

**KILSARAN
KILMESSAN QUARRY
TULLYKANE, KILMESSAN, CO MEATH**

Traffic Assessment Report

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1 INTRODUCTION

1.1 General

1.1.1 This report provides a comparative assessment of the historic, existing and future traffic generation characteristics of the Kilmessan Quarry site in the context of the prevailing traffic conditions on the local roads network in the vicinity of the existing quarry site at Tullykane, Kilmessan, Co Meath. The assessment compares the traffic scenario arising from the current permitted extractive operations at the site and that likely to arise from the current proposal to backfill the existing quarry void with soil and stone.

1.1.2 The traffic assessment is based upon recent 2016 classified turning count surveys of local road traffic flows together with traffic data from 2006 relating to the application for the current permitted development of extractive operations, planning reference TA/802731 (ABP Reference PL17.233813) granted on 23rd December 2011.

1.2 Study Methodology

1.2.1 Trafficwise Ltd. has been retained to undertake a study into the historic, permitted and likely future traffic generation and relative affects of same upon the capacity and operation of the receiving road network and access arrangements serving the existing Kilmessan Quarry site located at Tullykane, Kilmessan, Co Meath.

1.2.2 This report provides a review of traffic generation rates for permitted extractive operations. Classified traffic surveys undertaken on the receiving road network identify existing traffic conditions. The traffic surveys were carried out by Abacus Transportation Surveys. In the interest of a comprehensive appraisal of the receiving road traffic environment this report provides an assessment of the traffic flows recorded at the traffic count sites on the roads that make up the haul routes to Kilmessan Quarry.

1.2.3 The report provides an evaluation of the relative level of impact the existing permitted development would have on the local road network if it were operating at the permitted extraction rate of 750,000t per annum as compared to the traffic

impact arising from the alternative current proposal to backfill the existing quarry void with soil and stone.

- 1.2.4 The report identifies how existing and future traffic associated with the permitted development can be accommodated on the existing local road network. Where considered appropriate, measures are discussed regarding the management of traffic associated with the proposed development and local improvements and mitigation measures.

1.3 Background

1.3.1 Site Location

- 1.3.1.1 The existing Kilmessan Quarry is located in Tullykane, Kilmessan, Co Meath. The area is rural in nature and there is a dispersed mix of single dwelling houses and farms. The site is accessed directly from Local Road L2206 which lies on the southern boundary of the site. The site is generally set within an agrarian landscape and is for the most part bounded by mature trees and hedgerow on all sides. The surrounding landscape features a gently undulating terrain marked by woodland and pastureland. The quarry is substantially screened from views from the adjoining road network. Local Road L2206 connects the villages of Kilmessan and Dunsany. Approximately 1km northwest of the existing quarry access Local Road L2206 links to L2205 in Kilmessan. These roads principally accommodate local quarry traffic. Local Road L2206 connects to L2207 at Dunsany some 1.75km southeast of the existing site access. To the north the L2207 provides access via Belpers Cross to the R147 (Former N3 National Primary Road) which lies approximately 3.9km north of Dunsany. From the R147 traffic has access to the M3 Motorway at Junction 7 to the north and Junction 6 to the south near Dunshaughlin. Approximately 3km to the south of Dunsany Local Road L2207 connects to the R154 between Batterjohn and Cross Keys.

- 1.3.1.2 Local Road L2206 in the vicinity of the existing quarry access is subject to the default rural speed limit of 80km/h. The existing access arrangement was upgraded and improved in 2001 under the grant of permission registry reference 99/1230. The boundary fencing and hedgerow are set back from the road edge and accommodate

visibility sightlines in the order of 160m in both directions. Based upon previous detailed surveys undertaken in preparing the current Traffic Management Plan in operation at the site and reported upon in the application for the current permission to extract stone at a rate of 750,000t per annum for 20 years the average carriageway width over the length of the L2206 is 6.2m varying from 5.8m to 6.6m. Traffic arising from extractive operations has used this route to and from Kilmessan Quarry since before 1964.

- 1.3.1.3 The speed limit in the vicinity of Dunsany is 50km/h. Outside of the village the speed limit reverts to the default 80km/h. Local Road L2207 through Dunsany exceeds 6.0m in width. To the north of the village the road remains wide with a dividing solid centreline as far as Knightsfield Park thereafter becoming more rural in character with a reduced average carriageway width measured at 5.8m. To the south of the village the road width is measured to be an average 6.0m in width albeit that there is a localised narrowing of the carriageway to 5.5m at Dunsany Bridge approximately 1km south of the village centre.

1.3.2 Traffic Management Plan - Extractive Operations Haul Routes

- 1.3.2.1 A Traffic Management Plan (TMP) was prepared for the site in 1999 under request from Meath County Council. The primary aims of the TMP are; (1) to minimise the impact from quarry generated traffic, (2) to minimise wear and tear on receiving road network, and (3) to make use of all reasonable transport routes available to haul quarry products to market destination without entailing excessive or extraordinary transportation costs.

- 1.3.2.2 The TMP identifies that the three main market areas for aggregates are Dublin, Navan and Trim. The demand for aggregate is market driven and the TMP has been developed around the principle of a flexible network of viable one way haul routes aimed at distributing quarry traffic on the receiving road network.

- 1.3.2.3 For the identified main market areas the TMP identifies the following haul routes. For the Dublin Market, Route Option (a) involves outbound vehicles turning left and travel via L2206 to Dunsany Cross turning left onto L2207, travelling north to the R147 and right to Dublin. Dublin Market Route Option (b) involves turning right at

Dunsany Cross and accessing the R154 at Batterjohn turning left to Dublin. For the Navan Market, Route Option (a) involves outbound vehicles turning left and travel via L2206 to Dunsany Cross turning left onto L2207, north to the R147 and left toward Navan. Navan Market Route Option (b) involves turning right from the quarry access and turning right at Kilmessan (L2206/L2205 T-junction) to travel to Ballinter Cross and on to Navan via one or other of the two available routes from there. Navan Market Route Option (c) involves travelling through Kilmessan Village to Bective as far as the R161 and on to Navan. Trim Market Route Option (a) involves travelling through Kilmessan Village to Bective as far as the R161 and on to Trim. Trim Market Option (b) is also through Kilmessan Village to R154 at Pikes Corner and onward to Trim. Although not set out in the TMP Trim Market traffic can alternatively avoid Kilmessan and use the Dunsany Cross route to R154 at Batterjohn.

1.3.3 Permitted Development

1.3.3.1 Extractive operations have been carried out at the existing Kilmessan Quarry since before 1964. The most recent planning permission for quarrying is Register Reference TA/802731 (PL17.233813) granted permission on 23rd December 2011, this permission has not yet commenced.

1.3.3.2 It is understood that Kilsaran intends to recommence quarrying if the current alternative proposal to backfill and restore the quarry is unsuccessful.

1.3.3.3 Under TA/802731 permission is granted for the extraction of stone at a rate of 750,000t per annum for the term of twenty years whilst a further two years is permitted for final restoration. The permitted hours of operation are 08:00-18:00hrs Monday to Friday and 08:00-14:00hrs on Saturdays. Truck loading activities are permitted to commence at 07:00hrs every day the site is open.

1.3.3.4 In determining the application An Bord Pleanála considered that, subject to compliance with the conditions set out in the grant of permission the proposed development, including continued operation of this quarry and extraction of rock would not seriously injure the amenities of the area or of property in the vicinity, would not be prejudicial to public health, would be acceptable in terms of traffic

safety and convenience of road users, would not be detrimental to the cultural heritage of the general area, and would not materially contravene the policies of the development plan for the area. The Board determined that the permitted development would, therefore, be in accordance with the proper planning and sustainable development of the area.

1.4 Traffic Impact Assessment

1.4.1 The existing site enjoys a planning permission for the continued extraction of 750,000t of stone per annum for a period of 20 years. Kilsaran has given a clear commitment to acting on the current permission and intends to recommence quarrying if the current alternative proposal to backfill and restore the quarry is unsuccessful.

1.4.2 The true measure of impact of development traffic is the incremental difference between the current and proposed traffic scenarios. Given the commitment to recommence quarrying the 'existing' traffic scenario must reflect the permitted extraction of stone from the quarry at a rate of 750,000t per annum for 20 years and a further two years for restoration. The forecast 'future' scenario is that arising from the current proposal to import soil and stone material to backfill and restore the quarry at a rate of 400,000t per annum for the duration of 14 years. Also included in the proposed future scenario is the construction of a community park on lands to the west of the quarry landholding.

2 EXISTING CONDITIONS

2.1 Receiving Road Network

2.1.1 General

2.1.1.1 The site is accessed directly from Local Road L2206 which lies on the southern boundary of the site. Local Road L2206 connects the villages of Kilmessan and Dunsany. Approximately 1km northwest of the existing quarry access Local Road L2206 links to L2205 and L4010 in Kilmessan. These roads principally accommodate local quarry traffic. Local Road L2206 connects to L2207 at Dunsany some 1.75km southeast of the existing site access. To the north the L2207 provides access via Belpers Cross to the R147 which lies approximately 3.9km north of Dunsany. Approximately 3km to the south of Dunsany Local Road L2207 connects to the R154 between Batterjohn and Cross Keys.

2.2 Traffic Surveys

2.2.1 General

2.2.1.1 In relation to general roads geometry the principle design parameter is the 'Design Speed' of the receiving road. Other considerations include vehicle categories, the proportions of vehicle types, the volume of traffic on the receiving road and the volume of traffic generated at junctions and accesses.

2.2.2 Classified Turning Count Surveys (2016)

2.2.2.1 Abacus Transportation Surveys Ltd. carried out classified turning count surveys on the public road network in the vicinity of the site using CCTV on Thursday 29th September 2016 and Wednesday 9th November 2016 between 07:00 and 19:00hrs. Copies of the CCTV footage can be made available upon request. The survey data and location mapping is provided in Appendix A.

2.2.2.2 The traffic data collected in the surveys is a snapshot of traffic volumes and characteristics on the local road network. The survey days reflect typical weekday traffic patterns and include both schools and commuter peak periods. The weekday commuter peak periods typically tend to have the heaviest hourly network flows.

2.2.2.3 Classified traffic turning count data was collected for the following junctions:

- Site 1: L2205/L2206 Kilmessan, Priority T-junction,
- Site 2: L2206/L2207 Dunsany Cross, Staggered Crossroad,
- Site 3: L2206/Local Roads (Athronan/Arlonstown), Crossroad

2.2.2.4 The traffic flow data from the 2016 surveys forms the basis of the assessments of road network capacity and evaluation of the likely impact of the proposed development on the operation of the receiving road network.

2.2.3 Summary of Traffic Flows on Receiving Roads

2.2.3.1 Daily traffic flow profiles recorded on the receiving road network during the course of the 2016 surveys are shown in Figures 1 through 20 of Appendix B.

2.2.3.2 Table 2.1 below provides a summary of the recorded traffic survey data and percentage HGV content enumerated between 07:00 and 19:00hrs.

2.2.3.3 Based upon NRA: Project Appraisal Guidelines, Unit 16.2 - 'Expansion Factors for Short Period Traffic Counts' the weekday AADT¹ can reasonably be estimated to be approximately 27% higher than the flows recorded during the 12 hour surveys. Table 2.1 provides an estimate of AADT based upon 83.1% of daily flows manifest in the traffic survey period. Weekly flow indices of 0.97 and 0.93 have been used for Wednesday and Thursday respectively and monthly flow indices of 0.96 and 1.04 have been used for September and November respectively.

¹ Annual Average Daily Traffic

Survey Site Ref.	Road Link	07:00-19:00hrs Two-way Flow		AADT 2016	
		Daily 12hr	HGV	Daily 24hr	HGV
Site 1 Sept 2016	L2205(S) Kilmessan	1,686	54	1,811	3.2%
	L2205(N)	970	47	1,042	4.8%
	L2206 Kilmessan-Dunsany	1,042	51	1,119	4.9%
Site 2 Nov 2016	L2208	969	41	1,176	4.2%
	L2207(N)	1,460	95	1,772	6.5%
	L2207(S)	1,676	95	2,035	5.7%
	L2206 Kilmessan-Dunsany	1,031	37	1,252	3.6%
Site 3 Sept 2016	Local Road Arlonstown	11	0	12	0%
	Local Road Athronan	74	0	80	0%
	L2206(W) Kilmessan-Dunsany	1,026	42	1,102	4.1%
	L2206(E) Kilmessan-Dunsany	1,047	42	1,125	4.0%

Table 2.1 Road Network Daily Two-way Traffic Flows and %HGV (2016)

2.2.3.4 A network flow diagram of the recorded daily traffic flows can be found in Appendix C as follows:

- Figure C1-----Weekday, Daily Traffic Flows 07:00-19:00hrs

2.2.4 Traffic Flows on L2206 Kilmessan to Dunsany Road

2.2.4.1 Appendix B Figure 1 shows, by direction, the total daily traffic flow passing the existing site access location on Local Road L2206. The average daily traffic flow is 541 vehicles per day westbound (toward Kilmessan) and 501 vehicles per day eastbound (toward Dunsany). Appendix B Figures 1 shows the recorded hourly traffic flow over the course of the 12 hour survey. The profile for the daily flows shows a modest reflection of the tidal commuter traffic pattern typically observed on

regional and national roads which tend to show peaks in one direction at the traditional commuting periods in the morning with a reversal in the predominant direction of flow during the evening peak; generally 08:00-09:00hrs and 17:00-18:00hrs respectively. Traffic predominantly flows eastbound in the morning.

2.2.4.2 The morning peak hour occurs during the traditional commuter peak hour period of 08:00 to 09:00hrs and shows the road to carry 42 vehicles westbound and 78 vehicles eastbound. This morning peak two-way flow is approximately 1.4 times the recorded weekday average hourly traffic flow between 07:00 and 19:00hrs.

2.2.4.3 The evening peak hour occurs during the traditional commuter peak hour period of 17:00 to 18:00hrs with 93 vehicles westbound and 32 vehicles eastbound. This evening peak two-way flow is approximately 1.4 times the recorded weekday average hourly traffic flow between 07:00 and 19:00hrs.

2.2.4.4 Appendix B Figure 2 shows the daily HGV traffic flow is 29 vehicles per day westbound (toward Kilmessan) and 22 vehicles per day eastbound (toward Dunsany). The profile for the daily HGV flow is not considered typical of the pattern of commercial traffic flows expected on regional and national roads which tend to show a distribution curve resembling the mathematical standard normal distribution. The distribution shows HGV travelling in the morning and evening with a relative lull in the middle of the day.

2.2.5 Traffic Flows on L2207 (Between R154 & R147 through Dunsany Cross)

2.2.5.1 Appendix B Figures 11 and 13 show by direction, the total daily traffic flow north and south of Dunsany Cross on Local Road L2207. The average daily traffic flow north of the cross is 707 vehicles per day northbound (toward R147) and 753 vehicles per day southbound (toward Dunsany). The average daily traffic flow south of the cross is 830 vehicles per day northbound toward Dunsany and 846 vehicles per day southbound (toward R154). In both cases the profile for the daily flows shows elevated traffic flows in both directions during the traditional commuting periods in the morning and evening peak; generally 08:00-09:00hrs and 17:00-18:00hrs respectively.

- 2.2.5.2 The morning peak hour occurs during the traditional commuter peak hour period of 08:00 to 09:00hrs and shows the L2207 to carry 82 vehicles northbound and 98 vehicles southbound to the north of Dunsany. The corresponding flows to the south of Dunsany Cross are 102 vehicles northbound and 115 vehicles southbound.
- 2.2.5.3 The evening peak hour occurs during the traditional commuter peak hour period of 17:00 to 18:00hrs with 85 vehicles northbound and 83 vehicles southbound to the north of Dunsany Cross and 101 vehicles northbound and 95 southbound to the south of the junction.
- 2.2.5.4 Appendix B Figures 12 and 14 show the daily HGV traffic flow is 46 vehicles per day northbound and 49 vehicles per day southbound to the north of Dunsany Cross with the corresponding flows to the south being 43 HGV northbound and 52 southbound. The profile for the daily HGV flow shows a relatively steady flow in both directions over the course of the survey period 07:00-19:00hrs.
- 2.2.6 Traffic Flows on L2208 Past Killeen Castle
- 2.2.6.1 Appendix B Figure 7 shows, by direction, the total daily traffic flow passing Killeen Castle on Local Road L2208. The average daily traffic flow is 462 vehicles per day eastbound (toward Dunshaughlin) and 507 vehicles per day westbound (toward Dunsany). The profile for the daily flows shows a tidal commuter traffic pattern with flows predominantly eastbound in the morning with the reversal manifest in the evening peak period.
- 2.2.6.2 The morning peak hour occurs during the traditional commuter peak hour period of 08:00 to 09:00hrs and shows the road to carry 92 vehicles eastbound and 38 vehicles westbound. The evening peak hour occurs during the traditional commuter peak hour period of 17:00 to 18:00hrs with 20 vehicles eastbound and 74 vehicles westbound.
- 2.2.6.3 Appendix B Figure 8 shows the daily HGV traffic flow is 20 vehicles per day eastbound (toward Dunshaughlin) and 21 vehicles per day westbound (toward Dunsany). Save for a spike in the data showing 6 HGV travelling westbound in one

15 minute period the profile for the daily HGV flow shows a relatively steady flow in both directions over the course of the survey period 07:00-19:00hrs.

2.2.7 Traffic Flows on L2205 (Northeast of Kilmessan)

2.2.7.1 Appendix B Figures 3 and 5 show by direction, the total daily traffic flow north and south of the T-junction intersection of L2206 and L2205. The average daily traffic flow north of the junction is 479 vehicles per day northbound (toward Navan) and 491 vehicles per day southbound. The average daily traffic flow south of the junction is 817 vehicles per day northbound and 869 vehicles per day southbound (toward Kilmessan), making this section of road the most heavily trafficked locally within the study scope. In both cases the profile for the daily flows shows modestly elevated traffic flows in both directions during the traditional commuting periods in the morning and evening peak periods.

2.2.7.2 The morning peak hour occurs during the traditional commuter peak hour period of 08:00 to 09:00hrs and shows the L2205 to carry 43 vehicles northbound and 58 vehicles southbound to the north of the junction. The corresponding flows to the south of the L2206 junction are 99 vehicles northbound and 78 vehicles southbound.

2.2.7.3 The evening peak hour occurs during the traditional commuter peak hour period of 17:00 to 18:00hrs with 66 vehicles northbound and 52 vehicles southbound to the north of the junction and 77 vehicles northbound and 118 southbound to the south of the junction.

2.2.7.4 Appendix B Figures 4 and 6 show the daily HGV traffic flow is 23 vehicles per day northbound and 24 vehicles per day southbound to the north of the L2206 junction with the corresponding flows to the south being 23 HGV northbound and 31 southbound. The profile for the daily HGV flow shows a relatively steady flow in both directions over the course of the survey period 07:00-19:00hrs.

2.2.8 Baseline Kilsaran HGV Traffic Generation

General

- 2.2.8.1 At the time of the traffic surveys the Kilmessan Quarry was closed. It is nonetheless the case that the existing site enjoys planning permission to extract stone for 20 years at a rate of 750,000t per annum. It is the clear intention of Kilsaran to commence quarrying operations should the current alternative proposal to backfill and restore the quarry be refused planning permission. The following section is based upon empirically derived traffic generation and vehicle payload data from other operating Kilsaran quarry sites and aims to provide an estimate of the base or existing traffic scenario which is that arising from the current permitted extraction of 750,000t per annum.
- 2.2.8.2 Kilsaran is one of Irelands leading suppliers of aggregate to the building industries. In general aggregate is the term used for blasted rock from a quarry that is crushed and screened to produce smaller sized material suitable for further processing within the construction industry such as fills, ready mixed concrete and asphalt. It can range from 150mm single size down to dust.
- 2.2.8.3 It can be appreciated that the generation of HGV and indeed the volume of product transported by each vehicle leaving the site is not only product dependent but is commercially driven.
- 2.2.8.4 The quarry has historically provided aggregates and stone derived products for building and has the potential to continue to do so for 20 years. Product will potentially be delivered to a broad spectrum of construction projects in correspondingly diverse quantities. Product from quarry sites is delivered in the quantity prescribed by the various purchasers and clients. There are projects which by their nature may require many loads and logistical efficiency is typically the objective in those cases. Such efficiency is achieved by ensuring that in the case of multiple loads as many as practicable are full loads. Equally there are smaller deliveries arising from specific demands relating to finite activities on larger sites or simply arising on smaller jobs or works such as house extensions and the like.

2.2.8.5 A guide to the carrying capacity of the typical HGV used by the quarrying industry to transport aggregates is provided hereunder in Table 2.2

Type	Length	Max Weight	Capacity
4 Wheel x 2 Axle Tipper (Five Wheeler)	7.6m	24.5t	14.5t
6 Wheel x 4 Axle Tipper (Six Wheeler)	8.2m	26t	16t
8 Wheel x 4 Axle Tipper (Eight Wheeler)	9.8m	32t	20t
Articulated	14.2m	44t	29t

Table 2.2 Aggregate Transportation General Vehicle Statistics

Product Transportation - Aggregates

2.2.8.6 Based upon an assessment of weighbridge data for the Ballinclare Quarry in Wicklow the haulage of aggregate from the site does not typically occur all in full loads. The average payload of vehicles leaving the site with aggregates is 18 tonnes. The maximum and minimum payloads were 32 tonnes and 2 tonnes respectively. The aggregate vehicles in the Kilsaran fleet are predominantly the eight wheeler and articulated types. It can nonetheless be appreciated that third party vehicles also haul materials.

