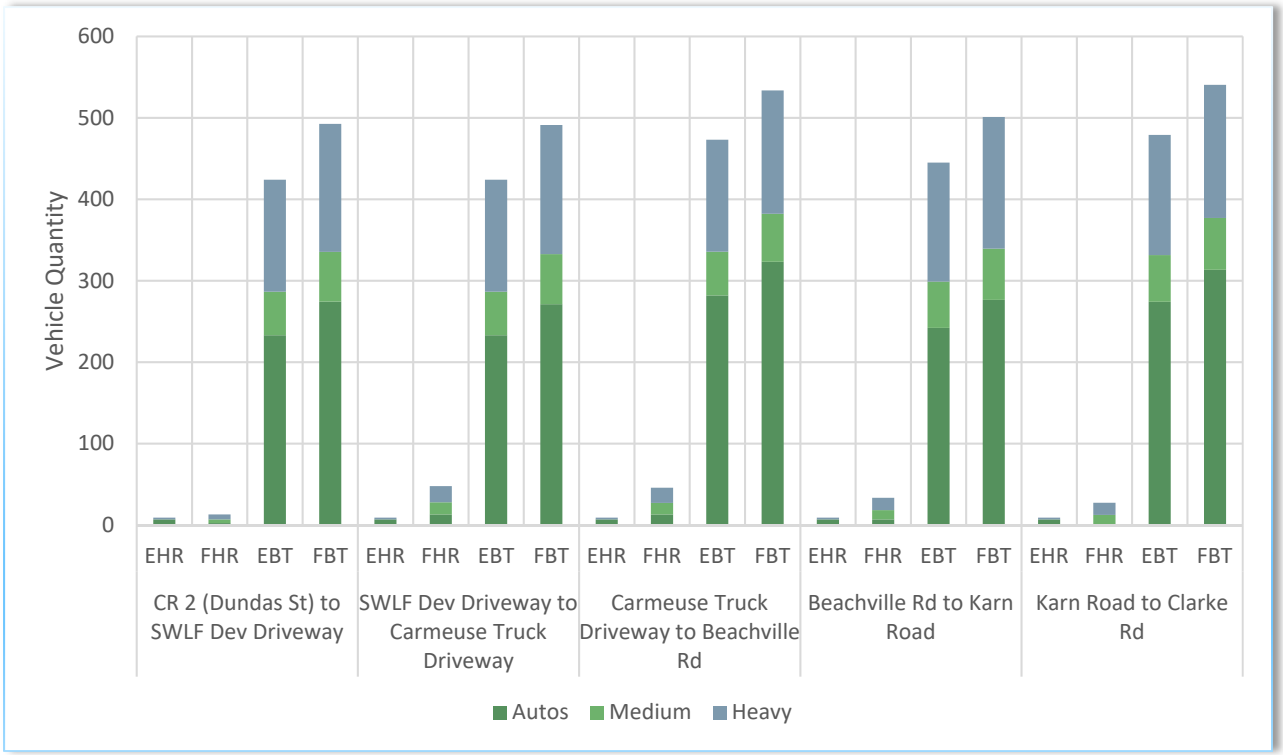

Figure 9: AM Peak Traffic Volumes Along County Road 6 for the Four Considered Scenarios.

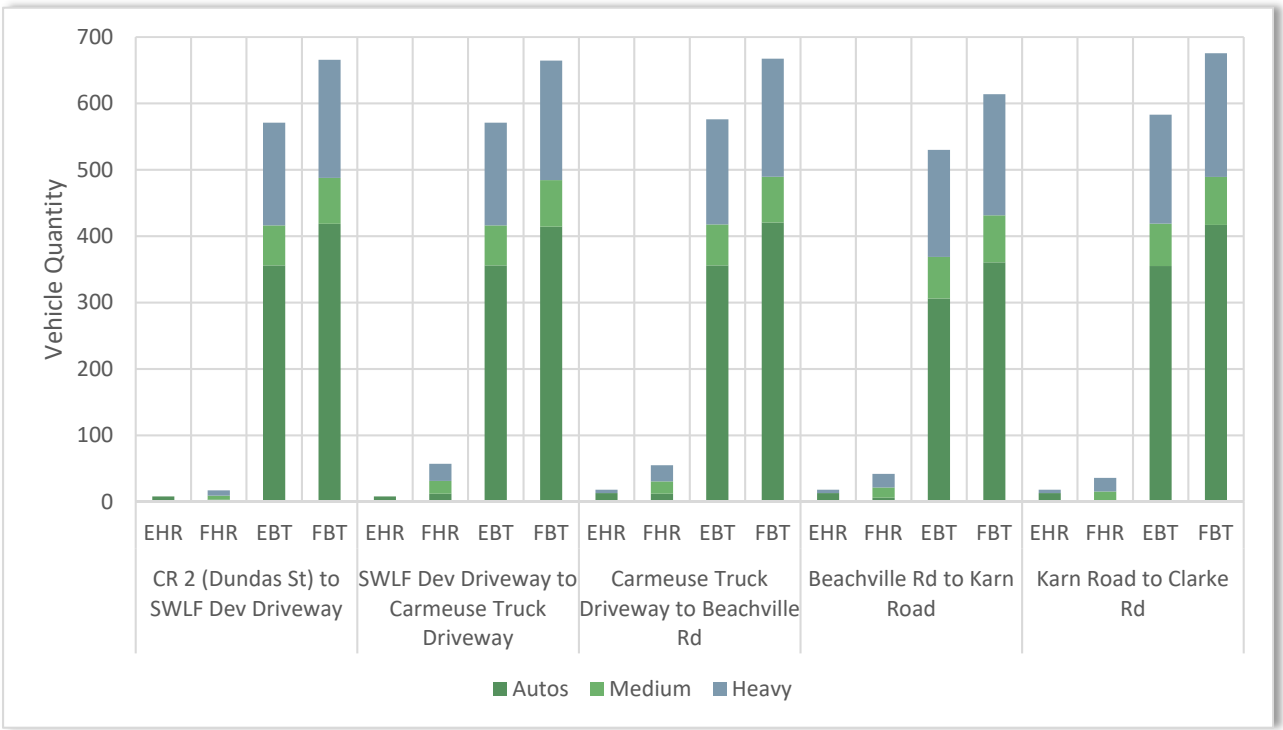

Figure 10: PM Peak Traffic Volumes Along County Road 6 for the Four Considered Scenarios.

9 ENVIRONMENT POTENTIALLY AFFECTED BY THE UNDERTAKING

Section 6.1(2)(c)(i) of the Act requires a "description of the environment that will be affected or might reasonably be expected to be affected, directly or indirectly". Section 8.2 of the ToR describes the methodology by which the environment potentially affected by the proposed landfill is to be developed, notably including both the existing environment as well as the environment that would be expected to exist in the future without the proposed undertaking (i.e., the environmental baseline conditions, or the "do nothing" alternative).

9.1 Baseline Assumptions

9.1.1 Land Use Forecast

A common set of assumptions were provided by MHBC Planning on behalf of Walker regarding the forecasted land uses in the area, so that this study could reflect any reasonably foreseeable changes in the uses of the land on and around the proposed landfill site (including the expected ongoing operation of the quarries and lime plants in the vicinity of the site). These assumptions are detailed in Walker's Environmental Assessment Report, while a brief summary of the aspects relevant to this study follows.

In order to address cumulative effects, in accordance with the methodology set out in Section 8.2 of the Approved Amended Terms of Reference, this study will compare the potential effects of the proposed landfill at its different stages of development to the forecast baseline conditions at that same period (i.e., the "do nothing" alternative). In order to guide the forecasting of future baseline conditions, Walker has provided a set of working assumptions regarding future land uses (including community growth, other industrial activities such as quarrying, etc.) at the site, in the surrounding area and in the broader community (Land Use Planning Forecast Draft Report; October 2016).

- Existing Conditions (Section 4.0);
- Aggregate Operations (Section 5.0); and
- Land Use Forecast (Section 6.0).

9.1.2 Climate Change Forecast

Another set of common assumptions that were established for the purpose of this EA is the potential for climate change, so that these could be considered in the individual studies of the potential effects of the proposed landfill. These assumptions are detailed in Walker's Environmental Assessment Report and basically adopt the guidance in the Ontario Ministry of Natural Resources and Forestry's Climate change projections for Ontario: An updated synthesis for policymakers and planners.

The Minister's amendment #12 to the Approved Amended Terms of Reference required that climate change be considered in this environmental assessment. **Table 5** summarizes the mean climate change (temperature and precipitation) assumptions to be considered during this study, where relevant.

Table 5: Climate Change Assumptions

Year	Temperature (C)			Precipitation (mm)		
	Annual	Summer	Winter	Annual	Summer	Winter
2011-2040	2.3	2	2.2	52	-2.7	28.3
2041-2070	3.9	3.2	4.5	87	-2.5	34.9
2071-2100+	4.8	4.1	5.5	89	-4.4	46.8

Source: McDermid, J., S. Fear and A. Hogg. 2015. Climate change projections for Ontario: An updated synthesis for policymakers and planners. Ontario Ministry of Natural Resources and Forestry, Science and Research Branch, Peterborough, Ontario. Climate Change Research Report CCRR-44.

The Ministry of Natural Resources and Forestry document from which the data is sourced, includes other information that can be used if and where appropriate in this and other studies.

9.2 Environmental Baseline Conditions

9.2.1 Existing Baseline Conditions

Noise is present in the vicinity of this site from urban, industrial and farming activities, along with the associated road traffic. However, the quarry and related manufacturing operations meet provincial noise guidelines at all off-site receptor locations. Based on traffic counts, noise levels from road traffic in the area were also found to be within the provincial guidelines for ambient sound levels with one exception – the area around the intersection of Beachville Road and County Road 6.

Existing impulsive (sharp and almost instantaneous) sounds were measured to the south of the site near a heronry that might be sensitive to such sounds. They are produced by activities such as passing trains, quarry blasts, and other quarry operations. Not surprisingly, the environment in the vicinity of the site is characterized by a substantial amount of impulsive noise exceeding 65 decibels, typically with 29 to 59 impulses *per* day.

9.2.1.1 Existing Levels Due to Local Road Traffic

Baseline conditions at all receptors were examined to determine if existing background levels due to local traffic were greater than the NPC-300 guideline's exclusion limits and Landfilling guideline limits. Modelling of background sound levels using traffic volumes used the ORNAMENT noise model.

Traffic volumes used in the analysis were provided by Oxford County in the form of traffic counts at the location of Beachville Road and County Road 6. The traffic counts occurred from May 3, 2019 through to May 13, 2019. The analysis conservatively used the day with the lowest overall volume, and then used the hour with the lowest volume for daytime and nighttime hours. The Evening volume was conservatively considered equivalent to the nighttime volume.

As the traffic count did not include roads that intersect County Road 6, volumes from the HDR traffic study was used (HDR 2020). The traffic study provided peak hourly volumes for current conditions along County Road 6 and the intersecting roads. The traffic along County Road 6 from the HDR study was compared to volumes determined from the hourly traffic counts provided by Oxford County, and a scaling factor determined. The intersecting road traffic volumes were scaled down from the peak using this factor.

Only one receptor was found to have a background sound level that is higher than the guideline minima's due to existing traffic, SWO-4. This is primarily attributed to the traffic on County Rd 6, with some contribution from Beachville Road.

Table 6 shows the calculated background sound levels for SWO-4, using the ORNAMENT noise model. The elevated levels in the quietest hours are applied to both NPC-300 and Landfilling guideline limits. Additional receptors along Beachville Road and close to County Road 6 are expected to have quietest hourly sound levels that are similar to the limit provided for Class 2 areas in NPC-300.

Table 6: Calculated Background Sound Levels for SWO-4

Receptor	Background Sound Levels (dBA)	
	Daytime	Night
SWO-4	56	52

9.2.2 Future Baseline Conditions ("Do Nothing" Alternative)

Future baseline noise levels in the site vicinity can be expected to increase somewhat over time with population growth and corresponding traffic increases. However, as a conservative assumption the ambient traffic noise levels were assumed to remain the same as current. Data provided by the traffic consultant has indicated that traffic volumes in the area will grow at a yearly rate of 1.02% for both population and industry. This assessment assumes conservatively that the background levels will remain fixed for the considered years.

The locations of the noise and vibration sources associated with the quarry operations will gradually shift over the years as the extraction and rehabilitation progressively move.

10 EVALUATION OF THE PROPOSED LANDFILL

Section 6.1 (2)(c) and (d) of the Act, and the ToR, require an evaluation of:

- The effects that will be caused on the environment;
- The actions necessary to prevent, change, mitigate or remedy the effects on the environment;
- An evaluation of the advantages and disadvantages (net effects) to the environment.

This section presents the assessment of these matters as it relates to noise and vibration, and for each of the EA criteria related to this study.

10.1 Landfilling Operations

10.1.1 Potential Effects

The noise model predictions incorporate the off-site waste import detailed in Section 8.2.2.1, and the operation of landfilling equipment detailed in Section 8.2.2.2. The modeling focuses on the three considered stages of the landfill (stages 1, 3, and 4). Modelling locations of the sources were chosen such that worst-case impacts on nearby residents would be captured, as noted in the work plan. **Table 7** shows the compliant results for Stage 1 of the landfill with the Landfilling guidelines. The working face and compaction are modelled in the lower southwest corner of the Stage 1 cell. This is a worst-case scenario for receptor ZOR-9. Figures showing the considered sources, and predicted contours are shown in Section 10.5 regarding cumulative effects.

Table 7: Stage 1 Landfilling Predicted Sound Levels at Points of Reception

PoR	Sound level at Point of Reception (dBA)			Landfilling Guideline Limit (dBA)			Complies with Landfilling Limits?		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Stage 1 Landfilling									
SWO-4	37	15	29	56	51	51	YES	YES	YES
SWO-5	33	12	27	55	45	45	YES	YES	YES
ZOR-7	30	10	25	55	45	45	YES	YES	YES
ZOR-3	37	20	38	55	45	45	YES	YES	YES
ZOR-2	35	22	34	55	45	45	YES	YES	YES
ZOR-6	41	29	37	55	45	45	YES	YES	YES
SWO-3	40	20	32	55	45	45	YES	YES	YES
ZOR-11	44	23	34	55	45	45	YES	YES	YES
ZOR-9	43	26	35	55	45	45	YES	YES	YES
ING-1	38	20	30	55	45	45	YES	YES	YES

Stage 3 of the landfill will develop in the most southwestern cell. The compaction and working face of the landfill was modelled at the south most extent of the cell, the worst-case scenario for receptor ZOR 11. **Table 8** shows the results for Stage 3 of the landfill to be compliant with the landfilling guidelines.

Table 8: Phase 3 Landfilling Predicted Sound Levels at Points of Reception

PoR	Sound level at Point of Reception (dBA)			Landfilling Guideline Limit (dBA)			Complies with Landfilling Limits?		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Stage 3 Landfilling									
SWO-4	38	15	31	56	51	51	YES	YES	YES
SWO-5	34	12	28	55	45	45	YES	YES	YES
ZOR-7	31	10	25	55	45	45	YES	YES	YES
ZOR-3	37	20	38	55	45	45	YES	YES	YES
ZOR-2	35	22	34	55	45	45	YES	YES	YES
ZOR-6	40	29	37	55	45	45	YES	YES	YES
SWO-3	45	16	35	55	45	45	YES	YES	YES
ZOR-11	52	23	37	55	45	45	YES	YES	YES
ZOR-9	42	26	35	55	45	45	YES	YES	YES
ING-1	41	20	32	55	45	45	YES	YES	YES

Stage 4 of the landfill will develop the most southeastern cell. The compaction and working face of the landfill have been modelled at the south-most extent of the cell, the worst-case scenario for receptor SWO-3. **Table 9** shows the compliant results for Stage 3 of the landfill.

Table 9: Phase 4 Landfilling Predicted Sound Levels at Points of Reception

PoR	Sound level at Point of Reception (dBA)			Landfilling Guideline Limit (dBA)			Complies with Landfilling Limits?		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Stage 4 Landfilling									
SWO-4	38	15	31	56	51	51	YES	YES	YES
SWO-5	32	12	27	55	45	45	YES	YES	YES
ZOR-7	28	10	25	55	45	45	YES	YES	YES
ZOR-3	36	20	38	55	45	45	YES	YES	YES
ZOR-2	33	22	34	55	45	45	YES	YES	YES
ZOR-6	38	29	37	55	45	45	YES	YES	YES
SWO-3	45	16	35	55	45	45	YES	YES	YES
ZOR-11	45	23	37	55	45	45	YES	YES	YES
ZOR-9	39	26	35	55	45	45	YES	YES	YES
ING-1	38	20	31	55	45	45	YES	YES	YES

10.1.2 Potential for Cumulative Effects

Cumulative noise effects for landfilling may exist along with the stationary noise sources considered in Section 10.3. These cumulative effects are addressed in Section 10.5, regarding the cumulative net change due to the Project.

10.1.3 Additional Mitigation Recommendations

Noise Impacts from landfilling operations are below the limits. No mitigation is recommended.

10.1.4 Net Effects

Net effects are not expected as no mitigation recommendations have been made.

10.1.5 Summary

Table 10: Potential Effects, Proposed Mitigation and Compensation and Resulting Net Effects for Landfilling

PoR	Potential Effect	Mitigation/Compensation	Net Effect
SWO-4	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
SWO-5	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-7	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-3	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-2	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-6	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
SWO-3	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-11	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-9	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ING-1	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects

10.2 Pest Control Devices

10.2.1 Potential Effects

To assess the influence of the use of impulsive pest control devices, a worst-case noise model was generated for the impulsive sources. The noise model considered use of a shotgun as a pest control device. The impulses have been modelled with an overall sound power level of 144 dBAI.

Pest control impulse locations have been modelled at discreet points around the north, west, and southern perimeter of the landfill, in locations closest to PoRs. The sources have been modelled conservatively at 10 m above the highest landfill elevation around the perimeter. (**Figure 11**) shows the modelled locations for the pest control impulse locations.

Table 11 shows the impulsive sound levels contribution at each of the points of reception due to the individual shotgun impulse locations. The results show that all receptors will comply with the impulse criteria in the landfill guideline, with the exception SWO-3 and ZOR-11, which show levels exceeding 70 dBAI.

Table 11: Noise Predictions for Shotgun Pest Control Devices

PoR	Impulsive Guideline Limit (dBAI)	Daytime Partial Level from Impulsive Shotgun Source Location (dBAI)														Potential Exceedance
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
SWO-4	70	63	60	59	58	58	58	59	60	60	59	60	61	63	64	No
SWO-5	70	59	58	56	55	56	55	55	55	56	55	55	56	57	58	No
ZOR-7	70	56	55	54	54	53	53	53	52	52	51	51	53	55	56	No
ZOR-3	70	60	59	59	59	58	57	56	55	54	53	53	53	54	54	No
ZOR-2	70	58	59	60	60	59	59	57	56	55	54	54	54	54	54	No
ZOR-6	70	62	63	65	66	66	65	64	62	61	60	59	59	59	59	No
SWO-3	70	64	63	62	60	61	62	63	64	65	66	67	69	70	**71**	**Yes**
ZOR-11	70	62	62	63	63	64	65	68	70	**73**	**77**	**73**	**73**	70	69	**Yes**
ZOR-9	70	61	63	64	65	66	66	67	66	66	65	64	63	62	62	No
ING-1	70	58	58	59	60	60	61	62	64	64	65	65	64	62	61	No

10.2.2 Potential for Cumulative Effects

One potential cumulative effect identified for pest control devices coincides with ecology, and terrestrial habitats. A heronry is located to the south of the active quarry section Phase A. The heronry has been noted to host migrating and nesting herons in the shallow waters there. Cumulative effects from the pest control impulses could potentially startle herons from the area.

A sound level study was conducted at the heronry to consider the existing impulsive noise conditions. The number of impulsive events currently experienced at the heronry is quantified. The current impulses would be similar to, or worse than the impulsive levels to be produced from pest control devices at the landfill. **Figure 12** shows the location of the heronry and the location of the sound level monitor.

Figure 12: Location of the heronry and the long-term noise monitor.

Impulsive sounds are sharp and almost instantaneous sound. To capture impulsive noise the sound level meter was set to run at a sampling rate of 50 Hz, or at sample period of 20 millisecond. The measurements were used to count the number of impulsive events that occur per day at the heronry. Impulses from pest management devices are expected to have levels less than 65 dBAI. The analysis therefore considered only measured impulses at or above the 65 decibel level that the pest management devices might produce. An impulse was considered to be an increase of 10 decibels within 100 milliseconds, above the average level of the preceding second.

Analysis of the measurements demonstrates a soundscape that is influenced by the industry and the transportation around it, with impulsive noises frequently occurring. **Table 12** shows the impulsive count for each of the days. Near the heronry the acoustic environment on an average day currently has 29 to 59 impulses at or above the sound level that pest control devices would produce. The addition of impulse sound from pest control is not expected to substantially change the impulsive nature of the acoustic environment.

Table 12: Summary of the daily quantity of impulses

Date	Number of impulsive Events
9/19/2019 (half day)	14
9/20/2019	43
9/21/2019	45
9/22/2019	59
9/23/2019	34
9/24/2019	51
9/25/2019	54
9/26/2019 (half day)	15

10.2.3 Additional Mitigation Recommendations

The potentials effects analysis showed that shotgun impulses can cause exceedances at receptors SWO-3 and ZOR-11 if used in the southern portions of stages 3 and 4 of the landfill. For these locations, the use of alternative pest control system in the form of a falconry program will be used. The falconry control program will have trained falcons fly the landfill to mitigate avian wildlife.

In general, the use of shotgun impulses is preferred over the falconry program, as the shotgun has been shown to be more effective in deterring pests. In order to maximize the use if the shotgun while remaining compliant within limits, a shotgun exclusion analysis was carried out for stages 3 and 4 of the landfill.

The exclusion analysis examines the barrier effect present for the landfill due to the lower elevations of the landfill. The elevations considered are 260 m, 270 m, and 280 m. A noise model was generated using a grid of impulsive shotgun blasts at these elevations. Shotgun source locations that produced levels greater than 70 dBAI at receptors were grouped together. These locations were marked as shotgun exclusion zones, or falconry control program use zones for specific elevations within the landfill. The exclusion zone analysis for SWO-3 was expanded to include all the receptors along Beachville Road in close proximity to the landfill. The analysis also includes the effects of the barrier mitigation for ZOR-11, as described in Section 10.5.3.

Figure 13 shows the shotgun exclusion zones noted as the falconry control program use locations for the three considered elevations. The Figure indicates the zones attributed to either ZOR-11 or residents along Beachville Road.

10.2.4 Net Effects

The potential effects analysis has shown that the use of impulsive pest control devices at the landfill can meet the guideline limits but require that specific pest control devices be used for given locations. The use of a shotgun is currently the preferred method of pest control for the landfill, and the use of this pest control method will be compliant within most of the landfill.

When stages 3 and 4 of the landfill are being developed, a potential exists where impulsive levels from the shotgun may exceed 70 dBAI. An exclusion-zone based analysis was conducted for the shotgun.

The exclusion-zone based analysis has shown that at lower levels within the landfill, shotgun deterrents can be used and remain compliant, but as the landfill develops to higher elevations, the use of alternate pest control is required for compliance. The use of a falconry control program planned for these areas does not have an impulsive noise component and will comply with landfilling guidelines. This becomes critical at elevations of 270 m or greater, as the most southern portions of stages 3 and 4 become more exposed to the residents along Beachville Road.

10.2.5 Summary

The effects of noise control for pests using impulsive sound sources has been assessed. Walker has indicated preference for using shotgun impulses as pest control, with the use of less effective air gun as a secondary option.

The analysis showed that the use of shotgun can be used throughout the landfill, with exception to the southern portions of stages 3 and 4 where a falconry control program should be used as primary deterrent. Guidance on the locations where a shotgun should be used were provided. **Table 25** provides the summary of these findings, and notes that compliance can be achieved at all PoRs.

Table 13: Potential Effects, Proposed Mitigation and Resulting Net Effects for Pest Control Devices

PoR	Potential Effect	Mitigation/Compensation	Net Effect
SWO-4	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
SWO-5	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-7	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-3	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-2	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-6	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
SWO-3	The use of shotgun pest control can cause impulsive levels greater than 70 dBAI	Use alternative enhanced falconry pest deterrents in selected areas	Compliance with 70 dBAI limits with selective pest control use
ZOR-11	The use of shotgun pest control can cause impulsive levels greater than 70 dBAI	Use alternative enhanced falconry pest deterrents in selected areas	Compliance with 70 dBAI limits with selective pest control use
ZOR-9	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ING-1	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects

In addition to meeting impulsive noise criteria, a separate long-term noise monitoring program was conducted at an identified heronry. The measurement occurred over eight days, and recorded levels at a high frequency rate to capture existing impulsive noise events at the heronry. The measurement data was filtered for invalid data from weather and high winds. An impulsive criterion was defined as a sound level greater than 65 dB with an increase of 10 decibels within 100 milliseconds, above the average level of the preceding second.

The study found that there are between 29 and 59 impulsive noise events per day, and that these events can be mainly attributed to anthropogenic sources. The conclusion that the addition of impulse sound from pest control is not expected to substantially change the impulsive nature of the acoustic environment was expressed.

10.3 Steady State (Stationary Operations)

10.3.1 Potential Effects

Steady state (Stationary Operations) for the Carmeuse quarry and the stationary sources from the landfill have been modelled and assessed. The steady state noise effects consider contributions from Carmeuse (processing plants, quarrying, and hauling) and the stationary sources due to landfill (leachate processing). The assessment looks at the four operational cases listed in **Table 4**. The existing operating scenario considers only the operations of Carmeuse. For ease of reading **Table 4** is repeated here:

Table 4: Four considered operating scenarios.

Case Name	Landfill Cell (SWLF Operation Plan)	Quarrying Location (Carmeuse Operational Plan)
Base Case	not operating	Phase A
Case 1	Stage 1	Phase A
Case 2	Stage 3	Phase 1W
Case 3	Stage 4	Phase 1W/2W

The results for stage 3 and 4 are the same and are presented together. Based on the assumption that the Carmeuse operations will not significantly change during stages 3 and 4 of the landfill. **Table 14** through **Table 16** report the predicted noise levels and compliance with the NPC-300 stationary source limits. All considered operational stages comply with the NPC-300 limits for day, evening, and nighttime hours. Figures showing the considered sources, and predicted contours are shown in Section 10.5 regarding cumulative effects.

Table 14: Steady State Predicted Results for Base Case

PoR	Sound level at Point of Reception (dBA)			NPC-300 Criteria Limit (dBA)			Complies with NPC-300 Limits??		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Base Case (Existing Carmeuse and SWLF Stationary Sources)									
SWO-4	54	51	48	56	51	51	YES	YES	YES
SWO-5	42	41	38	50	45	45	YES	YES	YES
ZOR-7	42	43	42	50	45	45	YES	YES	YES
ZOR-3	39	40	30	50	45	45	YES	YES	YES
ZOR-2	36	36	25	50	45	45	YES	YES	YES
ZOR-6	40	39	27	50	45	45	YES	YES	YES
SWO-3	49	45	41	50	45	45	YES	YES	YES
ZOR-11	44	41	35	50	45	45	YES	YES	YES
ZOR-9	40	40	27	50	45	45	YES	YES	YES
ING-1	40	38	28	50	45	45	YES	YES	YES

Table 15: Steady State Predicted Results for Case 1

PoR	Sound level at Point of Reception (dBA)			NPC-300 Criteria Limit (dBA)			Complies with NPC-300 Limits??		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Case 1 (Future Carmeuse and SWLF Stationary Sources)									
SWO-4	54	51	48	56	51	51	YES	YES	YES
SWO-5	42	41	38	50	45	45	YES	YES	YES
ZOR-7	42	43	42	50	45	45	YES	YES	YES
ZOR-3	40	40	30	50	45	45	YES	YES	YES
ZOR-2	36	36	25	50	45	45	YES	YES	YES
ZOR-6	40	39	27	50	45	45	YES	YES	YES
SWO-3	50	45	41	50	45	45	YES	YES	YES
ZOR-11	46	43	35	50	45	45	YES	YES	YES
ZOR-9	41	39	27	50	45	45	YES	YES	YES
ING-1	41	38	29	50	45	45	YES	YES	YES

Table 16: Steady State Predicted Results for Case 2 and Case 3

PoR	Sound level at Point of Reception (dBA)			NPC-300 Criteria Limit (dBA)			Complies with NPC-300 Limits??		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Case 2/3 (Future Carmeuse and SWLF Stationary Sources)									
SWO-4	54	51	48	56	51	51	YES	YES	YES
SWO-5	42	41	38	50	45	45	YES	YES	YES
ZOR-7	42	43	42	50	45	45	YES	YES	YES
ZOR-3	41	40	30	50	45	45	YES	YES	YES
ZOR-2	41	36	25	50	45	45	YES	YES	YES
ZOR-6	45	39	27	50	45	45	YES	YES	YES
SWO-3	49	45	41	50	45	45	YES	YES	YES
ZOR-11	41	40	34	50	45	45	YES	YES	YES
ZOR-9	42	39	27	50	45	45	YES	YES	YES
ING-1	39	38	28	50	45	45	YES	YES	YES

10.3.2 Potential for Cumulative Effects

Cumulative noise effects for landfilling may exist along with the stationary noise sources considered in Section 10.3. These cumulative effects are addressed in Section10.5, regarding the cumulative net effect due to the Project.

10.3.3 Additional Mitigation Recommendations

Noise Impacts from steady state (stationary operations) are below the limits. No mitigation is recommended.

10.3.4 Net Effects

Mitigation and best practices have been incorporated into the noise modelling, and strategies discussed with Carmeuse operations. There are no net effects predicted for the stationary sources.

10.3.5 Summary

The analysis for stationary sources shows no potential net effects. No mitigation is recommended to meet NPC-300 criteria attributed to SWLF. **Table 17** summaries these findings.

Table 17: Potential Effects, Proposed Mitigation and Resulting Net Effects for Stationary Sources

PoR	Potential Effect	Mitigation	Net Effect
SWO-4	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
SWO-5	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-7	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-3	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-2	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-6	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
SWO-3	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-11	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ZOR-9	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects
ING-1	Noise levels are expected to comply with applicable criteria	None recommended	No Net Effects

10.4 Landfill Related Traffic on Public Roads

10.4.1 Potential Effects

Four scenarios were modelled using the ORNAMENT model to assess the impacts of the daily waste transport trucks from the haul route on the surrounding environment. The scenarios are described as follows:

- EHR – Existing Haul Route (Carmeuse)
- FHR – Future Haul Route (SWLF)
- EBT – Existing Background Traffic (Excluding Carmeuse)
- FBT – Future Background Traffic

The assessment inclusion area was defined as 500 m from the haul route. All dwellings within 500 m of the haul route from Highway 401 through to County Road 2 (Dundas Street) were examined from Google satellite imagery. Twenty-two dwellings were identified within the inclusion boundary. All receptors were within the stretch of road from Highway 401 to Beachville Rd.

The results of the ORNAMENT modelling are shown in **Table 18** and **Table 19** for daytime and nighttime hours respectively. All considered dwellings show a sound level increase less than or equal to 1 dB for the future case from current existing. As noted previously, traffic along the main haul route is primarily automobiles and heavy trucks belonging to existing residential and commercial sources. The addition of haul trucks from the landfill can be considered insignificant from a noise perspective, when compared to the existing amount of traffic.

Table 18: Cumulative Change Predicted at Receptors along Haul Road for Peak Daytime Hours

ID	Existing Haul Route Traffic	New Haul Route Traffic	Total Haul Route Traffic	Existing Background Traffic	Future Background Traffic	Existing Background + Haul Route	Future Background + Total Haul Route	Cumulative Change
	(dBA)	(dBA)	(dBA	(dBA)	(dBA)	(dBA)	(dBA)	(dB)
1	37	44	45	53	53	53	53	1
2	51	58	59	67	67	67	67	1
3	44	51	52	60	60	60	60	1
4	40	47	47	55	56	56	56	1
5	40	47	47	55	56	56	56	1
6	40	47	47	55	56	56	56	1
7	48	55	56	64	64	64	64	1
8	57	64	65	73	73	73	73	1
9	53	61	62	69	69	69	70	1
10	47	54	55	62	63	62	63	1
11	43	51	51	59	59	59	59	1
12	41	49	49	56	57	57	57	1
13	40	47	48	55	56	55	56	1
14	38	46	47	54	54	54	55	1
15	38	45	46	53	54	53	54	1
16	36	43	43	51	52	51	52	1
17	40	47	48	56	56	56	57	1
18	44	51	52	59	60	60	60	1
19	44	51	52	59	60	60	60	1
20	44	51	52	59	60	60	60	1
21	44	51	52	59	60	60	60	1
22	47	54	54	62	63	62	63	1
22	53	60	61	68	69	69	69	1

Table 19: Cumulative Change Predicted at Receptors along Haul Road for Peak Nighttime Hours

ID	Existing Haul Route Traffic	New Haul Route Traffic	Total Haul Route Traffic	Existing Background Traffic	Future Background Traffic	Existing Background + Haul Route	Future Background + Total Haul Route	Cumulative Change
	(dBA)	(dBA)	(dBA	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)
1	33	43	43	52	53	52	53	0
2	47	57	57	66	67	66	67	0
3	40	50	50	59	60	59	60	0
4	36	45	46	55	55	55	55	0
5	36	45	46	55	55	55	55	0
6	36	45	46	55	55	55	55	0
7	44	54	54	63	64	63	64	0
8	53	62	63	72	73	72	73	0
9	49	60	60	68	69	68	69	1
10	43	53	53	61	62	62	62	1
11	39	50	50	58	58	58	59	1
12	37	47	48	56	56	56	56	1
13	36	46	47	54	55	55	55	1
14	34	45	45	53	54	53	54	1
15	34	44	44	52	53	53	53	1
16	32	41	42	51	51	51	51	0
17	36	46	46	55	56	55	56	0
18	40	49	50	59	59	59	59	0
19	40	49	50	59	59	59	59	0
20	40	49	50	59	59	59	59	0
21	40	49	50	59	59	59	59	0
22	43	52	53	62	62	62	62	0
22	49	58	59	68	68	68	69	0

10.4.2 Potential for Cumulative Effects

Potential for cumulative noise effects at the PoRs is considered low. The dominant source for existing and future noise sources is due to traffic not originating from either Carmeuse or the proposed SWLF. The cumulative noise effects therefore from other emission sources on the site would be insignificant compared to the elevated background levels.

10.4.3 Additional Mitigation Recommendations

Traffic sound level increase from the proposed landfill haul route will be minimal compared to the baseline traffic volumes. No mitigation strategies are required for the haul route.

10.4.4 Summary

The noise effects from vehicles associate with the proposed SWLF and the existing quarry have been assessed along the main haul route as highlighted in the Noise Work plan. The assessment considered 22 dwellings within 500 m of the haul route and compared the change due to the proposed landfill site.

The results show that noise levels at the receptors will increase an insignificant amount, as existing and future background traffic levels do and will continue to dominate in noise emissions due to traffic volumes. Table outlines the summary results.

Table 20: Potential Effects, Proposed Mitigation and Resulting Net Effects for Landfill Traffic on Public Roads

PoR	Potential Effect	Mitigation/Compensation	Net Effect
SWO-4	Noise increase is expected to be insignificant	None recommended	No Net Effects
SWO-5	Noise increase is expected to be insignificant	None recommended	No Net Effects
ZOR-7	Noise increase is expected to be insignificant	None recommended	No Net Effects
ZOR-3	Noise increase is expected to be insignificant	None recommended	No Net Effects
ZOR-2	Noise increase is expected to be insignificant	None recommended	No Net Effects
ZOR-6	Noise increase is expected to be insignificant	None recommended	No Net Effects
SWO-3	Noise increase is expected to be insignificant	None recommended	No Net Effects
ZOR-11	Noise increase is expected to be insignificant	None recommended	No Net Effects
ZOR-9	Noise increase is expected to be insignificant	None recommended	No Net Effects
ING-1	Noise increase is expected to be insignificant	None recommended	No Net Effects

10.5 Cumulative Effects

10.5.1 Potential Effects

The cumulative effects analysis as described in Section 4.1.5, examines the cumulative change in noise with respect to the existing conditions. The cumulative assessment combines the noise modelling from the steady state operations (Section 10.3) and the landfill operations (Section10.1) for on-site noise emissions but does not include road traffic noise (i.e., haul route).

The NPC-300 and landfilling guidelines assess only noise emissions from project sources, and do not consider the existing localized ambient sound levels. Therefore, in order to assess the cumulative effects an existing sound level needs to be defined for each receptor. To address this the existing sound level has been assigned the greater of either the existing sound level as modelled in Section 9.2.1or the NPC-300 Criteria limit minus 5 dB. This conservatively assumes a low ambient sound level that moves with the natural variation of day, evening, and nighttime sound levels and can be considered representative of the area. The modelling considers the changing sound levels at PoRs as the landfill and the quarry change spatially and temporally. **Table 21**, **Table 22**, and **Table 23** show the predicted sound level increase for the four considered operating stages of the landfill. All PoRs show either no increase or an increase of less than 3 dB, except for ZOR-11. During the landfilling operations

within the southwestern section of Stage 3, the cumulative sound level can potentially increase to 7 dB over the assumed ambient sound level, indicating a mitigation strategy is required for the development of this portion of the landfill when within proximity to ZOR-11

It is also noted here that all the cumulative sound levels predicted at the PoRs comply with the NPC-300 limit as noted in Section 10.3, with the exception of ZOR-11 during Stage 3 of the landfill.

Table 21: Case 1 Predicted Cumulative Sound Levels at Points of Reception

Por	Existing Sound Level (dBA)			Cumulative Sound Level (dBA)			Sound Level Increase (dBA)		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Case 1 (Landfilling Stage 1)									
SWO-4	54	51	48	54	51	48	-	-	-
SWO-5	45	41	40	43	41	38	-	-	-
ZOR-7	45	43	42	42	43	42	-	-	-
ZOR-3	45	40	40	42	40	38	-	-	-
ZOR-2	45	40	40	39	36	35	-	-	-
ZOR-6	45	40	40	43	39	38	-	-	-
SWO-3	50	45	41	50	45	41	-	-	1
ZOR-11	46	43	40	48	43	37	2	-	-
ZOR-9	45	40	40	45	39	36	-	-	-
ING-1	45	40	40	43	38	32	-	-	-

Table 22: Case 2 Predicted Cumulative Sound Levels at Points of Reception

Por	Existing Sound Level (dBA)			Cumulative Sound Level (dBA)			Sound Level Increase (dBA)		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Case 2 (Landfilling Stage 3)									
SWO-4	54	51	48	54	51	48	-	-	-
SWO-5	45	41	40	43	41	38	-	-	-
ZOR-7	45	43	42	42	43	42	-	-	-
ZOR-3	45	40	40	43	40	38	-	-	-
ZOR-2	45	40	40	42	36	35	-	-	-
ZOR-6	45	40	40	46	39	38	1	-	-
SWO-3	49	45	41	50	45	42	2	-	1
ZOR-11	45	40	40	52	40	39	7	-	-
ZOR-9	45	40	40	45	39	36	-	-	-
ING-1	45	40	40	43	38	33	-	-	-

Table 23: Stage 4 Predicted Cumulative Sound Levels at PoR

Por	Existing Sound Level (dBA)			Cumulative Sound Level (dBA)			Sound Level Increase (dBA)		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Case 3 (Landfilling Stage 4)									
SWO-4	54	51	48	54	51	48	-	-	-
SWO-5	45	41	40	42	41	38	-	-	-
ZOR-7	45	43	42	42	43	42	-	-	-
ZOR-3	45	40	40	42	40	38	-	-	-
ZOR-2	45	40	40	41	36	35	-	-	-
ZOR-6	45	40	40	46	39	38	1	-	-
SWO-3	49	45	41	50	45	42	2	-	1
ZOR-11	45	40	40	46	39	3939	1	-	-
ZOR-9	45	40	40	44	39	36	-	-	-
ING-1	45	40	40	42	38	33	-	-	-

(**Figures 14**, **15**, and **16**) show the predicted cumulative noise levels for the Case 1 (Landfilling Stage 1) operation for daytime, evening, and nighttime hours respectively. (**Figures 17**, **18**, and **19**) show the predicted cumulative noise levels for the Case 2 (Landfilling Stage 3) for daytime, evening, and nighttime hours respectively. (**Figures 20**, **21**, and **22**) show the predicted cumulative noise levels for the Case 2 (Landfilling Stage 3) for daytime, evening, and nighttime hours respectively.

