

JJ Gallagher Ltd

Gavray Drive, Bicester

Air Quality Assessment
Technical Report

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1. INTRODUCTION

In recent years, air quality has become of increasing importance in national and European Union environmental legislation, reflected in policies involving the management of local air quality to reduce human health risks, improve quality of life and minimise harm to the surrounding natural environment. The proposed development of the Gavray Drive site in Bicester, Oxfordshire has the potential to affect local air quality. An air quality assessment, therefore, needs to be undertaken in order to taken into account the likely effects of the proposed development.

This chapter summarises the most recent national and European air quality standards, explains the methodology employed in assessing potential impacts occurring due to the proposed development, examines the existing (baseline) air quality conditions surrounding Bicester and illustrates the magnitude of any likely impacts to local air quality following the methodology in the *Design Manual for Roads and Bridges (DMRB)* “screening” method. The potential air quality impacts have then been compared to national and European air quality standards and objectives to establish their importance. The significance of the impacts have been determined by the proximity and number of residential properties and people affected, the duration of effects and likelihood of occurrence.

1.1 Air Quality Objectives and Limit Values

Air quality objectives and limit values are the standards against which potential changes in local air quality as a result of the proposed development are assessed. They are standards, which are set in place to protect the most vulnerable groups in society in terms of human health (i.e. the very young, the elderly and the infirm) and also for the protection of vegetation and ecosystems.

European Union (EU) air quality policy provides the basis for UK national air quality policy. The EU Air Quality Framework Directive on Ambient Air Quality Assessment and Management came into force in September 1996, with subsequent daughter directives setting Europe-wide standards for air quality. Within the UK, the Environment Act (1995) brought about the instigation of the National Air Quality Strategy (1997) (NAQS), forming air quality standards and objectives for specific pollutants and highlighting measures for local authorities under Local Air Quality Management (‘LAQM’) to work towards meeting these standards and objectives. The NAQS was revised in 2000 as the Air Quality Strategy for England, Scotland, Wales and Northern Ireland (DETR, 2000a) and an addendum published in 2002 (DEFRA, 2003a). The objectives relevant to local air quality management have been set in the Air Quality Regulations (England) (2000 and 2002).

Each of the priority pollutants set down in the National Air Quality Strategy has a set target level to be achieved by specific years. Some pollutants have standards expressed as long-term averages (i.e. annual means), due to chronic health effects occurring after a prolonged exposure to elevated concentrations. Other pollutants have short-term averages (i.e. either 24 hour, 15 minute or 1 hour means) due to acute health effects arising after short-periods of elevated exposure. For short-term standards, an allowable number of exceedances of the standard are often incorporated, usually expressed as a number of hours or days per year for which the standard may be exceeded or as its percentile equivalent. The pollutants relevant to this assessment are shown below in Table 1.

The achievement or likely achievement of an air quality objective is determined by reference to the quality of air at locations –

- (a) which are situated outside of buildings or other natural or man-made structures above or below grounds; and
- (b) where members of the public are regularly present.

The Government provides guidance on locations where the objectives should and should not apply.

Table 1: UK Air Quality Objectives

Pollutant	Averaging Period	UK Objectives/ Limit Values	Year for Compliance	EU Limit Values	Year for Compliance
Benzene	Running annual mean	16.25 $\mu\text{g}/\text{m}^3$	31 Dec 2003	5 $\mu\text{g}/\text{m}^3$	1 st Jan 2010
	Annual mean (Eng & Wales)	5 $\mu\text{g}/\text{m}^3$	31 Dec 2010		
1,3-butadiene	Running annual mean	2.25 $\mu\text{g}/\text{m}^3$	31 Dec 2003	N/A	N/A
Carbon monoxide	Maximum daily running 8 hour mean	10.0 mg/m^3	31 Dec 2003	10.0 mg/m^3	2005
Nitrogen dioxide	1 hour mean	200 $\mu\text{g}/\text{m}^3$ (not to be exceeded more than 18 times per year)	31 Dec 2005	200 $\mu\text{g}/\text{m}^3$ (not to be exceeded more than 18 times per year)	2010
	Annual mean	40 $\mu\text{g}/\text{m}^3$	31 Dec 2005	40 $\mu\text{g}/\text{m}^3$	2005
PM₁₀ (gravimetric)	24 hour mean	50 $\mu\text{g}/\text{m}^3$ (not to be exceeded more than 35 times per year)	31 Dec 2004	50 $\mu\text{g}/\text{m}^3$ (not to be exceeded more than 35 times per year)	2005
	Annual mean	40 $\mu\text{g}/\text{m}^3$	31 Dec 2004	40 $\mu\text{g}/\text{m}^3$	2005