2.2.8.7 As distinct from the average payload the following Table 2.3 shows the typical payload of aggregate vehicles at the Ballinclare Quarry expressed as a proportion of the total number of aggregate carrying vehicles leaving the site. From the figures it can be seen that some 20% of vehicles carrying aggregate leave with less than 15 tonnes whilst a further 26% leave with between 15 and 20 tonnes. Practically half the aggregate loads are less than 20 tonnes with the remaining half being between 20 and 25 tonnes.

2.2.8.8 This is the general profile expected at the existing Kilmessan Quarry upon commencement of extractive operations which will occur should the current application for backfill and site restoration be refused planning permission.

Payload	Proportion of Loads	Cumulative Proportion
0- 5t	11%	11%
5-10t	5%	16%
10 – 15t	4%	20%
15- 20t	26%	46%
20-25t	53%	99%
25-30t	0%	99%
30-35t	1%	100%

Table 2.3 Aggregate Transportation - Recorded Vehicle Payload

Import of Materials

2.2.8.9 There is no manufacturing of value added products permitted at the existing quarry and only extractive operations and related crushing of stone would be carried out at the site. There is a need for the import of fuels, maintenance vehicles etc. supporting the running of the site and machinery however the volume and frequency of such traffic is not considered significant in the context of the daily HGV traffic generation of the site.

Traffic Generation Potential of Permitted Quarry Development

2.2.8.10 Based upon the permitted extraction rate of 750,000t per annum and an average vehicle payload of 18t as derived empirically the site has the permitted potential to generate some 41,667 HGV trips where a trip is defined by a movement to and from the site. Based upon a total of 278 working days and the simple assumption of a flat profile of aggregate production throughout the year it can be estimated that the permitted quarry has the potential to generate an average of 150 HGV trips per day

2.2.8.11 The Traffic Impact Report that accompanied the application for the current permitted development acknowledges that quarrying is a demand driven industry and therefore traffic distribution can vary over time depending upon the market location. Based

upon the surveys undertaken at the quarry access at the time of preparing the application for the permitted development some 77% of HGV were observed to arrive from Dunsany and returned in the same direction. Based upon this distribution at the site entrance and the recorded greater network distribution of HGV in the 2016 traffic surveys Appendix C Figure 2 shows the forecast distribution of quarry generated traffic to the receiving road network. It is assumed for the purposes of the assessment that a workforce of 20 would be employed at the quarry. In the interest of simplicity it is assumed that the movement of staff vehicles on the network would be in the same proportions as HGV traffic. Appendix C Figure 3 shows the forecast traffic generation of the permitted quarry development and is the baseline traffic scenario, Table 2.4 below provides a summary of the forecast average daily traffic generation arising on the receiving road network from the operation of the permitted quarry development.

Survey Site Ref.	Road Link	AADT 2016		Permitted Quarry Development HGV Traffic (Two-way)	
		Daily 24hr	HGV %	Daily	HGV No.
Access	77% = 231 HGV two-way East 23% = 69 HGV two-way West	340	88%	340	300
Site 1 Sept 2016	L2205(S) Kilmessan	1,811	3.2%	46	41
	L2205(N)	1,042	4.8%	31	28
	L2206 Kilmessan-Dunsany	1,119	4.9%	80	70
Site 2 Nov 2016	L2208	1,176	4.2%	118	104
	L2207(N)	1,772	6.5%	98	86
	L2207(S)	2,035	5.7%	48	42
	L2206 Kilmessan-Dunsany	1,252	3.6%	264	232

Table 2.4 Baseline Traffic Flows and Traffic Generation of Permitted Development

3 TRAFFIC CHARACTERISTICS OF PROPOSED DEVELOPMENT

3.1 Description of Propose Operations

3.1.1 The development within the application area is for a period of 14 years and will consist of the cessation in the use of the permitted development and the backfilling of the quarry void with soil and stone under a waste licence from the Environmental Protection Agency. The weighbridges, truck wheelwash bay, floodlighting, oil and fuel storage tanks and water storage tanks the paved entrance avenue and the existing splayed entrance will remain to facilitate the proposed development. In total it is proposed to import 400,000t per annum of material to the site.

3.2 Hours of Operation

3.2.1 The current grant of permission requires that normal quarry operations (i.e. extraction and processing) shall not commence before 08.00hrs and shall not continue after 18.00hrs Monday - Friday, and 14.00hrs on Saturday. Loading of vehicles shall not take place before 07.00hrs. No work takes place on Sunday or Bank Holidays. The proposed hours of operation are 07.00 am to 18.00hrs Monday - Friday, and 07:00 to 14.00hrs on Saturday.

3.3 Potential Traffic Generation

3.3.1 From weighbridge data it has been shown that the average load per vehicle transporting aggregates is 18t and this figure accounts for partial loads. Based on experience at similar land restoration and landfilling projects typically the proportion of partial loads is lower than the market driven transport of aggregate. It is proposed to import 400,000t of material annually. It is anticipated that the average payload should reasonably be greater than that for aggregate transportation and based upon empirical data and the data in Table 2.2 in the interest of a robust assessment it is assumed that the same payload of 20t per vehicle will be manifest at the proposed development site. Based upon a total of 278 working days and the simple assumption of a flat profile of materials import throughout the year it can be estimated that the proposed quarry restoration project has the potential to generate an average of 72 HGV trips per day

3.3.2 It is expected that the vast majority of wastes will be transported to the site from the east nevertheless it can be appreciated that as per the transport of aggregates the transport of backfill material will similarly be market driven. In the interest of simplicity and to aid in the direct comparison of the permitted and proposed development traffic impacts it is assumed that the proposed development traffic will distribute on the road network in the same proportions as derived for the permitted quarry development. It is also assumed for the purposes of the traffic assessment that a similarly sized workforce of 20 would be employed at the proposed development in the interest of simplicity it is assumed that the movement of staff vehicles on the network would be in the same proportions as HGV traffic. Appendix C Figure 4 shows the forecast traffic generation of the proposed quarry backfilling and restoration development and is the forecast future traffic scenario, Table 3.1 below provide a summary of the forecast average daily traffic generation arising on the receiving road network from the operation of the proposed development.

Survey Site Ref.	Road Link	AADT 2016		Proposed Quarry Development HGV Traffic (Two-way)	
		Daily 24hr	HGV %	Daily	HGV No.
Access	90% = 110 HGV two-way East 10% = 34 HGV two way West	184	78%	184	144
Site 1 Sept 2016	L2205(S) Kilmessan	1,811	3.2%	25	20
	L2205(N)	1,042	4.8%	16	13
	L2206 Kilmessan-Dunsany	1,119	4.9%	41	33
Site 2 Nov 2016	L2208	1,176	4.2%	63	49
	L2207(N)	1,772	6.5%	53	41
	L2207(S)	2,035	5.7%	26	20
	L2206 Kilmessan-Dunsany	1,252	3.6%	140	110

Table 3.1 Forecast Traffic Generation of Proposed Development

3.4 Community Project

- 3.4.1 In parallel with the proposed backfilling and restoration of the existing quarry void it is proposed to develop a community park on a plot to the west of the lands owned by Kilsaran at Tullykane. It is proposed that the park will be constructed at the expense of Kilsaran and the costs offset against community fund contributions. The community park will include for a new dedicated vehicular access to the west (Kilmessan side) of the existing quarry access. Given the current significant setback of the existing quarry site boundary along L2206 the visibility sightlines from the proposed site access are in excess of 160m from a setback of 3.0m which is the visibility standard at the existing permitted quarry development site.
- 3.4.2 The community park will include paved car parking areas together with a children's play area and paved walkways throughout the park. It is also envisaged that the park will include for a community playing pitch. It is noted that the application incorporates an and/or scenario regarding the park proposal. If a properly constituted body does not come forward to take ownership of the park prior to construction, within a predefined period the area will remain undeveloped and will be reclaimed to an agricultural after use in keeping with the balance of the reclaimed quarry.
- 3.4.3 Traffic generation to the proposed park during the working day is expected to be very light. In the evenings it is likely that the site might generate a similar volume of traffic to that of any rural community playing pitch. The traffic using the park will arise from the local community, and it is reasonably assumed that the majority of the trips associated with recreational activities at the site are already being undertaken locally in any case and will for the most part be diverted from other recreational opportunities. The impact of traffic generated by the community park is accordingly likely to be negligible in the context of the operation of the local roads network.

4 IMPACT UPON RECEIVING ROAD NETWORK

4.1 Current Permission & Proposed Development

4.1.1 The proposed development has the potential to significantly reduce the impact of Kilmessan Quarry on the receiving road network. The site is currently permitted to operate at an extraction rate of 750,000t of aggregates per annum for a period of 20 years with a further 2 years permitted for restoration of the site. The average daily HGV traffic generation of the permitted quarry equates to 150 vehicle trips per day. The proposed backfill and quarry restoration project is for a period of 14 years in total and proposes the import of 400,000t of material per annum which equates to an average daily HGV traffic generation of 72 trips and thus constitutes a 52% reduction in the overall potential annual traffic generation of the site. The following Table 4.1 shows the existing 2016 AADT against the potential AAT were the permitted development or proposed development implemented. Over time the AADT on the receiving road network is likely to increase thus reducing the overall percentage impact of the quarry site. The 2016 data is presented as a worst case.

Survey Site Ref.	Road Link	AADT 2016		Permitted Development		Proposed Development	
		Daily 24hr	HGV	Daily	HGV	Daily	HGV
Access	90%=110 HGV two-way East 10%= 34 HGV two way West			340	300	184	144
Site 1 Sept 2016	L2205(S) Kilmessan	1,811	3.2%	1,857	5.3%	1,836	4.2%
	L2205(N)	1,042	4.8%	1,073	7.3%	1,058	6.0%
	L2206 Kilmessan-Dunsany	1,119	4.9%	1,199	10.4%	1,160	7.6%
Site 2 Nov 2016	L2208	1,176	4.2%	1,294	11.9%	1,239	7.9%
	L2207(N)	1,772	6.5%	1,870	10.8%	1,825	8.6%
	L2207(S)	2,035	5.7%	2,083	7.6%	2,061	6.6%
	L2206 Kilmessan-Dunsany	1,252	3.6%	1,516	18.3%	1,392	11.1%

Table 4.1 Forecast AADT Existing Network & Permitted / Proposed Developments

4.1.2 If considered over the entire life of the project the permitted quarry operating at 750,000t per annum has the potential to generate a total of 833,333 HGV trips not including for the two years of restoration. The total HGV traffic generation of the proposed quarry restoration project is estimated to be approximately 280,000 trips not including for the traffic generated in the construction of the proposed community park. Over their respective lifetimes the proposed development is estimated as likely to reduce the number of HGV on the receiving road network in the order of 66-70%.

4.1.3 The existing site standard of access is as granted under previous and current permissions. The applicant continues to maintain the hedgerow either side of the access to ensure that sight distances in both directions are optimised and not blocked by overgrown hedgerow or overhanging branches.

4.2 Junction Capacity

4.2.1 The existing access is lightly trafficked and will continue to be lightly trafficked in the context of the ultimate capacity of a simple priority junction.

4.2.2 The local roads network intersects with the greater network at the priority junctions located at Kilmessan (L2206/L2205) and at Dunsany (L2206/2207/2208) and these junctions form part of the informal haul route system set out in the current Traffic Management Plan for the quarry. Based upon the recent traffic surveys at both these junction it can be appreciated that they are not heavily subscribed and will have significant capacity to cater for current and future traffic flows to and from the proposed or permitted development at Kilmessan Quarry.

4.2.3 Clearly there are unlikely to be any capacity issues arising at these junctions as a direct result of the proposed development since the proposal benefits the local road network through a reduction in annual average daily traffic flows and operates for a shorter period of time by up to 8 years..

5 MITIGATION MEASURES

5.1 At present there is advance warning signing erected on the L2206 on both approaches to the site access and the site access is a prominent feature with stone walls and is accordingly easily identified. Notwithstanding this it is recommended that the existing signs are re-furnished or replaced with new signs of a similar standard of construction (metal). It is not proposed to change the locations of the signs it is however recommended that the signs are augmented with distance plates. The additional plates shall conform to the standard set out in the Traffic Management Guidelines.

5.2 It is proposed that new advance signs show a standard junction ahead warning sign which shows drivers which side of the road the entrance is on. It is proposed to augment the sign with an information plate reading 'Quarry Entrance 200m'. If the Planning Authority considers it worthwhile a second set of similar signs can be placed at 100m distance from the site access. The size of the signs and the details of legend size etc. will be designed in accordance with the Traffic Signs Manual. The following Image 4-1 provides a suggested layout.



Appendix A

Traffic Survey Data

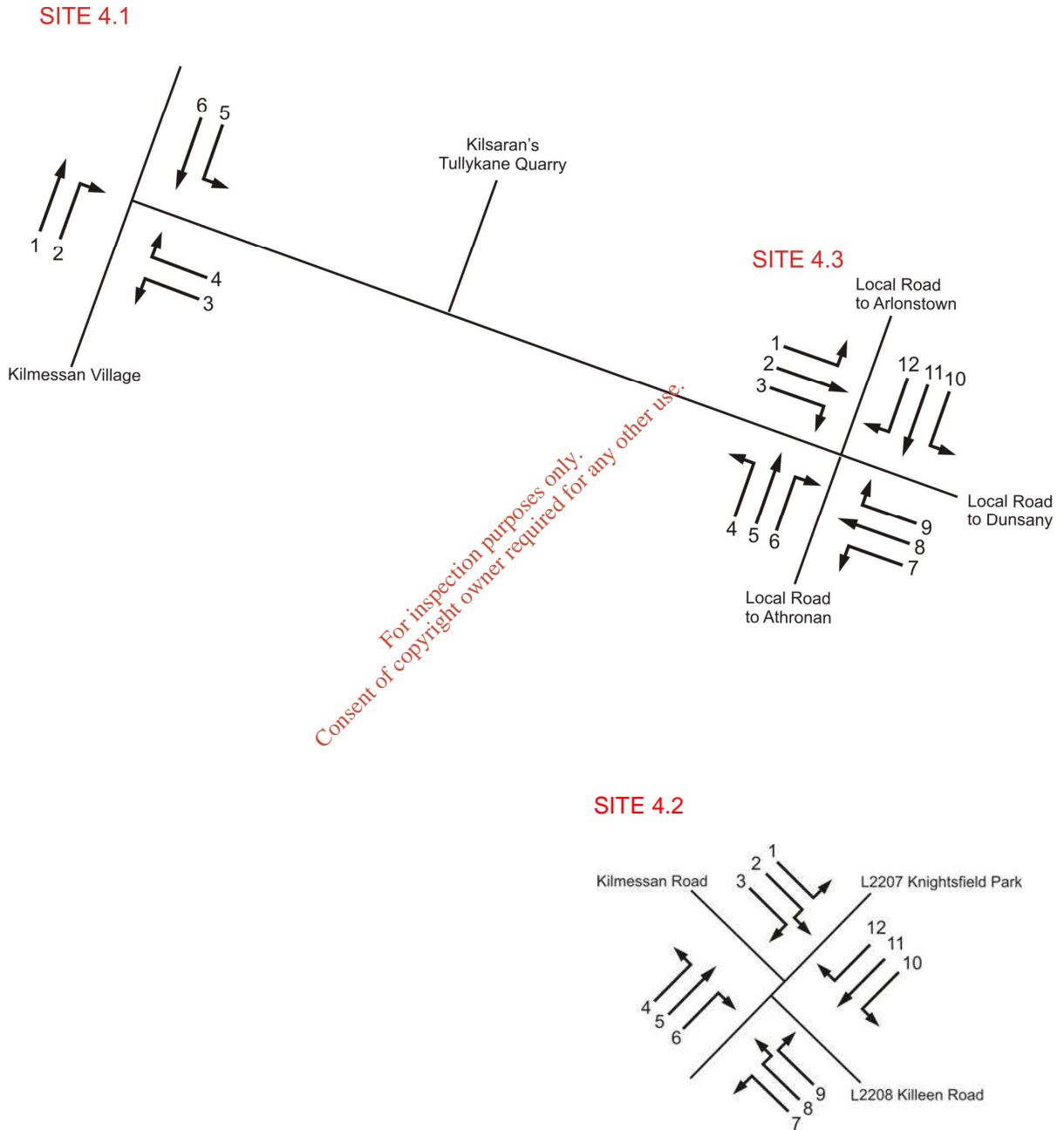
Count Site 1 – Thursday 29th September 2016



Count Site 2 – Wednesday 9th November 2016

Count Site 3 – Thursday 29th September 2016

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Tullykane Quarry – Movement Numbers



	Job number: ATH/16/096	Job date: 29 th September 2016	Drawing No: ATH/16/096-2.2	
	Client: Traffic Wise	Job day: Thursday	Author: SPW	

ABACUS TRANSPORTATION SURVEYS

KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2016

ATH/16/096

SITE: 4.1

DATE: 29th September 2016

LOCATION: Kilmessan Village Junction

DAY: Thursday

TIME	MOVEMENT 1										MOVEMENT 2										MOVEMENT 3															
	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV			OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID			ARTIC	RIGID	ARTIC	BUS								
07:00	4	0	0	0	0	0	0	0	4	4	8	3	0	0	0	0	0	11	11	1	0	0	0	0	0	0	0	1	1							
07:15	7	0	0	0	0	0	0	0	7	7	8	2	1	0	0	0	0	11	12	0	0	1	0	0	0	0	0	1	2							
07:30	10	0	0	0	0	0	0	0	10	10	9	2	1	0	0	0	0	12	13	2	0	0	0	0	0	0	0	2	2							
07:45	7	0	0	0	0	0	0	1	8	9	11	3	0	0	0	0	1	15	16	3	0	0	0	0	0	0	1	4	5							
H/TOT	28	0	0	0	0	0	0	1	29	30	36	10	2	0	0	0	1	49	51	6	0	1	0	0	0	0	1	8	10							
08:00	8	0	1	0	0	0	0	0	9	10	14	1	0	0	0	0	0	15	15	7	0	0	0	0	0	0	0	7	7							
08:15	4	0	0	0	0	0	0	0	4	4	10	1	0	0	0	0	0	11	11	3	0	0	0	0	0	0	0	3	3							
08:30	13	1	1	0	0	0	0	0	15	16	19	1	0	0	0	0	0	20	20	4	1	1	0	0	0	0	1	7	9							
08:45	7	1	0	0	0	0	0	0	8	8	15	1	0	0	0	0	1	17	18	13	0	2	0	0	0	0	1	16	18							
H/TOT	32	2	2	0	0	0	0	0	36	37	58	4	0	0	0	1	0	63	64	27	1	3	0	0	0	0	2	33	37							
09:00	7	0	0	0	0	0	0	0	7	7	21	0	0	0	0	0	0	21	21	7	3	0	0	0	0	0	0	10	10							
09:15	2	0	0	0	0	0	0	0	2	2	6	1	1	0	0	0	0	8	9	7	3	0	0	0	0	0	0	10	10							
09:30	5	0	0	0	0	0	0	0	5	5	5	2	1	0	0	0	0	8	9	3	0	0	0	0	0	0	0	3	3							
09:45	5	1	0	0	0	0	0	0	6	6	5	0	0	0	0	0	0	5	5	4	0	0	0	0	0	0	0	4	4							
H/TOT	19	1	0	0	0	0	0	0	20	20	37	3	2	0	0	0	0	42	43	21	6	0	0	0	0	0	0	27	27							
10:00	2	0	0	0	0	0	0	0	2	2	7	3	0	0	0	0	0	10	10	6	2	1	0	0	0	0	0	9	10							
10:15	7	2	0	0	0	0	0	0	9	9	7	1	0	0	0	0	0	8	8	5	0	0	0	0	0	0	0	5	5							
10:30	7	0	1	0	0	0	0	0	8	9	2	1	0	0	0	0	0	3	3	4	1	0	0	0	0	0	0	5	5							
10:45	6	0	0	0	0	0	0	0	6	6	7	0	0	0	0	0	0	7	7	8	1	0	0	0	0	0	0	9	9							
H/TOT	22	2	1	0	0	0	0	0	25	26	23	5	0	0	0	0	0	28	28	23	4	1	0	0	0	0	0	28	29							
11:00	7	1	0	0	0	0	0	0	8	8	8	1	0	0	0	0	0	9	9	7	1	0	0	0	0	0	0	8	8							
11:15	8	0	1	0	0	0	0	0	9	10	7	2	0	0	0	0	0	9	9	1	3	0	0	0	0	0	0	4	4							
11:30	6	1	0	0	0	0	0	0	7	7	4	3	0	0	0	0	0	7	7	6	2	0	0	0	0	0	0	8	8							
11:45	3	0	0	0	0	0	0	0	3	3	5	0	0	0	0	0	0	5	5	7	2	0	0	0	0	0	0	9	9							
H/TOT	24	2	1	0	0	0	0	0	27	28	24	6	0	0	0	0	0	30	30	21	8	0	0	0	0	0	0	29	29							
12:00	6	1	0	0	0	0	0	0	7	7	8	1	1	0	0	0	0	10	11	6	0	1	0	0	0	0	0	7	8							
12:15	7	0	0	0	0	0	0	0	7	7	4	0	0	0	0	0	0	4	4	10	0	0	0	0	0	0	0	10	10							
12:30	2	0	1	0	0	0	0	0	3	4	6	0	0	0	0	0	0	6	6	4	2	0	0	0	0	0	0	6	6							
12:45	8	0	1	0	0	0	0	0	9	10	6	1	0	0	0	0	0	7	7	10	1	0	0	0	0	0	0	11	11							
H/TOT	23	1	2	0	0	0	0	0	26	27	24	2	1	0	0	0	0	27	28	30	3	1	0	0	0	0	0	34	35							