10.5.2 Potential for Cumulative Effects

No additional cumulative effects were identified.

10.5.3 Additional Mitigation Recommendations

The potential effects analysis shows that PoR ZOR-11 will have a predicted worst-case cumulative change greater than 3 dB during landfilling operations within Stage 3 of the landfill during daytime hours. Although the landfilling noise emissions are compliant with landfilling guidelines, the change for expected existing sound levels may be “noticeable”. This is attributed mainly to the close proximity of waste compaction activities along the southwestern edge of the landfill. This will generally only occur when the equipment used for waste compaction are operating at the highest elevations of the proposed landfill.

A suggested mitigation strategy is to build a barrier or berm along the western boundary of the landfill to block sound at the PoR for the late development of Case 2 (landfill stage 3). A mitigation analysis has shown that a barrier or berm of a height 11 m over the existing ground elevation would be required to reduce the cumulative levels for a point of reception at ZOR-11. The suggested layout of the barrier or berm is shown in (**Figure 23**).

10.5.4 Net Effects

Table 24 shows the effects of the suggested mitigation from Section 10.5.3. The effects of the barrier will reduce the cumulative change to within 3 dB at ZOR-11 and meet the criteria for cumulative net effects described in Section 4.1.5. The application of this mitigation will also bring the cumulative sound level below the NPC-300 daytime criteria of 50 dBA.

Table 24: Stage 4 Predicted Cumulative Sound Levels at ZOR-11 with Mitigation

Por	Baseline Level (dBA)			Cumulative Sound Level (dBA)			Sound Level Increase (dBA)		
	Day	Evening	Night	Day	Evening	Night	Day	Evening	Night
Phase 2									
ZOR-11	45	40	40	48	40	38	3	-	-

10.5.5 Summary

The operation of the Southwestern Landfill will meet the cumulative effects assessment criteria at all PoRs except for ZOR-11. At ZOR-11, the cumulative change will be greater than 3 dB during the landfilling of stage 3 of the landfill only. Mitigation in the form of a barrier or berm has shown that cumulative effects can be reduced to within 3 dB. **Table 25** summarizes the findings.

Table 25: Potential Effects, Proposed Mitigation and Resulting Net Effects for Cumulative Effects Assessment.

PoR	Potential Effect	Mitigation	Net Effect
SWO-4	Cumulative effects are less than 3 dB	None recommended	No Net Effects
SWO-5	Cumulative effects are less than 3 dB	None recommended	No Net Effects
ZOR-7	Cumulative effects are less than 3 dB	None recommended	No Net Effects
ZOR-3	Cumulative effects are less than 3 dB	None recommended	No Net Effects
ZOR-2	Cumulative effects are less than 3 dB	None recommended	No Net Effects
ZOR-6	Cumulative effects are less than 3 dB	None recommended	No Net Effects
SWO-3	Cumulative effects are less than 3 dB	None recommended	No Net Effects
ZOR-11	Cumulative effects are greater than 3 dB	Construct a 11 m high barrier on eastern edge of landfill during Stage 3 Operation	PoR can be mitigated with levels to a cumulative change of 3 dB
ZOR-9	Cumulative effects are less than 3 dB	None recommended	No Net Effects
ING-1	Cumulative effects are less than 3 dB	None recommended	No Net Effects

11 MONITORING, CONTINGENCY & IMPACT MANAGEMENT RECOMMENDATIONS

11.1 Monitoring & Contingency Plans

To ensure that landfilling sound levels continue to be at or below the modelled levels, sound levels from the actual equipment in use for landfilling at the site should be measured to confirm actual sound levels from the equipment. The measurements would place at the time that landfilling commences. The measurements should verify that sound levels of the individual pieces of equipment are less than what is used in this assessment. If more pieces of equipment are used at the working face than have been modelled here, the total source sound power level shall be less than the total sound power level used in this assessment.

11.2 Impact Management

There is no requirement for any additional impact management measures related to noise, beyond those already incorporated into the proposal (e.g., a complaints procedure).

12 REFERENCES

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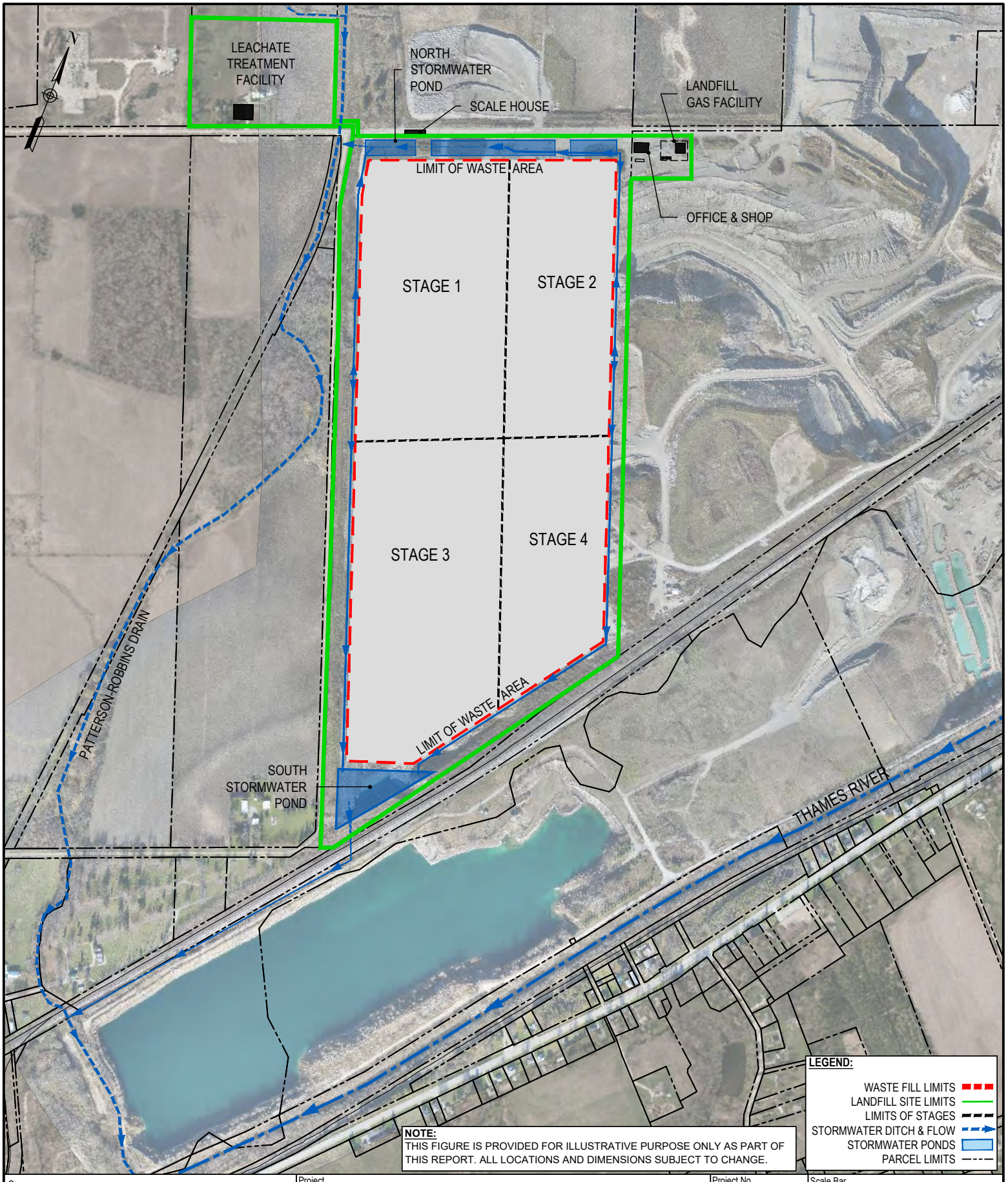
FIGURES



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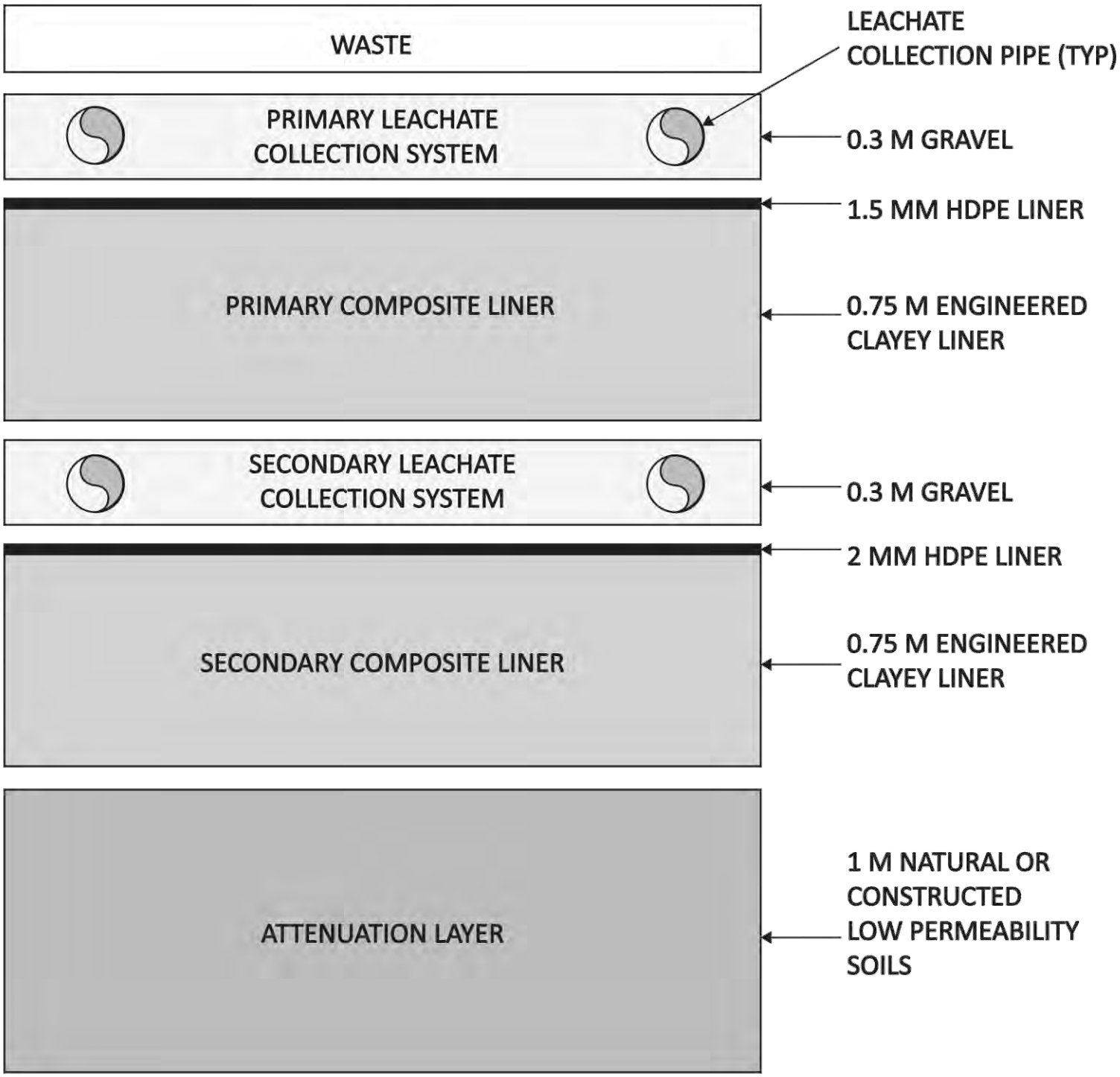

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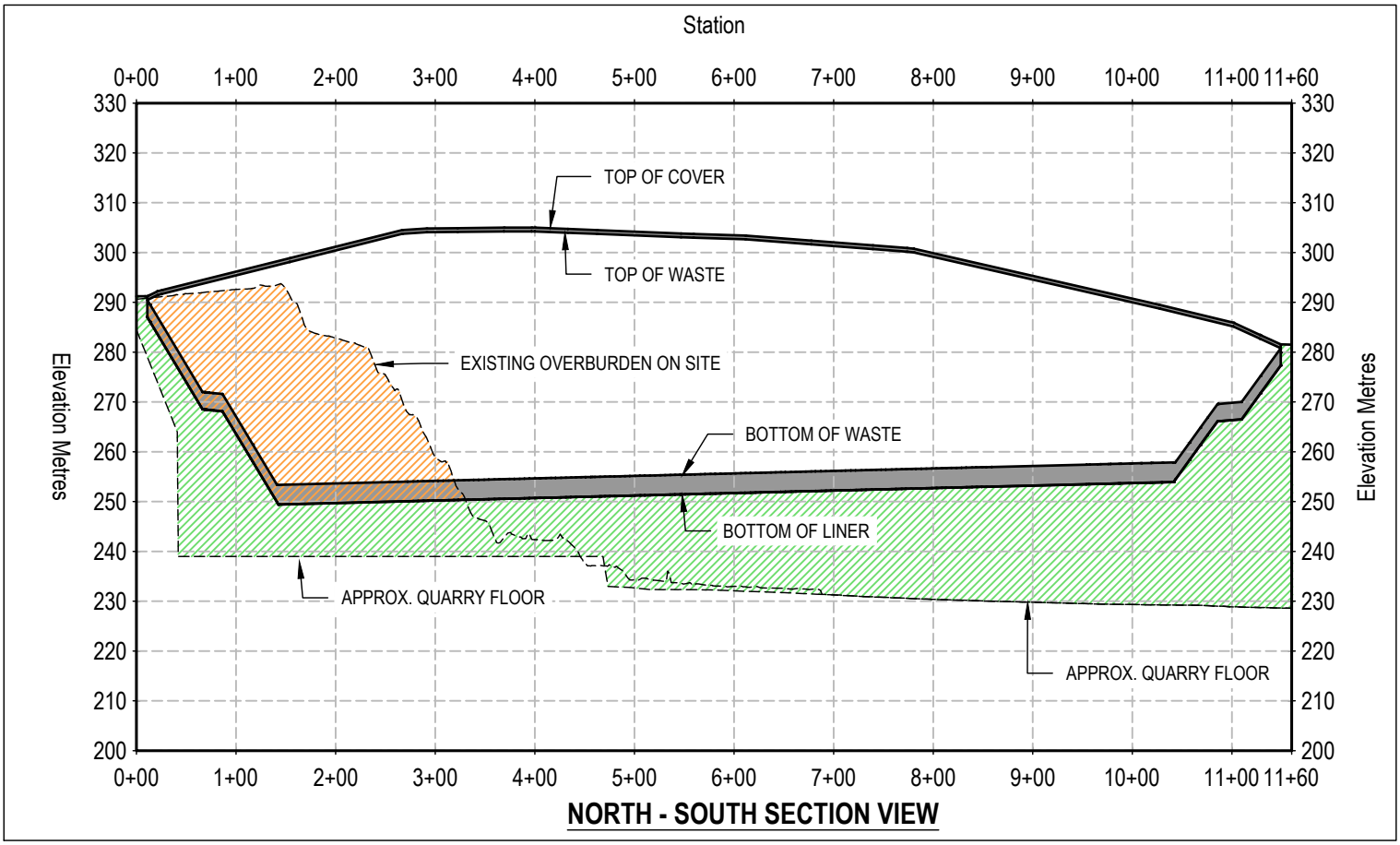
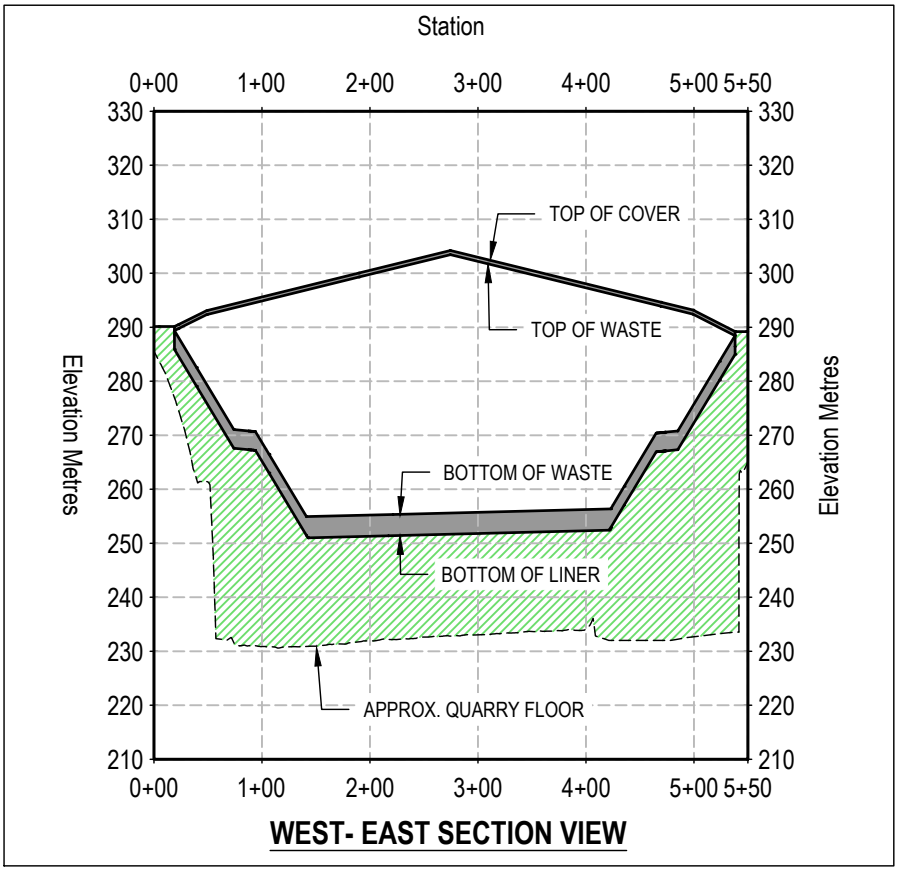


NORTH - SOUTH SECTION VIEW



WEST- EAST SECTION VIEW

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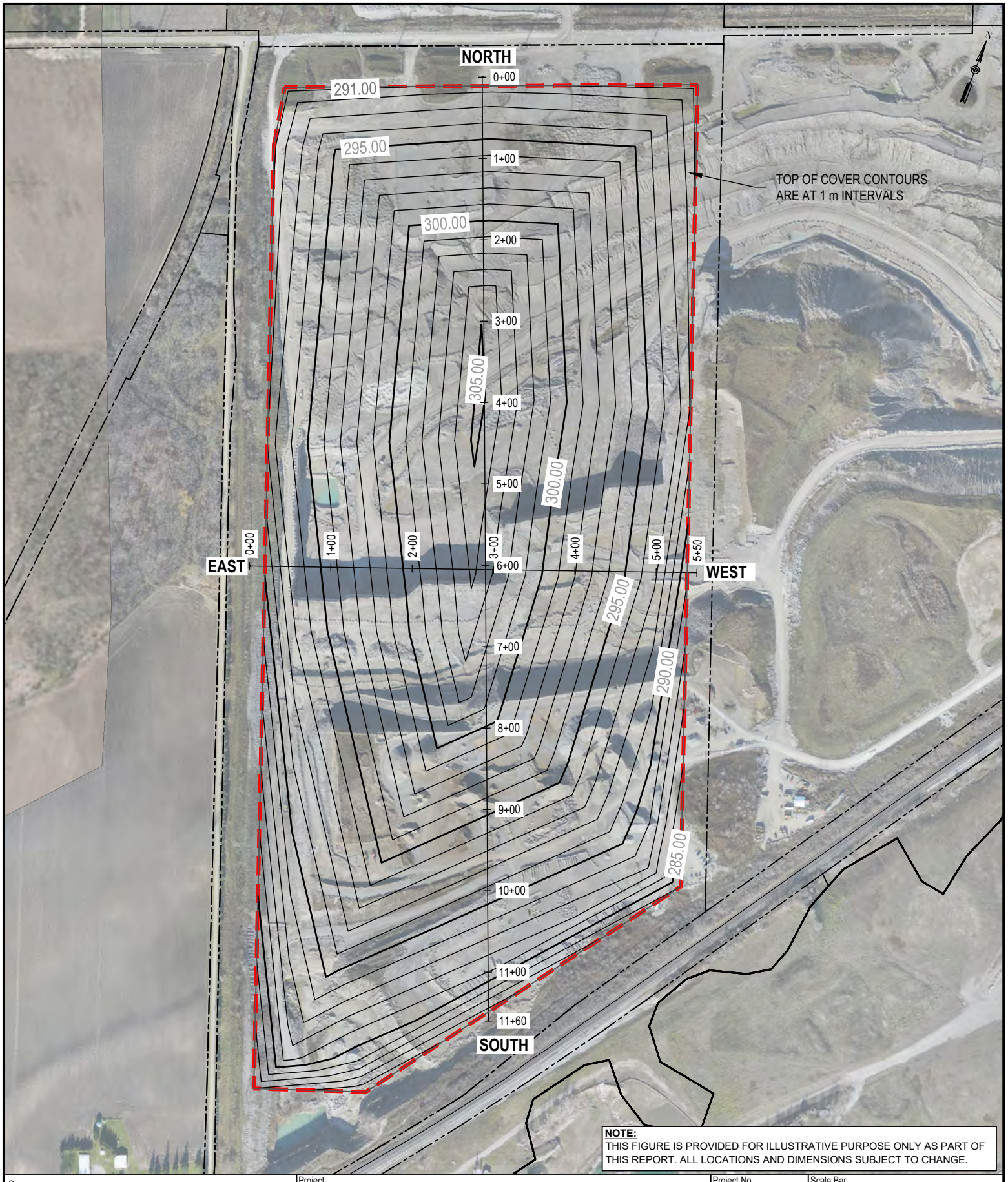

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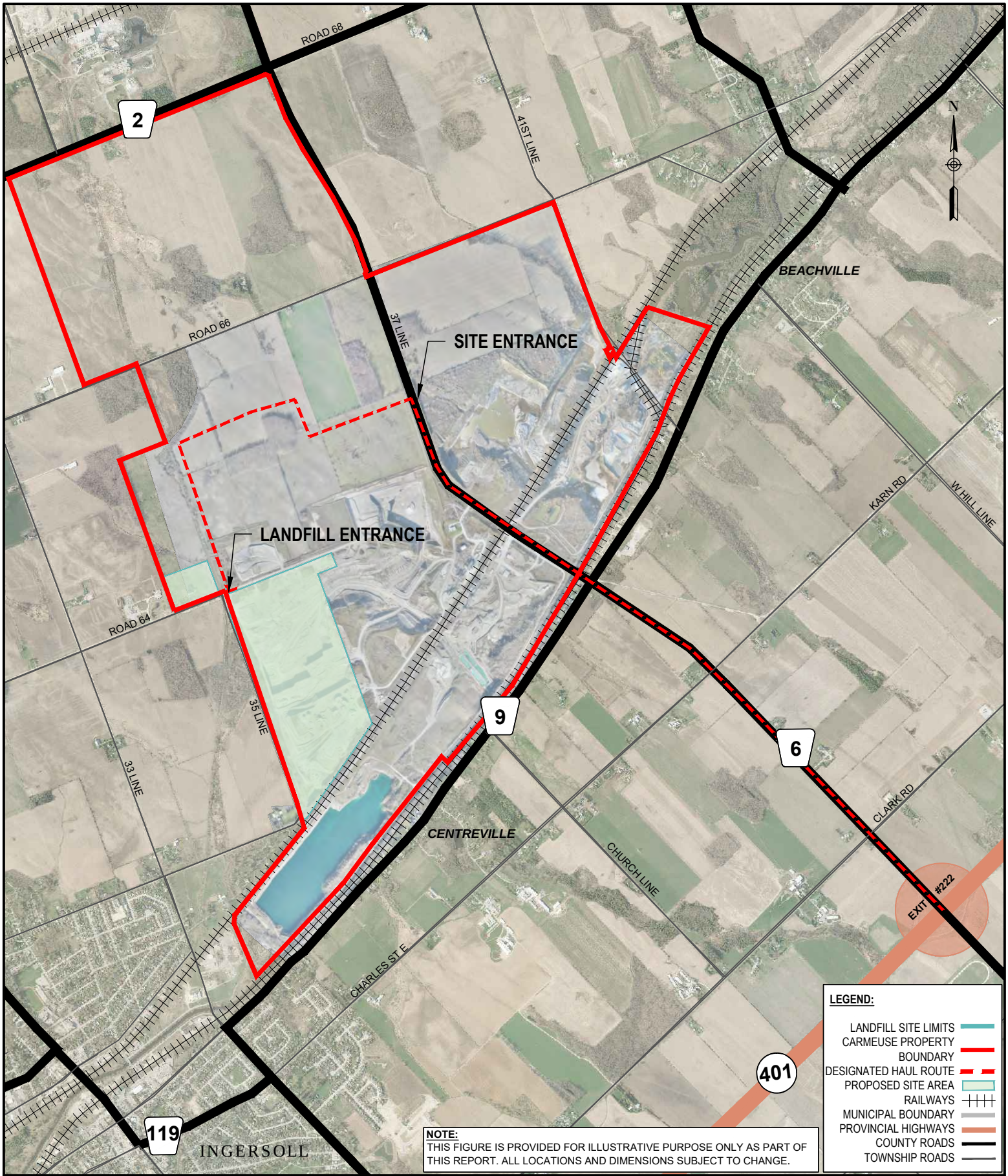

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Owner: walker environmental

Project: **SOUTHWESTERN LANDFILL**

Drawing: **SITE LOCATION & HAUL ROUTE**

Project No.	Scale Bar	
967243	0 500 1000 Meters	
Drawn: JThompson	Scale: 1:30000	Date (D-M-Y): 08JAN20
Approved: DFry	Drawing No.: **Figure 5**	Revision No.: **E**

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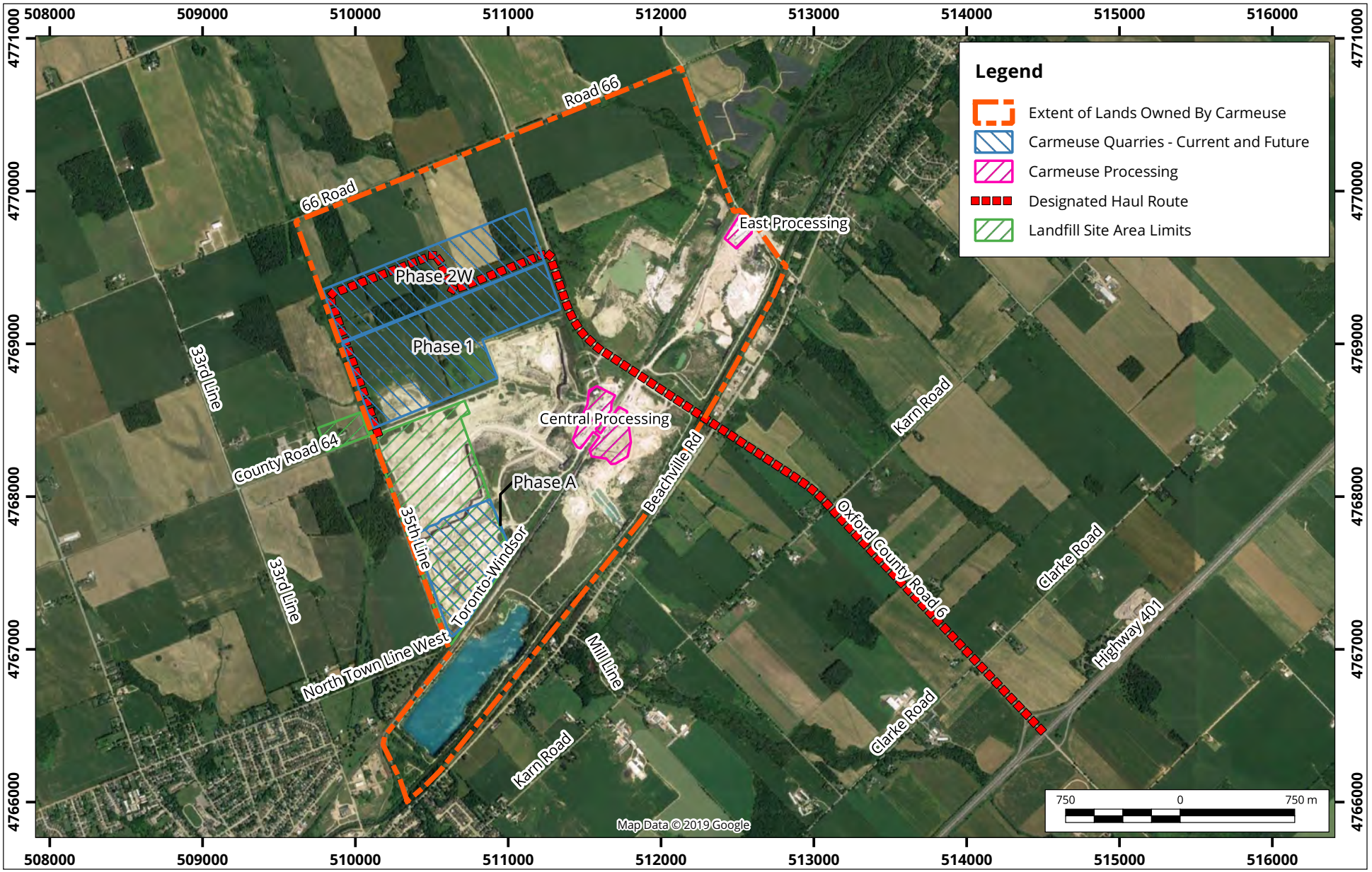

Overview of the Project Area and the Carmeuse Operations

Overview of the Project Area and the Carmeuse Operations

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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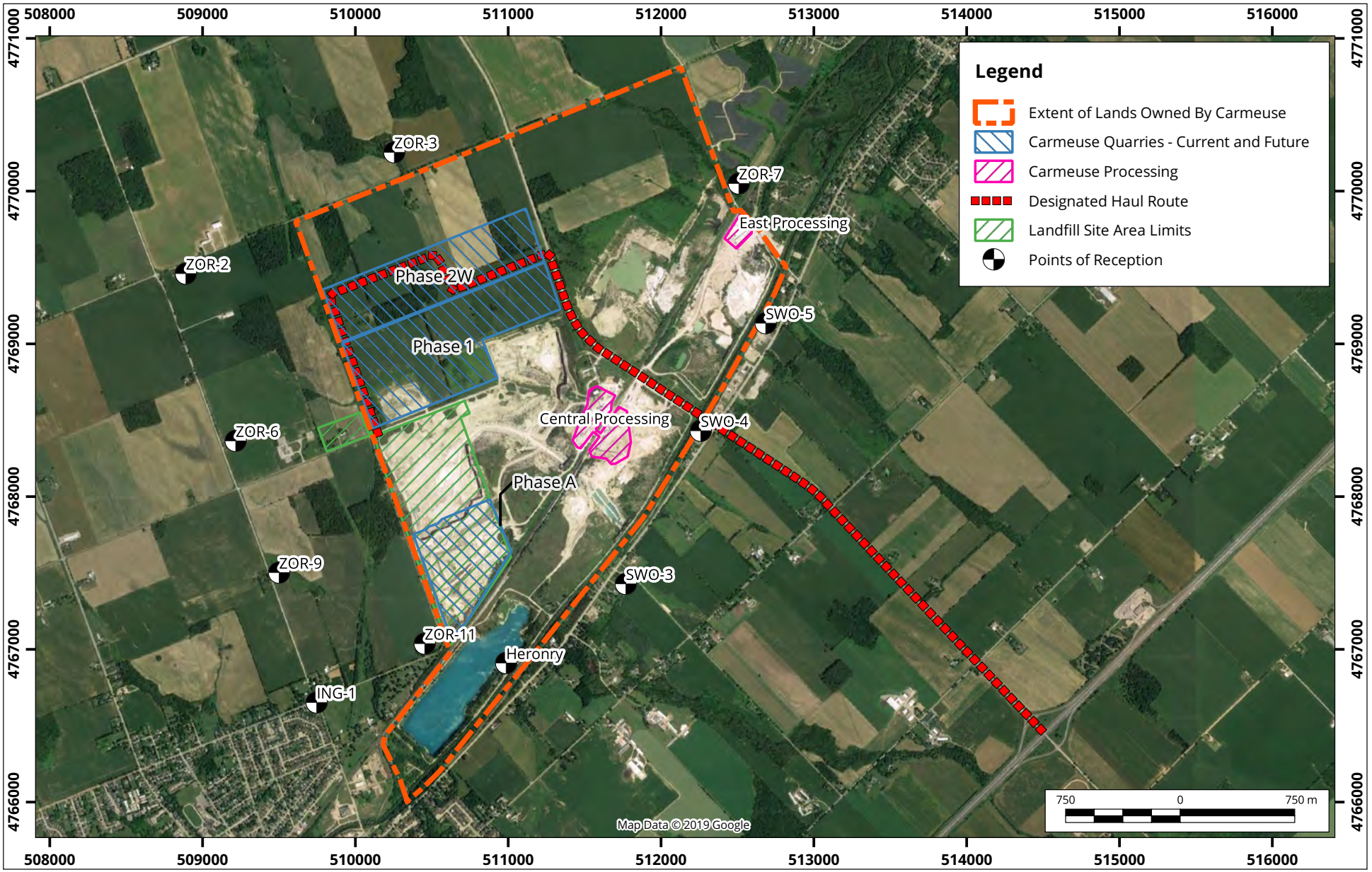

Overview of the Project Area and the Carmeuse Operations

Identified Points of Reception used for Evaluation

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Ingersoll, Ontario

True North

Project #: 1800160

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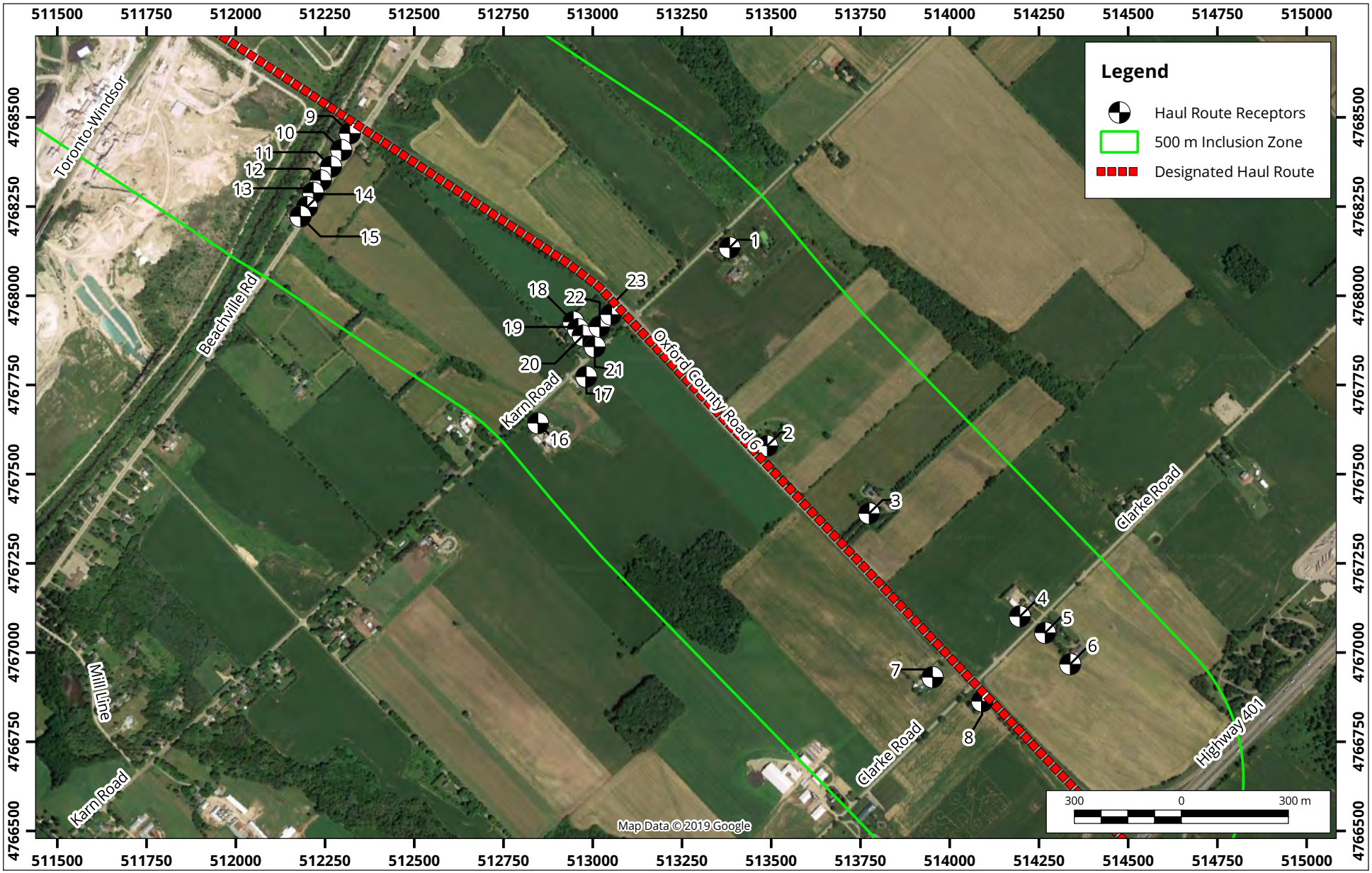

Environmental Noise Study - Southwestern Landfill

Identified Points of Reception within 500 m of Proposed Haul Route

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

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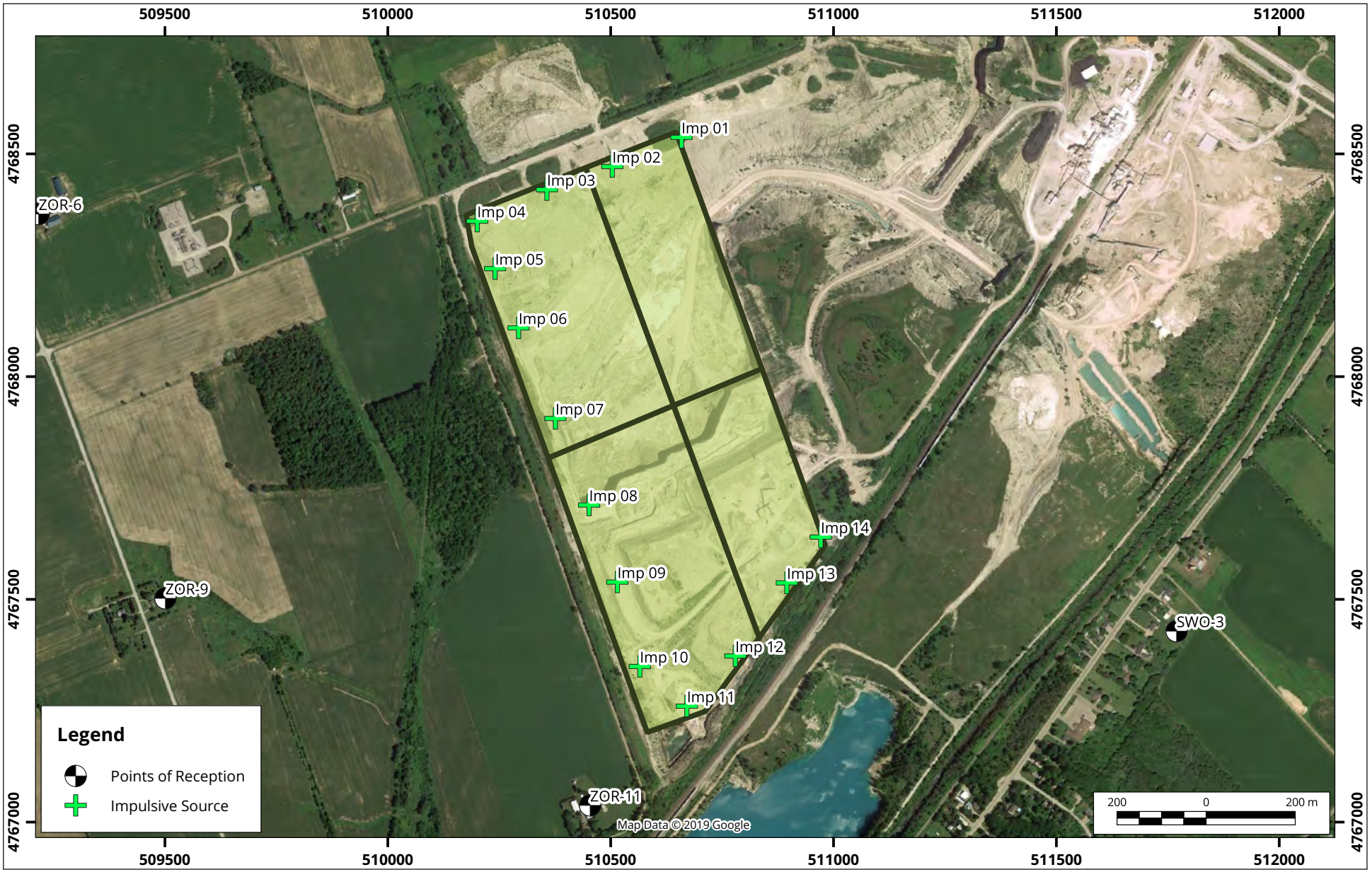