2. ASSESSMENT METHOD

The screening method outlined in *Version 1.02 (Environmental Assessment)* of the *Design Manual for Roads and Bridges (DMRB)* (Highways Agency, November 2003) was used to assess the changes in local air quality as a result of changes in traffic flows associated with the proposed development. Given the relatively small scale of the development, its residential nature as opposed to industrial or commercial and the existing forecast that air quality standards and objectives will be met by the relevant dates, it was considered that this was an appropriate approach to be taken for the assessment.

The DMRB screening method recommends the examination of five key pollutants: carbon monoxide, benzene, 1,3-butadiene, nitrogen dioxide (NO₂) and particulate matter (PM₁₀). The method outlined in the DMRB is designed to estimate concentrations of these five key pollutants at discrete receptors in order to highlight any locations where there may potentially be an air quality problem. The screening methodology takes into account changes in traffic

flows and speeds and changes in the number of heavy duty vehicles (HDVs) on the local road network. This purpose of the methodology is not, however, for use as an indicator of exact pollutant concentrations, but identifies where further, more detailed assessment could be necessary. It also provides a useful tool to make a comparison between various scenarios, as it does in this assessment, to compare the existing 2004 scenario, and the future (2006, 2010 and 2016) scenarios with and without the development in place.

2.1 Receptors

In assessing pollutant concentrations surrounding the Gavray Drive site, receptors in close proximity to the site and that are representative of other properties in the immediate vicinity were chosen. Pollutant concentrations decrease significantly with distance from a road source and, provided there are no other major sources nearby, would be lower at properties located further from roads than the receptors chosen for this assessment.

Four receptors were chosen around the vicinity of the site in order to assess impacts on local air quality as a result of the proposed development. Two further proposed residential properties were also chosen as receptors with the development in place and have only been considered in the assessment for the “do something” scenarios (i.e. with the proposed development in place). The most sensitive receptors are residential properties and therefore these are the receptors that have been selected in this case.

The receptors used in the DMRB assessment are:

1. Residential property with rear façade backing centre of Gavray Drive (7 Heron Court);
2. Residential property at the corner of Gavray Drive and the Eastern Distributor Road (Rear façade of property backing onto Shearwater Drive);
3. Residential property between Peregrine Way entrance and exit (rear façade of property on Ravenscroft backing onto Eastern Distributor Road);
4. Residential property on Peregrine Way (property on the northern ‘exit’ portion of the road);
5. Proposed residential property on-site, property at the corner of Gavray Drive turning north onto the Eastern Distributor Road;
6. Proposed residential property on-site, property at the northern most limit of the eastern portion of the site (adjacent to railway line).

It should be noted that the receptors have been assumed to be at ground floor level since the DMRB method does not provide a means to differentiate receptor heights. This approach should therefore be interpreted as a worst-case scenario, since receptors at a higher vertical level will generally be exposed to reduced concentrations compared with those at ground level.

2.2 Traffic Data

Existing (2004) and predicted future traffic flows for 2006, 2010 and 2016 with and without the proposed developments in place for roads surrounding the site were calculated and provided by Colin Buchanan and Partners. Traffic data provided were in the form of AADT (Annual Average Daily Traffic) flows calculated from AM peak and AADT flows calculated from PM peak and an average was taken from the two figures to provide the data used in the assessment (Appendix A)

All calculated traffic flows for the present and estimated traffic flows used in the air quality assessment are shown in Table 2.

Table 2: Traffic Data for Gavray Drive site

Road Link	Average AADT Flows							Speed Limit (kph) (same for each scenario)
	2004 (Existing)	2006 DM	2006 DS	2010 DM	2010 DS	2016 DM	2016 DS	
Gavray Drive	1263	1667	5820	1771	5924	1938	6091	32
% HGVs	2	2	3	2	3	2	3	-
Eastern Dist Rd (betw Gavray Drive & Peregrine Way)	9358	12922	14709	13722	15509	10024	16810	64
% HGVs	10	9	8	9	8	3	8	-
Eastern Dist Rd (south of Peregrine Way)	11630	12015	15610	12759	16354	13968	17564	64
% HGVs	11	11	11	11	11	11	11	-
Peregrine Way	4913	5075	5092	5390	5406	5901	5307	32
% HGVs	2	2	2	2	2	2	2	-
Eastern Distributor Road (north of Gavray Drive)	14171	13378	13646	14206	14474	15553	15821	64
% HGVs	9	8	8	8	8	8	8	-