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ABACUS TRANSPORTATION SURVEYS

KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2016
ATH/16/096

SITE: 4.1
LOCATION: Kilmessan Village Junction

DATE: 29th September 2016
DAY: Thursday

TIME	MOVEMENT 1										MOVEMENT 2										MOVEMENT 3															
	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV			OGV1	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID	ARTIC	BUS			CAR	LGV	OGV1	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID		
13:00	10	0	0	0	0	0	0	0	10	10	10	4	0	0	0	0	0	0	14	14	3	2	0	0	0	0	0	0	5	5						
13:15	9	0	1	0	0	0	0	0	10	11	5	2	0	0	0	0	0	0	7	7	6	2	0	0	0	0	0	0	8	8						
13:30	9	0	0	0	0	0	0	0	9	9	8	0	0	0	0	0	0	0	8	8	9	0	0	0	0	0	0	0	9	9						
13:45	8	0	0	0	0	0	0	0	8	8	5	0	0	0	0	0	0	0	5	5	9	1	0	0	0	0	0	0	10	10						
H/TOT	36	0	1	0	0	0	0	0	37	38	28	6	0	0	0	0	0	0	34	34	27	5	0	0	0	0	0	0	32	32						
14:00	8	0	0	0	0	0	1	0	9	10	7	0	1	0	0	0	0	0	8	9	6	1	0	0	0	0	0	0	7	7						
14:15	6	1	0	0	0	0	0	0	7	7	3	0	0	0	0	0	0	0	3	3	12	1	0	0	0	0	0	0	13	13						
14:30	7	1	0	0	0	0	0	0	8	8	8	1	0	0	0	0	0	0	9	9	11	2	0	0	0	0	0	0	13	13						
14:45	10	0	0	0	0	0	0	0	10	10	13	2	0	0	0	0	0	0	15	15	21	0	0	0	0	0	0	0	21	21						
H/TOT	31	2	0	0	0	0	1	0	34	35	31	3	1	0	0	0	0	0	35	36	50	4	0	0	0	0	0	0	54	54						
15:00	5	1	0	0	0	0	0	1	7	8	10	0	1	0	0	0	0	0	11	12	10	3	0	0	0	0	0	0	13	13						
15:15	7	0	0	0	0	0	0	0	7	7	7	0	0	0	0	0	0	0	7	7	9	1	0	0	0	0	0	0	10	10						
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15:45	4	2	0	0	0	0	0	0	6	6	5	0	0	0	0	0	0	0	5	5	6	3	1	0	0	0	0	0	10	11						
H/TOT	21	3	0	0	0	0	0	1	25	26	25	1	1	0	0	0	0	0	27	28	34	7	1	0	0	0	0	1	43	45						
16:00	8	1	0	0	0	0	0	0	9	9	9	1	0	0	0	0	0	1	11	12	10	0	0	0	0	0	0	1	11	12						
16:15	13	1	1	0	0	0	0	0	15	16	4	1	0	0	0	0	0	0	5	5	8	1	0	0	0	0	0	0	9	9						
16:30	9	0	0	0	0	0	0	0	9	9	6	0	0	0	0	0	0	0	6	6	10	2	0	0	0	0	0	0	12	12						
16:45	8	1	0	0	0	0	0	0	9	9	6	0	0	0	0	0	0	0	6	6	10	0	0	0	0	0	0	0	10	10						
H/TOT	38	3	1	0	0	0	0	0	42	43	25	2	0	0	0	0	0	1	28	29	38	3	0	0	0	0	0	1	42	43						
17:00	10	1	1	0	0	0	0	0	12	13	3	0	0	0	0	0	0	0	3	3	10	3	1	0	0	0	0	0	14	15						
17:15	10	0	1	0	0	0	0	0	11	12	4	1	0	0	0	0	0	0	5	5	13	1	1	0	0	0	0	0	15	16						
17:30	10	0	0	0	0	0	0	0	10	10	6	2	0	0	0	0	0	0	8	8	15	3	0	0	0	0	0	0	18	18						
17:45	19	0	0	0	0	0	0	0	19	19	7	2	0	0	0	0	0	0	9	9	19	4	0	0	0	0	0	0	23	23						
H/TOT	49	1	2	0	0	0	0	0	52	53	20	5	0	0	0	0	0	0	25	25	57	11	2	0	0	0	0	0	70	71						
18:00	14	3	0	0	0	0	0	0	17	17	5	1	0	0	0	0	0	0	6	6	17	3	0	0	0	0	0	0	20	20						
18:15	4	0	0	0	0	0	0	0	4	4	7	1	0	0	0	0	0	0	8	8	13	2	0	0	0	0	0	0	15	15						
18:30	7	0	0	0	0	0	0	0	7	7	8	0	0	0	0	0	0	0	8	8	10	1	0	0	0	0	0	0	11	11						
18:45	17	1	0	0	0	0	0	0	18	18	8	0	0	0	0	0	0	0	8	8	10	0	0	0	0	0	0	0	10	10						
H/TOT	42	4	0	0	0	0	0	0	46	46	28	2	0	0	0	0	0	0	30	30	50	6	0	0	0	0	0	0	56	56						
P/TOT	365	21	10	0	0	0	1	2	399	407	359	49	7	0	0	0	1	2	418	425	384	58	9	0	0	0	0	5	456	466						

ABACUS TRANSPORTATION SURVEYS

KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2016

ATH/16/096

SITE: 4.1

DATE: 29th September 2016

LOCATION: Kilmessan Village Junction

DAY: Thursday

TIME	MOVEMENT 4										MOVEMENT 5										MOVEMENT 6															
	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV			OGV1	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID	ARTIC	BUS			CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS				
07:00	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	4	4	3	2	0	0	0	0	0	0	5	5					
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	4						
07:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2	12	1	0	0	0	0	0	13	13						
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	9	0	0	0	0	0	0	9	9						
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	7	7	28	3	0	0	0	0	0	31	31						
08:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3	5	8	8	1	0	0	0	0	0	9	9						
08:15	2	0	0	0	0	0	0	0	2	2	2	1	0	0	0	0	0	0	1	1	6	0	0	0	0	0	0	6	6							
08:30	2	0	1	0	0	0	0	0	3	4	4	3	0	1	0	0	0	0	4	5	12	0	0	0	0	0	1	13	14							
08:45	2	0	0	0	0	0	0	0	2	2	2	5	0	0	0	0	0	0	5	5	13	2	0	0	0	0	0	15	15							
H/TOT	6	0	1	0	0	0	0	0	7	8	8	11	0	1	0	0	0	0	3	15	19	39	3	0	0	0	0	1	43	44						
09:00	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	1	1	6	1	2	0	0	0	0	9	10							
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	6	0	0	0	0	0	0	6	6							
09:30	0	1	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	2	3	5	0	0	0	0	0	0	5	5							
09:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	3	4	1	0	0	0	0	0	5	5							
H/TOT	1	1	0	0	0	0	0	0	2	2	2	3	1	2	0	0	0	0	6	7	21	2	2	0	0	0	0	25	26							
10:00	1	0	0	0	0	0	0	0	1	1	1	2	1	0	0	0	0	0	3	3	5	1	0	0	0	0	0	6	6							
10:15	1	0	0	0	0	0	0	1	2	3	0	1	0	0	0	0	0	0	1	1	8	1	0	0	0	0	0	9	9							
10:30	1	0	1	0	0	0	0	0	2	3	3	0	0	0	0	0	0	0	3	3	4	0	0	0	0	0	0	4	4							
10:45	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	10	1	1	0	0	0	0	12	13							
H/TOT	5	0	1	0	0	0	0	1	7	9	5	2	0	0	0	0	0	0	7	7	27	3	1	0	0	0	0	31	32							
11:00	2	0	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	1	1	6	1	0	0	0	0	0	7	7							
11:15	0	0	2	0	0	0	0	0	2	3	1	0	0	0	0	0	0	0	1	1	8	0	1	0	0	0	0	9	10							
11:30	1	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	4	0	0	0	0	0	0	4	4							
11:45	3	0	0	0	0	0	0	0	3	3	1	2	1	0	0	0	0	0	4	5	1	1	0	0	0	1	0	3	4							
H/TOT	6	0	2	0	0	0	0	0	8	9	4	2	1	0	0	0	0	0	7	8	19	2	1	0	0	0	1	23	25							
12:00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2	6	0	0	0	0	0	0	6	6							
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	0	0	10	11							
12:30	1	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	2	3	5	0	1	0	0	0	0	6	7							
12:45	1	1	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	1	1	5	1	1	0	0	0	0	7	8							
H/TOT	2	1	0	0	0	0	0	0	3	3	4	0	1	0	0	0	0	0	5	6	24	2	3	0	0	0	0	29	31							

For inspection purposes only. Consent of copyright owner required for any other use.

ABACUS TRANSPORTATION SURVEYS

KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2016
ATH/16/096

SITE: 4.1
LOCATION: Kilmessan Village Junction

DATE: 29th September 2016
DAY: Thursday

TIME	MOVEMENT 4										MOVEMENT 5										MOVEMENT 6															
	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV			OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID			ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID	ARTIC	RIGID		
13:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	8	0	0	0	0	0	0	0	0	0	8	8			
13:15	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	8	8				
13:30	1	1	0	0	0	0	0	0	0	2	2	1	0	1	0	0	0	0	1	3	5	10	1	0	0	0	0	0	0	11	11					
13:45	2	0	1	0	0	0	0	0	0	3	4	2	0	0	0	0	0	0	0	2	2	5	0	0	0	0	0	0	0	5	5					
H/TOT	4	1	1	0	0	0	0	0	0	6	7	3	1	1	0	0	0	0	1	6	8	31	1	0	0	0	0	0	0	32	32					
14:00	1	0	0	0	0	0	0	0	0	1	1	3	0	0	0	0	0	0	0	3	3	5	0	0	0	0	0	0	0	5	5					
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	7	7					
14:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	3	10	0	0	0	0	0	0	0	10	10					
14:45	4	0	0	0	0	0	0	0	0	4	4	2	0	0	0	0	0	0	0	2	2	3	0	0	0	0	0	0	0	3	3					
H/TOT	5	0	0	0	0	0	0	0	0	5	5	8	0	0	0	0	0	0	0	8	8	24	1	0	0	0	0	0	0	25	25					
15:00	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	1	11	0	0	0	0	0	0	0	11	11					
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	7	3	0	0	0	0	0	0	10	10					
15:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	4	4	1	0	0	0	0	0	0	5	5					
15:45	2	1	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	7	0	0	1	0	0	0	0	8	9					
H/TOT	3	1	0	0	0	0	0	0	0	4	4	5	0	1	0	0	0	0	0	6	7	29	4	0	1	0	0	0	0	34	35					
16:00	1	0	1	0	0	0	0	3	5	9	9	1	0	0	0	0	0	0	0	1	1	10	2	0	0	0	0	0	0	12	12					
16:15	2	0	0	0	0	0	0	0	2	2	2	0	0	0	0	0	0	0	2	2	10	2	0	0	0	0	0	0	12	12						
16:30	1	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	2	3	13	2	1	0	0	0	0	0	16	17						
16:45	2	1	0	0	0	0	0	0	3	3	3	0	0	0	0	0	0	0	3	3	8	1	0	0	0	0	0	0	9	9						
H/TOT	6	1	1	0	0	0	0	3	11	15	7	0	1	0	0	0	0	0	8	9	41	7	1	0	0	0	0	0	49	50						
17:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	6	0	0	0	0	0	0	0	6	6						
17:15	5	0	0	0	0	0	0	0	5	5	1	0	0	0	0	0	0	0	1	1	14	1	0	0	0	0	0	0	15	15						
17:30	1	1	0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	1	1	9	6	0	0	0	0	0	0	15	15						
17:45	7	0	0	0	0	0	0	0	7	7	1	0	0	0	0	0	0	0	1	1	10	1	0	0	0	1	0	0	12	13						
H/TOT	13	1	0	0	0	0	0	0	14	14	4	0	0	0	0	0	0	0	4	4	39	8	0	0	0	1	0	0	48	49						
18:00	3	0	0	0	0	0	0	0	3	3	1	0	0	0	0	0	0	0	1	1	12	0	0	0	0	0	0	0	12	12						
18:15	4	3	0	0	0	0	0	0	7	7	2	0	0	0	0	0	0	0	2	2	4	2	0	0	0	0	0	0	6	6						
18:30	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10	10						
18:45	1	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1	1	10	0	0	0	0	0	0	0	10	10						
H/TOT	10	3	0	0	0	0	0	0	13	13	3	1	0	0	0	0	0	0	4	4	36	2	0	0	0	0	0	0	38	38						
P/TOT	61	9	6	0	0	0	0	4	80	87	63	8	8	0	0	0	0	4	83	91	358	38	8	1	0	1	1	1	408	417						

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 1					TOT	PCU	MOVEMENT 2					TOT	PCU	MOVEMENT 3					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
07:00	1	1	0	0	0	2	2	8	2	0	0	0	10	10	0	3	0	1	0	4	5
07:15	0	1	0	0	0	1	1	9	0	0	0	0	9	9	2	1	0	0	0	3	3
07:30	2	0	0	0	0	2	2	5	3	0	0	0	8	8	0	0	0	0	0	0	0
07:45	0	1	0	0	0	1	1	8	1	0	0	1	10	11	0	0	0	0	0	0	0
H/TOT	3	3	0	0	0	6	6	30	6	0	0	1	37	38	2	4	0	1	0	7	8
08:00	4	0	0	0	0	4	4	12	4	0	0	2	18	20	3	0	0	0	0	3	3
08:15	5	0	0	0	0	5	5	17	0	1	0	1	19	21	3	0	0	0	0	3	3
08:30	4	1	0	0	0	5	5	7	1	0	0	0	8	8	6	0	0	1	0	7	8
08:45	9	1	0	0	0	10	10	11	0	0	0	0	11	11	2	0	0	0	0	2	2
H/TOT	22	2	0	0	0	24	24	47	5	1	0	3	56	60	14	0	0	1	0	15	16
09:00	12	1	0	0	0	13	13	11	1	1	0	0	13	14	4	0	0	0	0	4	4
09:15	4	0	0	0	0	4	4	8	1	0	0	0	9	9	0	0	0	0	0	0	0
09:30	2	1	1	0	0	4	5	3	0	0	0	0	3	3	1	0	0	0	0	1	1
09:45	1	0	1	0	0	2	3	1	1	0	0	0	2	2	0	1	0	0	0	1	1
H/TOT	19	2	2	0	0	23	24	23	3	1	0	0	27	28	5	1	0	0	0	6	6
10:00	3	1	0	0	0	4	4	6	0	0	0	0	6	6	1	0	0	0	0	1	1
10:15	2	0	0	0	0	2	2	5	0	0	0	0	5	5	0	0	0	0	0	0	0
10:30	3	0	0	0	0	3	3	4	1	0	1	0	6	7	1	0	0	0	0	1	1
10:45	4	0	0	0	0	4	4	4	0	0	0	0	4	4	0	0	0	0	0	0	0
H/TOT	12	1	0	0	0	13	13	19	1	0	1	0	21	22	2	0	0	0	0	2	2
11:00	4	0	0	0	0	4	4	3	1	0	0	0	4	4	1	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	1	0	0	0	1	1
11:30	3	1	0	0	0	4	4	2	1	0	0	0	3	3	2	0	0	0	0	2	2
11:45	4	1	0	0	0	5	5	4	0	0	0	0	4	4	0	0	0	0	0	0	0
H/TOT	11	2	0	0	0	13	13	16	3	0	0	0	19	19	3	1	0	0	0	4	4
12:00	3	1	0	0	0	4	4	3	1	0	0	0	4	4	0	0	0	0	0	0	0
12:15	2	1	0	0	0	3	3	4	1	2	0	0	7	8	0	0	0	0	0	0	0
12:30	2	0	0	0	0	2	2	5	1	0	0	0	6	6	0	0	0	0	0	0	0
12:45	1	0	0	0	0	1	1	5	0	0	0	0	5	5	0	0	0	0	0	0	0
H/TOT	8	2	0	0	0	10	10	17	3	2	0	0	22	23	0	0	0	0	0	0	0

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 1					TOT	PCU	MOVEMENT 2					TOT	PCU	MOVEMENT 3					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	1	1	0	0	0	2	2	7	0	0	0	0	7	7	0	1	0	0	0	1	1
13:15	4	1	0	0	0	5	5	7	2	0	0	0	9	9	0	0	0	0	0	0	0
13:30	7	1	1	0	0	9	10	3	1	0	0	0	4	4	1	1	0	0	0	2	2
13:45	4	0	0	0	0	4	4	5	0	0	0	0	5	5	1	2	0	0	0	3	3
H/TOT	16	3	1	0	0	20	21	22	3	0	0	0	25	25	2	4	0	0	0	6	6
14:00	0	0	0	0	0	0	0	3	1	0	0	0	4	4	2	0	0	0	0	2	2
14:15	2	0	0	0	0	2	2	4	1	0	0	0	5	5	0	1	0	0	0	1	1
14:30	6	1	0	0	0	7	7	5	1	0	0	0	6	6	0	0	0	0	0	0	0
14:45	7	1	0	0	0	8	8	7	0	0	0	0	7	7	2	0	0	0	0	2	2
H/TOT	15	2	0	0	0	17	17	19	3	0	0	0	22	22	4	1	0	0	0	5	5
15:00	1	0	0	0	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0
15:15	3	1	0	0	0	4	4	4	0	0	0	0	4	4	2	1	0	0	0	3	3
15:30	2	0	0	0	0	2	2	0	0	0	0	0	0	0	1	0	0	0	0	1	1
15:45	1	1	0	0	0	2	2	4	0	0	0	0	4	4	0	0	0	0	0	0	0
H/TOT	7	2	0	0	0	9	9	9	0	0	0	0	9	9	3	1	0	0	0	4	4
16:00	2	1	0	0	0	3	3	1	0	0	0	0	1	1	0	1	0	0	0	1	1
16:15	2	0	0	0	0	2	2	1	1	0	0	0	2	2	1	0	0	0	0	1	1
16:30	4	0	1	0	0	5	6	2	0	0	0	0	2	2	1	1	0	0	0	2	2
16:45	4	0	0	0	0	4	4	4	1	0	0	0	5	5	1	0	0	0	0	1	1
H/TOT	12	1	1	0	0	14	15	8	2	0	0	0	10	10	3	2	0	0	0	5	5
17:00	4	3	0	0	0	7	7	2	0	0	0	0	2	2	0	0	0	0	0	0	0
17:15	1	0	0	0	0	1	1	3	2	0	0	0	5	5	0	0	0	0	0	0	0
17:30	5	0	0	0	0	5	5	1	0	0	0	0	1	1	0	1	0	0	0	1	1
17:45	3	2	0	0	0	5	5	2	0	0	0	0	2	2	0	0	0	0	0	0	0
H/TOT	13	5	0	0	0	18	18	8	2	0	0	0	10	10	0	1	0	0	0	1	1
18:00	4	0	0	0	0	4	4	0	0	0	0	0	0	0	2	1	0	0	0	3	3
18:15	2	0	0	0	0	2	2	1	0	0	0	0	1	1	0	0	0	0	0	0	0
18:30	1	2	0	0	0	3	3	6	2	0	0	0	8	8	0	0	0	0	0	0	0
18:45	2	0	0	0	0	2	2	5	0	0	0	0	5	5	0	0	0	0	0	0	0
H/TOT	9	2	0	0	0	11	11	12	2	0	0	0	14	14	2	1	0	0	0	3	3
P/TOT	147	27	4	0	0	178	180	230	33	4	1	4	272	279	40	16	0	2	0	58	61