Environmental Noise Study - Southwestern Landfill

Pest Control Devices - Impulsive Source Locations

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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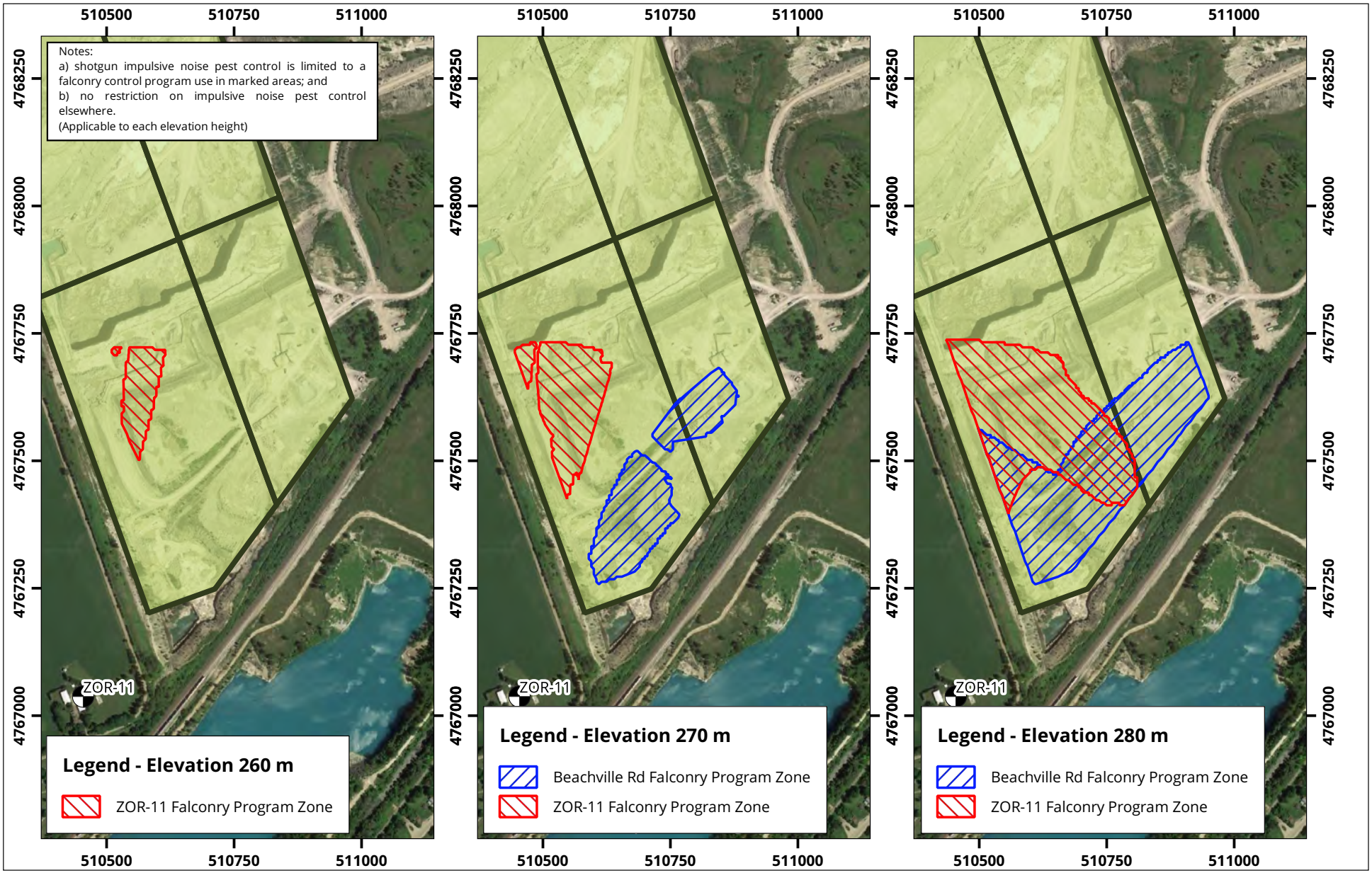

Environmental Noise Study - Southwestern Landfill

Noise Based Falconry Control Program Zones at Elevations 260 m, 270 m, and 280 m
Applicable to SWLF Zones 3 and 4

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Ingersoll, Ontario

True North

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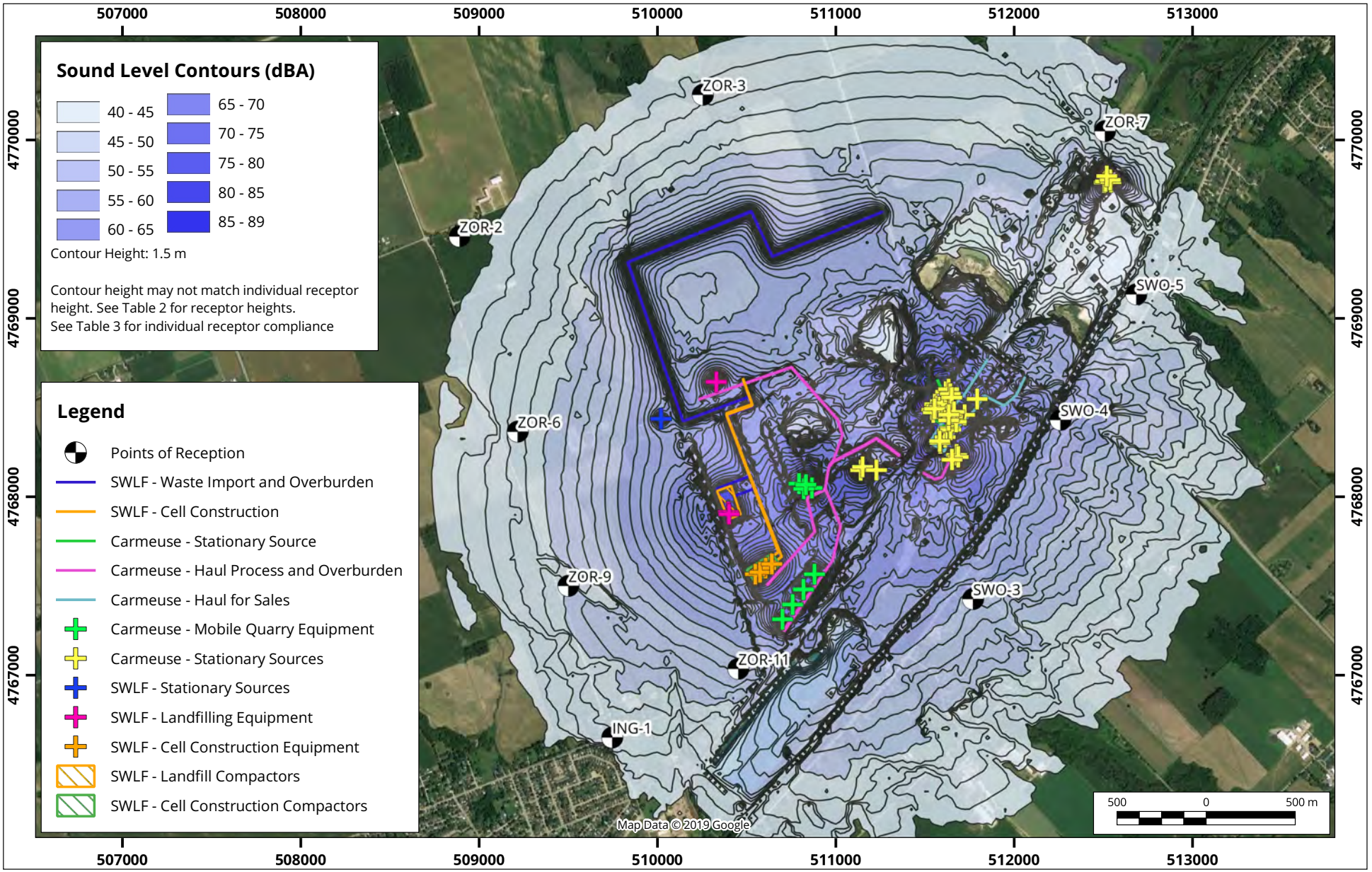

Environmental Noise Study - Southwestern Landfill

Daytime Predicted noise levels for Case 1

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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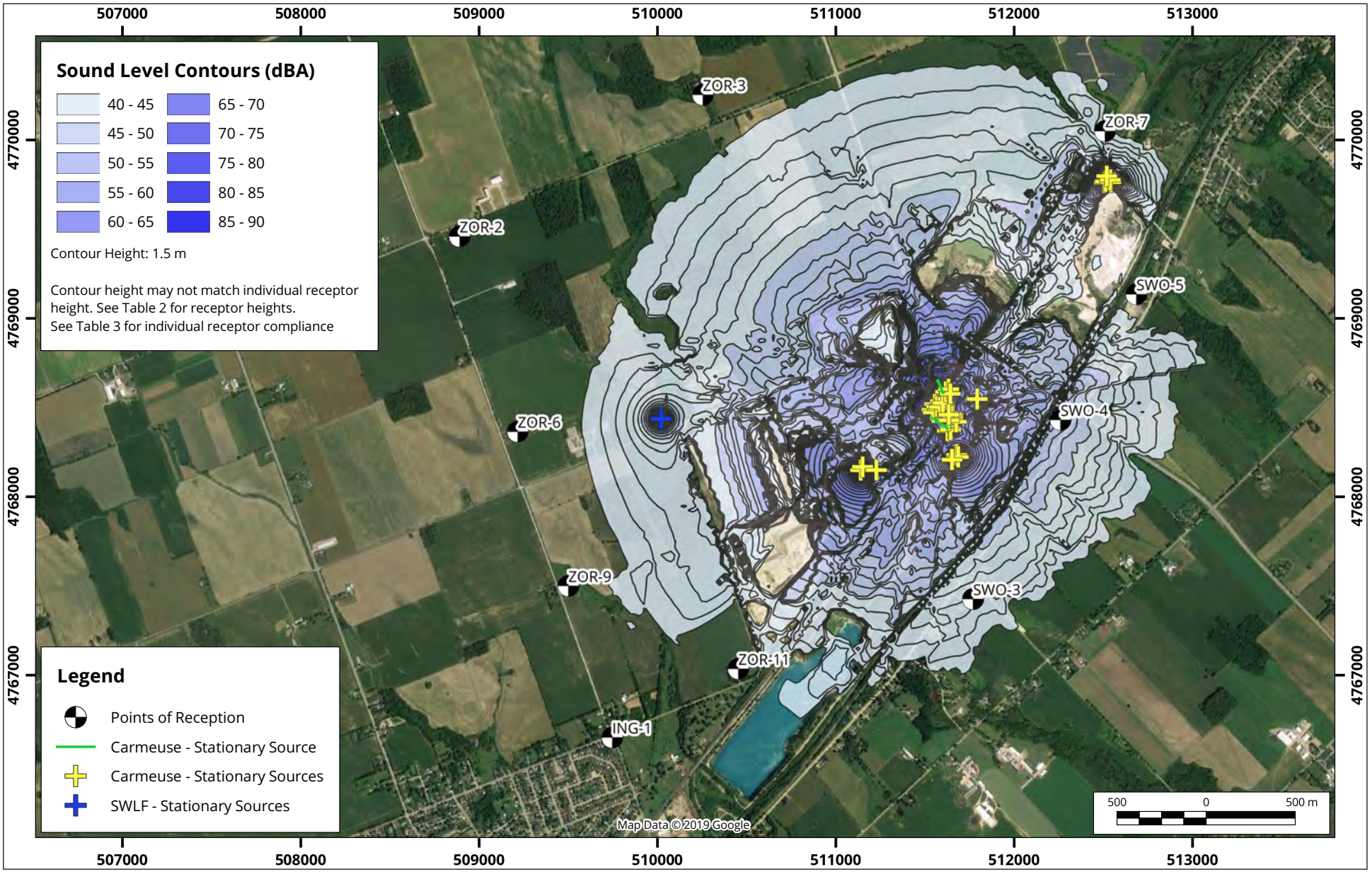

Environmental Noise Study - Southwestern Landfill

Evening Predicted noise levels for Case 1

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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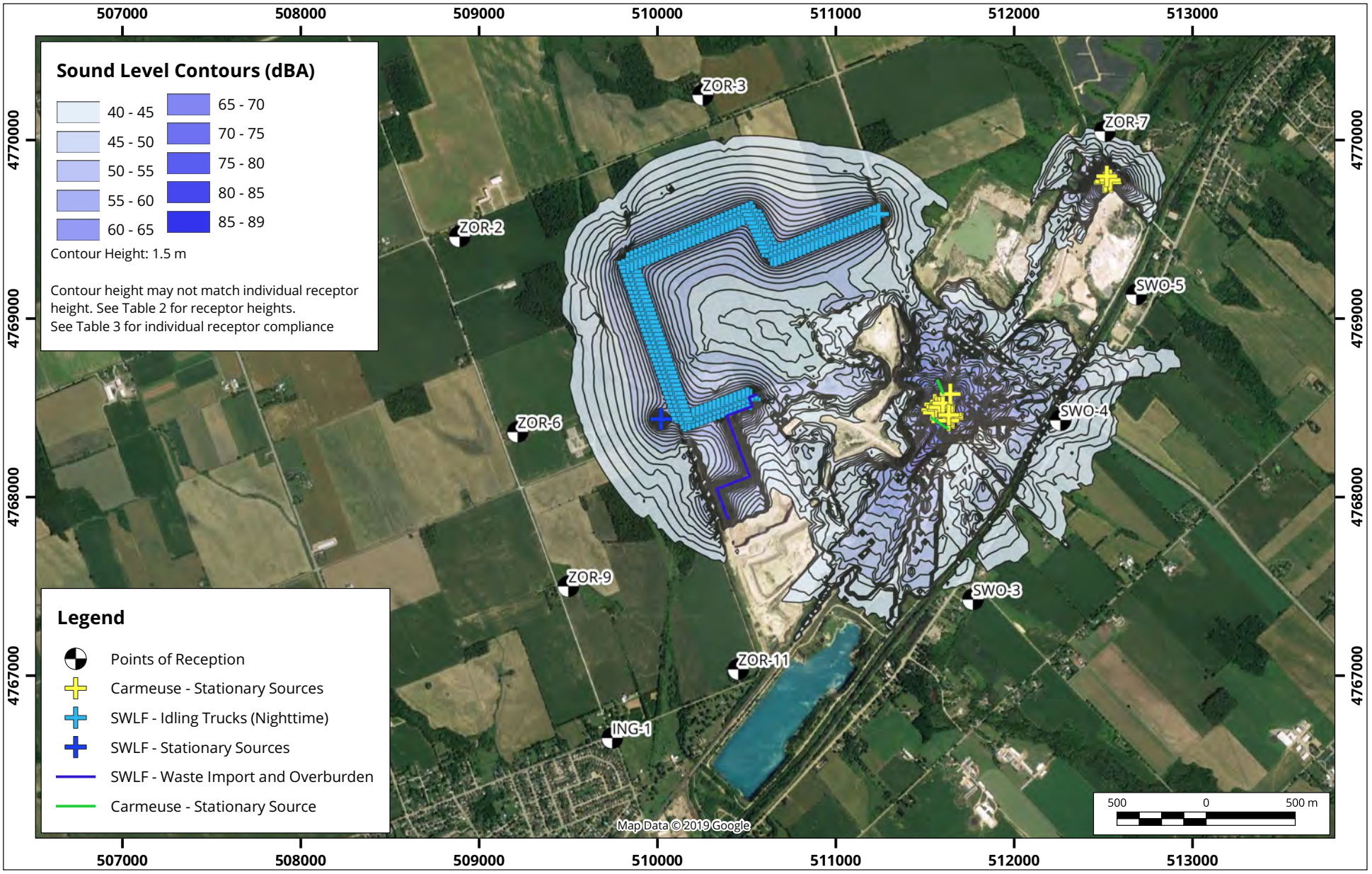

Environmental Noise Study - Southwestern Landfill

Nighttime Predicted noise levels for Case 1

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Ingersoll, Ontario

True North

Project #: 1800160

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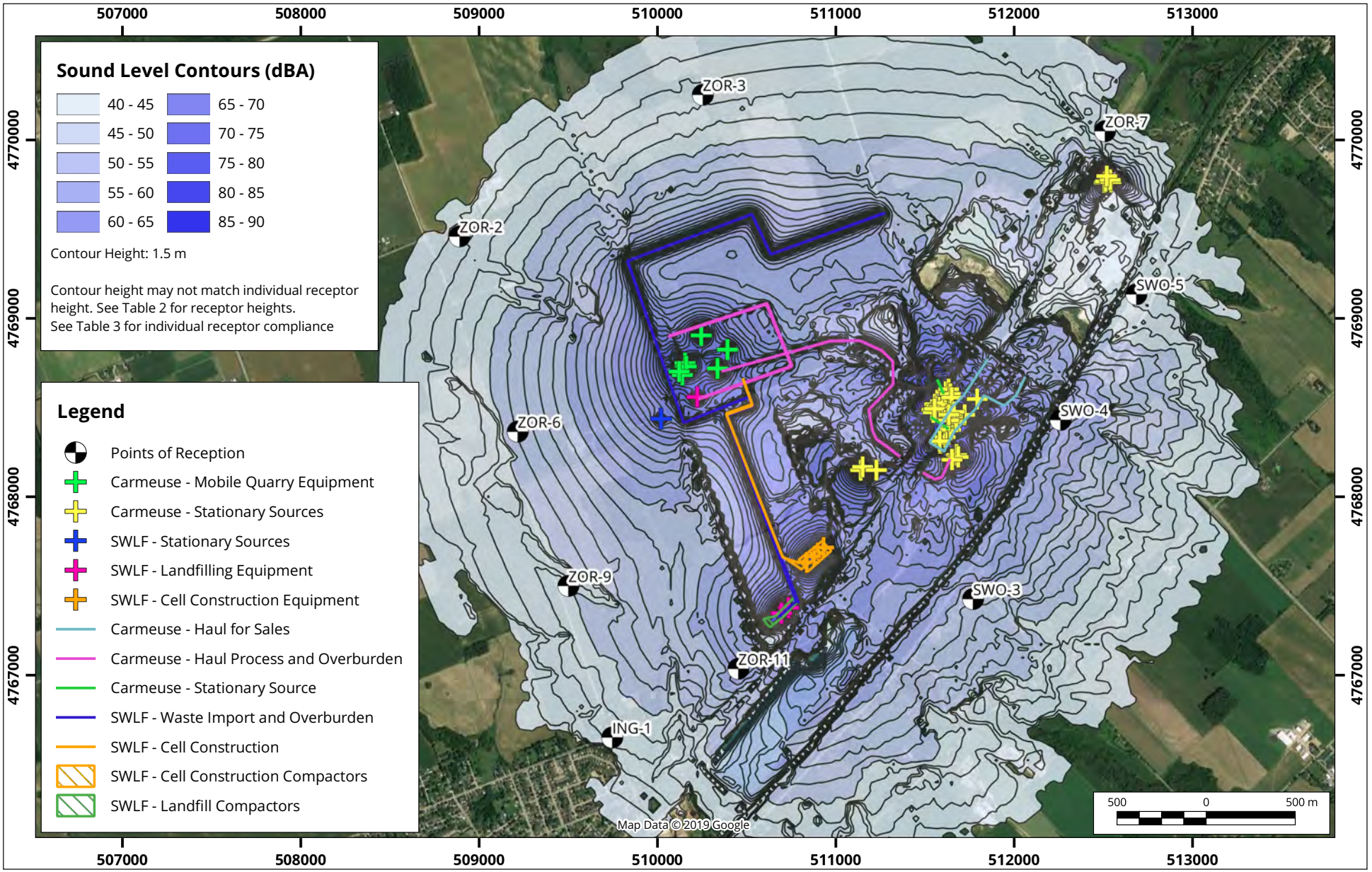

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Environmental Noise Study - Southwestern Landfill

Daytime Predicted noise levels for Case 2

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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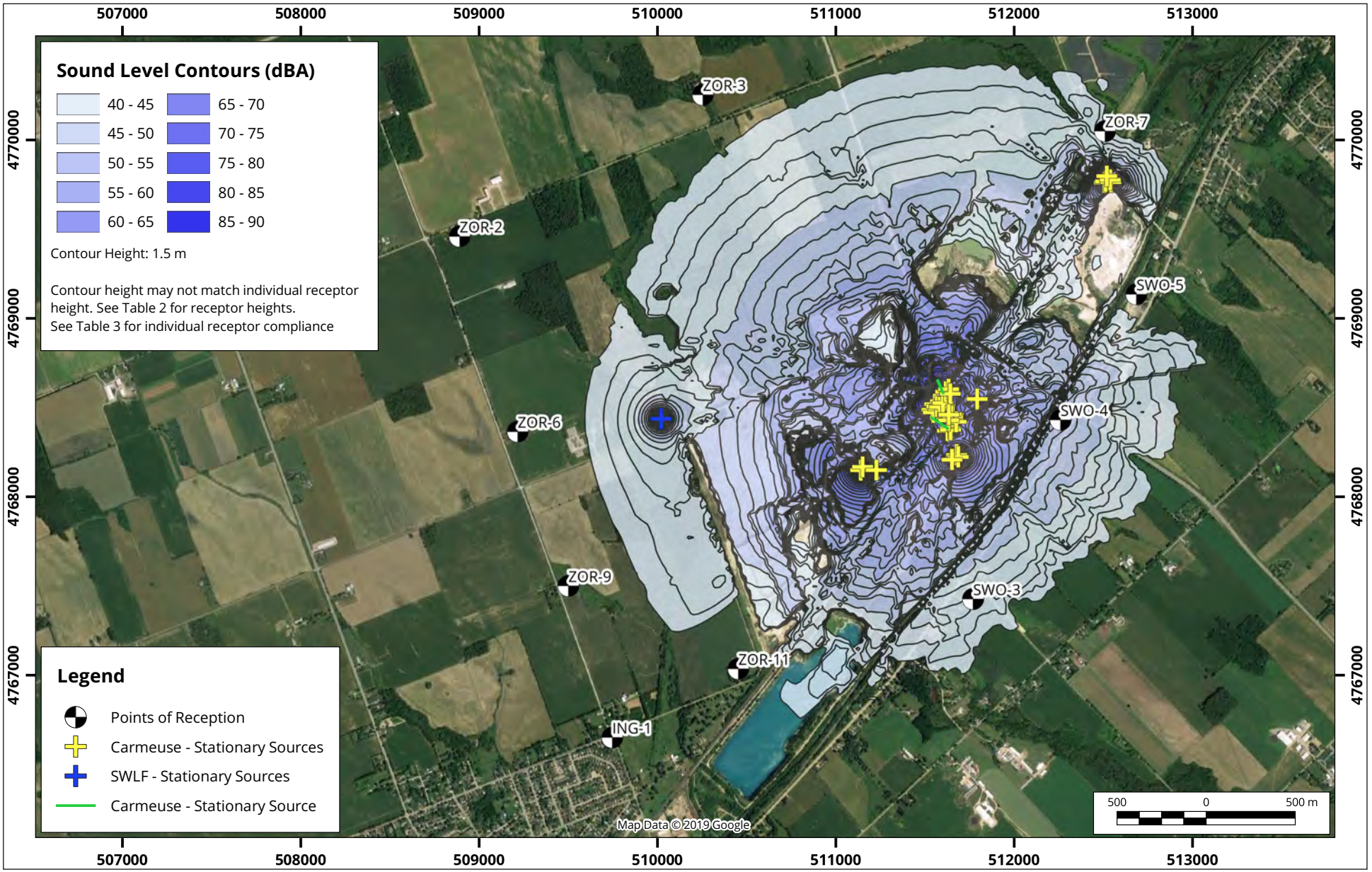

Environmental Noise Study - Southwestern Landfill

Evening Predicted noise levels for Case 2

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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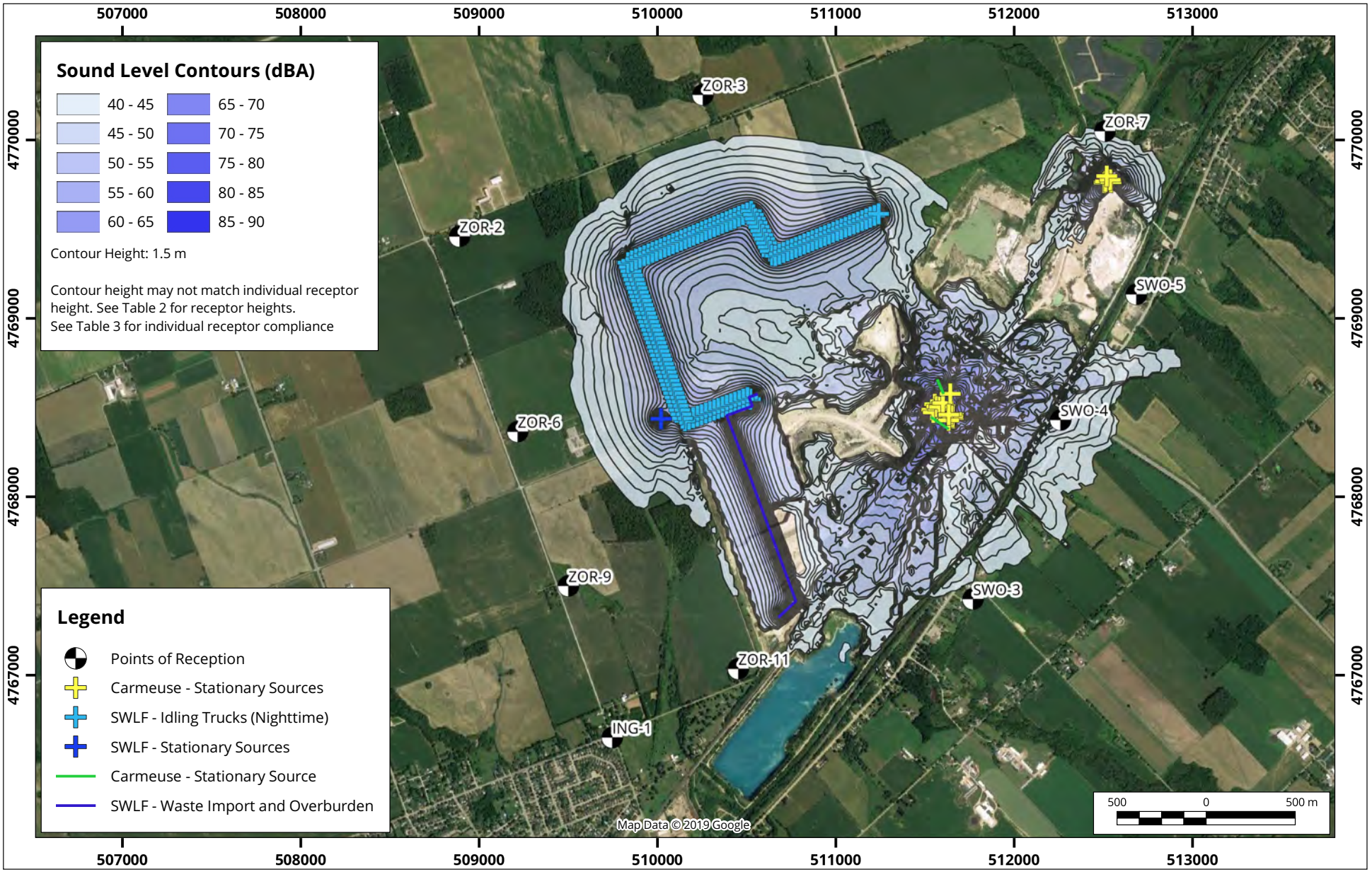

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Environmental Noise Study - Southwestern Landfill

Nighttime Predicted noise levels for Case 2

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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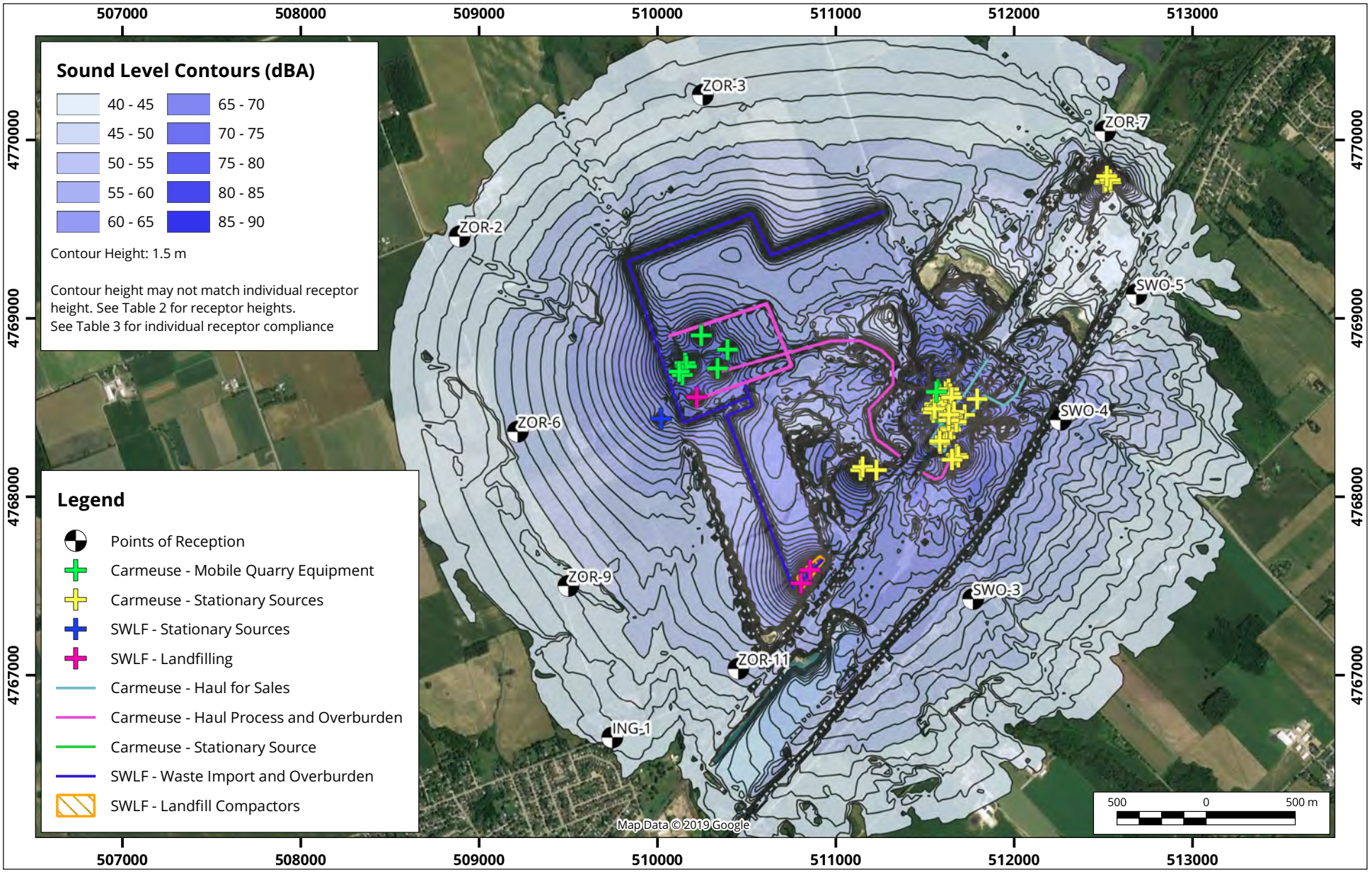

Environmental Noise Study - Southwestern Landfill

Daytime Predicted noise levels for Case 3

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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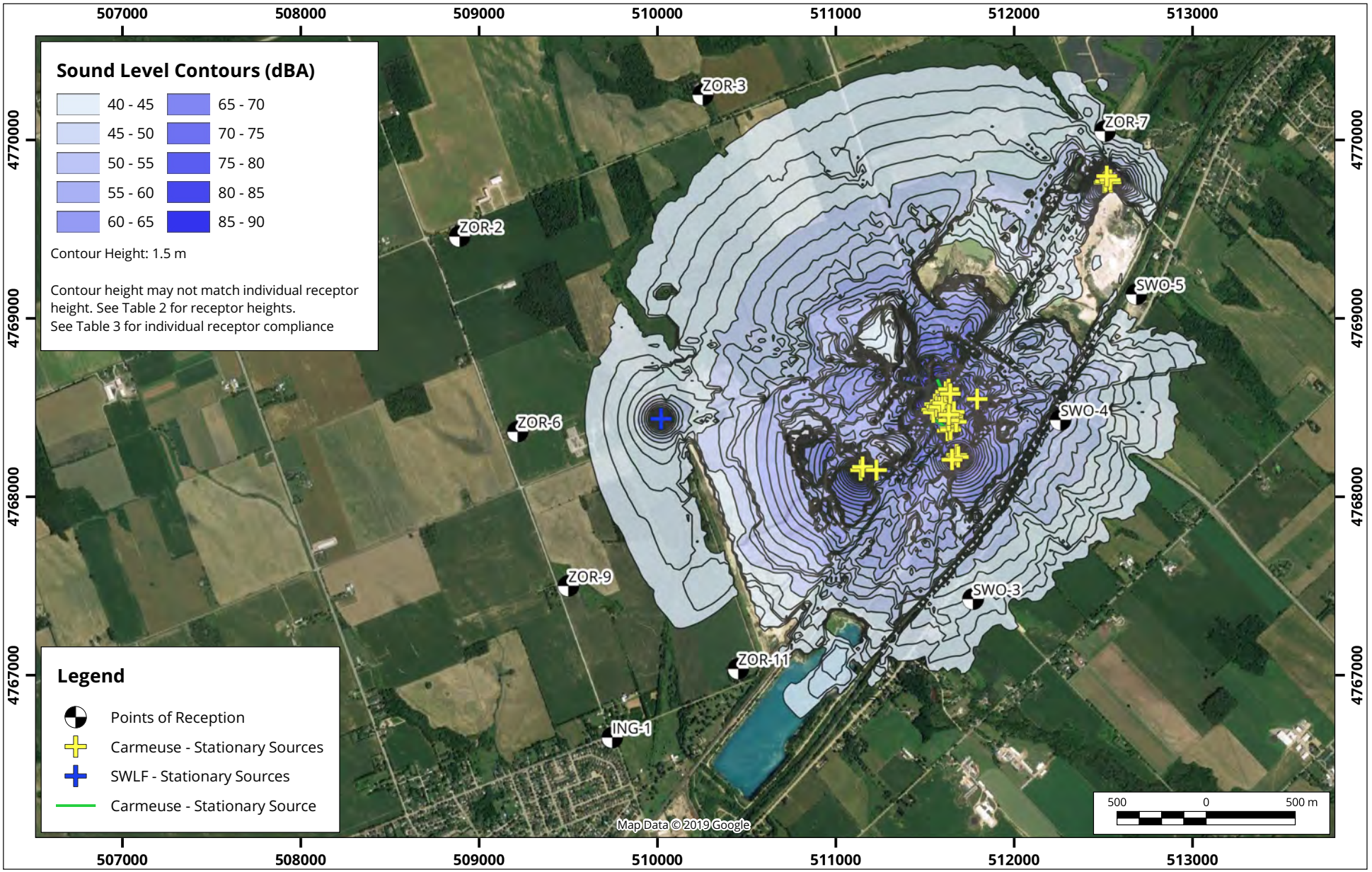

Environmental Noise Study - Southwestern Landfill

Evening Predicted noise levels for Case 3

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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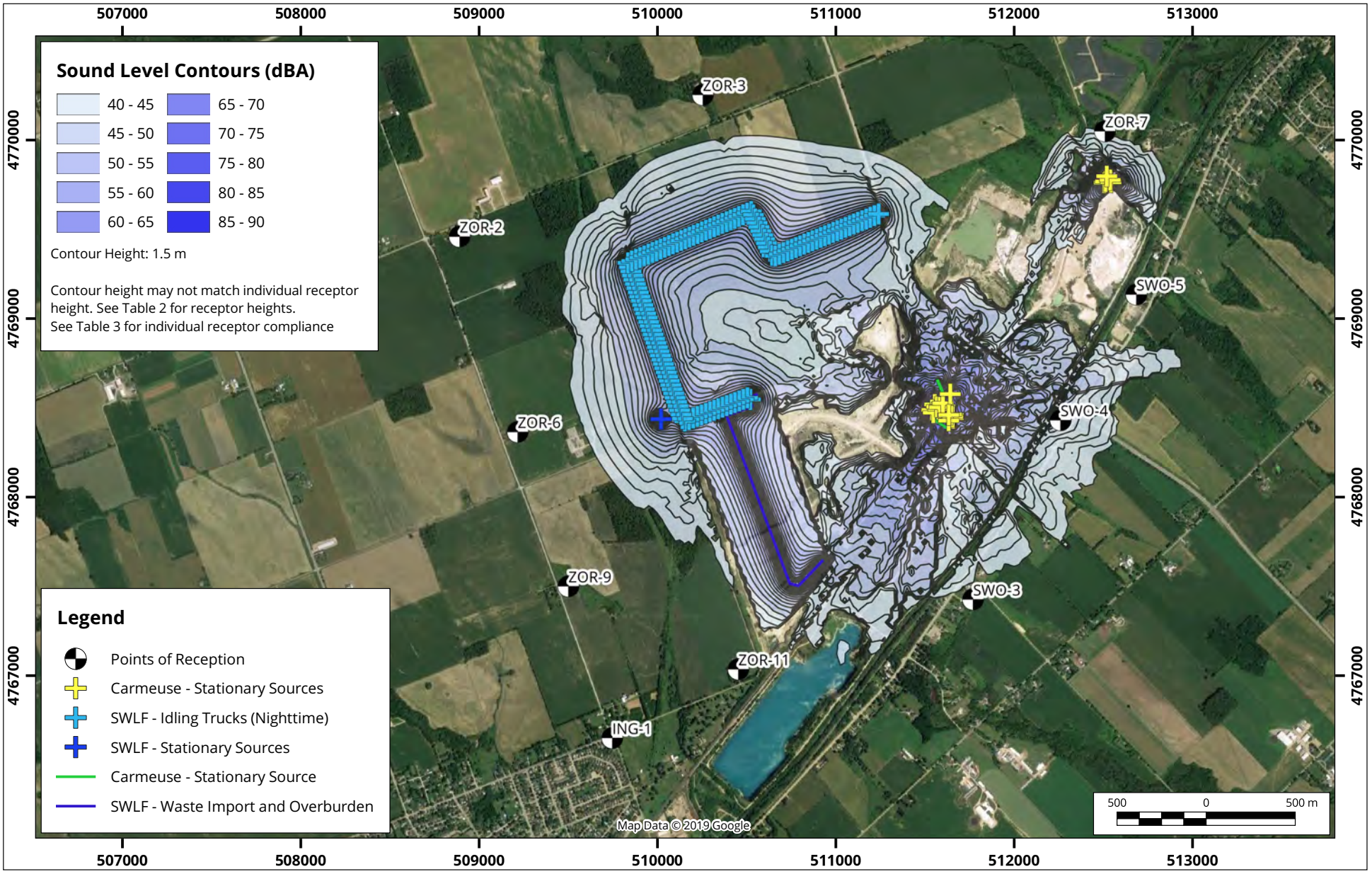

Environmental Noise Study - Southwestern Landfill

Nighttime Predicted noise levels for Case 3

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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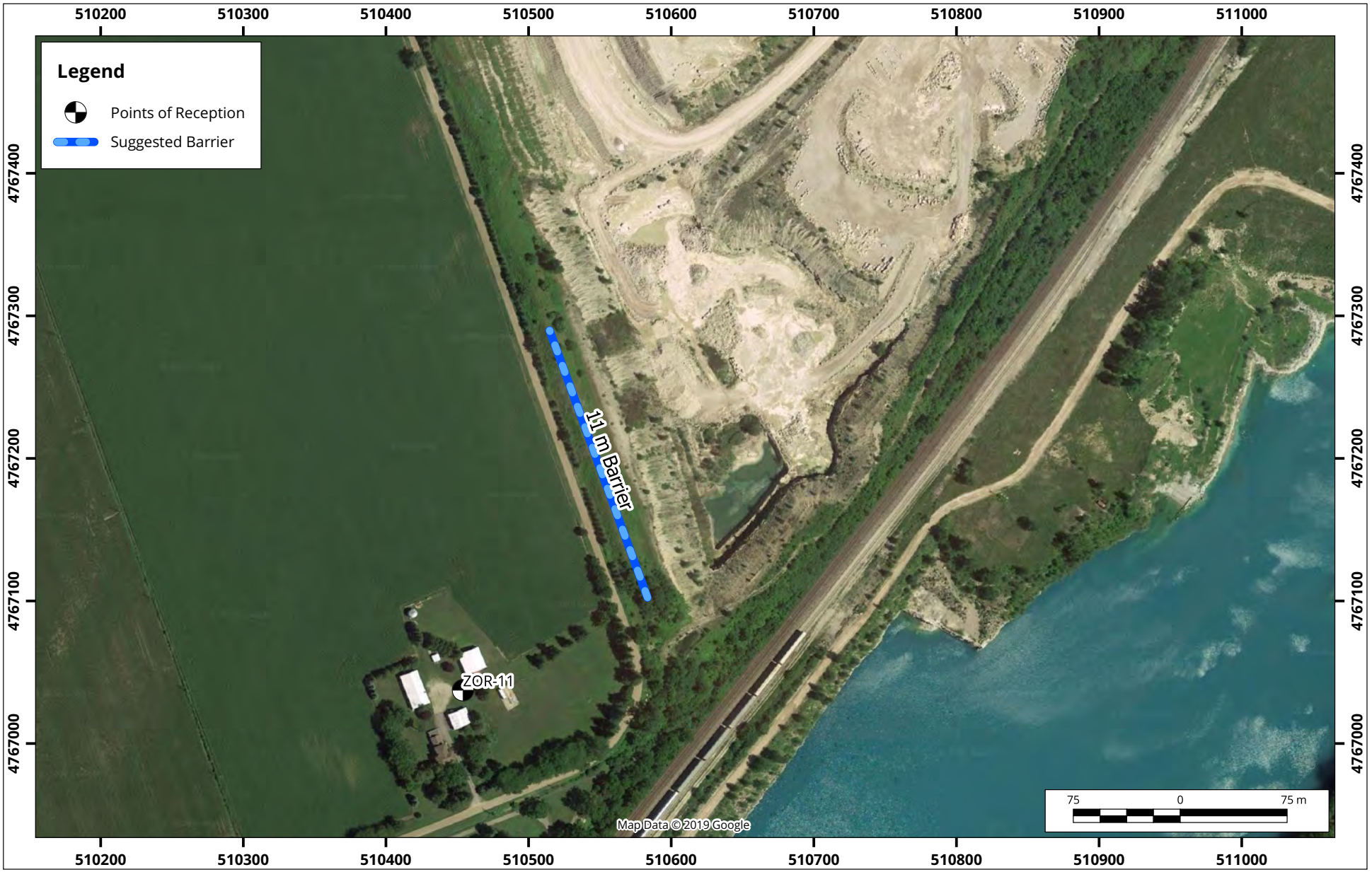

Environmental Noise Study - Southwestern Landfill

Suggested Barrier Mitigation for Case 2 (Stage 3 of the Landfill)

Map Projection: NAD 83 UTM 17

Ingersoll, Ontario

True North

Project #: 1800160

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Map Document: C:\DJK\Jobs - Sync\1800160 - BCB - WEG Southwestern Landfill\4. Analysis\20\QGIS\190508 - WEG SW Landfill.qgz

APPENDIX A:

Glossary of Terms

GLOSSARY OF TERMS

A-WEIGHTED SOUND LEVEL

The sound level as measured on a sound level meter using a setting that emphasizes the middle frequency components similar to the frequency response of the human ear.