* DM = Do Minimum (i.e. without development), DS = Do something (i.e. with development)

2.3 Background Pollutant Concentrations

The screening method requires annual mean background concentrations for each pollutant assessed. The background concentrations for all pollutants were taken from the background pollution tables for Cherwell District Council available in the Government's National Air Quality Archive (<http://www.airquality.co.uk/archive/laqm/tools.php?tool=background>) at National Grid Reference 462500, 224500. These were obtained for the present scenario of 2004 and for 2006, 2010 and 2020 using the procedures detailed on the National Air Quality Archive website.

Background concentrations used in the DMRB screening assessment are shown below in Table 3.

Table 3: Annual Average Background Pollutant Concentrations

Pollutant	Annual Average Concentration ($\mu\text{g m}^{-3}$)			
	2004	2006	2010	2016
CO	0.19	0.16	0.12	0.11
Benzene	0.21	0.19	0.18	0.17
1,3-butadiene	0.09	0.07	0.06	0.06
NO₂	19.37	17.72	15.4	13.97
PM₁₀	17.8	17.58	16.4	16.4

There are no Air Quality Management Areas (AQMA) declared in Cherwell District, for any of the seven key pollutants outlined in the UK air quality objectives. There are no pre-existing problems, therefore, in terms of air quality.

3. RESULTS OF DMRB SCREENING ASSESSMENT

The baseline pollutant conditions surrounding the site are detailed below in Table 4. It can be seen that currently pollutant concentrations in the vicinity of the proposed site are well within the UK and European objectives. The pollutant concentrations predicted by the graphical screening method for all future scenarios are also presented in Table 4.

Referring back to the national air quality standards and objectives (see Table 1) it can be seen that all pollutants are well within all relevant standards and objectives for all pollutants assessed. Pollutant concentrations also decrease or remain at the same level over time from the 2006 scenarios to the 2016 scenarios as they do from the Do Minimum to Do Something scenarios. This is a result of improving vehicle technologies and removal of older cars from the national vehicle fleet over time. Any increases are negligible, however, and all remain well within the respective standards and objectives.

In comparison with the 2004 pollutant concentrations, the predicted concentrations for the greater majority of the future scenarios, both with and without the proposed development in place, show slight decreases.

Table 4: Pollutant concentrations for the existing scenario (2004) and all future scenarios (2006, 2010 and 2020) with and without development from the DMRB Screening Assessment

Pollutant	Carbon Monoxide (CO)	Benzene	1,3-butadiene	Nitrogen Dioxide (NO ₂)	Fine Particulate Matter (PM ₁₀)	
Averaging Period	Annual mean (mg/m ³)	Annual mean (µg/m ³)	Annual mean (µg/m ³)	Annual mean (µg/m ³)	Annual mean (µg/m ³)	No. of days >50µg/m ³
Receptor 1 – Centre of Gavray Drive						
2004	0.20	0.22	0.1	19.68	17.96	1.37
2006 DM	0.17	0.2	0.08	18.08	17.51	1.05
2006 DS	0.19	0.22	0.09	19.15	18.01	1.41
2010 DM	0.13	0.19	0.07	15.70	16.53	0.51
2010 DS	0.14	0.21	0.08	16.51	16.87	0.67
2016 DM	0.12	0.18	0.07	14.23	16.45	0.48
2016 DS	0.13	0.20	0.08	14.85	16.70	0.59
Receptor 2 – Corner of Eastern Distributor Road and Gavray Drive						
2004	0.23	0.25	0.14	23.30	19.26	2.55
2006 DM	0.20	0.23	0.12	22.18	18.97	2.26
2006 DS	0.22	0.25	0.14	22.98	19.41	2.71
2010 DM	0.16	0.21	0.10	18.96	17.48	1.03

