

Traffic Report

TRAFFIC AND TRANSPORT ASSESSMENT
Incl. MOBILITY MANAGEMENT PLAN
LANDS AT HUNTSTOWN AND COLDWINTERS, CO. DUBLIN

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1 INTRODUCTION

1.1 General

1.1.1 Trafficwise Ltd. has undertaken this Traffic and Transport Assessment (TTA) for a proposed development consisting of 2 no. separate units set out in 2 no. buildings providing for waste recover and waste recycling uses each with associated offices, access roads, footways, service yards, parking, landscaping, fencing and site works. The site is in Huntstown, Finglas and is currently a greenfield site.

1.1.2 The site identified in **Figure 1.1** which is an excerpt from Fingal County Development Plan 2023-2029, Map 'Blanchardstown North', Sheet No.12. The subject lands are zoned HI – Heavy Industry 'Provide for Heavy Industry'. Lands Zoned HI are coloured blue whilst the overall landholding within which the application site is located is outlined red.

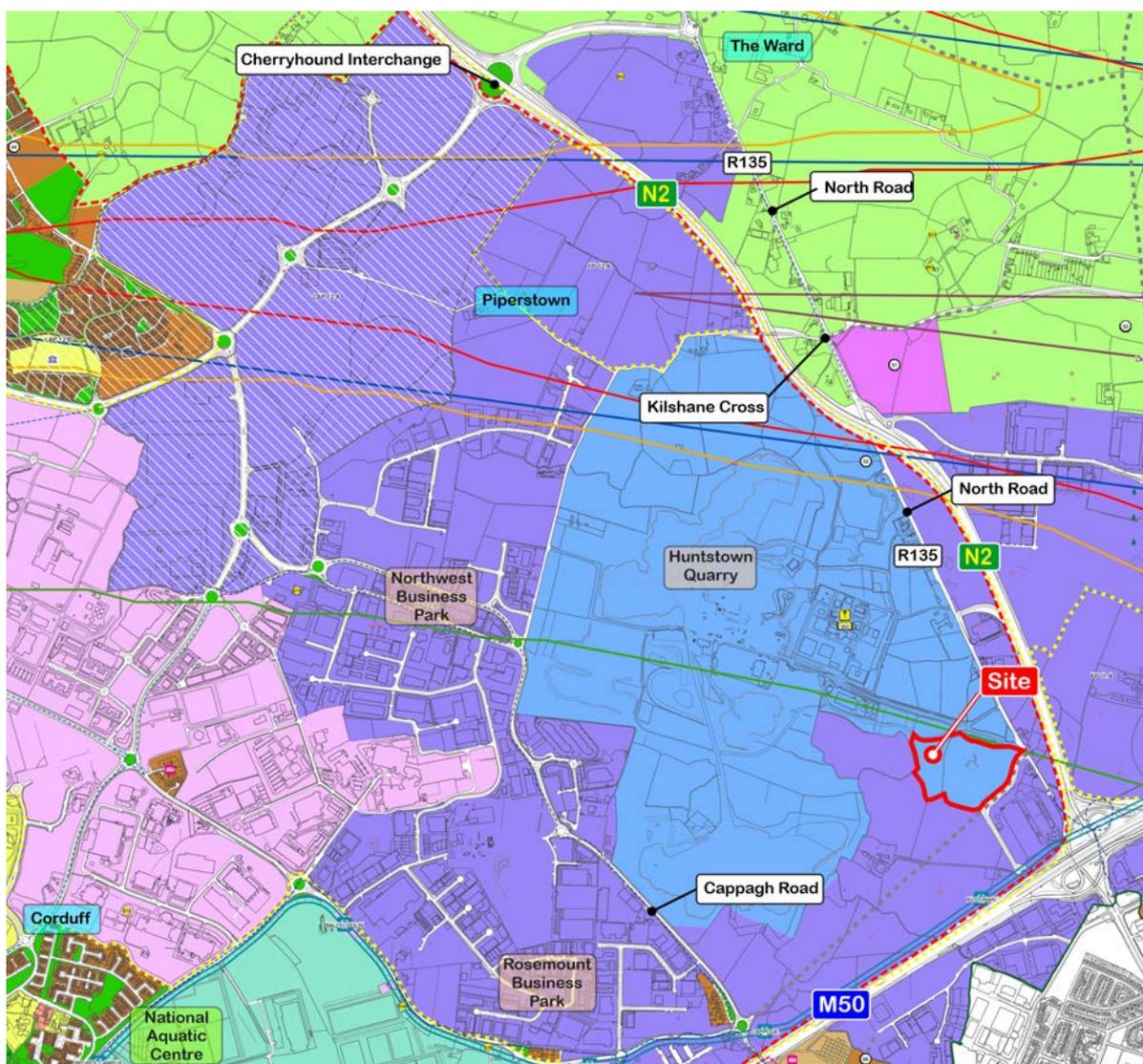


Figure 1.1 Development Site Location (Source: FDP Sheet 12, annotation by Trafficwise Ltd.)

- 1.1.3 The proposed development is Phase 1 of the ‘Huntstown Circular Economy Hub’ (Hub). The proposed development site is in an area zoned for heavy industrial use as is the applicant’s overall landholding.
- 1.1.4 Lying to the north of M50 Motorway, west of North Road (former N2) and south of Huntstown Quarry lands the proposed development site is bounded to the to the south by an existing service road to the Finglas 220kV Electricity Substation. Lands to the north are similarly zoned HI whilst lands to the east, south and west are zoned GE – General Employment ‘Provide opportunities for general enterprise and employment’.
- 1.1.5 The site is located in the eastern part of Dublin Enterprise Zone which benefits from proximity to the M50 Motorway and the M2/N3 Link Road. The Dublin Enterprise Zone is well served by road and there are five separate Dublin Bus routes traversing the zone. **Figure 1.2** shows the location of the proposed development site in the context of the Dublin Enterprise Zone.

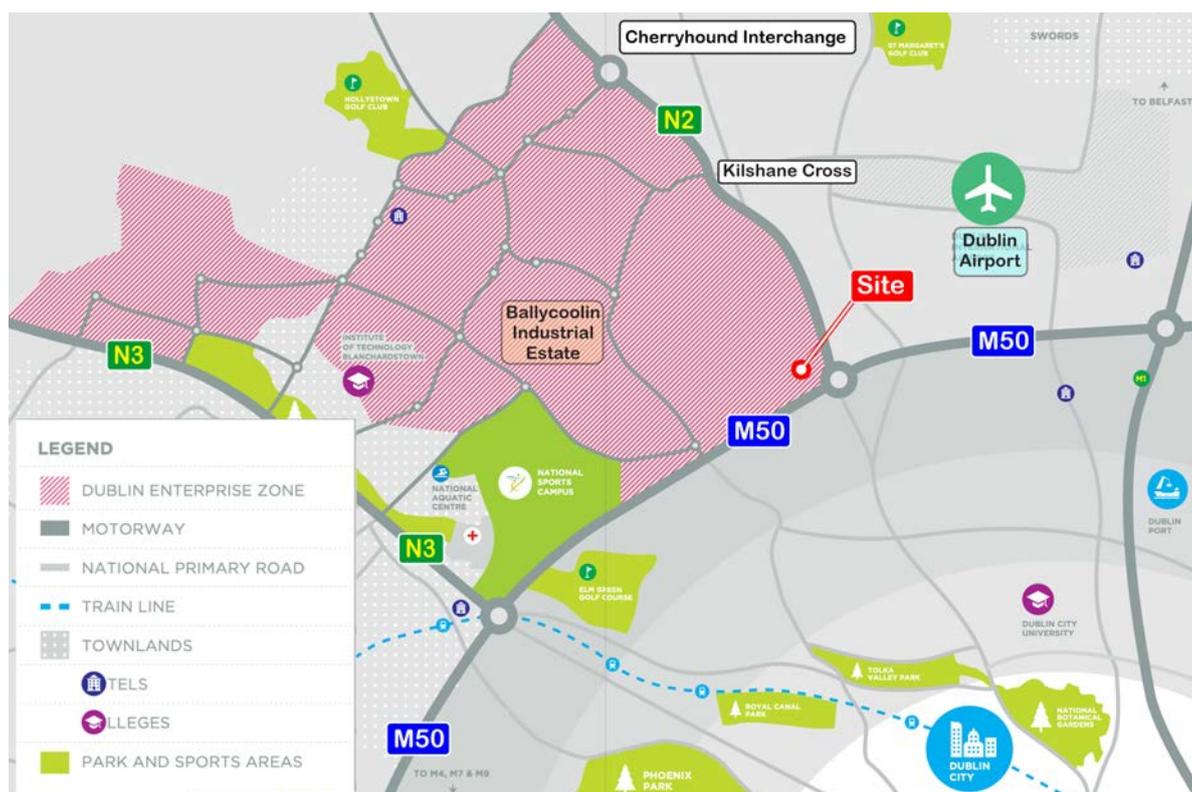


Figure 1.2 Site Location and DBZ (Source: DBZ Brochure, annotation by Trafficwise Ltd.)

- 1.1.6 It is proposed to achieve vehicular access to the development via an upgraded existing direct junction and access road from North Road. The existing access road currently serves the Finglas 220kV Electricity Substation. Fingal Development Plan 2023-2029 shows a future objective to connect this existing road to the Cappagh

Road at Cappogue in the west. The future connecting road will function as a local distributor road and will serve to provide access to some of the lands zoned GE to the south of Huntstown Quarry.

1.1.7 The current proposal seeks permission for a development consisting of the construction of:

- 2 no. Waste Recovery and Waste Recycling Units
 - Unit No.1.....5,032m²
 - Unit No.2.....5,032m²
 - Total.....10,064m²**

1.1.8 During the preparation of this study report, traffic turning count surveys have been undertaken in order to establish baseline traffic flow conditions on the receiving road network and to establish existing traffic patterns and to identify existing local travel characteristics.

1.1.9 The purpose of this TTA is to describe the existing receiving road network environment and to quantify the existing and likely future traffic flows arising at the development site. The TTA details and discusses the results of traffic flow assessments undertaken to calculate the likely potential level of traffic impact arising from the proposed development at North Road and the receiving road environment and junctions connected by North Road between M50 and The Ward. The scope of the TTA assessment includes transport issues relating to site access, pedestrians, cyclist and public transport accessibility. Recommendations and proposals provided in the assessment are based upon the existing and likely future road network layout together with network observations and measurements, traffic turning count data and industry standard traffic data analysis. In preparing this TTA reference is made to the following

- Fingal Development Plan 2023–2029
- Transport Infrastructure Ireland (TII) ‘Traffic and Transport Assessment Guidelines’ (2014) TII-PE-PDV-02045.
- Chartered Institution of Highways and Transportation (CIHT) ‘Guidelines for Traffic Impact Assessment’ (1994)
- Department of the Environment and Local Government (DoELG), Department of Transport (DoT) and the Dublin Transportation Office (DTO) ‘Traffic Management Guidelines’ (2003).
- TII, Project Appraisal Guidelines (PAG), TII-PE-PAG-02017-03 Unit 5.3: ‘Travel Demand Projections’ (Oct 2021).

- TII Publication PE-PAG-02039 'Project Appraisal Guidelines for National Roads Unit 16.1: Expansion Factors for Short Period Traffic Counts' (Oct 2016);
- TII Publication PE-PAG-02016 'Project Appraisal Guidelines for National Roads Unit 5.2 - Data Collection' (Oct 2016).
- National Disability Authority, 'Building for Everyone' (2002).
- Transport Infrastructure Ireland 'Design Manual for Roads and Bridges'.
- Department of Transport, Tourism and Sport, 'Design Manual for Urban Roads and Streets' (2019).

1.2 Study Scope

1.2.1 The scope for the key transportation items to be addressed within the application and this Traffic and Transportation Assessment report includes the requirement for pedestrian and cycle accessibility, service arrangements, emergency vehicle access, public transport accessibility and internal car park design parameters. A list of the key matters is as follows:

- Design of car parks and service roads to accord with relevant standard
- Access to North Road to accommodate pedestrian/cycles
- Do not provide parking along internal service roads
- Overall car and cycle parking provision to be commensurate with use
- Consider Pedestrian/Cycle connectivity to public transport facilities
- The methodology adopted in preparing the TTA to accord with Transport Infrastructure Ireland (TII) Publication TII-PE-PDV-02045 'Traffic and Transport Assessment Guidelines' and to have regard to the Chartered Institution of Highways & Transportation (IHT) 'Traffic Impact Assessment Guidelines'.
- Traffic surveys and junction assessments include;
 - **Site 1:** North Road - Huntstown Quarry Access
 - **Site 2:** Coldwinters N2 Northbound Off-Slip
 - **Site 3:** Dublin Airport Logistics Park Roundabout (N2 On-Slip)
 - **Site 4:** N2 Southbound On-Slip North Road Traffic Signals
 - **Site 5:** North Road – Kilshane Cross Traffic Signals
 - **Site 6:** Ward Cross Roundabout
 - **Site 7:** ESB Service Road (future North Rd./Cappagh Rd. Link)
- Future year roads network capacity assessment scenarios to include;
 - Opening Year
 - Opening Year +5 years
 - Opening Year +15 years

1.3 Objective of TTA

- 1.3.1 The underlying objectives of this TTA is to demonstrate that the existing and future receiving road network and internal site infrastructure can suitably cater for the forecast traffic flows and travel demands by all modes arising directly from the proposed development. It is also an objective to demonstrate how provision is made within the proposed development for transport my non-car modes with particular emphasis on future movement of cyclists and pedestrians and other vulnerable users including accessibility to public transport modes.
- 1.3.2 Where impacts are identified and where appropriate to the improvement of infrastructure serving the development site and receiving road network environs the TTA puts forward proposed mitigation measures. This report examines the proposed vehicular access arrangements, car parking provision, site layout, and facilities for pedestrians and cyclists; as well as assessing the availability of sustainable transport options for users of the development. It outlines mobility management measures that may be adopted to promote and facilitate the use of sustainable transport modes.
- 1.3.3 A core objective of this report is to examine the traffic impact of the proposed development on the receiving local road network. This involves analysing the receiving road network traffic flows and the likely traffic generation of the proposed development and where appropriate providing comparative assessments of the relative performance of the existing and future receiving road network using traffic flow modelling to determine the incremental impact of forecast development traffic. The traffic models provide a basis of comparison between existing and future road network performance from which to evaluate and determine the likely impact of the proposed development on the receiving road network. Future traffic flow scenarios are based upon forecasts of traffic generation arising at the proposed development together with potential traffic generation arising from the potential future development of zoned lands in conjunction with the application of other various network traffic growth factors which are applied to baseline traffic count data at existing key junctions on the receiving road network.

1.4 Study Methodology

1.4.1 The general methodology adopted for this report is summarised as follows:

- **Traffic data** – 12-hour classified vehicular traffic count surveys were undertaken on Thurs 08-Sept-2022 by Traffinomics Transportation Surveys. The surveys cover 07:00 and 19:00hrs at 6 no. sites on North Road.
- **Trip Generation** – A development trip generation assessment has been carried out using the comparison method which is underpinned by surveys and weighbridge analysis for similar land-uses to determine the potential vehicular and person trips to and from the proposed development.
- **Trip Distribution** – Based upon existing traffic characteristics on the surrounding road network, an appropriate distribution has been assigned to site development vehicular trips across the road network.
- **Future Road Network Assessments** – Future year traffic forecasts have been derived from the application of TII PAG growth factors to baseline survey data. Traffic generation arising from permitted development is included in the future year road network assessments. The assessment includes forecast development trip generation and separately considers the potential traffic generation arising from the development of zone masterplan lands. Traffic flows and thus impact upon the performance of the receiving road network are modelled for the proposed year of opening, 5 years after opening and 15 years after opening. Assessments are undertaken both with and without the proposed development to assess the incremental impact arising directly from the construction and operation of the proposed development.
- **Parking** – Car parking and bicycle parking provision within the proposed development have been assessed with reference to demand.
- **Mobility Management** – The availability of sustainable transport options in the vicinity of the development site has been summarised in this report and mobility measures have been outlined whereby the proposed development may reduce the rate of private car use by employees and visitors.

2 RECEIVING ENVIRONMENT

2.1 General Location and Character

2.1.1 Existing Receiving Roads Environment

2.1.1.1 The site is in Huntstown, Finglas and is currently a greenfield site with no direct vehicle access to the public road network. The landownership within which the site is located is identified in **Figure 2.1**. Located to the east of North Road the site is bounded to the north by Huntstown Quarry, to the west by open fields and to the south by an existing service road to Finglas 220kv Substation (ESB).

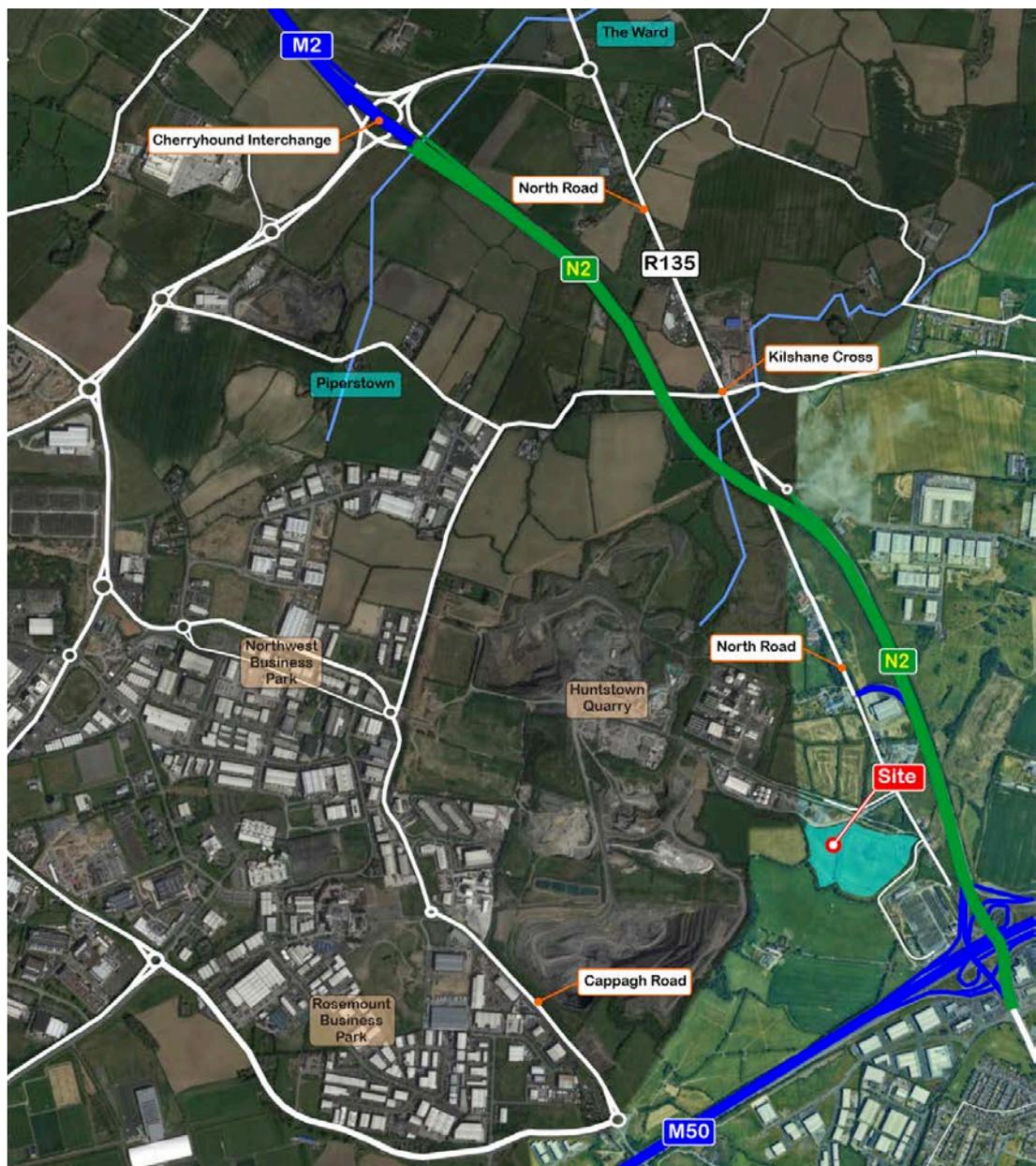


Figure 2.1 Proposed Development Site Location

- 2.1.1.2 The Huntstown Quarry lands to the north of the development site currently accommodate Huntstown Power Station, Energia Anaerobic Digestion Plant and a quarry together with ancillary manufacturing. On site quarry operations are carried out by Roadstone and include the extraction and processing of aggregates together with the manufacturing of concrete blocks, readymade concrete and asphalt products.
- 2.1.1.3 The primary access to greater Huntstown Quarry site is provided from North Road (permitted under planning register reference F06A/0164). The internal access road from North Road into the quarry is shared by quarry traffic and traffic arising from the power station and the anaerobic digestion plant.
- 2.1.2 Receiving Road
- 2.1.2.1 North Road was formerly the N2 and had been directly connected to the M50 north of Finglas. The upgraded N2 and M2 road scheme bypasses the former N2 at its southern end and thus that section has become a cul-de-sac for vehicular traffic.
- 2.1.2.2 There is a cycle and footbridge crossing at the southern end of North Road which partially overflies the northern connecting arms of M50 Junction 5. A footway and adjoining cycleway continue through the interchange and south into Finglas along the N2.
- 2.1.2.3 In the vicinity of the Coldwinters cul-de-sac North Road is subject to a 50kph speed limit which is in effect to a point approximately 100m north of the Coldwinters off-slip junction. Thereafter North Road is subject to a 60km/h speed limit northward as far as the *'Brock Inn Roundabout'* near *'The Ward'*.
- 2.1.2.4 The visibility envelope at the existing ESB service road junction is measured to be in excess of 120m ('y' distance along carriageway) from a set-back or 'x' distance of 3.0m. This is the level of visibility provision required in Transport Infrastructure Ireland (TII) publication DN-GEO-0360 and corresponds to a Design Speed of 70kph (two design steps above speed limit of 50km/h). A Design Speed of 50km/h requires a sightline in the order of 70m and for 60km/h the distance is 90m.

2.1.2.5 The existing road infrastructure in the vicinity of the site is of a reasonably high quality. North Road is a single mainline carriageway of 7.0m width adjoined by a 2.0m wide footway on the eastern side. North Road has a relatively straight and flat alignment between the Coldwinters cul-de-sac and as far as the Brock Inn Roundabout approximately 3km to the north.

2.1.2.6 The road pavement in the vicinity of the ESB service road junction is in good condition. Until the opening of the N2/M2 scheme North Road accommodated an Annual Average Daily Traffic (AADT) Flow of approximately 20,000 vehicles of which 15% or 3,000 were HGV so it is expected that the underlying structure of North Road is satisfactory to accommodate development generated HGV traffic.

2.1.3 Accessibility

2.1.3.1 The centre of the site is located approximately 500m northwest of the M50/N2 interchange and is provided with excellent accessibility to both of these strategic roads. Traffic coming to the site from the M50 must travel a short distance (900m) northbound along the N2 before taking the Coldwinters off-slip exit. This slip road from the N2 forms a priority T-junction with the North Road approximately 400m to the north of the existing entrance to the Huntstown Quarry lands. The junction of the existing ESB service road with North Road is approximately 230m further south of the Huntstown Quarry access.

2.1.3.2 Traffic coming to the site from the N2 north (travelling southbound) must exit the N2 at the Cherryhound Interchange (St. Margaret's/Blanchardstown Exit) and travel via the R135 link road to the roundabout at the Brock Inn. They must take the 3rd exit at the Brock Inn Roundabout and travel southwards along the R135 North Road for approximately 3km to access the ESB service road.

2.1.3.3 Southbound traffic leaving the site and travelling towards the M50 are provided with direct access onto the N2 via a slip road which is accessible at the North Road traffic signal junction located approximately 1.5km north of the existing North Road junction with the ESB service road.

2.1.3.4 Northbound traffic leaving the site along the N2 must travel along the North Road for approximately 3km and take the first exit at the Brock Inn Roundabout to access the N2 via the N2/N3 link road.

- 2.1.3.5 The development lands are proposed to be accessed from the existing service road that principally provides access to the ESB Finglas 220kV Station from North Road. The service road also provides access to agricultural lands and a farm house with a large farm yard and sheds located between M50 to the south, Huntstown Quarry to the north, Cappagh Road to the west and Finglas 220kV Station to the east. The service road intersects North Road at a simple priority junction located approximately 600m south of the Coldwinters N2 off-slip near the Dogs Trust property.
- 2.1.3.6 A footway generally measuring 1.5m in width is provided along the eastern side of the R135 North Road between the ESB service road junction and the Dogs Trust. A short section of footway continues on the western side of the road past the Dogs Trust. To the south of the ESB service road the footway continues along the eastern side of the road terminating approximately 40m short of the end of the pedestrian/cycle overbridge of the M50.
- 2.1.3.7 The closest bus stop to the application site is situated on North Road immediately north of the Dogs Trust. The bus stop is Bus Eireann Stop 134451 (St. Margaret's, Kildonan) and serves northbound travellers. The closest southbound serviced bus stop is Stop 101121 (Suncourt) located between Kilshane Cross and the M50 overbridge of the N2. Both bus stops are serviced by Bus Eireann Routes 103 and 105X.
- 2.1.3.8 Route 103 (Dublin – Ashbourne – Ratoath – Tayto Park). The service from Ratoath toward Dublin operates every day of the week with drop-off-only approximately every 20 mins between 06:38hrs and 01:06hrs on weekdays. Service on Saturday is reduced to approximately half-hourly and on Sundays it is hourly. The service from Dublin is pick-up only. Route 105X (Fairycastle Road – Ratoath – Dublin) runs three city-bound services in the morning stopping at Suncourt at 07:38, 07:53 and 08:08hrs. Three services to Fairycastle Cross run in the evening stopping at Kildonan at 17:41, 17:57 and 18:27hrs.
- 2.1.3.9 There are no designs in the Bus Connects Network to provide services along R135 with these existing and programmed services concentrated in the locality north of the M50 generally in the Ballycoolin area in the west, or the Airport in the east.

2.1.4 Future Roads Infrastructure Objectives

- 2.1.4.1 Fingal Development Plan 2023-2029 Blanchardstown North Sheet No. 12 shows an indicative routing of the proposed Metro West rail line adjacent to the M50 northern boundary. A proposed metro stop will be located at Kildonan which is proximate to the application site. The proposed light rail scheme will link the principal towns/suburbs along the western fringes of Dublin (beyond the M50 Motorway) including Tallaght, Lucan and Blanchardstown to the proposed Metro North scheme, which will serve Dublin Airport and Swords.
- 2.1.4.2 Objectives of previous Fingal Development Plans that have been realised and that benefit the Huntstown area include the N2-N3 Link Road which comprises high quality road sections from Tyrrelstown to Cherryhound and from Castaheany to Damastown. The link between Tyrrelstown and the Cherryhound Interchange began construction in September 2011 and was opened in May 2013 by the Minister for Transport who stated that *“This road is more than just a link between two motorways and an alternative route to and from the airport. It’s about providing vital infrastructure to encourage businesses to settle in the area, and take traffic and heavy vehicles away from other roads. The project also includes off-road bike lanes to encourage more people to cycle.”* The objective of the Dublin Enterprise Zone has been to encourage employment, with zones for science & technology developments, warehousing, light industrial and office accommodation. The N2-N3 Link Road and associated infrastructure has been designed to be future-proof, with essential infrastructure pre-installed under and alongside the road. The road commences at Church Road close to Tyrrelstown and joins the N2 at the Cherryhound interchange. Six roundabouts have been constructed along the route to link with existing local roads and provide access points to future development lands. The road ultimately links to the N3 at Damastown and connects with the N2 at Cherryhound Interchange.
- 2.1.4.3 Fingal County Council has future proposals to provide a western link from the Broghan Roundabout on the R135 (old N2) to Dublin Airport. This East West Link Road scheme is set as development Objective EA04 in the Dublin Airport Local Area Plan 2020. It is envisaged that existing traffic flows at the signal controlled Kilshane Cross on the R135 (North Road) will significantly reduce pending the construction of the airport link road scheme (principally due to re-distribution of traffic flow).

- 2.1.4.4 Recent improvements and upgrade of the Kilshane Crossroad junction were implemented as part of development carried out under Planning Reg. Ref. F18A/0146 (Killeen Properties). Improvements include the provision of an additional lane on the eastern arm of the signal-controlled junction together with a left filter lane to North Road (south) and improvement in the provision for pedestrians and cyclists on the approaches to the junction and in the traffic signal operation.

- 2.1.4.5 It is understood that the junction of the N2 off-slip at Coldwinters with North Road is required to be upgraded to signal operation. In the grant of permission determined under Planning Reg. Ref. FW21A/0151 (Huntstown Power) Condition No.22 of the grant of permission for the development requires a special contribution in respect of upgrading the junction of R135 North Road with the northbound slip road from the N2 at Coldwinters. From a review of that planning file it is understood that Fingal County Council has assessed the operation of the Huntstown Quarry access on North Road and has considered the possible future control of this junction be signals. It is understood that the objective of the change from priority control is in the interest of improved safety and controlling or reinforcing the priority of the major road over the access road.

- 2.1.4.6 The Greater Dublin Cycle Network Plan includes an objective to implement an Inter-urban cycle route (F9) along R135 North Road to Ashbourne. The route will be along the hard shoulders of R135 (formerly N2).

2.2 Planning Authority Policies and Objectives

2.2.1 Fingal Development Plan 2023-2029 - General

2.2.1.1 Reference has been made to the Fingal Development Plan 2023-2029. Traffic and Transport related development management standards considered relevant to the development location are derived from Fingal Development Plan 2023-2029 - Chapter 14, Table 14.15 ‘Design Guidelines for Business Parks and Industrial Areas (Enterprise and Employment Lands)’ and are summarised below.

Permeability
<ul style="list-style-type: none"> • Permeability is influenced by a number of factors including building layout, road layout, setbacks, car parking and landscaping and an integrated approach is required to achieve good permeability.

Access & Circulation

- Sites should be designed to minimise conflicts between vehicles and pedestrians/cyclists.
- The number of access points to a site should be kept to a minimum.
- Access points should be designed to provide safe ingress/egress for vehicles and pedestrians
- Alignment of opposite entrances is encouraged to promote continuity and provide uniformity.
- Mobility Management Plans will be encouraged for employee intensive developments.

Pedestrian/Cycle Connections

- Site design should accommodate pedestrian/cycle circulation in a safe and efficient manner.
- Pedestrian and cycle routes should be physically separated from vehicular circulation as much as possible.
- Intersections where pedestrian/cyclist and vehicles converge should be clearly marked for visual identification by both motorists and pedestrians/cyclists.

Parking

- Parking areas should be designed to provide safe and convenient movement of vehicles and limit vehicular/pedestrian conflicts.
- Surface car parking should not dominate the layout of development and should be designed as an integral part of each building.
- Parking areas should be appropriately screened and their visual impact softened with the use of planting and landscape features.
- Parking areas should be of semi/permeable surface incorporating the principles of SuDS.
- Large expanses of parking is discouraged and should be broken into smaller modules broken by vegetation/landscaping.
- Parking areas should be buffered from the road with landscaping, earthen berms, half walls or fences to soften their appearance.
- Adequate and secure cycle parking should be provided.
- Motorcycle parking should also be provided within parking schemes.
- Some facilities may require checkpoints in order to monitor access. Guardhouses and security huts should be designed and located in a manner that will not conflict with pedestrian/cycle movements or cause traffic queuing. The design of security huts should be consistent with the architectural design of its attendant building.

Building Entrances

- Loading Primary entrances should be clearly legible through the use of appropriate materials and scale.
- Entrances should be clearly legible.
- Entrances should be designed to read as contrasting areas on a building's façade and orientated towards public spaces, either the primary road or internal vehicle drive.

Loading/Service Areas

- Loading bays and service dock areas should be located to the rear or sides of buildings where possible, away from the main building entrance, or relatively visible areas.
- Where possible, service, loading, generator and waste storage areas should be enclosed within the building.
- External loading and service areas should be appropriately screened.
- Loading areas should be designed to accommodate vehicular manoeuvring on site.

2.2.1.2 The principles set out in the current development plan have been adopted in the formulation of the proposed development layout. Details of the site layout design and provision for parking and servicing are set out **Section 4** '*Proposed Development*'.

2.2.2 Fingal Development Plan 2023-2029 - Movement & Infrastructure – Parking

2.2.3 Fingal Development Plan 2023-2029 provides for the creation of two distinct parking zones to ensure adequate residential parking provision and the control of destination car parking. The development plan sets out that this approach also allows greater flexibility in the application of car parking standards on sites in areas with varying levels of road and public transport provision. The two zones are detailed in Table 14.18 with Zone 1 relating to developments within 800m of a Bus Connects Spine Route or 1,600m from an existing or planned LUAS/DART/Metro rail station or within an area covered by a Section 49 scheme, or in lands zoned Major Town Centre. All other areas are categorised Zone 2.

Objective DMSO121

1.4.2 Limit the number of car parking spaces at places of work and education so as to minimise car-borne commuting. The number of car parking spaces at new developments will be in accordance with the standards set out in Table 14.19 and the associated criteria for car-parking provision set out in this plan.