A-weighting shows that the measured sound pressure levels have been filtered using a frequency weighting network that mimics the response of the human ear.

The resultant sound pressure level with the associated unit “dBA” is therefore a representative of the subjective response of the human ear

DB (DECIBEL)

A unit of measure of sound pressure that compresses a large range of numbers into a more meaningful scale. Hearing tests indicate that the lowest audible pressure is approximately 2 x 10-5 Pa (0 dB), while the sensation of pain is approximately 2 x 102 Pa (120 dB). Generally, an increase of 10 dB is perceived as twice as loud.

DBA

The decibel (dB) sound pressure level filtered through the A filtering network to approximate human hearing response at low frequencies.

ENERGY EQUIVALENT SOUND LEVEL (LEQ)

The Leq is the average A-weighted sound level over a specified period of time. It is a single-number representation of the cumulative acoustical energy measured over a time interval. If a sound level is constant over the measurement period, the Leq will equal the constant sound level where f is the fraction of time the constant level L is present.

IMPULSIVE NOISE

Single or multiple sound pressure peak(s) (with either a rise time less than 200 milliseconds or total duration less than 200 milliseconds) spaced at least by 500 millisecond pauses. A sharp sound pressure peak occurring in a short interval of time.

NOISE

Generally defined as the unwanted portion of sound.

NOISE LEVEL

This is the same as sound level except that it is applied to unwanted sounds, general the sound level at a point of reception.

SOUND

A dynamic (fluctuating) pressure.

SOUND LEVEL METER (SLM)

An instrument designed and calibrated to respond to sound and to give objective, reproducible measurements of sound pressure level. It normally has several features that would enable its frequency response and averaging times to be changed to make it suitable to simulate the response of the human ear.

SOUND PRESSURE LEVEL (SPL)

The logarithmic ratio of the RMS sound pressure to the sound pressure at the threshold of hearing. The sound pressure level is defined by equation (1) where P is the RMS pressure due to a sound and P0 is the reference pressure. P0 is usually taken as 2.0 × 10-5 Pascals.

SPL (dB) = 20 log(PRMS/P0)

SOUND POWER LEVEL (PWL)

The logarithmic ratio of the instantaneous sound power (energy) of a noise source to that of an international standard reference power. The sound power level is defined by equation (2) where W is the sound power of the source in watts, and W0 is the reference power of 10-12 watts.

PWL (dB) = 10 log(W/W0)

Interrelationships between sound pressure level (SPL) and sound power level (PWL) depend on the location and type of source.

SPECTRUM

The description of a sound wave's resolution into its components of frequency and amplitude.

SPEED OF SOUND IN AIR

344 m/s at 70°F (21°C) in air at sea level.

TONAL COMPONENTS

Some industrial facilities typically exhibit a tonal component. Examples of tonal components are transformer hum, sirens, and piping noise. The test for the presence of tonal components consists of two parts. The first part must demonstrate that the sound pressure level of any one of the slow-response, A-weighted, 1/3-octave bands between 20 and 16000Hz is 10 dBA or more than the sound pressure level of at least one of the adjacent bands within two 1/3-octave bandwidths. In addition, there must be a minimum of a 5 dBA drop from the band containing the tone within 2 bandwidths on the opposite side. The second part is that the tonal component must be a pronounced peak clearly obvious within the spectrum.

APPENDIX B:

Environmental Assessment Criteria and Studies

(From the Approved Amended Terms of Reference)

Table B-1 – EA Criteria Table

			Studies Addressing the Criteria													Study Areas			Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape	On-Site & Site Vicinity	Along the Haul Routes	Wider Area	Operational Period	Post-Closure Period
Public Health & Safety																				
1	Explosive hazard due to combustible gas accumulation in confined spaces.	Gas produced within a waste disposal facility (e.g., methane) can move through the ground and accumulate in confined spaces (e.g., manholes, basements, etc.) on or immediately adjacent to the waste disposal facility. There is potential for the gas to combust, creating an explosion and fire hazard.							☑							✓			✓	✓
2	Effects due to exposure to air emissions.	Waste disposal facilities can produce gases containing contaminants that degrade air quality if they are emitted to the atmosphere. Other operations, such as leachate collection facilities, can also produce emissions that could degrade air quality in the vicinity of the site. Air quality in the vicinity of the site should meet regulated air quality standards in order to protect public health.		☑						☑						✓			✓	✓
3	Effects due to fine particulate exposure.	Construction, operation, and truck haulage activities at a waste disposal facility can lead to increased levels of particulate (dust) in the air. Airbourne fine particulate is a health concern in certain size ranges exposure durations.		☑						☑						✓	✓		✓	
4	Effects due to contact with contaminated groundwater or surface water.	Contaminants associated with a waste disposal site have the potential to seep into the groundwater or surface water. This could pose a public health concern if it enters local drinking water supplies, or if it mixes with surface water.							☑	☑						✓			✓	✓
5	Flood hazard.	The construction of a waste disposal facility can disrupt natural surface water drainage patterns, causing a potential for increased flooding.							☑							✓			✓	✓

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

			Studies Addressing the Criteria													Study Areas			Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape	On-Site & Site Vicinity	Along the Haul Routes	Wider Area	Operational Period	Post-Closure Period
6	Disease transmission *via* insects or vermin.	Insects and vermin drawn to a waste disposal facility may have the potential to transmit diseases.					☑									✓			✓	✓
Public Health & Safety (continued)																				
7	Potential for traffic collisions.	The risk of traffic collisions may increase along the haul routes to the waste disposal facility. This includes the risk to pedestrian, bicycle and farm machinery.												☑			✓		✓	
8	Aviation impacts due to bird interference.	Birds may be attracted to waste disposal facilities. This can pose a risk of bird strikes on aircraft in the vicinity of the site, especially during take-off and landing altitudes.					☑									✓			✓	
Social and Cultural																				
9	Displacement of residents from houses.	Any residents living on a future waste disposal site will have to relocate, which can cause inconvenience and stress to the residents.											☑			✓			✓	✓
10	Disruption to use and enjoyment of residential properties.	Potential nuisance effects associated with the waste disposal facility operation, or traffic moving to and from the waste disposal facility along the haul route, may disturb the daily activities and uses of residential properties. Disturbances could result from noise, dust, litter, odour, visibility, birds and traffic congestion.											☑			✓	✓		✓	✓
11	Disruption to use and enjoyment of public facilities and institutions.	Potential nuisance effects associated with waste disposal facility operations, or traffic moving to and from the waste disposal facility, may disturb the daily activities at community facilities. Disturbances could result from noise, dust, litter, odour, visibility											☑			✓	✓		✓	
12	Disruption to local traffic networks.	Increased traffic volume resulting from a waste disposal facility could disturb the overall traffic flow along the haul routes, and effectively reduce the available road capacity.												☑			✓		✓	
13	Visual impact of the waste	Development and operation of a waste disposal facility can affect the visual appeal of													☑	✓			✓	✓

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

			Studies Addressing the Criteria													Study Areas			Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape	On-Site & Site Vicinity	Along the Haul Routes	Wider Area	Operational Period	Post-Closure Period
14	Nuisance associated with vermin.	Waste disposal facilities can attract vermin and birds, which can be a nuisance and lead to a decrease in property enjoyment by area residents. Vermin and birds can also be a nuisance to agricultural operations.											☑			✓			✓	
Social and Cultural (continued)																				
15	Displacement/disturbance of cultural/heritage resources.	Cultural resources (including heritage buildings, cemeteries and cultural landscapes) are an important component of human heritage. These non-renewable cultural resources may be displaced by the construction of a waste disposal facility. The use and enjoyment of cultural resources may also be disturbed by the ongoing operation and traffic. Disturbances could result from noise, dust, odour, visibility, birds, litter and traffic congestion.				☑										✓	✓		✓	✓
16	Effects on land resources, traditional activities or other interests of Aboriginal Communities.	Major new developments of any type may have positive or negative effects on the interests of Aboriginal Communities (i.e., businesses opportunities, joint ventures)											☑					✓	✓	✓
17	Displacement/destruction of archaeological resources.	Archaeological resources are non-renewable cultural resources that can be destroyed by the construction and operation of a waste disposal facility.			☑											✓			✓	

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

			Studies Addressing the Criteria													Study Areas			Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape	On-Site & Site Vicinity	Along the Haul Routes	Wider Area	Operational Period	Post-Closure Period
18	Level of public service provided by the waste disposal facility.	The presence of a waste disposal operation within a municipality can provide an increased level of public service (e.g., convenient access to waste disposal services) to local residents and businesses, as well as those in the broader community(ies).						☑										✓	✓	✓
19	Effects on other public services.	The presence of a waste disposal facility may have positive or negative spin-off effects on other public services in the community (e.g., leachate trucking, waste water treatment capacity, if there is discharge to the sewer system).						☑									✓	✓	✓	✓
Social and Cultural (continued)																				
20	Changes to community character/cohesion.	Community character and cohesion refer to physical characteristics, social stability, attractiveness as a place to live and patterns of social interaction. A waste disposal facility may actually or perceptually interfere with these important community attributes.											☑			✓	✓	✓	✓	✓
21	Compatibility with municipal land use designations and official plans.	A waste disposal facility has the potential to affect the viability of present and future land uses, which may have an effect on planning decisions made in the surrounding community.									☑					✓		✓	✓	✓

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

			Studies Addressing the Criteria													Study Areas			Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape	On-Site & Site Vicinity	Along the Haul Routes	Wider Area	Operational Period	Post-Closure Period
Economics																				
22	Displacement/disruption of businesses or farms.	Any on-site businesses or farms would be displaced by a waste disposal facility, and there could be financial losses as a result of relocation. Some types of businesses located in the site vicinity or along the haul routes may suffer financial losses due to the potential nuisance effects or perceived effects associated with the operation of a waste disposal facility such as noise, litter, dust, odour, visibility, birds, vermin and traffic congestion.						☑								✓	✓		✓	
23	Property value impacts.	The establishment and operation of a waste disposal facility may adversely affect property values in the site vicinity or along the haul routes.						☑								✓	✓		✓	✓
24	Direct employment in waste disposal facility construction and operation.	A waste disposal facility may create new employment opportunities both in the construction and day-to-day operation.						☑										✓	✓	
25	Indirect employment in related industries and services.	A waste disposal facility has the potential to have impacts on employment opportunities in local firms supplying products or services directly, or as secondary suppliers.						☑										✓	✓	
Economics (continued)																				
26	New business opportunities related directly to waste disposal facility construction and operation.	A large capital project, such as the construction and operation of a waste disposal facility, can create new opportunities for local businesses supplying products or services.						☑										✓	✓	

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

			Studies Addressing the Criteria													Study Areas			Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape	On-Site & Site Vicinity	Along the Haul Routes	Wider Area	Operational Period	Post-Closure Period
27	New business opportunities in related industries and services.	New opportunities may be created for local businesses, or as secondary suppliers to industries working for the waste disposal facility (e.g., restaurants, gas stations, machine shops, repair shops, welding shops, equipment rentals, etc.).						☑										✓	✓	
28	Public costs for indirect liabilities.	Some public services may have to be upgraded to accommodate the establishment and operation of a waste disposal facility (e.g., snow removal, sewer and water connections, etc.).						☑										✓	✓	✓
29	Effects on the municipal tax base.	A waste disposal facility has the potential to affect municipal tax revenues from the site it occupies.						☑										✓	✓	✓
30	Effect on the cost of service to customers.	The costs of constructing a waste disposal facility will affect the price of tipping fees to the site. This affects the cost of service to customers in Oxford county and the province.						☑										✓	✓	
31	Effects on the provincial/ federal tax base.	A waste disposal facility has the potential to affect provincial/federal tax revenues.						☑										✓	✓	✓
Natural Environment & Resources																				
32	Loss/displacement of surface water resources.	Construction of a waste disposal facility may cause the removal of all or part of a natural stream or pond.							☑							✓			✓	
33	Impact on the availability of groundwater supply to wells.	A waste disposal facility can impact the availability of groundwater supply if groundwater is pumped from aquifers or if recharge to aquifers is reduced.							☑							✓			✓	✓
34	Effects on stream baseflow quantity/quality.	The presence of a waste disposal facility has the potential to affect the quality or quantity of baseflow to surface water.							☑							✓			✓	✓

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

			Studies Addressing the Criteria													Study Areas			Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape	On-Site & Site Vicinity	Along the Haul Routes	Wider Area	Operational Period	Post-Closure Period
Natural Environment & Resources (Continued)																				
35	Loss/disturbance of terrestrial ecosystems.	Terrestrial ecosystems refer to the land-based habitats connected through the vegetation cover; their protection and integration maintains and regulates ecological health. Waste disposal facility operations and/or traffic may remove or disturb the functioning of these systems.					☑									✓	✓		✓	
36	Loss/disturbance of aquatic ecosystems.	Aquatic ecosystems refer to the water-based habitats connected through the surface water; their protection and integration maintains and regulates ecological health. Waste disposal facility operations may remove or disturb the functioning of these systems.					☑									✓			✓	
37	Displacement of agricultural land.	The establishment of a waste disposal facility has the potential to displace existing or potential agricultural resources, including the loss of prime agricultural land.	☑													✓			✓	✓
38	Disruption of farm operations.	The establishment and operation of the waste disposal facility may affect agricultural crop or livestock production and related agriculture activities	☑													✓	✓		✓	✓
39	Sterilization of industrial mineral resources.	The establishment of a waste disposal facility may limit the opportunity to extract industrial mineral resources located beneath the site.									☑					✓			✓	✓
40	Displacement of forestry resources.	The establishment of a waste disposal facility may limit the opportunity to utilize forestry resources on or near the site.									☑					✓			✓	✓

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

			Studies Addressing the Criteria														Study Areas				Duration	
	Criteria	Definition/ Rationale	Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic/ Financial	Groundwater/ Surface Water	Human Health	Land Use	Noise/Vibration	Social	Traffic	Visual/ Landscape		On-Site & Site Vicinity	Along the Haul Routes	Wider Area		Operational Period	Post-Closure Period
41	Loss/disruption of recreational resources.	Waste disposal facility operations and traffic may displace/disrupt existing recreational resources in the area, which could adversely affect the community at large. Disturbances could result from noise, dust, odour, visibility, birds and traffic congestion. Recreational resources include naturalist and interpretive opportunities.											☑				✓	✓			✓	✓

☑ Study that will be primarily responsible for addressing criterion.

Note: Many of the studies will provide key input to criteria that will be address through other impact assessment studies**.**

TABLE B-2 – EA TECHNICAL STUDIES INTERCONNECTIVITY MATRIX

Because effectively evaluating the EA criteria provided in Table B-1 may require input from experts in many disciplines, WEG adopted a methodology that facilitates a cross-functional approach among the experts. Each EA criterion has been assigned a 'lead' expert for reporting purposes (see Table B-1). The lead expert is responsible for coordinating efforts with any other expert they determine necessary to effectively report on that criterion as well as providing information to other experts who need input from them to report on any other criteria. Table B-2 provides possible relationships required between experts to effectively report on their respective EA criteria. The actual relationships will be developed during the EA process in consultation with interested parties.

		Reference Studies												
		Agriculture	Air Quality	Archaeology	Cultural Heritage	Ecology	Economic / Financial	Groundwater / Surface Water	Human Health	Land Use	Noise / Vibration	Social	Traffic	Visual/ Landscape
Technical Studies	Agriculture		✓							✓	✓		✓	
	Air Quality												✓	
	Archaeology													
	Cultural Heritage									✓		✓		✓
	Ecology		✓					✓			✓		✓	
	Economic / Financial	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
	Groundwater / Surface Water	✓										✓		
	Human Health		✓					✓			✓			
	Land Use													
	Noise / Vibration													
	Social	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
	Traffic	✓								✓		✓		
	Visual Landscape											✓		

APPENDIX C:
Source Sound Powers

Appendix C1 – Point Source Sound Power Levels

Source Name	ID	Location (m)			Overall PWL	Tonal Correction	Correction			Operating Time			Octave Band Spectrum								
							Day	Evening	Night	Day	Evening	Night	31.5	63	125	250	500	1000	2000	4000	8000
		X	Y	H	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	(min)	(min)	(min)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
SWLF - Pest Control Sources																					
Imp_01	144	510659	4768537	10	144		0	0	0	0	0	0					144				
Imp_02	144	510504	4768471	10	144		0	0	0	0	0	0					144				
Imp_03	144	510357	4768420	10	144		0	0	0	0	0	0					144				
Imp_04	144	510201	4768349	10	144		0	0	0	0	0	0					144				
Imp_05	144	510241	4768242	10	144		0	0	0	0	0	0					144				
Imp_06	144	510293	4768109	10	144		0	0	0	0	0	0					144				
Imp_07	144	510376	4767906	10	144		0	0	0	0	0	0					144				
Imp_08	144	510452	4767712	10	144		0	0	0	0	0	0					144				
Imp_09	144	510515	4767539	10	144		0	0	0	0	0	0					144				
Imp_10	144	510566	4767349	10	144		0	0	0	0	0	0					144				
Imp_11	144	510671	4767260	10	144		0	0	0	0	0	0					144				
Imp_12	144	510780	4767373	10	144		0	0	0	0	0	0					144				
Imp_13	144	510895	4767537	10	144		0	0	0	0	0	0					144				
Imp_14	144	510972	4767640	10	144		0	0	0	0	0	0					144				
Carmeuse Quarry Mobile Equipment - Baseline																					
Lippmann 51x crusher without loader	RWDI_18	510837	4767706	1.5	114.1		-5	-5	-5	60	0	0	112.9	117.8	118.7	116.5	115.1	114.3	112.3	106.8	101.3
Gen set of crusher at top	RWDI_16	510834	4767692	2	117.6		-5	-5	-5	60	0	0	110.3	116.3	118.9	115.4	119.3	118.6	115.6	109.3	103.8
EC 700Cc and CAT 740B dump truck	RWDI_14	510584	4767698	6.5	107.5		0	0	0	60	0	0	104.1	109.7	108.7	104.7	103.6	101.9	100.4	97.9	94
D6N Bulldozer	RWDI_25	510671	4767780	3.5	114.1		0	0	0	60	0	0	115.2	116.3	110.9	111.4	110.9	110.5	104.7	102	93.9
Tiny Breaker (John Deere 85D - Nortrax company?)	RWDI_24	510697	4767575	2.5	114.1		0	0	0	45	0	0	101.4	103.1	103.3	105.6	105.5	107.4	107.5	107.9	105.5
Komatsu WA500 loader picking up rocks | RWDI_20	RWDI_20	510797	4767711	3.5	105.7		0	0	0	60	0	0	106.5	108.9	110.7	108.1	102.5	99.4	96.6	90.3	83.8
Crushed material falling onto stockpile from conveyor	RWDI_19	510870	4767750	4	95.2		0	0	0	60	0	0	105.4	105.4	98.8	97.3	90.9	88.2	86.3	84.5	80.9
Komatsu WA500 loader dumping	RWDI_17	510833	4767712	4	120.8		0	0	0	8.5	0	0	114.1	119	119.8	117.3	117.8	116	113.6	108.4	103.8
Carmeuse Quarry Mobile Equipment - Stage 1																					
EC 700Cc and CAT 740B dump truck	RWDI_14	510758	4767398	6.5	107.5		0	0	0	40	0	0	104.1	109.7	108.7	104.7	103.6	101.9	100.4	97.9	94
D6N Bulldozer	RWDI_25	510819	4767483	3.5	114.1		0	0	0	60	0	0	115.2	116.3	110.9	111.4	110.9	110.5	104.7	102	93.9
Tiny Breaker (John Deere 85D - Nortrax company?)	RWDI_24	510881	4767568	2.5	114.1		0	0	0	45	0	0	101.4	103.1	103.3	105.6	105.5	107.4	107.5	107.9	105.5
Komatsu WA500 loader picking up rocks | RWDI_20	RWDI_20	510701	4767315	3.5	105.7		0	0	0	60	0	0	106.5	108.9	110.7	108.1	102.5	99.4	96.6	90.3	83.8
Crushed material falling onto stockpile from conveyor	RWDI_19	510794	4768076	4	95.2		0	0	0	10	0	0	105.4	105.4	98.8	97.3	90.9	88.2	86.3	84.5	80.9
Komatsu WA500 loader dumping	RWDI_17	510866	4768052	4	120.8		0	0	0	30	0	0	114.1	119	119.8	117.3	117.8	116	113.6	108.4	103.8
Lippmann 51x crusher without loader	RWDI_18	510820	4768047	1.5	114.1		-5	-5	-5	30	0	0	112.9	117.8	118.7	116.5	115.1	114.3	112.3	106.8	101.3

Gen set of crusher at top	RWDI_16	510832	4768070	2	117.6		-5	-5	-5	60	0	0	110.3	116.3	118.9	115.4	119.3	118.6	115.6	109.3	103.8
Carmeuse Quarry Mobile Equipment - Stage 3 & 4																					
Lippmann 51x crusher without loader	RWDI_18	510156	4768735	1.5	114.1		-5	-5	-5	30	0	0	112.9	117.8	118.7	116.5	115.1	114.3	112.3	106.8	101.3
Gen set of crusher at top	RWDI_16	510155	4768749	2	117.6		-5	-5	-5	60	0	0	110.3	116.3	118.9	115.4	119.3	118.6	115.6	109.3	103.8
Komatsu WA500 loader dumping	RWDI_17	510162	4768731	4	120.8		0	0	0	30	0	0	114.1	119	119.8	117.3	117.8	116	113.6	108.4	103.8
Crushed material falling onto stockpile from conveyor	RWDI_19	510140	4768683	4	95.2		0	0	0	10	0	0	105.4	105.4	98.8	97.3	90.9	88.2	86.3	84.5	80.9
Komatsu WA500 loader picking up rocks | RWDI_20	RWDI_20	510122	4768702	3.5	105.7		0	0	0	60	0	0	106.5	108.9	110.7	108.1	102.5	99.4	96.6	90.3	83.8
Tiny Breaker (John Deere 85D - Nortrax company?)	RWDI_24	510246	4768905	2.5	114.1		0	0	0	45	0	0	101.4	103.1	103.3	105.6	105.5	107.4	107.5	107.9	105.5
D6N Bulldozer	RWDI_25	510337	4768719	3.5	114.1		0	0	0	60	0	0	115.2	116.3	110.9	111.4	110.9	110.5	104.7	102	93.9
EC 700Cc and CAT 740B dump truck	RWDI_14	510393	4768825	6.5	107.5		0	0	0	45	0	0	104.1	109.7	108.7	104.7	103.6	101.9	100.4	97.9	94
Carmeuse Quarry Processing Plant																					
Primary Crusher Hammer3 | S_42_I	S_2010_S_42_I	511413	4768349	1	119		0	0	0	60	0	0	0	112	113	108	110	115	113	110	105
Quarry material Drop3 | S_43_I	S_2010_S_43_I	511413	4768344	1	122.7		-2	-2	-2	60	0	0	0	126	129	123	123	120	115	107	96
Building Casing East Plant | S_39	S_2010_S_39	512506	4769762	10	94.4		-2	-2	-2	60	60	60	0	95	101	95	92	87	89	89	86
Stack Fan East Plant | S_40	S_2010_S_40	512513	4769768	14	100	5	0	0	0	60	60	60	0	92	97	96	95	88	83	78	72
Dust Collector Lime Bins | S_43_NEW	S_2010_S_42_NEW	511650	4768556	13	83		0	0	0	60	0	0	0	77	77	74	84	77	72	64	83
Side Wall Fan | RWDI_M38	RWDI_M38	512539	4769777	3.5	97.5		-2	-2	-2	60	60	60	107	108.6	106.8	104.2	95.9	89.8	87.2	83.9	77.8
Truck Loading East Plant | S_41	S_2010_S_41	512543	4769765	4	93	5	0	0	0	60	60	60	0	107	119	109	101	108	121	115	103
Conveyor Near AAG75 | S_1	S_2010_S_1	511723	4768459	3	116.3	5	1.5	1.5	1.5	60	0	0	0	97	97	100	99	108	103	89	77
Secondary Crusher Elevator | S_2	S_2010_S_2	511613	4768334	7	116		0	0	0	60	0	0	0	111	108	106	107	108	111	110	103
Secondary Crusher Building | S_3	S_2010_S_3	511586	4768303	6.5	114.2		0	0	0	60	0	0	0	113	110	110	110	110	108	101	88
Under Truck Pathway near Screening Building | S_4A	S_2010_S_4	511626	4768370	3.6	100.8		0	0	0	60	60	0	0	98	96	94	94	94	96	93	84
Under Truck Pathway near Screening Building | S_4B	S_2010_S_4	511640	4768384	3.6	100.8		0	0	0	60	60	0	0	98	96	94	94	94	96	93	84
Upper Opening in Screening Building | S_7	S_2010_S_7	511644	4768375	16.5	103.2		0	0	0	60	60	0	0	96	95	95	97	98	98	94	85
Typical Door Tertiary Crusher | S_8A	S_2010_S_8	511652	4768446	5	97	5	0	0	0	60	60	60	0	97	97	94	89	87	81	77	70
Typical Door Tertiary Crusher | S_8B	S_2010_S_8	511660	4768457	5	97	5	0	0	0	60	60	60	0	97	97	94	89	87	81	77	70
Typical Door Tertiary Crusher | S_8C	S_2010_S_8	511642	4768444	1.5	97	5	0	0	0	60	60	60	0	97	97	94	89	87	81	77	70
Tertiary Crusher Building Opening A | S_9	S_2010_S_9	511648	4768454	20	93.3		0	0	0	60	60	60	0	97	94	91	89	87	85	86	81
Tertiary Crusher Fans 1 of 3 | S_10A	S_2010_S_10A	511659	4768459	23	93.7		0	0	0	60	60	60	0	100	97	93	92	88	84	81	75
Tertiary Crusher Fans 2 of 3 | S_10B	S_2010_S_10B	511658	4768443	22	93.7		0	0	0	60	60	60	0	100	97	93	92	88	84	81	75
Tertiary Crusher Fans 3 of 3 | S_10C	S_2010_S_10C	511658	4768443	18	93.7		0	0	0	60	60	60	0	100	97	93	92	88	84	81	75
Tertiary Crusher Mandoor | S_11	S_2010_S_11	511656	4768451	2.5	91.1		0	0	0	60	60	60	0	97	97	91	87	83	80	83	83
Tertiary Crusher Dryer Intake | S_13	S_2010_S_13	511647	4768463	18	107.7		0	0	0	60	60	60	0	114	111	108	104	99	102	96	89
Kiln Fan | S_14	S_2010_S_14	511555	4768519	2	107.5		0	0	0	60	60	60	0	113	113	108	104	102	99	95	87
Enclosed Fan Near Kilns | S_15	S_2010_S_15	511539	4768488	1	107	5	0	0	0	60	60	60	0	104	99	96	88	101	92	80	75
Equipment on East Side of Tall Kiln Stack | S_16	S_2010_S_16	511547	4768473	1	106.1	5	0	0	0	60	60	60	0	101	102	101	92	99	91	83	79
Kiln Source Over Drum | S_17	S_2010_S_17	511575	4768493	5	98.9		0	0	0	60	60	60	0	95	97	92	94	94	93	89	80
Base of Kiln 1 Drive Shaft (Level One) | S_18	S_2010_S_18	511566	4768506	5	108.3	5	0	0	0	60	60	60	0	100	101	98	104	98	90	84	76
Base of Kiln 3 Drive Shaft (Level One) | S_19	S_2010_S_19	511583	4768503	5	104.7	5	0	0	0	60	60	60	0	100	101	99	99	95	87	81	73
Kiln 3 Drive Shaft Opening (Faces E) | S_20	S_2010_S_20	511601	4768526	2	100.6	5	0	0	0	60	60	60	0	89	88	94	94	91	87	81	71
S Side Opening at Room End of Kilns | S_22A	S_2010_S_22A	511617	4768588	2.5	107.7	5	0	0	0	60	60	0	0	101	105	100	96	94	99	91	81
N Side Opening at Room End of Kilns | S_22B	S_2010_S_22B	511633	4768603	1.5	105.7	5	0	0	0	60	60	0	0	100	107	99	95	92	96	89	79
Blower Discharge Upper Level | S_23	S_2010_S_23	511640	4768578	1	102.4	5	0	0	0	60	60	0	0	95	98	105	92	81	78	75	69

LH-41 Upper Level Opening | S_24	S_2010_S_24	511642	4768577	15.5	98.2	5	0	0	0	60	60	60	0	90	85	80	84	92	84	75	65
Primary Crusher2 | S_26	S_2010_S_26	511678	4768237	1	80.9		0	0	0	60	60	0	0	90	91	77	78	75	71	66	60
Quarry Material Loading2 | S_27	S_2010_S_27	511140	4768152	1	115.5		0	0	0	60	60	0	0	125	125	112	113	109	106	101	94
Dust Collector Secondary Crusher | S_42_NEW	S_2010_S_42_NEW	511583	4768312	13	83		0	0	0	60	0	0	0	77	77	74	84	77	72	64	83
Loader CAT988H | S_28A	S_2010_S_28	511687	4768225	1	113.6		0	0	0	60	60	0	0	117	113	108	109	110	106	102	95
Loader CAT988H | S_28B	S_2010_S_28	511151	4768170	1	113.6		0	0	0	60	60	0	0	117	113	108	109	110	106	102	95
Truck | S_29A	S_2010_S_29	511228	4768152	1	86.3		0	0	0	60	60	0	0	89	92	82	82	82	79	73	67
Truck | S_29B	S_2010_S_29	511652	4768210	1	86.3		0	0	0	60	60	0	0	89	92	82	82	82	79	73	67
Truck | S_29C	S_2010_S_29	511676	4768420	1	86.3		0	0	0	60	60	0	0	89	92	82	82	82	79	73	67
Truck | S_29D	S_2010_S_29	511793	4768548	1	86.3		0	0	0	60	60	0	0	89	92	82	82	82	79	73	67
South of Kiln Noise | RWDI_M31 (North)	RWDI_M31	511554	4768493	3.5	120.6		2	2	2	60	0	0	119.3	120.5	117.3	118.1	114.2	113.7	111.6	106.7	101.3
Northeast of lime plant | RWDI_M39	RWDI_M39	512520	4769798	1.5	99.1		-4	-4	-4	60	60	60	108.4	109.2	106.8	106.9	103.4	90.4	84.7	82.6	75.9
East end of PSP | RWDI_M34	RWDI_M34	511663	4768476	3	109.8		-9	-9	-9	60	0	0	123.9	121.7	120.7	116.1	117.5	112.3	111	106.8	100.9
Baghouse Fan | RWDI_M35	RWDI_M35	511633	4768428	2.5	116.9		3.3	3.3	3.3	60	60	60	115.5	121.6	113	115.9	112	107.4	103.2	96.8	88.5
South of Kiln Noise | RWDI_M31 (South)	RWDI_M31	511634	4768460	3.5	113.8		-4.8	-4.8	-4.8	60	60	60	119.3	120.5	117.3	118.1	114.2	113.7	111.6	106.7	101.3
SWLF - Idling Nighttime Trucks																					
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510521	4768547	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510505	4768556	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510482	4768547	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510458	4768539	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510435	4768530	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510411	4768521	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510388	4768513	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510364	4768504	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510341	4768495	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510318	4768487	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510294	4768478	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510271	4768469	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510247	4768461	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510224	4768452	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510200	4768443	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510177	4768435	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510153	4768426	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510141	4768439	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510132	4768463	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510124	4768487	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510116	4768510	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510108	4768534	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510099	4768557	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510091	4768581	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510083	4768605	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510075	4768628	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510066	4768652	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76

Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510058	4768675	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510050	4768699	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510042	4768723	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510033	4768746	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510025	4768770	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510017	4768793	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510009	4768817	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510000	4768841	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509992	4768864	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509984	4768888	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509976	4768911	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509967	4768935	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509959	4768959	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509951	4768982	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509943	4769006	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509934	4769029	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509926	4769053	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509918	4769077	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509910	4769100	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509901	4769124	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509893	4769147	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509885	4769171	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509877	4769195	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509868	4769218	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509860	4769242	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509852	4769265	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509844	4769289	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509835	4769313	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509857	4769323	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509880	4769333	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509903	4769342	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509926	4769352	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509949	4769361	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509972	4769371	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	509995	4769381	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510018	4769390	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510041	4769400	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510064	4769409	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510087	4769419	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510110	4769429	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510134	4769438	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510157	4769448	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510180	4769457	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76

Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510203	4769467	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510226	4769476	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510249	4769486	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510272	4769496	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510295	4769505	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510318	4769515	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510341	4769524	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510364	4769534	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510388	4769544	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510411	4769553	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510434	4769563	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510457	4769572	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510480	4769582	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510503	4769592	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510526	4769601	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510538	4769582	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510548	4769559	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510559	4769536	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510569	4769513	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510580	4769491	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510590	4769468	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510601	4769445	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510611	4769423	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510622	4769400	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510632	4769377	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510643	4769355	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510661	4769352	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510684	4769361	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510707	4769370	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510731	4769380	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510754	4769389	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510777	4769399	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510800	4769408	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510823	4769417	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510846	4769427	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510870	4769436	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510893	4769446	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510916	4769455	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510939	4769464	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510962	4769474	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	510985	4769483	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511009	4769493	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511032	4769502	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76

Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511055	4769511	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511078	4769521	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511101	4769530	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511124	4769540	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511148	4769549	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511171	4769558	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511194	4769568	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511217	4769577	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
Idle Truck (Nighttime)	TRANS_TRUC_IDLE	511240	4769587	3.5	92.3		0	0	0	0	0	60	97	95	92	88	87	89	84	81	76
SWLF - Leachate Building																					
Lechate Stack - Upper Section	98	510020	4768437	15	98		0	0	0	60	60	60					98				
Lechate Stack - Lower Section	98	510020	4768437	2	98		0	0	0	60	60	60					98				
SWLF - Landfilling Stage 1																					
Excavator Stage 1 | EXCA_LOAD	EXCA_LOAD	510331	4768644	3.5	108.2		0	0	0	60	0	0	110	109.4	109	105.8	103.5	102.8	101.3	98.7	94.6
Bulldozer Stage 1 | EXCA_LOAD	BULLDOZ_FR	510397	4767915	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
Bulldozer Stage 1 | EXCA_LOAD	BULLDOZ_FR	510402	4767905	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
SWLF - Cell Construction Stage 1																					
Excavator Cat 330B - Stage 1 Construction	105	510607	4767602	3.5	105		0	0	0	60	0	0					105				
Loader CAT 998H - Stage 1 Construction	115	510549	4767568	3.5	115		0	0	0	60	0	0					115				
Bulldozer Construction Stage 1 | EXCA_LOAD	BULLDOZ_FR	510575	4767579	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
Bulldozer Construction Stage 1 | EXCA_LOAD	BULLDOZ_FR	510641	4767625	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
SWLF - Cell Construction Stage 3																					
Excavator Cat 330B - Stage 3 Construction	105	510901	4767687	3.5	105		0	0	0	60	0	0					105				
Loader CAT 998H - Stage 3 Construction	115	510837	4767634	3.5	115		0	0	0	60	0	0					115				
Bulldozer Construction Stage 3 | EXCA_LOAD	BULLDOZ_FR	510879	4767669	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
Bulldozer Construction Stage 3 | EXCA_LOAD	BULLDOZ_FR	510931	4767718	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
SWLF - Landfilling Stage 3																					
Excavator Stage 3 | EXCA_LOAD	EXCA_LOAD	510224	4768560	3.5	108.2		0	0	0	60	0	0	110	109.4	109	105.8	103.5	102.8	101.3	98.7	94.6
Bulldozer Stage 3 | EXCA_LOAD	BULLDOZ_FR	510735	4767380	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
Bulldozer Stage 3 | EXCA_LOAD	BULLDOZ_FR	510695	4767349	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
SWLF - Landfilling Stage 4																					
Excavator Stage 4 | EXCA_LOAD	EXCA_LOAD	510221	4768558	3.5	108.2		0	0	0	60	0	0	110	109.4	109	105.8	103.5	102.8	101.3	98.7	94.6
Bulldozer Stage 4 | EXCA_LOAD	BULLDOZ_FR	510805	4767517	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
Bulldozer Stage 1 | EXCA_LOAD	BULLDOZ_FR	510855	4767592	3.5	114		0	0	0	60	0	0	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8