2010 DS	0.17	0.23	0.12	19.51	17.75	1.22
2016 DM	0.14	0.20	0.10	16.38	16.94	0.71
2016 DS	0.16	0.22	0.11	17.11	17.29	0.91
Receptor 3 - Eastern Distributor Road						
2004	0.22	0.24	0.14	23.23	19.18	2.48
2006 DM	0.19	0.21	0.11	21.32	18.57	1.88
2006 DS	0.19	0.22	0.12	22.18	18.90	2.19
2010 DM	0.14	0.20	0.09	18.18	17.18	0.84
2010 DS	0.15	0.21	0.10	18.81	17.36	0.95
2016 DM	0.13	0.19	0.09	16.18	16.88	0.68
2016 DS	0.14	0.20	0.10	16.48	16.96	0.72
Receptor 4 - Peregrine Way						
2004	0.23	0.25	0.12	20.70	18.48	1.80
2006 DM	0.19	0.22	0.09	18.93	17.93	1.35
2006 DS	0.19	0.22	0.09	18.93	17.93	1.35
2010 DM	0.14	0.21	0.08	16.39	16.84	0.66
2010 DS	0.14	0.21	0.08	16.39	16.84	0.66
2016 DM	0.13	0.20	0.08	14.83	16.71	0.60
2016 DS	0.13	0.20	0.08	14.74	16.68	0.58
Receptor 5 - On-site, Corner Eastern Distributor Road/ Gavray Drive						
2004	0.27	0.29	0.19	24.86	20.39	3.89
2006 DM	n/a	n/a	n/a	n/a	n/a	n/a
2006 DS	0.22	0.25	0.14	22.73	19.37	2.67
2010 DM	n/a	n/a	n/a	n/a	n/a	n/a
2010 DS	0.17	0.23	0.12	19.39	17.76	1.22
2016 DM	n/a	n/a	n/a	n/a	n/a	n/a
2016 DS	0.16	0.23	0.11	17.08	17.32	0.93
Receptor 6 - On-site, northeastern corner						
2004	0.24	0.26	0.17	25.01	19.94	3.33
2006 DM	n/a	n/a	n/a	n/a	n/a	n/a
2006 DS	0.20	0.23	0.13	22.32	19.01	2.29
2010 DM	n/a	n/a	n/a	n/a	n/a	n/a
2010 DS	0.16	0.21	0.11	19.06	17.50	1.04
2016 DM	n/a	n/a	n/a	n/a	n/a	n/a

2016 DS	0.14	0.21	0.10	16.80	17.10	0.80
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In addition to emissions from road traffic, there are two railway lines passing to the north and to the west of the site, both of which have the potential to effect local air quality in bringing electric and diesel powered trains in close proximity to the site. Such locomotives emit nitrogen oxides, sulphur dioxide, and PM₁₀. Moving locomotives do not, however, make a significant contribution to short-term pollutant concentrations and there is no evidence to suggest that there is a risk of the 1 hour NO₂, 24 hour PM₁₀ and 24 hour and 1 hour SO₂ mean objectives being exceeded in the vicinity of railway lines¹. Exposure to stationary locomotives may be more significant, but only if locomotives are regularly stationary for periods of 15-minutes or more (potentially causing a risk of exceeding the SO₂ 15-minute objective) and if there is regular outdoor exposure within 15m of the stationary locomotives¹. The nearest stations to the Gavray Drive site are of a great enough distance for emissions from there to be considered insignificant.

4. MITIGATION MEASURES

4.1 Proposed Construction Mitigation Measures

Prior to commencement of construction activities, a Code of Construction Practice (CoCP) will be agreed with the local council to ensure the potential for adverse environmental effects on local receptors will be avoided. The Code is expected to contain the following air quality mitigation measures:

- Wheel washing facilities to prevent mud from construction operations being transported on to adjacent public roads;
- Damping down of site haul roads during prolonged dry periods;
- Regular cleaning of hard-surfaced site entrance roads;
- Ensuring that dusty materials are stored and handled appropriately (e.g. wind shielding or complete enclosure, storage is away from site boundaries, drop heights of materials are restricted, watersprays are used where practicable to reduce fugitive dust emissions);
- Ensuring that dusty materials are transported appropriately (e.g. sheeting of vehicles carrying spoil and other dusty materials);
- Confinement of vehicles to designated haul routes within the site;
- Restricting vehicle speeds on haul roads and other unsurfaced areas of the site;
- Hoarding and gates to prevent dust breakout; and
- Appropriate dust site monitoring is included within the site management practices to inform site management of the success of dust control measures used.

Construction activities would hereby be controlled to reduce as far as possible the potential environmental impacts, and therefore limiting residual impacts.

¹ Department for Environment, Food and Rural Affairs (2003), Part IV of the Environment Act 1995, Local Air Quality Management, Technical Guidance LAQM.TG(03).