2.2.4 Fingal Development Plan 2023-2029 - Parking Standards

2.2.5 Table 14.19 sets out Maximum Car Parking Standards. Those of relevance to the proposed development include:

Land Use	Criterion	Maximum Zone 2	Category
Offices General	GFA	1 per 40m ²	Employment
Industry General	GFA	1 per 50m ²	Employment

2.2.6 All development is required to provide facilities for the charging of battery-operated cars at a rate of up to 10% of the total car parking spaces with all other spaces incorporating ducting to allow for future fit-out of a charging point at all spaces. Similarly, 5 spaces per 100 spaces is required to be reserved for disabled parking. Motorcycle parking shall be provided additionally and with the number of spaces equating to 10% of the provision for car parking.

2.2.7 Fingal Development Plan 2023-2029 Table 14.17 sets out Bicycle Parking Standards. Those of relevance to the proposed development include:

Land Use	Criterion	Proposed	Category
Offices General	GFA	1 per 60m ²	Employment
Industry General	GFA	1 per 80m ²	Employment

2.2.8 Fingal Development Plan 2023-2029 - Mobility Management

2.2.8.1 The development plan states that Mobility Management plans set out measures which promote sustainable transport, in particular for places of work or education.

Objective DMSO115
1.4.3 For all new developments which are likely to generate a significant demand for travel, require the preparation and submission of a Mobility Management Plan as part of the development management process. This requirement includes existing developments that are expanding or intensifying their use.

2.2.9 Fingal Development Plan 2023-2029 - Sustainable Transport

2.2.9.1 Promoting and delivering more sustainable forms of transport and movement in the County is central to the overall approach to the development of the County during the lifetime of the Fingal Development Plan 2023-2029. The approach recognises the benefits of providing better infrastructure and facilities for pedestrians and cyclists, limiting the use of the private car to essential use only and promoting a switch to electrical vehicles through the provision of EV charge points in suitable locations throughout the County.

2.2.10 Fingal Development Plan 2023-2029 - Traffic and Transport Assessments

Objective DMS128
<p>Require the provision of a Traffic and Transport Assessment where new development is likely to have a significant effect on travel demand and the capacity of the surrounding transport network including the road network and public transport services network.</p>

2.2.10.1 Transport and Traffic Assessments (TTAs) provide a framework for an integrated approach to development which ensures that proposals promote more efficient use of investment in transportation infrastructure, reduce travel demand and promote road safety. The current development plan requires that TTA have regard to the Transport Infrastructure Ireland (TII) publication TII-PE-PDV-02045 *'Traffic and Transport Assessment Guidelines'* (2014).

2.2.11 Fingal Development Plan 2023-2029 - Road Schemes

2.2.11.1 Fingal Development Plan 2023-2029 recognises that key road improvements are required to facilitate movement of goods and people throughout the county and to ensure ease of access, especially for major areas of new employment. Fingal Development Plan 2023-2029, Table 6.3 *'Transportation Schemes'* sets out the Council's proposals for development of the County's transportation network and includes the following:

Table 6.3 Transportation Schemes
<ul style="list-style-type: none"> • N2 Upgrade Rath to Kilmoon • Cappagh Road – Dunsink Lane • Cappagh Road – Huntstown R135 Link • Kilshane Cross Upgrade

2.2.11.2 Fingal Development Plan 2023-2029 shows a future objective to connect Cappagh Road at Cappogue to Huntstown R135 North Road. This future road will function as a local distributor road and will serve to provide access to lands zoned GE to the south of Huntstown Quarry. The future road scheme is identified with an orange dotted line in **Figure 2.2** which is an excerpt from Fingal County Development Plan 2023-2029, Map Blanchardstown North, Sheet No.12.

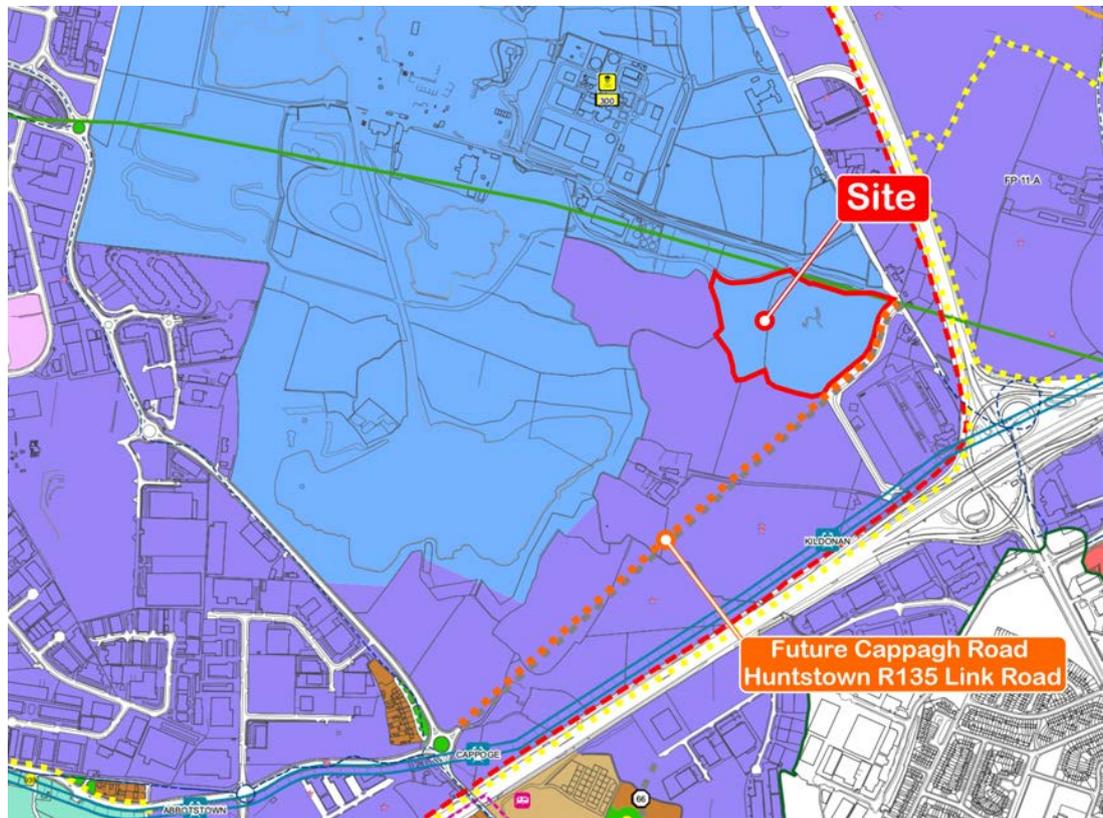


Figure 2.2 Future Connecting Road (Source: FDP Sheet 12, annotation by Trafficwise Ltd.)

3 EXISTING NETWORK TRAFFIC FLOWS

3.1 Traffic Counts

3.1.1 Traffinomics Transportation Surveys Ltd. carried out classified turning count surveys on the public road network in the vicinity of the site using CCTV on Thurs 08-Sept-2022 between 07:00 and 19:00hrs. A copy of the survey data is provided in **Appendix A**. The traffic data collected in the turning count surveys is a snapshot of traffic volumes and characteristics on the local road network. Mid-week data was collected to reflect typical weekday traffic patterns and includes the commuter peak periods. The weekday commuter peak periods typically tend to have the heaviest hourly network flows.

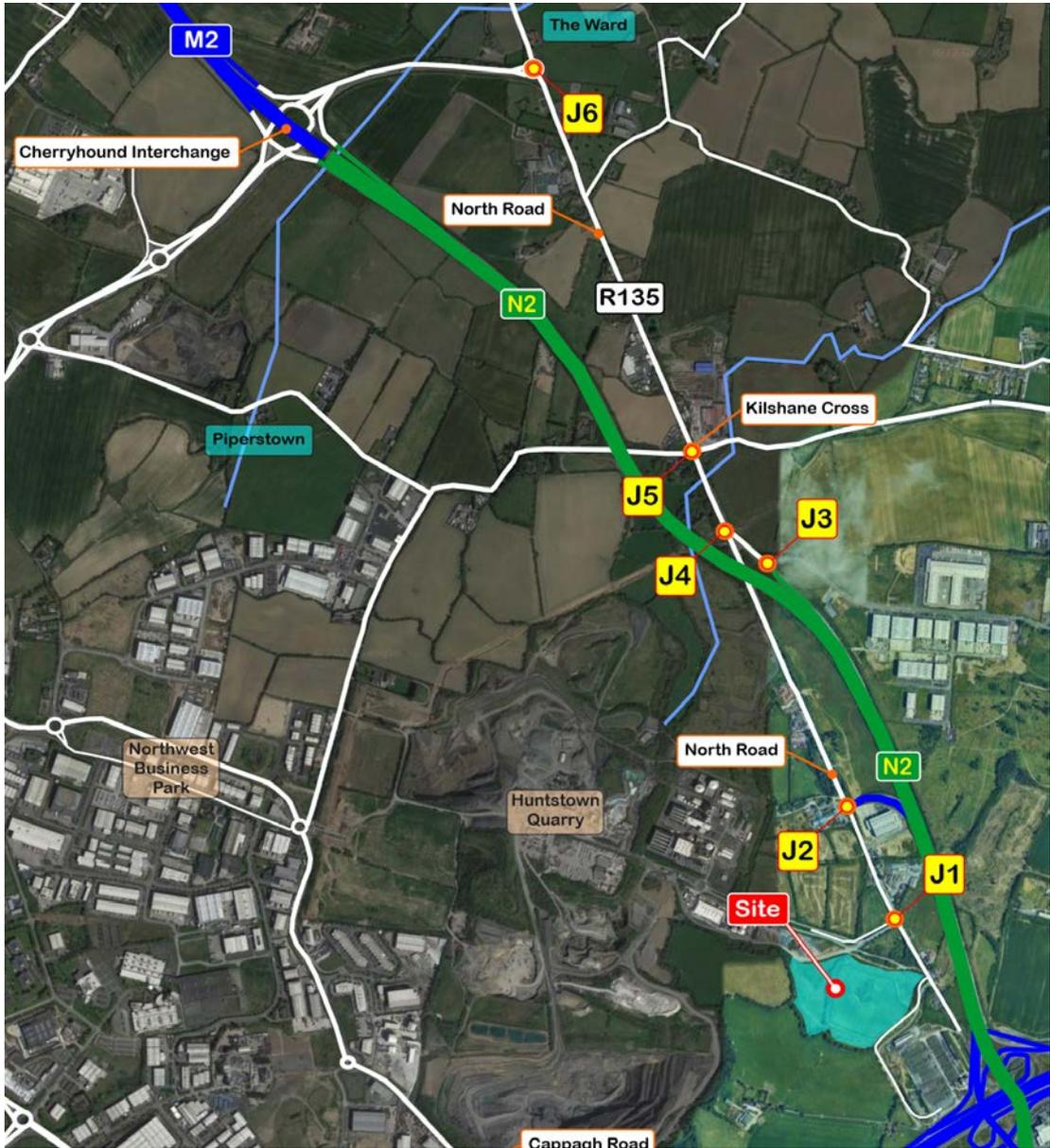


Figure 3.1 Traffic Survey Sites

3.1.2 Traffic data was collected for the following junctions identified in **Figure 3.1** where 'J' signifies a classified junction turning count and the number corresponds to the site-specific identifier in the base data of **Appendix A**.

- **Site 1:** Huntstown Quarry Access – Priority Access T-junction
- **Site 2:** N2 Off-slip (Dogs Trust) – Priority T-junction
- **Site 3:** Dublin Airport Logistics Park - Roundabout
- **Site 4:** N2 Southbound On-slip – Traffic Signal Control T-junction
- **Site 5:** Kilshane Cross – Traffic Signal Control Crossroad
- **Site 6:** Brock Inn Roundabout
- **Site 7:** ESB Finglas 220kV Substation T-junction (Not counted)

3.1.3 The traffic flow data from the September 2022 surveys forms the basis of the assessments of road network capacity and the assessment of the likely impact of the proposed development on the operation of the receiving road network.

3.2 Turning Count Surveys

3.2.1 Daily traffic flows recorded on the receiving road network over the course of the Thurs 08-Sept-2022 surveys are shown in the **Appendix B, Figure 1** 'Surveyed Daily Traffic Flows 07:00-19:00hrs', which presents the traffic flow data in network flow diagram format. Each of the numbered Link Roads is identified in **Appendix B, Figure 1**.

3.2.2 **Table 3.1** provides a summary of the recorded traffic flows at Survey Sites 1 through Site 7 over the course of the survey. **Table 3.1** shows the recorded traffic flow and percentage HGV content enumerated between 07:00 and 19:00hrs. Based upon TII Publication PE-PAG-02039 (Oct 2016) Project Appraisal Guidelines Unit 16.1 'Expansion Factors for Short Period Traffic Counts' the recorded traffic flows over the 12-hour surveys are estimated to be 0.94¹ of the AADT² value.

¹ Cumulative Proportion of 24-hr Traffic Flow in Survey Period between 07:00-19:00hrs is 0.8297, Weekly Flow Index 0.92, Monthly Flow Index 0.96.

² Annual Average Daily Traffic

Road Link		Daily Traffic Flows 07:00-19:00hrs			
		Total	Heavy	%HGV	AADT
1	North Road (South of ESB)	282	52	18%	300
2	North Road (South of Huntstown Quarry)	292	59	20%	311
3	North Road (North of Huntstown Quarry)	2,610	1517	58%	2,777
4	N2 Coldwinters Off-slip	4,590	1538	34%	4,883
5	R135 North Road (Between N2 on/Off Slips)	5,743	2055	36%	6,110
6	N2 Southbound On-slip Link Road	7,248	1804	25%	7,711
7	N2 Southbound On-slip	5,207	1504	29%	5,539
8	R135 North Road (South of Kilshane Cross)	7,657	2023	26%	8,146
9	L3120	5,860	1222	21%	6,234
10	L3125	8,753	1459	17%	9,312
11	R135 North Road (North of Kilshane Cross)	5,165	1041	20%	5,495
12	Blanchardstown (N2/N3) Link Road	5,562	1089	20%	5,917
13	R135 Wards Cross	5,493	800	15%	5,844

Table 3.1 Study Area Network Link Road Traffic – Daily Flows (Two-way)

3.2.3 It is best practice in preparing TTA to assess the impact of the proposed development during periods when the impact of development generated traffic flows on the receiving road network are likely to be greatest. The peak hours and associated traffic flows recorded in the Sept-2022 surveys are as follows:

- Weekday AM Network Peak Hour-----08:00-09:00hrs
- Weekday PM Network Peak Hour-----16:00-17:00hrs

3.2.4 **Table 3.2** provides a summary of the recorded two-way peak hour traffic flows on the receiving road network in the morning peak hour.

Road Link		AM Peak Hour Traffic Flows 80:00-09:00hrs		
		Total	Heavy	%HGV
1	North Road (South of ESB)	25	8	32%
2	North Road (South of Huntstown Quarry)	26	9	35%
3	North Road (North of Huntstown Quarry)	246	159	65%
4	N2 Coldwinters Off-slip	476	106	22%
5	R135 North Road (Between N2 on/Off Slips)	548	154	28%
6	N2 Southbound On-slip Link Road	687	159	23%
7	N2 Southbound On-slip	457	153	33%
8	R135 North Road (South of Kilshane Cross)	726	184	25%
9	L3120	517	101	20%
10	L3125	1,054	150	14%
11	R135 North Road (North of Kilshane Cross)	500	97	19%
12	Blanchardstown (N2/N3) Link Road	525	89	17%
13	R135 Wards Cross	471	72	15%

Table 3.2 Study Area Network Link Road Traffic – AM Peak Hour Flows (Two-way)

3.2.5 **Table 3.3** provides a summary of the recorded two-way peak hour traffic flows on the receiving road network in the evening peak hour.

Road Link		PM Peak Hour Traffic Flows 16:15-17:15hrs		
		Total	Heavy	%HGV
1	North Road (South of ESB)	15	1	7%
2	North Road (South of Huntstown Quarry)	15	1	7%
3	North Road (North of Huntstown Quarry)	203	51	25%
4	N2 Coldwinters Off-slip	326	115	35%
5	R135 North Road (Between N2 on/Off Slips)	502	121	24%
6	N2 Southbound On-slip Link Road	693	111	16%
7	N2 Southbound On-slip	608	75	12%
8	R135 North Road (South of Kilshane Cross)	706	116	16%
9	L3120	661	88	13%
10	L3125	871	93	11%
11	R135 North Road (North of Kilshane Cross)	541	63	12%
12	Blanchardstown (N2/N3) Link Road	593	77	13%
13	R135 Wards Cross	600	54	9%

Table 3.3 Study Area Network Link Road Traffic – PM Peak Hour Flows (Two-way)

3.2.6 Corresponding network flow diagrams of the recorded peak hour traffic flows are provided in network flow diagram format in **Appendix B, Figure 2** ‘Surveyed Morning Peak Hour Traffic Flows 08:00-09:00hrs’ and **Appendix B, Figure 3** ‘Surveyed Evening Peak Hour Traffic Flows 16:00-17:00hrs’.

3.2.7 In the interest of showing the general pattern of traffic flow on the receiving road network **Figure 3.3** through **Figure 3.12** show graphically the daily profile of two-way traffic flows recorded on the link roads covered by the scope of the traffic surveys. The various ‘Links’ correspond to those set out in the above **Table 3.1, Table 3.2** and **Table 3.3** and correspond to the junction and link numbering regime used in the various network flow diagrams included in **Appendix B**.

3.2.8 In the interest of clarity, the following **Figure 3.2** shows the Links to which the following graphs correspond. The total daily traffic flows and AADT for each of the Links is provided in **Table 3.1**.

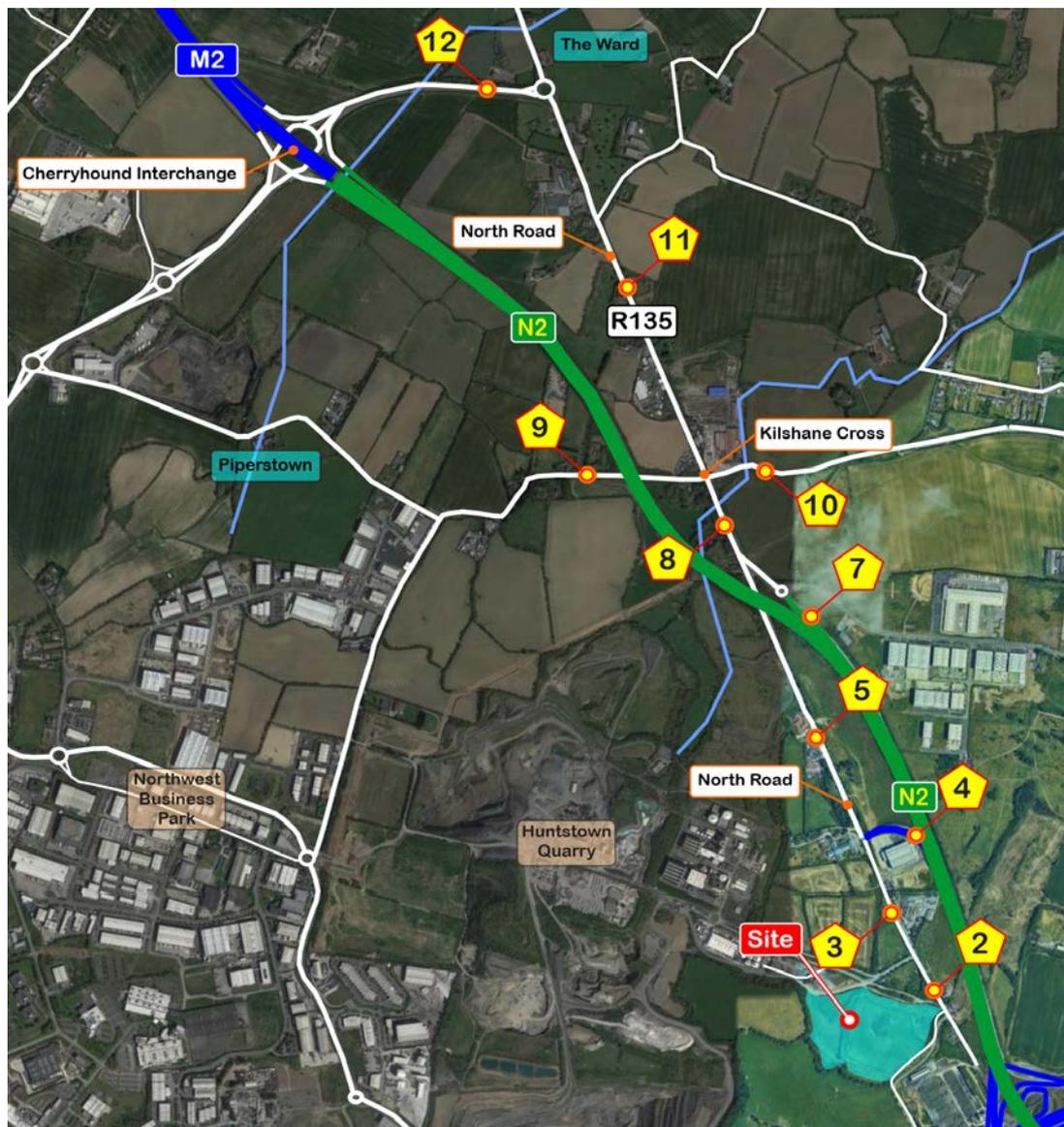


Figure 3.2 Numbered Link Roads

3.2.9 **Figure 3.3** shows graphically the daily weekday profile of two-way traffic on North Road to the north of the ESB service road. The columns in the figure show the total number of HGV highlighted 'Orange' together with the total number of light vehicles. The series of figures from **Figure 3.3** to **Figure 3.7** show the profile of traffic between the various junctions and accesses along R135 North Road.

3.2.10 **Figure 3.7** through **Figure 3.12** relate to the two-way traffic flows on the various connector roads including the slip roads to and from the N2 listed from south to north.

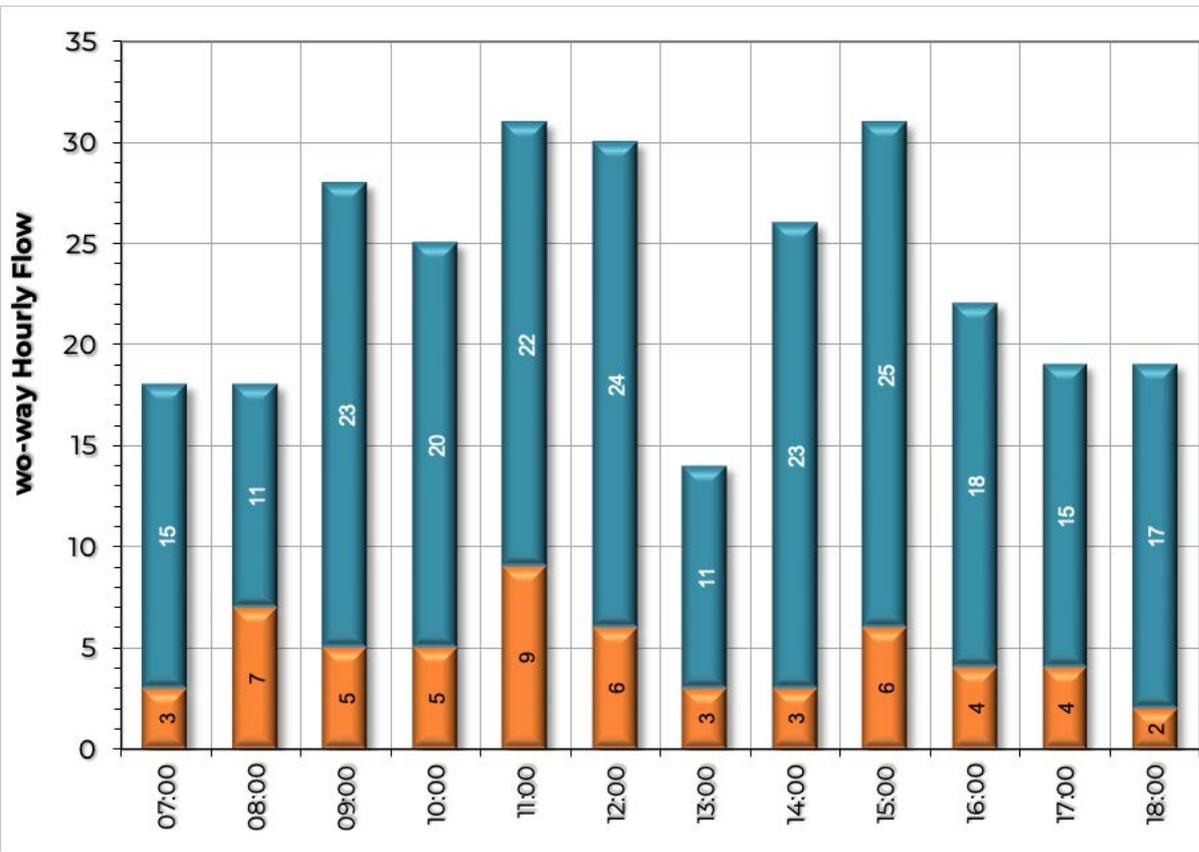


Figure 3.3 Link 2 – North Road (South of Huntstown Quarry)

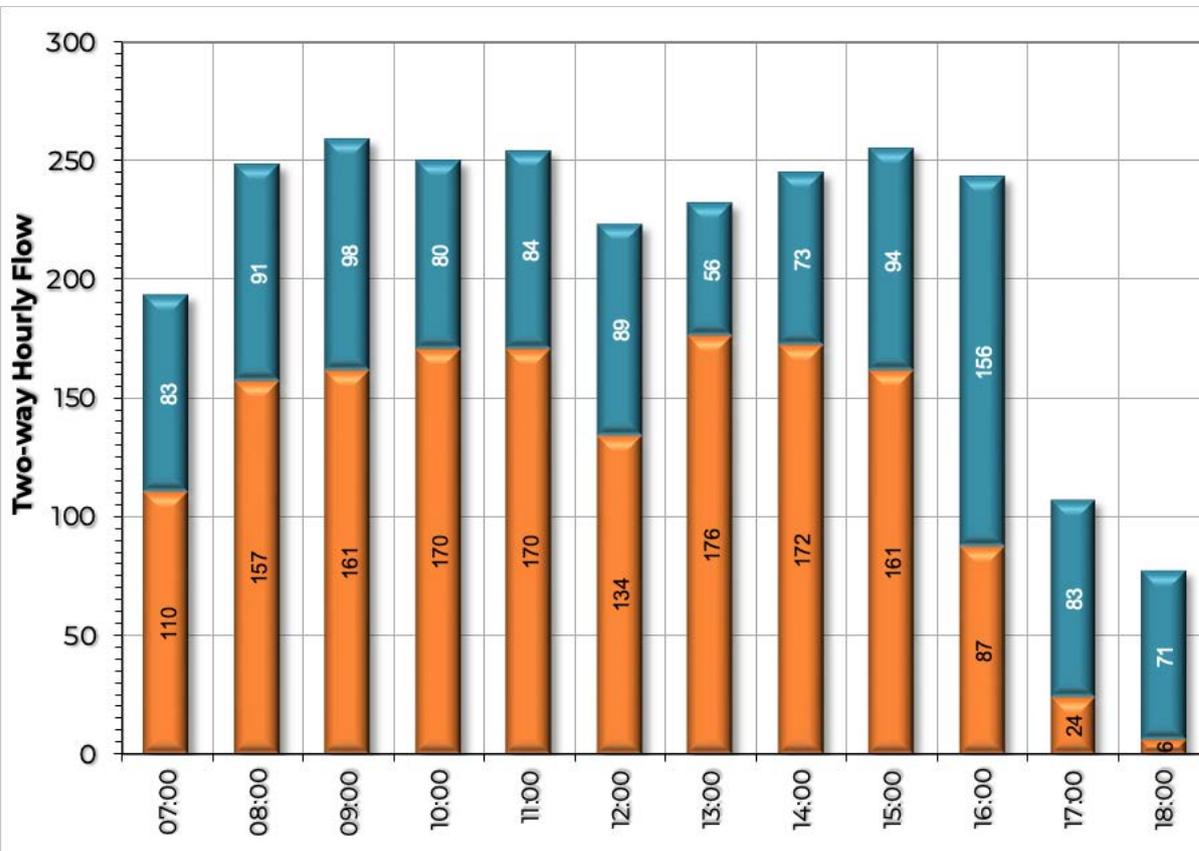


Figure 3.4 Link 3 – North Road (North of Huntstown Quarry)

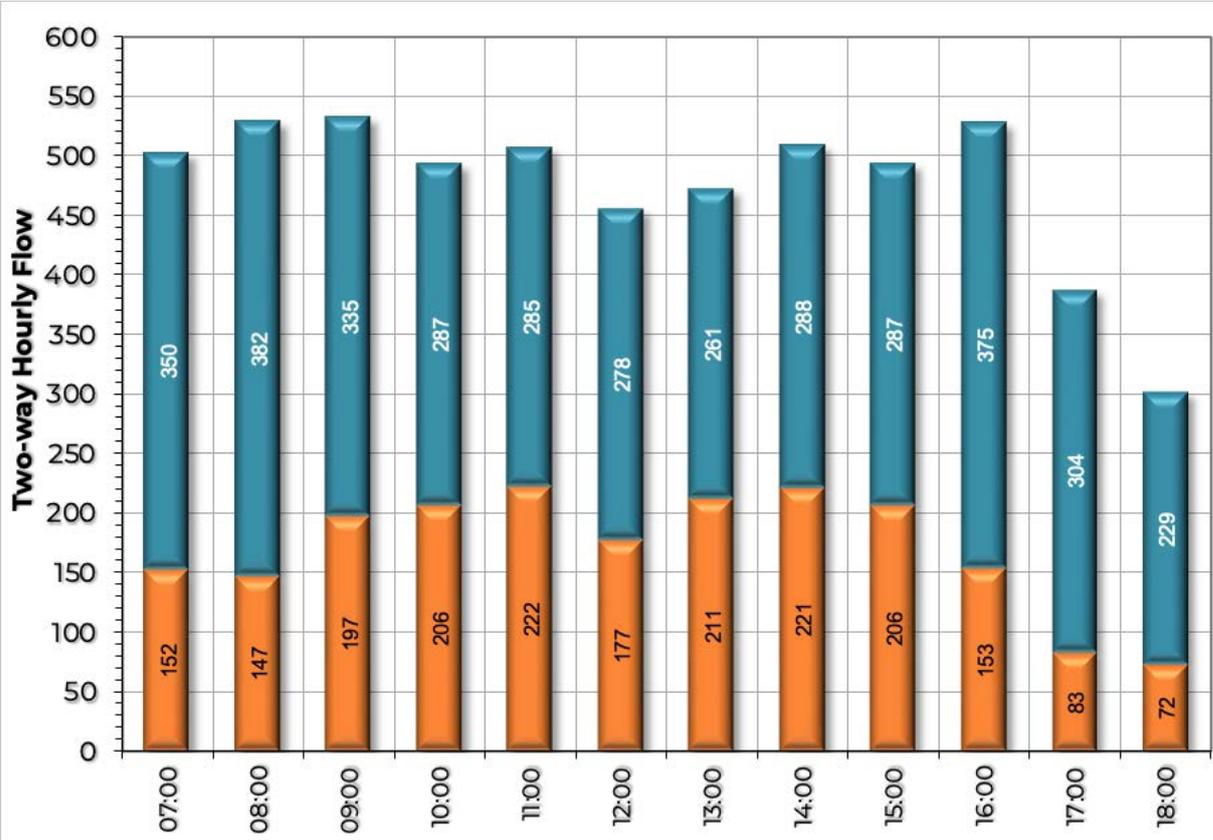


Figure 3.5 Link 5 – North Road (Between N2 Off/On Slips)

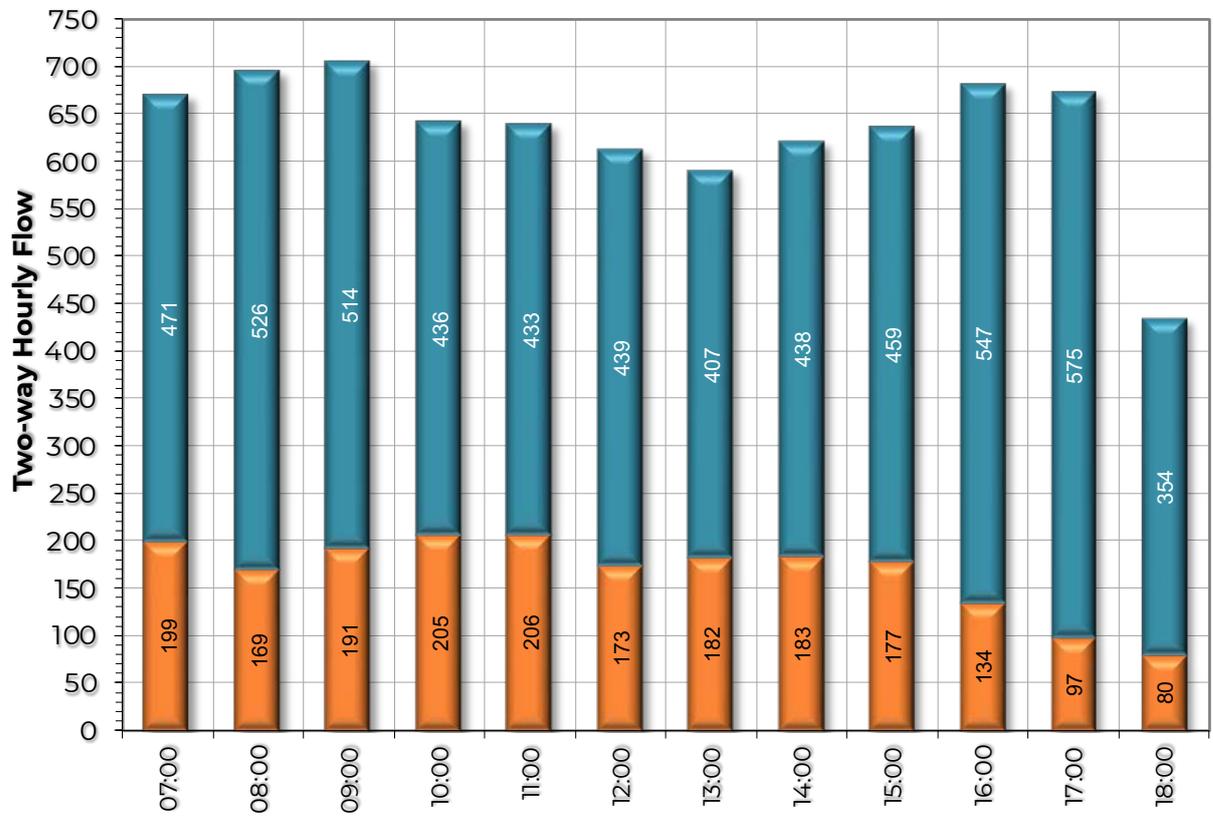


Figure 3.6 Link 8 – North Road (South of Kilshane Cross)