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 4					TOT	PCU	MOVEMENT 5					TOT	PCU	MOVEMENT 6					TOT	PCU		
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS				
07:00	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	10	1	1	0	0	12	13	1	0	0	0	0	0	1	1	1
07:30	0	0	0	0	0	0	0	7	8	2	0	0	17	18	1	1	0	0	0	2	2	2	2
07:45	0	1	0	0	0	1	1	7	2	0	0	0	9	9	3	0	0	0	0	3	3	3	3
H/TOT	0	1	0	0	0	1	1	31	12	3	0	0	46	48	5	1	0	0	0	6	6	6	6
08:00	0	0	0	0	0	0	0	12	0	0	0	0	12	12	2	0	1	0	1	4	6	6	6
08:15	0	0	0	0	0	0	0	11	2	0	0	0	13	13	5	0	0	0	0	5	5	5	5
08:30	3	0	0	0	0	3	3	13	3	1	1	0	18	20	1	1	0	0	0	2	2	2	2
08:45	0	0	0	0	0	0	0	19	3	1	0	0	23	24	2	0	0	0	0	2	2	2	2
H/TOT	3	0	0	0	0	3	3	55	8	2	0	0	66	68	10	1	1	0	1	13	15	15	15
09:00	1	0	0	0	0	1	1	5	3	2	0	0	10	11	2	0	0	0	0	2	2	2	2
09:15	2	1	0	0	0	3	3	8	2	0	0	0	10	10	3	2	0	0	0	5	5	5	5
09:30	0	0	0	0	0	0	0	7	0	0	0	0	8	8	2	0	0	0	0	2	2	2	2
09:45	1	0	1	0	0	2	3	5	1	0	0	0	6	6	1	0	0	0	0	1	1	1	1
H/TOT	4	1	1	0	0	6	7	25	7	2	0	0	34	35	8	2	0	0	0	10	10	10	10
10:00	0	0	0	0	0	0	0	10	3	1	0	0	14	15	1	3	0	0	0	4	4	4	4
10:15	2	0	0	0	0	2	2	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	3	0	1	0	0	4	5	2	0	0	0	0	2	2	2	2
10:45	0	0	0	0	0	0	0	3	1	2	0	0	6	7	3	1	0	0	0	4	4	4	4
H/TOT	2	0	0	0	0	2	2	21	4	4	0	0	29	31	6	4	0	0	0	10	10	10	10
11:00	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	1	0	0	0	0	1	1	3	0	0	0	0	3	3	1	1	0	0	0	2	2	2	2
11:30	1	0	0	0	0	1	1	6	3	2	0	0	11	12	1	1	0	0	0	2	2	2	2
11:45	0	0	0	0	0	0	0	13	2	1	0	0	16	17	1	0	0	0	0	1	1	1	1
H/TOT	3	0	0	0	0	3	3	22	5	3	0	0	30	32	3	2	0	0	0	5	5	5	5
12:00	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	1	1	0	0	2	3	3	3
12:15	1	0	0	0	0	1	1	2	1	1	0	0	4	5	2	0	0	0	0	2	2	2	2
12:30	0	0	0	0	0	0	0	6	0	0	0	0	6	6	1	0	0	0	0	1	1	1	1
12:45	2	2	0	0	0	4	4	16	1	0	0	0	17	17	2	0	0	0	0	2	2	2	2
H/TOT	3	2	0	0	0	5	5	30	3	1	0	0	34	35	5	1	1	0	0	7	8	8	8

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 4					TOT	PCU	MOVEMENT 5					TOT	PCU	MOVEMENT 6					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	2	0	0	0	0	2	2	7	4	0	0	0	11	11	2	0	1	0	0	3	4
13:15	1	0	0	0	0	1	1	10	1	1	0	0	12	13	4	0	0	0	0	4	4
13:30	0	0	0	0	0	0	0	5	0	0	0	0	5	5	1	0	0	0	0	1	1
13:45	0	1	0	0	0	1	1	8	1	0	0	0	9	9	3	0	0	0	0	3	3
H/TOT	3	1	0	0	0	4	4	30	6	1	0	0	37	38	10	0	1	0	0	11	12
14:00	0	0	1	0	0	1	2	8	1	1	0	0	10	11	2	0	0	0	0	2	2
14:15	1	0	0	0	0	1	1	6	3	0	0	0	9	9	1	0	0	0	0	1	1
14:30	1	1	0	0	0	2	2	12	0	3	1	0	16	19	1	1	0	0	1	3	4
14:45	0	0	0	0	0	0	0	9	0	0	0	0	9	9	2	0	0	0	0	2	2
H/TOT	2	1	1	0	0	4	5	35	4	4	1	0	44	47	6	1	0	0	1	8	9
15:00	0	0	0	0	0	0	0	5	0	0	0	0	5	5	1	0	0	0	0	1	1
15:15	1	1	1	0	0	3	4	6	0	4	0	1	11	14	1	0	0	0	0	1	1
15:30	1	0	0	0	0	1	1	7	1	0	0	0	8	8	3	1	0	0	0	4	4
15:45	4	0	0	0	0	4	4	5	3	1	0	0	9	10	2	0	0	0	0	2	2
H/TOT	6	1	1	0	0	8	9	23	4	5	0	1	33	37	7	1	0	0	0	8	8
16:00	2	1	0	0	0	3	3	5	4	2	0	0	11	12	1	0	0	0	0	1	1
16:15	3	0	0	0	0	3	3	9	7	1	0	0	17	18	2	0	1	0	0	3	4
16:30	3	0	0	0	1	4	5	10	2	0	0	0	12	12	0	0	0	0	0	0	0
16:45	1	0	0	0	0	1	1	21	0	0	0	0	21	21	0	0	0	0	0	0	0
H/TOT	9	1	0	0	1	11	12	45	13	3	0	0	61	63	3	0	1	0	0	4	5
17:00	3	0	0	0	0	3	3	19	9	0	0	0	28	28	1	0	0	0	0	1	1
17:15	2	0	0	0	0	2	2	13	7	0	0	0	20	20	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	10	1	1	1	0	13	15	1	0	0	0	0	1	1
17:45	2	1	0	0	0	3	3	11	1	0	0	0	12	12	2	0	0	0	0	2	2
H/TOT	7	1	0	0	0	8	8	53	18	1	1	0	73	75	4	0	0	0	0	4	4
18:00	4	0	0	0	0	4	4	12	1	0	0	0	13	13	3	0	0	0	0	3	3
18:15	3	1	0	0	0	4	4	12	1	2	0	0	15	16	1	0	0	0	0	1	1
18:30	3	0	0	0	0	3	3	13	0	1	0	0	14	15	1	0	0	0	0	1	1
18:45	1	0	0	0	0	1	1	16	3	0	0	0	19	19	1	0	0	0	0	1	1
H/TOT	11	1	0	0	0	12	12	53	5	3	0	0	61	63	6	0	0	0	0	6	6
P/TOT	53	10	3	0	1	67	70	423	89	32	3	1	548	569	73	13	4	0	2	92	96

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 7					TOT	PCU	MOVEMENT 8					TOT	PCU	MOVEMENT 9					TOT	PCU		
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS				
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
07:30	2	0	0	0	0	2	2	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:45	1	0	0	0	0	1	1	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
H/TOT	3	0	0	0	0	3	3	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0
08:00	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	2	0	0	0	0	2	2	8	1	0	0	1	10	11	2	0	0	0	0	0	2	2	2
08:30	2	0	0	0	0	2	2	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
08:45	1	0	0	0	0	1	1	4	0	0	0	0	4	4	10	0	0	0	0	0	10	10	10
H/TOT	6	2	0	0	0	8	8	16	1	0	0	1	18	19	12	0	0	0	0	0	12	12	12
09:00	2	0	0	0	0	2	2	4	1	0	0	0	5	5	1	0	1	0	0	2	3	3	3
09:15	2	0	0	0	0	2	2	4	1	0	0	0	5	5	1	0	0	0	0	1	1	1	1
09:30	0	1	0	0	0	1	1	4	0	0	0	0	4	4	1	0	0	0	0	1	1	1	1
09:45	0	0	0	0	0	0	0	3	0	0	0	0	3	3	3	0	0	1	0	4	5	5	5
H/TOT	4	1	0	0	0	5	5	15	2	0	0	0	17	17	6	0	1	1	0	8	10	10	10
10:00	1	0	0	0	0	1	1	1	1	0	0	0	2	2	2	0	0	0	0	2	2	2	2
10:15	1	1	0	0	0	2	2	2	0	0	0	0	2	2	3	0	0	0	0	3	3	3	3
10:30	3	0	0	0	0	3	3	0	0	0	0	0	0	0	2	0	0	0	0	2	2	2	2
10:45	1	0	0	0	0	1	1	2	3	0	0	0	5	5	1	0	0	0	0	1	1	1	1
H/TOT	6	1	0	0	0	7	7	5	4	0	0	0	9	9	8	0	0	0	0	8	8	8	8
11:00	1	0	0	0	0	1	1	1	2	0	0	0	3	3	1	0	0	0	0	1	1	1	1
11:15	2	0	0	0	0	2	2	2	0	0	0	0	2	2	1	0	0	0	0	1	1	1	1
11:30	2	1	0	0	0	3	3	6	0	0	0	0	6	6	3	0	0	0	0	3	3	3	3
11:45	3	0	0	0	0	3	3	7	2	0	0	0	9	9	2	0	0	0	0	2	2	2	2
H/TOT	8	1	0	0	0	9	9	16	4	0	0	0	20	20	7	0	0	0	0	7	7	7	7
12:00	2	0	0	0	0	2	2	4	0	1	0	0	5	6	1	0	0	0	0	1	1	1	1
12:15	0	1	0	0	0	1	1	2	1	0	0	0	3	3	3	1	0	0	0	4	4	4	4
12:30	1	0	0	0	0	1	1	4	1	0	0	0	5	5	3	1	0	0	0	4	4	4	4
12:45	4	0	0	0	0	4	4	5	0	0	0	0	5	5	1	1	0	0	0	2	2	2	2
H/TOT	7	1	0	0	0	8	8	15	2	1	0	0	18	19	8	3	0	0	0	11	11	11	11

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 7					TOT	PCU	MOVEMENT 8					TOT	PCU	MOVEMENT 9					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	1	0	0	0	0	1	1	2	1	0	0	0	3	3	2	0	0	0	0	2	2
13:15	1	0	0	0	0	1	1	8	0	0	0	0	8	8	5	0	0	0	0	5	5
13:30	5	0	0	0	1	6	7	7	0	2	0	3	12	16	2	1	0	0	0	3	3
13:45	4	0	0	0	0	4	4	1	1	0	0	0	2	2	3	0	0	0	0	3	3
H/TOT	11	0	0	0	1	12	13	18	2	2	0	3	25	29	12	1	0	0	0	13	13
14:00	1	1	0	0	0	2	2	2	0	0	0	0	2	2	1	1	0	0	0	2	2
14:15	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0
14:30	7	1	1	0	1	10	12	10	0	0	0	0	10	10	1	0	0	0	0	1	1
14:45	2	1	0	0	0	3	3	6	1	0	0	0	7	7	1	0	0	0	0	1	1
H/TOT	10	3	1	0	1	15	17	21	1	0	0	0	22	22	3	1	0	0	0	4	4
15:00	1	0	0	0	0	1	1	5	1	0	0	0	6	6	3	0	0	0	0	3	3
15:15	1	0	0	0	0	1	1	7	0	0	0	0	8	9	3	1	0	0	0	4	4
15:30	0	0	2	0	0	2	3	3	2	1	0	0	6	7	2	0	1	0	0	3	4
15:45	0	1	1	0	0	2	3	4	1	0	0	0	5	5	1	0	0	0	0	1	1
H/TOT	2	1	3	0	0	6	8	19	4	2	0	0	25	26	9	1	1	0	0	11	12
16:00	3	0	1	0	0	4	5	5	5	0	0	0	10	10	0	0	0	0	0	0	0
16:15	2	2	0	0	0	4	4	5	3	0	0	0	8	8	3	2	0	0	0	5	5
16:30	5	0	0	0	0	5	5	8	1	2	0	0	11	12	3	1	0	0	0	4	4
16:45	2	0	0	0	0	2	2	2	3	0	0	0	5	5	3	2	0	0	0	5	5
H/TOT	12	2	1	0	0	15	16	20	12	2	0	0	34	35	9	5	0	0	0	14	14
17:00	1	0	0	0	0	1	1	10	3	0	0	0	13	13	2	1	0	0	0	3	3
17:15	2	0	0	0	0	2	2	9	1	0	0	0	10	10	2	0	0	0	0	2	2
17:30	2	0	0	0	0	2	2	19	0	0	0	0	19	19	2	0	0	0	0	2	2
17:45	1	2	0	0	0	3	3	13	1	0	0	0	14	14	3	0	0	0	0	3	3
H/TOT	6	2	0	0	0	8	8	51	5	0	0	0	56	56	9	1	0	0	0	10	10
18:00	3	0	0	0	0	3	3	16	0	0	0	0	16	16	1	0	0	0	0	1	1
18:15	1	0	0	0	0	1	1	11	2	0	0	0	13	13	1	0	0	0	0	1	1
18:30	3	0	0	0	0	3	3	11	1	0	0	0	12	12	4	0	0	0	0	4	4
18:45	1	0	0	0	0	1	1	9	0	0	0	0	9	9	0	0	0	0	0	0	0
H/TOT	8	0	0	0	0	8	8	47	3	0	0	0	50	50	6	0	0	0	0	6	6
P/TOT	83	14	5	0	2	104	109	247	41	7	0	4	299	307	89	12	2	1	0	104	106

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 10					TOT	PCU	MOVEMENT 11					TOT	PCU	MOVEMENT 12					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
07:00	2	0	0	0	0	2	2	15	2	0	1	0	18	19	1	0	0	0	0	1	1
07:15	0	0	0	0	0	0	0	9	2	0	0	0	11	11	0	0	0	0	0	0	0
07:30	2	0	0	0	0	2	2	17	2	1	1	0	21	23	0	0	0	0	0	0	0
07:45	2	0	0	0	1	3	4	10	4	0	0	0	14	14	0	0	0	1	1	2	4
H/TOT	6	0	0	0	1	7	8	51	10	1	2	0	64	67	1	0	0	1	1	3	5
08:00	3	1	0	0	0	4	4	12	2	0	0	1	15	16	2	0	0	0	0	2	2
08:15	3	1	0	0	0	4	4	10	3	1	0	0	14	15	1	1	0	0	0	2	2
08:30	0	0	0	0	0	0	0	14	2	1	0	0	17	18	1	0	0	0	0	1	1
08:45	12	1	1	1	0	15	17	25	3	0	0	1	29	30	11	0	1	0	0	12	13
H/TOT	18	3	1	1	0	23	25	61	10	2	0	2	75	78	15	1	1	0	0	17	18
09:00	7	1	2	0	0	10	11	10	2	0	0	0	12	12	6	0	0	0	0	6	6
09:15	1	1	0	0	0	2	2	9	0	0	0	1	10	11	2	0	1	0	0	3	4
09:30	2	1	0	0	0	3	3	15	2	1	0	0	18	19	3	1	0	0	0	4	4
09:45	2	0	0	0	0	2	2	5	1	0	0	0	6	6	1	0	0	0	0	1	1
H/TOT	12	3	2	0	0	17	18	39	5	1	0	1	46	48	12	1	1	0	0	14	15
10:00	2	0	0	0	0	2	2	8	2	0	0	0	10	10	4	0	0	0	0	4	4
10:15	1	0	0	0	0	1	1	7	2	0	0	0	9	9	3	0	0	0	0	3	3
10:30	0	0	0	0	0	0	0	4	1	0	0	0	5	5	1	0	0	0	0	1	1
10:45	0	0	0	0	0	0	0	8	1	1	0	0	10	11	4	0	0	0	0	4	4
H/TOT	3	0	0	0	0	3	3	27	6	1	0	0	34	35	12	0	0	0	0	12	12
11:00	1	0	0	0	0	1	1	1	0	0	0	0	1	1	2	0	0	0	0	2	2
11:15	0	0	0	0	0	0	0	3	1	0	0	0	4	4	3	0	0	0	0	3	3
11:30	4	0	0	0	0	4	4	4	1	1	0	1	7	9	1	0	0	0	0	1	1
11:45	1	0	0	0	0	1	1	9	2	1	0	0	12	13	2	0	0	0	0	2	2
H/TOT	6	0	0	0	0	6	6	17	4	2	0	1	24	26	8	0	0	0	0	8	8
12:00	1	0	0	0	0	1	1	7	0	2	0	0	9	10	3	0	0	0	0	3	3
12:15	3	0	0	0	0	3	3	12	3	1	0	0	16	17	3	0	0	0	0	3	3
12:30	2	0	0	0	0	2	2	6	1	1	0	0	8	9	1	1	0	0	0	2	2
12:45	0	0	0	0	0	0	0	4	3	1	0	0	8	9	2	0	0	0	0	2	2
H/TOT	6	0	0	0	0	6	6	29	7	5	0	0	41	44	9	1	0	0	0	10	10

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH - ADDITIONAL COUNT @ DUNSANY
MANUAL CLASSIFIED JUNCTION TURNING COUNT**

**NOVEMBER 2016
ATH/16/096**

SITE: Dunsany Crossroads

DATE: 9th November 2016

LOCATION: Knightsfield Park/Killeen Road

DAY: Wednesday

TIME	MOVEMENT 10					TOT	PCU	MOVEMENT 11					TOT	PCU	MOVEMENT 12					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	2	0	0	0	0	2	2	11	0	0	0	0	11	11	3	2	0	0	0	5	5
13:15	2	0	0	0	0	2	2	1	0	0	0	0	1	1	2	1	0	0	0	3	3
13:30	1	0	0	0	0	1	1	8	3	0	0	0	11	11	4	0	1	0	0	5	6
13:45	2	0	0	0	0	2	2	8	0	1	0	0	9	10	4	0	0	0	0	4	4
H/TOT	7	0	0	0	0	7	7	28	3	1	0	0	32	33	13	3	1	0	0	17	18
14:00	3	0	0	0	0	3	3	8	0	0	0	0	8	8	2	1	0	0	0	3	3
14:15	0	0	0	0	0	0	0	6	2	1	0	0	9	10	2	1	0	0	0	3	3
14:30	3	0	0	0	0	3	3	11	0	0	2	1	14	18	2	0	0	0	0	2	2
14:45	10	0	0	0	0	10	10	21	1	0	0	0	22	22	10	0	1	0	0	11	12
H/TOT	16	0	0	0	0	16	16	46	3	1	2	1	53	57	16	2	1	0	0	19	20
15:00	1	0	0	0	0	1	1	11	2	0	0	0	13	13	4	0	0	0	0	4	4
15:15	0	0	0	0	0	0	0	7	3	1	0	0	11	12	2	1	0	0	0	3	3
15:30	0	0	0	0	0	0	0	6	3	2	0	0	11	12	2	0	0	0	0	2	2
15:45	1	0	0	0	0	1	1	14	0	1	0	0	15	16	3	0	0	0	0	3	3
H/TOT	2	0	0	0	0	2	2	38	8	4	0	0	50	52	11	1	0	0	0	12	12
16:00	1	0	0	0	0	1	1	10	2	2	0	0	14	15	1	0	0	0	0	1	1
16:15	1	0	0	0	0	1	1	8	2	2	0	1	13	15	6	2	1	0	0	9	10
16:30	0	0	0	0	0	0	0	9	3	1	0	0	13	14	3	0	0	0	0	3	3
16:45	0	0	0	0	0	0	0	12	1	1	0	0	14	15	2	1	0	0	0	3	3
H/TOT	2	0	0	0	0	2	2	39	8	6	0	1	54	58	12	3	1	0	0	16	17
17:00	0	0	0	0	0	0	0	13	3	0	0	0	16	16	2	0	0	0	0	2	2
17:15	2	0	0	0	0	2	2	15	3	1	0	0	19	20	2	1	0	0	0	3	3
17:30	3	0	0	0	0	3	3	15	9	1	1	0	26	28	4	2	0	0	0	6	6
17:45	1	0	0	0	0	1	1	12	0	1	0	0	13	14	3	1	0	0	0	4	4
H/TOT	6	0	0	0	0	6	6	55	15	3	1	0	74	77	11	4	0	0	0	15	15
18:00	0	0	0	0	0	0	0	10	0	1	1	0	12	14	5	0	0	0	0	5	5
18:15	2	0	0	0	0	2	2	15	1	0	0	0	16	16	1	0	0	0	0	1	1
18:30	0	0	0	0	0	0	0	9	0	0	0	0	9	9	3	1	0	0	0	4	4
18:45	1	0	0	0	0	1	1	7	0	0	0	0	7	7	4	0	0	0	0	4	4
H/TOT	3	0	0	0	0	3	3	41	1	1	1	0	44	46	13	1	0	0	0	14	14
P/TOT	87	6	3	1	1	98	102	471	80	28	6	6	591	619	133	17	5	1	1	157	162

ABACUS TRANSPORTATION SURVEYS

KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2016
ATH/16/096

SITE: 4.3
LOCATION: Local Road to Dunsary/Local Road to Athronan/Local Road to Arlonstown