Appendix C2 – Line Source Sound Power Levels

Source Name	ID	Overall PWL'	Length One Direction	Moving Pt. Src			Speed	Operating Time			Octave Band Spectrum								
				Day	Evening	Night		Day	Evening	Night	31.5	63	125	250	500	1000	2000	4000	8000
		dBA/m	(m)	QTY	QTY	QTY	km/h	(min)	(min)	(min)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Carmeuse Quarry Processing Plant																			
New Pet Coke Conveyor | S_46	S_2010_S_5	69.3	74	0	0	0	0	60	60	60	0	102	94	96	95	96	100	97	91
Coal Conveyor | S_47	S_2010_S_5	69.2	74	0	0	0	0	60	60	60	0	102	94	96	95	96	100	97	91
Typical Enclosed Conveyor Screening Building | S_5	S_2010_S_5	67.7	106	0	0	0	0	60	60	60	0	102	94	96	95	96	100	97	91
Federal White and Oxford Loaded All Cases | TRANS_TRUC	TRANS_TRUC	69.2	796	10	10	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Federal White and Oxford Empty All Cases | TRANS_TRUC	TRANS_TRUC	69.2	562	10	10	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Carmeuse Quarry Sales Hauling																			
Quarry Hauler Loaded Baseline | CAT_735G_LOAD	CAT_735G_LOAD	72.4	1133	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
Quarry Hauler Loaded Baseline | CAT_735G_LOAD	CAT_735G_LOAD	72.4	214	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
Quarry Hauler Empty Baseline | CAT_735G_EMP	CAT_735G_EMP	69.7	1133	10	10	0	40	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
Quarry Hauler Empty Baseline | CAT_735G_EMP	CAT_735G_EMP	69.7	214	10	10	0	40	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
OverburdenTruck Loaded Baseline | DUMP_LOAD	DUMP_LOAD	67.1	1936	7.1	7.1	0	30	60	0	0	104.3	102.7	101.4	98.7	100.1	98.6	96.5	91.7	86.6
OverburdenTruck Empty Baseline | DUMP_EMP	DUMP_EMP	64.4	1936	7.1	7.1	0	40	60	0	0	105.2	103	101.9	99.2	97.2	97.6	95.6	88.4	83.1
Carmeuse Quarry Process Rock and Overburden Hauling - Stage 1																			
Quarry Hauler Loaded Stage 1 | CAT_735G_LOAD	CAT_735G_LOAD	72.4	1297	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
Quarry Hauler Loaded Stage 1 | CAT_735G_LOAD	CAT_735G_LOAD	72.4	214	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
Quarry Hauler Empty Stage 1 | CAT_735G_EMP	CAT_735G_EMP	69.7	1306	10	10	0	40	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
Quarry Hauler Empty Stage 1 | CAT_735G_EMP	CAT_735G_EMP	69.7	214	10	10	0	40	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
OverburdenTruck Loaded Stage 1 | DUMP_LOAD	DUMP_LOAD	67.1	2244	7.1	7.1	0	30	60	0	0	104.3	102.7	101.4	98.7	100.1	98.6	96.5	91.7	86.6
OverburdenTruck Empty Stage 1 | DUMP_EMP	DUMP_EMP	64.4	2248	7.1	7.1	0	40	60	0	0	105.2	103	101.9	99.2	97.2	97.6	95.6	88.4	83.1
Carmeuse Quarry Process Rock and Overburden Hauling - Stage 3																			
Quarry Hauler Empty Stage 3 | CAT_735G_EMP	CAT_735G_EMP	69.7	214	10	10	0	40	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
Quarry Hauler Loaded Stage 3 | CAT_735G_LOAD	CAT_735G_LOAD	72.4	214	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
Quarry Hauler Loaded Stage 3 | CAT_735G_LOAD	CAT_735G_LOAD	72.4	1667	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
Quarry Hauler Empty Stage 3 | CAT_735G_EMP	CAT_735G_EMP	70.9	1667	10	10	0	30	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
OverburdenTruck Empty Stage 3 | DUMP_EMP	DUMP_EMP	64.4	1496	7.1	7.1	0	40	60	0	0	105.2	103	101.9	99.2	97.2	97.6	95.6	88.4	83.1
OverburdenTruck Loaded Stage 3 | DUMP_LOAD	DUMP_LOAD	65.8	1496	7.1	7.1	0	40	60	0	0	104.3	102.7	101.4	98.7	100.1	98.6	96.5	91.7	86.6

Carmeuse Quarry Process Rock and Overburden Hauling - Stage 4																			
Quarry Hauler Empty Stage 4 | CAT_735G_EMP	CAT_735G_EMP	69.7	214	10	10	0	40	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
Quarry Hauler Empty Stage 4 | CAT_735G_EMP	CAT_735G_EMP	70.9	1667	10	10	0	30	60	0	0	109.5	114.5	108.4	103.1	101.5	99.9	100.3	89	83.4
Quarry Hauler Loaded Stage 4 | CAT_735G_LOAD	CAT_735G_LOAD	72.4	1667	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
Quarry Hauler Loaded Stage 4 | CAT_735G_LOAD	CAT_735G_LOAD	72.4	214	10	10	0	30	60	0	0	110.1	119.9	112.4	106.5	104.8	101.6	98.5	90.6	83.9
OverburdenTruck Empty Stage 4 | DUMP_EMP	DUMP_EMP	64.4	1496	7.1	7.1	0	40	60	0	0	105.2	103	101.9	99.2	97.2	97.6	95.6	88.4	83.1
OverburdenTruck Loaded Stage 4 | DUMP_LOAD	DUMP_LOAD	65.8	1496	7.1	7.1	0	40	60	0	0	104.3	102.7	101.4	98.7	100.1	98.6	96.5	91.7	86.6
SWLF - Offsite Waste Import Hauling Stage 1																			
Offsite Truck Loaded Stage 1 |	TRANS_TRUC	75.1	3960	38.8	0	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Offsite Truck Empty Stage 1 |	TRANS_TRUC	75.1	3974	38.8	0	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Dump Truck Loaded Stage 1 | DUMP_LOAD	DUMP_LOAD	72.1	850	22.3	0	0	30	60	0	0	104.3	102.7	101.4	98.7	100.1	98.6	96.5	91.7	86.6
Dump Truck Empty Stage 1 | DUMP_EMP	DUMP_EMP	69.4	846	22.3	0	0	40	60	0	0	105.2	103	101.9	99.2	97.2	97.6	95.6	88.4	83.1
Bulldozers Nighttime Movement Stage 1 | BULLDOZ_FR	BULLDOZ_FR	-26.4	988	0	0	2	11	0	0	60	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
Compactors Nighttime Movement Stage 1 | COMP_FR	COMP_FR	-32.5	988	0	0	5	11	0	0	60	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3
SWLF - Offsite Waste Import Hauling Stage 3																			
Offsite Truck Loaded Stage 3 |	TRANS_TRUC	75.1	4466	38.8	0	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Offsite Truck Empty Stage 3 |	TRANS_TRUC	75.1	4459	38.8	0	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Dump Truck Empty Stage 3 | DUMP_EMP	DUMP_EMP	69.4	1418	22.3	0	0	40	60	0	0	105.2	103	101.9	99.2	97.2	97.6	95.6	88.4	83.1
Dump Truck Loaded Stage 3 | DUMP_LOAD	DUMP_LOAD	72.1	1409	22.3	0	0	30	60	0	0	104.3	102.7	101.4	98.7	100.1	98.6	96.5	91.7	86.6
Compactors Nighttime Movement Stage 3 | COMP_FR	COMP_FR	-32.5	1487	0	0	5	11	0	0	60	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3
Bulldozers Nighttime Movement Stage 3 | BULLDOZ_FR	BULLDOZ_FR	-26.4	1487	0	0	2	11	0	0	60	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8
SWLF - Offsite Waste Import Hauling Stage 4																			
Offsite Trucks Truck Loaded Stage 4 |	TRANS_TRUC	75.1	4477	38.8	0	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Offiste Trucks Dump Truck Empty Stage 4 |	TRANS_TRUC	75.1	4474	38.8	0	0	30	60	0	0	107.7	110.2	108.3	99.9	99.4	98.6	96.7	93.6	91.6
Dump Truck Empty Stage 4 | DUMP_EMP	DUMP_EMP	69.4	1335	22.3	0	0	40	60	0	0	105.2	103	101.9	99.2	97.2	97.6	95.6	88.4	83.1
Dump Truck Loaded Stage 4 | DUMP_LOAD	DUMP_LOAD	72.1	1335	22.3	0	0	30	60	0	0	104.3	102.7	101.4	98.7	100.1	98.6	96.5	91.7	86.6
Compactors Nighttime Movement Stage 4 | COMP_FR	COMP_FR	-32.5	1498	0	0	5	11	0	0	60	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3
Bulldozers Nighttime Movement Stage 4 | BULLDOZ_FR	BULLDOZ_FR	-26.4	1498	0	0	2	11	0	0	60	104.8	109.2	114	109.3	111.3	110.2	105.1	101.2	98.8

Appendix C3 – Area Source Sound Power Levels

Source Name	ID	Overall PWL	Moving Pt. Src			Correction			Operating Time			Octave Band Spectrum								
			Day	Evening	Night	Day	Evening	Night	Day	Evening	Night	31.5	63	125	250	500	1000	2000	4000	8000
		dB(A)	QTY	QTY	QTY	dB(A)	dB(A)	dB(A)	(min)	(min)	(min)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
SWLF Stage 1- Compactor Area Sources																				
Compactors Stage 1 | COMP_ST1	COMP_FR	114.9	5	5	5	0	0	0	60	0	0	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3
SWLF Stage 3- Compactor Area Sources																				
Compactors Stage 3 | COMP_ST3	COMP_FR	114.9	5	5	5	0	0	0	60	0	0	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3
SWLF Stage 4- Compactor Area Sources																				
Compactors Stage 4 | COMP_ST4	COMP_FR	114.9	5	5	5	0	0	0	60	0	0	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3
SWLF Cell Construction Stage 1- Compactor Area Sources																				
Compactors Construction Stage 1 | COMP_ST1	COMP_FR	110.9	2	0	0	0	0	0	60	0	0	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3
SWLF Cell Construction Stage 3 - Compactor Area Sources																				
Compactors Construction Stage 3 | COMP_ST3	COMP_FR	110.9	2	0	0	0	0	0	60	0	0	104	105.9	108	104.7	102.2	106.1	96.1	90.4	85.3

Appendix C4 – Vertical Area Source Sound Power Levels

Source Name	ID	Overall PWL	Resultant PWL"			Correction			Operating Time			K0	Octave Band Spectrum								
			Day	Evening	Night	Day	Evening	Night	Day	Evening	Night		31.5	63	125	250	500	1000	2000	4000	8000
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	(min)	(min)	(min)		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Carmeruse Quarry Process Plant																					
East Plant Building 1of2	RWDI_M27	123.2	105.4	105.4	105.4	0	0	0	60	60	0	3	125.4	124.8	123.5	122.4	121.3	117	115.4	111.3	104
East Plant Building 2of2	RWDI_M27	107.2	84.7	84.7	84.7	-16	-16	-16	60	60	0	3	125.4	124.8	123.5	122.4	121.3	117	115.4	111.3	104
West end of kiln on top of northwest side | RWDI_M28	RWDI_M28	107.7	87.5	87.5	87.5	-4.3	-4.3	-4.3	60	0	0	3	116	115	111	111	108	106.8	105.2	100.1	93.6

APPENDIX D:
Traffic Count

2019 Speed Counts
Oxford Road 6
Location Description : CR6 200m North of Northern Entrance to Carmeuse Pit
Counter #: 6
Counter Input Name: CR6 N CR9 80kph
Speed: 80km/h

Set up location

Basic Axle Classification Report: CR6 N CR9 80KPH

Station ID : CR6 N CR9 80KPH
Info Line 1 : 06
Info Line 2 : 05
GPS Lat/Lon :
DB File : CR6 N CR9 80KPH.DB

Last Connected Device Type : Unicorn
Version Number : 2.94
Serial Number : 91677
Number of Lanes : 2
Posted Speed Limit : 0.0 kph

Lane Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.		SBL	Ax-Ax	122 cm	183 cm	
9.			Ax-Ax	122 cm	183 cm	

Basic Axle Classification Data From: 16:00 - 03-05-2019 To: 09:59 - 13-05-2019

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
03-05-19	16:00	1.	8	90	49	0	4	15	0	0	6	16	3	0	5	0	196
Fri		9.	4	101	69	0	3	7	0	8	11	19	5	0	11	0	238
	17:00	1.	7	100	49	0	5	12	0	1	9	5	0	0	1	0	189
		9.	3	108	47	0	1	4	0	3	5	8	1	0	1	1	182
	18:00	1.	5	70	37	0	1	11	0	1	6	4	1	0	0	0	136
		9.	3	79	34	0	1	3	0	4	3	5	1	0	3	0	136
	19:00	1.	9	39	17	0	2	12	1	0	7	4	0	0	1	0	92
		9.	3	43	20	0	0	3	0	3	4	5	2	0	2	0	85
	20:00	1.	3	24	10	0	1	5	0	0	4	1	0	0	1	0	49
		9.	5	38	18	1	0	5	0	0	5	2	0	0	0	0	74
	21:00	1.	4	16	8	0	0	8	0	0	3	3	1	0	0	0	43
		9.	7	36	20	0	3	4	0	3	4	2	2	0	1	0	82
	22:00	1.	0	22	12	0	0	2	0	0	4	1	0	0	1	0	42
		9.	2	31	16	0	3	3	0	4	3	8	0	0	2	0	72
	23:00	1.	5	10	6	0	0	5	0	0	5	1	0	0	0	0	32
		9.	2	24	9	0	0	3	0	0	3	2	0	0	0	0	43
Daily Total :			70	831	421	1	24	102	1	27	82	86	16	0	29	1	1691
Percent :			4%	49%	25%	0%	1%	6%	0%	2%	5%	5%	1%	0%	2%	0%	
Average :			9	104	53	0	3	13	0	3	10	11	2	0	4	0	212

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
04-05-19	00:00	1.	0	10	8	0	1	0	0	0	1	0	0	0	1	0	21
Sat		9.	2	11	0	0	1	2	0	0	0	0	0	0	1	0	17
	01:00	1.	1	4	2	0	0	2	0	0	2	2	0	0	2	0	15
		9.	0	11	1	0	1	0	0	0	2	2	0	0	1	0	18
	02:00	1.	1	5	2	0	0	1	0	2	1	0	0	0	0	0	12
		9.	3	2	1	0	1	4	0	0	2	0	0	0	2	0	15
	03:00	1.	1	1	0	0	0	2	0	0	2	1	0	0	1	0	8
		9.	1	2	0	0	0	0	0	0	0	0	0	0	1	0	4
	04:00	1.	1	2	7	0	1	1	0	0	1	0	0	0	1	0	14
		9.	1	4	7	0	0	1	0	0	7	0	0	0	0	0	20
	05:00	1.	1	10	4	0	1	1	0	2	0	1	0	0	7	0	27
		9.	0	5	6	0	0	0	0	0	1	1	0	0	0	0	13
	06:00	1.	1	15	14	0	1	1	0	0	2	1	0	0	3	0	38
		9.	1	14	12	0	0	1	0	0	0	1	0	0	0	0	29
	07:00	1.	1	25	14	0	0	0	0	2	2	0	0	0	2	0	46
		9.	1	30	23	0	0	2	0	1	2	5	2	0	3	0	69
	08:00	1.	0	39	28	0	1	0	0	1	2	6	0	0	2	0	79
		9.	3	43	31	1	2	3	0	0	2	3	0	0	4	0	92
	09:00	1.	0	60	35	0	1	0	0	1	2	3	1	0	5	0	108
		9.	1	60	34	1	2	2	0	0	1	2	0	0	3	0	106
	10:00	1.	1	71	32	0	1	2	0	1	3	2	1	1	5	0	120
		9.	0	67	28	0	0	0	0	0	3	2	2	0	3	0	105
	11:00	1.	1	73	37	1	0	1	0	2	1	3	0	0	2	0	121
		9.	1	100	48	0	0	1	0	1	3	8	2	0	3	0	167
	12:00	1.	2	69	37	0	0	2	0	0	1	2	1	0	2	0	116
		9.	2	79	27	0	1	2	0	0	0	2	3	0	1	0	117
	13:00	1.	0	91	45	0	1	0	0	0	1	3	1	0	1	0	143
		9.	2	74	32	0	1	2	0	2	1	2	1	0	1	0	118
	14:00	1.	2	75	25	0	1	1	0	0	1	2	2	0	1	1	111
		9.	0	87	28	0	0	0	0	1	4	1	2	0	2	0	125
	15:00	1.	1	86	31	0	0	1	0	0	0	4	2	0	1	0	126
		9.	2	85	34	1	1	0	1	3	2	4	1	0	2	0	136
	16:00	1.	2	69	27	0	0	1	0	1	1	0	1	0	1	0	103
		9.	0	47	32	0	2	0	0	0	3	1	1	0	1	0	87
	17:00	1.	0	66	23	0	0	0	0	0	3	0	0	0	0	0	92
		9.	0	64	22	0	0	2	0	0	1	0	0	0	0	0	89
	18:00	1.	1	50	21	0	1	2	0	1	0	1	0	0	0	0	77

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
04-05-19	18:00	9.	2	76	27	0	1	1	0	1	2	4	0	0	1	0	115
Sat	19:00	1.	3	43	15	0	0	0	0	0	1	2	1	0	1	0	66
		9.	0	64	21	0	1	0	0	0	0	1	0	0	0	1	88
	20:00	1.	1	42	9	0	0	1	0	0	1	0	0	0	2	0	56
		9.	0	43	18	0	0	0	0	1	0	0	0	0	1	0	63
	21:00	1.	0	25	12	0	0	0	0	0	0	1	0	0	0	0	38
		9.	0	36	13	0	1	0	0	0	3	0	0	0	0	0	53
	22:00	1.	1	32	11	0	0	2	0	0	4	2	0	0	0	0	52
		9.	1	30	7	0	0	0	0	0	0	0	0	0	1	0	39
	23:00	1.	1	40	8	0	1	1	0	0	2	0	0	0	1	0	54
		9.	1	24	10	0	0	1	0	0	1	0	0	0	1	0	38
Daily Total :			47	2061	909	4	26	46	1	23	74	75	24	1	73	2	3366
Percent :			1%	61%	27%	0%	1%	1%	0%	1%	2%	2%	1%	0%	2%	0%	
Average :			2	86	38	0	1	2	0	1	3	3	1	0	3	0	140

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
05-05-19	00:00	1.	0	16	10	0	0	0	0	0	0	0	0	0	1	0	27
Sun		9.	0	13	9	0	1	2	0	0	0	0	0	0	0	0	25
	01:00	1.	1	11	3	0	0	1	0	0	1	0	0	0	1	0	18
		9.	0	9	3	0	0	0	0	0	0	0	0	0	1	0	13
	02:00	1.	1	5	3	0	0	1	0	0	1	0	0	0	1	0	12
		9.	0	7	0	0	0	0	0	0	0	1	0	0	1	0	9
	03:00	1.	0	3	1	0	0	0	1	0	0	0	0	0	0	0	5
		9.	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
	04:00	1.	0	2	1	0	0	0	0	0	1	0	0	0	0	0	4
		9.	0	1	3	0	0	1	0	0	0	0	0	0	0	0	5
	05:00	1.	0	6	3	0	0	0	0	0	0	0	1	0	0	0	10
		9.	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	06:00	1.	0	13	6	0	0	1	0	0	0	0	0	0	0	0	20
		9.	1	7	1	0	1	1	0	0	0	3	0	0	0	0	14
	07:00	1.	1	20	9	0	0	1	0	2	2	1	0	0	0	0	36
		9.	0	12	11	0	0	0	0	0	1	3	0	0	1	0	28
	08:00	1.	1	29	19	0	0	1	0	0	2	1	0	0	0	0	53
		9.	0	25	15	0	0	0	0	0	2	2	0	0	0	0	44
	09:00	1.	1	68	24	0	1	0	0	0	2	1	0	0	0	0	97
		9.	1	38	20	0	0	1	1	0	0	0	4	0	0	0	65
	10:00	1.	4	77	21	0	0	1	0	0	1	3	0	0	1	0	108
		9.	1	60	29	0	2	0	0	0	1	0	0	0	0	0	93
	11:00	1.	4	77	33	0	1	0	0	0	5	2	1	0	2	0	125
		9.	5	70	21	0	1	0	0	0	1	3	2	0	0	1	104
	12:00	1.	0	69	35	0	1	0	0	0	2	2	0	0	0	0	109
		9.	3	74	28	0	1	3	0	1	1	1	0	0	2	0	114
	13:00	1.	7	76	33	0	1	2	0	1	0	2	1	2	1	0	126
		9.	10	79	31	0	0	0	1	1	0	0	0	0	0	0	122
	14:00	1.	2	88	36	0	0	0	0	1	0	2	0	1	0	0	130
		9.	2	74	29	0	0	0	0	2	3	3	0	0	0	0	113
	15:00	1.	6	92	38	0	0	0	0	1	2	0	0	0	0	0	139
		9.	6	68	20	0	0	2	0	1	1	1	2	0	0	0	101
	16:00	1.	9	75	28	0	1	2	0	1	1	1	1	0	1	0	120
		9.	3	71	21	0	1	2	0	0	2	0	0	1	0	0	101
	17:00	1.	3	72	27	0	0	2	0	1	0	1	2	0	0	0	108
		9.	4	65	29	0	0	1	0	3	1	2	1	0	1	0	107
	18:00	1.	5	61	32	0	0	0	0	1	2	1	0	0	1	0	103

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
05-05-19	18:00	9.	2	45	25	0	0	1	0	0	2	1	3	0	2	0	81
Sun	19:00	1.	4	55	21	0	0	0	0	0	3	2	0	0	1	0	86
		9.	1	60	27	0	1	1	0	0	1	1	0	0	3	0	95
	20:00	1.	0	43	26	0	0	0	1	0	2	1	0	0	1	0	74
		9.	1	46	23	0	1	1	0	0	2	1	0	0	2	0	77
	21:00	1.	3	28	14	0	0	3	0	0	2	2	0	0	1	0	53
		9.	1	36	13	0	1	1	1	0	2	0	0	0	0	0	55
	22:00	1.	2	25	8	0	0	4	0	0	2	2	0	0	0	0	43
		9.	0	32	8	0	0	0	0	0	1	1	0	0	0	0	42
	23:00	1.	1	7	5	0	1	1	0	0	0	0	0	0	0	0	15
		9.	2	17	2	0	1	2	0	1	2	0	0	0	2	0	29
Daily Total :			98	1930	804	0	17	39	5	17	55	47	18	4	27	1	3062
Percent :			3%	63%	26%	0%	1%	1%	0%	1%	2%	2%	1%	0%	1%	0%	
Average :			4	80	34	0	1	2	0	1	2	2	1	0	1	0	128

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
06-05-19	00:00	1.	1	4	1	0	0	1	0	0	0	0	0	0	1	0	8
Mon		9.	1	7	1	0	1	1	0	0	0	0	1	0	0	0	12
	01:00	1.	3	2	2	0	1	3	0	0	6	6	0	0	0	0	23
		9.	1	1	1	0	1	1	0	0	0	0	0	0	1	0	6
	02:00	1.	1	1	1	0	0	1	0	0	2	1	0	0	2	0	9
		9.	1	2	3	0	0	1	0	0	1	2	0	0	0	0	10
	03:00	1.	2	1	0	0	1	1	0	0	1	3	0	0	1	0	10
		9.	5	3	1	0	1	3	0	0	0	3	0	0	0	0	16
	04:00	1.	3	9	7	1	0	3	0	1	7	7	0	0	2	0	40
		9.	1	5	4	0	0	1	0	0	1	3	0	0	0	0	15
	05:00	1.	5	19	21	0	2	6	0	0	5	11	0	0	6	0	75
		9.	3	27	13	1	1	5	1	2	6	8	1	0	4	0	72
	06:00	1.	3	61	34	0	1	10	0	1	8	14	1	0	10	0	143
		9.	4	50	58	1	5	9	2	3	3	17	5	0	8	0	165
	07:00	1.	4	81	44	1	4	10	1	7	6	10	1	0	18	0	187
		9.	4	72	66	0	8	7	2	4	9	15	2	0	9	1	199
	08:00	1.	5	70	34	2	6	16	1	3	12	16	3	0	12	0	180
		9.	8	57	48	1	6	15	0	7	15	27	0	0	14	0	198
	09:00	1.	7	45	35	0	4	17	0	4	14	16	0	0	7	0	149
		9.	8	46	32	1	5	13	0	5	12	23	4	0	10	0	159
	10:00	1.	8	37	35	0	5	18	0	3	18	28	3	0	12	0	167
		9.	5	39	33	0	4	8	1	5	17	24	0	0	11	0	147
	11:00	1.	9	41	38	1	3	18	0	4	15	18	2	0	15	0	164
		9.	11	47	43	1	4	13	0	6	10	24	0	0	9	1	169
	12:00	1.	10	43	30	2	4	19	0	1	9	32	2	0	8	0	160
		9.	14	43	32	3	4	17	0	3	13	29	0	1	10	0	169
	13:00	1.	7	47	28	2	1	19	0	2	16	25	0	0	10	0	157
		9.	7	41	38	2	3	9	0	6	13	24	1	0	18	0	162
	14:00	1.	10	67	45	0	5	22	0	1	20	12	2	2	7	0	193
		9.	5	53	30	1	2	11	0	9	13	9	0	2	15	0	150
	15:00	1.	5	69	40	2	7	13	0	1	15	22	2	0	13	1	190
		9.	3	77	43	3	10	5	0	7	11	23	1	0	7	1	191
	16:00	1.	3	92	42	1	6	9	0	2	7	13	2	0	7	1	185
		9.	6	90	43	2	1	14	0	9	5	13	3	0	8	1	195
	17:00	1.	6	91	48	1	3	15	0	1	2	4	2	0	4	1	178
		9.	1	79	47	0	4	1	0	2	4	7	0	1	9	0	155
	18:00	1.	7	48	48	1	3	13	0	0	10	11	0	0	5	0	146

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
06-05-19	18:00	9.	7	61	26	1	1	7	0	5	2	5	0	1	6	0	122
Mon	19:00	1.	6	32	18	0	2	14	0	1	9	11	0	0	2	0	95
		9.	4	38	18	0	0	6	0	4	7	9	0	0	4	0	90
	20:00	1.	3	19	10	0	1	3	0	0	1	2	0	0	0	0	39
		9.	2	28	18	0	3	6	0	3	5	5	0	0	2	0	72
	21:00	1.	4	19	11	0	2	9	0	0	6	2	0	0	1	0	54
		9.	7	24	6	0	4	4	0	4	5	4	0	1	3	0	62
	22:00	1.	7	18	10	0	0	11	0	1	3	1	0	0	0	0	51
		9.	2	22	9	0	3	3	0	4	4	3	0	0	0	0	50
	23:00	1.	6	6	3	0	3	9	0	1	2	4	0	0	0	0	34
		9.	4	13	3	0	0	5	0	4	5	5	0	0	1	0	40
Daily Total :			239	1847	1201	31	135	425	8	126	355	551	38	8	292	7	5263
Percent :			5%	35%	23%	1%	3%	8%	0%	2%	7%	10%	1%	0%	6%	0%	
Average :			10	77	50	1	6	18	0	5	15	23	2	0	12	0	219

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
07-05-19	00:00	1.	2	5	1	0	2	2	0	0	2	2	0	0	1	0	17
Tue		9.	1	9	1	0	2	1	0	0	2	0	0	0	1	0	17
	01:00	1.	1	5	0	0	2	1	0	0	5	3	0	0	1	0	18
		9.	2	0	4	1	0	1	0	0	2	1	0	0	0	0	11
	02:00	1.	4	3	1	0	1	4	0	0	0	0	0	0	0	0	13
		9.	1	3	1	0	1	1	0	1	2	1	0	0	1	0	12
	03:00	1.	2	4	5	0	2	1	0	0	2	4	0	0	1	0	21
		9.	2	3	2	0	0	1	0	0	2	0	0	0	0	0	10
	04:00	1.	1	12	3	1	0	2	0	1	6	5	0	0	4	0	35
		9.	1	8	4	0	0	1	0	0	2	2	0	0	0	0	18
	05:00	1.	1	17	14	0	1	2	0	0	7	13	0	0	5	0	60
		9.	1	25	14	0	0	3	0	0	4	10	0	0	6	0	63
	06:00	1.	4	68	41	1	3	5	0	1	11	12	2	0	9	0	157
		9.	8	54	35	0	6	11	1	2	8	21	0	1	9	0	156
	07:00	1.	5	80	48	0	6	13	1	3	3	21	1	1	7	0	189
		9.	5	84	62	0	7	8	1	10	9	23	2	0	9	0	220
	08:00	1.	7	75	44	0	6	19	1	0	8	22	3	1	12	0	198
		9.	6	58	44	1	9	6	0	4	8	24	3	2	12	0	177
	09:00	1.	6	54	31	0	4	15	0	0	12	24	0	0	11	0	157
		9.	8	50	39	1	8	13	0	3	11	21	0	1	10	2	167
	10:00	1.	11	43	46	1	7	21	0	1	8	24	1	0	11	1	175
		9.	11	47	25	2	4	12	0	5	9	18	2	0	8	1	144
	11:00	1.	4	36	28	0	3	17	0	5	13	21	1	0	9	0	137
		9.	10	43	24	1	5	14	0	8	10	20	1	0	6	0	142
	12:00	1.	7	40	22	0	5	12	0	1	7	19	2	0	12	0	127
		9.	14	43	30	0	13	24	0	4	10	27	0	0	11	1	177
	13:00	1.	12	59	30	0	3	23	0	3	11	17	2	0	13	0	173
		9.	6	52	34	1	3	10	0	6	11	18	4	1	16	1	163
	14:00	1.	5	55	39	0	0	13	0	2	16	18	2	0	10	0	160
		9.	13	47	41	2	7	18	0	10	10	18	2	0	13	0	181
	15:00	1.	4	79	26	0	9	10	0	6	7	20	4	0	6	0	171
		9.	9	79	49	0	5	17	0	13	15	14	2	1	6	1	211
	16:00	1.	8	83	39	0	5	24	0	3	9	11	1	1	10	0	194
		9.	5	86	56	1	5	5	0	8	6	16	5	0	12	0	205
	17:00	1.	3	92	53	1	3	6	0	2	7	13	3	1	4	0	188
		9.	3	81	47	1	1	4	0	2	5	10	1	0	5	2	162
	18:00	1.	5	51	28	0	3	13	0	0	6	10	2	1	2	0	121

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
07-05-19	18:00	9.	8	49	35	1	1	12	0	3	3	5	2	0	3	0	122
Tue	19:00	1.	6	32	15	0	2	11	0	1	2	5	1	0	2	0	77
		9.	3	47	26	0	1	3	1	3	3	8	3	0	6	0	104
	20:00	1.	7	21	14	0	0	9	0	0	11	2	1	0	1	0	66
		9.	10	54	16	0	2	10	0	2	8	9	0	0	4	0	115
	21:00	1.	5	19	6	0	1	9	0	0	4	3	0	0	1	0	48
		9.	4	28	16	0	3	3	0	4	8	5	1	1	2	0	75
	22:00	1.	5	23	8	0	1	11	0	0	5	3	0	0	1	0	57
		9.	3	25	9	0	0	3	0	4	3	6	0	0	2	0	55
	23:00	1.	2	6	5	0	3	5	0	0	3	3	0	0	1	0	28
		9.	3	19	9	0	2	5	0	3	4	4	0	0	1	0	50
Daily Total :			254	1956	1170	16	157	434	5	124	320	556	54	12	277	9	5344
Percent :			5%	37%	22%	0%	3%	8%	0%	2%	6%	10%	1%	0%	5%	0%	
Average :			11	82	49	1	7	18	0	5	13	23	2	1	12	0	224

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
08-05-19	00:00	1.	2	6	0	0	0	2	0	0	4	4	0	0	0	0	18
Wed		9.	2	7	3	0	0	2	0	0	1	2	1	0	0	0	18
	01:00	1.	1	3	0	0	1	2	0	0	3	1	0	0	0	0	11
		9.	3	2	0	1	0	3	0	0	1	7	0	0	0	0	17
	02:00	1.	0	6	2	0	1	0	0	0	1	3	0	0	0	0	13
		9.	3	3	0	0	3	3	0	0	4	0	0	0	1	0	17
	03:00	1.	2	0	2	0	0	2	0	0	5	8	0	0	2	0	21
		9.	0	3	2	0	2	0	0	0	3	3	0	0	0	0	13
	04:00	1.	2	8	4	1	3	1	0	1	1	4	0	0	4	0	29
		9.	2	6	3	0	0	3	0	0	0	4	0	0	4	0	22
	05:00	1.	4	20	12	2	2	5	0	0	4	11	0	0	10	0	70
		9.	7	24	10	0	1	11	0	1	4	4	0	0	2	0	64
	06:00	1.	4	73	42	1	1	8	0	3	10	19	2	0	8	0	171
		9.	7	56	46	0	4	10	0	4	4	13	3	0	2	1	150
	07:00	1.	10	85	41	1	7	15	0	2	10	9	0	0	8	0	188
		9.	6	79	70	0	8	10	1	6	12	27	1	2	14	1	237
	08:00	1.	5	70	35	0	7	13	1	7	11	23	2	2	6	0	182
		9.	9	59	52	1	6	19	0	11	8	33	0	0	7	0	205
	09:00	1.	5	53	34	0	3	16	0	2	11	24	4	0	10	0	162
		9.	12	48	29	1	5	13	2	8	14	19	0	1	14	0	166
	10:00	1.	4	52	31	0	6	19	0	3	14	23	1	0	13	0	166
		9.	12	36	41	3	3	13	0	10	9	17	1	1	14	0	160
	11:00	1.	6	49	34	2	4	19	0	2	18	22	3	2	6	0	167
		9.	10	57	36	1	5	12	0	9	8	13	1	0	10	0	162
	12:00	1.	7	51	37	1	8	14	1	2	18	20	0	0	11	0	170
		9.	17	42	41	2	9	19	0	9	7	25	3	1	11	0	186
	13:00	1.	8	53	27	0	2	22	0	1	13	20	0	0	7	0	153
		9.	10	48	38	0	6	19	1	11	5	23	4	0	20	0	185
	14:00	1.	9	65	41	1	5	23	0	5	18	15	2	0	10	0	194
		9.	8	55	37	2	6	14	1	3	13	21	3	0	17	3	183
	15:00	1.	5	77	42	0	12	13	0	2	16	16	2	1	11	0	197
		9.	5	84	58	1	5	12	1	7	11	12	1	1	16	0	214
	16:00	1.	5	108	50	0	6	15	0	5	12	8	1	2	6	0	218
		9.	5	113	58	2	5	6	0	6	8	18	1	0	10	0	232
	17:00	1.	4	106	47	2	3	5	0	2	9	7	1	0	8	0	194
		9.	6	96	53	1	5	7	0	8	9	15	6	1	10	0	217
	18:00	1.	5	66	40	0	0	7	1	0	14	11	2	0	5	1	152

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
08-05-19	18:00	9.	2	70	28	0	2	7	0	2	1	8	1	0	7	0	128
Wed	19:00	1.	6	40	26	1	3	10	0	0	11	5	1	0	4	0	107
		9.	5	48	20	0	1	4	0	3	11	4	0	0	2	0	98
	20:00	1.	5	17	12	0	0	6	0	1	8	7	0	0	2	0	58
		9.	5	59	15	0	0	10	0	1	9	10	0	0	3	0	112
	21:00	1.	2	17	9	0	1	8	0	0	6	6	0	0	3	0	52
		9.	3	44	21	0	1	5	0	3	5	2	0	0	4	0	88
	22:00	1.	3	23	7	0	0	7	0	1	3	3	0	0	3	0	50
		9.	4	35	11	1	1	5	0	5	5	3	0	0	1	0	71
	23:00	1.	2	8	2	1	0	4	0	0	4	3	1	0	1	0	26
		9.	6	27	9	0	1	7	0	2	3	2	0	0	3	0	60
Daily Total :			255	2157	1258	29	154	450	9	148	379	557	48	14	310	6	5774
Percent :			4%	37%	22%	1%	3%	8%	0%	3%	7%	10%	1%	0%	5%	0%	
Average :			11	90	52	1	6	19	0	6	16	23	2	1	13	0	240

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
09-05-19	00:00	1.	1	4	2	0	0	1	0	0	3	2	0	0	0	0	13
Thu		9.	0	22	5	0	0	0	0	0	3	5	0	0	0	0	35
	01:00	1.	4	1	0	0	0	5	0	0	2	1	0	0	0	0	13
		9.	3	1	2	0	1	3	0	1	3	4	0	1	1	0	20
	02:00	1.	2	4	3	0	0	2	0	0	4	4	0	0	0	0	19
		9.	1	5	0	1	2	1	0	0	3	1	0	0	1	0	15
	03:00	1.	1	5	3	0	1	1	0	1	0	3	0	0	3	0	18
		9.	0	2	1	0	1	0	0	0	3	5	0	0	1	0	13
	04:00	1.	4	7	2	0	4	1	0	2	3	4	0	0	4	0	31
		9.	3	4	2	0	1	3	0	0	3	2	1	0	1	0	20
	05:00	1.	1	22	21	0	1	3	0	2	5	13	1	2	7	0	78
		9.	6	21	16	0	1	9	0	0	4	10	0	0	1	0	68
	06:00	1.	3	67	32	1	0	8	0	0	10	6	0	0	8	1	136
		9.	3	64	41	0	7	3	1	1	6	13	1	0	6	0	146
	07:00	1.	5	79	39	2	5	9	0	1	7	13	0	0	14	0	174
		9.	8	70	57	1	5	13	0	15	7	29	3	2	13	0	223
	08:00	1.	7	76	44	1	12	21	1	2	10	19	1	1	11	0	206
		9.	11	60	51	1	4	17	0	6	7	20	1	0	12	0	190
	09:00	1.	8	53	25	1	8	18	0	7	9	28	1	1	10	0	169
		9.	11	52	37	1	12	16	0	8	15	25	3	0	13	1	194
	10:00	1.	5	56	22	1	6	15	0	11	8	24	5	0	9	0	162
		9.	13	53	37	1	5	16	1	8	10	20	2	2	11	0	179
	11:00	1.	8	49	36	2	6	14	0	5	15	20	0	2	9	0	166
		9.	6	44	31	1	5	16	0	5	17	15	1	0	6	0	147
	12:00	1.	8	52	39	0	6	11	0	4	21	13	4	1	7	1	167
		9.	12	56	31	2	7	17	0	3	15	22	2	0	16	1	184
	13:00	1.	10	46	30	0	6	21	1	5	14	22	2	0	15	1	173
		9.	10	53	40	3	9	17	1	10	12	22	4	0	11	2	194
	14:00	1.	12	71	45	0	2	21	1	3	19	14	2	0	10	1	201
		9.	11	60	37	0	7	17	2	6	6	18	1	1	11	0	177
	15:00	1.	10	73	45	0	12	23	0	9	14	10	2	0	5	0	203
		9.	6	92	62	1	4	12	0	7	9	16	4	1	13	1	228
	16:00	1.	1	109	65	0	7	14	0	4	6	15	2	0	9	0	232
		9.	8	112	57	1	7	12	1	12	3	9	1	0	10	0	233
	17:00	1.	4	105	47	0	2	10	1	0	13	9	2	0	2	0	195
		9.	4	100	53	0	2	4	2	5	1	9	0	1	8	0	189
	18:00	1.	4	68	29	0	2	11	0	1	5	5	2	0	1	0	128