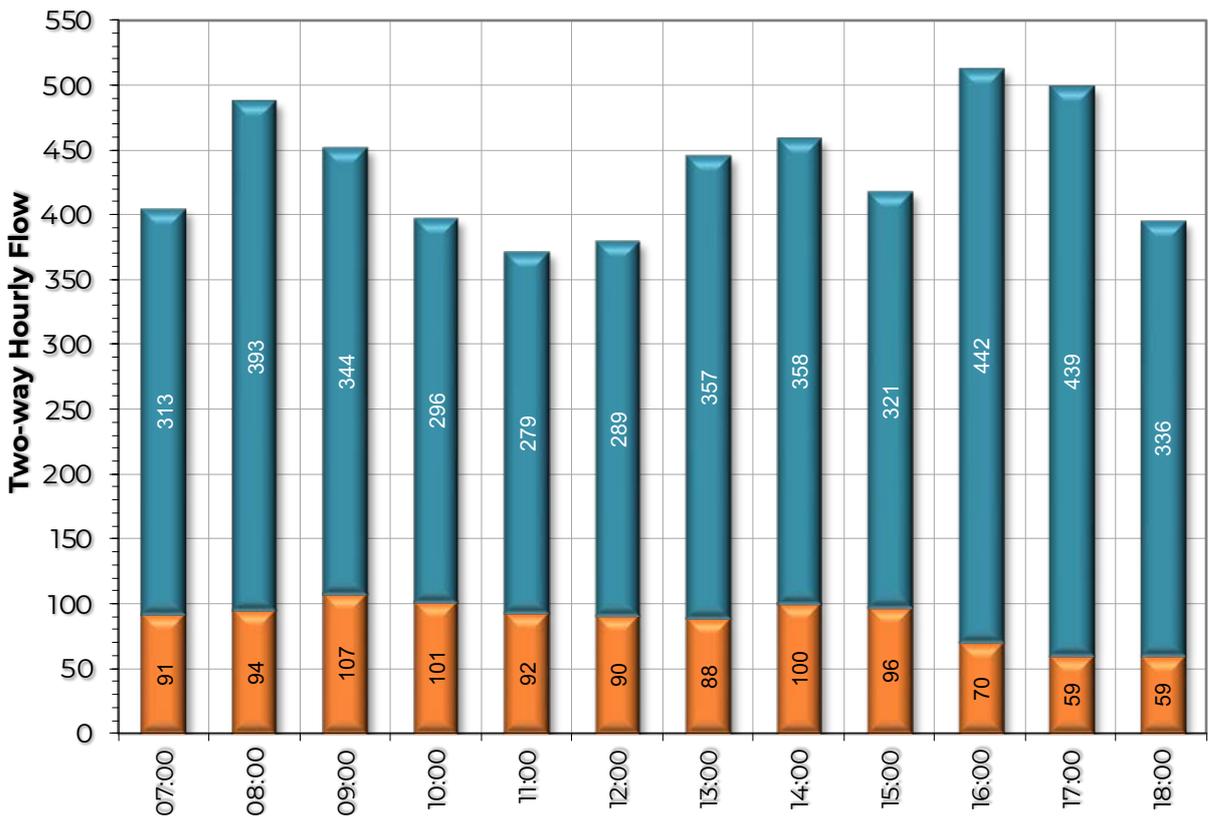


Figure 3.7 Link 11 – North Road (North of Kilshane Cross)

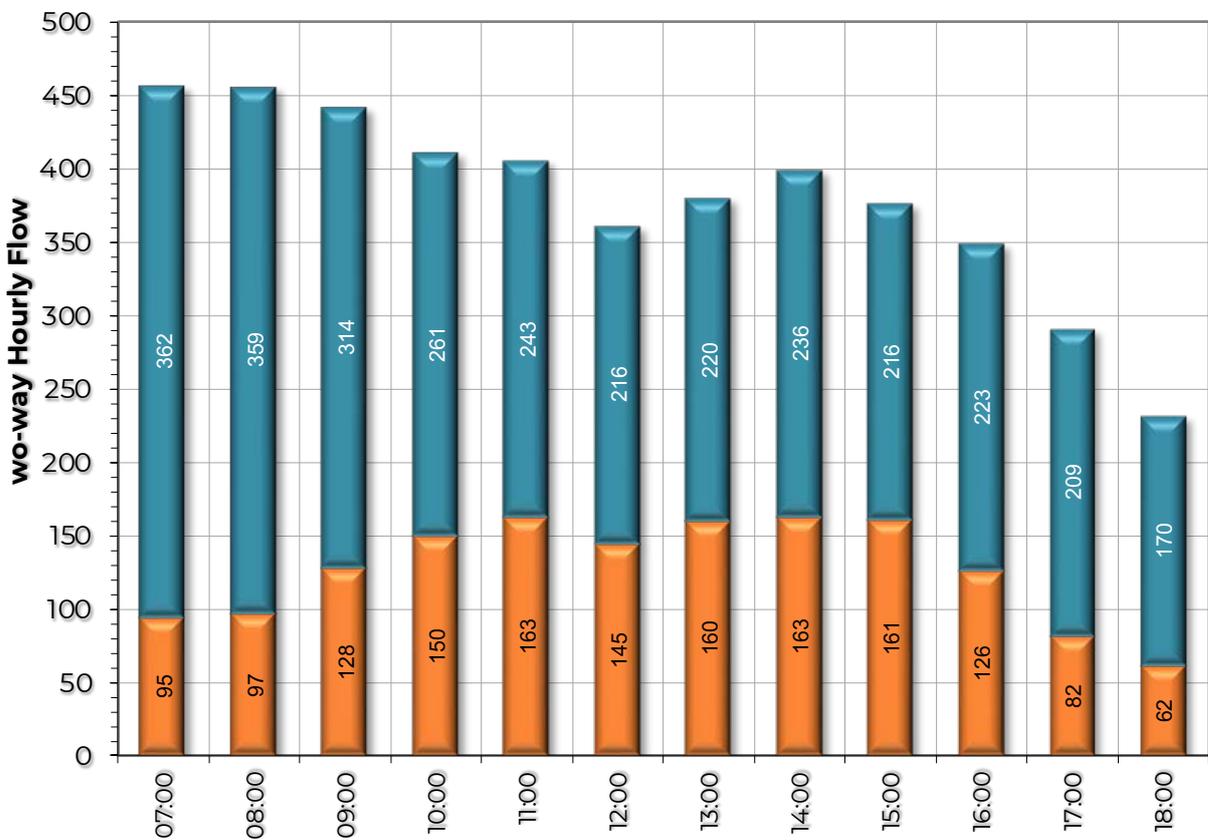


Figure 3.8 Link 4 – N2 Coldwinters Off-Slip

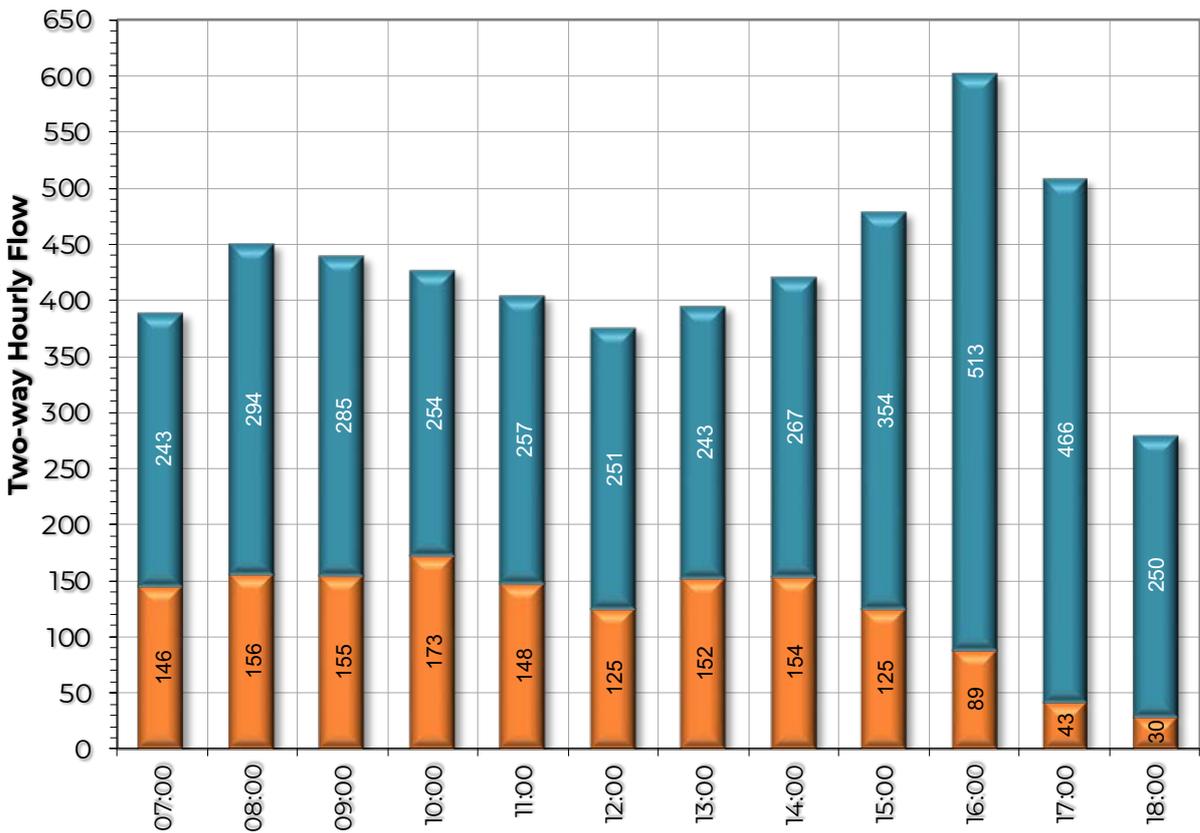


Figure 3.9 Link 7 – N2 Southbound On-Slip

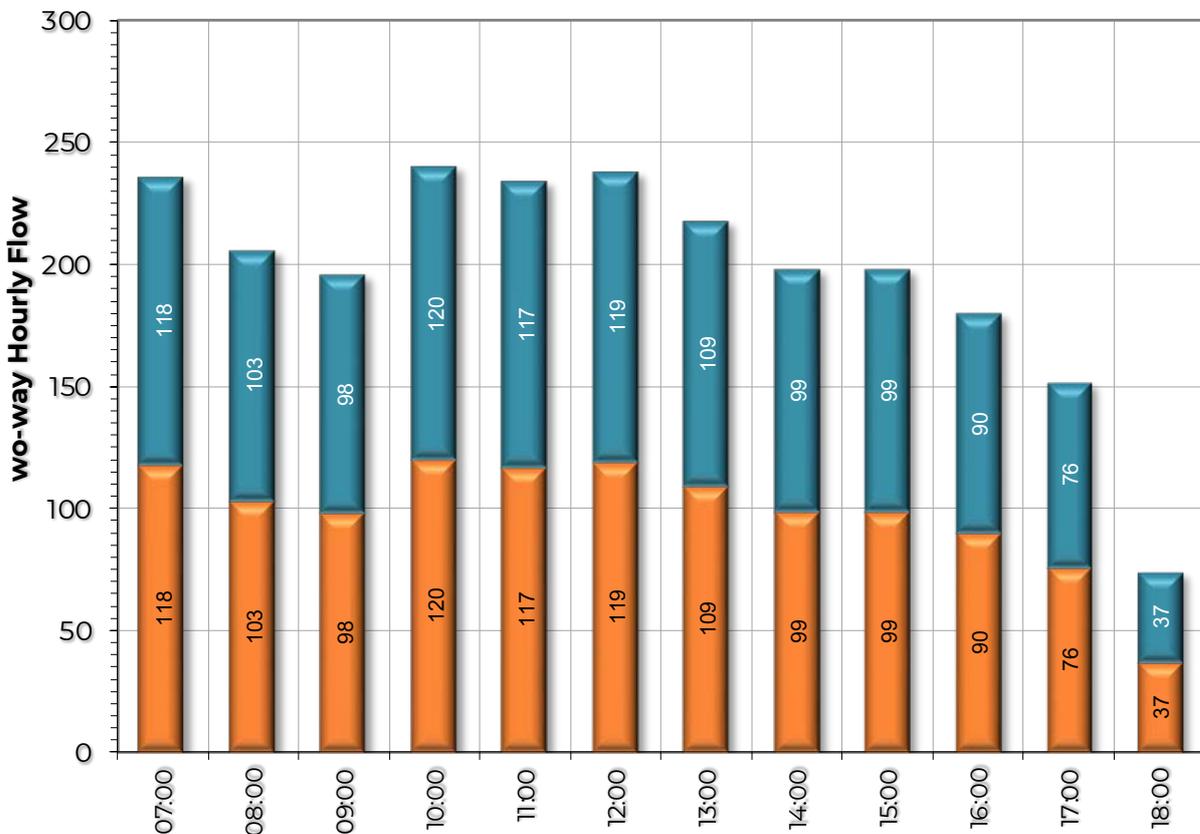


Figure 3.10 Link 9 – L3120 (Ballycoolin)

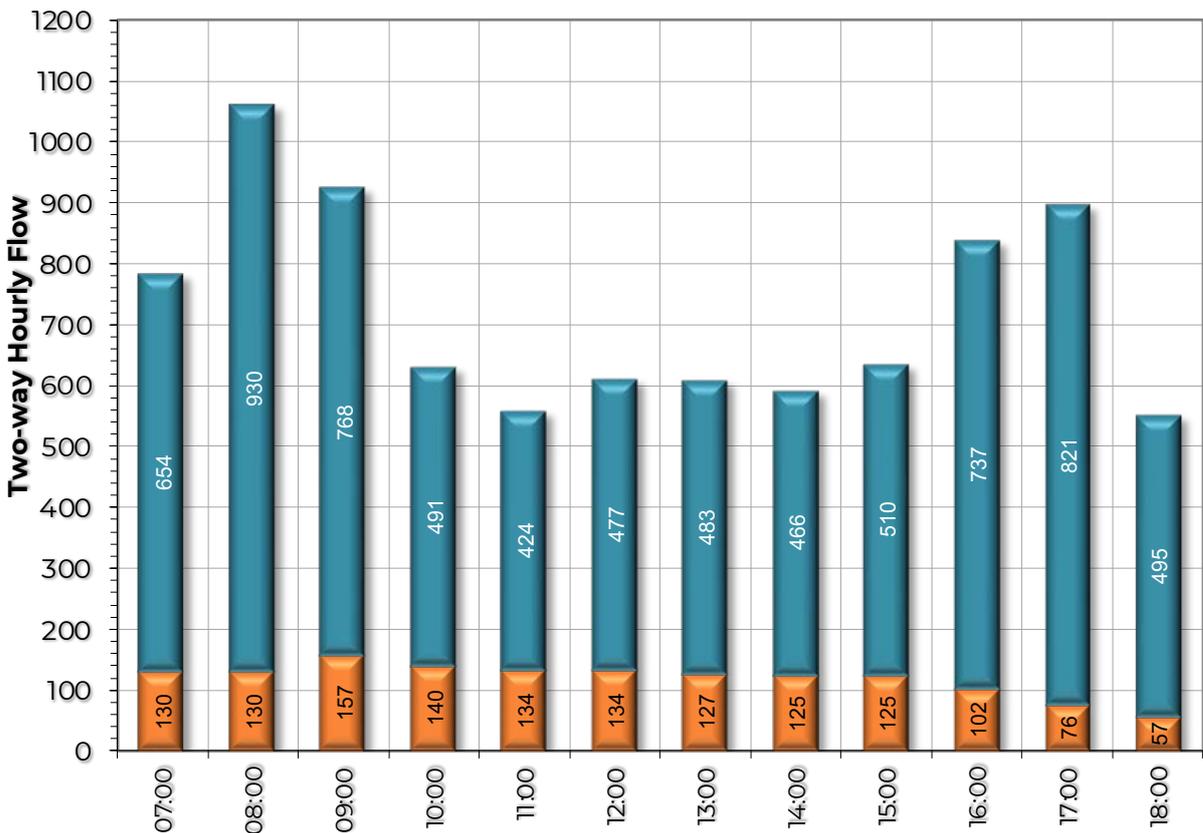


Figure 3.11 Link 10 – L3125 (St. Margaret's)

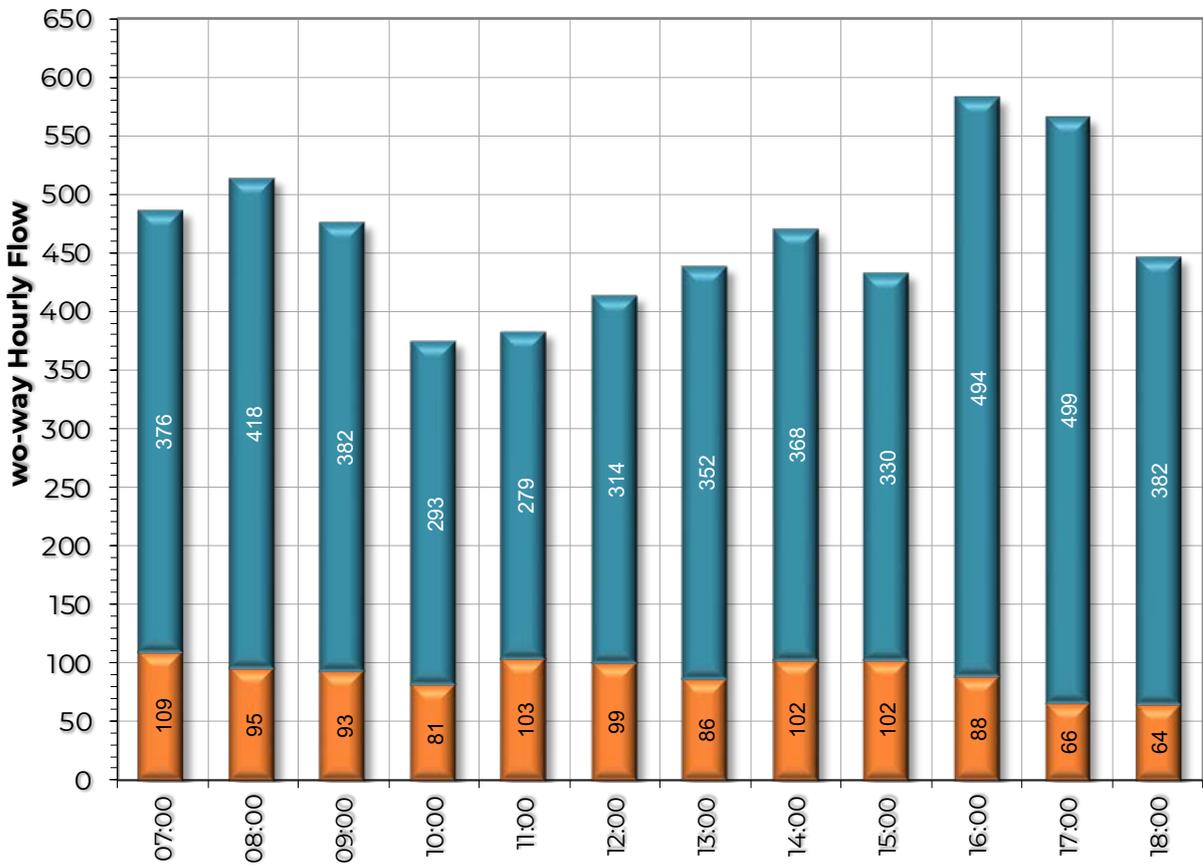


Figure 3.12 Link 12 – Blanchardstown Link Road

4 PROPOSED DEVELOPMENT

4.1 General

4.1.1 The proposed development is Phase 1 of the ‘Huntstown Circular Economy Hub’ (Hub). The proposed development site is in an area zoned for heavy industrial use and is part of the applicant’s overall landholding.

4.1.2 The Hub will be developed in phases or stages, with this Phase 1 comprising a Materials Recovery Facility (MRF) and a Food Container Cleaning Plant (FCCP) on a plot in the west of the overall landholding together with the provision of surface water and foul water drainage systems serving Phase 1 with spurs to facilitate subsequent phases. The current proposal for Phase 1 consists of the construction of:

- 2 no. Waste Recovery and Waste Recycling Units
 - Unit No.1 (MRF)-----5,032m²
 - Unit No.2 (FCCP)-----5,032m²
- Total-----10,064m²**

4.1.3 The MRF will be used to sort municipal solid waste (MSW), source segregated and mixed dry recyclables (DR) and construction and demolition wastes (C&D) wastes into recoverable and recyclable streams. In addition brown bin waste will be accepted, bulked up and transferred to biological treatment plants. Recoverable materials will be transported to authorised recovery facilities, for example waste to energy plants and soil recovery sites. The recyclables will initially be exported from the site for further treatment. Subsequent stages of the Hub will include recycling facilities that will process the recyclables, for example plastics, wood, aggregates, separated in Phase 1 into materials that meet end of waste criteria.

4.1.4 Food retailers are increasingly aware of the need to improve their performance with regard to sustainability, waste generation and plastic consumption in order to meet the objectives of the circular economy. In response to growing sustainability pressures, in particular the need to minimise ‘single use plastics’ the food retail industry is moving towards the use of reusable food containers and packaging. The proposed Food Container Cleaning Plant will provide a centralised food container washing/sterilisation facility for large food retailers in the Greater Dublin Area to facilitate the multiple use of these containers.

- 4.1.5 The combined annual materials intake to Phase 1 will be 95,000 tonnes and as the inputs will be classified as wastes an Industrial Emissions Licence to be granted by the Environmental Protection Agency will be required. The future phases of the Hub will be subject to planning applications and, depending on the scale of operations, may require Environmental Impact Assessment (EIA). Again, depending on the scale, the developments will require either a Waste Facility Permit from Fingal County Council or an EPA Licence.
- 4.1.6 The site is in Huntstown, Finglas and occupies a site located east of North Road. The site is located south of Huntstown Quarry and north of the ESB 220kV Finglas Substation. The site location is identified in **Figure 1.1** which is an excerpt from Fingal Development Plan 2023-2029, Sheet 12. The subject lands are currently zoned HI – Heavy Industry ‘Provide for Heavy Industry’. The lands are similarly zoned in the Fingal Development Plan 2023-2029. Lands to the north are similarly zoned HI whilst lands to the east, south and west are zoned GE – General Employment ‘Provide opportunities for general enterprise and employment’.
- 4.1.7 It is proposed to achieve vehicular access to the development via an upgraded existing direct vehicle access junction from North Road. The existing junction currently serves the Finglas 220kV Electricity Substation. Fingal Development Plan 2023-2029 shows a future objective to connect this service road to the Cappagh Road at Cappogue. The future connecting road will function as a local distributor road and will serve to provide access to some of the zoned lands. The future road scheme is identified with an orange dotted line in **Figure 2.2** which is an excerpt from Fingal County Development Plan 2023-2029, Map Blanchardstown North, Sheet No.12. The layout of the proposed development is shown in Coyle Civil & Structural Drawing No. P001 ‘Site Plan’.
- 4.1.8 It is proposed that the direct access to the ESB service road will make provision for a right turning lane. The turning lane is not required in the short term but has been included in anticipation of the realisation of the connecting local access and distributor road between North Road and Cappagh Road as identified in the current development plan. A right turn lane is proposed at the direct development access in the interest of preserving the future carrying capacity of the link road. No modifications are proposed at the T-junction on North Road to the east of the site.
- 4.1.9 The planning submission provides all the necessary agreements and consent from the adjoining landowners to realise the proposed access arrangements. **Image 4.1** shows the internal access road near to the connection point of the proposed

development and indicates the continuation of the road westward to Cappagh Road as identified in the development plan.



Image 4.1 Greenogue Logistics Park Connecting Road

4.2 Road Hierarchy and Access Arrangement

4.2.1 Access Design & Roads Safety Audit

4.2.2 The proposed development access junction has been designed in accordance with Transport Infrastructure Ireland's Design Geometry publications formerly the National Roads Authority's Design Manual for Roads and Bridges. The proposed road design and road improvement works to provide the right turn lane on the North Road Cappagh Road future link road have been subject of an independent **Road Safety Audit (Stage 1)** prepared by Traffico Road Safety Engineering Consultants in March 2023. A copy of the Road Safety Audit (RSA) including Designer Feedback Form is included at **Appendix D**. The recommendations of the RSA and responses of the Designer should be read in conjunction with this section.

4.2.3 In accordance with Table 1.2 of TII-DN-GEO-03031 the Design Speed for the proposed North Road Cappagh Road link and thus the design of the development access is 60km/h which is the Design Speed consistent with a speed limit of 50km/h which applies on both North Road and Cappagh Road and is reasonably expected to apply to the new link road when constructed.

- 4.2.4 The proposed horizontal alignment of the link road is unchanged from existing. The access junction serving the proposed development from the North Road Cappagh Road Link Road is required to accommodate all turning movements.

- 4.2.5 The layout of the turning radii appropriately accords with TII-DN-GEO-03060 Section 5.6.5. and incorporates a compound radius curve as per DN-GEO-03060 Appendix C, Figure C.1, '*Design of Compound Curve*'.

- 4.2.6 TII-DN-GEO-03060 Section 4.3. sets out that the use of computer software to predict the swept path of large vehicles is mandatory in the design of all junction types accordingly the junction has been assessed using AutoDesk Tracking for the vehicle type used in the haulage of materials. The same checking of swept paths has been undertaken for the internal junctions, weighbridge bypass lanes and service yards within the development. Coyle Civil & Structural Drawing No. P010 '*Swept Path Analysis Site Plan*' accompanying the planning submission includes vehicle track assessments using a design vehicle with the specification, dimensions and steering characteristics of articulated tipper vehicles that will be used to service the proposed development. The assessments confirm that the junction and internal geometry can accommodate articulated HGV.

- 4.2.7 The configuration of the ghost island right turning lane is consistent with the requirements of TII-DN-GEO-03060 Section 5.6.11 '*Design of Ghost Island Junctions*'. The key elements of the right turning lane are dimensioned on the application drawings and summarised in **Table 4.1**.

Design Parameter	Required	Proposed
Turning Length	10m	28m
Deceleration Length	40m	40m
Through Lane Width	3.0m	3.5m
Turning Lane Width	3.5m	3.5m
Direct Taper Length	15m	15m
Ghost Island Taper	1:20	1:20
Visibility Sightline (Setback 3.0m)	90m	120m

Table 4.1 Access Junction Ghost Island

4.2.8 DMURS Guidance

- 4.2.8.1 The Design Manual for Urban Roads and Streets (DMURS) provides a set of principles, approaches and standards necessary to achieve best practice in urban areas which includes cities, towns and villages. Local Authorities are required to facilitate implementation of the principles set out in the manual in carrying out their development and planning functions under the Planning Code. The principles, approaches and standards set out in the DMURS apply to the design of all urban roads and streets which are defined as those roads and streets in cities, in towns and in villages subject to a speed limit of 60km/h or less.
- 4.2.8.2 The subject site connects to existing roads infrastructure subject to 50km/h locally accordingly from the perspective of roads design and the provision of visibility sightlines at and within the proposed development, the receiving road locally comes under that category of road where the principles of the DMURS apply. In relation to 'Place' and 'Context ' DMURS acknowledges that the place status varies from high in urban centres, lowering in proportion to distance decreasing to Neighbourhood, Suburb and Business Park/Industrial Areas. Business Park/Industrial Areas are the lowest order of place next to the rural fringe. DMURS advises that designers must consider the context of a street or street network noting the greater need for connectivity, and integration and ease of movement for vulnerable road users where the 'place' value is high, such as in urban centres. DMURS acknowledges the challenges presented by industrial estates and business parks stating the following:

*"Business Parks / Industrial Estates are areas that are primarily focused on (and often purpose built for) providing areas of commercial and industrial activity outside of Centres. Streets within these areas generally have a low place status as buildings have little street presence and they are largely devoid of pedestrian activity. Many of these areas are in a state of transition toward more intensive commercial and residential uses replacing older industrial ones. As this transition occurs, the status of these places will rise. Place status in existing campus style Business Parks also tends to be higher and pedestrians can be highly active in these areas during business hours."*³

³ DMURS (2019), Figure 3.5, page 38

“Managing transitions within Business Parks/Industrial Estates presents a series of challenges to designers. As development within these areas intensifies, designers are encouraged to move toward standards that are better suited to densely populated urban areas (i.e. Centres and/or Neighbourhoods). However, the implementation of standards which seek to slow vehicular movement and increase pedestrian mobility (such as narrower carriageways or tighter corner radii), may be more difficult to implement due to the manoeuvrability requirements of larger vehicles. Under such circumstances designers may consider additional mitigation measures (as further detailed in Chapters 4 and 5).”⁴

- 4.2.8.3 The development plan sets out future plans for the ESB service road to become a local distributor road or spine road generally running parallel to the M50 through zoned lands connecting between North Road in the east and Cappagh Road in the west. The existing service road is single carriageway and has a cross-section in the order of approximately 7.5m carriageway with generous adjoining verges on both sides but with no adjoining footways or cycleways.
- 4.2.8.4 No cycleways are provided on the existing service road or on the greater local road network serving the area. In the interest of a consistent layout it is proposed that in developing the access to the site the existing service road will be improved with the addition of cycleways and footways on both sides reflecting the same configuration as that of the Cappagh Road to which it will connect and that of the greater road infrastructure serving the Dublin Enterprise Zone.
- 4.2.8.5 **Image 4.1** shows the current configuration of Cappagh Road which incorporates footways and cycleways on both sides, is subject to 50km/h speed limit and provides a central ghost island which accommodates right turning lanes into various industrial developments.
- 4.2.8.6 DMURS advises that in circumstances where there are regular turning movements by articulated vehicles corner radii may be increased to 9.0m and examples Industrial Estates. The primary internal junctions with the development and connecting to the spine road will be required to accommodate frequent access by articulated vehicles and have corner radii of 9.0m.

⁴ DMURS (2019), page 40, para. 3



Image 4.1 Cappagh Road Typical Cross-Section

- 4.2.8.7 The spine road within the proposed development is provided with 2.0m verge and a minimum of 3.0m shared footway/cycleway on both sides accordingly internal junction visibility splays are generous. All visibility splays will be maintained clear of obstructions, however, objects that would not be large enough to wholly obscure a vehicle, pedestrian or cyclist are acceptable providing their impact on the overall visibility envelope is not significant. Landscaping along the internal roads is mindful of the cumulative effect of street trees within the verge area.
- 4.2.8.8 The internal road network of the proposed development will generally be subject to 30 km/h speed limit. The minor roads connecting to the individual units and service yards are intended to support a lower speed environment in accordance with the general principles of DMURS. Dedicated cycle lanes are not proposed within the site since demand is likely to be low, pedestrian and cyclist volumes will be low and traffic volumes will similarly be low which should contribute toward a safe environment in which to share footway space.
- 4.2.9 Controlling Speeds
- 4.2.9.1 The proposed development lands will provide for an appropriate speed environment. In accordance with DMURS Table 4.1 all internal roads have been designed to a maximum Design Speed of 50kph whilst the minor roads serving the local needs of the industrial units will be subject to a 30kph speed limit designed to be self-enforcing through the principles of DMURS and the inclusion of signage and road markings.

4.2.10 Pedestrian and Cyclist Facilities

4.2.10.1 The road network for the proposed development will provide safe and appropriate conditions for pedestrians and cyclists. This should encourage insofar as practicable a modal shift in favour of cycling and walking over use of private motor vehicles especially for those living and employed locally. Given the frequency of commercial vehicle access it is not intended that raised thresholds/crossings will be provided. Pedestrian crossing facilities in the form of dropped kerbs incorporating tactile paving are designed and located so as to accommodate the expected pedestrian desire lines. Dropped crossings will be provided to accommodate pedestrians crossing at all internal junctions when walking with the alignment of the internal spine road.

4.2.10.2 Subject to Local Authority requirements, access for people with disabilities will include the following design elements:

- Dished kerbs and tactile paving at all crossings
- Adequate lighting to be provided at all crossings

4.2.11 Emergency Vehicle Access

4.2.11.1 The development provides appropriate access for emergency vehicles via streets with sufficiently wide carriageways to accommodate heavy vehicles and fire tenders.

4.3 **Public Transport**

4.3.1 The closest bus stop to the application site is situated on North Road immediately north of the Dogs Trust. The bus stop is Bus Eireann Stop 134451 (St. Margaret's, Kildonan) and serves northbound travellers. The closest southbound serviced bus stop is Stop 101121 (Suncourt) located between Kilshane Cross and the M50 overbridge of the N2. Both bus stops are serviced by Bus Eireann Routes 103 and 105X.