DATE: 29th September 2016
DAY: Thursday

TIME	MOVEMENT 1										MOVEMENT 2										MOVEMENT 3																			
	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU				
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV			OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID			ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID	ARTIC	RIGID			ARTIC	BUS		
07:00	0	0	0	0	0	0	0	0	0	0	0	11	4	0	0	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:15	0	0	0	0	0	0	0	0	0	0	0	6	2	1	0	0	0	0	0	9	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:30	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	0	0	0	17	17	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0		
07:45	0	0	0	0	0	0	0	0	0	0	0	13	2	1	0	0	0	0	1	17	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/TOT	0	0	0	0	0	0	0	0	0	0	0	45	10	2	0	0	0	0	1	58	60	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
08:00	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
08:15	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08:30	0	0	0	0	0	0	0	0	0	0	0	20	0	1	0	0	0	0	0	21	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
08:45	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	0	0	0	19	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	65	4	1	0	0	0	0	0	70	71	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	
09:00	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	21	21	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	
09:15	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	0	0	7	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
09:30	0	0	0	0	0	0	0	0	0	0	0	5	3	1	0	0	0	0	0	9	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
09:45	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	7	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	
H/TOT	0	0	0	0	0	0	0	0	0	0	0	36	4	2	0	0	0	0	0	44	46	4	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0	0		
10:00	1	0	0	0	0	0	0	0	0	1	1	7	3	0	0	0	0	0	0	10	10	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0		
10:15	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/TOT	1	0	0	0	0	0	0	0	0	1	1	26	6	0	0	0	0	0	0	32	32	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0		
11:00	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:15	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:30	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45	0	0	0	0	0	0	0	0	0	0	0	4	2	1	0	0	0	0	0	7	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	29	7	1	0	0	0	0	0	37	38	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0		
12:00	0	0	0	0	0	0	0	0	0	0	0	10	0	1	0	0	0	0	0	11	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	0	0	0	8	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	0	8	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	28	2	2	0	0	0	0	0	32	33	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0		

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ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2016
ATH/16/096**

SITE: 4.3

DATE: 29th September 2016

LOCATION: Local Road to Dunsary/Local Road to Athronan/Local Road to Arlonstown

DAY: Thursday

TIME	MOVEMENT 1					MOVEMENT 2					MOVEMENT 3					TOT	PCU												
	KILSARAN			OTHER		BUS	TOT	PCU	KILSARAN			OTHER		BUS	TOT			PCU											
	CAR	LGV	OGV1	RIGID	ARTIC				CAR	LGV	OGV1	RIGID	ARTIC						RIGID	ARTIC									
13:00	0	0	0	0	0	0	0	0	0	7	4	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	7	3	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	1	10	11	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	8	0	1	0	0	0	0	9	10	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	31	7	1	0	0	0	1	40	42	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	10	0	1	0	0	0	0	11	12	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	14	2	0	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	37	3	1	0	0	0	0	41	42	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	10	0	1	0	0	0	0	11	12	1	0	0	0	0	0	0	0	1	1	
15:15	0	0	0	0	0	0	0	0	0	9	0	1	0	0	0	0	10	11	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	30	1	0	0	0	0	0	33	34	1	0	0	0	0	0	0	0	1	1	
16:00	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	1	11	12	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	0	7	8	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	34	1	1	0	0	0	1	37	39	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	22	4	0	0	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	6	1	0	0	0	0	0	0	1	1		
18:15	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	29	3	0	0	0	0	0	32	32	1	0	0	0	0	0	0	1	1	1	
P/TOT	1	0	0	0	0	0	0	0	1	412	52	15	0	0	0	3	482	493	13	1	0	0	0	0	0	0	0	14	14

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ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2016
ATH/16/096**

SITE: 4.3

DATE: 29th September 2016

LOCATION: Local Road to Dunsary/Local Road to Athronan/Local Road to Arlonstown

DAY: Thursday

TIME	MOVEMENT 4										MOVEMENT 5										MOVEMENT 6															
	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV			OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID			ARTIC	RIGID	ARTIC	BUS								
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1				
07:15	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1					
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1					
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1						
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2					
09:00	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2				
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
H/TOT	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3						
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1						
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2						
12:00	3	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3				
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
H/TOT	3	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	3						

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ABACUS TRANSPORTATION SURVEYS

KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2016
ATH/16/096

SITE: 4.3
LOCATION: Local Road to Dunsary/Local Road to Athronan/Local Road to Arlonstown

DATE: 29th September 2016
DAY: Thursday

TIME	MOVEMENT 4										MOVEMENT 5										MOVEMENT 6																										
	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU	KILSARAN					OTHER					TOT	PCU											
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV			OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID			ARTIC	RIGID	ARTIC	BUS	CAR	LGV	OGV1	RIGID	ARTIC	RIGID			ARTIC	BUS									
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1				
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
13:45	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
H/TOT	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1				
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1			
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3		
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
15:15	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/TOT	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
16:15	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/TOT	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
17:00	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
H/TOT	2	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:15	2	1	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
H/TOT	2	1	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	
P/TOT	12	1	0	0	0	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	27

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2016
ATH/16/096**

SITE: 4.3
LOCATION: Local Road to Dunsary/Local Road to Athronan/Local Road to Arlonstown

DATE: 29th September 2016
DAY: Thursday

TIME	MOVEMENT 7										MOVEMENT 8										MOVEMENT 9									
	KILSARAN					OTHER					KILSARAN					OTHER					KILSARAN					OTHER				
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	TOT	PCU	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	TOT	PCU	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	5	1	1	0	0	0	0	1	8	10	0	0	0	0	0	0	0	0	0	0
08:00	0	1	0	0	0	0	0	0	1	1	6	0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	5	0	2	0	0	0	0	7	8	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	2	10	12	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	14	0	2	0	0	0	0	0	16	17	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	0	0	0	0	0	0	1	1	32	1	4	0	0	0	0	2	39	43	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	20	5	0	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	6	1	1	0	0	0	0	8	9	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	6	7	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	4	1	1	0	0	0	0	6	7	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	26	3	2	0	0	0	0	32	34	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	0	0	10	11	0	0	0	0	0	0	0	0	0	0	0
11:15	1	0	0	0	0	0	0	0	1	1	2	3	1	0	0	0	0	6	7	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0
11:45	1	0	0	0	0	0	0	0	1	1	5	2	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	0	0	0	0	0	0	2	2	23	8	2	0	0	0	0	33	34	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	4	5	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	10	1	0	0	0	0	0	0	0	0	1	1
12:30	0	1	0	0	0	0	0	0	1	1	5	2	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0
12:45	1	0	0	0	0	0	0	0	1	1	9	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	1	0	0	0	0	0	0	2	2	26	3	1	0	0	0	0	30	31	1	0	0	0	0	0	0	0	0	1	1

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ABACUS TRANSPORTATION SURVEYS

KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS MANUAL CLASSIFIED JUNCTION TURNING COUNTS

SEPTEMBER 2016
ATH/16/096

SITE: 4.3

DATE: 29th September 2016

LOCATION: Local Road to Dunsary/Local Road to Athronan/Local Road to Arlonstown

DAY: Thursday

TIME	MOVEMENT 7					MOVEMENT 8						MOVEMENT 9									TOT	PCU						
	KILSARAN			OTHER		BUS	TOT	PCU	KILSARAN			OTHER			BUS	TOT	PCU	KILSARAN					OTHER					
	CAR	LGV	OGV1	RIGID	ARTIC				CAR	LGV	OGV1	RIGID	ARTIC	RIGID				ARTIC	RIGID	ARTIC			BUS	TOT	PCU	CAR	LGV	OGV1
13:00	1	0	0	0	0	0	1	1	3	1	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	
13:15	0	0	0	0	0	0	0	0	10	2	0	0	0	0	0	12	12	0	1	0	0	0	0	0	0	1	1	
13:30	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	
13:45	0	0	0	0	0	0	0	0	9	1	1	0	0	0	0	11	12	0	0	0	0	0	0	0	0	0	0	
H/TOT	1	0	0	0	0	0	1	1	31	5	1	0	0	0	0	37	38	0	1	0	0	0	0	0	0	1	1	
14:00	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11	11	1	0	0	0	0	0	0	0	1	1	
14:15	0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	
14:30	0	0	0	0	0	0	0	0	15	2	0	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	
14:45	1	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	
H/TOT	1	0	0	0	0	0	1	1	56	4	0	0	0	0	0	60	60	1	0	0	0	0	0	0	0	1	1	
15:00	2	0	0	0	0	0	0	0	12	2	0	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	
15:15	0	0	0	0	0	0	0	0	12	1	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	
15:30	0	0	0	0	0	0	0	0	7	0	1	0	0	0	0	9	11	0	0	0	0	0	0	0	0	0	0	
15:45	1	0	0	0	0	0	0	0	7	4	0	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	
H/TOT	3	0	0	0	0	0	0	0	38	7	0	0	0	0	0	47	49	0	0	0	0	0	0	0	0	0	0	
16:00	1	0	0	0	0	0	0	0	11	0	1	0	0	0	0	16	21	0	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	11	11	1	0	0	0	0	0	0	0	1	1	
16:30	0	1	0	0	0	0	0	0	12	1	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	
16:45	1	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	
H/TOT	2	1	0	0	0	0	0	0	44	3	1	0	0	0	4	52	57	1	0	0	0	0	0	0	0	1	1	
17:00	1	0	0	0	0	0	0	0	6	3	1	0	0	0	0	10	11	0	0	0	0	0	0	0	0	0	0	
17:15	1	0	0	0	0	0	0	0	20	1	1	0	0	0	0	22	23	0	0	0	0	0	0	0	0	0	0	
17:30	0	0	0	0	0	0	0	0	18	4	0	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	
17:45	2	0	0	0	0	0	0	0	25	4	0	0	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	
H/TOT	4	0	0	0	0	0	0	0	69	12	2	0	0	0	0	83	84	0	0	0	0	0	0	0	0	0	0	
18:00	0	0	0	0	0	0	0	0	20	4	0	0	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	
18:15	1	0	0	0	0	0	0	0	18	3	0	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	
18:30	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	
18:45	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	
H/TOT	1	0	0	0	0	0	0	0	60	8	0	0	0	0	0	68	68	0	0	0	0	0	0	0	0	0	0	
P/TOT	15	3	0	0	0	0	0	0	18	18	430	60	15	0	0	9	514	531	3	1	0	0	0	0	0	0	4	4

ABACUS TRANSPORTATION SURVEYS

**KILSARAN QUARRIES IN MEATH TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2016
ATH/16/096**

SITE: 4.3 DATE: 29th September 2016
 LOCATION: Local Road to Dunsary/Local Road to Athronan/Local Road to Arlonstown DAY: Thursday

TIME	MOVEMENT 10										MOVEMENT 11										MOVEMENT 12									
	KILSARAN					OTHER					KILSARAN					OTHER					KILSARAN					OTHER				
	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	TOT	PCU	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	TOT	PCU	CAR	LGV	OGV1	RIGID	ARTIC	RIGID	ARTIC	BUS	TOT	PCU
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0

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Appendix B

Receiving Road Network Traffic Flow Data

- Figure 1 Site 1 - L2206 Weekday Total Traffic Flows
Figure 2 Site 1 - L2206 Weekday HGV Traffic Flows
Figure 3 Site 1 - L2205(S) Weekday Total Traffic Flows
Figure 4 Site 1 - L2205(S) Weekday HGV Traffic Flows
Figure 5 Site 1 - L2205(N) Weekday Total Traffic Flows
Figure 6 Site 1 - L2205(N) Weekday HGV Traffic Flows
Figure 7 Site 2 - L2208 Weekday Total Traffic Flows
Figure 8 Site 2 - L2208 Weekday HGV Traffic Flows
Figure 9 Site 2 - L2206 Weekday Total Traffic Flows
Figure 10 Site 2 - L2206 Weekday HGV Traffic Flows
Figure 11 Site 2 - L2207(N) Weekday Total Traffic Flows
Figure 12 Site 2 - L2207(N) Weekday HGV Traffic Flows
Figure 13 Site 2 - L2207(S) Weekday Total Traffic Flows
Figure 14 Site 2 - L2207(S) Weekday HGV Traffic Flows
Figure 15 Site 3 - L2206(W) Weekday Total Traffic Flows
Figure 16 Site 3 - L2206(W) Weekday HGV Traffic Flows
Figure 17 Site 3 - L2206(E) Weekday Total Traffic Flows
Figure 18 Site 3 - L2206(E) Weekday HGV Traffic Flows
Figure 19 Site 3 - Athronan Weekday Total Traffic Flows
Figure 20 Site 3 - Arlonstown Weekday Total Traffic Flows