(DEFAULTC)

Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
09-05-19	18:00	9.	5	54	32	0	3	6	0	2	6	10	0	0	5	0	123
Thu	19:00	1.	6	41	24	0	1	11	1	0	5	2	0	0	0	0	91
		9.	4	65	20	0	5	8	0	6	7	6	1	0	7	1	130
	20:00	1.	4	14	11	0	0	5	0	0	7	3	0	0	2	0	46
		9.	5	33	14	0	2	3	0	3	4	5	0	0	2	0	71
	21:00	1.	6	28	9	0	1	12	0	0	5	7	0	0	4	0	72
		9.	2	29	8	0	2	4	0	4	11	2	0	0	0	0	62
	22:00	1.	3	25	11	0	1	10	0	0	6	3	0	0	0	0	59
		9.	4	21	6	0	1	4	0	4	6	2	0	0	1	0	49
	23:00	1.	5	13	6	0	2	7	0	0	5	3	0	0	1	0	42
		9.	4	18	7	0	1	5	0	3	1	4	0	0	1	0	44
Daily Total :			262	2159	1237	21	179	460	13	166	358	517	49	15	282	10	5728
Percent :			5%	38%	22%	0%	3%	8%	0%	3%	6%	9%	1%	0%	5%	0%	
Average :			11	90	52	1	7	19	1	7	15	22	2	1	12	0	240

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
10-05-19	00:00	1.	4	8	2	0	0	5	0	0	1	4	0	0	2	0	26
Fri		9.	2	7	7	0	1	2	0	0	2	2	0	0	1	0	24
	01:00	1.	4	3	2	0	0	5	0	0	4	0	0	0	1	0	19
		9.	2	4	1	0	1	2	0	0	0	3	1	0	0	0	14
	02:00	1.	1	4	1	0	2	1	0	0	1	3	0	0	0	0	13
		9.	4	3	5	0	1	4	0	0	2	2	0	0	0	0	21
	03:00	1.	2	4	0	0	1	1	0	0	0	3	0	1	0	0	12
		9.	2	4	1	0	0	2	0	0	2	4	0	0	1	0	16
	04:00	1.	2	6	4	0	1	2	0	1	1	2	0	0	4	0	23
		9.	3	8	4	0	0	2	0	0	0	2	1	0	2	0	22
	05:00	1.	5	20	11	2	1	6	0	1	2	8	1	1	5	0	63
		9.	3	21	14	0	2	6	0	1	5	6	0	0	2	0	60
	06:00	1.	3	68	40	2	2	5	0	1	12	15	1	0	9	0	158
		9.	7	60	38	0	5	10	0	2	8	13	1	1	4	1	150
	07:00	1.	5	35	23	1	2	10	1	1	4	16	3	0	3	1	105
		9.	5	44	44	0	2	7	3	4	6	9	2	0	10	0	136
	08:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	09:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13:00	1.	6	19	18	4	6	10	1	6	5	5	1	1	6	3	91
		9.	4	33	15	0	0	3	2	4	5	10	2	0	11	14	103
	14:00	1.	16	49	55	3	7	25	0	4	5	19	1	1	6	1	192
		9.	6	78	42	2	3	11	1	9	11	22	4	0	16	0	205
	15:00	1.	8	50	83	7	4	18	2	3	1	15	0	0	4	1	196
		9.	2	100	39	1	0	7	1	7	11	18	2	0	12	2	202
	16:00	1.	6	105	92	6	9	15	1	0	1	13	2	0	6	0	256
		9.	1	114	43	0	3	7	0	5	17	6	4	0	13	0	213
	17:00	1.	12	89	102	2	1	21	2	1	0	10	3	0	8	0	251
		9.	2	90	34	0	2	3	1	6	5	8	1	0	5	1	158
	18:00	1.	19	60	58	1	3	23	0	1	3	3	1	0	2	0	174

(DEFAULTC)

Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
10-05-19	18:00	9.	1	80	33	0	2	1	0	5	7	4	2	0	2	0	137
Fri	19:00	1.	8	33	40	3	1	12	0	0	0	4	0	0	2	0	103
		9.	1	54	34	2	2	1	0	5	5	7	0	0	2	0	113
	20:00	1.	7	21	24	0	0	8	0	1	0	1	1	0	1	0	64
		9.	1	54	15	0	2	1	0	2	7	4	0	0	2	0	88
	21:00	1.	6	23	20	1	0	10	0	0	0	2	0	0	1	1	64
		9.	1	51	22	0	1	0	0	5	10	1	0	0	0	0	91
	22:00	1.	9	10	15	0	0	11	0	0	0	0	0	0	0	0	45
		9.	3	61	13	0	0	2	0	3	2	1	0	0	1	0	86
	23:00	1.	3	5	11	1	0	3	0	1	0	1	0	0	0	0	25
		9.	2	32	13	0	1	2	0	1	1	4	0	0	1	0	57
Daily Total :			178	1510	1018	38	68	264	15	80	146	250	34	5	145	25	3776
Percent :			5%	40%	27%	1%	2%	7%	0%	2%	4%	7%	1%	0%	4%	1%	
Average :			7	63	42	2	3	11	1	3	6	10	1	0	6	1	156

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
11-05-19	00:00	1.	6	4	4	0	1	6	0	0	0	1	0	0	1	0	23
Sat		9.	0	6	1	0	0	0	0	0	0	3	0	0	0	0	10
	01:00	1.	0	4	1	0	1	0	0	0	0	0	0	0	0	0	6
		9.	1	7	4	0	0	1	0	0	6	1	0	0	1	0	21
	02:00	1.	0	1	3	0	1	0	0	0	0	1	0	0	0	0	6
		9.	1	5	2	0	2	1	0	0	0	2	0	0	0	0	13
	03:00	1.	1	1	1	1	0	1	0	0	1	0	0	0	0	0	6
		9.	1	2	0	0	0	1	0	1	3	1	0	0	0	0	9
	04:00	1.	1	2	7	0	1	1	0	1	0	1	0	0	0	0	14
		9.	2	1	2	0	0	3	0	0	5	0	0	0	1	0	14
	05:00	1.	0	7	8	0	0	0	0	0	1	2	0	0	2	0	20
		9.	1	6	3	0	0	1	0	0	2	1	0	0	1	0	15
	06:00	1.	3	18	17	0	0	3	0	0	0	2	0	0	3	0	46
		9.	0	23	11	0	0	1	0	1	0	3	1	0	1	0	41
	07:00	1.	2	27	41	0	3	2	0	1	1	4	0	0	2	0	83
		9.	0	37	28	0	2	0	0	1	4	4	0	0	1	1	78
	08:00	1.	1	33	53	2	3	1	0	0	0	3	0	0	3	0	99
		9.	1	48	28	1	2	1	0	1	4	2	2	0	0	0	90
	09:00	1.	3	57	68	1	2	7	0	1	0	6	2	0	0	0	147
		9.	0	81	46	0	2	1	0	3	1	1	0	0	3	0	138
	10:00	1.	5	61	86	0	4	6	0	4	0	1	2	0	2	0	171
		9.	1	92	35	0	0	0	0	1	4	0	0	0	4	0	137
	11:00	1.	6	49	66	0	5	6	0	0	2	3	0	0	1	0	138
		9.	0	100	42	0	2	1	1	1	2	9	1	0	2	0	161
	12:00	1.	4	70	74	0	2	6	0	1	1	3	0	0	2	2	165
		9.	0	95	38	0	3	0	0	1	3	4	2	1	5	1	153
	13:00	1.	4	53	80	0	1	6	0	3	0	4	2	1	0	0	154
		9.	1	97	37	1	2	2	0	1	4	3	2	0	7	0	157
	14:00	1.	6	58	72	0	3	5	0	0	0	3	0	0	0	1	148
		9.	0	94	27	0	1	1	0	1	2	4	1	0	0	0	131
	15:00	1.	2	52	60	2	4	2	1	0	0	1	3	0	2	0	129
		9.	1	88	38	0	1	0	0	2	4	1	3	0	2	0	140
	16:00	1.	3	44	63	1	0	3	0	0	0	0	1	0	0	0	115
		9.	2	87	31	0	1	3	0	0	5	8	2	0	0	1	140
	17:00	1.	5	67	63	0	0	7	0	1	0	0	0	0	0	0	143
		9.	0	84	23	0	0	1	0	0	5	1	0	0	3	0	117
	18:00	1.	4	59	56	1	1	4	0	0	0	1	1	0	2	0	129

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
11-05-19	18:00	9.	0	129	29	0	0	0	0	0	0	1	2	0	1	0	162
Sat	19:00	1.	3	85	69	0	3	4	0	0	0	1	0	0	1	0	166
		9.	0	134	18	0	0	1	0	0	2	0	1	0	1	1	158
	20:00	1.	6	83	51	0	0	6	0	0	0	0	1	0	2	0	149
		9.	0	119	31	1	0	0	0	0	0	0	2	0	0	0	153
	21:00	1.	4	74	54	0	1	4	0	1	0	1	2	0	0	0	141
		9.	0	113	18	0	1	0	0	0	2	1	0	0	1	0	136
	22:00	1.	7	50	49	0	3	6	0	0	0	1	2	0	2	0	120
		9.	1	92	15	0	0	0	0	0	3	0	3	0	1	0	115
	23:00	1.	1	21	14	1	1	2	0	0	1	0	0	0	0	0	41
		9.	0	44	15	0	1	0	0	0	2	1	0	0	1	0	64
Daily Total :			90	2564	1582	12	60	107	2	27	70	90	38	2	61	7	4712
Percent :			2%	54%	34%	0%	1%	2%	0%	1%	1%	2%	1%	0%	1%	0%	
Average :			4	107	66	1	3	4	0	1	3	4	2	0	3	0	198

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
12-05-19	00:00	1.	3	10	10	0	0	3	0	0	0	0	0	0	1	0	27
Sun		9.	0	41	3	0	0	0	0	0	0	0	1	0	0	0	45
	01:00	1.	2	4	9	0	1	2	0	0	0	0	0	0	1	0	19
		9.	1	11	3	0	0	1	0	0	0	0	1	0	0	0	17
	02:00	1.	0	1	2	0	0	0	0	0	1	0	0	0	0	0	4
		9.	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
	03:00	1.	0	1	5	0	0	0	0	0	0	0	0	0	1	0	7
		9.	0	7	1	0	0	0	0	0	0	1	0	0	0	0	9
	04:00	1.	2	1	5	0	0	2	0	0	0	0	0	0	1	0	11
		9.	1	3	2	0	0	1	0	0	1	0	0	0	1	0	9
	05:00	1.	0	3	5	0	1	0	0	0	0	0	0	0	2	0	11
		9.	1	3	1	0	0	1	0	0	0	3	0	0	0	0	9
	06:00	1.	1	10	10	0	1	1	0	0	0	0	0	0	0	0	23
		9.	0	14	3	0	0	0	0	0	1	0	0	0	0	0	18
	07:00	1.	2	17	14	0	1	2	0	0	2	0	1	0	0	0	39
		9.	1	33	16	0	0	1	0	0	2	4	1	0	0	0	58
	08:00	1.	0	37	37	1	0	1	0	0	0	4	0	0	0	0	80
		9.	0	49	14	0	0	0	0	0	1	0	1	0	1	0	66
	09:00	1.	1	51	57	0	0	1	0	1	0	4	1	0	1	0	117
		9.	1	57	29	0	0	1	0	0	2	1	0	0	0	0	91
	10:00	1.	1	69	87	3	1	0	0	2	0	1	1	0	1	0	166
		9.	1	81	31	0	0	1	0	0	2	1	1	0	0	0	118
	11:00	1.	3	77	80	1	3	4	0	1	0	1	1	0	1	0	172
		9.	1	90	27	0	1	1	0	1	3	2	3	0	1	0	130
	12:00	1.	1	69	89	0	1	2	1	1	1	2	3	0	0	0	170
		9.	0	95	40	0	1	1	0	0	2	0	3	0	1	0	143
	13:00	1.	3	55	82	0	3	3	0	1	1	1	0	0	1	0	150
		9.	0	84	31	0	1	1	1	0	0	1	2	0	0	0	121
	14:00	1.	1	64	70	1	3	3	0	0	0	0	1	0	1	0	144
		9.	0	80	23	0	0	1	1	1	1	0	2	0	2	0	111
	15:00	1.	1	66	80	1	2	0	0	0	0	3	2	0	1	0	156
		9.	0	94	25	0	1	0	0	0	0	1	1	0	1	0	123
	16:00	1.	1	52	84	0	0	4	0	1	0	0	2	0	0	0	144
		9.	0	72	18	0	2	0	0	1	2	0	2	0	0	1	98
	17:00	1.	1	50	59	0	0	1	0	1	0	1	0	0	2	0	115
		9.	0	79	11	0	0	0	0	0	1	0	0	0	0	0	91
	18:00	1.	5	34	52	0	0	6	0	0	0	3	0	1	0	0	101

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
12-05-19	18:00	9.	1	73	25	0	0	1	1	0	3	3	1	0	1	0	109
Sun	19:00	1.	2	42	45	1	0	4	0	0	1	2	1	0	1	0	99
		9.	0	85	16	0	0	1	0	1	0	2	0	0	1	0	106
	20:00	1.	4	40	32	0	0	8	0	0	0	1	0	0	0	0	85
		9.	3	60	23	0	2	1	0	1	0	0	0	0	1	0	91
	21:00	1.	1	24	25	0	1	4	0	0	1	0	0	0	1	0	57
		9.	1	42	13	0	1	1	0	0	2	0	0	0	0	0	60
	22:00	1.	4	22	14	0	0	5	0	0	0	2	0	0	0	0	47
		9.	0	24	10	0	1	1	0	0	1	2	0	0	0	0	39
	23:00	1.	4	3	3	0	0	4	0	0	0	0	0	0	0	0	14
		9.	2	13	4	0	0	2	0	0	4	3	0	0	0	0	28
Daily Total :			57	1999	1325	8	28	77	4	13	35	49	32	1	26	1	3655
Percent :			2%	55%	36%	0%	1%	2%	0%	0%	1%	1%	1%	0%	1%	0%	
Average :			2	83	55	0	1	3	0	1	1	2	1	0	1	0	150

(DEFAULTC) Date	Time	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
13-05-19	00:00	1.	4	4	2	0	1	4	0	0	0	0	0	0	0	0	15
Mon		9.	0	5	0	0	1	0	0	0	0	0	2	0	1	0	9
	01:00	1.	4	3	2	0	0	4	0	0	0	0	0	0	1	0	14
		9.	1	1	0	0	1	1	0	0	0	5	0	0	0	0	9
	02:00	1.	3	2	1	0	1	2	0	0	0	3	0	0	0	0	12
		9.	1	0	0	0	0	1	0	0	1	3	0	0	0	0	6
	03:00	1.	2	3	3	1	0	3	0	0	2	4	0	0	1	0	19
		9.	0	1	2	0	1	0	0	0	2	2	0	0	0	0	8
	04:00	1.	3	6	9	2	1	5	0	1	5	8	0	0	4	0	44
		9.	2	10	4	0	0	2	0	1	1	6	0	0	1	0	27
	05:00	1.	8	15	26	2	3	8	0	0	1	8	0	0	4	0	75
		9.	0	31	11	0	1	2	0	0	5	7	0	0	3	0	60
	06:00	1.	8	47	61	1	4	13	0	0	3	8	2	0	9	0	156
		9.	3	62	48	0	8	7	1	2	14	19	3	0	7	1	175
	07:00	1.	9	44	65	4	8	20	2	2	1	13	3	0	3	0	174
		9.	2	78	49	0	9	10	1	8	8	14	2	0	6	0	187
	08:00	1.	10	36	73	6	12	23	0	5	4	19	1	1	4	0	194
		9.	4	72	37	0	3	8	1	8	8	16	2	0	10	0	169
	09:00	1.	14	30	54	3	3	29	4	0	6	28	1	0	5	0	177
		9.	2	38	40	0	3	6	0	8	20	28	2	0	6	0	153
Daily Total :			80	488	487	19	60	148	9	35	81	191	18	1	65	1	1683
Percent :			5%	29%	29%	1%	4%	9%	1%	2%	5%	11%	1%	0%	4%	0%	
Average :			8	49	49	2	6	15	1	4	8	19	2	0	7	0	170

Basic Axle Class Summary: CR6 N CR9 80KPH

(DEFAULTC) Description	Lane	#1 Cycle	#2 Cars	#3 2A-4T	#4 Buses	#5 2A-SU	#6 3A-SU	#7 4A-SU	#8 4A-ST	#9 5A-ST	#10 6A-ST	#11 5A-MT	#12 6A-MT	#13 Other	Error	Total
TOTAL COUNT :	#1.	900	8984	6283	109	457	1560	30	232	964	1433	163	32	740	20	21907
	#9.	730	10518	5129	70	451	992	42	554	991	1536	206	31	847	50	22147
		1630	19502	11412	179	908	2552	72	786	1955	2969	369	63	1587	70	44054
Percents :	#1.	4%	41%	29%	0%	2%	7%	0%	1%	4%	7%	1%	0%	3%	0%	50%
	#9.	3%	47%	23%	0%	2%	4%	0%	3%	4%	7%	1%	0%	4%	0%	50%
		4%	44%	26%	0%	2%	6%	0%	2%	4%	7%	1%	0%	4%	0%	
Average :	#1.	4	38	27	0	2	7	0	1	4	6	1	0	3	0	93
	#9.	3	45	22	0	2	4	0	2	4	7	1	0	4	0	94
		7	83	49	0	4	11	0	3	8	13	2	0	7	0	187
Days & ADT :	#1.	9.7	2246													
	#9.	9.7	2271													
		9.7	4518													

Basic Speed Classification Report: CR6 N CR9 80KPH

Lane Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.		SBL	Ax-Ax	122 cm	183 cm	
9.			Ax-Ax	122 cm	183 cm	

Basic Speed Classification Data From: 16:00 - 03-05-2019 To: 09:59 - 13-05-2019

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
03-05-19	16:00	1.	1	0	1	0	0	3	40	44	54	45	7	0	0	1	0	0	0	196
Fri		9.	0	0	0	3	5	12	18	31	62	72	26	6	2	1	0	0	0	238
	17:00	1.	0	0	0	0	0	0	16	46	66	48	12	1	0	0	0	0	0	189
		9.	0	0	0	0	2	4	12	26	47	63	22	5	0	0	0	0	1	182
	18:00	1.	0	0	0	0	1	2	5	44	49	30	5	0	0	0	0	0	0	136
		9.	0	0	0	2	0	7	8	24	35	36	19	4	1	0	0	0	0	136
	19:00	1.	0	0	0	0	0	0	16	27	32	11	5	0	1	0	0	0	0	92
		9.	0	0	0	1	0	9	8	10	16	29	9	3	0	0	0	0	0	85
	20:00	1.	0	0	0	0	0	0	1	14	23	6	5	0	0	0	0	0	0	49
		9.	0	0	0	0	1	2	7	20	18	18	6	2	0	0	0	0	0	74
	21:00	1.	0	0	0	0	0	1	3	14	11	12	1	1	0	0	0	0	0	43
		9.	0	0	0	0	1	8	5	10	28	15	10	4	0	0	0	1	0	82
	22:00	1.	0	0	0	0	0	1	2	9	19	8	1	2	0	0	0	0	0	42
		9.	0	0	0	1	1	9	2	19	17	20	1	1	1	0	0	0	0	72
	23:00	1.	0	0	0	0	0	2	3	12	11	3	1	0	0	0	0	0	0	32
		9.	0	0	0	0	0	0	3	14	11	10	5	0	0	0	0	0	0	43
Daily Total :			1	0	1	7	11	60	149	364	499	426	135	29	5	2	0	1	1	1691
Percent :			0%	0%	0%	0%	1%	4%	9%	22%	30%	25%	8%	2%	0%	0%	0%	0%	0%	
Average :			0	0	0	1	1	8	19	46	62	53	17	4	1	0	0	0	0	94

Speeds - Average: 91.7 50% : 92.6 67% : 97.3 85% : 103.0 20kph Pace: 84.6 -104.5 (65.1%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
04-05-19	00:00	1.	0	0	0	0	0	1	4	6	6	4	0	0	0	0	0	0	0	21
Sat		9.	0	0	0	0	0	0	5	1	6	4	1	0	0	0	0	0	0	17
	01:00	1.	0	0	0	0	0	0	5	4	2	2	2	0	0	0	0	0	0	15
		9.	0	0	0	0	1	2	1	7	3	3	1	0	0	0	0	0	0	18
	02:00	1.	0	0	0	1	1	2	0	4	3	0	1	0	0	0	0	0	0	12
		9.	0	0	0	1	0	1	1	4	7	0	1	0	0	0	0	0	0	15
	03:00	1.	0	0	0	0	0	0	1	6	1	0	0	0	0	0	0	0	0	8
		9.	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	0	0	4
	04:00	1.	0	0	0	0	0	2	5	3	2	0	2	0	0	0	0	0	0	14
		9.	0	0	0	0	0	0	2	4	10	3	0	1	0	0	0	0	0	20
	05:00	1.	0	0	0	0	0	1	4	8	6	5	3	0	0	0	0	0	0	27
		9.	0	0	0	0	0	2	1	1	2	4	0	2	0	1	0	0	0	13
	06:00	1.	0	0	0	0	0	0	6	6	14	5	3	3	1	0	0	0	0	38
		9.	0	0	0	0	0	1	0	3	9	13	1	2	0	0	0	0	0	29
	07:00	1.	0	0	0	0	0	1	2	9	15	10	7	1	1	0	0	0	0	46
		9.	0	0	1	0	0	0	2	11	30	17	5	3	0	0	0	0	0	69
	08:00	1.	0	0	0	0	0	0	8	21	24	20	5	1	0	0	0	0	0	79
		9.	0	0	0	0	0	3	6	23	25	24	7	4	0	0	0	0	0	92
	09:00	1.	0	0	0	0	0	3	12	29	36	20	8	0	0	0	0	0	0	108
		9.	0	0	1	0	2	1	5	27	28	24	15	1	0	1	1	0	0	106
	10:00	1.	0	0	0	0	0	0	8	36	47	23	6	0	0	0	0	0	0	120
		9.	0	0	0	0	1	3	2	11	40	32	14	2	0	0	0	0	0	105
	11:00	1.	0	0	0	1	0	1	7	33	47	25	7	0	0	0	0	0	0	121
		9.	0	0	0	2	2	3	4	24	49	55	21	4	3	0	0	0	0	167
	12:00	1.	0	0	0	0	0	1	6	23	44	35	7	0	0	0	0	0	0	116
		9.	0	0	0	0	2	3	3	14	41	38	14	1	0	0	0	1	0	117
	13:00	1.	0	0	0	0	0	0	11	27	59	39	7	0	0	0	0	0	0	143
		9.	0	0	0	1	1	0	4	14	36	48	12	2	0	0	0	0	0	118
	14:00	1.	0	0	0	0	2	2	14	33	39	16	3	1	0	0	0	0	1	111
		9.	0	0	0	0	1	0	4	15	38	43	23	1	0	0	0	0	0	125
	15:00	1.	0	0	0	0	0	2	6	24	55	30	9	0	0	0	0	0	0	126
		9.	0	0	0	1	0	3	3	27	41	40	19	2	0	0	0	0	0	136
	16:00	1.	0	0	0	0	0	1	12	29	35	22	3	1	0	0	0	0	0	103
		9.	0	0	0	0	0	1	4	11	29	26	14	1	1	0	0	0	0	87
	17:00	1.	0	0	0	0	0	0	5	25	32	17	9	2	1	0	1	0	0	92
		9.	0	0	0	0	0	0	2	7	22	41	14	2	1	0	0	0	0	89

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
04-05-19	18:00	1.	0	0	0	0	0	1	3	17	35	14	7	0	0	0	0	0	0	77
Sat		9.	0	0	0	1	4	0	7	12	33	38	16	3	1	0	0	0	0	115
	19:00	1.	0	0	0	0	0	0	5	12	30	16	3	0	0	0	0	0	0	66
		9.	0	0	0	0	0	1	1	9	30	34	9	2	0	1	0	0	1	88
	20:00	1.	0	0	0	0	0	0	3	15	18	12	6	2	0	0	0	0	0	56
		9.	0	0	0	0	0	0	2	7	21	24	8	0	1	0	0	0	0	63
	21:00	1.	0	0	0	0	0	0	4	10	14	8	2	0	0	0	0	0	0	38
		9.	0	0	0	0	0	0	1	12	19	14	6	1	0	0	0	0	0	53
	22:00	1.	0	0	0	0	0	0	9	7	19	12	3	2	0	0	0	0	0	52
		9.	0	0	0	0	0	0	5	2	15	14	1	0	2	0	0	0	0	39
	23:00	1.	0	0	0	0	0	3	2	10	23	14	2	0	0	0	0	0	0	54
		9.	0	0	0	0	0	0	3	4	11	7	11	2	0	0	0	0	0	38
Daily Total :			0	0	2	9	17	45	211	647	1151	896	319	49	12	3	2	1	2	3366
Percent :			0%	0%	0%	0%	1%	1%	6%	19%	34%	27%	9%	1%	0%	0%	0%	0%	0%	
Average :			0	0	0	0	1	2	9	27	48	37	13	2	1	0	0	0	0	212

Speeds - Average: 93.4 50% : 93.8 67% : 98.1 85% : 103.6 20kph Pace: 84.6 -104.5 (70.1%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
05-05-19	00:00	1.	0	0	0	0	0	0	1	1	10	12	2	1	0	0	0	0	0	27
Sun		9.	0	0	0	0	0	0	0	5	9	9	1	1	0	0	0	0	0	25
	01:00	1.	0	0	0	0	0	5	3	5	2	2	0	1	0	0	0	0	0	18
		9.	0	0	0	0	0	0	4	3	4	2	0	0	0	0	0	0	0	13
	02:00	1.	0	0	0	0	0	2	6	1	1	2	0	0	0	0	0	0	0	12
		9.	0	0	0	0	0	0	3	4	1	1	0	0	0	0	0	0	0	9
	03:00	1.	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0	5
		9.	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
	04:00	1.	0	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	4
		9.	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	5
	05:00	1.	0	0	0	0	0	0	2	2	2	3	1	0	0	0	0	0	0	10
		9.	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
	06:00	1.	0	0	0	0	0	1	1	1	6	4	4	3	0	0	0	0	0	20
		9.	0	0	0	0	0	0	2	4	5	2	0	1	0	0	0	0	0	14
	07:00	1.	0	0	0	0	0	0	0	4	17	12	2	0	1	0	0	0	0	36
		9.	0	0	0	0	1	0	2	4	6	13	2	0	0	0	0	0	0	28
	08:00	1.	0	0	0	0	0	0	4	8	20	17	3	0	1	0	0	0	0	53
		9.	0	0	0	0	0	0	0	6	12	13	6	7	0	0	0	0	0	44
	09:00	1.	0	0	0	0	0	0	1	20	30	33	12	1	0	0	0	0	0	97
		9.	0	0	0	0	0	0	2	6	24	25	8	0	0	0	0	0	0	65
	10:00	1.	0	0	0	0	0	0	2	36	47	15	6	1	1	0	0	0	0	108
		9.	0	0	0	0	0	3	3	14	29	28	13	2	1	0	0	0	0	93
	11:00	1.	0	0	0	0	0	4	6	18	42	39	14	1	0	0	1	0	0	125
		9.	0	1	0	0	1	1	4	9	38	33	12	2	1	0	1	0	1	104
	12:00	1.	0	0	0	0	0	0	7	22	43	28	8	0	0	0	0	1	0	109
		9.	0	0	0	0	0	0	5	24	31	38	10	5	1	0	0	0	0	114
	13:00	1.	0	0	0	0	0	3	4	33	52	28	4	2	0	0	0	0	0	126
		9.	0	0	0	0	0	0	4	19	27	50	12	7	2	1	0	0	0	122
	14:00	1.	0	0	0	0	0	0	14	33	43	28	9	1	1	0	1	0	0	130
		9.	0	0	0	1	0	0	3	13	30	45	12	7	0	2	0	0	0	113
	15:00	1.	0	0	0	0	0	0	11	28	41	47	9	2	1	0	0	0	0	139
		9.	0	0	0	1	0	2	2	12	34	33	11	5	0	1	0	0	0	101
	16:00	1.	0	0	0	0	0	0	5	21	49	33	10	2	0	0	0	0	0	120
		9.	0	0	0	0	0	0	5	21	31	34	7	3	0	0	0	0	0	101
	17:00	1.	0	0	0	0	0	1	6	34	36	27	2	1	1	0	0	0	0	108
		9.	0	0	0	0	0	1	4	10	22	53	9	6	2	0	0	0	0	107

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
05-05-19	18:00	1.	0	0	0	0	0	2	0	25	41	27	5	3	0	0	0	0	0	103
Sun		9.	0	0	0	1	0	0	4	11	20	24	16	4	0	1	0	0	0	81
	19:00	1.	0	0	0	0	0	0	8	23	22	21	10	1	0	1	0	0	0	86
		9.	0	0	0	0	0	1	4	11	29	28	15	5	1	1	0	0	0	95
	20:00	1.	0	0	0	0	0	2	5	20	27	15	5	0	0	0	0	0	0	74
		9.	0	0	0	0	0	1	4	14	32	20	5	1	0	0	0	0	0	77
	21:00	1.	0	0	0	0	0	1	7	9	21	11	1	2	1	0	0	0	0	53
		9.	0	0	0	0	0	0	3	12	17	16	4	1	1	0	1	0	0	55
	22:00	1.	0	0	0	0	0	1	0	8	17	13	3	1	0	0	0	0	0	43
		9.	0	0	0	0	1	0	1	5	12	12	7	4	0	0	0	0	0	42
	23:00	1.	0	0	0	0	0	2	2	0	5	5	1	0	0	0	0	0	0	15
		9.	0	0	0	0	3	0	2	5	6	9	2	2	0	0	0	0	0	29
Daily Total :			0	1	0	3	6	33	157	569	997	917	264	86	16	7	4	1	1	3062
Percent :			0%	0%	0%	0%	0%	1%	5%	19%	33%	30%	9%	3%	1%	0%	0%	0%	0%	
Average :			0	0	0	0	0	1	7	24	42	38	11	4	1	0	0	0	0	140

Speeds - Average: 94.5 50% : 94.6 67% : 99.1 85% : 103.9 20kph Pace: 84.6 -104.5 (71.4%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
06-05-19	00:00	1.	0	0	0	0	0	2	0	1	2	2	0	0	0	0	1	0	0	8
Mon		9.	0	0	0	0	0	0	2	1	3	5	1	0	0	0	0	0	0	12
	01:00	1.	0	0	0	0	0	0	4	5	11	3	0	0	0	0	0	0	0	23
		9.	0	0	0	0	0	0	0	5	0	0	0	1	0	0	0	0	0	6
	02:00	1.	0	0	0	0	0	0	2	2	3	1	1	0	0	0	0	0	0	9
		9.	0	0	0	0	1	0	1	1	4	2	1	0	0	0	0	0	0	10
	03:00	1.	0	0	0	0	0	0	0	5	4	1	0	0	0	0	0	0	0	10
		9.	0	0	0	0	0	1	3	2	3	6	1	0	0	0	0	0	0	16
	04:00	1.	0	0	0	0	0	4	5	12	7	11	0	0	1	0	0	0	0	40
		9.	0	0	0	1	0	1	1	2	6	2	2	0	0	0	0	0	0	15
	05:00	1.	0	0	0	0	0	3	7	19	15	25	6	0	0	0	0	0	0	75
		9.	0	0	0	0	4	4	9	9	20	18	2	3	2	1	0	0	0	72
	06:00	1.	0	0	0	0	0	1	16	47	50	25	4	0	0	0	0	0	0	143
		9.	0	0	0	4	9	8	15	19	42	45	16	4	2	1	0	0	0	165
	07:00	1.	0	0	0	1	0	1	15	73	57	33	5	1	1	0	0	0	0	187
		9.	0	0	2	1	8	9	7	33	42	61	26	7	1	1	0	0	1	199
	08:00	1.	0	0	0	0	0	0	16	68	59	31	6	0	0	0	0	0	0	180
		9.	0	1	0	3	16	12	20	41	35	43	23	2	2	0	0	0	0	198
	09:00	1.	0	0	0	0	1	4	25	73	26	15	2	3	0	0	0	0	0	149
		9.	0	0	0	2	12	16	9	35	45	30	7	3	0	0	0	0	0	159
	10:00	1.	0	0	1	1	0	4	28	67	49	15	2	0	0	0	0	0	0	167
		9.	0	0	2	2	6	19	16	23	44	25	8	1	1	0	0	0	0	147
	11:00	1.	0	0	0	0	1	2	31	71	37	21	1	0	0	0	0	0	0	164
		9.	0	0	1	4	13	15	22	33	38	30	8	3	0	0	0	1	1	169
	12:00	1.	0	0	0	2	7	8	23	61	48	11	0	0	0	0	0	0	0	160
		9.	0	0	1	2	10	17	17	39	47	23	7	2	3	1	0	0	0	169
	13:00	1.	0	0	0	0	0	9	31	76	29	11	1	0	0	0	0	0	0	157
		9.	0	0	0	5	7	11	17	44	30	38	8	2	0	0	0	0	0	162
	14:00	1.	0	0	1	11	1	13	38	66	52	9	1	0	1	0	0	0	0	193
		9.	0	0	0	1	8	10	7	41	37	35	9	1	1	0	0	0	0	150
	15:00	1.	0	0	0	0	0	11	37	71	41	23	4	2	0	0	0	0	1	190
		9.	0	0	1	2	6	11	12	40	52	46	13	5	1	0	0	1	1	191
	16:00	1.	0	0	3	3	0	8	28	56	56	26	1	3	0	0	0	0	1	185
		9.	1	0	0	0	3	15	18	39	47	59	8	2	2	0	0	0	1	195
	17:00	1.	0	0	0	0	0	3	7	35	73	47	8	3	0	0	0	1	1	178
		9.	0	0	1	1	3	4	8	28	52	39	16	3	0	0	0	0	0	155

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
06-05-19	18:00	1.	0	0	0	4	0	4	14	44	41	28	7	4	0	0	0	0	0	146
Mon		9.	0	0	0	3	2	9	11	13	34	35	12	2	1	0	0	0	0	122
	19:00	1.	0	0	0	0	0	0	16	33	29	13	3	1	0	0	0	0	0	95
		9.	0	0	0	1	3	8	11	16	18	25	4	3	0	0	0	1	0	90
	20:00	1.	0	0	0	0	0	1	7	10	11	10	0	0	0	0	0	0	0	39
		9.	0	0	0	0	1	10	2	17	18	21	2	1	0	0	0	0	0	72
	21:00	1.	0	0	0	0	1	0	12	16	11	13	0	0	1	0	0	0	0	54
		9.	0	0	0	1	3	9	11	15	13	9	1	0	0	0	0	0	0	62
	22:00	1.	0	0	0	0	0	0	4	25	10	9	2	1	0	0	0	0	0	51
		9.	0	0	0	0	1	4	5	8	18	5	6	3	0	0	0	0	0	50
	23:00	1.	0	0	0	0	0	3	7	8	5	10	0	0	1	0	0	0	0	34
		9.	0	0	0	3	3	8	6	3	9	4	2	2	0	0	0	0	0	40
Daily Total :			1	1	13	58	130	282	603	1451	1383	999	237	68	21	4	1	4	7	5263
Percent :			0%	0%	0%	1%	2%	5%	11%	28%	26%	19%	5%	1%	0%	0%	0%	0%	0%	
Average :			0	0	1	2	5	12	25	60	58	42	10	3	1	0	0	0	0	128

Speeds - Average: 88.2 50% : 89.2 67% : 94.2 85% : 101.0 20kph Pace: 80.4 -100.3 (63.0%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
07-05-19	00:00	1.	0	0	0	0	0	2	4	2	6	3	0	0	0	0	0	0	0	17
Tue		9.	0	0	0	0	0	1	3	3	5	5	0	0	0	0	0	0	0	17
	01:00	1.	0	0	0	0	0	2	1	5	5	4	0	1	0	0	0	0	0	18
		9.	0	0	0	0	0	2	0	6	2	0	1	0	0	0	0	0	0	11
	02:00	1.	0	0	0	0	0	0	0	8	5	0	0	0	0	0	0	0	0	13
		9.	0	0	0	0	1	0	3	2	2	4	0	0	0	0	0	0	0	12
	03:00	1.	0	0	0	0	0	2	4	5	5	5	0	0	0	0	0	0	0	21
		9.	0	0	0	0	0	0	1	4	5	0	0	0	0	0	0	0	0	10
	04:00	1.	0	0	0	0	0	1	10	8	7	8	0	1	0	0	0	0	0	35
		9.	0	0	0	0	1	2	1	6	4	2	2	0	0	0	0	0	0	18
	05:00	1.	0	0	0	0	0	3	7	21	18	6	5	0	0	0	0	0	0	60
		9.	0	1	2	3	2	5	4	16	12	15	3	0	0	0	0	0	0	63
	06:00	1.	0	0	0	0	4	2	27	53	47	19	4	1	0	0	0	0	0	157
		9.	0	0	1	3	4	12	24	38	44	25	4	1	0	0	0	0	0	156
	07:00	1.	0	0	0	0	1	10	35	55	66	20	2	0	0	0	0	0	0	189
		9.	0	0	1	4	17	7	25	43	73	40	6	2	1	0	1	0	0	220
	08:00	1.	0	0	0	0	0	11	46	81	41	15	4	0	0	0	0	0	0	198
		9.	0	0	3	3	13	15	12	36	47	34	10	2	1	0	0	1	0	177
	09:00	1.	0	0	0	0	3	9	41	73	23	5	3	0	0	0	0	0	0	157
		9.	0	1	0	0	5	11	29	47	43	22	5	1	1	0	0	0	2	167
	10:00	1.	0	0	0	0	1	11	55	53	43	10	0	0	0	1	0	0	1	175
		9.	2	0	0	4	7	7	12	49	33	19	7	2	1	0	0	0	1	144
	11:00	1.	0	0	0	0	1	15	36	48	27	8	1	1	0	0	0	0	0	137
		9.	0	0	1	7	8	8	18	45	38	15	1	1	0	0	0	0	0	142
	12:00	1.	0	0	0	0	0	11	24	44	36	11	1	0	0	0	0	0	0	127
		9.	0	0	0	7	6	13	13	64	53	16	3	0	1	0	0	0	1	177
	13:00	1.	1	1	0	0	8	11	36	54	43	15	4	0	0	0	0	0	0	173
		9.	0	0	0	3	11	16	24	31	38	27	9	3	0	0	0	0	1	163
	14:00	1.	0	1	0	0	1	16	39	55	28	16	3	1	0	0	0	0	0	160
		9.	0	0	0	3	8	13	19	35	45	43	9	2	2	0	0	2	0	181
	15:00	1.	0	0	0	0	0	0	37	65	54	9	4	2	0	0	0	0	0	171
		9.	0	0	0	0	8	15	13	30	59	40	38	6	1	0	0	0	1	211
	16:00	1.	0	0	0	0	0	16	23	73	54	24	3	0	0	0	0	1	0	194
		9.	0	0	0	4	7	11	7	25	58	61	20	8	2	2	0	0	0	205
	17:00	1.	0	0	1	11	0	0	20	46	59	44	5	2	0	0	0	0	0	188
		9.	0	0	0	0	3	3	6	17	48	49	30	3	0	0	0	1	2	162