4.3.2 Route 103 (Dublin – Ashbourne – Ratoath – Tayto Park). The service from Ratoath toward Dublin operates every day of the week with drop-off-only approximately every 20 mins between 06:38hrs and 01:06hrs on weekdays. Service on Saturday is reduced to approximately half-hourly and on Sundays it is hourly. The service from Dublin is pick-up only. Route 105X (Fairhouse Road – Ratoath – Dublin) runs three

city-bound services in the morning stopping at Suncourt at 07:38, 07:53 and 08:08hrs. Three services to Fairyhouse Cross run in the evening stopping at Kildonan at 17:41, 17:57 and 18:27hrs.

4.3.3 There are no designs in the Bus Connects Network to provide services along R135 North Road. Existing and currently planned services in the locality north of the M50 are generally concentrated in the Ballycoolin area to the west or closer to the Airport to the east. It is considered highly likely that public transport services will be provided locally when the local distributor road between North Road and Cappagh Road is realised.

4.4 Servicing and Accessibility

4.4.1 Coyle Civil & Structural Drawing No. P010 'Swept Path Analysis Site Plan' shows swept path analyses undertaken using the proprietary software Autodesk Vehicle Tracking which provides an analysis of the access junction, internal roads and service areas to check that provision has been made for the space and geometry required to manoeuvre the specified design vehicle which is of the type and configuration that the proposed development site has the potential to generate.

4.4.2 Vehicle swept path turning assessments have been undertaken using a standard 'Freight Transport Association (FTA) Design Articulated Vehicle (2016)'.

- Overall Length-----16.48m
- Overall Width-----2.55m
- Track Width-----2.47m
- Lock-to-lock Time-----3 sec
- Kerb-to-kerb Radius-----6.55m

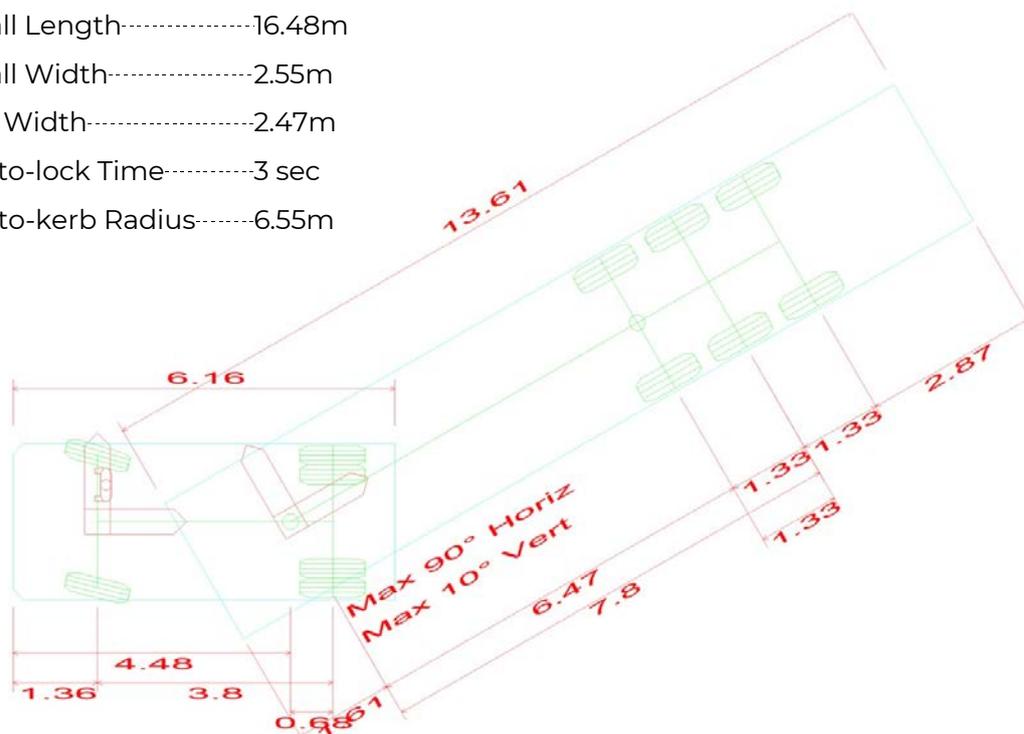


Figure 4.1 Articulated Vehicle Specifications

- 4.4.3 **Figure 4.1** shows a plan of the articulated assessment vehicle together with dimensions and steering characteristics. The analyses of entry, exit and circulating manoeuvres provided in Coyle Civil & Structural Drawing No. P010 '*Swept Path Analysis Site Plan*' confirms that the 16.5m assessment HGV is accommodated by the geometry of the proposed internal roads and servicing areas.
- 4.4.4 The main junction to the ESB Service Road (potential future local distributor road) uses the compound radius curve advised for junctions where HGVs comprise a significant proportion of the turning movements as set out as a requirement in TII DN-GEO-03060 Section 5.6.5. Details of the compound curve geometry are provided in TII DN-GEO-03060 Appendix C, Figure C.1. The main development junction is expressly designed to cater for the largest articulated HGV permitted on Irish roads.

5 TRAFFIC GENERATION

5.1 General

5.1.1 In the context of estimating the trip attraction of a proposed development there are a variety of assessment methodologies in general use. The 'First Principles' method involves using simple assumptions about the development, its users and their behaviour. This method can lead to inaccuracies and is usually only used where there is no other alternative. The 'Comparison' method involves comparing the proposed development with a similar existing development and applying survey information from that site to the proposed development. This method can often be cross referred to a trip attraction database such as TRICS which often provides a larger number of sample sites. In the case of the proposed development there are no relevant survey sites in the TRICS database so the trip attraction model is based upon detailed examination of a large sample of traffic data for a similar facility in Greenogue Business Park.

5.2 Trip Attraction - Comparison Method

5.2.1 The existing comparison site is located in Greenogue Business Park in Rathcoole, Co. Dublin. Greenogue Business Parks comprises a mix of industrial, warehousing and manufacturing facilities with primary access to the business park from Regional Road R120 which runs from Rathcoole and N7 Junction 4 south of Greenogue northwest to Newcastle in the administrative district of South Dublin County Council.

5.2.2 At the time of examination of the site in 2017 and 2018 the rate of acceptance of waste materials permitted at the Comparison Site under Planning Reg. Ref. SD03A/0607 was 95,000t per annum. The generation of HGV and the volume of product transported by each vehicle entering and leaving the site is not only product dependent but is commercially driven. Waste is delivered to the site by a variety of vehicles in correspondingly varied quantities. Vehicle types chiefly include roll-on-roll-off containers ranging in capacity from 15 to 35m³ together with small and standard skip lorries. Waste is delivered in the quantity prescribed by the various sources. There are sources 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 from smaller jobs or one-off loads such as house extensions and the like.

5.2.3

In order to assess the traffic generation characteristics of the Comparison Site weighbridge records for that site have been analysed, chiefly recording the mass of waste entering the site and mass of processed wastes leaving the site. The weighbridge data analysis period extends for the 12-month period from 01-Jun-2017 to 31-May-2018. Based upon an assessment of weighbridge data the haulage of waste to the site does not typically occur all in full loads. Over the course of the 12-month period of analysis the average payload of vehicles entering the site with waste was recorded as 2.39 tonnes whilst outbound vehicles are typically full and the average payload of outbound vehicles carrying processed waste is 20.14 tonnes.

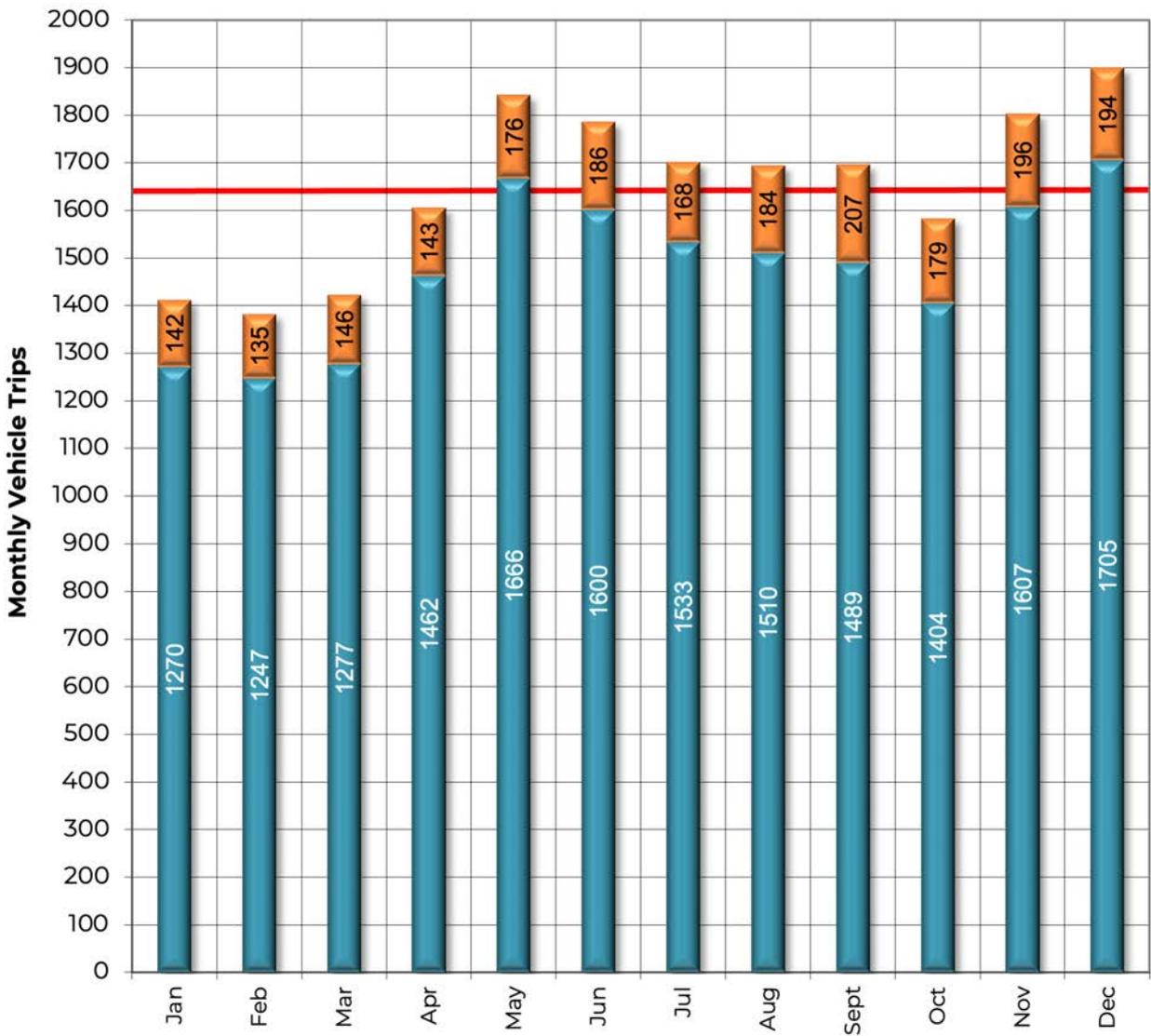


Figure 5.1 Comparison Site HGV Trips Per Month (Import & Export)

5.2.4 **Figure 5.1** shows the total number of HGV trips generated each month where the blue portions of the columns represent those vehicles importing waste and the orange portions represent those HGV trips associated with the export of waste. The red line indicates the average monthly traffic generation which is recorded as 1,652 no. vehicle trips comprising 1,481 no. vehicles importing waste and 171 no. vehicles exporting waste.

5.2.5 The average weekday daily traffic generation for the Comparison Site is 72 no. HGV vehicle trips comprising 64 no. HGV importing waste and 8 no. HGV exporting waste. The Comparison Site was open for the morning on a Saturday when the average traffic generation was 20 no. HGV vehicle trips comprised of 19 no. HGV importing waste and 1 no. HGV exporting. There was no traffic generation recorded on any Sunday or on any Bank Holidays. From **Figure 5.1**, save for the first three months of the year there is a relatively consistent flow of waste to and from the facility over the course of the year.

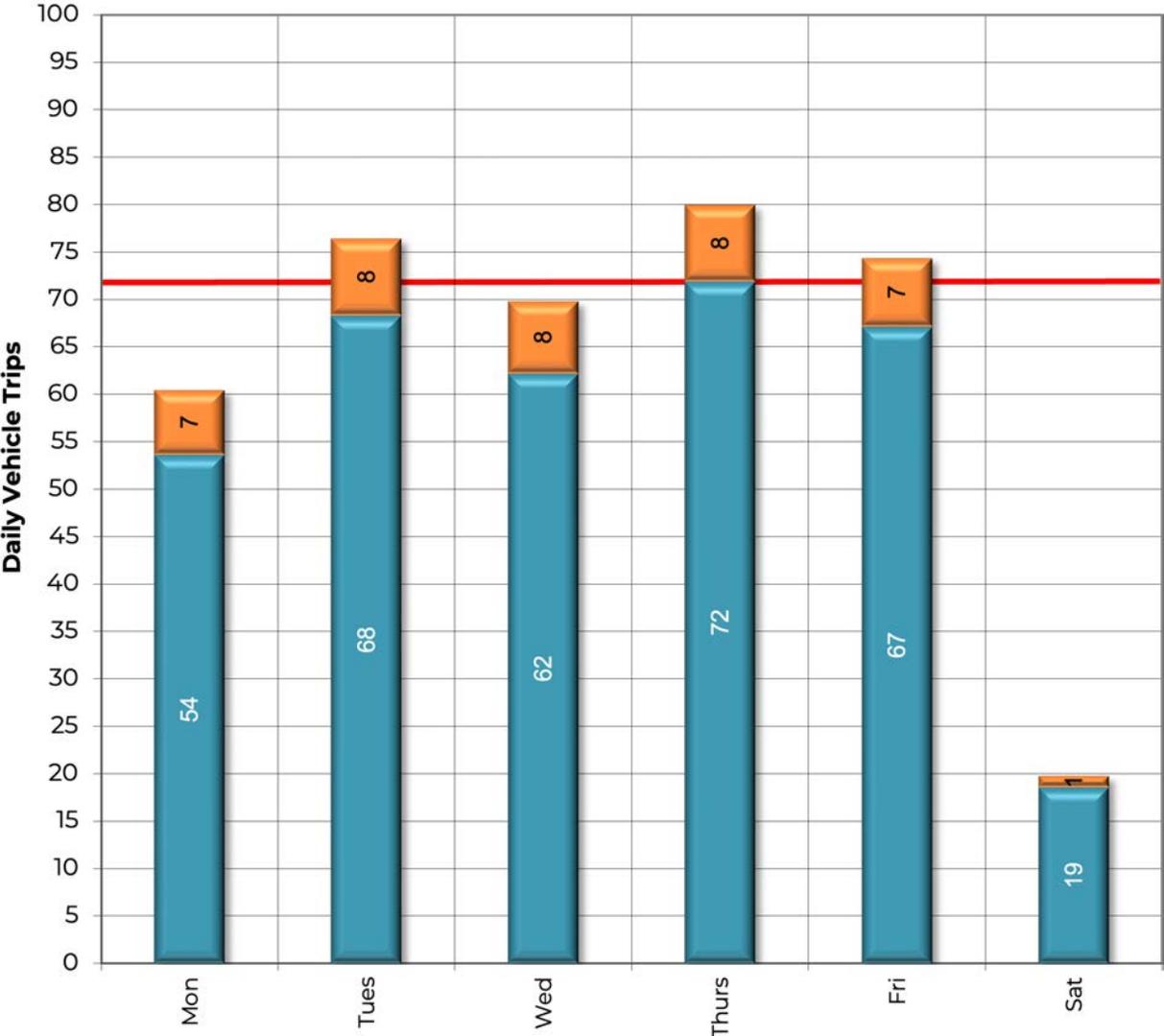


Figure 5.2 Comparison Site HGV Trips Per Day (Import & Export)

- 5.2.6 Based upon an average value for all Mondays, Tuesdays etc. **Figure 5.2** shows the typical average distribution of vehicle trips over the course of the week. **Figure 5.2** confirms that traffic generation is relatively constant over the course of the week. The average combined flow of vehicles on weekdays (excluding Saturday data) is depicted by the red line which represents 72 no. HGV trips (combined import/export).
- 5.2.7 Phase 1 of the proposed '*Huntstown Circular Economy Hub*' (Hub) includes two separate buildings one which will be a traditional Materials Recovery Facility (MRF) and the other will be a Food Container Cleaning Plant (FCCP).
- 5.2.8 A Materials Recovery Facility (MRF) is a specialized facility that receives, sorts, and processes recyclable materials from residential and commercial waste streams. The primary purpose of a MRF is to separate recyclable materials, such as paper, cardboard, plastics, and metals, from non-recyclable materials, such as food waste and other contaminants. The operation of a MRF typically involves several stages of sorting and processing. (1) Collection: Mixed waste materials are collected from residential, commercial, and industrial sources and transported to the MRF. (2) Sorting: At the MRF, the mixed waste materials are first dumped onto a conveyor belt or hopper where large items and contaminants are manually removed by workers or with the help of mechanical screens, magnets, and other equipment. The remaining materials are then sorted using a variety of technologies, including optical sorters, air classifiers, and density separators, which separate the materials based on their physical and chemical properties. (3) Processing: Once the materials have been sorted, they are processed to prepare them for recycling. This may involve baling, shredding, or compacting the materials to make them easier to transport and store. (4) Marketing: The processed materials are then sold to end markets, such as paper mills, plastic manufacturers, and metal foundries, where they are used to make new products. (5) Residual Waste Management: Any residual waste or non-recyclable materials that remain after the sorting and processing steps are typically sent to a landfill or incinerator for disposal.
- 5.2.9 A Food Container Cleaning Plant typically works by using a combination of mechanical and chemical processes to clean containers and other similar items, such as food containers, utensils, and equipment. The operation of a food container cleaning plant typically involves several stages of cleaning and sanitation. The first step is the initial rinse, which involves the removal of any loose debris or food particles from the containers. This is typically done with a high-pressure water jet or by submerging the containers in a tank of water. The next stage is the cleaning

process, which typically involves the use of specialized detergents and equipment to remove any remaining dirt, grease, or food residues from the containers. The containers may be washed manually or by using automated washing equipment. Once the containers are clean, they are typically sanitized using a chemical disinfectant or by exposing them to high-temperature water or steam. After the containers have been washed and sanitized, they are typically dried and inspected to ensure they are clean and free of any damage or defects that may impact their usability.

- 5.2.10 The Comparison Site is considered likely to be a suitable model in terms of traffic generation to the MRF element of the proposed development. The Food Container Cleaning Plant will provide a centralised food container cleaning/sterilisation facility for large food retailers in the Greater Dublin Area and will operate on similar principles. There are no traffic generation data bases for such a facility however based on the processes involved it is considered that the Food Container Cleaning Plant will generate less HGV traffic than a traditional MRF, so modelling the entire site as an MRF is considered likely to be robust in terms of traffic generation. The proposal is for permission for a combined import to Phase 1 of 95,000t per annum as per the Comparison Site. In this assessment the HGV traffic generation of the proposed Phase 1 development is modelled on the Comparison Site and is assumed to have similar traffic generation characteristics to those set out in **Figure 5.1** and **Figure 5.2**. On this basis the proposed development site assessment HGV daily traffic generation rate adopted in this study comprises 72 no. HGV importing materials and 8 no. HGV exporting.

5.3 Traffic Distribution

5.3.1 Daily Traffic Profile

- 5.3.1.1 Weighbridge records for the Comparison Site at Greenogue Business Park include records of time of entry/exit. Using the weighbridge time records for the period of one year is considered a statistically sound approach to establishing the hourly profile of vehicle trip generation over the course of a typical weekday. The following **Figure 5.3** shows the typical daily traffic profile for wastes received whilst **Figure 5.4** shows the profile for the export or waste.

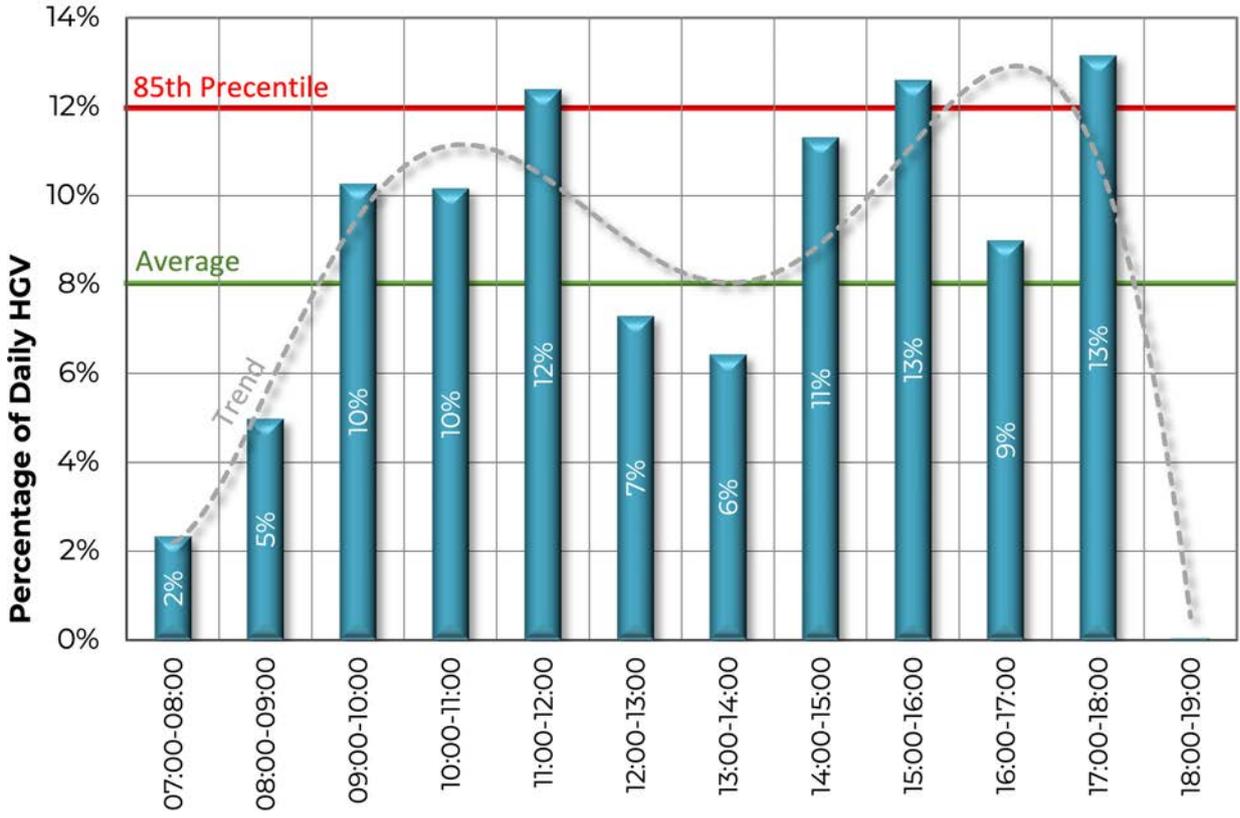


Figure 5.3 Materials Received Daily HGV Traffic Profile

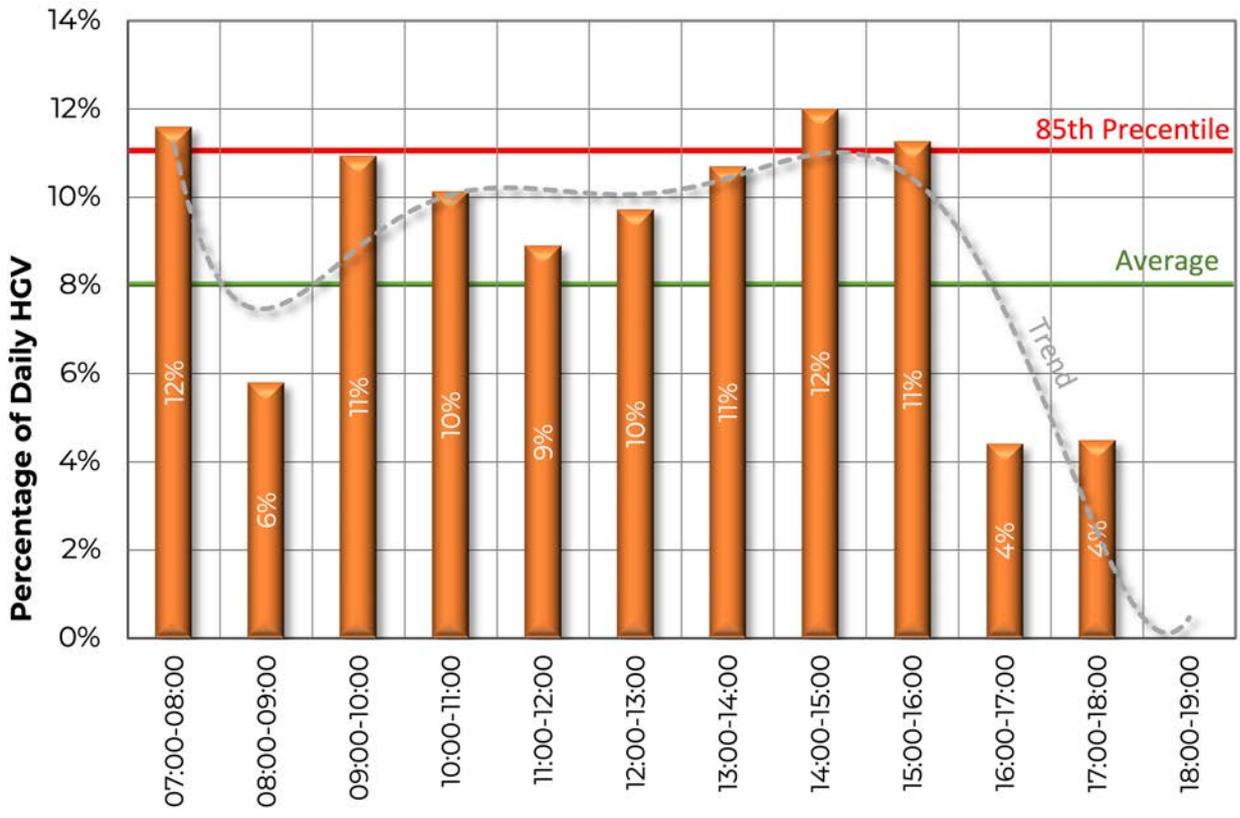


Figure 5.4 Materials Exported Daily HGV Traffic Profile

- 5.3.1.2 There are fluctuations in waste receipts during the day but the data shows a relatively balanced flow between inbound and outbound HGV traffic throughout the period 07:00hrs to 18:00hrs. The average hourly rate of importation and export is 8% in both cases. The 85th percentile generation rate for importation is 12% and for export it is 11%.
- 5.3.1.3 In the interest of a robust study of potential impacts the 85th percentile values have been used in the assessment of peak hour traffic. On the basis of 72 no. HGV importing waste and 8 no. HGV exporting waste daily, the peak hour assessment value is 9 no. HGV trips arising from materials receipts and 1 no. HGV trip from materials exportation giving a total peak hour traffic generation rate of 10 no. HGV trips per hour.
- 5.3.1.4 It is acknowledged that the current proposal differs from the Comparison Site in that the proposed development will operate 24 hours per day. In the interest of a robust assessment it has been assumed that all traffic generation to the development is condensed into the period 07:00-18:00hrs which is when the development traffic is considered likely to have the greatest effect on the capacity and operation of the receiving road network. The volume of traffic generated by the development in the evening and night-time between 18:00-07:00hrs will be significantly lower than the 85th percentile peak hour assessment figure used in this assessment. Since network traffic flows in the evening and night-time are significantly lower than in the day-time it is self-evident that the proposed development will have a significantly lesser effect on network capacity in the period 18:00-07:00hrs than it would during both the peak hour, and day-time scenarios considered in this assessment.
- 5.3.1.5 To put the daily and peak hour assessment traffic flows for the proposed development in a local context, the traffic surveys from September 2022 show the existing access to Huntstown Quarry generates 691 no. HGV trips and 265 no. car/van trips per day. The Huntstown Quarry entrance was observed to generate approximately 70 no. HGV trips in the morning peak hour and approximately 30 no HGV trips in the evening peak hour. The forecast daily traffic generation for the proposed development is considered robust for the purposes of this study for the reasons set out. The forecast daily assessment value for HGV traffic arising at the proposed development equates to approximately 10% of that observed at the Huntstown Quarry in September 2022.

5.3.2 Masterplan Traffic Generation

5.3.2.1 In considering the overall development of the site this assessment includes for the forecast traffic generation of the masterplan development. Since the masterplan envisages related circular economy type development it is assumed for the purposes of the assessment that typical MRF operation would likely be the most intensive traffic generator of that genre of operation. In the interest of simplicity and based upon approximate floor areas the forecast traffic generation of the masterplan lands in concert with the Phase 1 lands is estimated to be twice that of Phase 1 taken in isolation. As above, in the interest of a robust study of potential masterplan impacts the 85th percentile values have been used in the assessment of peak hour traffic. On the basis of 144 no. HGV importing waste and 18 no. HGV exporting waste daily, the peak hour assessment value is 17 no. HGV trips arising from waste receipts and 2 no. HGV trips from waste exportation giving a total peak hour traffic generation rate of 19 no. HGV trips per hour.

5.3.3 General Haul Routes

5.3.3.1 Depending on the origin of materials, the site will be accessed from a north of the site but it is likely that a significant proportion of waste will originate from south of the site and likely from inside the M50 from the direction of Finglas. Some small proportion of site traffic is expected access the site via N3 Junction 2 and 3, utilising the R843 and R121 to access the Ballycoolin Road, some will come from The Ward whilst some element will originate in the Ballycoolin Area and will use L3120 and Kilshane Cross. The primary haul routes are shown in **Appendix C** Figure 1.

5.3.3.2 It should be noted that the waste entering the site is demand driven. The proposed facility has and the potential to receive C & D waste from projects locally within the Ballycoolin area accordingly it can be appreciated that there are lesser haul routes other than those shown in **Appendix C** Figure 1 which include the likes of the Ratoath Road or Cruiserath Road that will be used albeit less frequently than the primary haul routes to and from the strategic road network locally comprising the N2, M2, N3 and M50.

5.3.3.3 In the future year scenario when the Cappagh to Huntstown R135 link road is constructed it is envisaged that all traffic arising in the Ballycoolin area will use this local distributor route to access the site. **Appendix C** Figure 1 includes this future route which is shown indicatively.

5.3.4 Local Traffic Distribution

5.3.4.1 It is typical practice and recommended by the Chartered Institution of Highways and Transportation, that additional traffic generated by the proposed extension/expansion of an existing development can reasonably be distributed on the adjoining highway in accordance with the proportions of current traffic turning flows recorded during the traffic surveys. For the purposes of this assessment, it is assumed that the general distribution of future traffic on the greater road network will be the same as the distribution of traffic as recorded in the September 2022 traffic surveys. Based upon experience of the operation of existing waste facilities in and around the Ballycoolin area this method is considered likely to be representative of the general distribution of traffic at the proposed site. It is nonetheless acknowledged that the distribution of traffic on a day-to-day basis is demand driven and thus distribution to the network can vary. Based upon the September 2022 traffic surveys the Network Flow Diagrams of **Appendix B** provide a summary of detailed assessment of traffic flow distribution on the receiving road network and include a breakdown of daily traffic flows and distribution for weekdays and weekday peak hours. The distributions are based upon the respective percentage of total daily or total hourly traffic as follows:

- **Figure 4** Forecast Development Traffic Distribution Daily
- **Figure 5** Forecast Development Traffic Distribution Daily (Cappagh Link)
- **Figure 6** Forecast Development Traffic Distribution AM Peak
- **Figure 7** Forecast Development Traffic Distribution PM Peak
- **Figure 8** Forecast Development Traffic Distribution AM Peak (Cappagh Link)
- **Figure 9** Forecast Development Traffic Distribution PM Peak (Cappagh Link)

5.4 Traffic Generation to Proposed Development

5.4.1 Development Daily Traffic Generation – Phase 1

5.4.1.1 The purpose of this part of the assessment is to quantify the traffic generation of the proposed development and **Table 5.1** is derived from the estimate of the traffic generation that are based upon the traffic records of the Comparison Site.

Time Period	Proposed Units Operating at 95,000t/a Combined (2 x 5,032m ²)				
	Light Vehicles		Goods Vehicles		
	Arrive No.	Depart No.	Import Rigid (No.)	Export Artic (No.)	Combined Two-way Flow
07:00-08:00	5	0	2	1	6
08:00-09:00	6	1	4	1	8
09:00-10:00	2	2	8	1	17
10:00-11:00	4	2	8	1	17
11:00-12:00	4	4	9	1	20
12:00-13:00	3	5	6	1	13
13:00-14:00	7	3	5	1	11
14:00-15:00	2	4	8	1	19
15:00-16:00	3	4	9	1	20
16:00-17:00	2	9	7	1	14
17:00-18:00	1	6	10	1	20
Daily	37	37	72	9	162

Table 5.1 Forecast Traffic Generation – Phase 1

5.4.2 Development Peak Hour Traffic Generation – Phase 1

5.4.2.1 **Figure 5.3, Figure 5.4** and **Table 5.1** confirm that there are not likely to be pronounced peaks in daily traffic generation nonetheless they show that development traffic is generated during the typical network peaks on weekdays. The following **Table 5.2** summarise the forecast peak hour traffic generation arising at the proposed development.