4.2 Proposed Operational Mitigation Measures

In terms of the five key pollutants (carbon monoxide, benzene, 1,3-butadiene, nitrogen dioxide and particulate matter) the proposed development has no negative impact on the local air quality, especially so over time and therefore no mitigation measures are proposed with respect to operational traffic.

5. CONCLUSION

This air quality assessment examines existing air quality, outlines the relevant air quality standards and objectives and assess the potential changes in air quality arising from the development of the Gavray Drive site in Bicester.

A review and assessment of air quality has been undertaken by Cherwell District Council, which concluded that there would be no exceedence of any of the air quality objectives in the relevant years for any of the key pollutants and therefore no Air Quality Management Areas were declared in the district. This was recently confirmed by the Updating and Screening Assessment (*Air Quality Updating and Screening Assessment for Cherwell (Draft), February 2004*), which verified that detailed assessments would not be required for any pollutants.

The construction effects of the proposed development on local air quality will be primarily events where dust causes a nuisance during the limited duration of construction activities. These will be controlled, however, through mitigation measures contained within the Code of Construction Practice, thereby making certain that potentially adverse effects of construction on local air quality are kept to an absolute minimum of completely avoided.

Impacts to local air quality from the proposed residential developments will be from associated road traffic and the pollutants assessed were carbon monoxide, benzene, 1,3-butadiene, nitrogen dioxide and particulate matter. Together with background pollutant concentrations for the site, traffic data with anticipated changes in traffic flows due to the development were used to predict air pollution concentrations for the existing scenario (2004) and in the future years 2006 (opening year), 2010 and 2016, with and without the development in place.

All national air quality objectives are predicted to be met by the relevant years with and without the development in place. The predicted concentrations indicate that the effects of the proposed development on local air quality are negligible.

APPENDIX A

Traffic Data

Receptor No.	Receptor Description	Link No.	% HGVs			Existing (2004)			2006 Do Minimum		
			AM	PM	Average	AADT AM Peak	AADT PM Peak	Average	AADT AM Peak	AADT PM Peak	Average
1	Gavray Drive, Centre	1	0.05	0.1	0.1	1803	722.56	1263	1863.005	1471.774	1667
2	Corner of Eastern Distributor & Gavray Drive	1	0.23	0.11	0.2	13290.2	5425	9358	13728.79	12115.15	12922
		2	0.05	0.1	0.1	1803	722.56	1263	1863.005	1471.774	1667
3	Eastern Distributor Road	1	0.25	0.17	0.2	11330.04	11930	11630	11704.2	12324.1	12014
4	Peregrine Way	1	0.13	0.06	0.1	4595.78	5230	4913	4747.465	5402.462	5075
5	On-site, Corner Eastern Distrib Rd/ Gavray Drive	1	0.23	0.13	0.2	14055.69	14286	14171	14519.54	12236.01	13378
		2	0.05	0.1	0.1	1803	722.56	1263	1863.005	1471.774	1667
6	On-site, northeast corner	1	0.23	0.13	0.2	14055.69	14286	14171	14519.54	12236.01	13378

Receptor No.	Receptor Description	Link No.	2006 Do Something			2010 Do Minimum			2010 Do Something		
			AADT AM Peak	AADT PM Peak	Average	AADT AM Peak	AADT PM Peak	Average	AADT AM Peak	AADT PM Peak	Average
1	Gavray Drive, Centre	1	6015	5625	5820	1978.582	1562.544	1771	6131	5716	5924
	Corner of Eastern 2 Distrib & Gavray Drive	1	15515	13902	14709	14579.4	12865.79	13723	16366	14652	15509
		2	6015	5625	5820	1978.582	1562.544	1771	6131	5716	5924
	Eastern Distributor 3 Road	1	15299	15920	15610	12429.3	13087.7	12759	16024	16683	16354
	4 Peregrine Way	1	4764	5420	5092	5041.59	5737.356	5389	5058	5753	5406
	On-site, Corner Eastern Distrib Rd/ 5 Gavray Drive	1	14787	12504	13646	15419.14	12994.14	14207	15687	13261	14474
		2	6015	5625	5820	1978.582	1562.544	1771	6131	5716	5924
	On-site, northeast 6 corner	1	14787	12504	13646	15419.14	12994.14	14207	15687	13261	14474