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
07-05-19	18:00	1.	0	0	0	0	0	3	19	41	41	11	4	1	0	0	1	0	0	121
Tue		9.	0	0	1	0	2	10	5	16	28	29	22	7	1	0	0	1	0	122
	19:00	1.	0	0	0	1	0	1	11	21	25	17	1	0	0	0	0	0	0	77
		9.	0	0	0	0	1	9	8	12	17	36	19	2	0	0	0	0	0	104
	20:00	1.	0	0	0	0	0	3	14	21	23	5	0	0	0	0	0	0	0	66
		9.	0	0	0	0	2	7	11	24	27	25	13	6	0	0	0	0	0	115
	21:00	1.	0	0	0	0	0	0	10	13	17	5	2	1	0	0	0	0	0	48
		9.	0	0	0	0	1	7	5	13	26	12	8	3	0	0	0	0	0	75
	22:00	1.	0	0	0	0	2	1	10	21	17	5	1	0	0	0	0	0	0	57
		9.	0	0	0	0	5	4	10	9	6	13	3	3	2	0	0	0	0	55
	23:00	1.	0	0	0	0	0	0	1	16	3	6	1	0	1	0	0	0	0	28
		9.	0	0	0	0	1	7	4	9	12	9	6	1	1	0	0	0	0	50
Daily Total :			3	4	10	53	134	315	767	1462	1418	812	267	64	15	3	2	6	9	5344
Percent :			0%	0%	0%	1%	3%	6%	14%	27%	27%	15%	5%	1%	0%	0%	0%	0%	0%	
Average :			0	0	0	2	6	13	32	61	59	34	11	3	1	0	0	0	0	219

Speeds - Average: 87.3 50% : 88.1 67% : 93.3 85% : 100.3 20kph Pace: 80.4 -100.3 (61.2%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
08-05-19	00:00	1.	0	0	0	0	1	2	1	3	3	8	0	0	0	0	0	0	0	18
Wed		9.	0	0	0	0	1	1	3	2	7	1	3	0	0	0	0	0	0	18
	01:00	1.	0	0	0	0	0	1	3	3	4	0	0	0	0	0	0	0	0	11
		9.	0	0	0	0	1	5	2	1	6	2	0	0	0	0	0	0	0	17
	02:00	1.	0	0	0	0	0	0	4	4	2	2	1	0	0	0	0	0	0	13
		9.	0	0	0	0	0	0	0	5	11	0	0	1	0	0	0	0	0	17
	03:00	1.	0	0	0	0	0	2	3	6	8	2	0	0	0	0	0	0	0	21
		9.	0	0	0	0	4	1	1	3	2	0	1	1	0	0	0	0	0	13
	04:00	1.	0	0	0	0	0	1	5	7	13	2	0	1	0	0	0	0	0	29
		9.	0	0	0	0	1	1	1	2	8	5	3	1	0	0	0	0	0	22
	05:00	1.	0	0	0	0	0	2	9	25	16	15	1	2	0	0	0	0	0	70
		9.	0	0	0	1	1	4	1	12	15	18	6	4	1	1	0	0	0	64
	06:00	1.	0	0	0	0	2	1	24	50	62	24	7	0	0	1	0	0	0	171
		9.	0	0	0	0	3	3	5	23	31	44	24	13	2	1	0	0	1	150
	07:00	1.	0	0	0	0	0	1	32	51	75	27	2	0	0	0	0	0	0	188
		9.	0	0	0	4	8	16	16	34	49	60	35	9	3	2	0	0	1	237
	08:00	1.	0	0	0	0	0	8	29	70	55	17	2	0	1	0	0	0	0	182
		9.	0	1	2	3	14	14	21	34	39	43	26	5	1	2	0	0	0	205
	09:00	1.	0	0	0	0	0	10	31	56	46	17	2	0	0	0	0	0	0	162
		9.	0	0	0	4	11	13	15	26	48	29	12	7	1	0	0	0	0	166
	10:00	1.	0	0	0	0	0	5	37	56	60	8	0	0	0	0	0	0	0	166
		9.	0	0	0	2	5	15	16	23	54	30	9	4	1	0	0	1	0	160
	11:00	1.	0	1	0	0	1	14	29	79	27	12	2	2	0	0	0	0	0	167
		9.	0	0	1	6	6	8	20	29	39	36	14	3	0	0	0	0	0	162
	12:00	1.	0	0	1	0	0	13	29	77	42	8	0	0	0	0	0	0	0	170
		9.	0	1	1	2	10	12	26	36	54	33	8	2	1	0	0	0	0	186
	13:00	1.	0	0	1	1	0	7	33	64	36	8	3	0	0	0	0	0	0	153
		9.	0	0	0	2	12	18	16	25	64	31	12	4	1	0	0	0	0	185
	14:00	1.	0	0	2	0	0	9	48	74	40	17	3	1	0	0	0	0	0	194
		9.	1	0	0	4	11	12	14	23	52	41	15	6	1	0	0	0	3	183
	15:00	1.	2	2	0	2	1	10	48	74	36	15	5	1	0	0	0	1	0	197
		9.	0	0	1	5	5	10	8	30	60	51	34	8	0	1	0	1	0	214
	16:00	1.	0	0	1	0	0	10	49	75	54	26	2	1	0	0	0	0	0	218
		9.	0	0	1	4	5	13	10	25	62	74	27	7	2	1	1	0	0	232
	17:00	1.	0	0	0	0	0	5	20	59	78	25	5	1	0	0	0	1	0	194
		9.	0	0	0	5	6	11	17	27	54	63	26	7	1	0	0	0	0	217

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
08-05-19	18:00	1.	0	0	0	0	1	6	18	58	41	17	9	1	0	0	0	0	1	152
Wed		9.	0	0	0	1	3	6	11	14	35	39	11	5	3	0	0	0	0	128
	19:00	1.	0	0	0	0	0	2	16	29	41	18	1	0	0	0	0	0	0	107
		9.	0	0	0	1	0	9	10	14	29	22	9	4	0	0	0	0	0	98
	20:00	1.	0	1	0	0	0	5	17	14	13	7	0	1	0	0	0	0	0	58
		9.	0	0	1	1	2	5	10	28	33	22	7	2	0	0	1	0	0	112
	21:00	1.	0	0	0	0	0	2	8	20	14	4	3	1	0	0	0	0	0	52
		9.	0	0	0	1	2	6	14	16	24	18	6	1	0	0	0	0	0	88
	22:00	1.	0	0	0	0	0	2	6	18	14	10	0	0	0	0	0	0	0	50
		9.	0	0	0	0	0	8	4	9	21	17	8	2	1	0	1	0	0	71
	23:00	1.	0	0	0	0	0	1	6	2	11	3	1	2	0	0	0	0	0	26
		9.	0	0	0	0	1	5	6	18	9	13	4	4	0	0	0	0	0	60
Daily Total :			3	6	12	49	118	315	752	1433	1597	984	349	114	20	9	3	4	6	5774
Percent :			0%	0%	0%	1%	2%	5%	13%	25%	28%	17%	6%	2%	0%	0%	0%	0%	0%	
Average :			0	0	1	2	5	13	31	60	67	41	15	5	1	0	0	0	0	222

Speeds - Average: 88.7 50% : 89.6 67% : 94.5 85% : 101.6 20kph Pace: 80.4 -100.3 (60.7%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
09-05-19	00:00	1.	0	0	0	0	0	0	2	3	6	2	0	0	0	0	0	0	0	13
Thu		9.	0	0	0	0	1	3	1	6	8	7	7	2	0	0	0	0	0	35
	01:00	1.	0	0	0	0	4	0	3	4	2	0	0	0	0	0	0	0	0	13
		9.	0	0	0	0	1	5	3	6	3	2	0	0	0	0	0	0	0	20
	02:00	1.	0	0	0	0	0	1	1	10	4	3	0	0	0	0	0	0	0	19
		9.	0	0	0	1	0	0	1	6	3	1	1	1	1	0	0	0	0	15
	03:00	1.	0	0	0	0	0	2	3	6	5	1	1	0	0	0	0	0	0	18
		9.	0	0	0	0	1	2	1	4	3	1	1	0	0	0	0	0	0	13
	04:00	1.	0	0	0	0	0	1	4	17	6	3	0	0	0	0	0	0	0	31
		9.	0	0	0	0	0	1	1	9	4	3	2	0	0	0	0	0	0	20
	05:00	1.	0	0	0	0	0	0	7	22	29	17	2	1	0	0	0	0	0	78
		9.	0	0	0	1	3	3	9	13	13	16	8	2	0	0	0	0	0	68
	06:00	1.	0	0	0	0	0	3	15	42	49	20	5	1	0	0	0	0	1	136
		9.	0	0	0	1	2	2	9	23	39	45	20	4	1	0	0	0	0	146
	07:00	1.	0	0	0	0	0	6	32	56	55	17	7	1	0	0	0	0	0	174
		9.	0	0	0	5	21	12	17	40	45	48	27	7	1	0	0	0	0	223
	08:00	1.	0	0	0	0	9	10	52	75	47	12	1	0	0	0	0	0	0	206
		9.	0	0	1	4	16	9	15	34	47	42	18	4	0	0	0	0	0	190
	09:00	1.	0	0	0	0	0	4	45	66	45	7	1	0	1	0	0	0	0	169
		9.	0	1	2	3	10	14	18	42	62	28	11	2	0	0	0	0	1	194
	10:00	1.	0	0	0	0	4	15	35	56	37	10	3	1	1	0	0	0	0	162
		9.	0	0	0	2	8	12	19	49	53	26	6	2	2	0	0	0	0	179
	11:00	1.	0	0	0	0	1	3	35	72	49	4	1	1	0	0	0	0	0	166
		9.	0	0	0	2	8	7	11	29	41	35	12	1	1	0	0	0	0	147
	12:00	1.	0	0	0	0	0	5	25	77	49	10	0	0	0	0	0	0	1	167
		9.	0	0	0	3	13	9	13	44	52	33	11	3	1	1	0	0	1	184
	13:00	1.	1	0	0	2	11	36	66	42	11	3	0	0	0	0	0	0	1	173
		9.	0	0	1	4	15	15	12	52	54	30	7	1	1	0	0	0	2	194
	14:00	1.	1	0	0	0	7	42	62	60	19	8	1	0	0	0	0	0	1	201
		9.	0	1	0	5	8	10	14	26	54	40	12	5	2	0	0	0	0	177
	15:00	1.	0	0	1	0	4	26	57	67	37	11	0	0	0	0	0	0	0	203
		9.	0	0	1	11	12	19	24	50	53	41	11	4	1	0	0	0	1	228
	16:00	1.	0	0	0	5	2	6	57	91	50	16	4	0	1	0	0	0	0	232
		9.	0	0	0	2	8	14	20	45	55	57	27	5	0	0	0	0	0	233
	17:00	1.	0	0	0	0	0	13	19	54	76	30	2	1	0	0	0	0	0	195
		9.	0	0	0	2	6	6	6	24	56	67	15	7	0	0	0	0	0	189

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
09-05-19	18:00	1.	0	1	0	0	1	2	25	37	40	18	4	0	0	0	0	0	0	128
Thu		9.	0	0	1	1	3	9	12	22	33	29	11	2	0	0	0	0	0	123
	19:00	1.	0	0	0	0	0	2	11	26	37	9	6	0	0	0	0	0	0	91
		9.	0	0	0	0	1	7	12	28	26	32	15	7	1	0	0	0	1	130
	20:00	1.	0	0	0	0	0	0	17	15	12	2	0	0	0	0	0	0	0	46
		9.	0	0	0	0	3	6	6	14	23	15	1	2	1	0	0	0	0	71
	21:00	1.	0	0	0	0	1	13	16	25	9	6	2	0	0	0	0	0	0	72
		9.	0	0	0	0	1	5	10	20	15	10	1	0	0	0	0	0	0	62
	22:00	1.	0	0	0	0	2	1	24	15	14	2	0	1	0	0	0	0	0	59
		9.	0	0	0	0	4	8	6	7	14	6	3	1	0	0	0	0	0	49
	23:00	1.	0	0	0	0	0	7	11	15	7	0	2	0	0	0	0	0	0	42
		9.	0	0	0	0	2	5	10	11	7	5	4	0	0	0	0	0	0	44
Daily Total :			2	3	7	54	193	381	874	1557	1458	830	273	69	16	1	0	0	10	5728
Percent :			0%	0%	0%	1%	3%	7%	15%	27%	25%	14%	5%	1%	0%	0%	0%	0%	0%	
Average :			0	0	0	2	8	16	36	65	61	35	11	3	1	0	0	0	0	241

Speeds - Average: 86.8 50% : 87.5 67% : 92.8 85% : 99.9 20kph Pace: 76.5 - 96.4 (60.2%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
10-05-19	00:00	1.	0	0	0	0	3	0	11	8	0	3	1	0	0	0	0	0	0	26
Fri		9.	0	0	0	0	3	2	2	6	7	3	1	0	0	0	0	0	0	24
	01:00	1.	0	0	0	0	3	4	4	4	2	2	0	0	0	0	0	0	0	19
		9.	0	0	0	1	2	1	2	3	3	1	0	1	0	0	0	0	0	14
	02:00	1.	0	0	0	0	0	0	4	8	0	1	0	0	0	0	0	0	0	13
		9.	0	0	0	0	0	4	3	7	3	1	2	1	0	0	0	0	0	21
	03:00	1.	0	0	0	0	0	0	4	6	2	0	0	0	0	0	0	0	0	12
		9.	0	0	0	0	1	1	1	6	5	1	1	0	0	0	0	0	0	16
	04:00	1.	0	0	0	0	0	3	3	9	6	2	0	0	0	0	0	0	0	23
		9.	0	0	0	0	2	0	6	5	5	4	0	0	0	0	0	0	0	22
	05:00	1.	0	0	0	0	0	1	9	23	15	13	2	0	0	0	0	0	0	63
		9.	0	0	0	0	0	5	8	12	17	16	1	1	0	0	0	0	0	60
	06:00	1.	0	0	0	0	0	8	20	51	51	21	6	1	0	0	0	0	0	158
		9.	0	0	0	1	3	5	16	31	35	39	17	2	0	0	0	0	1	150
	07:00	1.	0	0	0	0	4	10	29	34	13	11	3	0	0	0	0	0	1	105
		9.	1	0	1	3	11	7	11	24	30	37	5	6	0	0	0	0	0	136
	08:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	09:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13:00	1.	1	0	0	0	9	16	16	8	12	2	0	4	5	3	2	10	3	91
		9.	0	1	8	8	14	10	21	12	8	3	0	2	0	0	0	2	14	103
	14:00	1.	0	0	0	0	0	0	5	38	58	58	26	4	2	0	0	0	1	192
		9.	0	1	1	8	15	23	27	42	50	26	7	4	1	0	0	0	0	205
	15:00	1.	0	0	0	0	0	0	8	25	54	61	35	10	1	1	0	0	1	196
		9.	0	0	1	5	11	7	29	60	55	22	8	2	0	0	0	0	2	202
	16:00	1.	0	0	0	0	0	0	3	18	66	108	46	13	1	1	0	0	0	256
		9.	0	0	1	4	9	7	20	50	54	45	22	1	0	0	0	0	0	213
	17:00	1.	0	0	0	0	0	0	1	13	68	100	50	14	4	1	0	0	0	251
		9.	0	0	0	2	3	8	11	33	52	35	10	0	3	0	0	0	1	158

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
10-05-19	18:00	1.	0	0	0	0	0	2	1	19	33	59	46	10	2	1	1	0	0	174
Fri		9.	0	1	0	2	4	4	14	26	35	30	13	3	4	0	0	1	0	137
	19:00	1.	2	1	0	2	2	3	3	6	25	28	15	11	4	0	0	1	0	103
		9.	0	1	1	3	4	6	9	25	38	17	7	1	1	0	0	0	0	113
	20:00	1.	0	0	0	2	0	0	5	6	18	21	5	7	0	0	0	0	0	64
		9.	0	0	0	1	2	5	10	16	23	19	9	1	2	0	0	0	0	88
	21:00	1.	0	0	0	0	0	0	6	8	20	16	10	2	0	1	0	0	1	64
		9.	0	0	1	1	0	7	9	13	32	20	5	2	0	0	0	1	0	91
	22:00	1.	0	0	0	0	0	0	1	4	10	14	12	3	1	0	0	0	0	45
		9.	0	0	0	0	2	5	8	13	26	27	5	0	0	0	0	0	0	86
	23:00	1.	0	0	0	0	0	0	3	0	7	7	7	0	1	0	0	0	0	25
		9.	0	0	0	0	1	4	3	11	18	10	5	5	0	0	0	0	0	57
Daily Total :			4	5	14	43	108	158	346	683	956	883	382	111	32	8	3	15	25	3776
Percent :			0%	0%	0%	1%	3%	4%	9%	18%	25%	23%	10%	3%	1%	0%	0%	0%	1%	
Average :			0	0	1	2	5	7	14	28	40	37	16	5	1	0	0	1	1	238

Speeds - Average: 90.4 50% : 93.0 67% : 98.5 85% : 105.0 20kph Pace: 84.6 -104.5 (57.4%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
11-05-19	00:00	1.	0	0	0	0	0	0	2	2	6	9	3	0	0	1	0	0	0	23
Sat		9.	0	0	0	1	0	0	1	1	5	2	0	0	0	0	0	0	0	10
	01:00	1.	0	0	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	6
		9.	0	0	0	2	1	2	3	4	7	1	0	1	0	0	0	0	0	21
	02:00	1.	0	0	0	0	0	0	1	1	0	3	1	0	0	0	0	0	0	6
		9.	0	0	0	0	2	1	2	3	4	0	1	0	0	0	0	0	0	13
	03:00	1.	0	0	0	0	0	0	2	1	1	2	0	0	0	0	0	0	0	6
		9.	0	0	0	0	0	0	1	3	3	1	1	0	0	0	0	0	0	9
	04:00	1.	0	0	0	0	0	0	0	1	3	4	3	3	0	0	0	0	0	14
		9.	0	0	0	0	2	0	3	8	0	0	1	0	0	0	0	0	0	14
	05:00	1.	0	0	0	0	0	0	0	0	6	5	5	2	2	0	0	0	0	20
		9.	0	0	0	1	0	1	2	5	1	4	0	1	0	0	0	0	0	15
	06:00	1.	0	0	0	0	0	0	2	6	6	14	11	4	3	0	0	0	0	46
		9.	0	0	0	0	1	2	3	5	13	11	5	1	0	0	0	0	0	41
	07:00	1.	0	0	0	0	0	0	1	6	12	21	26	12	3	2	0	0	0	83
		9.	0	0	0	1	1	1	5	14	15	21	12	4	3	0	0	0	1	78
	08:00	1.	0	0	0	0	0	0	0	5	19	19	34	13	9	0	0	0	0	99
		9.	0	0	0	0	1	6	5	20	27	23	7	1	0	0	0	0	0	90
	09:00	1.	0	0	0	0	0	0	0	8	24	65	38	8	4	0	0	0	0	147
		9.	0	0	0	2	0	3	6	22	43	40	20	2	0	0	0	0	0	138
	10:00	1.	0	0	0	3	1	0	1	10	25	71	42	15	1	1	1	0	0	171
		9.	0	0	0	1	0	3	12	21	47	40	9	2	2	0	0	0	0	137
	11:00	1.	0	0	0	0	0	0	0	14	25	50	36	13	0	0	0	0	0	138
		9.	0	0	0	0	5	5	6	36	53	38	18	0	0	0	0	0	0	161
	12:00	1.	0	0	0	0	0	2	0	0	41	64	40	13	3	0	0	0	2	165
		9.	1	0	1	6	2	3	4	30	53	43	8	0	0	1	0	0	1	153
	13:00	1.	0	0	0	0	0	0	9	9	35	64	30	5	2	0	0	0	0	154
		9.	0	0	0	7	1	9	10	27	42	38	17	5	1	0	0	0	0	157
	14:00	1.	0	0	0	0	0	0	2	10	30	58	39	5	1	1	1	0	1	148
		9.	0	0	0	0	1	2	11	31	37	37	10	2	0	0	0	0	0	131
	15:00	1.	0	0	0	0	0	0	0	8	30	36	41	13	1	0	0	0	0	129
		9.	0	0	1	0	2	2	5	34	47	33	14	0	1	1	0	0	0	140
	16:00	1.	0	0	0	0	0	0	1	5	20	43	31	10	4	1	0	0	0	115
		9.	0	0	0	2	4	7	7	24	39	33	19	4	0	0	0	0	1	140
	17:00	1.	0	0	0	0	0	0	0	9	25	60	33	13	1	2	0	0	0	143
		9.	0	0	0	0	2	2	11	19	36	32	10	4	1	0	0	0	0	117

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
11-05-19	18:00	1.	0	0	0	0	0	0	2	5	20	38	46	13	3	1	1	0	0	129
Sat		9.	0	0	0	0	0	0	5	30	54	49	19	3	1	0	1	0	0	162
	19:00	1.	0	0	0	0	0	0	0	12	30	60	43	15	5	0	0	1	0	166
		9.	0	0	0	0	1	0	9	19	53	43	22	6	2	1	1	0	1	158
	20:00	1.	0	0	0	0	0	0	0	8	38	40	44	14	3	2	0	0	0	149
		9.	0	0	0	0	0	0	4	28	42	51	25	2	1	0	0	0	0	153
	21:00	1.	0	0	0	0	0	0	1	14	28	47	35	14	0	0	0	2	0	141
		9.	0	0	0	0	2	1	12	28	47	35	10	1	0	0	0	0	0	136
	22:00	1.	0	0	0	0	0	0	2	5	28	41	29	11	3	1	0	0	0	120
		9.	0	1	0	0	1	0	5	21	38	29	16	4	0	0	0	0	0	115
	23:00	1.	0	0	0	0	0	0	0	2	12	6	17	3	0	1	0	0	0	41
		9.	0	0	0	0	0	1	10	6	23	16	8	0	0	0	0	0	0	64
Daily Total :			1	1	2	26	30	53	168	580	1195	1442	880	243	60	16	5	3	7	4712
Percent :			0%	0%	0%	1%	1%	1%	4%	12%	25%	31%	19%	5%	1%	0%	0%	0%	0%	
Average :			0	0	0	1	1	2	7	24	50	60	37	10	3	1	0	0	0	158

Speeds - Average: 97.2 50% : 98.3 67% : 102.7 85% : 109.3 20kph Pace: 88.6 -108.5 (65.2%)

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
			0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Date	Time	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
12-05-19	00:00	1.	0	0	0	0	0	0	0	0	8	10	5	2	0	0	1	1	0	27
Sun		9.	0	0	0	0	0	1	2	14	9	13	4	1	1	0	0	0	0	45
	01:00	1.	0	0	0	0	0	0	0	3	5	4	4	3	0	0	0	0	0	19
		9.	0	0	0	1	0	0	2	4	7	0	3	0	0	0	0	0	0	17
	02:00	1.	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	4
		9.	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0	0	7
	03:00	1.	0	0	0	0	0	0	1	1	0	3	2	0	0	0	0	0	0	7
		9.	0	0	0	0	0	0	0	3	2	1	1	1	1	0	0	0	0	9
	04:00	1.	0	0	0	0	0	0	0	1	5	0	4	1	0	0	0	0	0	11
		9.	0	0	0	0	0	0	2	4	3	0	0	0	0	0	0	0	0	9
	05:00	1.	0	0	0	0	0	0	0	1	3	1	2	3	0	0	1	0	0	11
		9.	0	0	0	2	0	1	0	4	0	2	0	0	0	0	0	0	0	9
	06:00	1.	0	0	0	0	0	0	1	3	4	4	6	3	1	0	1	0	0	23
		9.	0	0	0	0	0	1	2	7	5	2	1	0	0	0	0	0	0	18
	07:00	1.	0	0	0	0	0	0	0	1	13	8	12	4	0	1	0	0	0	39
		9.	0	0	0	0	1	4	3	7	13	17	10	2	1	0	0	0	0	58
	08:00	1.	0	0	0	0	0	1	0	6	11	24	27	9	1	0	1	0	0	80
		9.	0	2	0	1	0	1	3	9	22	17	8	3	0	0	0	0	0	66
	09:00	1.	0	0	0	0	0	0	0	6	18	36	36	15	4	0	2	0	0	117
		9.	0	0	0	0	1	2	3	16	25	29	14	1	0	0	0	0	0	91
	10:00	1.	0	0	0	0	0	0	0	1	28	67	50	17	3	0	0	0	0	166
		9.	0	0	0	0	0	1	8	24	43	27	13	2	0	0	0	0	0	118
	11:00	1.	0	0	0	0	0	0	1	14	38	65	36	15	3	0	0	0	0	172
		9.	0	0	0	2	2	0	7	24	38	39	14	4	0	0	0	0	0	130
	12:00	1.	0	0	1	0	6	2	0	7	33	64	43	11	3	0	0	0	0	170
		9.	0	0	0	0	0	2	7	19	34	57	17	6	0	0	1	0	0	143
	13:00	1.	0	0	0	1	0	0	0	5	20	50	56	14	2	2	0	0	0	150
		9.	0	0	1	1	0	0	5	25	40	34	9	5	0	1	0	0	0	121
	14:00	1.	0	0	0	0	0	0	1	9	36	47	35	11	4	1	0	0	0	144
		9.	0	0	1	0	0	3	7	23	39	29	8	1	0	0	0	0	0	111
	15:00	1.	0	0	0	0	0	0	0	5	32	58	43	16	2	0	0	0	0	156
		9.	0	0	0	0	0	0	7	15	40	44	15	2	0	0	0	0	0	123
	16:00	1.	0	0	0	0	0	0	0	13	31	44	37	18	1	0	0	0	0	144
		9.	0	0	0	0	0	2	8	22	22	32	10	0	1	0	0	0	1	98
	17:00	1.	0	0	0	0	0	0	0	5	23	35	30	20	2	0	0	0	0	115
		9.	0	0	0	0	0	0	7	8	33	24	14	5	0	0	0	0	0	91

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
12-05-19	18:00	1.	0	0	0	0	0	0	2	3	11	37	38	9	0	1	0	0	0	101
Sun		9.	0	0	0	0	2	0	10	18	28	37	13	1	0	0	0	0	0	109
	19:00	1.	0	0	0	0	0	0	1	6	21	36	24	11	0	0	0	0	0	99
		9.	0	0	0	2	1	0	7	22	25	35	12	2	0	0	0	0	0	106
	20:00	1.	0	0	0	0	0	0	0	4	17	30	22	11	1	0	0	0	0	85
		9.	0	0	0	0	0	0	5	21	29	22	10	2	2	0	0	0	0	91
	21:00	1.	0	0	0	0	0	0	1	4	11	17	20	3	1	0	0	0	0	57
		9.	0	0	0	0	1	0	2	15	22	15	4	1	0	0	0	0	0	60
	22:00	1.	0	0	0	0	0	0	1	9	10	15	9	3	0	0	0	0	0	47
		9.	0	0	0	0	1	0	4	7	13	10	2	2	0	0	0	0	0	39
	23:00	1.	0	0	0	0	0	0	0	2	5	5	1	1	0	0	0	0	0	14
		9.	0	0	0	0	2	4	7	3	6	4	2	0	0	0	0	0	0	28
Daily Total :			0	2	3	10	17	25	117	426	883	1153	729	241	34	6	7	1	1	3655
Percent :			0%	0%	0%	0%	0%	1%	3%	12%	24%	32%	20%	7%	1%	0%	0%	0%	0%	
Average :			0	0	0	0	1	1	5	18	37	48	30	10	1	0	0	0	0	196

Speeds - Average: 98.2 50% : 99.0 67% : 103.3 85% : 109.8 20kph Pace: 88.6 -108.5 (65.5%)

(DEFAULTX)

Date	Time	Lane	#1 0.0 - 32.1	#2 32.2 - 40.1	#3 40.2 - 48.1	#4 48.2 - 56.2	#5 56.3 - 64.2	#6 64.3 - 72.3	#7 72.4 - 80.3	#8 80.4 - 88.4	#9 88.5 - 96.4	#10 96.5 - 104.5	#11 104.6 - 112.5	#12 112.6 - 120.6	#13 120.7 - 128.6	#14 128.7 - 136.7	#15 136.8 - 144.7	#16 Other	Error	Total
13-05-19	00:00	1.	0	0	0	0	0	2	0	3	1	5	4	0	0	0	0	0	0	15
Mon		9.	0	0	0	0	0	0	0	4	1	3	1	0	0	0	0	0	0	9
	01:00	1.	0	0	0	0	0	0	1	1	8	2	1	1	0	0	0	0	0	14
		9.	0	0	0	1	2	0	3	2	1	0	0	0	0	0	0	0	0	9
	02:00	1.	0	0	0	0	0	0	2	2	4	1	3	0	0	0	0	0	0	12
		9.	0	0	0	0	0	1	4	1	0	0	0	0	0	0	0	0	0	6
	03:00	1.	0	0	0	0	0	0	1	2	5	7	3	1	0	0	0	0	0	19
		9.	0	0	0	0	1	1	1	1	1	1	2	0	0	0	0	0	0	8
	04:00	1.	0	0	0	0	0	0	6	13	8	10	5	2	0	0	0	0	0	44
		9.	0	0	0	0	0	2	4	11	5	3	2	0	0	0	0	0	0	27
	05:00	1.	0	0	0	0	0	2	1	8	20	19	9	13	2	1	0	0	0	75
		9.	0	0	2	0	4	3	7	15	16	9	3	1	0	0	0	0	0	60
	06:00	1.	0	0	0	0	0	0	6	12	37	55	32	10	2	0	1	1	0	156
		9.	0	0	0	3	10	7	23	35	44	32	17	3	0	0	0	0	1	175
	07:00	1.	0	0	0	0	0	0	2	17	64	59	19	6	5	1	1	0	0	174
		9.	0	0	0	4	7	8	28	27	42	50	19	1	1	0	0	0	0	187
	08:00	1.	0	0	0	0	0	0	11	16	51	60	44	11	1	0	0	0	0	194
		9.	0	0	1	7	12	11	19	42	46	21	9	0	1	0	0	0	0	169
	09:00	1.	0	0	0	0	1	0	4	17	58	69	21	4	3	0	0	0	0	177
		9.	0	0	3	5	12	11	23	40	29	21	6	2	1	0	0	0	0	153
Daily Total :			0	0	6	20	49	48	146	269	441	427	200	55	16	2	2	1	1	1683
Percent :			0%	0%	0%	1%	3%	3%	9%	16%	26%	25%	12%	3%	1%	0%	0%	0%	0%	
Average :			0	0	1	2	5	5	15	27	44	43	20	6	2	0	0	0	0	151

Speeds - Average: 92.5 50% : 94.0 67% : 99.5 85% : 105.9 20kph Pace: 84.6 -104.5 (59.2%)

Basic Speed Class Summary: CR6 N CR9 80KPH

(DEFAULTX)		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
		0.0 -	32.2 -	40.2 -	48.2 -	56.3 -	64.3 -	72.4 -	80.4 -	88.5 -	96.5 -	104.6 -	112.6 -	120.7 -	128.7 -	136.8 -			
Description	Lane	32.1	40.1	48.1	56.2	64.2	72.3	80.3	88.4	96.4	104.5	112.5	120.6	128.6	136.7	144.7	Other	Error	Total
TOTAL COUNT :	#1.	9	8	14	54	117	638	2541	5347	5915	4400	2024	617	131	32	19	21	20	21907
	#9.	6	15	56	278	696	1077	1749	4094	6063	5369	2011	512	116	29	10	16	50	22147
		15	23	70	332	813	1715	4290	9441	11978	9769	4035	1129	247	61	29	37	70	44054
Percents :	#1.	0%	0%	0%	0%	1%	3%	12%	24%	27%	20%	9%	3%	1%	0%	0%	0%	0%	50%
	#9.	0%	0%	0%	1%	3%	5%	8%	18%	27%	24%	9%	2%	1%	0%	0%	0%	0%	50%
		0%	0%	0%	1%	2%	4%	10%	21%	27%	22%	9%	3%	1%	0%	0%	0%	0%	
Average :	#1.	0	0	0	0	1	3	11	23	25	19	9	3	1	0	0	0	0	95
	#9.	0	0	0	1	3	5	7	17	26	23	9	2	0	0	0	0	0	93
		0	0	0	1	4	8	18	40	51	42	18	5	1	0	0	0	0	188
Days & ADT :	#1.	9.7	2246																
	#9.	9.7	2271																
		9.7	4518																
Avg,50,67,85%:	#1.	91.4	91.6	96.6	103.9	80.4	-100.3	61%											
Pace (pace %)	#9.	90.7	92.7	97.8	103.8	84.6	-104.5	61%											
		91.1	92.2	97.2	103.8	84.6	-104.5	60%											

Basic Length Classification Report: CR6 N CR9 80KPH

Lane Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.		SBL	Ax-Ax	122 cm	183 cm	
9.			Ax-Ax	122 cm	183 cm	

Basic Length Classification Data From: 16:00 - 03-05-2019 To: 09:59 - 13-05-2019

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
03-05-19	16:00	1.	0	6	80	50	6	14	3	7	0	9	18	2	1	0	196
Fri		9.	0	4	92	73	2	15	3	2	6	11	21	5	4	0	238
	17:00	1.	0	7	93	49	6	11	3	5	0	7	7	1	0	0	189
		9.	0	2	99	51	1	5	5	3	2	4	8	1	0	1	182
	18:00	1.	0	5	66	34	2	8	3	7	2	8	1	0	0	0	136
		9.	0	3	74	33	3	8	0	3	2	2	7	1	0	0	136
	19:00	1.	0	7	34	22	6	7	2	2	0	4	7	0	1	0	92
		9.	0	3	36	23	1	7	0	3	0	3	7	2	0	0	85
	20:00	1.	0	3	21	10	3	2	3	1	0	3	2	1	0	0	49
		9.	0	5	38	16	2	4	1	1	0	4	3	0	0	0	74
	21:00	1.	0	4	14	10	1	5	2	0	0	4	3	0	0	0	43
		9.	0	7	31	23	2	10	0	1	0	4	3	0	1	0	82
	22:00	1.	0	0	22	11	0	1	2	0	0	3	2	1	0	0	42
		9.	0	2	31	15	2	7	0	1	1	5	6	1	1	0	72
	23:00	1.	0	5	10	6	3	2	0	0	0	3	3	0	0	0	32
		9.	0	2	22	11	2	1	0	0	0	2	3	0	0	0	43
Daily Total :			0	65	763	437	42	107	27	36	13	76	101	15	8	1	1691
Percent :			0%	4%	45%	26%	2%	6%	2%	2%	1%	4%	6%	1%	0%	0%	
Average :			0	8	95	55	5	13	3	5	2	10	13	2	1	0	212

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
			0 -	182 -	304 -	456 -	609 -	761 -	913 -	1218 -	1523 -	1828 -	2133 -	2437 -			
Date	Time	Lane	181cm	303cm	455cm	608cm	760cm	912cm	1217cm	1522cm	1827cm	2132cm	2436cm	2741cm	Other	Error	Total
04-05-19	00:00	1.	0	0	9	6	1	1	0	1	1	1	0	1	0	0	21
Sat		9.	0	2	7	4	2	1	0	0	0	0	0	1	0	0	17
	01:00	1.	0	1	4	2	1	1	0	0	1	2	1	2	0	0	15
		9.	0	0	10	2	1	0	0	0	0	1	3	1	0	0	18
	02:00	1.	0	1	5	1	1	1	0	1	1	0	1	0	0	0	12
		9.	0	3	1	2	4	1	0	0	0	1	2	1	0	0	15
	03:00	1.	0	1	1	0	0	2	0	0	0	1	2	1	0	0	8
		9.	0	0	2	1	0	0	0	0	0	0	0	1	0	0	4
	04:00	1.	0	1	2	5	4	0	0	1	0	0	0	1	0	0	14
		9.	0	1	4	7	1	0	0	1	1	4	1	0	0	0	20
	05:00	1.	0	1	10	3	1	1	0	3	0	0	1	5	2	0	27
		9.	0	0	5	6	0	0	0	0	0	1	1	0	0	0	13
	06:00	1.	0	1	14	15	1	0	0	1	0	3	2	1	0	0	38
		9.	0	1	14	11	0	1	0	1	0	0	1	0	0	0	29
	07:00	1.	0	1	23	14	0	1	1	2	0	0	2	2	0	0	46
		9.	0	1	29	22	0	1	3	2	2	7	0	1	1	0	69
	08:00	1.	0	0	36	31	0	1	1	1	0	2	6	1	0	0	79
		9.	0	3	39	27	2	4	3	5	1	0	4	3	1	0	92
	09:00	1.	0	0	52	40	0	2	1	2	3	2	2	3	1	0	108
		9.	0	1	55	28	2	1	4	9	1	1	1	2	1	0	106
	10:00	1.	0	1	64	31	1	1	6	5	1	1	4	5	0	0	120
		9.	0	0	61	28	0	2	3	2	0	2	4	1	2	0	105
	11:00	1.	0	1	70	35	1	3	2	2	1	2	2	2	0	0	121
		9.	0	1	90	49	0	0	6	5	1	2	10	3	0	0	167
	12:00	1.	0	2	66	36	1	2	3	0	0	1	4	1	0	0	116
		9.	0	2	71	31	0	5	2	0	3	1	1	1	0	0	117
	13:00	1.	0	0	82	48	1	2	2	2	0	2	3	0	1	0	143
		9.	0	2	66	35	0	6	1	3	1	1	2	1	0	0	118
	14:00	1.	0	2	66	30	0	3	2	1	1	3	1	0	1	1	111
		9.	0	0	83	28	1	0	1	5	2	1	2	2	0	0	125
	15:00	1.	0	1	75	39	0	1	3	1	1	1	4	0	0	0	126
		9.	0	4	76	39	0	3	3	2	1	1	6	1	0	0	136
	16:00	1.	0	3	62	32	0	1	0	1	1	0	2	1	0	0	103
		9.	0	0	44	29	1	2	3	2	2	3	0	1	0	0	87
	17:00	1.	0	0	57	30	0	2	0	0	0	3	0	0	0	0	92
		9.	0	0	60	24	0	2	1	1	0	0	1	0	0	0	89

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
04-05-19	18:00	1.	0	1	46	23	0	3	0	3	0	0	1	0	0	0	77
Sat		9.	0	2	71	31	2	0	0	1	0	5	2	1	0	0	115
	19:00	1.	0	3	38	17	0	1	0	3	0	1	2	1	0	0	66
		9.	0	0	57	25	0	1	3	0	0	0	1	0	0	1	88
	20:00	1.	0	1	37	13	0	1	0	1	0	1	0	1	1	0	56
		9.	0	0	37	24	0	0	0	1	0	0	0	1	0	0	63
	21:00	1.	0	0	25	10	0	0	1	1	0	1	0	0	0	0	38
		9.	0	0	34	15	1	0	0	0	0	3	0	0	0	0	53
	22:00	1.	0	1	27	14	2	1	0	1	1	3	2	0	0	0	52
		9.	0	0	28	10	0	0	0	0	0	0	0	1	0	0	39
	23:00	1.	0	1	37	11	1	1	0	0	0	2	1	0	0	0	54
		9.	0	1	21	13	0	1	0	0	0	1	0	1	0	0	38
Daily Total :			0	48	1873	977	33	63	55	73	27	67	85	52	11	2	3366
Percent :			0%	1%	56%	29%	1%	2%	2%	2%	1%	2%	3%	2%	0%	0%	
Average :			0	2	78	41	1	3	2	3	1	3	4	2	0	0	140