Time Period	Light Vehicles		Rigid Heavy Vehicles		Artic Heavy Vehicles	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
08:00-09:00	6	1	4	4	1	1
16:00-17:00	2	9	7	7	1	1

Table 5.2 Forecast Peak Hour Traffic Generation – Phase 1

5.4.2.2 The forecast peak hour traffic generation of the proposed development has been applied to the road network in accordance with the distribution scenarios provided in **Appendix B** Figures 6 through 9. The resultant development peak hour forecast traffic flows are provided in **Appendix B** as follows:

- **Figure 10** Forecast Development Traffic Flows Daily
- **Figure 11** Forecast Development Traffic Flows Daily (Cappagh Link)
- **Figure 12** Forecast Development Traffic Flows AM Peak
- **Figure 13** Forecast Development Traffic Flows PM Peak
- **Figure 14** Forecast Development Traffic Flows AM Peak (Cappagh Link)
- **Figure 15** Forecast Development Traffic Flows PM Peak (Cappagh Link)

5.4.3 Masterplan Daily Traffic Generation - Masterplan

5.4.3.1 The traffic generation characteristics of the masterplan development are assumed to be similar to those forecast for the Phase 1 development and are similarly based upon the traffic generation rates for Materials Recovery Facilities. As per the assessments of the Phase 1 proposed development this analysis includes for an assessment of the traffic generation arising from the realisation of the masterplan. The following quantifies the traffic generation of the masterplan development. **Table 5.3** is derived from the estimate of the traffic generation arising based upon the traffic records of the Comparison Site.

Time Period	Combined Masterplan Development				
	Light Vehicles		Goods Vehicles		
	Arrive No.	Depart No.	Import Rigid (No.)	Export Artic (No.)	Combined Two-way Flow
07:00-08:00	9	0	3	2	11
08:00-09:00	12	1	7	1	16
09:00-10:00	3	4	15	2	34
10:00-11:00	8	4	15	2	33
11:00-12:00	8	7	18	2	39
12:00-13:00	6	9	11	2	25
13:00-14:00	14	5	9	2	22
14:00-15:00	4	7	16	2	37
15:00-16:00	6	7	18	2	40
16:00-17:00	3	17	13	1	27
17:00-18:00	1	12	19	1	40
Daily	74	74	144	18	324

Table 5.3 Forecast Traffic Generation – Masterplan

5.4.4 Development Peak Hour Traffic Generation - Masterplan

5.4.4.1 As per the assessment of the proposed Phase 1 development **Figure 5.3, Figure 5.4** and **Table 5.1** confirm that there are not likely to be pronounced peaks in daily traffic generation but show that development traffic is generated during the typical network peaks on weekdays. The following **Table 5.4** summarise the forecast peak hour traffic generation arising at the masterplan development.

Time Period	Light Vehicles		Rigid Heavy Vehicles		Artic Heavy Vehicles	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
08:00-09:00	12	1	7	7	1	1
16:00-17:00	3	17	19	19	1	1

Table 5.4 Forecast Peak Hour Traffic Generation – Masterplan

5.4.4.2 The forecast peak hour traffic generation arising at the masterplan development has been applied to the road network in accordance with the distribution scenarios provided in **Appendix B** Figures 6 through 9. The resultant development peak hour forecast traffic flows are provided in **Appendix B** as follows:

- **Figure 16** Forecast Masterplan Traffic Flows Daily
- **Figure 17** Forecast Masterplan Traffic Flows Daily (Cappagh Link)
- **Figure 18** Forecast Masterplan Traffic Flows AM Peak
- **Figure 19** Forecast Masterplan Traffic Flows PM Peak
- **Figure 20** Forecast Masterplan Traffic Flows AM Peak (Cappagh Link)
- **Figure 21** Forecast D Masterplan Traffic Flows PM Peak (Cappagh Link)

5.5 Committed Development Traffic

5.5.1 The future year assessments will include for development and traffic increases associated with economic development and this is accounted for by the application of published network traffic growth rates to the survey data. In addition, this assessment also makes specific allowance for the traffic generated by local third party committed developments (under construction but not occupied) that have the potential to generate additional vehicle movements in the study area over and above those movements recorded in the September 2022 traffic surveys. There are a number of developments that can be considered committed development at the time of the base traffic surveys. There have also been developments that have received planning permission but have yet to be commenced. Traffic generated by the following developments has been included in the assessment of network traffic impact arising:

- **F16A/0128** - Rohan Holdings Ltd. Dublin Airport Logistics Park, St. Margaret's Road, St. Margaret's, Co. Dublin. Four single storey units for industrial and/or warehouse use with ancillary two storey office with a gross floor area of 15,692sq.m. This development was completed at the time of the traffic surveys.
- **F17A/0769** - Coldwinters Devco Ltd. Coldwinters, St. Margaret's, Co. Dublin. Development will consist of the construction of two single story units for industrial and/or warehousing use with ancillary two storey offices with a gross floor area of 9,422sq.m. The northern building was completed and the southern building nearing completion at the time of the traffic survey. Traffic generation arising from this site was derived from a Traffic Impact Assessment (TIA) report dated December 2017 prepared by CS consulting. The TIA forecasted the following traffic generation.

Peak Hour	Arrive			Depart		
	Unit 1 (4,111m ²)	Unit 2 (5,311m ²)	Total	Unit 1 (4,111m ²)	Unit 2 (5,311m ²)	Total
08:00-09:00	14 [11(3)]*	18 [15(3)]	32 [26(6)]	3 [2(1)]	4 [2(2)]	7 [4(3)]
16:00-17:00	2 [1(1)]	3 [1(1)]	5 [3(2)]	15 [12(3)]	19 [16(3)]	34 [28(6)]

* Figure in TIA [Light (HGV)]

The TIA does not specify what proportion of traffic is HGV. For the purposes of this assessment and based upon the proportions derived generally from the TRICS database for ‘Commercial Warehousing’ the number of light vehicles and HGV is shown in the bracketed [] figures and these are the values assumed for the purposes of this assessment. It is assumed that traffic arising from the completed Unit 2 is captured in the traffic survey data. The TIA forecast that 80% of all development traffic would arrive and depart via the M50 and N2 whilst the remaining 20% of development traffic will distribute to the local road network in the same proportions as existing traffic. It is assumed that construction will be completed and the development fully operational prior to commencement of the proposed development.

- **SID/02/18** - Irish Water. Newtown, North Road (R135), Dublin 1. Provision of 2 no. biosolids storage buildings, each approximately 50m wide, 105m long and 15m in height, including solar panels on the roof of one building. These buildings have a combined capacity to store up to 48,000cu.m. of biosolids waste at any one time. The proposed development is programmed to be completed in two phases. Traffic generation arising from this site was derived from the EIAR Chapter ‘Traffic’ dated June 2018. The EIAR forecasted the following traffic generation.

Peak Hour	Arrive			Depart		
	Light	HGV	Total	Light	HGV	Total
08:00-09:00 2025	6	5	11	0	5	5
08:00-09:00 2040	10	9	19	0	9	9
16:00-17:00 2025	0	5	5	6	5	11
16:00-17:00 2040	0	9	9	10	9	19

The EAIR forecast that all development traffic would distribute to the local road network in the same proportions as existing traffic. It is assumed that construction of Phase 1 will be completed and the development fully operational prior to commencement of the proposed development.

- **FW20A/0211** - Coldwinters Devco Ltd. Lands between the N2 and R135 (north of the N2-R135 link road), at Coldwinters, St. Margaret's, Co. Dublin. The development will consist of 3 no. buildings for industrial/warehouse/logistics use (Units 3, 4 and 5) with gross floor area of 24,356q.m. Traffic generation arising from this site was derived from a Traffic Impact Assessment (TIA) report dated December 2020 prepared by CS consulting. The TIA forecasted the following traffic generation.

Peak Hour	Arrive			Depart		
	Light	HGV	Total	Light	HGV	Total
08:00-09:00	10	11	21	2	8	10
16:00-17:00	2	3	5	13	2	15

The EAIR forecast that all development traffic would distribute to the local road network in the same proportions as existing traffic.

- **FW22A/0068** – Abbey Issuer DAC Lands between the N2 and R135 (north of the N2-R135 link road), at Coldwinters, St. Margaret's, Co. Dublin. The development will consist of 1 no. building for warehouse/logistics use, to be known as Unit 6, with a gross floor area of 9,821 sq.m. This development is part of a phased development which includes Planning Reg. Ref. FW20A/0211. Traffic generation arising from this site was derived from a Traffic Impact Assessment (TIA) report dated December 2020 prepared by CS consulting. The TIA submitted to Planning File Reg. Ref FW20A/0211 forecasted the following traffic generation.

Peak Hour	Arrive			Depart		
	Light	HGV	Total	Light	HGV	Total
08:00-09:00	5	5	10	1	4	5
16:00-17:00	1	1	2	6	2	8

The EAIR forecast that all development traffic would distribute to the local road network in the same proportions as existing traffic.

- FW20A/0126** - IPUT Newtown, Kilshane Cross, Co Dublin. The development will comprise the provision of 4 no. warehouses with marshalling offices, ancillary office space, staff facilities and associated development. The development will also include the repositioning of the access from the L3125 Road to the north of the site to provide a new entrance and a second vehicular access will be provided from the R135/Elm Road to the south-west. Road upgrade works are proposed along the L3125 to the north of the site which include the partial upgrade of Kilshane Cross signalised junction to incorporate a left turning lane and upgraded signals on the L3125 Local Road eastern approach arm and the provision of cycle paths and pedestrian footpaths. This development is on the lands for which permission was granted under Planning Reg. Ref. F18/A/0146. Traffic generation arising from this site was derived from the Traffic & Transport Assessment (TTA) dated July 2020 prepared by Atkins consulting. Based upon Table 4-1 'TRICS Trip Rate', Table 4-3 'Total Trips Generation in PCU' and Table 4-4 'HGV Daily Movement' as set out in the TTA the following peak hour traffic generation has been forecast. The following table shows the peak hour traffic generation which has been converted from PCU to Light/Heavy vehicles to be compatible with the calculations provided in this assessment. Some element of construction traffic to this development is already included in the September 2022 traffic surveys.

Peak Hour	Arrive			Depart		
	Light	HGV	Total	Light	HGV	Total
08:00-09:00	53	18	71	27	13	40
16:00-17:00	21	17	38	74	20	94

Section 4.3 of the TTA forecast a distribution where 85% of development traffic is to and from the M50 via. (inbound via. Survey Site No. 4 and outbound via. Survey Site No. 8). The R135 to the north of Kilshane Cross was forecast to accommodate 13% of development traffic with the remaining 2% travelling to/from the east (St. Margaret's) via the development access junction located on L3125.

- FW21A/0144** - TLI Group. Permission has been sought for the installation of two underground cable circuits of approximately 1.2km length (110kV) and

one circuit 1.2km length (38kV) and associated underground ducting, joint bays and associated infrastructure between the existing ESB Finglas substation and Huntstown Power Station. The traffic from the proposed development arises due to construction. The short-term impact is not considered in this assessment.

- FW21A/0151** - Huntstown Power Company Limited, permission for the development of 2 no. data hall buildings and ancillary structures on a site located east of the existing Huntstown Power Station. The development will be accessed from the R135 (North Road) from the east. An emergency/secondary entrance will be provided via the Roadstone Huntstown Quarry and Huntstown Power Station access road to the south-west. Access to the site is via 2 no. vehicular accesses. The primary access will be located on R135 approximately 110m north of the existing Huntstown Quarry Access. The TTA accompanying the application state that the new junction to the north is located such as to facilitate or not impede future potential signalisation of the Huntstown Quarry Access. Traffic generation during the peak hours is derived from TTA Table 13.3 'Operational Traffic – Peak Hour Generation'. The shift pattern set out in the TTA shows that the main traffic generators of the development operate between 08:00-17:00hrs so the development peak does not coincide with the peaks established from the September 2022 data since the development morning peak is prior to 08:00hrs and the development evening peak is after 17:00hrs.

Peak Hour	Arrive			Depart		
	Light	HGV	Total	Light	HGV	Total
08:00-09:00	8	0	8	8	0	8
16:00-17:00	4	0	4	4	0	4

Based upon the TTA the distribution of development traffic is based upon the relative proportions of traffic turning on the existing receiving road network as derived from traffic surveys of same.

5.5.2 The following **Figure 5.5** shows the location of the various developments for which forecast peak hour traffic generations have been derived from their respective planning application submissions. The forecast peak hour traffic arising from these developments is distributed to the existing road network in accordance with the regime set out in their respective traffic assessment reports.

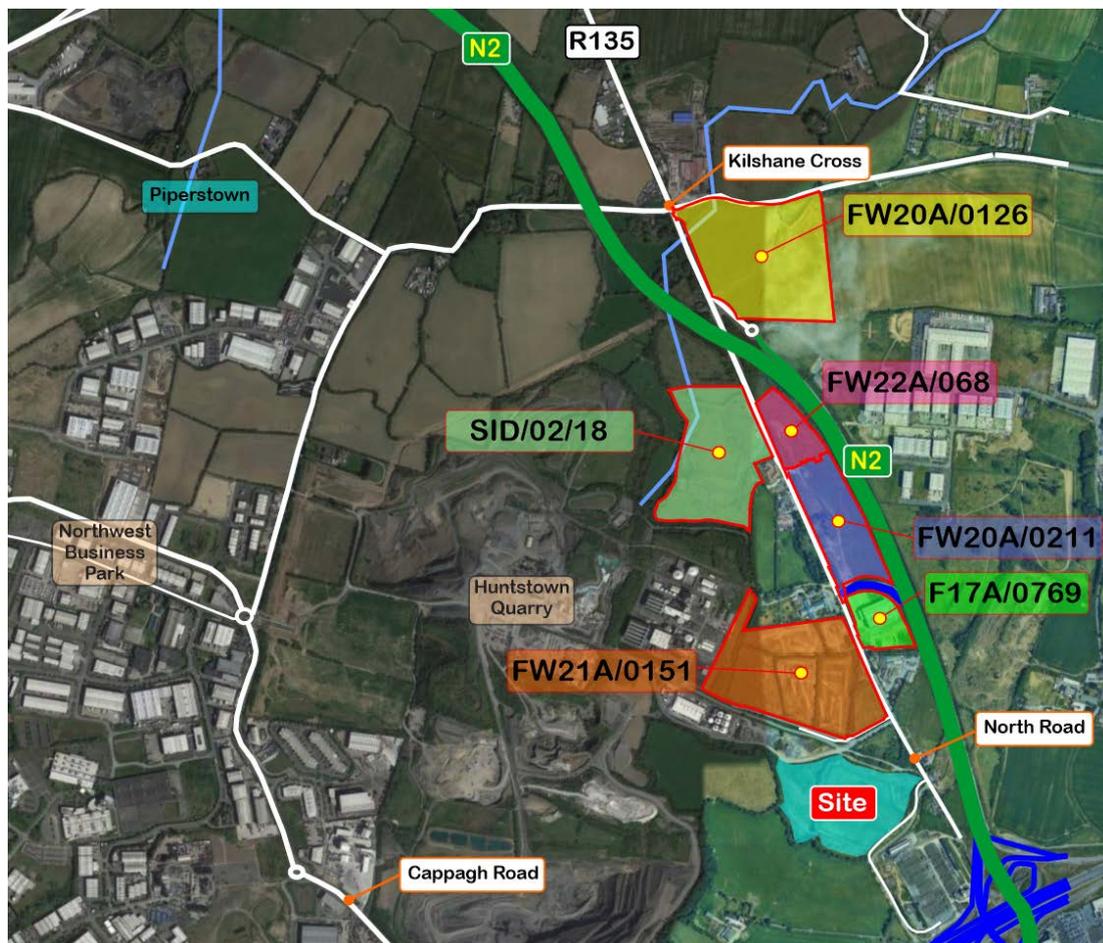


Figure 5.5 Committed Development Sites

5.5.3 The forecast peak hour traffic generation arising from the above committed developments has been applied to the road network in accordance with the distribution scenarios provided in **Appendix B** Figures 6 through 9 where such distribution is proportional to receiving road network turning traffic or where so differs from that regimen the distribution is in accordance with that specified in the corresponding traffic study accompanying that application. The resultant committed development peak hour forecast traffic flows are provided in **Appendix B** as follows:

- **Figure 22** Committed Development Distribution AM Peak
- **Figure 23** Committed Development Distribution PM Peak

5.6 Development Network Traffic

5.6.1 **Section 3** 'Existing Network Traffic Flows' details the surveyed traffic flows on the receiving road network in September 2022. Various figures and tables are provided for weekdays together with the respective peak hours. **Table 5.1** shows the daily assessment traffic generation arising from the proposed development whilst **Table 5.2** shows the traffic generation in the morning and evening peak hours.

5.6.2 It is typical practice and recommended by the Chartered Institution of Highways and Transportation, that additional traffic generated by the proposed development can reasonably be distributed on the adjoining highway in accordance with the proportions of current traffic turning flows recorded during the traffic surveys. An examination of the current traffic characteristics and turning proportions of traffic generated existing local developments at Huntstown shows the likely daily traffic proportions and traffic generation arising at the proposed development is assumed to follow this same general pattern.

5.6.3 The distribution of traffic at the R135 and N2 complex of junctions included in the study scope is assumed to be the same as the distribution of traffic recorded in the September 2022 traffic surveys. Traffic arising from the proposed development has not been distributed to or from other distinct developments save for where construction traffic may be required to access Huntstown Quarry transporting materials to or from the development site. It is acknowledged that the distribution of traffic on a day-to-day basis is demand driven and thus distribution to the network can vary. The methodology used in this assessment is consistent with best practice.

5.6.3.1 Based upon the September 2022 traffic surveys the Network Flow Diagrams of **Appendix B** provide a summary of forecast assessment traffic flow distribution on the receiving road network as follows:

- **Figure 10** Forecast Development Traffic Flows Daily
- **Figure 11** Forecast Development Traffic Flows Daily (Cappagh Link)
- **Figure 12** Forecast Development Traffic Flows AM Peak
- **Figure 13** Forecast Development Traffic Flows PM Peak
- **Figure 14** Forecast Development Traffic Flows AM Peak (Cappagh Link)
- **Figure 15** Forecast Development Traffic Flows PM Peak (Cappagh Link)

5.7 Preliminary Scoping Assessment

5.7.1 The following **Table 5.5** summarises the forecast daily development traffic generation set against the recorded 2022 daily traffic flows expanded to AADT in accordance with TII PE-PAG-02038-01 Unit 16.0 to which the committed development traffic has then been added.

Road Link		Baseline 2022 Network AADT		Development Generated Traffic Flow		Increase %	
		Total	Heavy	Total	Heavy	Total	Heavy
1	North Road (South of ESB)	245	55	0	0	+0.0%	+0.0%
2	North Road (South of Huntstown Quarry)	248	63	74	162	+29%	+258%
3	North Road (North of Huntstown Quarry)	1644	1717	74	162	+4.5%	+9.4%
4	N2 Coldwinters Off-slip	3906	1912	20	54	+0.5%	+2.8%
5	R135 North Road (Between N2 on/Off Slips)	4540	2516	54	108	+1.2%	+4.3%
6	N2 Southbound On-slip Link Road	6463	2238	80	153	+1.2%	+6.8%
7	N2 Southbound On-slip	4610	1914	26	45	+0.6%	+2.3%
8	R135 North Road (South of Kilshane Cross)	6578	2385	28	62	+0.4%	+2.6%
9	L3120	4995	1354	13	28	+0.3%	+2.0%
10	L3125	8437	1828	8	15	+0.1%	+0.8%
11	R135 North Road (North of Kilshane Cross)	4664	1194	7	19	+0.2%	+1.6%
12	Blanchardstown (N2/N3) Link Road	4906	1213	4	12	+0.1%	+1.0%
13	R135 Wards Cross	5123	884	3	7	+0.1%	+0.8%

Table 5.5 Study Area Network Traffic – Daily Traffic AADT (Two-way)

5.7.2 Notwithstanding that the proposed development will not be completed and occupied for some time in the future, the forecast traffic generation set against the recent 2022 network traffic flow data shows that save for the immediate section of R135 North Road (Link 2, highlighted in **Table 5.5**) the proposed development does not have the potential to exceed 5% of daily traffic.

5.7.3 The following **Table 5.6** and **Table 5.7** provide summaries of the forecast peak hour traffic generation set against the recorded 2022 two-way peak hour traffic flows on the receiving road network to which the committed development traffic flows have then been added but no allowance has been made for traffic growth.

Road Link		Baseline 2022 Network Traffic Flow		Development Generated Traffic Flow		Increase %	
		Total	Heavy	Total	Heavy	Total	Heavy
1	North Road (South of ESB)	11	6	0	0	+0.0%	+0.0%
2	North Road (South of Huntstown Quarry)	18	17	7	10	+64%	+142%
3	North Road (North of Huntstown Quarry)	147	176	7	10	+4.9%	+5.9%
4	N2 Coldwinters Off-slip	446	136	3	3	+0.8%	+2.3%
5	R135 North Road (Between N2 on/Off Slips)	454	189	4	7	+0.8%	+3.8%
6	N2 Southbound On-slip Link Road	554	179	4	10	+0.8%	+5.7%
7	N2 Southbound On-slip	328	181	1	3	+0.2%	+1.5%
8	R135 North Road (South of Kilshane Cross)	605	204	3	4	+0.5%	+2.1%
9	L3120	407	109	1	2	+0.2%	+1.5%
10	L3125	1009	162	1	1	+0.1%	+0.7%
11	R135 North Road (North of Kilshane Cross)	422	104	1	2	+0.1%	+1.5%
12	Blanchardstown (N2/N3) Link Road	433	102	0	1	+0.1%	+0.9%
13	R135 Wards Cross	406	68	0	1	+0.1%	+0.9%

Table 5.6 Study Area Network Traffic – Morning Peak Hour (Two-way)

5.7.4 Save for the southern section of R135 North Road either side of Huntstown Quarry site access junction, the forecast development traffic generation set against the recent 2022 network peak hour traffic flow data shows that the proposed development in both the morning peak hour and the evening peak hour does not have the potential to exceed the 10% threshold for the greater receiving road network as set out in the TII Traffic and Transport Assessment Guidelines PE-PDV-02045. Based upon the 2022 figures and the traffic flow assumptions of development generated traffic the proposed development, save for the short section between the development site and Huntstown Quarry access does not have the potential to increase the two-way daily volume of traffic on the adjoining road network by more than 10% which is the typical threshold triggering a

transport assessment. The data in **Table 5.6** and **Table 5.7** confirms that save for the highlighted southern section of R135 North Road, traffic generated by the proposed development does not exceed 5% which is the lower value threshold typically used in the evaluation of traffic impact in congested or sensitive environments.

Road Link		Baseline 2022 Network Traffic Flow		Development Generated Traffic Flow		Increase %	
		Total	Heavy	Total	Heavy	Total	Heavy
1	North Road (South of ESB)	18	3	0	0	+0.0%	+0.0%
2	North Road (South of Huntstown Quarry)	29	20	11	16	+61.1%	+400%
3	North Road (North of Huntstown Quarry)	207	113	11	16	+5.6%	+17%
4	N2 Coldwinters Off-slip	262	147	1	6	+0.3%	+4.3%
5	R135 North Road (Between N2 on/Off Slips)	431	189	10	10	+2.4%	+5.6%
6	N2 Southbound On-slip Link Road	649	176	15	15	+2.4%	+9.2%
7	N2 Southbound On-slip	609	130	5	5	+0.9%	+3.8%
8	R135 North Road (South of Kilshane Cross)	584	151	5	5	+0.8%	+3.6%
9	L3120	534	99	2	3	+0.3%	+3.2%
10	L3125	786	123	2	1	+0.2%	+0.9%
11	R135 North Road (North of Kilshane Cross)	466	79	1	1	+0.3%	+1.4%
12	Blanchardstown (N2/N3) Link Road	507	93	1	1	+0.1%	+0.9%
13	R135 Wards Cross	524	58	1	0	+0.1%	+0.6%

Table 5.7 Study Area Network Traffic – Evening Peak Hour (Two-way)

5.7.5 Based upon the 2022 preliminary scoping evaluation, aside from R135 North Road close to the proposed development which is relatively lightly trafficked there is no other road link considered likely to experience a peak hour traffic increase above the lower threshold value of 5%.

5.7.6 Based upon the surveyed network traffic flows of September 2022 the following **Table 5.8** summarises development generated turning traffic and the total turning movements at Junction 2 ‘N2 Off-slip’ and Junction 4 ‘N2 On-slip’. **Table 5.8** includes the forecast daily development turning traffic set against the estimated 2022 AADT (including committed development traffic) traffic at the N2 junctions.

Junction		Baseline 2022 Turning AADT		Development Generated Traffic Flow		Increase %	
		Total	Heavy	Total	Heavy	Total	Heavy
2	N2 Off-slip (Daily)	9141	3416	236	162	2.6%	4.7%
	N2 Off-slip (AM Peak)	790	259	17	10	2.2%	3.9%
	N2 Off-slip (PM Peak)	600	164	27	16	4.5%	9.8%
4	N2 On-slip (Daily)	13122	3928	162	108	1.2%	2.7%
	N2 On-slip (AM Peak)	1043	291	11	7	1.1%	2.4%
	N2 On-slip (PM Peak)	1056	207	20	10	1.9%	4.8%

Table 5.8 Junctions with National Roads - Initial Assessment of Turning Traffic

5.7.7 The forecast increase in total traffic at the two closest junctions leading to or coming from the national road network is estimated to be in the order 1.2-2.6% of daily traffic flows. In the morning peak hour the forecast increase in junction turning movements is in the order of 1.1-2.2% whilst in the evening peak hour the estimated increase is in the order of 1.9-4.5%.

5.8 NRA Thresholds

5.8.1 In Ireland, a Traffic and Transport Assessment or Traffic Impact Assessment must accompany all planning applications for developments which could potentially generate significant traffic volumes. A Traffic and Transport Assessment should be carried out if the proposed development exceeds the following thresholds:

- Development traffic exceeds 10% of the traffic flow on the adjoining road.
- Development traffic exceeds 5% of the traffic flow on the adjoining road where congestion exists or the location is sensitive.
- Residential development in excess of 200 dwellings.
- Retail and leisure development in excess of 1,000m².
- Office, education and hospital development in excess of 2,500m².
- Industrial development in excess of 5,000m².
- Distribution and warehousing in excess of 10,000m².

5.8.2 Relevant thresholds for Traffic Assessment where the development has the potential to affect national roads are as follows:

- 100 trips in / out combined in the peak hours for the proposed development

- Development traffic exceeds 10% of turning movements at junctions with and on National Roads.
- Development traffic exceeds 5% of turning movements at junctions with National Roads if location has potential to become congested or sensitive.
- Industrial development in excess of 5,000m².
- Distribution and warehousing in excess of 10,000m².
- 100 on-site parking spaces.

5.8.3 Sub-threshold criteria for Traffic Assessment are as follows:

- The character and total number of trips per day is such that as to cause concern.
- Location of the site is not consistent with national guidance or local plan policy or accessibility criteria contained in the Development Plan.
- The development is part of incremental development that will have significant transport implications.
- The development may generate traffic at peak times in a heavily trafficked/ congested area or near a junction with a main traffic route.
- The development may generate heavy vehicles in a residential area.
- There are concerns over the development's potential effects on road safety.
- The development is in a tourist area with potential to cause congestion.
- The planning authority considers that the proposal will result in a material change in trips patterns or raises other significant transport implications.

5.8.4 The following sets out the forecast traffic generation scenario against the various standard threshold criteria.

- The proposed development is forecast to generate 17 combined two-way in / out combined movements in the morning peak hour and 27 movements combined two-way in /out in the evening peak hour which is significantly less than the threshold value of 100 trips in / out. In the case of the masterplan development, by reference to **Table 5.4**, the equivalent two-way traffic generation is 29 movements in the morning and 60 in the evening which is also less than the threshold value.
- The forecast peak hour traffic flows show that it is unlikely that development traffic will exceed 10% of turning movements on the receiving road network.
- Development traffic at junctions with National Roads will not exceed 5% of turning movements. The forecast is in the order of 3% or less in the case of the junction (Junction 2 – N2 Off-slip at Coldwinters) that is forecast to experience the greatest number of development traffic turning movements.
- The proposed development comprises 2x5,032m² Industrial Development. The floor area exceeds the Industrial Development threshold of 5,000m².

- There are less than 100 on-site parking spaces.

5.8.5 The following sets out the forecast traffic generation scenario against the various sub-threshold criteria for Traffic Assessment are as follows:

- The lands are zoned appropriately and the character and total number of trips in / out combined per day is not such that it should not reasonably give cause for concern.
- The location of the site is consistent with national guidance and local plan policy and is consistent with the accessibility criteria in the Development Plan.
- The development is not part of incremental development that will have significant transport implications.
- The development will generate modest, sub-threshold traffic volumes at peak times in a relatively heavily trafficked area and near junctions with a main traffic route. The greatest increases are significantly lower than the threshold values.
- The development will not generate heavy vehicles in a residential area.
- The site is appropriately zoned and the receiving roads have been designed to cater for traffic with the characteristics of the proposed development accordingly it is not considered that serious concerns should arise with respect to the potential effects on road safety.
- The development is not in a tourist area and has no potential to cause congestion.

5.8.6 Given the forecast peak hour traffic generation it can reasonably be concluded that the impact of the proposed development on the capacity and operation of the receiving road network is not likely to be significant. Nevertheless, a number of the threshold criteria set out in the guidelines are either exceeded or are borderline, accordingly the traffic impact of the proposed development warrants further investigation.

6 ASSESSMENT OF TRAFFIC IMPACT

6.1 Overview

6.1.1 The capacity of any road network is dictated by the operation of the links and junctions within that network. Capacity assessments of the key junctions in the vicinity of the site are modelled for base and future year scenarios in order to provide a comparative basis upon which to evaluate the incremental impact of the proposed development and to appraise the overall performance of the road network under future assumed network traffic flow criteria. To prepare a traffic network model various base assumptions are made with respect to the future growth of traffic on the receiving road network.

6.2 Scope of Assessment

6.2.1 Regarding the choice of appropriate assessment years the NRA: Traffic and Transport Assessment Guidelines advise as follows;

“Timescale: Traffic volumes for opening year, opening +5 and opening year +15. These timescales are fairly standard and should be expected”.

6.2.2 The applicant aspires to have the development constructed by the end of 2025. For the purposes of this traffic assessment the year 2025 has therefore been selected as the opening year. In line with the guidance provided in the National Roads Authority ‘Traffic and Transport Assessment Guidelines’, modelling analyses of the capacity of the receiving road network have been carried out for the following:

- Opening Year (Assumed 2025)
- Opening Year +5yrs (2030)
- Opening Year +15yrs (2040).

6.2.3 The following junctions have been included in the scope of the modelling assessments.

- **Site 1:** Huntstown Quarry Access – Priority Access T-junction
- **Site 2:** N2 Off-slip (Dogs Trust) – Priority T-junction
- **Site 3:** Dublin Airport Logistics Park - Roundabout
- **Site 4:** N2 Southbound On-slip – Traffic Signal Control T-junction
- **Site 5:** Kilshane Cross – Traffic Signal Control Crossroad
- **Site 6:** Brock Inn Roundabout
- **Site 7:** ESB Finglas 220kV Substation T-junction (Not counted)

6.2.4 The traffic flow data from the September 2022 surveys forms the basis of the assessments of road network capacity and the assessment of the likely impact of the proposed development on the operation of the receiving road network.

6.3 Traffic Growth Rates

6.3.1 For the purposes of the traffic assessment traffic generation arising directly from the proposed development has been assumed not to grow over time. Background traffic flows on the public road network have been assumed to grow in accordance with the latest growth factors published by Transport Infrastructure Ireland (TII) in October 2021 in Publication PE-PAG-02017 '*Project Appraisal Guidelines for National Roads: Unit 5.3 Travel Demand Projections*'.

6.3.2 Central growth rate factors have been used in the derivation of the future traffic flows from the surveyed 2022 flows. The forecast central growth rate factors for Dublin (excluding Metropolitan Area) assume traffic growth rates of 1.8% per annum for light vehicles and 3.17% for heavy vehicles between 2016 and 2030 and 0.62% per annum for light vehicles and 1.39% for heavy vehicles thereafter and up to 2040. Existing traffic flows are as surveyed and will be used as a base for comparison of the analyses for future year junction performance. The growth indices used to derive Opening Year (2025) and; Opening Year +5ys (2030) and Opening Year +15yrs (2040) flows from the surveyed (2022) flows are as follows.

National Primary Road Medium Growth Rates (Applied to All Roads)

- 2022-2025 (Opening Year)-----1.055 (Cars)-----1.098 (HGV)
- 2022-2030 (Opening Year +5yrs)-----1.153 (Cars)-----1.284 (HGV)
- 2022-2040 (Opening Year +15yrs)----1.227 (Cars)-----1.474 (HGV)

6.3.3 TII growth factors have been applied directly to peak hour traffic data. Growth factors are not always directly applicable to peak hour periods (the peak hour generally spreads out as opposed to intensifying). Ignoring this factor and adding growth directly to the peak hour generally results in robust calculations favoured by traffic experts in the assessment of road networks. The traffic generated by permitted local developments (under construction or not fully unoccupied) have expressly been included in the traffic analysis since they neighbour the proposed development or North Road and are thus considered likely to give rise to direct increases in traffic on the local receiving road network in the short-term (over and above those traffic flows recorded in the September 2022 surveys). The application of TII growth rates to the receiving network is considered likely to account for the

cumulative traffic arising as a result of economic growth and development locally over the specified assessment period. This is likely to give rise to an element of double counting and is thus considered robust.