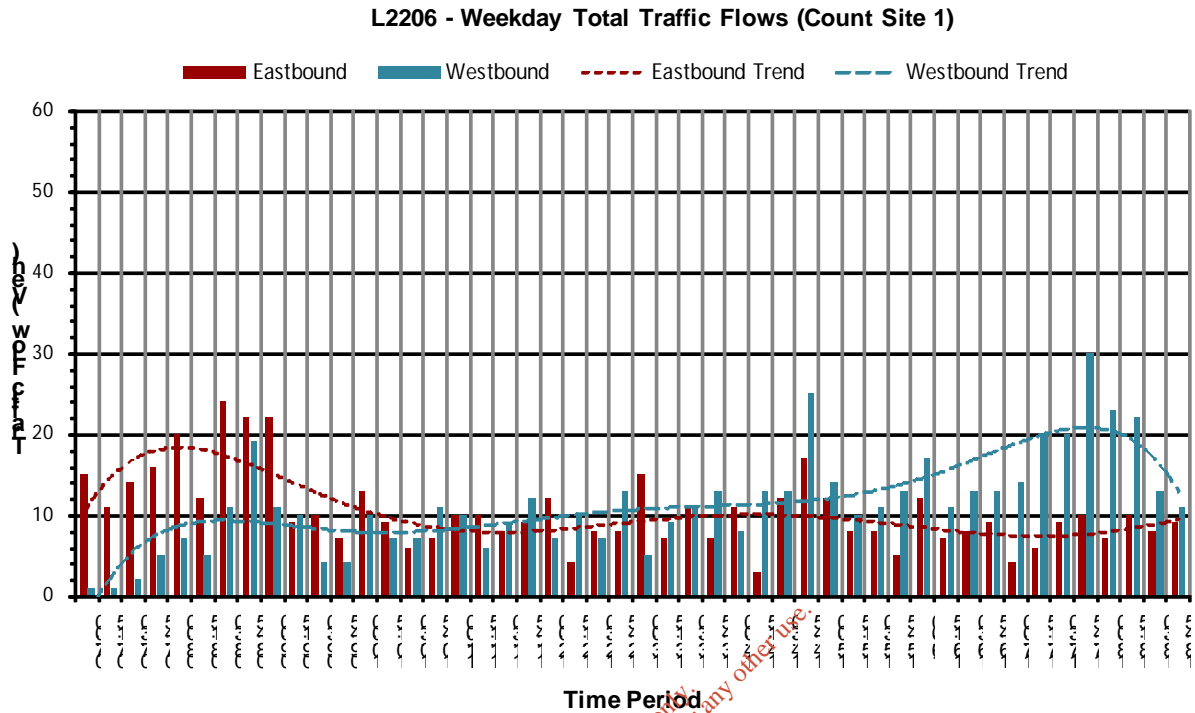


Figure 1 L2206 Weekday Total Traffic Flows at Count Site 1

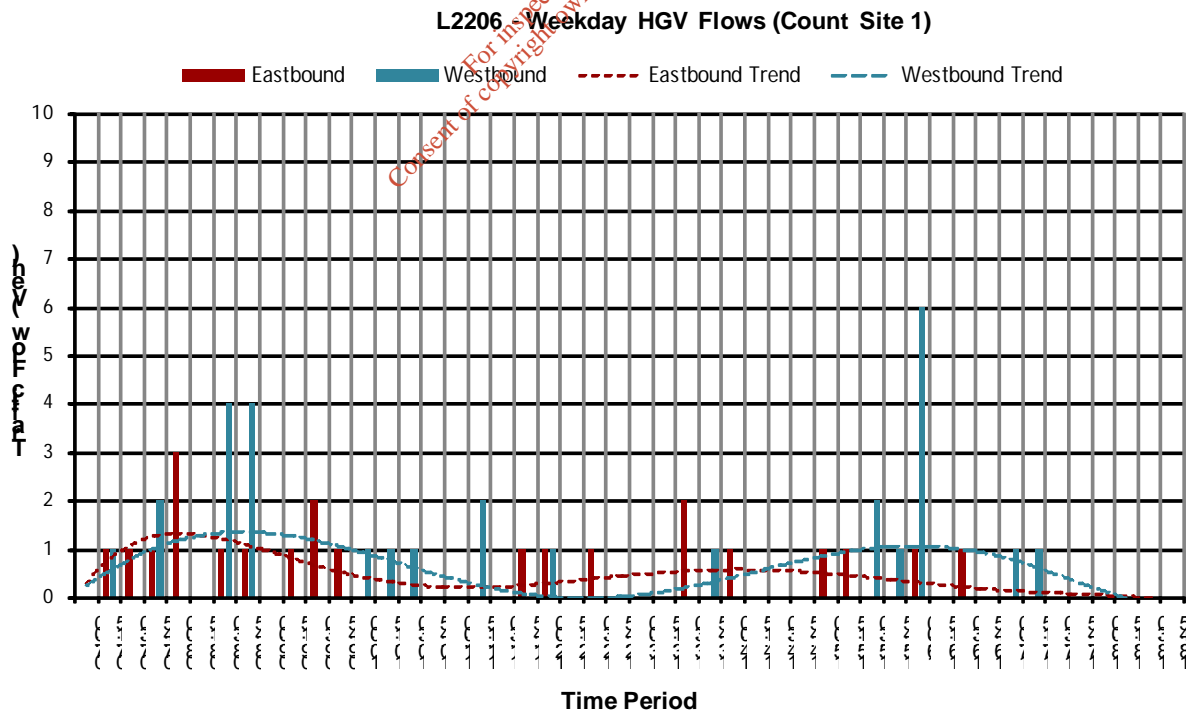


Figure 2 L2206 Weekday HGV Traffic Flows at Count Site 1

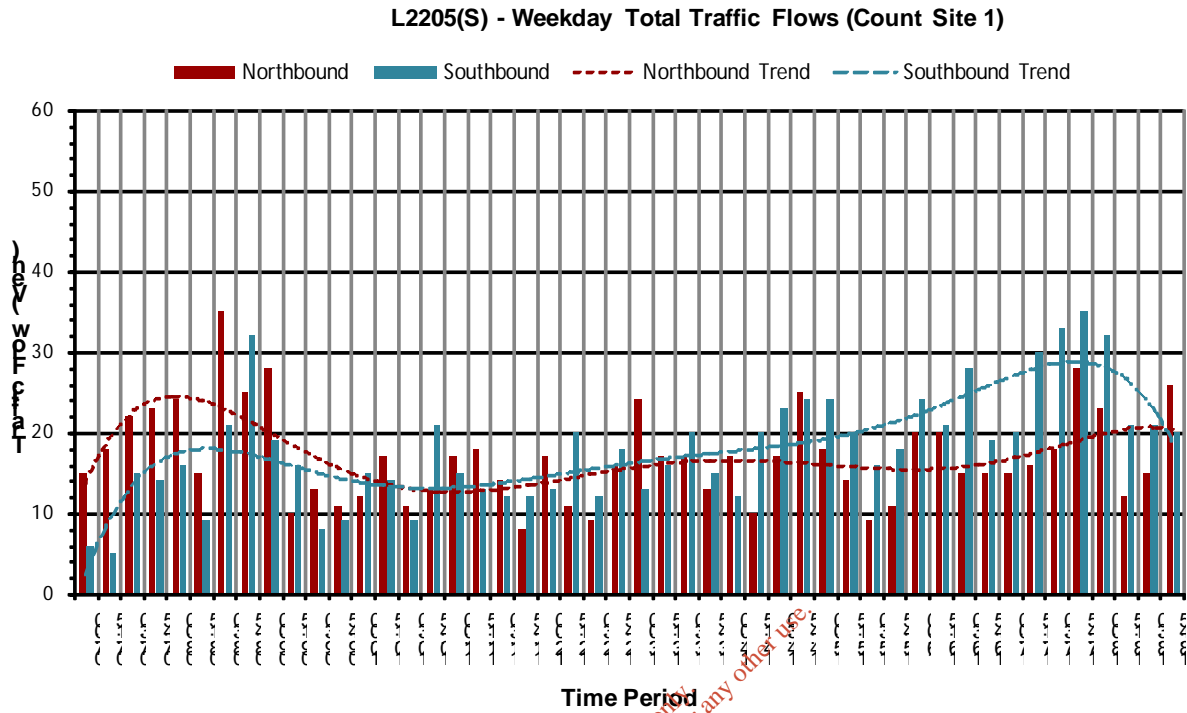


Figure 3 L2205(S) Weekday Total Traffic Flows at Count Site 1

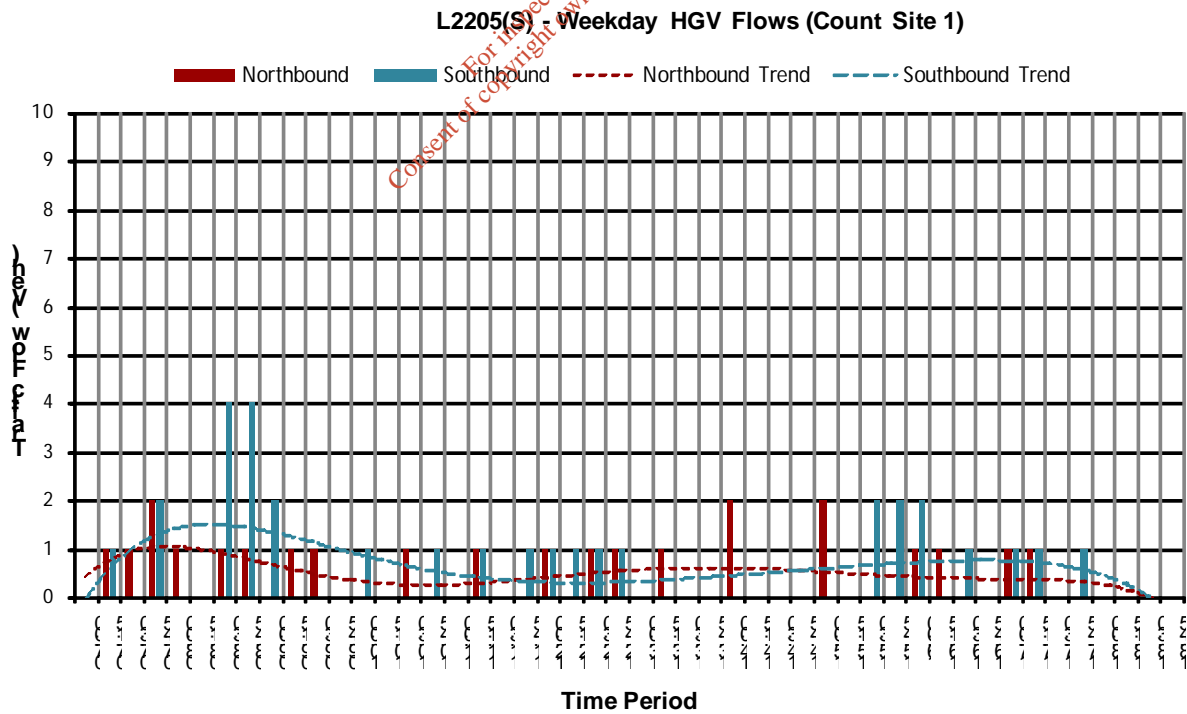


Figure 4 L2205(S) Weekday HGV Traffic Flows at Count Site 1

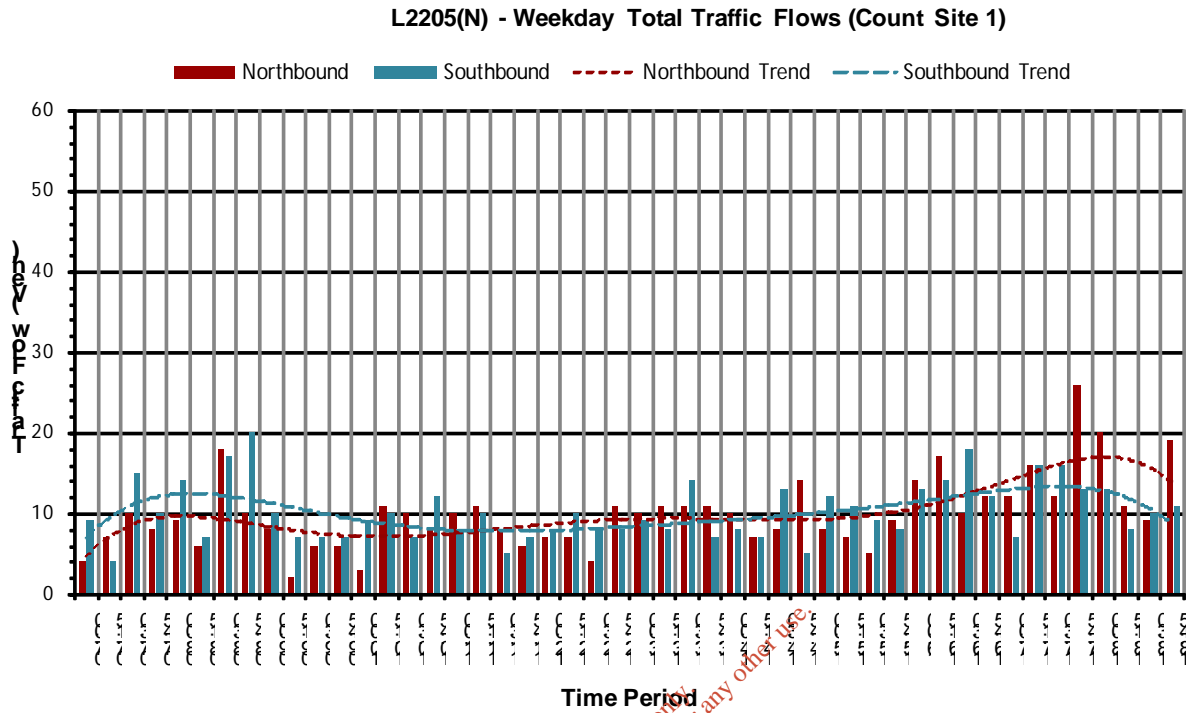


Figure 5 L2205(N) Weekday Total Traffic Flows at Count Site 1

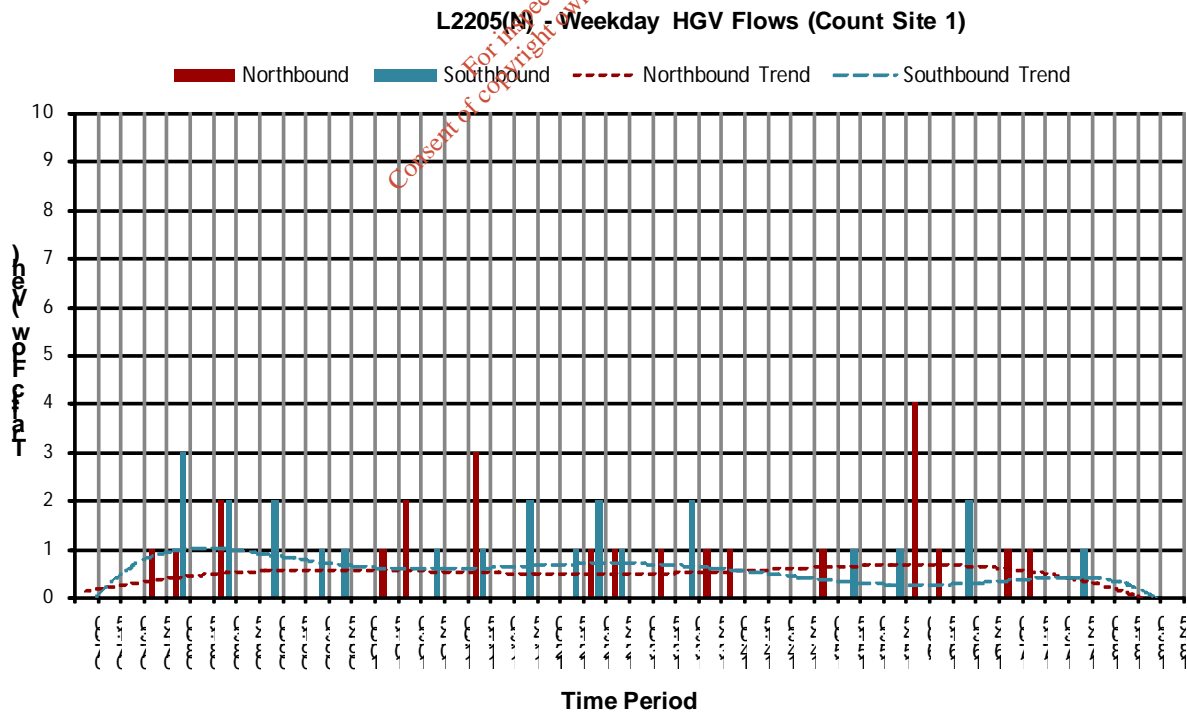


Figure 6 L2205(N) Weekday HGV Traffic Flows at Count Site 1

L2208 - Weekday Total Traffic Flows (Count Site 2)

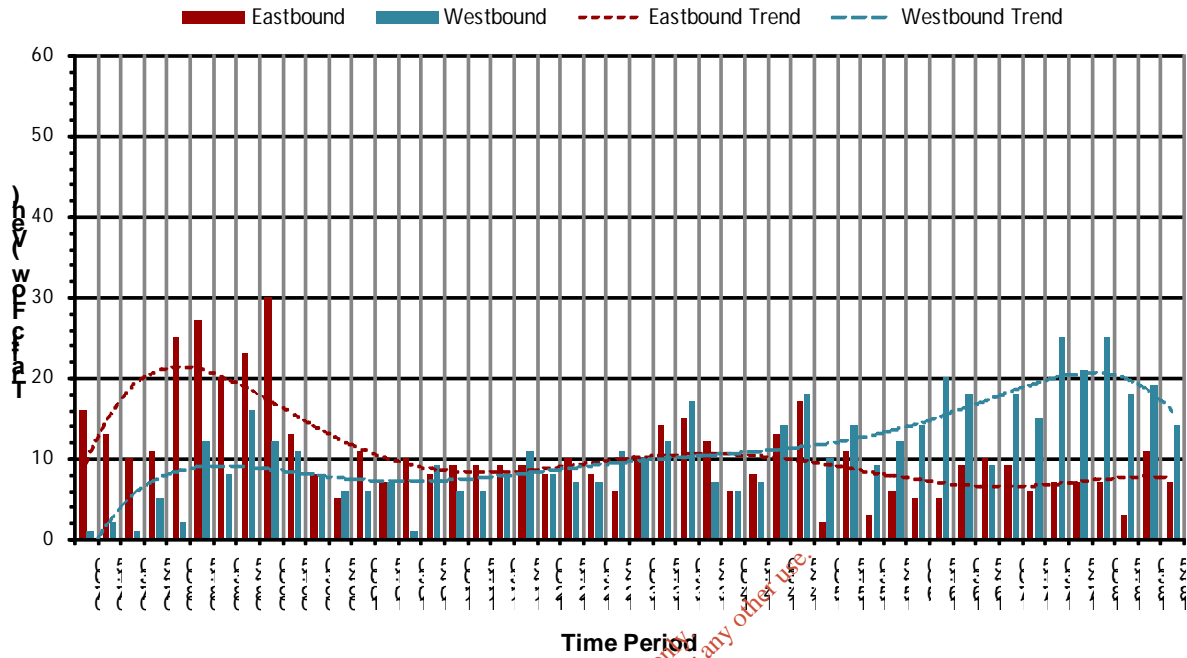


Figure 7 L2208 Weekday Total Traffic Flows at Count Site 2

L2208 Weekday HGV Flows (Count Site 2)

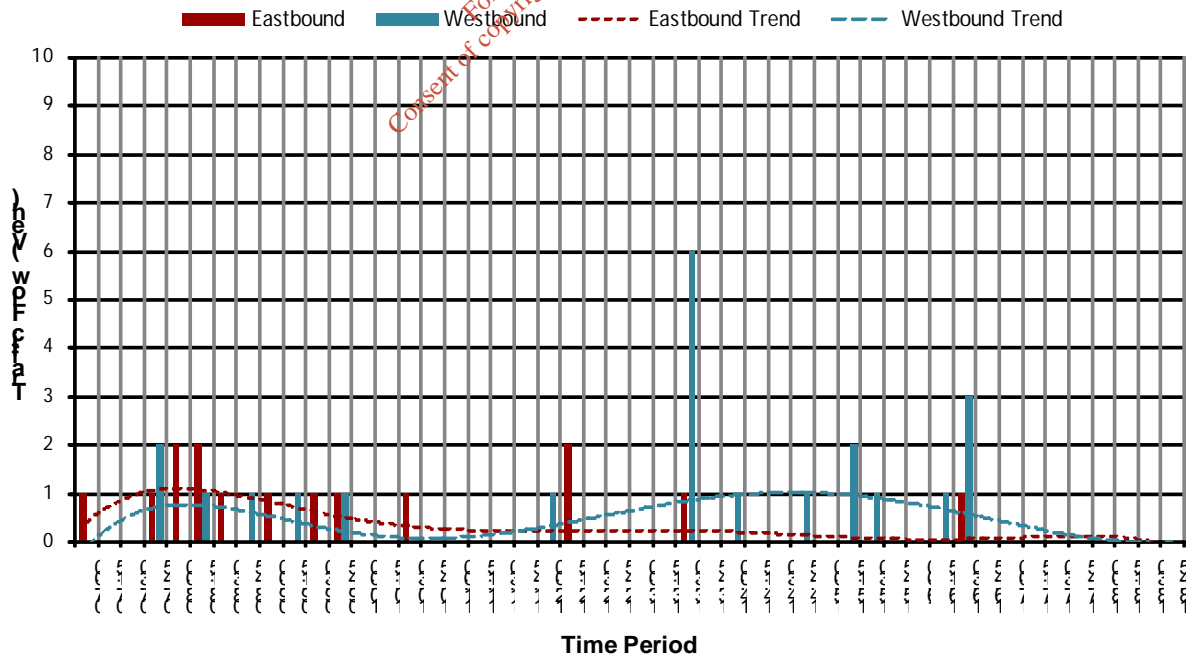


Figure 8 L2208 Weekday HGV Traffic Flows at Count Site 2

L2206 - Weekday Total Traffic Flows (Count Site 2)

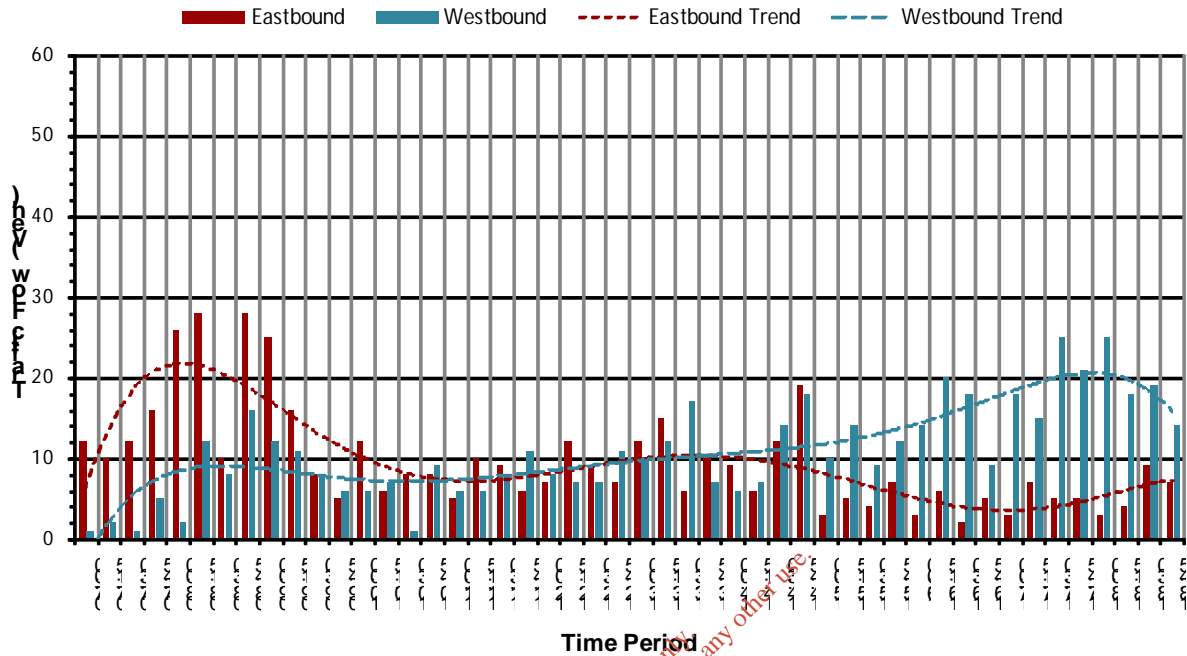


Figure 9 L2206 Weekday Total Traffic Flows at Count Site 2

L2206 - Weekday HGV Flows (Count Site 2)

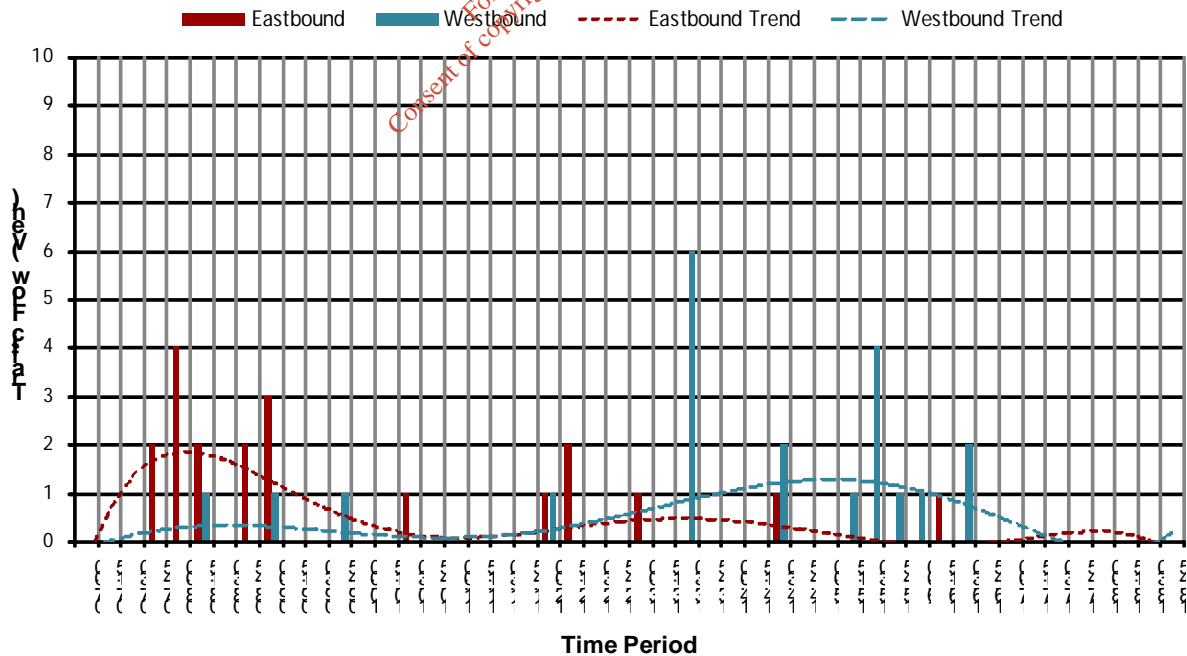


Figure 10 L2206 Weekday HGV Traffic Flows at Count Site 2

L2207(N) - Weekday Total Traffic Flows (Count Site 2)

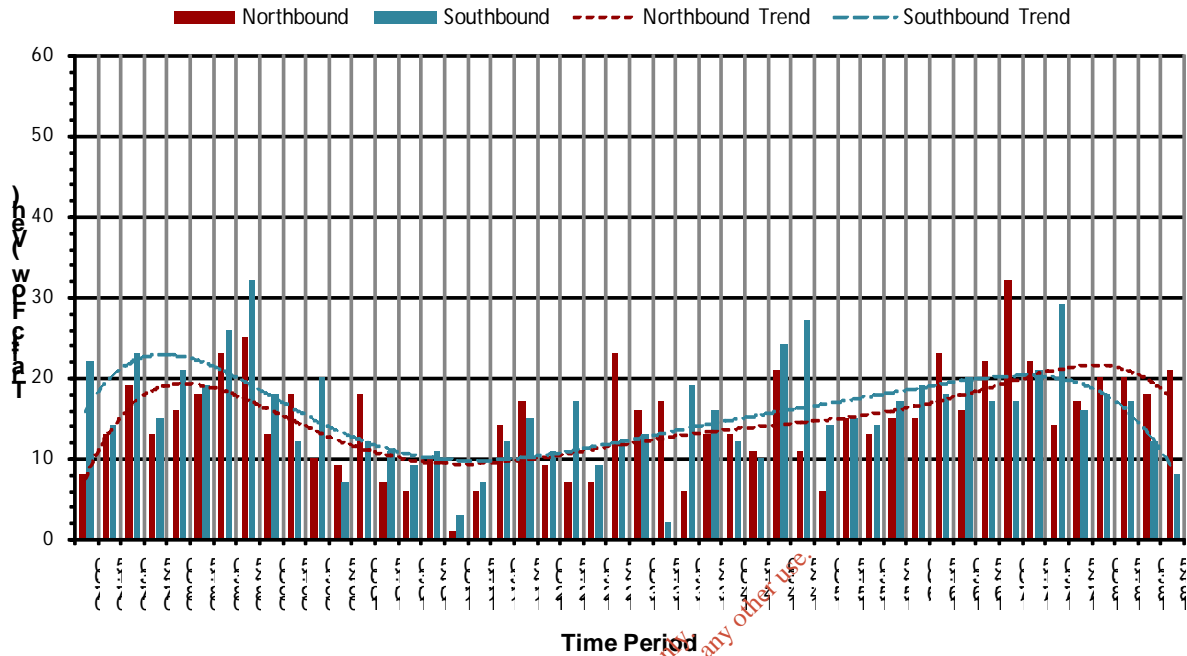


Figure 11 L2207(N) Weekday Total Traffic Flows at Count Site 2

L2207(N) - Weekday HGV Flows (Count Site 2)