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
			0 -	182 -	304 -	456 -	609 -	761 -	913 -	1218 -	1523 -	1828 -	2133 -	2437 -			
Date	Time	Lane	181cm	303cm	455cm	608cm	760cm	912cm	1217cm	1522cm	1827cm	2132cm	2436cm	2741cm	Other	Error	Total
05-05-19	00:00	1.	0	0	16	10	0	0	0	0	0	0	0	1	0	0	27
Sun		9.	0	0	13	9	1	2	0	0	0	0	0	0	0	0	25
	01:00	1.	0	1	11	2	0	1	1	0	0	0	1	1	0	0	18
		9.	0	0	7	5	0	0	0	0	0	0	0	1	0	0	13
	02:00	1.	0	1	4	3	0	1	0	1	0	0	1	1	0	0	12
		9.	0	0	7	0	0	0	0	0	0	0	1	1	0	0	9
	03:00	1.	0	0	3	1	0	0	0	0	0	0	1	0	0	0	5
		9.	0	0	1	0	0	0	0	0	0	1	0	0	0	0	2
	04:00	1.	0	0	1	2	0	0	0	0	0	0	1	0	0	0	4
		9.	0	0	1	3	1	0	0	0	0	0	0	0	0	0	5
	05:00	1.	0	0	6	3	0	0	0	0	0	0	1	0	0	0	10
		9.	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
	06:00	1.	0	0	12	7	0	1	0	0	0	0	0	0	0	0	20
		9.	0	1	7	1	1	1	0	0	0	2	1	0	0	0	14
	07:00	1.	0	1	19	8	0	1	1	3	0	1	2	0	0	0	36
		9.	0	0	12	10	0	0	1	0	0	3	1	1	0	0	28
	08:00	1.	0	1	25	17	0	0	4	3	0	0	3	0	0	0	53
		9.	0	0	24	15	0	0	0	1	0	2	2	0	0	0	44
	09:00	1.	0	2	63	28	1	0	0	0	0	3	0	0	0	0	97
		9.	0	1	36	21	1	1	0	1	1	2	1	0	0	0	65
	10:00	1.	0	4	68	27	1	1	1	1	0	1	3	1	0	0	108
		9.	0	2	50	36	1	1	0	2	0	0	1	0	0	0	93
	11:00	1.	0	4	69	39	1	1	0	1	0	4	4	1	1	0	125
		9.	0	6	65	22	0	1	1	2	0	5	1	0	0	1	104
	12:00	1.	0	0	65	36	1	1	1	1	0	0	4	0	0	0	109
		9.	0	3	71	26	0	3	5	2	0	0	2	0	2	0	114
	13:00	1.	0	6	68	38	0	6	1	1	1	1	2	1	1	0	126
		9.	0	10	70	37	1	1	1	1	1	0	0	0	0	0	122
	14:00	1.	0	2	81	36	0	1	2	5	0	2	1	0	0	0	130
		9.	0	2	67	32	0	2	1	2	2	2	3	0	0	0	113
	15:00	1.	0	7	81	44	1	1	1	1	1	1	1	0	0	0	139
		9.	0	6	59	25	3	0	2	2	2	0	2	0	0	0	101
	16:00	1.	0	9	65	34	0	4	0	2	1	4	1	0	0	0	120
		9.	0	3	64	25	2	1	3	0	1	0	1	1	0	0	101
	17:00	1.	0	3	61	32	0	4	1	3	2	1	1	0	0	0	108
		9.	0	5	60	30	1	2	2	1	1	3	1	0	1	0	107

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
05-05-19	18:00	1.	0	5	56	30	0	2	0	6	0	1	2	1	0	0	103
Sun		9.	0	2	39	26	1	0	1	5	0	4	1	2	0	0	81
	19:00	1.	0	4	47	26	0	2	0	1	0	2	3	1	0	0	86
		9.	0	1	53	32	2	1	1	0	0	0	2	1	2	0	95
	20:00	1.	0	0	35	28	0	0	1	2	4	1	2	1	0	0	74
		9.	0	1	45	23	1	1	0	1	0	1	2	1	1	0	77
	21:00	1.	0	3	25	15	1	2	1	0	1	2	3	0	0	0	53
		9.	0	1	32	17	1	1	1	0	0	1	1	0	0	0	55
	22:00	1.	0	2	25	8	0	4	0	0	0	2	2	0	0	0	43
		9.	0	0	28	12	0	0	0	0	0	1	1	0	0	0	42
	23:00	1.	0	1	7	4	2	0	1	0	0	0	0	0	0	0	15
		9.	0	2	17	2	2	1	0	0	0	3	0	2	0	0	29
Daily Total :			0	102	1743	887	27	52	35	51	18	56	63	19	8	1	3062
Percent :			0%	3%	57%	29%	1%	2%	1%	2%	1%	2%	2%	1%	0%	0%	
Average :			0	4	73	37	1	2	1	2	1	2	3	1	0	0	127

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
06-05-19	00:00	1.	0	1	4	1	0	1	0	0	0	0	0	1	0	0	8
Mon		9.	0	1	6	2	1	1	0	0	0	1	0	0	0	0	12
	01:00	1.	0	3	2	2	2	2	0	0	0	6	6	0	0	0	23
		9.	0	1	1	0	0	2	0	1	0	0	0	1	0	0	6
	02:00	1.	0	1	1	1	1	0	0	0	0	2	2	1	0	0	9
		9.	0	1	2	3	1	0	0	0	0	2	1	0	0	0	10
	03:00	1.	0	2	1	0	2	0	0	0	0	0	4	1	0	0	10
		9.	0	4	3	2	3	1	0	0	0	1	2	0	0	0	16
	04:00	1.	0	3	8	7	1	2	0	2	1	7	7	2	0	0	40
		9.	0	1	5	4	1	0	0	0	0	1	3	0	0	0	15
	05:00	1.	0	4	19	22	2	5	0	3	0	3	12	5	0	0	75
		9.	0	3	26	13	2	8	1	1	0	7	8	1	2	0	72
	06:00	1.	0	3	56	35	3	8	2	3	0	5	20	4	4	0	143
		9.	0	4	47	58	7	5	8	2	6	8	15	2	3	0	165
	07:00	1.	0	4	76	41	4	11	8	7	5	5	12	7	7	0	187
		9.	0	3	70	57	5	11	7	9	1	15	14	1	5	1	199
	08:00	1.	0	5	66	34	5	18	6	3	3	13	17	6	4	0	180
		9.	0	8	50	42	8	18	5	11	4	17	26	3	6	0	198
	09:00	1.	0	7	41	35	9	11	3	4	1	14	20	4	0	0	149
		9.	0	8	43	29	3	16	5	7	2	17	23	4	2	0	159
	10:00	1.	0	8	34	32	9	12	5	5	2	19	32	6	3	0	167
		9.	0	5	34	37	4	13	2	2	1	20	23	4	2	0	147
	11:00	1.	0	9	35	38	9	11	4	9	1	10	29	6	3	0	164
		9.	0	10	38	43	9	13	7	4	1	12	26	3	2	1	169
	12:00	1.	0	10	36	30	7	19	4	4	1	18	24	4	3	0	160
		9.	0	13	37	31	9	11	6	5	3	18	30	4	2	0	169
	13:00	1.	0	7	44	24	4	19	4	2	3	14	29	2	5	0	157
		9.	0	7	36	33	4	14	9	3	2	12	28	9	5	0	162
	14:00	1.	0	10	61	41	6	17	8	7	7	14	19	3	0	0	193
		9.	0	5	52	23	6	14	6	4	5	11	12	7	5	0	150
	15:00	1.	0	5	65	43	3	17	2	2	2	17	24	2	7	1	190
		9.	0	1	70	45	8	13	6	6	2	13	19	3	4	1	191
	16:00	1.	0	3	84	44	4	12	4	3	0	7	17	3	3	1	185
		9.	0	6	85	43	8	11	7	7	1	6	12	3	5	1	195
	17:00	1.	0	6	86	48	4	12	6	3	0	5	5	2	0	1	178
		9.	0	1	69	48	2	5	4	4	4	5	8	2	3	0	155

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
06-05-19	18:00	1.	0	7	42	45	5	11	6	4	4	5	13	2	2	0	146
Mon		9.	0	7	57	25	6	8	4	0	1	2	6	5	1	0	122
	19:00	1.	0	6	31	18	5	8	3	2	0	8	12	2	0	0	95
		9.	0	4	35	20	2	7	1	1	0	3	15	2	0	0	90
	20:00	1.	0	3	16	11	4	1	0	1	0	1	2	0	0	0	39
		9.	0	2	22	22	4	6	1	3	2	5	4	1	0	0	72
	21:00	1.	0	4	16	13	5	3	4	0	0	4	4	1	0	0	54
		9.	0	6	21	10	4	7	1	0	1	2	9	1	0	0	62
	22:00	1.	0	7	17	11	3	6	2	1	0	2	2	0	0	0	51
		9.	0	2	20	11	4	5	1	0	0	6	1	0	0	0	50
	23:00	1.	0	5	5	5	3	8	2	0	0	2	4	0	0	0	34
		9.	0	4	11	5	3	5	1	0	0	4	6	1	0	0	40
Daily Total :			0	230	1686	1187	204	408	155	135	66	369	607	121	88	7	5263
Percent :			0%	4%	32%	23%	4%	8%	3%	3%	1%	7%	12%	2%	2%	0%	
Average :			0	10	70	49	9	17	6	6	3	15	25	5	4	0	219

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
			0 -	182 -	304 -	456 -	609 -	761 -	913 -	1218 -	1523 -	1828 -	2133 -	2437 -			
Date	Time	Lane	181cm	303cm	455cm	608cm	760cm	912cm	1217cm	1522cm	1827cm	2132cm	2436cm	2741cm	Other	Error	Total
07-05-19	00:00	1.	0	2	5	1	2	2	0	0	0	3	1	1	0	0	17
Tue		9.	0	1	6	3	2	2	0	0	0	2	0	1	0	0	17
	01:00	1.	0	1	4	1	1	2	0	0	1	2	5	1	0	0	18
		9.	0	2	0	4	1	1	0	0	0	2	1	0	0	0	11
	02:00	1.	0	4	3	1	5	0	0	0	0	0	0	0	0	0	13
		9.	0	1	2	1	1	1	1	0	0	1	3	1	0	0	12
	03:00	1.	0	2	4	4	3	0	1	1	0	0	5	1	0	0	21
		9.	0	2	3	2	1	0	0	0	1	1	0	0	0	0	10
	04:00	1.	0	1	10	5	1	1	0	2	0	5	6	4	0	0	35
		9.	0	1	8	4	1	0	0	0	1	2	1	0	0	0	18
	05:00	1.	0	1	17	12	0	3	0	1	2	6	14	3	1	0	60
		9.	0	1	23	16	1	2	0	0	0	4	14	2	0	0	63
	06:00	1.	0	4	64	43	4	3	2	1	0	14	15	4	3	0	157
		9.	0	8	52	35	4	11	2	3	3	13	19	6	0	0	156
	07:00	1.	0	5	75	48	5	11	7	5	1	7	19	2	4	0	189
		9.	0	5	80	60	5	15	9	2	2	19	18	2	3	0	220
	08:00	1.	0	6	70	47	8	13	7	1	1	12	24	5	4	0	198
		9.	0	6	49	45	7	11	6	5	0	12	29	6	1	0	177
	09:00	1.	0	6	48	33	5	13	2	3	3	14	23	5	2	0	157
		9.	0	7	46	36	10	13	4	6	1	15	21	3	3	2	167
	10:00	1.	0	11	39	42	6	19	6	7	0	12	24	6	2	1	175
		9.	0	10	44	26	6	14	2	3	2	10	18	5	3	1	144
	11:00	1.	0	3	33	24	6	15	5	7	3	12	24	3	2	0	137
		9.	0	10	38	25	6	17	3	6	1	11	21	4	0	0	142
	12:00	1.	0	7	36	23	3	14	4	1	1	8	21	5	4	0	127
		9.	0	14	34	36	8	27	7	1	1	14	27	5	2	1	177
	13:00	1.	0	12	57	30	12	12	5	2	1	7	25	8	2	0	173
		9.	0	6	49	35	8	8	1	3	3	13	25	7	4	1	163
	14:00	1.	0	5	44	46	4	11	2	2	3	15	22	3	3	0	160
		9.	0	12	45	40	10	16	8	8	1	5	27	6	3	0	181
	15:00	1.	0	4	73	30	4	17	3	4	2	10	18	4	2	0	171
		9.	0	8	76	47	7	21	7	6	0	11	22	4	1	1	211
	16:00	1.	0	8	78	40	2	28	6	0	2	9	12	3	6	0	194
		9.	0	5	83	55	6	12	2	4	1	11	16	7	3	0	205
	17:00	1.	0	3	81	57	1	9	6	2	3	8	15	2	1	0	188
		9.	0	3	75	49	3	4	2	4	0	5	11	3	1	2	162

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
07-05-19	18:00	1.	0	5	42	36	3	12	1	2	2	5	11	2	0	0	121
Tue		9.	0	8	46	36	5	8	5	1	2	4	3	3	1	0	122
	19:00	1.	0	6	29	16	4	8	2	1	0	5	4	1	1	0	77
		9.	0	3	46	26	5	2	2	1	0	6	7	2	4	0	104
	20:00	1.	0	7	17	15	4	5	2	2	0	9	5	0	0	0	66
		9.	0	10	53	14	5	7	3	1	1	6	13	1	1	0	115
	21:00	1.	0	5	16	9	5	5	0	0	0	3	4	1	0	0	48
		9.	0	4	27	16	4	4	3	0	1	9	5	2	0	0	75
	22:00	1.	0	5	19	12	2	9	1	0	1	5	2	1	0	0	57
		9.	0	3	25	9	1	4	2	0	1	2	6	2	0	0	55
	23:00	1.	0	2	6	3	4	4	0	2	0	3	3	1	0	0	28
		9.	0	3	18	10	5	2	2	1	0	5	3	1	0	0	50
Daily Total :			0	248	1798	1208	206	418	133	101	48	357	612	139	67	9	5344
Percent :			0%	5%	34%	23%	4%	8%	2%	2%	1%	7%	11%	3%	1%	0%	
Average :			0	10	75	50	9	17	6	4	2	15	26	6	3	0	223

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
			0 -	182 -	304 -	456 -	609 -	761 -	913 -	1218 -	1523 -	1828 -	2133 -	2437 -			
Date	Time	Lane	181cm	303cm	455cm	608cm	760cm	912cm	1217cm	1522cm	1827cm	2132cm	2436cm	2741cm	Other	Error	Total
08-05-19	00:00	1.	0	2	6	0	2	0	0	0	0	5	3	0	0	0	18
Wed		9.	0	2	7	3	1	1	0	0	0	1	3	0	0	0	18
	01:00	1.	0	1	3	0	2	1	0	0	1	3	0	0	0	0	11
		9.	0	3	2	0	2	2	0	0	0	2	6	0	0	0	17
	02:00	1.	0	0	6	2	1	0	0	0	0	1	3	0	0	0	13
		9.	0	3	3	0	4	2	0	0	0	2	2	1	0	0	17
	03:00	1.	0	2	0	1	3	0	0	1	2	5	5	2	0	0	21
		9.	0	0	3	1	1	0	0	2	1	2	3	0	0	0	13
	04:00	1.	0	2	8	4	2	2	0	1	0	2	4	4	0	0	29
		9.	0	2	6	3	3	0	0	0	0	1	4	3	0	0	22
	05:00	1.	0	4	19	11	2	4	3	2	1	3	12	8	1	0	70
		9.	0	7	23	12	3	7	2	0	0	3	5	1	1	0	64
	06:00	1.	0	4	69	44	2	9	2	2	1	12	21	3	2	0	171
		9.	0	7	55	43	8	5	6	3	2	7	11	1	1	1	150
	07:00	1.	0	10	75	47	5	17	6	2	0	7	13	1	5	0	188
		9.	0	6	79	58	6	16	6	8	2	16	31	2	6	1	237
	08:00	1.	0	5	59	40	6	18	3	4	4	14	23	3	3	0	182
		9.	0	9	54	50	12	11	9	12	1	11	28	4	4	0	205
	09:00	1.	0	4	51	34	3	16	3	3	3	14	23	7	1	0	162
		9.	0	12	47	24	8	17	3	5	1	10	32	2	5	0	166
	10:00	1.	0	4	42	37	6	17	7	3	3	15	23	9	0	0	166
		9.	0	11	33	40	6	19	4	5	3	8	18	8	5	0	160
	11:00	1.	0	6	40	36	7	16	6	4	1	23	25	1	2	0	167
		9.	0	10	55	33	9	13	6	3	2	6	18	4	3	0	162
	12:00	1.	0	5	41	45	7	14	5	6	3	14	23	5	2	0	170
		9.	0	16	41	39	12	19	7	3	3	7	28	5	6	0	186
	13:00	1.	0	7	48	28	6	14	8	4	0	12	21	2	3	0	153
		9.	0	9	47	36	7	17	13	5	2	5	27	11	6	0	185
	14:00	1.	0	9	57	47	5	24	5	5	1	14	19	6	2	0	194
		9.	0	8	53	33	8	17	4	4	2	10	27	7	7	3	183
	15:00	1.	0	4	64	43	8	17	7	7	3	12	25	5	2	0	197
		9.	0	5	78	57	8	18	5	2	2	5	21	9	4	0	214
	16:00	1.	0	6	102	50	4	18	5	4	3	8	13	3	2	0	218
		9.	0	5	106	58	7	12	2	4	0	9	18	6	5	0	232
	17:00	1.	0	4	93	49	2	8	4	8	4	7	9	1	5	0	194
		9.	0	6	90	53	7	8	7	6	5	10	18	5	2	0	217

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
08-05-19	18:00	1.	0	5	59	42	1	5	2	6	2	9	16	4	0	1	152
Wed		9.	0	2	66	30	4	6	3	0	1	2	6	7	1	0	128
	19:00	1.	0	6	36	28	6	9	0	2	1	11	5	3	0	0	107
		9.	0	5	43	23	3	6	0	1	0	8	7	2	0	0	98
	20:00	1.	0	5	15	12	5	1	2	1	0	5	10	2	0	0	58
		9.	0	5	55	18	3	6	1	1	2	8	12	1	0	0	112
	21:00	1.	0	2	17	7	1	8	0	2	0	6	6	2	1	0	52
		9.	0	3	39	22	5	5	2	1	1	3	3	4	0	0	88
	22:00	1.	0	3	22	8	1	5	1	1	0	4	3	2	0	0	50
		9.	0	4	34	13	3	6	0	1	1	6	3	0	0	0	71
	23:00	1.	0	2	8	2	2	2	0	0	0	5	3	2	0	0	26
		9.	0	6	25	11	6	3	1	0	0	4	2	2	0	0	60
Daily Total :			0	248	1984	1277	225	441	150	134	64	357	641	160	87	6	5774
Percent :			0%	4%	34%	22%	4%	8%	3%	2%	1%	6%	11%	3%	2%	0%	
Average :			0	10	83	53	9	18	6	6	3	15	27	7	4	0	241

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
09-05-19	00:00	1.	0	1	4	2	0	1	0	0	0	0	5	0	0	0	13
Thu		9.	0	0	22	3	0	0	2	0	0	2	6	0	0	0	35
	01:00	1.	0	4	1	0	4	1	0	0	0	3	0	0	0	0	13
		9.	0	3	1	2	2	2	0	0	1	4	4	1	0	0	20
	02:00	1.	0	2	4	3	2	0	0	0	1	4	3	0	0	0	19
		9.	0	1	5	0	2	1	0	1	1	2	1	1	0	0	15
	03:00	1.	0	1	5	3	1	1	0	0	1	0	3	3	0	0	18
		9.	0	0	2	1	0	1	0	0	0	2	6	1	0	0	13
	04:00	1.	0	4	7	2	4	1	0	1	0	4	5	3	0	0	31
		9.	0	3	4	2	2	2	0	1	1	2	2	1	0	0	20
	05:00	1.	0	1	22	20	1	2	2	2	0	6	17	5	0	0	78
		9.	0	6	21	16	3	7	0	0	0	4	10	0	1	0	68
	06:00	1.	0	3	63	36	3	4	2	0	0	9	11	4	0	1	136
		9.	0	3	62	42	4	6	2	1	0	9	11	3	3	0	146
	07:00	1.	0	5	74	44	4	9	3	1	1	5	18	5	5	0	174
		9.	0	7	66	53	6	18	10	6	7	21	18	7	4	0	223
	08:00	1.	0	7	71	47	7	21	5	4	4	11	20	4	5	0	206
		9.	0	10	59	47	9	14	4	6	0	9	24	5	3	0	190
	09:00	1.	0	6	46	32	4	21	6	6	1	12	24	10	1	0	169
		9.	0	10	48	37	10	19	7	4	8	12	30	4	4	1	194
	10:00	1.	0	5	50	25	3	19	9	2	3	16	25	4	1	0	162
		9.	0	12	48	38	6	18	6	3	2	11	25	4	6	0	179
	11:00	1.	0	7	37	44	3	20	6	2	5	14	23	5	0	0	166
		9.	0	5	40	31	5	13	12	1	1	9	25	2	3	0	147
	12:00	1.	0	8	44	39	7	13	5	4	6	13	20	5	2	1	167
		9.	0	12	49	37	4	18	6	0	5	10	31	4	7	1	184
	13:00	1.	0	10	42	31	6	24	3	4	2	16	28	4	2	1	173
		9.	0	10	49	43	9	21	5	5	2	13	26	3	6	2	194
	14:00	1.	0	10	65	48	3	22	3	5	1	12	23	3	5	1	201
		9.	0	11	55	40	10	18	4	2	1	7	21	4	4	0	177
	15:00	1.	0	10	66	46	8	22	11	8	3	11	16	0	2	0	203
		9.	0	5	84	66	7	14	3	5	5	12	20	2	4	1	228
	16:00	1.	0	1	96	72	1	18	7	5	3	8	16	2	3	0	232
		9.	0	8	105	57	8	17	5	3	8	4	12	2	4	0	233
	17:00	1.	0	4	94	54	2	10	2	3	3	12	10	1	0	0	195
		9.	0	2	93	55	6	3	5	4	1	4	8	7	1	0	189

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
09-05-19	18:00	1.	0	4	61	36	3	10	0	0	1	7	5	1	0	0	128
Thu		9.	0	5	49	31	5	7	2	1	2	6	9	5	1	0	123
	19:00	1.	0	6	39	23	4	8	2	1	0	4	4	0	0	0	91
		9.	0	4	64	20	6	10	2	1	3	6	7	3	3	1	130
	20:00	1.	0	4	11	14	3	2	0	0	1	6	3	2	0	0	46
		9.	0	5	28	18	4	3	1	1	0	3	6	2	0	0	71
	21:00	1.	0	6	24	13	4	9	0	0	0	5	7	4	0	0	72
		9.	0	2	28	9	3	6	1	0	0	8	5	0	0	0	62
	22:00	1.	0	3	23	13	1	9	1	0	0	6	3	0	0	0	59
		9.	0	4	19	7	3	5	1	0	2	4	3	1	0	0	49
	23:00	1.	0	5	13	6	2	7	0	0	0	5	3	1	0	0	42
		9.	0	4	18	7	4	3	2	0	0	2	3	0	1	0	44
Daily Total :			0	249	1981	1315	198	480	147	93	86	355	605	128	81	10	5728
Percent :			0%	4%	35%	23%	3%	8%	3%	2%	2%	6%	11%	2%	1%	0%	
Average :			0	10	83	55	8	20	6	4	4	15	25	5	3	0	238

(DEFAULTX)			#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
			0 -	182 -	304 -	456 -	609 -	761 -	913 -	1218 -	1523 -	1828 -	2133 -	2437 -			
Date	Time	Lane	181cm	303cm	455cm	608cm	760cm	912cm	1217cm	1522cm	1827cm	2132cm	2436cm	2741cm	Other	Error	Total
10-05-19	00:00	1.	0	4	7	3	3	2	0	0	0	1	4	2	0	0	26
Fri		9.	0	2	7	7	0	2	0	1	0	1	3	1	0	0	24
	01:00	1.	0	4	3	2	4	1	0	0	1	3	0	1	0	0	19
		9.	0	2	4	1	2	1	0	0	0	0	4	0	0	0	14
	02:00	1.	0	1	4	1	1	2	0	0	0	0	4	0	0	0	13
		9.	0	4	3	4	3	2	1	0	1	1	2	0	0	0	21
	03:00	1.	0	2	4	0	1	1	0	0	0	1	3	0	0	0	12
		9.	0	2	4	1	2	0	0	0	0	2	4	1	0	0	16
	04:00	1.	0	2	5	4	1	2	0	2	0	2	1	3	1	0	23
		9.	0	3	8	4	2	0	0	0	1	2	1	1	0	0	22
	05:00	1.	0	5	19	11	3	5	0	0	0	5	10	5	0	0	63
		9.	0	3	21	14	2	5	1	0	2	6	4	1	1	0	60
	06:00	1.	0	3	60	42	1	6	3	5	3	12	19	3	1	0	158
		9.	0	6	58	38	2	13	2	3	1	11	12	3	0	1	150
	07:00	1.	0	4	32	25	2	10	2	1	5	3	17	1	2	1	105
		9.	0	4	41	39	3	11	4	9	2	4	13	2	4	0	136
	08:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	09:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	10:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	11:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12:00	1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	13:00	1.	0	5	15	21	7	9	7	5	4	5	6	2	2	3	91
		9.	0	3	29	16	4	6	1	3	6	10	4	1	6	14	103
	14:00	1.	0	13	39	67	13	9	14	3	4	5	11	10	3	1	192
		9.	0	5	75	44	7	12	3	6	3	23	14	9	4	0	205
	15:00	1.	0	8	29	102	8	8	15	4	1	1	13	4	2	1	196
		9.	0	2	90	45	2	11	2	2	3	20	12	9	2	2	202
	16:00	1.	0	5	76	113	9	10	15	5	2	1	10	6	4	0	256
		9.	0	1	109	41	2	12	4	3	1	24	10	2	4	0	213
	17:00	1.	0	12	74	111	7	8	10	7	2	3	7	4	6	0	251
		9.	0	1	89	33	1	10	1	3	1	9	3	2	4	1	158

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
10-05-19	18:00	1.	0	18	50	68	13	8	9	0	2	2	2	0	2	0	174
Fri		9.	0	1	78	28	2	5	1	8	1	10	1	1	1	0	137
	19:00	1.	0	8	27	43	6	5	7	0	1	0	4	2	0	0	103
		9.	0	1	53	33	1	7	2	1	0	7	7	0	1	0	113
	20:00	1.	0	7	15	29	4	3	2	0	1	1	1	1	0	0	64
		9.	0	1	52	17	3	2	0	0	1	9	3	0	0	0	88
	21:00	1.	0	5	15	26	2	5	5	1	1	0	2	0	1	1	64
		9.	0	1	44	28	0	6	0	1	2	9	0	0	0	0	91
	22:00	1.	0	9	9	15	6	4	2	0	0	0	0	0	0	0	45
		9.	0	3	59	15	2	3	0	0	0	3	0	1	0	0	86
	23:00	1.	0	3	4	12	2	1	0	1	1	0	0	1	0	0	25
		9.	0	2	32	12	0	3	0	0	2	2	2	1	1	0	57
Daily Total :			0	165	1343	1115	133	210	113	74	55	198	213	80	52	25	3776
Percent :			0%	4%	36%	30%	4%	6%	3%	2%	1%	5%	6%	2%	1%	1%	
Average :			0	7	56	46	6	9	5	3	2	8	9	3	2	1	157

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
11-05-19	00:00	1.	0	6	4	4	6	0	1	0	0	0	0	1	1	0	23
Sat		9.	0	0	6	1	0	0	0	0	0	1	2	0	0	0	10
	01:00	1.	0	0	4	1	1	0	0	0	0	0	0	0	0	0	6
		9.	0	1	7	4	1	0	0	0	0	7	1	0	0	0	21
	02:00	1.	0	0	1	3	1	0	0	0	0	1	0	0	0	0	6
		9.	0	1	5	2	2	1	0	0	0	1	1	0	0	0	13
	03:00	1.	0	1	1	1	0	1	1	0	1	0	0	0	0	0	6
		9.	0	1	1	1	1	0	0	1	0	3	1	0	0	0	9
	04:00	1.	0	1	1	8	2	0	0	0	0	1	1	0	0	0	14
		9.	0	2	1	2	1	2	0	0	1	3	1	1	0	0	14
	05:00	1.	0	0	6	9	0	0	0	0	1	1	1	0	2	0	20
		9.	0	1	6	2	1	0	0	2	1	0	1	1	0	0	15
	06:00	1.	0	3	9	26	0	3	0	0	0	0	0	2	3	0	46
		9.	0	0	22	10	0	1	0	2	0	1	5	0	0	0	41
	07:00	1.	0	2	19	48	4	0	2	0	1	1	2	3	1	0	83
		9.	0	0	33	29	2	2	1	1	0	7	1	1	0	1	78
	08:00	1.	0	1	24	55	3	2	4	3	1	0	0	4	2	0	99
		9.	0	1	46	26	2	2	2	3	0	6	2	0	0	0	90
	09:00	1.	0	2	38	80	3	6	7	2	1	3	3	2	0	0	147
		9.	0	0	74	44	1	5	2	4	1	3	2	2	0	0	138
	10:00	1.	0	5	44	97	3	9	3	4	1	2	1	0	2	0	171
		9.	0	1	88	35	1	0	3	0	1	3	1	2	2	0	137
	11:00	1.	0	6	37	73	5	4	2	4	2	0	2	2	1	0	138
		9.	0	0	94	45	1	3	1	2	2	8	3	2	0	0	161
	12:00	1.	0	4	49	93	2	5	1	3	0	0	2	3	1	2	165
		9.	0	0	91	34	3	2	5	2	4	6	2	2	1	1	153
	13:00	1.	0	4	40	89	3	4	1	4	3	0	4	2	0	0	154
		9.	0	1	91	35	1	5	4	4	2	8	3	2	1	0	157
	14:00	1.	0	6	40	85	3	6	2	1	1	0	1	2	0	1	148
		9.	0	0	91	28	2	3	0	0	0	4	3	0	0	0	131
	15:00	1.	0	2	33	73	4	4	4	2	1	2	0	3	1	0	129
		9.	0	1	79	42	1	2	0	5	2	6	1	1	0	0	140
	16:00	1.	0	3	32	70	1	3	2	2	1	0	1	0	0	0	115
		9.	0	2	81	34	3	2	1	1	2	9	4	0	0	1	140
	17:00	1.	0	5	44	84	2	4	1	2	1	0	0	0	0	0	143
		9.	0	0	81	26	0	1	0	0	1	5	0	1	2	0	117

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
11-05-19	18:00	1.	0	4	40	73	1	3	3	1	0	0	2	2	0	0	129
Sat		9.	0	0	120	36	0	0	2	0	3	0	0	0	1	0	162
	19:00	1.	0	3	59	92	4	3	1	0	2	0	0	2	0	0	166
		9.	0	0	124	25	1	0	1	1	1	1	3	0	0	1	158
	20:00	1.	0	6	58	75	1	4	1	1	1	0	1	0	1	0	149
		9.	0	0	116	29	0	1	1	2	4	0	0	0	0	0	153
	21:00	1.	0	4	50	77	1	3	1	1	2	1	0	1	0	0	141
		9.	0	0	101	28	1	0	2	0	0	2	1	1	0	0	136
	22:00	1.	0	7	35	61	6	4	1	1	0	1	2	1	1	0	120
		9.	0	1	90	17	0	0	0	1	0	3	3	0	0	0	115
	23:00	1.	0	1	15	18	3	1	1	1	0	1	0	0	0	0	41
		9.	0	0	42	16	1	1	0	0	0	3	0	1	0	0	64
Daily Total :			0	89	2173	1846	85	102	64	63	45	104	64	47	23	7	4712
Percent :			0%	2%	46%	39%	2%	2%	1%	1%	1%	2%	1%	1%	0%	0%	
Average :			0	4	91	77	4	4	3	3	2	4	3	2	1	0	198

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
12-05-19	00:00	1.	0	3	9	10	1	2	0	1	0	0	0	1	0	0	27
Sun		9.	0	0	41	3	0	0	0	0	1	0	0	0	0	0	45
	01:00	1.	0	2	2	10	1	1	2	0	0	0	0	0	1	0	19
		9.	0	1	10	4	1	0	0	0	0	1	0	0	0	0	17
	02:00	1.	0	0	1	2	0	0	0	0	0	0	1	0	0	0	4
		9.	0	0	6	1	0	0	0	0	0	0	0	0	0	0	7
	03:00	1.	0	0	1	5	0	0	0	0	0	0	0	0	1	0	7
		9.	0	0	7	1	0	0	0	0	0	0	1	0	0	0	9
	04:00	1.	0	2	0	6	1	0	1	0	0	0	0	0	1	0	11
		9.	0	1	2	3	1	0	0	0	0	1	0	1	0	0	9
	05:00	1.	0	0	3	5	0	1	0	0	0	0	0	0	2	0	11
		9.	0	1	3	1	0	1	0	0	0	3	0	0	0	0	9
	06:00	1.	0	1	8	12	1	1	0	0	0	0	0	0	0	0	23
		9.	0	0	14	3	0	0	0	0	0	1	0	0	0	0	18
	07:00	1.	0	2	11	19	2	0	1	1	1	0	2	0	0	0	39
		9.	0	1	32	14	0	1	1	1	2	5	1	0	0	0	58
	08:00	1.	0	0	25	47	0	2	0	2	0	0	3	1	0	0	80
		9.	0	0	45	13	1	0	2	3	1	0	0	1	0	0	66
	09:00	1.	0	1	30	73	0	1	0	5	2	0	4	0	1	0	117
		9.	0	1	55	28	0	1	2	0	0	4	0	0	0	0	91
	10:00	1.	0	1	43	112	1	1	0	4	2	0	1	0	1	0	166
		9.	0	1	79	29	0	0	3	2	2	2	0	0	0	0	118
	11:00	1.	0	2	49	108	3	2	3	1	1	1	1	0	1	0	172
		9.	0	1	87	28	1	1	0	3	1	5	1	2	0	0	130
	12:00	1.	0	1	42	107	3	2	2	7	1	2	1	2	0	0	170
		9.	0	0	92	42	0	1	0	1	1	5	0	0	1	0	143
	13:00	1.	0	2	36	97	4	3	2	3	0	0	2	0	1	0	150
		9.	0	0	78	36	0	3	1	1	1	1	0	0	0	0	121
	14:00	1.	0	1	41	88	2	4	5	1	0	1	0	0	1	0	144
		9.	0	0	76	25	1	2	1	1	1	2	0	1	1	0	111
	15:00	1.	0	1	41	102	2	1	1	1	3	0	4	0	0	0	156
		9.	0	0	90	27	0	1	2	0	1	0	1	0	1	0	123
	16:00	1.	0	1	29	103	0	4	1	4	1	1	0	0	0	0	144
		9.	0	0	69	18	1	1	1	1	3	2	1	0	0	1	98
	17:00	1.	0	1	33	75	0	1	2	0	0	0	1	1	1	0	115
		9.	0	0	74	14	0	1	1	0	0	0	1	0	0	0	91

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
12-05-19	18:00	1.	0	5	26	58	0	5	2	1	0	1	0	3	0	0	101
Sun		9.	0	1	69	28	0	2	0	1	2	2	3	1	0	0	109
	19:00	1.	0	2	30	57	0	3	2	0	0	1	0	3	1	0	99
		9.	0	0	74	22	2	1	1	3	0	2	1	0	0	0	106
	20:00	1.	0	4	27	46	2	4	0	1	0	0	0	1	0	0	85
		9.	0	3	57	24	3	0	0	3	0	0	0	0	1	0	91
	21:00	1.	0	0	17	33	1	4	0	0	0	0	1	1	0	0	57
		9.	0	1	41	13	0	3	0	0	0	1	1	0	0	0	60
	22:00	1.	0	4	14	22	0	4	1	0	0	0	2	0	0	0	47
		9.	0	0	23	11	1	1	0	0	0	2	1	0	0	0	39
	23:00	1.	0	4	3	3	1	3	0	0	0	0	0	0	0	0	14
		9.	0	2	13	4	0	2	0	0	0	3	4	0	0	0	28
Daily Total :			0	54	1658	1592	37	71	40	52	27	49	39	19	16	1	3655
Percent :			0%	1%	45%	44%	1%	2%	1%	1%	1%	1%	1%	1%	0%	0%	
Average :			0	2	69	66	2	3	2	2	1	2	2	1	1	0	153

(DEFAULTX)

Date	Time	Lane	#1 0 - 181cm	#2 182 - 303cm	#3 304 - 455cm	#4 456 - 608cm	#5 609 - 760cm	#6 761 - 912cm	#7 913 - 1217cm	#8 1218 - 1522cm	#9 1523 - 1827cm	#10 1828 - 2132cm	#11 2133 - 2436cm	#12 2437 - 2741cm	#13 Other	Error	Total
13-05-19	00:00	1.	0	4	3	3	1	3	1	0	0	0	0	0	0	0	15
Mon		9.	0	0	5	0	1	0	0	0	0	0	2	1	0	0	9
	01:00	1.	0	3	2	4	2	2	0	0	0	0	0	0	1	0	14
		9.	0	1	1	0	1	1	0	0	0	1	4	0	0	0	9
	02:00	1.	0	3	2	1	2	1	0	0	0	0	2	1	0	0	12
		9.	0	1	0	0	1	0	0	0	0	0	4	0	0	0	6
	03:00	1.	0	2	2	4	0	2	2	0	1	0	4	1	1	0	19
		9.	0	0	1	2	1	0	0	0	0	2	2	0	0	0	8
	04:00	1.	0	2	5	12	1	2	4	0	3	4	0	7	4	0	44
		9.	0	2	10	4	2	0	1	0	0	4	3	1	0	0	27
	05:00	1.	0	7	9	31	6	5	2	1	1	0	4	6	3	0	75
		9.	0	0	30	11	1	2	0	1	0	8	6	1	0	0	60
	06:00	1.	0	6	26	83	9	4	5	1	0	3	6	9	4	0	156
		9.	0	3	62	47	2	13	1	3	3	18	18	2	2	1	175
	07:00	1.	0	6	27	86	10	7	16	2	1	3	4	10	2	0	174
		9.	0	1	76	42	3	25	4	7	3	16	4	1	5	0	187
	08:00	1.	0	9	13	94	14	8	19	7	4	1	11	10	4	0	194
		9.	0	3	69	33	1	17	3	7	2	23	7	2	2	0	169
	09:00	1.	0	14	15	67	7	11	14	7	4	5	10	20	3	0	177
		9.	0	2	36	40	4	10	2	3	3	37	10	5	1	0	153
Daily Total :			0	69	394	564	69	113	74	39	25	125	101	77	32	1	1683
Percent :			0%	4%	23%	34%	4%	7%	4%	2%	1%	7%	6%	5%	2%	0%	
Average :			0	7	39	56	7	11	7	4	3	13	10	8	3	0	168

Basic Length Class Summary: CR6 N CR9 80KPH

(DEFAULTX)		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
Description	Lane	0 - 181cm	182 - 303cm	304 - 455cm	456 - 608cm	609 - 760cm	761 - 912cm	913 - 1217cm	1218 - 1522cm	1523 - 1827cm	1828 - 2132cm	2133 - 2436cm	2437 - 2741cm	Other	Error	Total
TOTAL COUNT :	#1.	0	864	7574	7160	643	1286	545	429	222	936	1544	465	219	20	21907
	#9.	0	703	9822	5245	616	1179	448	422	252	1177	1587	392	254	50	22147
		0	1567	17396	12405	1259	2465	993	851	474	2113	3131	857	473	70	44054
Percents :	#1.	0%	4%	35%	33%	3%	6%	2%	2%	1%	4%	7%	2%	1%	0%	50%
	#9.	0%	3%	44%	24%	3%	5%	2%	2%	1%	5%	7%	2%	1%	0%	50%
		0%	4%	39%	28%	3%	6%	2%	2%	1%	5%	7%	2%	1%	0%	
Average :	#1.	0	4	32	31	3	5	2	2	1	4	7	2	1	0	94
	#9.	0	3	42	22	3	5	2	2	1	5	7	2	1	0	95
		0	7	74	53	6	10	4	4	2	9	14	4	2	0	189
Days & ADT :	#1.	9.7	2246													
	#9.	9.7	2271													
		9.7	4518													

APPENDIX E:
Key Modelling Parameters

Appendix E: Key Parameters Included in the Cadna/A Noise Modelling

Southwestern Landfill EA - Ingersoll, Ontario, 1800160

Parameter	Value	Rationale
Global Ground Absorption	1	Accounts for a mix of hard and soft (e.g., grass, dirt, pavement) surfaces between facility and receptors of interest
Local Ground Absorption	0	Accounts for mostly hard (e.g., ponds, asphalt and gravel) surfaces between facility and receptors of interest
Temperature	10 ^{o}C	Ontario standard conditions
Relative Humidity	70%	Ontario standard conditions
Max. Order of Reflection	2	Reflections from buildings on-site are negligible