6.4 Scenarios Analysed

6.4.1 The main corridor upon which the new traffic generated by the development will have an impact is R135 North Road accordingly the scope of future year assessments focuses on their operation and interaction with the junctions along North Road between M50 and The Ward. The assessments aim to show that the receiving road network including the strategic network is suitable to accommodate the forecast traffic arising from the proposed development. The various 'do-nothing' and 'do-something' traffic flow scenarios have been assessed for the Opening Year 2025, Opening Year +5yrs and the Design Year of 2040.

6.4.2 The future year assessments include for scenarios both with and without the proposed development so that the incremental impact of development traffic can be evaluated.

6.4.3 Where threshold values are exceeded at junctions, ordinarily the TRL suite of programs is used to assess network junction performance in the identified peak hours. Where the magnitude of traffic increases is not significant enough to adversely affect the operation of junctions on the road network, no detailed modelling assessment is warranted since the increases in traffic flows are of an order that is unlikely to affect junction performance to the degree that it might be measured meaningfully by junction modelling software.

6.4.4 The 'do something' scenarios include for the forecast assessment value development traffic flows being added to the forecast network flows derived from the 2022 traffic surveys factored as set out above.

6.4.5 The relative traffic generation and distribution flows arising from the proposed development are shown in **Appendix B** as follows:

- **Figure 10** Forecast Development Traffic Flows Daily
- **Figure 11** Forecast Development Traffic Flows Daily (Cappagh Link)
- **Figure 12** Forecast Development Traffic Flows AM Peak
- **Figure 13** Forecast Development Traffic Flows PM Peak
- **Figure 14** Forecast Development Traffic Flows AM Peak (Cappagh Link)
- **Figure 15** Forecast Development Traffic Flows PM Peak (Cappagh Link)

6.4.6 The relative traffic generation and distribution flows arising from the masterplan development are shown in **Appendix B** as follows:

- **Figure 16** Forecast Masterplan Traffic Flows Daily
- **Figure 17** Forecast Masterplan Traffic Flows Daily (Cappagh Link)
- **Figure 18** Forecast Masterplan Traffic Flows AM Peak
- **Figure 19** Forecast Masterplan Traffic Flows PM Peak
- **Figure 20** Forecast Masterplan Traffic Flows AM Peak (Cappagh Link)
- **Figure 21** Forecast D Masterplan Traffic Flows PM Peak (Cappagh Link)

6.4.7 The forecast network turning traffic flows for each of the assessment years and for each of the assessment scenarios are shown in **Appendix B** as follows:

- **Figure 24** 'Baseline 2025 Daily Traffic Flows - Do-Nothing Scenario'
- **Figure 25** 'Baseline 2030 Daily Traffic Flows - Do-Nothing Scenario'
- **Figure 26** 'Baseline 2040 Daily Traffic Flows - Do-Nothing Scenario'
- **Figure 27** 'Forecast 2025 Daily Traffic Flows - Do-Something Scenario'
- **Figure 28** 'Forecast 2030 Daily Traffic Flows - Do-Something Scenario'
- **Figure 29** 'Forecast 2040 Daily Traffic Flows - Do-Something Scenario'
- **Figure 30** 'Baseline 2025 AM Peak Traffic Flows - Do-Nothing Scenario'
- **Figure 31** 'Baseline 2030 AM Peak Traffic Flows - Do-Nothing Scenario'
- **Figure 32** 'Baseline 2040 AM Peak Traffic Flows - Do-Nothing Scenario'
- **Figure 33** 'Forecast 2025 AM Peak Traffic Flows - Do-Something Scenario'
- **Figure 34** 'Forecast 2030 AM Peak Traffic Flows - Do-Something Scenario'
- **Figure 35** 'Forecast 2040 AM Peak Traffic Flows - Do-Something Scenario'
- **Figure 36** 'Baseline 2025 PM Peak Traffic Flows - Do-Nothing Scenario'
- **Figure 37** 'Baseline 2030 PM Peak Traffic Flows - Do-Nothing Scenario'
- **Figure 38** 'Baseline 2040 PM Peak Traffic Flows - Do-Nothing Scenario'
- **Figure 39** 'Forecast 2025 PM Peak Traffic Flows - Do-Something Scenario'
- **Figure 40** 'Forecast 2030 PM Peak Traffic Flows - Do-Something Scenario'
- **Figure 41** 'Forecast 2040 PM Peak Traffic Flows - Do-Something Scenario'

6.4.8 The surveyed, baseline and future traffic flows and forecast incremental increases arising from the proposed development on the link roads between junctions on the road network within the study area are summarised in the following tables:

- **Table 6.1** Link 1 – North Road (South of Development Access Junction)
- **Table 6.2** Link 2 – North Road (South of Huntstown Quarry)
- **Table 6.3** Link 3 – North Road (North of Huntstown Quarry)
- **Table 6.4** Link 4 – N2 Coldwinters Off-slip
- **Table 6.5** Link 5 – R135 North Road (Between N2 Off/On-slips)
- **Table 6.6** Link 6 – N2 Southbound On-slip Link Road

- **Table 6.7** Link 7 – N2 Southbound On-slip
- **Table 6.8** Link 8 – R135 North Road (South of Kilshane Cross)
- **Table 6.9** Link 9 – L3120
- **Table 6.10** Link 10 – L3125
- **Table 6.11** Link 11 - R135 North Road (North of Kilshane Cross)
- **Table 6.12** Link 12 – Blanchardstown Link Road
- **Table 6.13** Link 13 – R135 Wards Cross

6.4.9 The TII Traffic and Transportation Assessment Guidelines 2014, Table 2.1 ‘Traffic Management Guidelines Thresholds for Transport Assessments’ sets out the general threshold value of 10% to determine whether the preparation of a TTA is required to assess how development traffic might affect network junction performance and operation. In congested or sensitive networks the threshold is typically lowered to 5%. The threshold values are a generally prompt for whether or not detailed junction modelling is required as part of a TTA. The threshold values are typically used as a reference to determine the significance of effects. It is standard practice in TTA to reference the scale of percentage increases in traffic flows when assessing the forecast long-term operational impact of proposed developments. As a measure of the potential magnitude of impact or effect on the receiving road network the following assessment has regard to the percentage threshold values set out in the TII guidelines. The breakdown of the magnitude of impacts is based upon the above evaluation criteria referenced to the percentage impacts of the additional traffic flows imposed on the receiving road network.

Magnitude of Impact	Definition
High	Scale of additional traffic exceeds 25% of do-nothing traffic flow on the receiving road network
Medium	Scale of additional traffic is between 10% and 25% of do-nothing traffic flow on the receiving road network
Low	Scale of additional traffic is between 5% and 10% of do-nothing traffic flow on the receiving road network
Negligible	Scale of additional traffic is less exceeds 2%-5% of do-nothing traffic flow on the receiving road network

Traffic Impact - Evaluation Criteria

6.4.10 The link and junction labelling convention is clearly set out in the network flow diagrams of **Appendix B** and in **Figure 3.2**. The magnitude of the effect of development traffic on the receiving road is highlighted in the follow tables as per the above evaluation criteria.

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
North Road Cul-de-sac South of Development Access Road (ESB) (Site 1 ⁵ – Link 1 ⁶) Do Nothing Scenario	2025	12	7	18	19	3	22	319 (19.0%)
	2030	13	8	20	21	4	25	353 (20.1%)
	2040	13	9	22	22	4	27	382 (21.4%)
North Road Cul-de-sac South of Development Access Road (ESB) (Site 1 – Link 1) Do Something Scenario	2025	12	7	18	19	3	22	319 (19.0%)
	2030	13	8	20	21	4	25	353 (20.1%)
	2040	13	9	22	22	4	27	382 (21.4%)
North Road Cul-de-sac South of Development Access Road (ESB) (Site 1 – Link 1) Incremental Increase	2025	+0.0%	+0.0%	+0.0%	+0.0%	+0.0%	+0.0%	+0 (0.0%)
	2030	+0.0%	+0.0%	+0.0%	+0.0%	+0.0%	+0.0%	+0 (0.0%)
	2040	+0.0%	+0.0%	+0.0%	+0.0%	+0.0%	+0.0%	+0 (0.0%)

Table 6.1 Link 1 – North Road (South of Dev. Access Junction) - Forecast Traffic Impact

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
North Road South of Huntstown Quarry Access (Site 1 – Link 2) Do Nothing Scenario	2025	12	8	19	19	4	23	331 (20.9%)
	2030	13	9	22	21	5	26	336 (22.0%)
	2040	13	10	24	22	6	28	397 (23.3%)
North Road South of Huntstown Quarry Access (Site 1 – Link 2) Do Something Scenario	2025	19	18	36	30	20	50	567 (40.8%)
	2030	20	19	39	32	21	53	602 (40.3%)
	2040	20	20	41	33	22	55	633 (40.2%)
North Road South of Huntstown Quarry Access (Site 1 – Link 2) Incremental Increase	2025	+60.3%	+130%	+88.1%	+57.9%	+364%	+115%	+71.4% (+19.9%)
	2030	+55.2%	+111%	+78.4%	+53.0%	+311%	+104%	+64.4% (+18.3%)
	2040	+51.9%	+96.9%	+71.4%	+49.8%	+271%	+96.5%	+59.5% (+16.9%)

Table 6.2 Link 2 – North Road (South of Huntstown Quarry)

⁵ Traffic Data Collection Site used in Analysis see Network Flow Diagrams of Appendix B for Index of Site Numbering

⁶ see Network Flow Diagrams of Appendix B for Index of Road Links

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
North Road North of Huntstown Quarry Access (Site 1 – Link 3) Do Nothing Scenario	2025	145	181	326	205	106	310	3583 (52.3%)
	2030	154	211	365	220	122	342	3997 (54.4%)
	2040	161	240	401	231	138	370	4390 (56.5%)
North Road North of Huntstown Quarry Access (Site 1 – Link 3) Do Something Scenario	2025	152	191	343	216	122	337	3819 (53.3%)
	2030	161	221	382	231	138	369	4233 (55.2%)
	2040	168	250	418	242	154	397	4626 (57.2%)
North Road North of Huntstown Quarry Access (Site 1 – Link 3) Incremental Increase	2025	+4.8%	+5.5%	+5.2%	+5.4%	+15.2%	+8.7%	+6.6% (+1.0%)
	2030	+4.5%	+4.7%	+4.7%	+5.0%	+13.1%	+7.9%	+5.9% (+0.8%)
	2040	+4.4%	+4.2%	+4.2%	+4.8%	+11.6%	+7.3%	+5.4% (+0.6%)

Table 6.3 Link 3 – North Road (North of Huntstown Quarry)

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
N2 Coldwinters Off-slip Baseline (Site 2 – Link 4) Do Nothing Scenario	2025	463	143	605	273	153	427	6157 (33.7%)
	2030	498	161	658	295	177	472	6780 (35.1%)
	2040	524	179	703	312	201	512	7331 (36.7%)
N2 Coldwinters Off-slip Baseline (Site 2 – Link 4) Do Something Scenario	2025	466	146	612	274	159	433	6232 (34.1%)
	2030	501	164	665	296	183	479	6854 (35.5%)
	2040	528	182	710	313	207	519	7406 (37.0%)
N2 Coldwinters Off-slip Baseline (Site 2 – Link 4) Incremental Increase	2025	+0.7%	+2.1%	+1.1%	+0.3%	+3.9%	+1.6%	+1.2% (+0.5%)
	2030	+0.7%	+1.9%	+1.0%	+0.3%	+3.4%	+1.5%	+1.1% (+0.4%)
	2040	+0.7%	+1.7%	+0.9%	+0.3%	+3.0%	+1.3%	+1.0% (+0.4%)

Table 6.4 Link 4 – N2 Coldwinters Off-slip

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
R135 Between N2 Off/On Slips Baseline (Site 4 – Link 5)	2025	471	196	667	442	194	636	7486 (36.5%)
	2030	508	224	732	478	222	701	8278 (37.9%)
	2040	537	252	788	506	252	758	8983 (39.5%)
R135 Between N2 Off/On Slips Baseline (Site 4 – Link 5)	2025	475	203	678	452	204	656	7648 (37.1%)
	2030	512	231	743	488	232	721	8439 (38.4%)
	2040	540	259	799	516	262	778	9145 (40.0%)
R135 Between N2 Off/On Slips Baseline (Site 4 – Link 5)	2025	+0.8%	+3.5%	+1.6%	+2.3%	+5.2%	+3.2%	+2.2% (+0.6%)
	2030	+0.7%	+3.1%	+1.4%	+2.1%	+4.5%	+2.9%	+2.0% (+0.6%)
	2040	+0.7%	+2.8%	+1.3%	+2.0%	+4.0%	+2.7%	+1.8% (+0.5%)

Table 6.5 Link 5 – R135 North Road (Between N2 Off/On-slips)

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
N2 Southbound On-slip Link Road Baseline (Site 4 – Link 6)	2025	578	183	762	664	173	837	9208 (26.4%)
	2030	629	210	840	717	197	914	10132 (27.5%)
	2040	667	238	906	757	220	978	10926 (28.8%)
N2 Southbound On-slip Link Road Baseline (Site 4 – Link 6)	2025	583	193	776	679	188	867	9441 (27.3%)
	2030	633	220	853	733	211	944	10365 (28.3%)
	2040	672	248	919	773	235	1008	11159 (29.6%)
N2 Southbound On-slip Link Road Baseline (Site 4 – Link 6)	2025	+0.7%	+5.3%	+1.8%	+2.3%	+8.5%	+3.6%	+2.5% (+1.0%)
	2030	+0.7%	+4.6%	+1.7%	+2.2%	+7.5%	+3.3%	+2.3% (+0.9%)
	2040	+0.6%	+4.1%	+1.5%	+3.0%	+6.7%	+3.1%	+2.1% (+0.8%)

Table 6.6 Link 6 – N2 Southbound On-slip Link Road

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
N2 Southbound On-slip Baseline (Site 3 – Link 7)	2025	343	193	536	632	134	766	6897 (30.0%)
	2030	372	222	594	682	150	833	7581 (31.2%)
	2040	394	252	646	720	167	888	8177 (32.7%)
N2 Southbound On-slip Baseline (Site 3 – Link 7)	2025	344	196	540	638	139	776	6968 (30.4%)
	2030	373	225	598	688	155	843	7651 (31.5%)
	2040	394	255	649	726	172	898	8247 (32.9%)
N2 Southbound On-slip Baseline (Site 3 – Link 7)	2025	+0.2%	+1.4%	+0.6%	+0.8%	+3.6%	+1.3%	+1.0% (+0.3%)
	2030	+0.2%	+1.2%	+0.6%	+0.8%	+3.2%	+1.2%	+0.9% (+0.3%)
	2040	+0.2%	+1.1%	+0.5%	+0.7%	+2.9%	+1.1%	+0.9% (+0.3%)

Table 6.7 Link 7 – N2 Southbound On-slip

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
R135 South of Kilshane Cross Baseline (Site 5 – Link 8)	2025	631	217	847	609	159	768	9504 (27.3%)
	2030	682	248	930	663	184	847	10492 (28.6%)
	2040	721	280	1002	703	210	913	11344 (30.0%)
R135 South of Kilshane Cross Baseline (Site 5 – Link 8)	2025	634	221	855	614	164	778	9594 (27.7%)
	2030	685	252	938	667	189	857	10582 (28.9%)
	2040	724	284	1009	708	215	923	11435 (30.3%)
R135 South of Kilshane Cross Baseline (Site 5 – Link 8)	2025	+0.5%	+2.0%	+0.8%	+0.8%	+3.3%	+1.3%	+0.9% (+0.4%)
	2030	+0.4%	+1.7%	+0.8%	+0.7%	+2.8%	+1.2%	+0.9% (+0.3%)
	2040	+0.4%	+1.5%	+0.7%	+0.7%	+2.5%	+1.1%	+0.8% (+0.3%)

Table 6.8 Link 8 – R135 North Road (South of Kilshane Cross) - Forecast Traffic Impact

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
L3120 Kilshane Cross Baseline (Site 5 – Link 9) Do Nothing Scenario	2025	428	117	545	561	105	666	6748 (22.0%)
	2030	467	136	604	612	122	734	7473 (23.1%)
	2040	497	156	653	651	139	790	8086 (24.4%)
L3120 Kilshane Cross Baseline (Site 5 – Link 9) Do Something Scenario	2025	429	119	548	563	108	671	6788 (22.2%)
	2030	468	138	606	614	125	739	7514 (23.3%)
	2040	498	157	655	653	142	795	8126 (24.6%)
L3120 Kilshane Cross Baseline (Site 5 – Link 9) Incremental Increase	2025	+0.2%	+1.4%	+0.5%	+0.3%	+2.9%	+0.7%	+0.6% (+0.3%)
	2030	+0.2%	+1.2%	+0.4%	+0.3%	+2.5%	+0.7%	+0.5% (+0.2%)
	2040	+0.2%	+1.0%	+0.4%	+0.3%	+2.2%	+0.6%	+0.5% (+0.2%)

Table 6.9 Link 9 – L3120 – Forecast Traffic Impact

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
L3125 Kilshane Cross Baseline (Site 5 – Link 10) Do Nothing Scenario	2025	1059	174	1233	825	132	957	10843 (18.3%)
	2030	1150	1998	1348	897	151	1048	11893 (19.1%)
	2040	1219	223	1442	951	170	1122	12762 (20.1%)
L3125 Kilshane Cross Baseline (Site 5 – Link 10) Do Something Scenario	2025	1061	175	1235	826	133	959	10867 (18.4%)
	2030	1152	199	1351	898	152	1050	11916 (19.2%)
	2040	1221	224	1444	953	171	1124	12785 (20.2%)
L3125 Kilshane Cross Baseline (Site 5 – Link 10) Incremental Increase	2025	+0.1%	+0.7%	+0.2%	+0.2%	+0.8%	+0.3%	+0.2% (+0.1%)
	2030	+0.1%	+0.6%	+0.2%	+0.2%	+0.7%	+0.2%	+0.2% (+0.1%)
	2040	+0.2%	+0.6%	+0.2%	+0.2%	+0.1%	+0.4%	+0.2% (+0.1%)

Table 6.10 Link 10 – L3125- Forecast Traffic Impact

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
R135 North of Kilshane Cross Baseline (Site 5 – Link 11) Do Nothing Scenario	2025	443	111	554	489	85	574	6208 (21.0%)
	2030	481	129	610	533	98	631	6844 (22.0%)
	2040	510	147	657	565	111	677	7379 (23.3%)
R135 North of Kilshane Cross Baseline (Site 5 – Link 11) Do Something Scenario	2025	443	113	556	491	86	577	6234 (21.2%)
	2030	482	130	612	534	99	633	6870 (22.2%)
	2040	511	148	659	567	112	679	7406 (23.5%)
R135 North of Kilshane Cross Baseline (Site 5 – Link 11) Incremental Increase	2025	+0.1%	+1.3%	+0.4%	+0.3%	+1.3%	+0.4%	+0.4% (+0.2%)
	2030	+0.1%	+1.2%	+0.3%	+0.3%	+1.1%	+0.4%	+0.4% (+0.2%)
	2040	+0.1%	+1.0%	+0.3%	+0.2%	+1.0%	+0.4%	+0.4% (+0.2%)

Table 6.11 Link 11 - R135 North Road (North of Kilshane Cross) - Forecast Traffic Impact

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
N2 Link Road (Site 6 – Link 12) Do Nothing Scenario	2025	456	110	566	533	101	634	6494 (20.4%)
	2030	497	128	625	582	117	699	7176 (21.5%)
	2040	528	146	674	618	134	752	7748 (22.7%)
N2 Link Road (Site 6 – Link 12) Do Something Scenario	2025	456	111	568	534	101	635	6510 (20.6%)
	2030	497	129	626	582	118	700	7191 (21.6%)
	2040	528	147	675	619	135	753	7764 (22.9%)
N2 Link Road (Site 6 – Link 12) Incremental Increase	2025	+0.1%	+0.8%	+0.2%	+0.1%	+0.8%	+0.2%	+0.2% (+0.1%)
	2030	+0.1%	+0.7%	+0.2%	+0.1%	+0.7%	+0.2%	+0.2% (+0.1%)
	2040	+0.1%	+0.6%	+0.2%	+0.1%	+0.6%	+0.2%	+0.2% (+0.1%)

Table 6.12 Link 12 – Blanchardstown Link Road - Forecast Traffic Impact

Road Link (Survey Site)	Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
		LV	HGV	Total	LV	HGV	Total	
R135 Wards Cross (Site 6 – Link 13) Do Nothing Scenario	2025	428	73	501	551	63	614	6365 (15.2%)
	2030	466	85	552	601	73	675	7013 (16.0%)
	2040	495	98	593	639	84	723	7544 (17.1%)
R135 Wards Cross (Site 6 – Link 13) Do Something Scenario	2025	428	74	502	552	64	616	6376 (15.3%)
	2030	466	86	552	602	74	676	7024 (16.1%)
	2040	495	98	594	640	84	724	7555 (17.1%)
R135 Wards Cross (Site 6 – Link 13) Incremental Increase	2025	+0.1%	+0.8%	+0.2%	+0.1%	+0.5%	+0.2%	+0.2% (+0.1%)
	2030	+0.1%	+0.7%	+0.2%	+0.1%	+0.4%	+0.2%	+0.2% (+0.1%)
	2040	+0.1%	+0.6%	+0.1%	+0.1%	+0.4%	+0.2%	+0.1% (+0.1%)

Table 6.13 Link 13 – R135 Wards Cross - Forecast Traffic Impact

6.4.11 The detailed assessment of baseline and forecast future network traffic flows confirms the results of the preliminary scoping assessment of [Section 5.7](#) as summarised in [Table 5.5](#), [Table 5.6](#) and [Table 5.7](#). The incremental increase in traffic arising from the proposed development in the peak hours is sub-threshold and less than 5% for all but for Link 2 which is the section of North Road between the development access road and the access serving Huntstown Quarry. For ease of reference the magnitude of traffic effects expressed as incremental values over baseline are highlighted in the tables using the evaluation criteria set out at [paragraph 6.4.9](#). In the case of Link 2 the incremental increases exceeds 10% in all cases. The relative order of magnitude on Link 2 results from the current low traffic flows on this link road. It is worth noting that in 2012, the N2 North Road was reclassified upon opening of the M2 motorway and this resulted in changes to traffic patterns and volumes in the area. The section of North Road between the Coldwinters N2 Off-slip and the M50 effectively became a cul-de-sac and traffic flows on Link 2 reduced to an AADT in the order of 300(20%). TII historic traffic counter data shows that Link 2 had an AADT in the order of 29,161(9.8%)⁷. Under the provisions of the Fingal Development Plan 2023-2029 this link is due to again become a through route connecting North Road through zoned lands and connecting to the existing Cappogue Roundabout on the Cappagh Road.

⁷ Equates to daily two-way flow of 26,303 Light Vehicles and 2,858 HGV

6.4.12 Excluding Link 2 North Road (south of Huntstown Quarry Access) the average increase in traffic flows on the surrounding road network in the morning and evening peak hours are summarised as follows:

Year	AM Peak Hour 08:00-09:00hrs			PM Peak Hour 16:00-17:00hrs			AADT
	LV	HGV	Total	LV	HGV	Total	
2025	+0.7%	+2.1%	+1.0%	1.1%	3.8%	+1.8%	+1.3%
2030	+0.6%	+1.8%	+0.9%	1.0%	3.3%	+1.6%	+1.2%
2040	+0.6%	+1.6%	+0.9%	1.0%	3.0%	+1.5%	+1.1%

Table 6.14 Average Percentage Impact on Network⁸ – Do-Something Scenario

6.4.13 Excluding Link 2 – North Road (south) the average increase in the total traffic flow across the receiving road network in the morning peak hour is less than +1.0% whilst the increase in light vehicle traffic is less than +0.7% and for HGV the increase is forecast to be less than +2.1%. In the evening peak hour the forecast increase in total traffic flow is less than +1.8% whilst the increase in light vehicle traffic is less than +1.1% and for HGV the increase is forecast to be less than +3.8%. The forecast increase in AADT is less than +1.3%.

6.4.14 The only link in the road network to experience potential increases in traffic flow above the +10% threshold is Link 2 which is the section of North Road located to the south of the existing Huntstown Quarry site access. Link 2 is forecast to experience an increase in AADT in the order of +70%. The forecast increase in the total traffic flow on Link 2 in the morning peak hour is approximately +88% whilst the increase in light vehicle traffic approximately +60% and for HGV the increase is forecast to be approximately +130%. In the evening peak hour the forecast increase in total traffic flow is approximately +115% whilst the increase in light vehicle traffic is approximately +58% and for HGV the increase is forecast to be in the order of +364%. As set out above these percentages are set against a very low baseline flow on the existing cul-de-sac.

6.4.15 Save for the southern section of North Road at Link 2 the forecast increases in traffic on the receiving road network are significantly sub-threshold with all increases in traffic categorised as low or negligible based upon the evaluation criteria set out herein.

⁸ Summary Data Excludes Link 2 – North Road (Southern Section)

- 6.4.16 With the exception of Link 2, the forecast increases in traffic flows are significantly less than half the lower +5% threshold value used for sensitive areas or where peak hour congestion exists. It follows that the impact of development generated traffic on the receiving road network will not have a significant impact upon capacity and operation of the links and junctions through which it is forecast to travel. Ordinarily increases in traffic of the order forecast do not warrant detailed computer modelling as the changes between the 'Do-Nothing' and 'Do-Something' Scenarios is such that it is highly unlikely that a capacity model will show an appreciable differential between the scenarios. Save for Link 12 the impact of the traffic generated by the proposed development is likely to be imperceptible to existing road users on the greater receiving road network.
- 6.4.17 In the case of Link 2 where the percentage increases in traffic flow are shown to exceed the threshold percentage values. Inspection of the numerical values in **Table 6.2** shows that the increases are not significant especially in the context of the Fingal Development Plan 2023-2029 which seeks to make Link 2 a through route connecting North Road to Cappagh Road in the west.
- 6.4.18 The baseline morning peak hour traffic flow on Link 2 at the year of opening 2025 is 20 no. vehicles of which 12 no. are light vehicles and 8 no. are HGV. The forecast average increase in the total traffic flow in the morning peak hour is +17 no. vehicles where the forecast increase in light vehicles is approximately +7 no. and the increase in HGV is +10 no.
- 6.4.19 The baseline evening peak hour traffic flow on Link 2 at the year of opening 2025 is 23 no. vehicles of which 19 no. are light vehicles and 4 no. are HGV. The forecast average increase in the total traffic flow in the evening peak hour is +27 no. vehicles where the forecast increase in light vehicles is approximately +11 no. and the increase in HGV is +16 no.
- 6.4.20 Based upon the forecast network traffic flows the following **Table 6.15** summarises development generated turning traffic and the total turning movements at Junction 2 'N2 Off-slip' and Junction 4 'N2 On-slip' for the year of opening whilst **Table 6.16** and **Table 6.17** show the corresponding data for 2035 and 2040. Each of the tables includes for the forecast daily development turning traffic set against the forecast future AADT (including committed development traffic) traffic at the N2 junctions.

Junction		AADT 2025		Dev. Traffic		Increase %	
		Total	Heavy	Total	Heavy	Total	Heavy
2	N2 Off-slip (Daily)	9572	3717	236	162	+2.5%	+4.4%
	N2 Off-slip (AM Peak)	833	284	17	10	+2.0%	+3.5%
	N2 Off-slip (PM Peak)	633	180	27	16	+4.3%	+8.9%
4	N2 On-slip (Daily)	13757	4266	162	108	+1.2%	+2.5%
	N2 On-slip (AM Peak)	1100	320	11	7	+1.0%	+2.2%
	N2 On-slip (PM Peak)	1114	227	20	10	+1.8%	+4.4%

Table 6.15 Junctions with National Roads - Assessment of 2025 Turning Traffic

Junction		AADT 2035		Dev. Traffic		Increase %	
		Total	Heavy	Total	Heavy	Total	Heavy
2	N2 Off-slip (Daily)	10341	4289	236	162	+2.3%	+3.8%
	N2 Off-slip (AM Peak)	911	333	17	10	+1.9%	+3.0%
	N2 Off-slip (PM Peak)	692	211	27	16	+3.9%	+7.6%
4	N2 On-slip (Daily)	14890	4908	162	108	+1.1%	+2.2%
	N2 On-slip (AM Peak)	1203	374	11	7	+0.9%	+1.9%
	N2 On-slip (PM Peak)	1218	266	20	10	+1.6%	+3.8%

Table 6.16 Junctions with National Roads - Assessment of 2035 Turning Traffic

Junction		AADT 2040		Dev. Traffic		Increase %	
		Total	Heavy	Total	Heavy	Total	Heavy
2	N2 Off-slip (Daily)	10921	4873	236	162	+2.2%	+3.3%
	N2 Off-slip (AM Peak)	969	382	17	10	+1.8%	+2.6%
	N2 Off-slip (PM Peak)	736	242	27	16	+3.7%	+6.6%
4	N2 On-slip (Daily)	15746	5563	162	108	+1.0%	+1.9%
	N2 On-slip (AM Peak)	1280	429	11	7	+0.9%	+1.6%
	N2 On-slip (PM Peak)	1296	305	20	10	+1.5%	+3.3%

Table 6.17 Junctions with National Roads - Assessment of 2040 Turning Traffic

- 6.4.21 The forecast increase in total traffic at the two closest junctions leading to or coming from the national road network in the year of opening is estimated to be in the order 1.2-2.5% of daily traffic flows. In the morning peak hour the forecast increase in junction turning movements is in the order of 1.0-2.0% whilst in the evening peak hour the estimated increase is in the order of 1.8-4.3%.
- 6.4.22 Based on the analysis and findings of the traffic impact assessment, it can be concluded that the impact on the receiving road network is below the 5% threshold and is sub-threshold. Therefore, it is anticipated that the proposed development would not have a significant adverse impact on the traffic flow or the road network, and the existing infrastructure would be able to accommodate the additional traffic generated by the development.
- 6.4.23 The impact arising from the realisation of the masterplan development might reasonably be estimated as double that of the proposed Phase 1 development. Given that the Huntstown Circular Economy Hub is intended to be populated by independent developments where the produce of one facility is expected to be the input to neighbouring facilities in the Hub it is likely that the overall traffic impact will be less than the simple doubling scenario set out in the traffic flow diagrams of **Appendix B**. Given the magnitude of impact arising from the proposed development of Phase 1 it is not though necessary to provide a separate analysis for the masterplan.
- 6.4.24 Objectives of the Fingal Development Plan 2011-2017 that have been realised in recent times and that benefit the Huntstown area include the N2-N3 Link Road which comprises high quality road sections from Tyrrelstown to Cherryhound and from Castaheany to Damastown. The link between Tyrrelstown and the Cherryhound Interchange began construction in September 2011 and was opened in May 2013 and significantly altered the areawide travel demand characteristic of the road network in and around Ballycoolin and Huntstown. The N2-N3 provides a primary link between the M2 and M3 motorways and also an alternative route to and from the airport. It has provided important infrastructure to serve the Dublin Enterprise Zone which expressly encourages employment, with zones for science & technology developments, warehousing, light industrial and office accommodation.
- 6.4.25 Fingal Development Plan 2023-2029 shows a future objective to connect Cappagh Road at Cappogue to Huntstown R135 North Road. This future road will function as a local distributor road and will serve to provide access to lands zoned GE to the south of Huntstown Quarry. The future road scheme is identified with an orange

dotted line in **Figure 2.2** which is an excerpt from Fingal County Development Plan 2023-2029, Map Blanchardstown North, Sheet No.12.

- 6.4.26 Fingal County Council has future proposals to provide a western link from the Broghan Roundabout on the R135 (old N2) to Dublin Airport. This East West Link Road scheme is set as development Objective EA04 in the Dublin Airport Local Area Plan 2020. It is envisaged that existing traffic flows at the signal controlled Kilshane Cross on the R135 (North Road) will significantly reduce pending the construction of the airport link road scheme (principally due to re-distribution of traffic flow).
- 6.4.27 **Figure 6.1** is based upon the location plans provided in this report showing the various junction traffic counts overlain by an excerpt from Dublin Airport Local Area Plan 2020, Figure 8.1 'Dublin Airport Surface Access'. **Figure 6.1** shows the western access to the airport highlighted magenta and shows the future link from North Road to Cappagh Road highlighted cyan.
- 6.4.28 Recent improvements and upgrade of the Kilshane Crossroad junction were implemented as part of development carried out under Planning Reg. Ref. F18A/0146 (Killeen Properties). Improvements include the provision of an additional lane on the eastern arm of the signal-controlled junction together with a left filter lane to North Road (south) and improvement in the provision for pedestrians and cyclists on the approaches to the junction and in the traffic signal operation.
- 6.4.29 It is understood that the junction of the N2 off-slip at Coldwinters with North Road is required to be upgraded to signal operation. In the grant of permission determined under Planning Reg. Ref. FW21A/0151 (Huntstown Power) Condition No.22 of the grant of permission for the development requires a special contribution in respect of upgrading the junction of R135 North Road with the northbound slip road from the N2 at Coldwinters. From a review of that planning file it is understood that Fingal County Council has assessed the operation of the Huntstown Quarry access on North Road and has considered the possible future control of this junction be signals. It is understood that the objective of the change from priority control is in the interest of improved safety and controlling or reinforcing the priority of the major road over the access road.