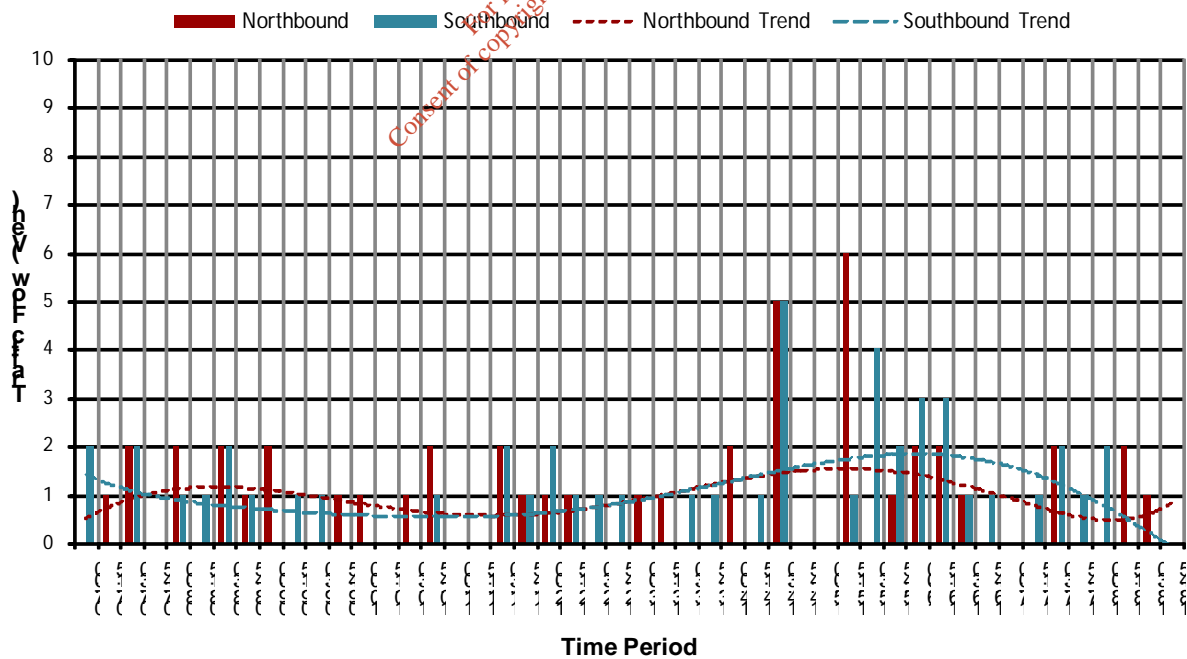


Figure 12 L2207(N) Weekday HGV Traffic Flows at Count Site 2

L2207(S) - Weekday Total Traffic Flows (Count Site 2)

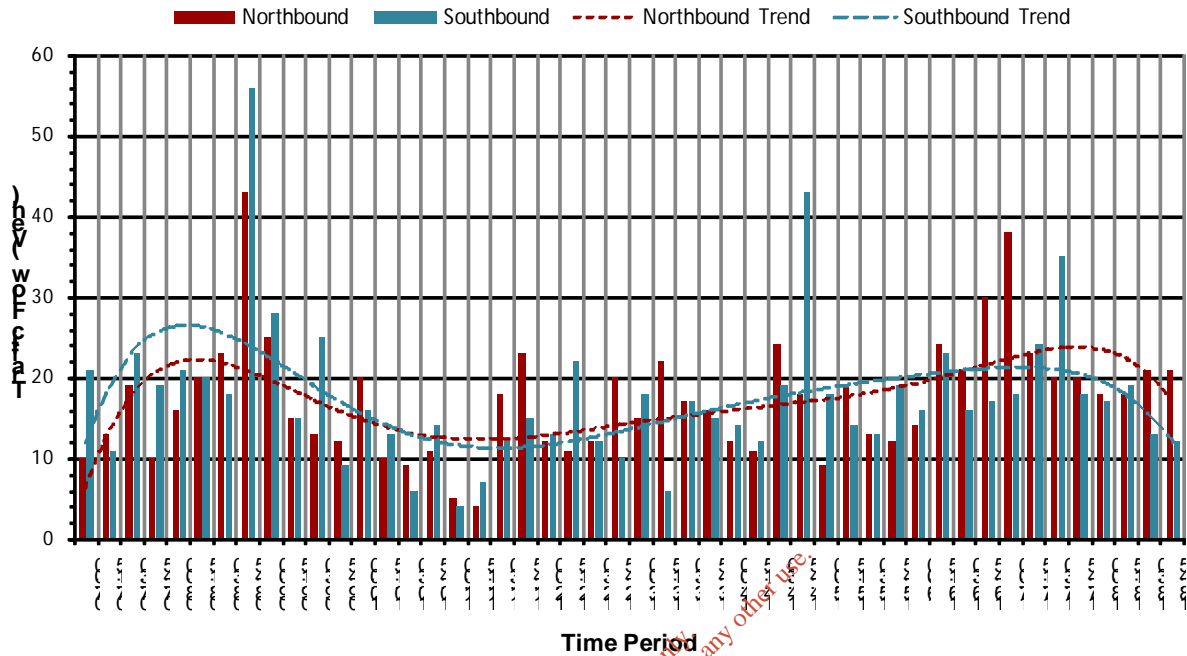


Figure 13 L2207(S) Weekday Total Traffic Flows at Count Site 2

L2207(S) - Weekday HGV Flows (Count Site 2)

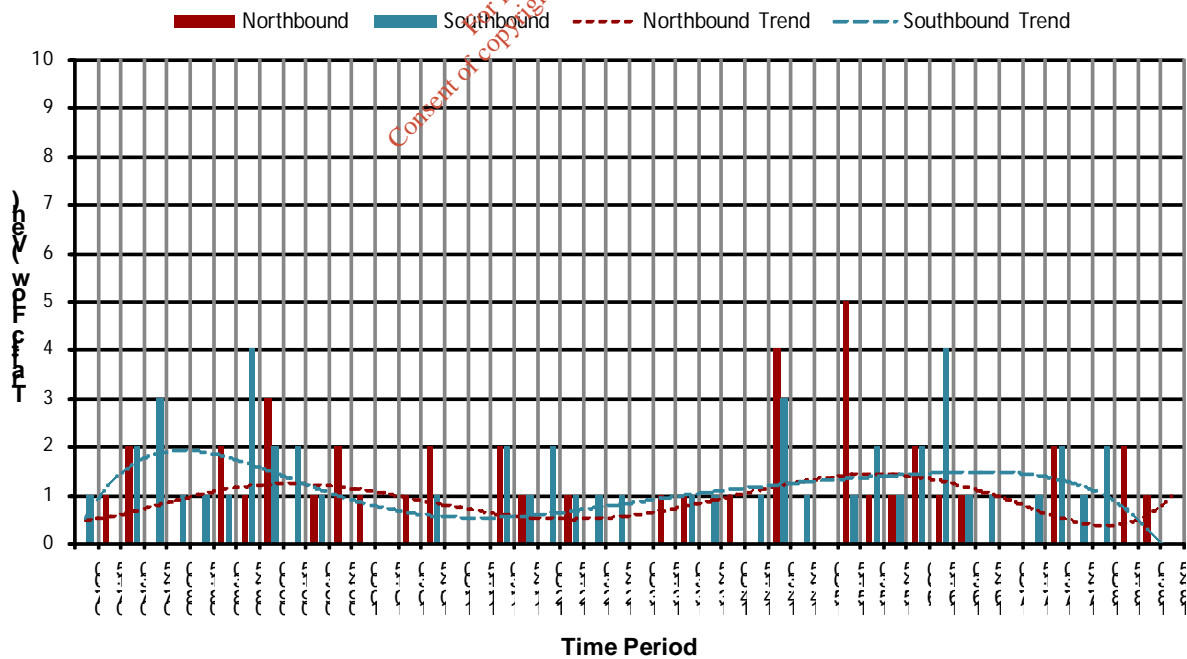


Figure 14 L2207(S) Weekday HGV Traffic Flows at Count Site 2

L2206(W) - Weekday Total Traffic Flows (Count Site 3)

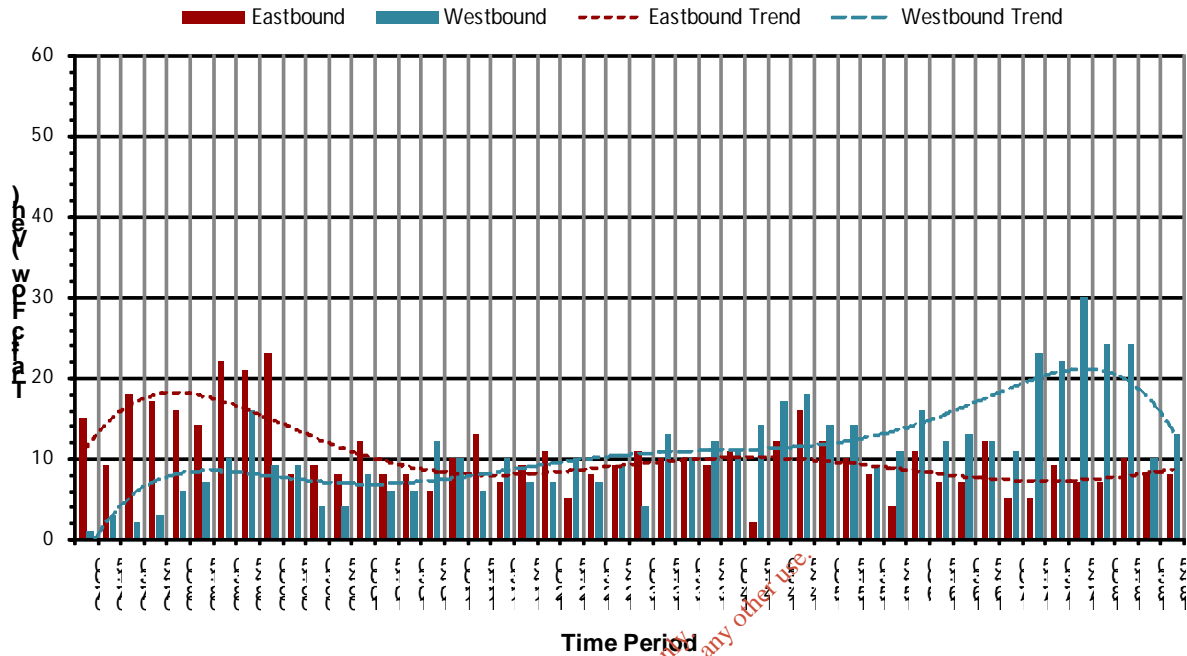


Figure 15 L2207(W) Weekday Total Traffic Flows at Count Site 3

L2206(W) - Weekday HGV Flows (Count Site 3)

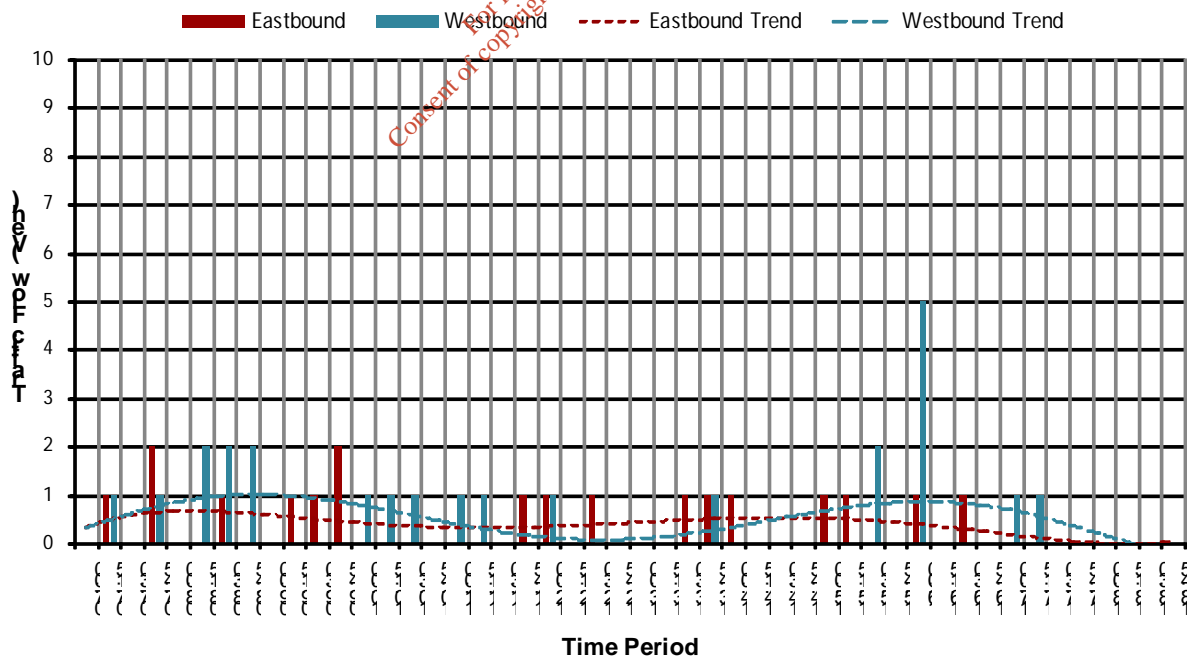


Figure 16 L2207(W) Weekday HGV Traffic Flows at Count Site 3

L2206(E) - Weekday Total Traffic Flows (Count Site 3)

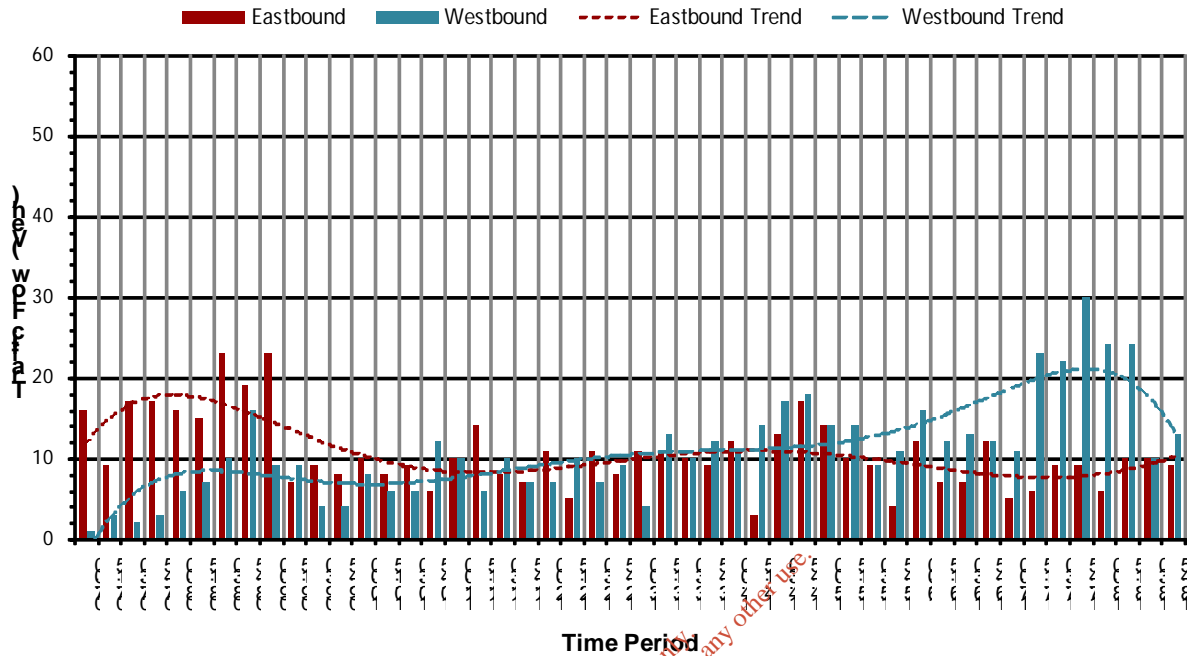


Figure 17 L2207(E) Weekday Total Traffic Flows at Count Site 3

L2206(E) - Weekday HGV Flows (Count Site 3)

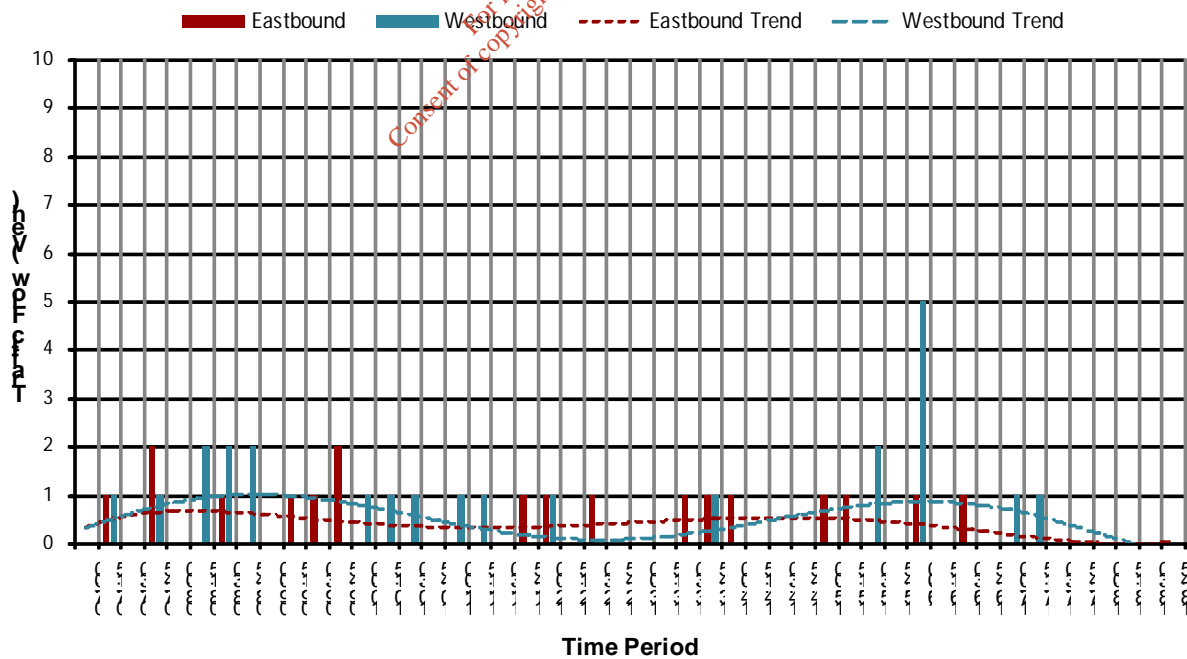


Figure 18 L2207(E) Weekday HGV Traffic Flows at Count Site 3

Local Road Athronan - Weekday Total Traffic Flow (Count Site 3)

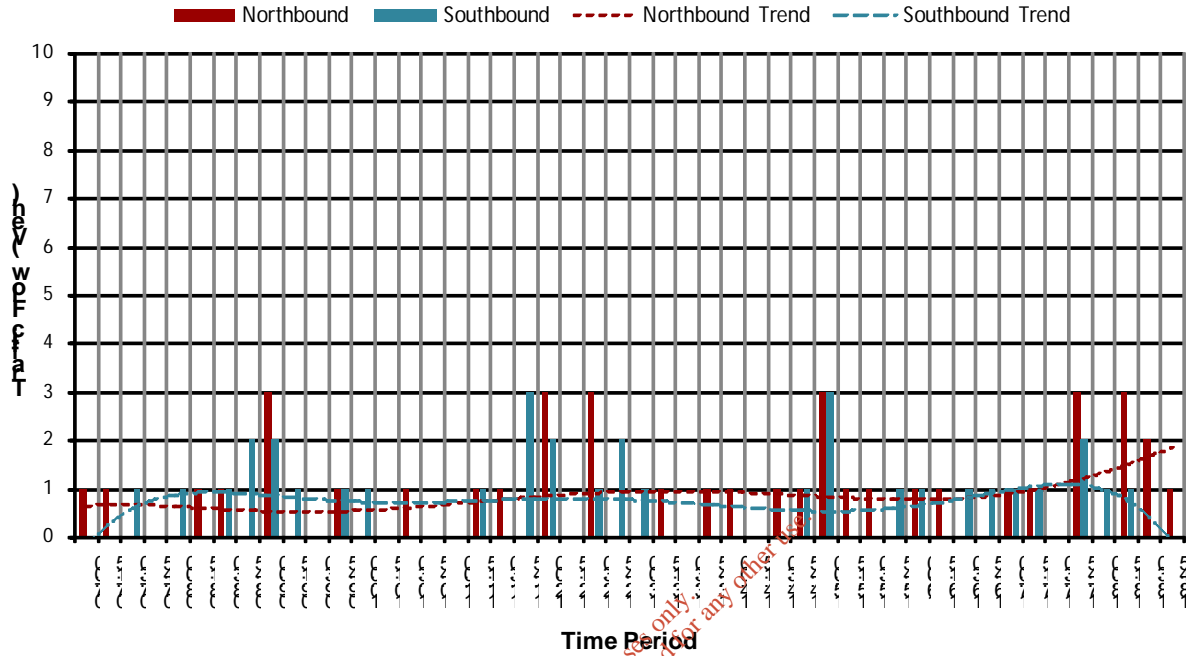


Figure 19 Local Road Athronan Weekday Total Traffic Flows at Count Site 3

Local Road Arlonstown - Weekday Total Traffic Flow (Count Site 3)