Receptor No.	Receptor Description	Link No.	2016 Do Minimum			2016 Do Something		
			AADT AM Peak	AADT PM Peak	Average	AADT AM Peak	AADT PM Peak	Average
1	Gavray Drive, Centre	1	2165.647	1711.155	1938.401	6318	5864	6091
2	Corner of Eastern Distributor & Gavray Drive	1	5961.503	14085.55	10023.53	17747	15872	16809.5
		2	2165.647	1711.155	1938.401	6318	5864	6091
3	Eastern Distributor Road	1	13607.6	14329	13968.3	17203	17924	17563.5
4	Peregrine Way	1	5519.551	6281.659	5900.605	5537	5076	5306.5
5	On-site, Corner Eastern Distrib Rd/ Gavray Drive	1	16880.86	14226.07	15553.46	17147	14494	15820.5
		2	2165.647	1711.155	1938.401	6318	5864	6091
6	On-site, northeast corner	1	16880.86	14226.07	15553.46	17147	14494	15820.5

Receptor No.	Receptor Description	Link No.	% HGVs Existing 2004			% HGVs Do Minimum 2006			% HGVs Do Something 2006		
			AM No.	PM No.	Average No	AM	PM	Average No	AM	PM	Average No
1	Gavray Drive, Centre	1	35.8	14.6512	25	37	29.62	33	128.3	178.82	154
				%	2		%	2		%	3
Corner of Eastern 2 Distrib & Gavray Drive		1	1593.31	348.31	971	1645.92	555.13	1101	1645.92	662.35	1154
				%	10		%	9		%	8
		2	35.8	14.66	25	37	29.62	33	128.3	178.82	154
				%	2		%	2		%	3
Eastern Distributor 3 Road		1	1474.45	986.26	1230	1523.12	1018.92	1271	1973.08	1324.3	1649
				%	11		%	11		%	11
4 Peregrine Way		1	72.58	101.42	87	74.96	104.78	90	75.3	105.47	90
				%	2		%	2		%	2
On-site, Corner Eastern Distrib Rd/ 5 Gavray Drive		1	1593.24	1040.21	1317	1645.92	547.27	1097	1645.92	547.27	1097
				%	9		%	8		%	8
		2	35.8	14.66	25	37	29.62	33	128.3	178.82	154
				%	2		%	2		%	3
On-site, northeast 6 corner		1	1593.24	1040.21	1317	1645.92	547.27	1097	1645.92	547.27	1097
				%	9		%	8		%	8

Receptor No.	Receptor Description	Link No.	% HGVs Do Minimum 2010			% HGVs Do Something 2010			% HGVs Do Minimum 2016		
			AM	PM	Average No	AM	PM	Average No	AM	PM	Average No
1	Gavray Drive, Centre	1	39.3	31.46	35	130.55	180.66	156	43	34.48	39
				%	2		%	3		%	2
	Corner of Eastern 2 Distrib & Gavray Drive	1	1747.91	589.52	1169	1747.91	696.74	1222	1913.47	645.47	1279
				%	9		%	8		%	13
		2	39.3	31.46	35	130.55	180.66	156	43	34.48	39
				%	2		%	3		%	2
	Eastern Distributor 3 Road	1	1617.48	1082	1350	2067.44	1387.38	1727	1770.9	1184.59	1478
				%	11		%	11		%	11
	4 Peregrine Way	1	79.62	111.26	95	79.94	111.66	96	87.16	121.81	104
				%	2		%	2		%	2
	On-site, Corner Eastern Distrib Rd/ 5 Gavray Drive	1	1747.91	581.18	1165	1747.91	581.18	1165	1913.47	636.29	1275
				%	8		%	8		%	8
		2	39.3	31.46	35	130.55	180.66	156	43	34.48	39
				%	2		%	3		%	2
	On-site, northeast 6 corner	1	1747.91	581.18	1165	1747.91	581.18	1165	1913.47	636.29	1275
				%	8		%	8		%	8

			% HGVs Do Something 2016		
Receptor No.	Receptor Description	Link No.	AM	PM	Average No
1	Gavray Drive, Centre	1	134.3	183.62	159
				%	3
Corner of Eastern 2 Distrib & Gavray Drive		1	1913.47	752.63	1333
				%	8
		2	134.3	183.62	159
				%	3
Eastern Distributor 3 Road		1	2220.86	1489.97	1855
				%	11
4 Peregrine Way		1	87.5	97.79	93
				%	2
On-site, Corner Eastern Distrib Rd/ 5 Gavray Drive		1	1913.47	636.29	1275
				%	8
		2	134.3	183.62	159
				%	3
On-site, northeast 6 corner		1	1913.47	636.29	1275
				%	8