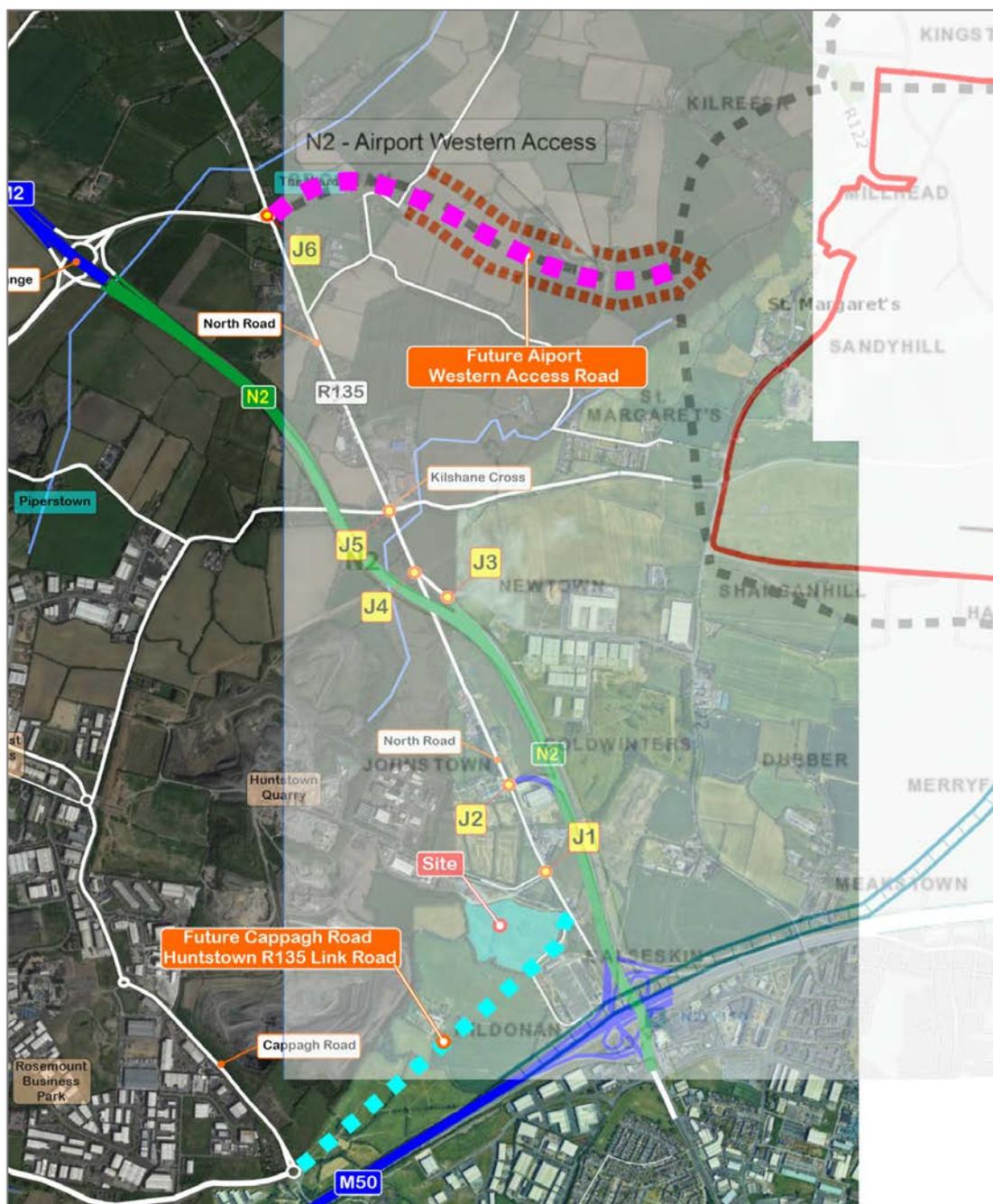


Figure 6.1 Future Network Connections

6.4.30 The network flow diagrams of **Appendix B** show that the development of the North Road link to Cappagh Road will provide the opportunity for development generated traffic to redistribute. The various percentage diversions to the west of the development site are shown and the assumptions are set out in **Section 5.3 'Traffic Distribution'**. There is no area-wide mode associated with the addition of either the Dublin Airport Local Area Plan 2020 objective or the objective of the Fingal Development Plan 2023-2029 but it is clear that the addition of these links will afford the opportunity for development traffic to reduce on the R135 North Road. Since the impact of development traffic on the existing receiving road network is low or negligible it stands to reason, without the need for complex area-wide modelling to conclude that that the same would be true of development

impact once the new infrastructure has been realised. The assessment calculations show that development traffic will not adversely impact the operation of the N2 Off-slip junction with North Road at Coldwinters and so development traffic is not likely to impact negatively or impeded in any way the upgrade of the junction to signal control. Similarly, the proposed development does not preclude the potential to convert the Huntstown Quarry access to signal control. Development traffic and the connection to the Cappagh Road will effect a balance of flows on the arms of the Huntstown Quarry access junction.

7 CONSTRUCTION RELATED TRAFFIC

7.1 General

7.1.1 As part of the Safety Health & Welfare assessment of the construction stage of the project, the Applicant/Developer, and the appointed contractor will develop a site-specific construction traffic management plan. Details of the signing layout regimen will be provided in the Construction Traffic Management Plan which is to be agreed with the Planning Authority prior to work commencing on the site. A condition of planning is respectfully invited with regard to the preparation of the detailed Construction Traffic Management Plan.

7.2 Construction Management Plan

7.2.1 Construction Management Plans are typically prepared for developments generating significant⁹ construction activity. The management plan should contain measures to mitigate the effects of construction addressing issues such as traffic management, hours of working, delivery times and methods of prevention of noise and dust, reinstatement of damaged roadways, footways and grass verges, and the accommodation of construction and staff parking within the development during the construction period.

7.2.2 The construction works associated with the proposed development will involve normal construction activities such as excavation, filling, lifting, pumping, pipe laying, concrete works, mechanical installation etc.

7.2.3 A detailed Construction Management Plan will be drawn up prior to the commencement of construction activities (typically prepared together with programme of works upon appointment of contractor), in order to minimize the impacts to the environment during construction.

7.2.4 The Construction Management Plan will detail the allowable working day, construction traffic, parking arrangements and will incorporate environmental protection measures. Provisions to reduce the environmental impact of the construction activities will include the following:

⁹ Defined as the construction of three or more dwellings

- Requiring contractors to ensure that no pollution or obstruction of ground water and watercourses is caused by their operations.
- Requiring contractors to comply at a minimum with the provisions of BS 5228 (Noise Control on Construction and Demolition Sites) or other noise control measures prescribed by the Planning Authority.
- Where necessary, require contractors to erect suitable noise barriers to minimize disturbance and avoid nuisance when operating machines at night (between 1900 hours and 0800 hours).
- Limiting vibration caused by construction plant to the maximum permitted values in BS6472 (Guide to evaluation of human exposure to vibration in buildings (1Hz to 80Hz) or other control measures prescribed by the Planning Authority.
- Requiring contractors to take reasonable precautions to ensure that all wastewater discharged shall not be harmful to or cause obstruction or deposit in drains and to prevent oil, grease or other objectionable matter being discharged into drains.
- Requiring contractors, during the execution of works, to keep all plant and materials and all equipment connected with the construction of the works in good order and clean and tidy.
- Requiring contractors to remove any waste materials from the site to a licensed waste facility.
- Requiring contractors to ensure that the public roads in the vicinity of the site are maintained free from all mud, dirt and rubbish, which may arise from or by reason of the execution of the works. To facilitate this, the Contractor could be required to provide a wheel washing facility to an approved standard within the construction site.
- Prohibiting the disposal of excess concrete on any part of the construction site.
- Requiring the contractor to provide a designated bin for washing down the chutes of concrete lorries on site.
- Requiring the contractors to keep the construction compounds free and clear of excess dirt, rubbish piles and scrap wood etc. at all times. Requiring the contractors to keep the designated parking area and other common areas clear and free of rubbish and debris.
- Requiring contractors to be responsible for the disposal of all wood, food, food packaging and paper generated during the construction phase and requiring them to furnish containers and vehicles to collect and haul these items and dispose of them to a licensed waste facility. Dumping of these items within the construction site will be prohibited.

- Requiring scrap materials, rubbish, etc. to be hauled out of the work areas (daily) and disposed of by the Contractor on a daily basis to a licensed waste disposal facility.
- Requiring the contractor to obtain any necessary permits from the Local Authority or Environmental Protection Agency for the disposal of waste.
- At the completion of the work, require contractors to leave the construction area in a neat, clean and orderly condition.
- Requiring individual contractors to provide sanitary facilities that would be adequate for their construction personnel. Sanitary facilities should include proper wash down WC's with sewer connections, or if this is impractical, chemical closets.
- Requiring that all temporary buildings associated with construction of the development comply with the Safety, Health and Welfare Regulations. On completion of the works, contractors should remove them entirely with all slab, drains and water mains and restore the surface of the land to its original condition or other reasonable conditions.

7.2.5 The construction phase impacts will be short-term. It is expected that the construction period will be in the region of 14 months. It is proposed that construction traffic will access the site via North Road and the existing access road serving the ESB substation. The construction access shall be located at the proposed development access point and will be managed by signage and flagmen. A banksman and active traffic control will be employed during times when construction activity is more intense, for example as during concrete pours.

7.2.6 The average complement of construction staff is estimated to be in the region of 60 persons which may rise to a total of 120 persons during peak construction activities. Based upon an expected car occupancy of 1.8 persons per vehicle it is expected that light vehicle traffic generation during the construction phase will be on average approximately 32 trips per day increasing to a peak of 64 trips per day during peak activities. This accounts for construction staff arriving in the morning and leaving in the evening. There is likely to be some staff generated traffic arising throughout the day for sundry supplies.

- 7.2.7 Normal site working hours are 07:00-19:00hrs on weekdays and 08:00-14:00hrs on Saturdays with no working on Sundays or Public Holidays. It is acknowledged that from time to time some construction activities might potentially need to be carried out beyond the prescribed hours and on such occasions it is understood that the Planning Authority will be contacted and the appropriate consents secured. Construction staff traffic will typically arrive at site prior to the traditional commuter peak hour in the morning and after the evening peak hour.
- 7.2.8 There is a quantity of soil and subsoil which will need to be excavated to facilitate the proposed project. The volume of material to be excavated has been estimated to be c. 31,136m³ and this material will be removed from the site for appropriate reuse, recycling or disposal. The carrying capacity of articulated tipper vehicles is approximately 30 tonnes by weight and 33m³ by volume. Smaller rigid 8-wheel tippers have a payload capacity of 20 tonnes by weight and 15m³ by volume. Depending upon the haulage vehicle type the removal of excavated materials has the potential to generate a total of between 943 and 2,075 vehicles. Modern haulage fleets tend to carry a mix of rigid and articulated tippers and it is conservatively estimated that approximately 70% of loads are likely to be transported by articulated vehicles. On this basis the disposal of excavated materials in the early stages of the project is forecast to generate a total of 1,283 HGV trips which equates to approximately 54 HGV trips per day over a 4-week period.
- 7.2.9 Average HGV traffic generation arising during subsequent construction activities is expected to be in the region of 54 HGV per day. It is understood that the construction will require no movement of abnormal or accompanied loads to or from the site. It is anticipated that the generation of HGV's during the general construction period will be evenly spread throughout the day and as such will not impact significantly during the peak periods. An appropriate routing strategy for HGVs will be agreed and implemented as part of the Construction Management Plan. Construction traffic is not considered likely to give rise to reduced operational performance of the local road network.

- 7.2.10 The contractor will decide the construction programme to be implemented and will be required to finalise a Construction Management Plan with the Planning Authority. The existing road network serving the site can accommodate this type of traffic and the levels of construction activity which are forecast to be a fraction of the operational traffic generation of the site which has been shown as likely to have a negligible impact upon the operation of the receiving road network.
- 7.2.11 Impacts arising from construction traffic will be managed and mitigated through the agreement of suitable haul routes. To reduce insofar as practicable, the impact of construction generated traffic and to reduce the volume of site generated traffic during construction the following measures are proposed:
- Provision of sufficient onsite parking to accommodate construction personnel, visitor parking and deliveries and reducing insofar as practicable potential overflow onto the local network. No contractor parking will be permitted on any public roads outside the confines of the application site.
 - Encourage/require the Contractor to transport construction personnel and to encourage staff to travel by public transport or to share vehicles to reduce parking demand at the site.
 - Inform construction staff of the alternative modes of transport highlighting the availability of non-car modes of transport and the accessibility of the site by bus and bicycle.
- 7.2.12 The daily volumes of traffic generated during the construction period will be less than forecast to arise when the site is operational. At the time of the September 2022 traffic surveys construction activities were ongoing at a number of developments along North Road (considered under cumulative impact). Surveyed network traffic flows are set out in **Appendix B, Figure 1** with the forecast traffic generation of nearby developments shown in **Appendix B, Figure 22** and **Figure 23** as derived from the Traffic and Transportation Assessment reports provided on their respective planning files. The figures confirm that development traffic generation during construction does not exceed that forecast as arising during the operational phase when the developments are occupied.

8.1 Development Plan Parking Standards

8.1.1 Fingal Development Plan 2023-2029 provides for the creation of two distinct parking zones to ensure adequate parking provision and the control of destination car parking. The plan sets out that this approach also allows greater flexibility in the application of car parking standards on sites in areas with varying levels of road and public transport provision. The two zones are detailed in Table 14.18 with Zone 1 relating to developments within 800m of a Bus Connects Spine Route or 1,600m from an existing or planned LUAS/DART/Metro rail station or within an area covered by a Section 49 scheme, or in lands zoned Major Town Centre. All other areas are categorised Zone 2. The site is located close to the planned Kildonan Light Rail Station on the Metro North the proposed site can reasonably be considered within Zone 1. Table 14.19 sets out Maximum Car Parking Standards. Those of relevance to the proposed development include:

Land Use	Criterion	Maximum Zone 1	Maximum Zone 2
Offices General	GFA	1 per 80m ²	1 per 40m ²
Industry General	GFA	1 per 100m ²	1 per 50m ²

8.1.2 Car parking standards in the development plan are qualified by the following notes:

14.17.7 Car Parking

In the case of any development type not specified above, the Council will determine the parking requirement having regard to the traffic and movement generation associated with the development and the other objectives of this Plan.

A reduced car parking provision may be acceptable where the Council is satisfied that good public transport links are already available or planned and/or a Management Mobility Plan for the development demonstrates that a high percentage of modal shift in favour of the sustainable modes will be achieved through the development.

These requirements do not apply to development located in Town Centres as identified in this Plan where the development involves the re-use/refurbishment of an existing occupied or vacant building, any change of use or where small-scale infill developments (including residential) are proposed.

- 8.1.3 Facilities for the charging of battery-operated cars at a rate of up to 10% of the total All development is required to provide facilities for the charging of battery-operated cars at a rate of up to 10% of the total car parking spaces with all other spaces incorporating ducting to allow for future fit-out of a charging point at all spaces. Similarly, 5 spaces per 100 spaces is required to be reserved for disabled parking. Motorcycle parking shall be provided additionally and with the number of spaces equating to 10% of the provision for car parking.
- 8.1.4 Fingal Development Plan 2023-2029 Table 14.17 sets out Bicycle Parking Standards. Those of relevance to the proposed development include:

Land Use	Long-Stay	Short-Stay	Category
Offices General	1 per 60m ²	1 per 200m ²	Employment
Industry General	1 per 80m ²	1 per 200m ²	Employment

8.2 Staffing Requirement for Materials Recovery Facilities

- 8.2.1 The combined materials received by Phase 1 of the Circular Economy Hub is proposed to be 95,000t per annum or less. The number of staff required to work at a Material Recovery Facility (MRF) that handles 95,000 tonnes of materials per annum can vary depending on various factors, such as the type of materials being processed, the size of the facility, and the level of automation. However, general estimates can be derived based on industry standards.
- 8.2.2 In general, a MRF that handles 95,000 tonnes of materials per annum is likely to require a staff of 30 no. to 50 no. people. This number includes for supervisors, technicians, machine operators, quality control personnel, maintenance staff, and administrative staff. However, it's important to note that the required staff number can vary significantly depending on factors such as the degree of automation used in the facility and the complexity of the sorting processes. If the MRF has a higher degree of automation, it may require fewer staff, while a more manual sorting process may require more staff. Additionally, if the MRF processes more complex materials that require specialized expertise, such as electronics or hazardous waste, additional staff with specific skill sets may be required. Therefore, the actual number of staff required for a MRF that handles 95,000 tonnes of materials per annum will depend on several factors, including the specific processes used in the facility, the level of automation, and the expertise required to handle the materials

being processed. As set out the planning documents submitted with the application it is forecast that the full complement of staff will be 50 persons or less which includes all operatives and administration staff.

8.3 Proposed Car Parking

8.3.1 The proposed layout of car parking is shown on Coyle Civil & Structural Drawing No. P001 'Site Plan'. In total 58 no. car parking spaces are proposed, which is considered consistent with the number of staff required to operate the facility and appropriate to servicing the needs of the proposed development. The various units and uses are set out in the submitted plans measure 10,064m² in total. If taken as all 'Industrial General' this would require a total of 100 to 200 car parking spaces. The development under consideration is not a typical 'Industrial' unit and it is clear based upon the typical number staff that the development plan provision of 100-200 car parking spaces would constitute a significant over-provision in car parking which is contrary to the principles and policy of sustainable development and sustainable transportation that unpin the county development plan.

8.3.2 Car parking is proposed to be centralised to the front of the Food Container Cleaning Plant/Bailing Facility building. Car parking provision is summarised in the following **Table 8.1**.

Land Use	Car Parking Spaces Development Plan Standard for Industrial - General (Spaces Provided)		
	Total	Disabled	Electric
Unit 1 - 5,032m ²	100 (29)	5 (3)	10 (7)
Unit 2 - 5,032m ²	100 (29)	5 (3)	10 (7)
Total	200 (58)	10 (6)	20 (14)

Table 8.1 Proposed Car Parking Provision

8.4 Proposed Bicycle Parking

8.4.1 Since the proposed car parking is based upon the total number of staff it is reasonable that cycle parking numbers would be derived by similar reference. The would be same. Based upon the development floor area taken in isolation and using the rate of 1 no. long-stay space per 80m² and 1 no. short-stay space per

200m² of floor area would suggest a requirement for 126 no long-stay spaces or bike lockers and 50 no. short-stay spaces accessible to the general public. The provision of 175 no. cycle parking spaces for 50 no. staff is clearly an over-provision.

8.4.2 As summarised in **Section 9.0 ‘Mobility Management Plan’**, Census data shows that the travel habit of the population of West Dublin and North West Dublin shows that cycle use for commuting is in the order of 4-6.2%. On this basis, and given a workforce of 50, it could reasonably be expected that around 2-3 no. staff would arrive by bicycle.

8.4.3 It is proposed to provide a covered cycle parking facility with a total of 16 no. short stay parking spaces. To facilitate staff that may require greater security for their bicycles it is proposed to provide 8 no. cycle lockers within the proposed buildings. These can be used to secure cycles and cycling gear on a daily basis or could perhaps be used to store a bicycle when a staff member that has cycled to work opts to take the bus or get a lift home due to inclement weather or some other reason, say personal injury or emergency.

8.4.4 As per the measures set out in **Section 9.0 ‘Mobility Management Plan’** parking demand and staff travel behaviour will be monitored and where demand for cycling increases further cycle parking facilities will be added. Provision will be made within the building for the charging of e-bicycles and e-scooters.

8.4.5 Cycle parking is proposed to be located close to the site entrance and in view of the administration building. The location will be under surveillance. Cycle parking provision is summarised in the following **Table 8.2**.

Land Use	Cycle Parking Spaces Development Plan Standard for Industrial - General (Spaces Provided)		
	Total	Long-stay	Short-stay
Unit 1 - 5,032m ²	88 (12)	63 (4)	25 (8)
Unit 2 - 5,032m ²	88 (12)	63 (4)	25 (8)
Total	176 (24)	126 (8)	20 (16)

Table 8.2 Cycle Parking Provision

9 MOBILITY MANAGEMENT PLAN

9.1 General

- 9.1.1 The purpose of a Mobility management Plan is to evaluate the accessibility of a development to the current and future transport infrastructure relative to the site location and to promote initiatives and to support and encourage future occupiers of the proposed development to use sustainable travel modes. The principal objective of a MMP is to reduce levels of private car use by encouraging people to walk, cycle, use public transport, car share or to reduce the frequency and/or length of trips.
- 9.1.2 By encouraging sustainable modes of travel, MMP can assist in reducing the overall impact on the environment. Having both hard and soft MMP measures in place prior to the occupation of the development will help to mitigate the impact of the of the development by reducing insofar as practicable the number of vehicle trips generated by the development to the local road network. MMP have also been acknowledged to contribute to improve health and well-being through the benefits of active travel for residents.
- 9.1.3 A detailed formal Mobility Management Plan will be prepared and agreed with the Planning Authority prior to occupation of the development. The following is a summary of pre-occupation mobility management planning considerations.
- 9.1.4 The MMP will aim to positively influence the travel patterns and behaviours of future occupiers and their staff through the encouragement of greater use of active travel, public transport and other sustainable modes of travel to reduce the numbers of cars accessing the development. The aim is to provide more sustainable transport choices, which lead to a reduction in the need for vehicular journeys principally by private car. It is acknowledged however that some provision must be made for the private car since not all trips can be undertaken by sustainable modes. Some vehicle trips will still be necessary however this plan aims to encourage some element of those car trips to be undertaken by use of car sharing clubs, getting a lift or taxi.

- 9.1.5 The MMP programme is a dynamic process that aims to develop over time and to adjust in accordance with the changing circumstances at the development and the surrounding travel environment. The process generally involves the preparation of a package of measures, initiatives and campaigns that are monitored on an ongoing basis.
- 9.1.6 It is important that the plan is continuously monitored by the operators of the development together with occupiers as it is essential that the plan gains the support of users. Meaningful engagement and user feedback are essential elements of a successful MMP strategy.
- 9.1.7 The Greater Dublin Area Transport Strategy, 2016-2023 aims to contribute to the economic, social and cultural progress of the Greater Dublin Area by providing for the efficient, effective and sustainable movement of people and goods, helping to reduce mode share of car-based commuting to a maximum of 45%. To achieve these principles, future development must have transport as a key consideration in land use planning. Integration of land use and transport planning is required to reduce the need to travel, reduce the distance travelled, reduce the time taken to travel, and to promote walking and cycling.

9.2 Existing Transport Environment

- 9.2.1 **Section 2 'Receiving Environment'** of this report describes the site location and the characteristics of the receiving transport environment including pedestrian, cycle and public transport infrastructure. The site is located in Huntstown which is remote from the centre of Finglas to the south and Ballycoolin to the west, the site is nonetheless comparatively well connected to pedestrian and cycle routes to/from Finglas and will have good connectivity to Cappagh Road and the Metro North line.

9.3 Baseline Mode Share (Prior to Occupation)

- 9.3.1 The travel behaviour of the existing population of Dublin West and Dublin North-West is considered worthwhile in informing the initial forecasts of travel patterns of future occupiers at the development site. Central Statistics Office published 2016 Census data in August 2017. Travel to work data was interrogated for Dublin West and Dublin North-West and the following **Table 9.1** shows the 'Commuting' data which includes for those aged 5 years and over and their means of travel to work. The 2017 Local Electoral Areas are outlined in **Figure 9.1**.

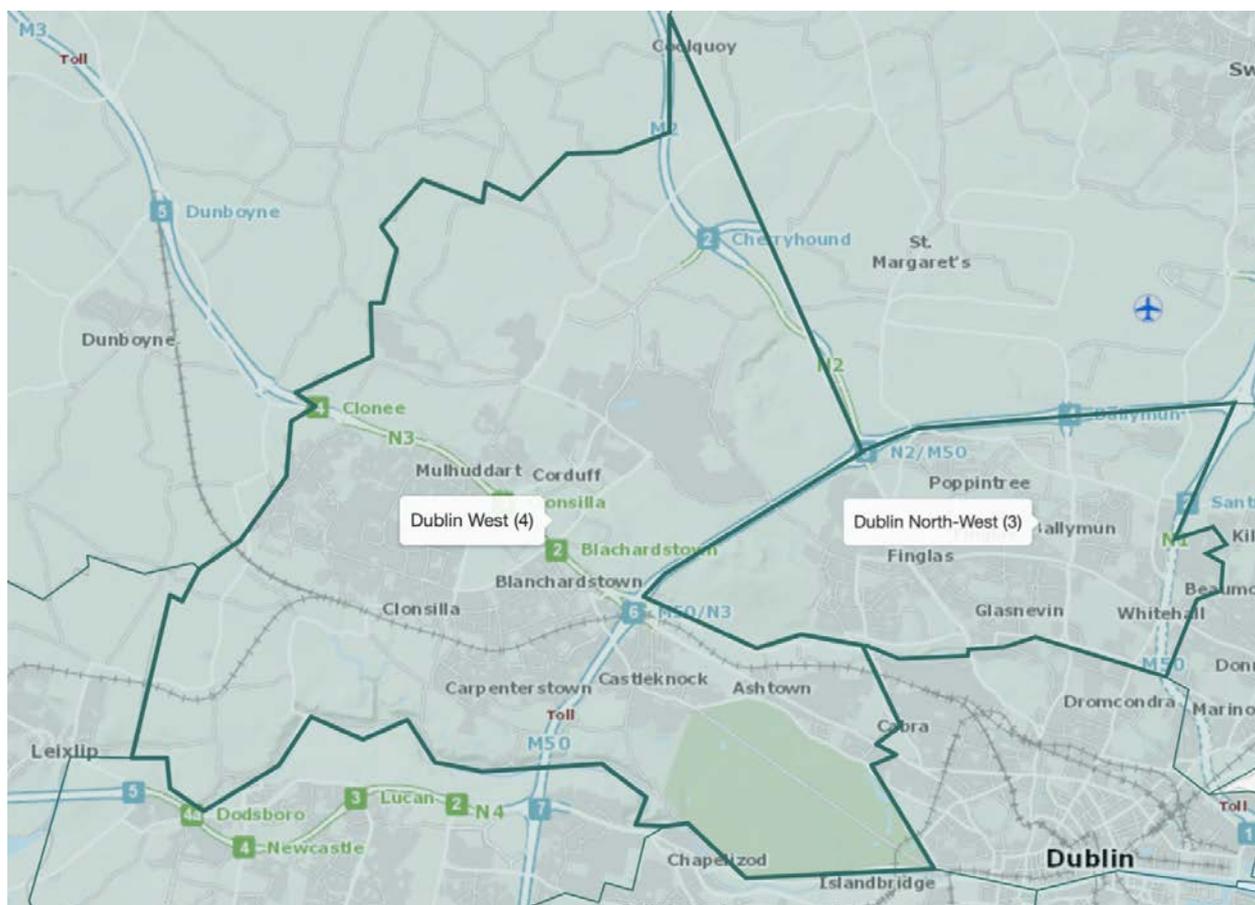


Figure 9.1 Census 2016 Dublin West (4) and Dublin North-West (3) Electoral Areas 2017

- 9.3.2 The following **Table 9.1** provides a summary of the Census 2016 ‘Commuting’ data for both the administrative area of the 2017 Electoral Areas of Dublin West (4) and Dublin North-West (3) which are outlined in **Figure 9.1**. The summary data includes ‘Population aged 5 years and over by means of travel to work.
- 9.3.3 Excluding the ‘not stated’ data, the modal share for the two electoral areas is shown in **Figure 9.2** and **Figure 9.3**.

Means of Travel to Work	Local Electoral Areas	
	Dublin West (4)	Dublin North-West (3)
Walking	2,670	3,170
Bicycle	2,226	2100
Bus	6,938	7,656
Train, DART or LUAS	4,224	222
Motorcycle or scooter	418	252
Car driver	31,077	15,189
Car passenger	1,882	1268
Van	2,058	1,159
Other (incl. lorry)	84	41
Work mainly at home	964	406
Not Stated	2,912	2463
Total	55,453	33,926

Table 9.1 Census 2016 Commuting Statistics

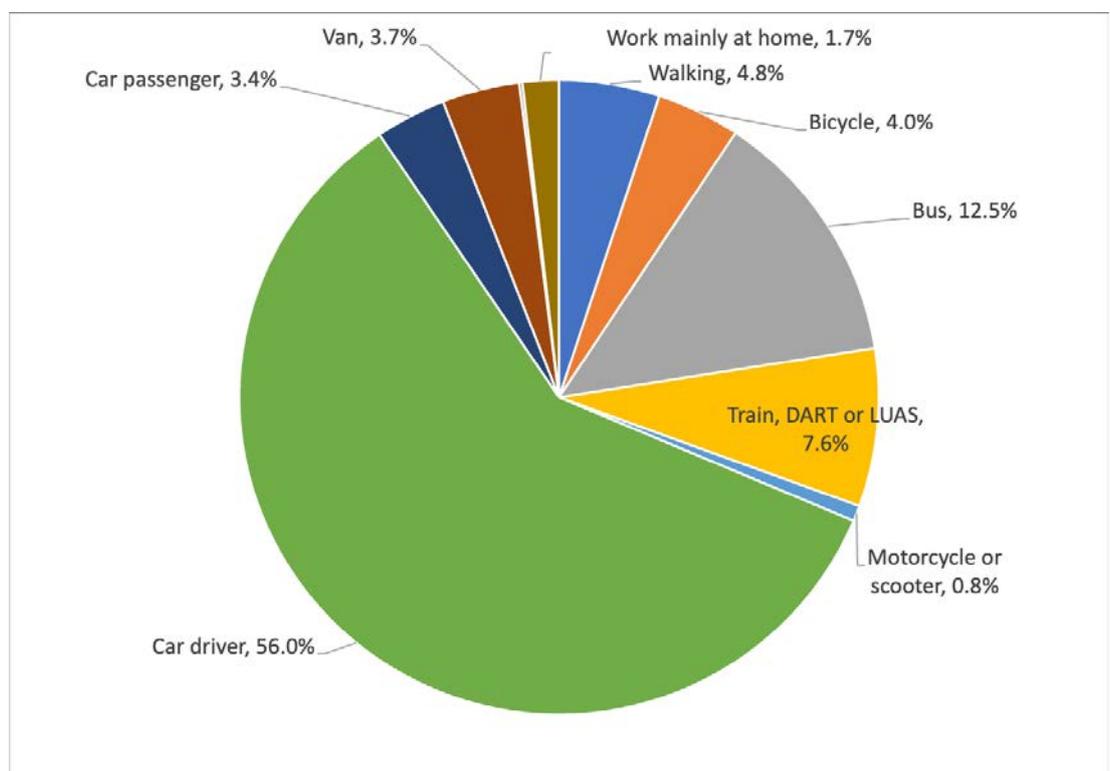


Figure 9.2 Census 2016 Dublin West (4)

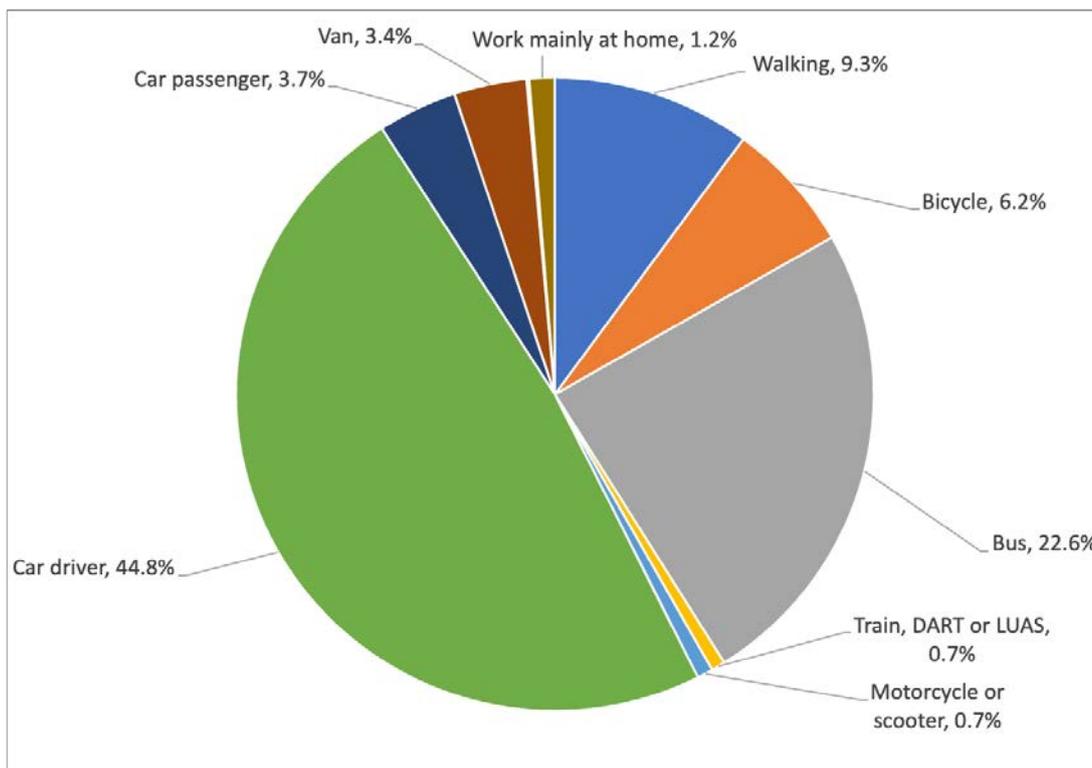


Figure 9.3 Census 2016 Dublin North-West (3)

9.3.6 The results for the Dublin West area show that a lesser proportion of residents travel by bus and less cycle than in Dublin North-West generally. Although neither set of data is likely to be an accurate representative of commuting habits of the future occupants of the proposed development it is considered likely the data for Dublin West is a reasonable initial baseline from which to estimate the starting modal split for employees at the proposed development.