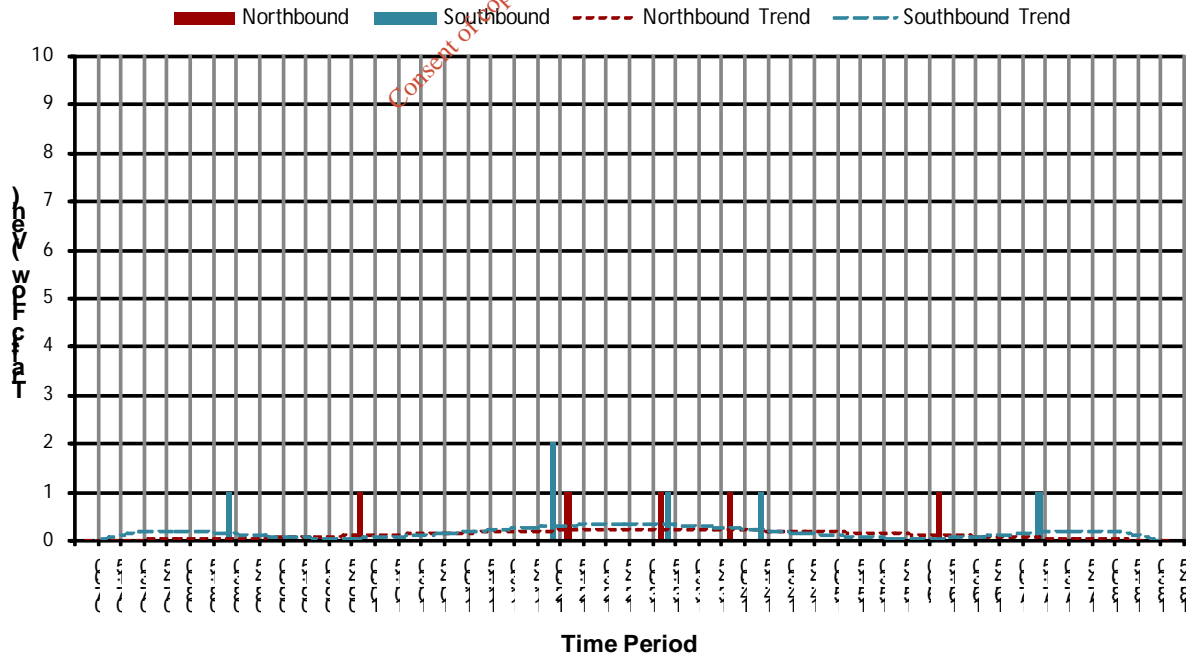


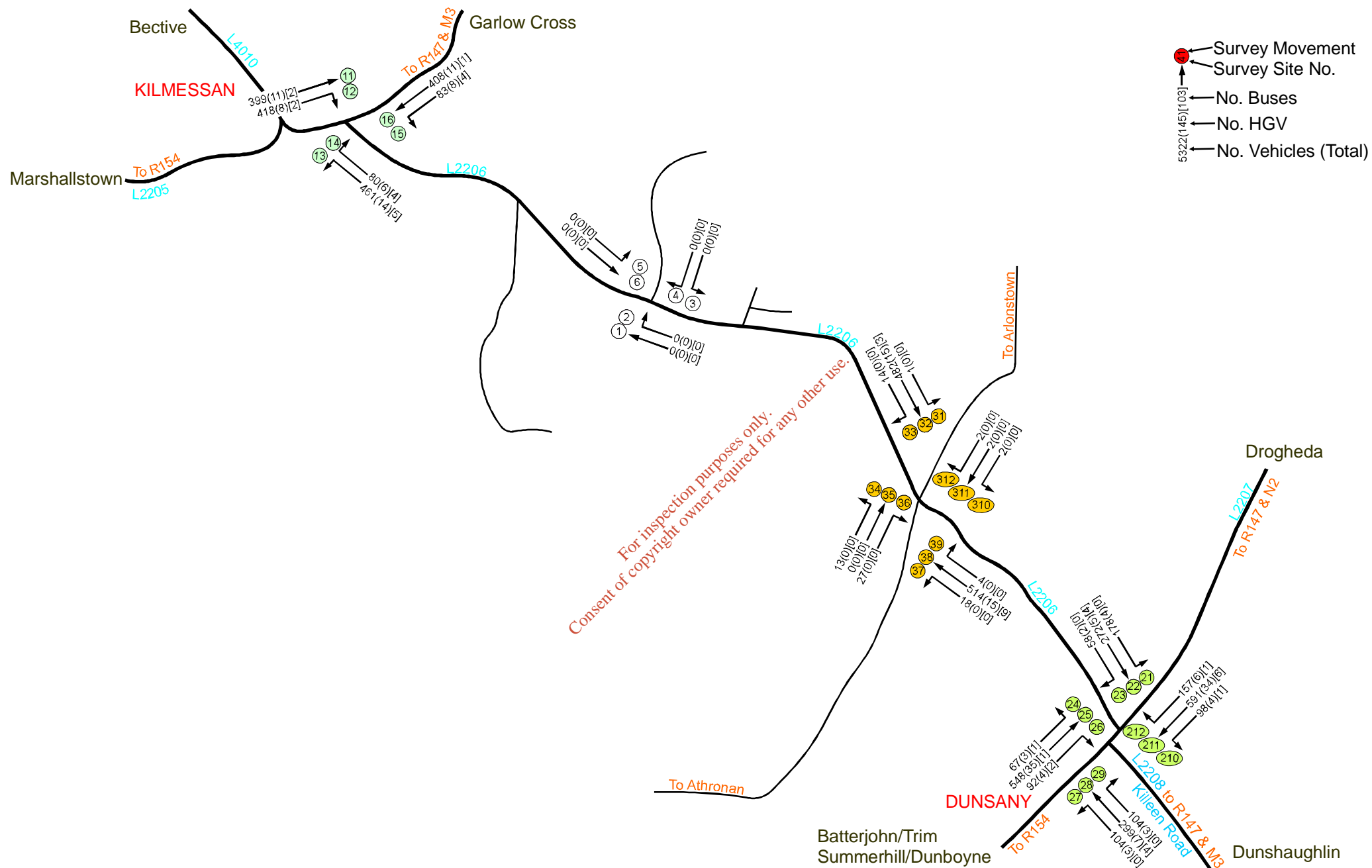
Figure 20 Local Road Arlonstown Weekday Total Traffic Flows at Count Site 3

Appendix C

L1113 Traffic Flow Data

- Figure 1 Surveyed Daily Receiving Road Network Traffic Flows
- Figure 2 Forecast Daily Distribution of Permitted HGV Traffic
- Figure 3 Average Daily Traffic Generation of Permitted Development
- Figure 4 Average Daily Traffic Generation of Proposed Development

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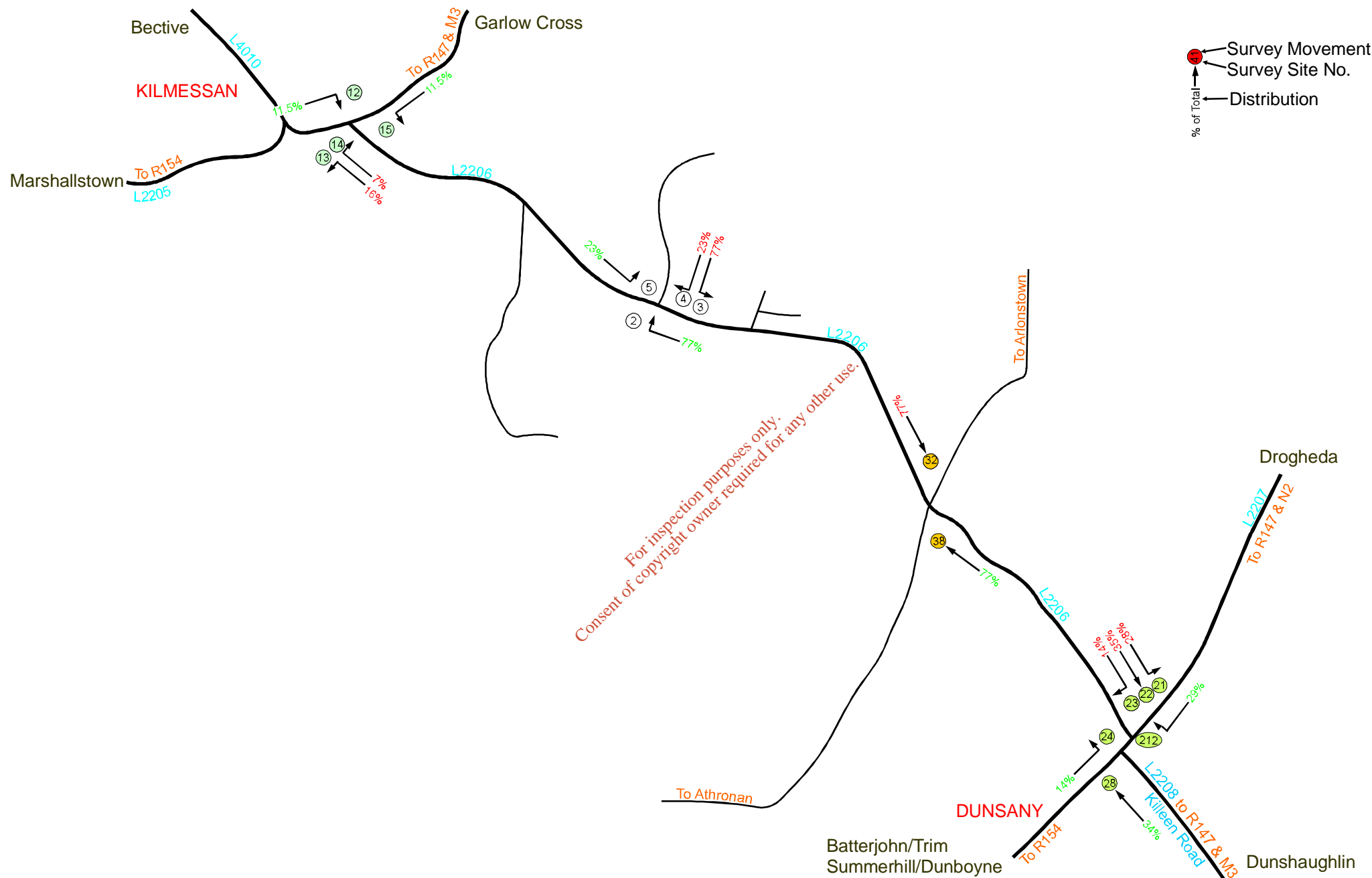
- Survey Movement
- Survey Site No.
- ← No. Buses
- ← No. HGV
- ← No. Vehicles (Total)



Project/Job Title **Kilsaran Kilmessan Quarry - Tullykane, Kilmessan, Co Meath**

Drawing Title **Daily Traffic Flow 07:00-19:00hrs
Base Survey Data 2016**

Drawn by: Jkeenan	Checked by: Jkeenan	Approved by: Jkeenan
Date: Nov 2016	Date: Nov 2016	Date: Nov 2016
Scale: N.A	JOB No: 03029	Figure 1
Appendix C		



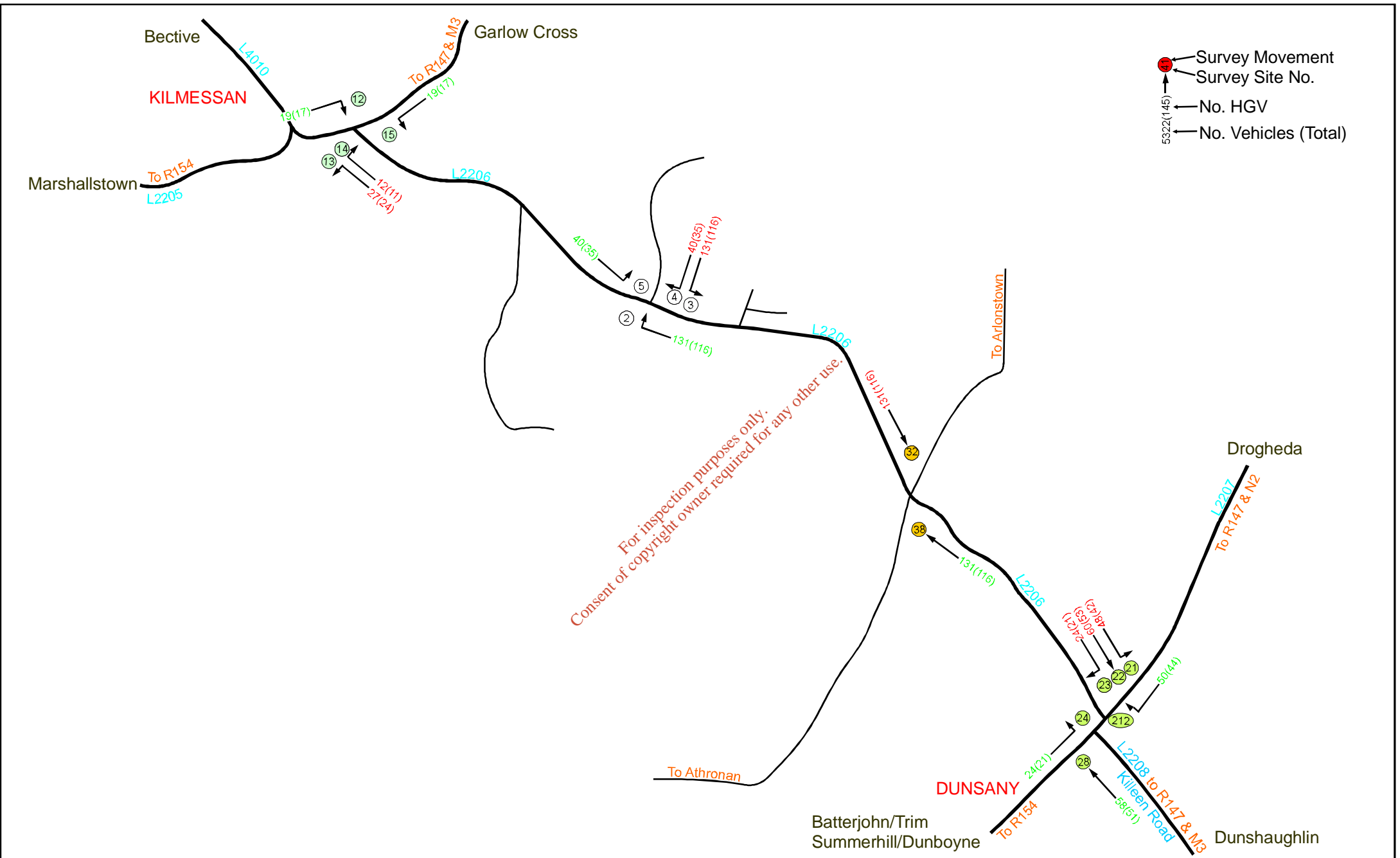
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Project/Job Title **Kilsaran Kilmessan Quarry - Tullykane, Kilmessan, Co Meath**

Drawing Title **Daily Distribution of HGV Traffic to Permitted Quarry Development
Base Survey Data 2016 - 750,000t per annum (150 HGV Trips Per Day)**

Drawn by: Jkeenan	Checked by: Jkeenan	Approved by: Jkeenan
Date: Nov 2016	Date: Nov 2016	Date: Nov 2016
Scale: N.A	JOB No: 03029	Figure 2
Appendix C		



Trafficwise
traffic & transportation solutions

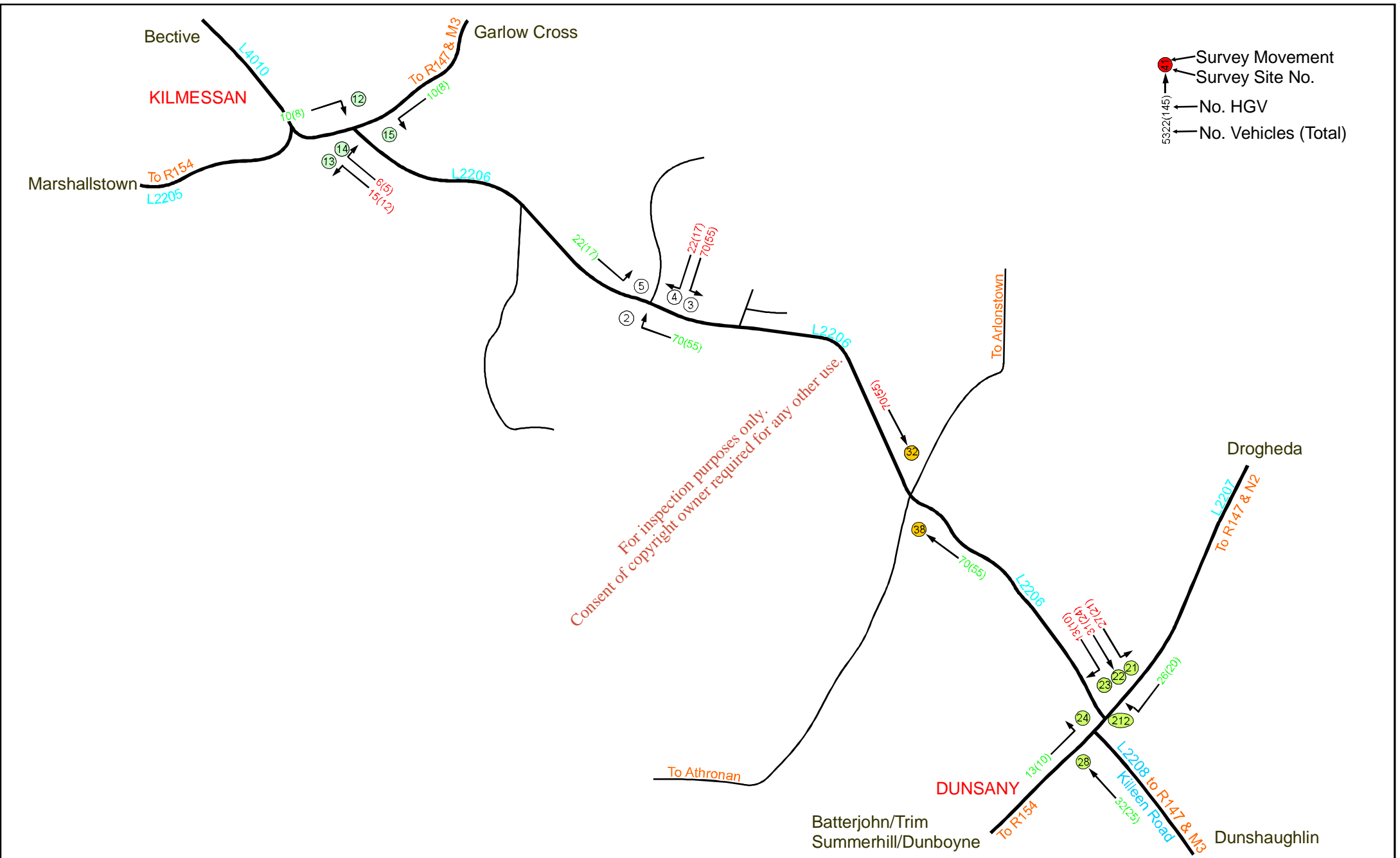
Bracetown Business Park,
Clonee,
Dublin.

Telephone: +353 (0)1 8014009
Fax: +353 (0)1 8014035
Website: www.trafficwise.ie
E-mail: info@trafficwise.ie

Project/Job Title **Kilsaran Kilmessan Quarry - Tullykane, Kilmessan, Co Meath**

Drawing Title **Forecast Daily Traffic to Permitted Quarry Development
Base Survey Data 2016 - 750,000t per annum (150 HGV Trips Per Day)**

Drawn by: Jkeenan	Checked by: Jkeenan	Approved by: Jkeenan
Date: Nov 2016	Date: Nov 2016	Date: Nov 2016
Scale: N.A	JOB No: 03029	Figure 3
Appendix C		



Trafficwise
traffic & transportation solutions

Bracetown Business Park,
Clonee,
Dublin.

Telephone: +353 (0)1 8014009
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Website: www.trafficwise.ie
E-mail: info@trafficwise.ie

Project/Job Title	Kilsaran Kilmessan Quarry - Tullykane, Kilmessan, Co Meath		
Drawing Title	Forecast Daily Traffic to Proposed Quarry Backfill Development Base Survey Data 2016 - 400,000t per annum (72 HGV Trips Per Day)		

Drawn by: Jkeenan	Checked by: Jkeenan	Approved by: Jkeenan
Date: Nov 2016	Date: Nov 2016	Date: Nov 2016
Scale: N.A	JOB No: 03029	Figure 4
Appendix C		