9.3.7 The statistics for Dublin West indicate that slightly over one quarter (29%) of resident travel to work by sustainable modes of transport whilst 63.3% of residents travel by car or van of which 3.4% are car passengers. **Figure 9.2** indicates that only 8.8% of residents commute to work by active travel modes which include walking and cycling.

9.3.8 The mode share from **Figure 9.2** can reasonably be examined to gain an understanding of local travel trends as a baseline for occupants of the proposed development. The first update of the formal Modal Management Plan will however be carried out upon substantial occupation of the development. That update of the plan will be underpinned by site-specific travel surveys of the occupiers.

9.4 Modal Management Plan Administration

- 9.4.1 To measure the ongoing success of the MMP and its various measures and initiatives it is important that a series of aims, objectives and targets are set as part of an overall strategy. This is an outline MMP prepared for planning. A formal plan with targets based upon a surveyed baseline will be prepared after occupancy and will be conducted by or instructed by the managers of the proposed development. MMP evolve in response to the development and improvement of the receiving transport environment and the corresponding measures and initiatives at the development. The process is a dynamic one and the plan requires regular maintenance and updating. Plans should be reviewed and tailored to take account of ongoing changes in travel patterns. This outline MMP is the initial starting point of an ongoing process in which the formal plan will be updated on an annual basis or when required by other circumstances. Guidance suggests that MMP objectives should be 'SMART' (Specific, Measurable, Achievable, Realistic and Time-Bound). The general aim and objective of the MMP can be summaries as follows:
- To improve the travel options for employees.
 - To increase awareness of the available sustainable travel modes.
 - To minimise the incentives for private car usage.
 - To promote health, social and economic benefits of sustainable travel.
 - To manage car use.
- 9.4.2 Targets are important in providing MMP focus and direction they are also measurable goals. When setting site-specific targets, it is important that they are 'SMART' (Specific, Measurable, Achievable, Realistic and Time-bound) in order that the outcome of various elements of the plan can be quantified and assessment.
- 9.4.3 Since the overall aim of the MMP is to reduce reliance upon the private car and to promote the use of public transport and active sustainable travel it is appropriate to set target which relates directly to these objectives. Baseline travel habits will be established through questionnaires survey once the site is substantially occupied. Monitoring of the performance of the MMP will similarly be carried out by questionnaire survey.
- 9.4.4 A Mobility Manager or Plan Co-ordinator shall be appointed from the development management group and their role would be to manage the MMP for the development. The Mobility Manager will be made responsible for developing and implementing the MMP and collecting data at the development. They will lead on this initiative and act as the correspondent between the local authority and the

development. The Mobility Manager will ensure ongoing development and implementation of the MMP, taking responsibility for liaison with external agencies as appropriate, whilst ensuring that the occupiers are kept fully informed of any new developments in the MMP implementation.

- 9.4.5 The duties of the Mobility Manager and MMP co-ordinator will include:
- Secure a budget for MMP development and ensure its effective use.
 - Undertake annual Travel Surveys over five consecutive years and supply evidence of this to the County Council when required.
 - Take responsibility for data collection and review of the MMP.
 - Oversee the development and day-to-day implementation of the MMP.
 - Obtain and maintain commitment and support from the development management company.
 - Design and implement effective marketing and awareness-raising campaigns to promote the MMP amongst occupiers.
 - Set up, co-ordinate and attend relevant Working Groups,
 - Act as a point of contact for all occupants and visitors requiring information.
 - Ensure that the available travel information is up to date.
 - Liaise with external organisations, e.g. local authorities.
 - Co-ordinate the monitoring programme for the MMP, including target setting (in agreement with Fingal County Council) and make necessary changes if the targets are not being met.
 - Upload MMP content to the development website, enabling efficient online monitoring and review; and progress through the measures and/or actions to meet.
- 9.4.6 The contact details for the Mobility Manager or MMP Co-ordinator will be submitted to Fingal County Council's Sustainable Travel Planning Team upon appointment to the role.
- 9.4.7 The formal MMP will list the people, bodies and organisations consulted when producing the plan and what form the consultation took. In further promoting sustainable travel behaviour in developing the formal MMP the development managers may establish a Working Group consisting of, for example, an employee and a couple of occupiers. The MMP will show that a portfolio approach to evidencing occupier involvement has been adopted. The MMP does not need to contain all evidence of wider community engagement. It will however contain sufficient evidence to satisfy a third party reader that the MMP is the product of genuine consultation with interested parties.

9.5 Modal Management Plan Measures

9.5.1 Welcome Travel Pack

9.5.1.1 Many of the initial measures that will be implemented to encourage occupiers of the proposed development to travel sustainably will be included as part of a Welcome Travel Pack. The travel pack will include a variety of sustainable transport information, including but not limited to the following:

- Information on the health benefits of walking and cycling.
- Information on services and amenities provided locally including the location of public transport services.
- Maps showing pedestrian and cycle routes in proximity to the site, including cycle scheme parking locations along the East Coast Greenway etc.
- Maps showing the location of local services and amenities including shops, neighbourhood centres, pubs, parks etc.
- Train and bus service information, including a plan showing the location of bus stops accessible to the proposed development.
- Details of the benefits of journey sharing.

9.5.1.2 All prospective occupiers will be made aware of the MMP and the reduced car dependency of the development prior to their occupying a unit in the development. The initial Welcome Travel Pack will include the preparation of travel option information in leaflet form specific to the development. Once travel surveys have been undertaken the information might be updated and greater emphasis might be placed on encouraging travel by a specific mode of transport. The Mobility Manger will be required to consider the following types of initiatives if considered of value in progressing the MMP.

- Organising events to coincide with Bike Week, European Mobility Week and any other national / local events if appropriate.
- Providing an area for bicycle repair or alternatively establish a relationship with local cycle shops to organise repair/maintenance to promote bicycle use and upkeep.
- Displaying updates on MMP core travel information and targets in communal areas of the development.

9.5.2 Promotion of Cycling

9.5.2.1 The development includes for the provision of 16 no. secure short-stay cycle parking stands on site for use by staff and visitors together with 8 no. storage lockers for bicycles and cycling gear.

9.5.2.2 Details of the cycle parking provided at the proposed development and the cycle routes in the vicinity of the development will be provided in the 'Welcome Pack' and information on cycle routes for commuting and leisure cycling will be provide in communal areas within the development.

9.5.3 Car Sharing

9.5.3.1 It is not intended that a formal car sharing scheme will be run at the proposed development. The development nevertheless includes communal areas and staff will be afforded the opportunity to post messages either seeking or offering a lift or to share journeys. It is expected that part of the development website would be dedicated to MMP and a message board facility can be included online.

9.5.4 Website

9.5.4.1 MMP information will be included in 'how to get here' information provided on the development website once the site is occupied. Site specific information will also inform and influence the travel behaviour of visitors to the development. Travel planning and MMP information will be displayed in a prominent communal area.

9.6 Monitoring and Review

9.6.1 The MMP Co-Ordinator or Mobility Manager will monitor the implementation and success of the MMP by ensuring that measures are promoted and the relevant data is captured. This will be done by ensuring surveys are carried out in line with the timescales. Upon completion of the relevant data collection, modal-shift targets will be agreed and MMP Action Plans revised. A Travel Survey will be undertaken by the MMP Co-Ordinator within six months of substantial occupation and/or engagement, from which baseline data will be retrieved and targets set. The survey will aim to:

- Identify current travel choices
- Identify which modes of transport could/should be promoted
- Establish the popular alternative modes of travel to the development.
- What do occupiers want to use but currently do not/cannot (identify).

9.6.2 The results of each Travel Survey will provide information on the established travel choices of occupiers and hence will provide a basis for the setting of targets in the MMP. Agreed targets between Fingal County Council and the MMP Co-ordinator will be set which are relevant, measurable and achievable and monitored on an on-going basis. The formal MMP will be a living document which will be entered into the development website, allowing both the Fingal County Council Sustainable Travel Planning Team and the Development Managers and occupiers to review the information, data, issues and actions, which will develop and evolve with the development. Additions can be made to the MMP at any time, with a formal Annual Travel Plan Review taking place. On an annual basis the development management company will commit to:

- Carry out travel survey(s) to enable comparison with previous years.
- The next survey will be conducted within six months of opening subject to substantial occupancy (70%) but no later than 1 year after opening.
- Review the issues affecting travel to and from development.
- Review and update the MMP Action Plan
- Revise the targets and actions in the MMP Action Plan (annually)
- Work with Fingal County Council Sustainable Travel Planning Team for support and advice.

9.6.3 The MMP will be reviewed and revised accordingly by the MMP Co-ordinator so as to take account of any new developments in transport provision, e.g. a change in the bus routes or time tables, new initiatives such as car club coming on stream etc.

9.7 Action Plan.

9.7.1 The following **Table 9.2** provides a summary of the key actions in the development of the formal MMP.

MMP Action	Actioner	Timescale
Management team adopts MMP and incorporates the co-ordination, management and monitoring of the MMP into the business strategy for the development.	Building Management	Prior to Occupation
Appoint Mobility Manager, MMP Co-ordinator	Building Management	Prior to Occupation
Provide a development website that will inform prospective occupants and visitors of relevant walking and cycling information including distances to various amenities. Also provide relevant public transport timetable information together with walk times to bus stops	Building Management	Prior to Occupation
Prepare Travel Packs and display travel information in communal area. All travel information to be provided as part of the occupier Welcome Travel Pack	Building Management	Prior to Occupation
Provide access to cycle parking facilities	Building Management	Upon Occupation
Investigate partnering with bicycle repair shop	Building Management	Within 6 months of first Occupation
Install electric charging points	Developer	During Construction
Make provision for car sharing on communal information centre areas and online development website	Building Management	Upon Occupation
Undertake Travel Survey	Building Management	Within 6 months of first Occupation

Table 9.2 MMP Action Plan Summary

10.1 Overview

10.1.1 Trafficwise Ltd. has undertaken this Traffic and Transport Assessment (TTA) for a proposed development consisting of 2 no. separate units set out in 2 no. buildings providing for waste recover and waste recycling uses each with associated offices, access roads, footways, service yards, parking, landscaping, fencing and site works. The site is in Huntstown, Finglas and is currently a greenfield site. The site is located in the eastern part of Dublin Enterprise Zone which benefits from proximity to the M50 motorway and the M2/N3 Link Road.

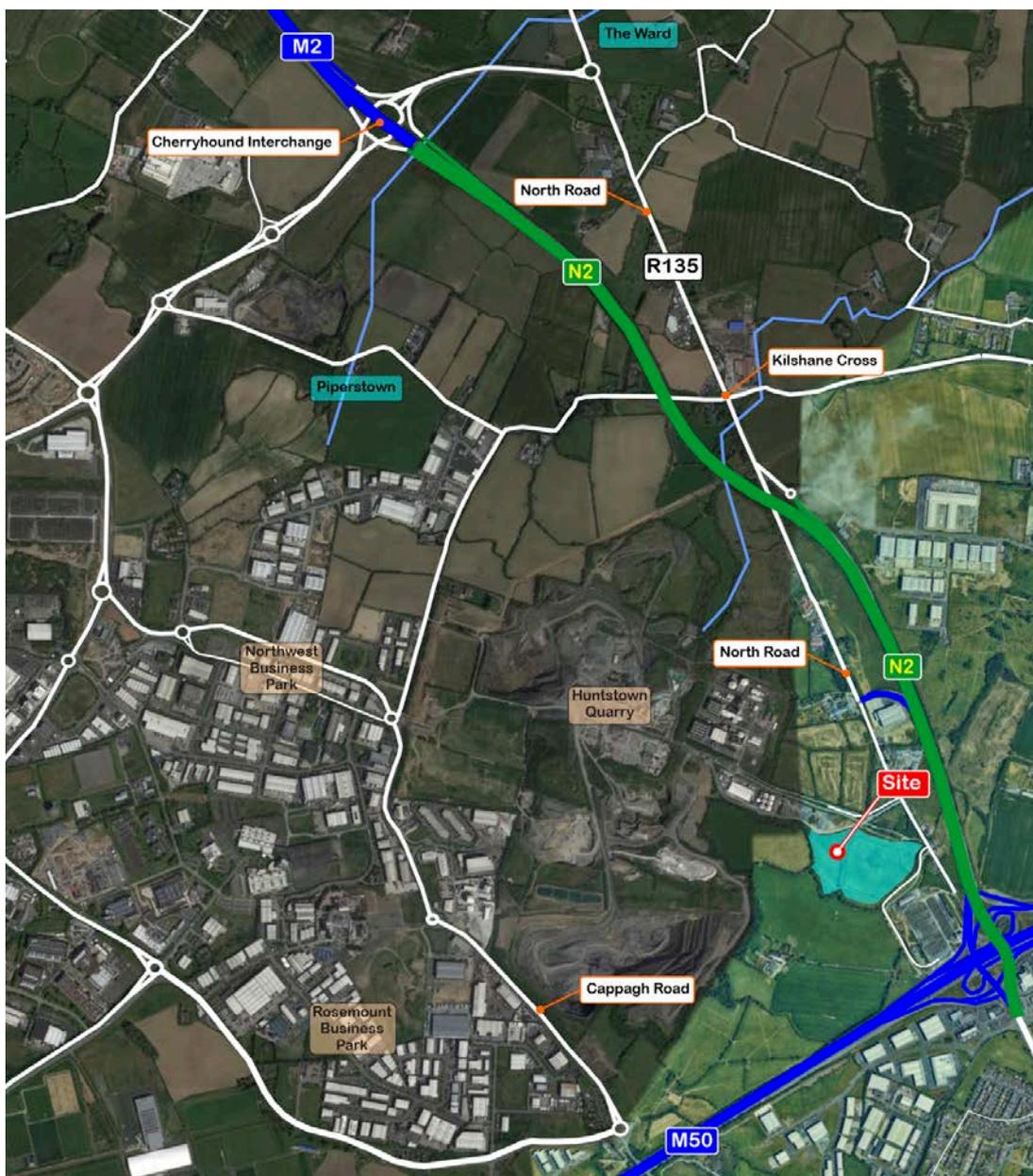


Figure 10.1 Development Landholding

- 10.1.2 The proposed development is Stage 1 or Phase 1 of the *'Huntstown Circular Economy Hub'*. The proposed development site is zoned for heavy industrial use and is slightly less than half of the applicant's overall landholding. For ease of reference the overall landholding is identified in **Figure 10.1**.
- 10.1.3 It is proposed to achieve vehicular access to the development via an upgraded existing direct vehicle access junction from the southern end of North Road. The existing junction currently serves the Finglas 220kV Electricity Substation. Fingal Development Plan 2023-2029 shows a future objective to connect this service road to the Cappagh Road at Cappogue in the west. The future connecting road will function as a local distributor road and will serve to provide access to some of the lands zoned GE to the south of Huntstown Quarry. The traffic assessments consider the effect of linking North Road and Cappagh Road.
- 10.1.4 During the preparation of this study report, traffic turning count surveys have been undertaken in order to establish baseline traffic flow conditions on the receiving road network and to establish existing traffic patterns and to identify existing local travel characteristics.
- 10.1.5 The purpose of this report has been to describe the existing receiving road network environment and to quantify the existing and likely future traffic flows arising at the development site. It details and discusses the results of traffic flow assessments undertaken to calculate the likely potential level of traffic impact arising from the proposed development at North Road and the receiving road environment and junctions connected by North Road between M50 and The Ward. This report examines the traffic impact of the proposed development on the receiving local road network by analysing the receiving road network traffic flows and the likely traffic generation of the proposed development and where appropriate providing comparative assessments of the relative performance of the existing and future receiving road network using traffic flow modelling to determine the incremental impact of forecast assessment levels of additional traffic. Future traffic flow scenarios are based upon forecasts of traffic generation arising at the proposed development together with potential traffic generation arising from the permitted and potential future development of zoned lands in conjunction with the application of other various network traffic growth factors which account for the effects on traffic flow arising from economic growth and development.
- 10.1.6 The report examines the proposed vehicular access arrangements, car parking provision, site layout, and facilities for pedestrians and cyclists; as well as assessing

the availability of sustainable transport options for users of the development and outlining mobility management measures that may be adopted to promote and facilitate the use of sustainable transport modes.

- 10.1.7 The methodology adopted in preparing this assessment accords Transport Infrastructure Ireland (TII) Publication TII-PE-PDV-02045 *'Traffic and Transport Assessment Guidelines'* and has regard to best practice on other technical matters as set out in the Chartered Institution of Highways & Transportation (IHT) *'Traffic Impact Assessment Guidelines'*.
- 10.1.8 This assessment demonstrates that the existing and future planned receiving road network and internal site infrastructure can suitably cater for the forecast traffic flows and travel demands by all modes arising directly from the proposed development. It sets out how provision is made within the proposed development for transport by non-car modes with particular emphasis on future movement of cyclists and pedestrians and other vulnerable users including accessibility to public transport modes. Where impacts are identified and where appropriate to the development of infrastructure serving the development site and receiving road network environs this report puts forward proposed mitigation measures.

10.2 Receiving Road Network

- 10.2.1 The proposed development site is located to the south of Huntstown Quarry. The Huntstown Quarry lands to the north are currently accommodate Huntstown Power Station, Energia Anaerobic Digestion Plant and a quarry together with ancillary manufacturing. On site quarry operations are carried out by Roadstone and include the extraction and processing of aggregates together with the manufacturing of concrete blocks, readymade concrete and asphalt products. The primary access to greater Huntstown Quarry site is provided from North Road.
- 10.2.2 The North Road was formerly the N2 and had been directly connected to the M50 north of Finglas. The upgraded N2 and M2 road scheme bypasses the former N2 at its southern end and thus it has become a cul-de-sac for vehicular traffic. There is a cycle and footbridge crossing at the southern end of North Road which partially overflies the northern connecting arms of M50 Junction 5. In the vicinity of the Coldwinters Cul-de-Sac North Road is subject to a 50kph speed limit raising to 60km/h closer to Kilshane Crossroad. The existing road infrastructure in the vicinity of the site is of a reasonably high quality. The North Road is a single mainline

carriageway adjoined by a 2.0m wide footway on the eastern side it has a relatively straight and flat alignment.

- 10.2.3 Until the opening of the N2 scheme North Road accommodated an Annual Average Daily Traffic Flow of approximately 20,000 vehicles of which 15% or 3,000 were HGV so it is expected that the underlying structure of North Road is satisfactory to accommodate development generated HGV traffic.
- 10.2.4 Fingal Development Plan 2023-2029 shows an indicative routing for the proposed Metro West rail line adjacent to the M50 northern boundary. A proposed metro stop will be located at Kildonan which is proximate to the application site. The proposed light rail scheme will link the principal towns/suburbs along the western fringes of Dublin (beyond the M50 Motorway) including Tallaght, Lucan and Blanchardstown to the proposed Metro North scheme, which will serve Dublin Airport and Swords.
- 10.2.5 Past development plan objectives that have been realised and that benefit the Huntstown area include the N2-N3 Link Road which comprises high quality road sections from Tyrrelstown to Cherryhound and from Castaheany to Damastown. The objective of the Dublin Enterprise Zone has been specifically to encourage employment, with zones for science & technology developments, warehousing, light industrial and office accommodation. The N2-N3 Link Road and associated infrastructure has been designed to be future-proof, with essential infrastructure pre-installed under and alongside the road.
- 10.2.6 Fingal County Council has future proposals to provide a western link from the Broghan Roundabout on the R135 (old N2) to Dublin Airport. This East West Link Road scheme is set as development Objective EA04 in the Dublin Airport Local Area Plan 2020. It is envisaged that existing traffic flows at the signal controlled Kilshane Cross on the R135 (North Road) will significantly reduce pending the construction of the airport link road scheme (principally due to re-distribution of traffic flow).
- 10.2.7 Recent improvements and upgrade of the Kilshane Crossroad junction were implemented as part of local development. These improvements include the provision of an additional lane on the eastern arm of the signal-controlled junction together with a left filter lane to North Road and improvement in the provision for pedestrians and cyclists at and on the approaches to the junction.

- 10.2.8 It is understood that the junction of the N2 off-slip at Coldwinters with North Road is required to be upgraded to signal operation and special contributions in respect of upgrading the junction of R135 North Road with the northbound slip road from the N2 at Coldwinters have been levied in the grant of permission for local developments.
- 10.2.9 The Greater Dublin Cycle Network Plan includes an objective to implement an Inter-urban cycle route (F9) along R135 North Road to Ashbourne. The route will be along the hard shoulders of R135 (formerly N2).
- 10.2.10 Fingal Development Plan 2023-2029 shows a future objective to connect Cappagh Road at Cappogue to Huntstown R135. This future road will function as a local distributor road and will serve to provide access to lands zoned GE to the south of Huntstown Quarry. The site and future road scheme are identified with an orange dotted line in **Figure 10.2** which is an excerpt from Fingal County

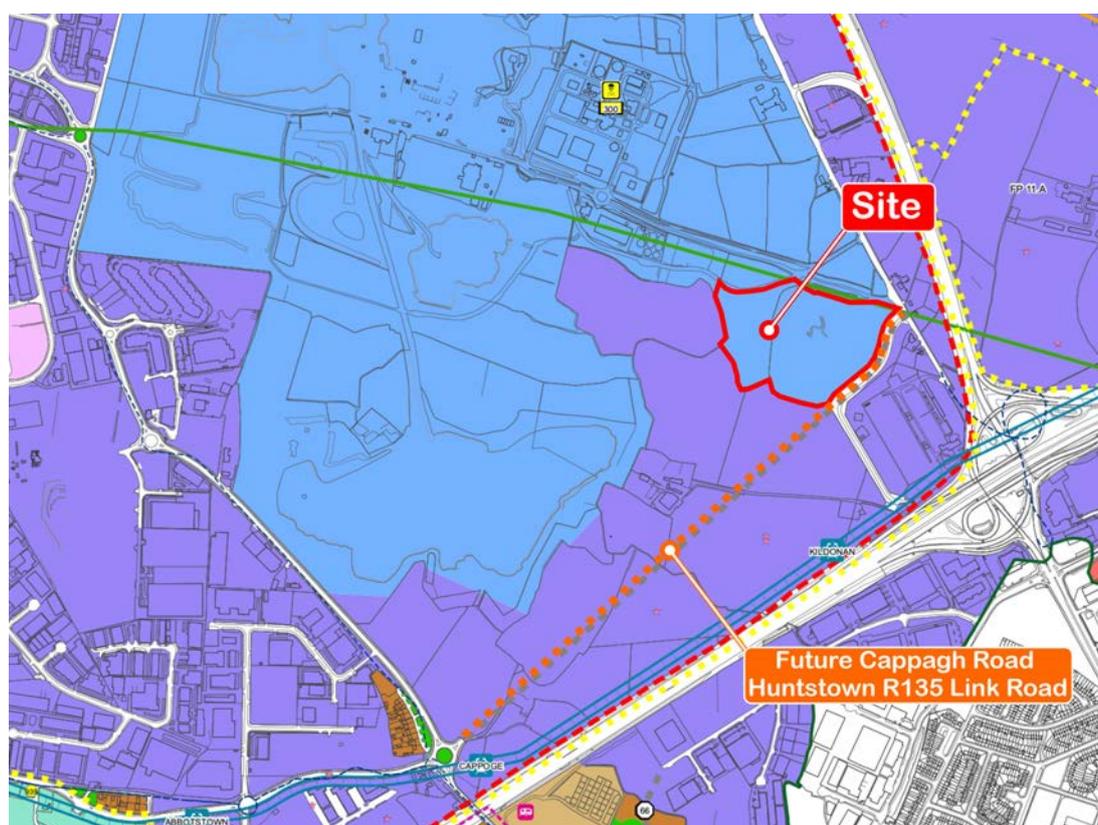


Figure 10.2 Future Connecting Road (Source: FDP Sheet 12, annotation by Trafficwise Ltd.)

- 10.2.11 The proposed development is Stage 1 of the 'Huntstown Circular Economy Hub' (Hub). Stage 1 comprises a Materials Recovery Facility (MRF) and a Food Container Cleaning Plant (FCCP) on a plot in the west of the overall landholding. The combined annual materials intake to Phase 1 will be 95,000 tonnes.

10.3 Roads Access Design

- 10.3.1 The proposed development access junction has been designed in accordance with Transport Infrastructure Ireland's Design Geometry publications formerly the National Roads Authority's Design Manual for Roads and Bridges. In the interest of preserving future distributor road capacity it is proposed to provide a right turning lane to serve the development. The configuration of the ghost island right turning lane is consistent with the appropriate TII standard. The cross-section of the link road from North Road includes new segregated footways and cycleways on both sides and is consistent with the cross-section of Cappagh Road with which it is planned to connect within the current development plan period. The spine road serving the development is provided with 2.0m verge and a minimum of 3.0m shared footway/cycleway.
- 10.3.2 The proposed road design and road improvement works to provide the right turn lane on the North Road Cappagh Road future link road have been subject of an independent Road Safety Audit (Stage 1) prepared by Traffico Road Safety Engineering Consultants in March 2023. A copy of the Road Safety Audit (RSA) including Designer Feedback Form is included at **Appendix D**. The recommendations of the RSA and responses of the Designer should be read in conjunction with this section.
- 10.3.3 Computer software predicting the swept path of large vehicles is mandatory in the design of all junction types accordingly the development access junction and internal roads and service yards have been assessed using AutoDesk Tracking for the vehicle type used in the haulage of materials. The assessments confirm that the junction and internal geometry can accommodate an articulated HGV negotiating the junction and the development.

10.4 Estimating Development Traffic Generation

- 10.4.1 Proposed Development – Phase 1
- 10.4.1.1 Development site traffic has been estimated using the '*comparison*' method which involves comparing the proposed development with a similar existing development and applying survey information from that comparison site to the proposed development. The comparison site is located in Greenogue Business Park situated in Rathcoole, Co. Dublin. At the time of examination of the

comparator site the rate of acceptance of waste materials permitted was 95,000t per annum which corresponds to the proposed development.

10.4.1.2 The traffic generation characteristics of the Comparison Site was determined from weighbridge records, chiefly recording the mass of waste entering the site and mass of processed wastes leaving the site. The weighbridge data analysis period extends for the 12-months and provide estimates of seasonal fluctuations, weekly fluctuations and daily profile.

10.4.1.3 On the basis of the comparison, the proposed development site assessment HGV daily traffic generation rate adopted in this study comprises 72 no. HGV importing materials and 8 no. HGV exporting.

10.4.1.4 To put the daily and peak hour assessment traffic flows for the proposed development in context, the traffic surveys from September 2022 show the existing access to Huntstown Quarry generates 691 no. HGV trips and 265 no. car/van trips. The Huntstown Quarry entrance was observed to generate approximately 70 no. HGV trips in the morning peak hour and approximately 30 no HGV trips in the evening peak hour. The forecast daily assessment value for HGV traffic arising at the proposed development equates to 10% of that observed at the Huntstown Quarry in September 2022.

10.4.2 Masterplan Development

10.4.2.1 In considering the overall development of the site this assessment includes for the forecast traffic generation of the masterplan development. Since the masterplan envisages related circular economy type development it is assumed for the purposes of the assessment that typical MRF operation would likely be the most intensive traffic generator of that genre of operation. In the interest of simplicity and based upon approximate floor areas the forecast traffic generation of the masterplan lands in concert with the Phase 1 lands is estimated to be twice that of Phase 1 taken in isolation.

10.4.3 Committed Development Traffic

10.4.3.1 The future year assessments include for development and traffic increases associated with economic development and this is done by the application of published network traffic growth rates. This assessment also makes allowance for the traffic generated by local third party committed developments (under

construction but not occupied) that have the potential to generate additional vehicle movements in the study area over and above those movements recorded in the September 2022 traffic surveys.

10.4.3.2 **Figure 10.3** show the location of the various developments for which forecast peak hour traffic generations have been derived from their respective planning application submissions.

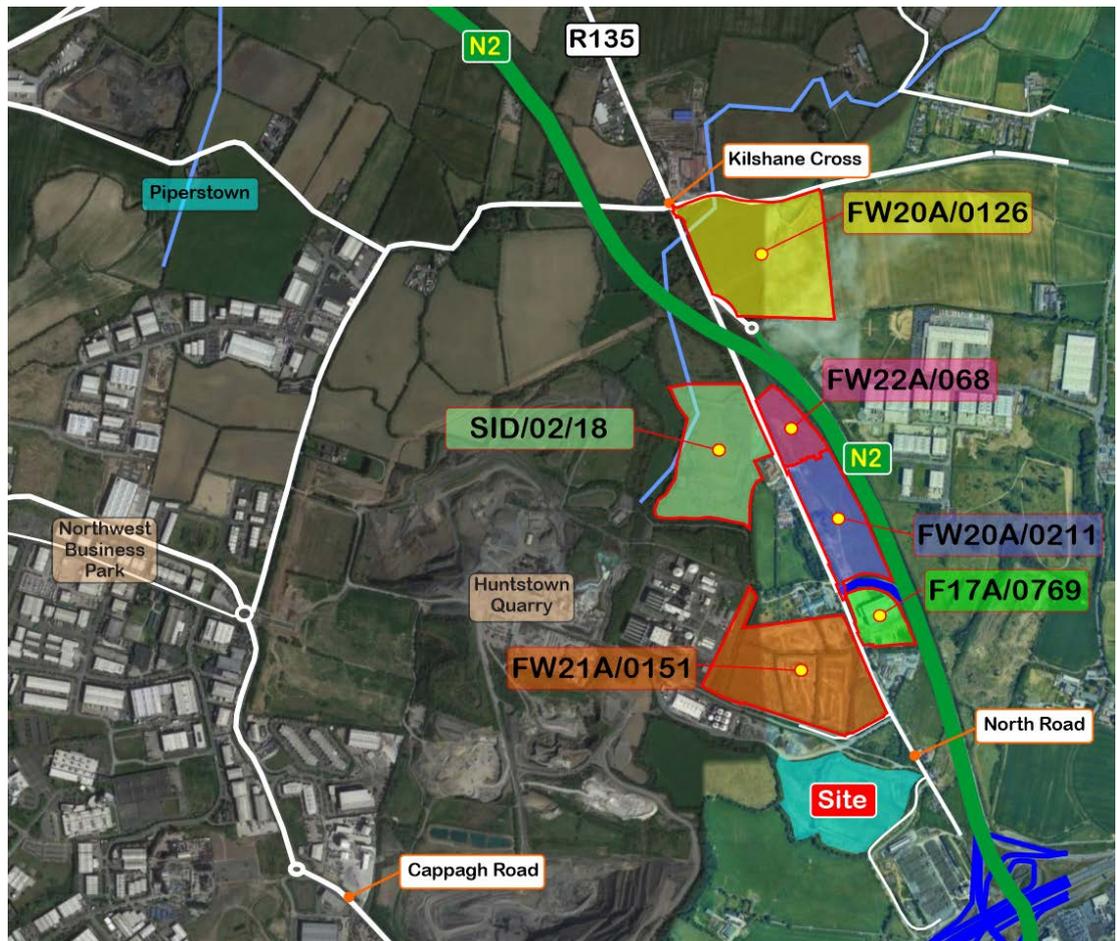


Figure 10.3 Committed Development Sites

10.5 Traffic Impact

10.5.1 Scoping Assessment

10.5.1.1 The forecast traffic generation of the development set against the 2022 network traffic flow data provides a broad understanding of the likely effects and area of influence of development. An assessment of the forecast incremental increase in traffic showed that save for the immediate section of R135 North Road the proposed development does not have the potential to exceed 5% of daily traffic.

10.5.1.2 Based upon the 2022 preliminary scoping evaluation, aside from R135 North Road close to the proposed development which is relatively lightly trafficked no road link is considered likely to experience a peak hour traffic increase above the lower threshold value of 5%.

10.5.1.3 The forecast increase in total traffic at the two closest junctions leading to or coming from the national road network is estimated to be in the order 1.5-3.0% of daily traffic flows. In the morning and peak hour the forecast increase in turning movements is in the order of peak hours 1.4-2.1% whilst in the evening peak hour the estimated increase is in the order of 1.8-4.5%.

10.5.1.4 Evaluated against the typical TII thresholds it can reasonably be concluded that the impact of the proposed development on the morning and evening peak hour capacity of the receiving road network is not likely to be significant.

10.5.2 Detailed Traffic Assessment

10.5.2.1 The applicant aspires to have the development constructed by the end of 2025. For the purposes of this traffic assessment the year 2025 has therefore been selected as the opening year. In line with the guidance provided in the National Roads Authority *'Traffic and Transport Assessment Guidelines'*, modelling analyses of the capacity of the receiving road network have been carried out for; (1) Opening Year, (2) Opening Year +5yrs and (3) Opening Year +15yrs. The following junctions have been included in the scope of the modelling assessments.

- **Site 1:** Huntstown Quarry Access – Priority Access T-junction
- **Site 2:** N2 Off-slip (Dogs Trust) – Priority T-junction
- **Site 3:** Dublin Airport Logistics Park - Roundabout
- **Site 4:** N2 Southbound On-slip – Traffic Signal Control T-junction
- **Site 5:** Kilshane Cross – Traffic Signal Control Crossroad
- **Site 6:** Brock Inn Roundabout
- **Site 7:** ESB Finglas 220kV Substation T-junction (Not counted)

10.5.2.2 For the purposes of the traffic assessment traffic generation arising directly from the proposed development has been assumed not to grow over time. Background traffic flows on the public road network have been assumed to grow in accordance with the latest growth factors published by Transport Infrastructure Ireland. The traffic generated by permitted local developments (under construction or not fully unoccupied) have expressly been included in the traffic analysis since they neighbour the proposed development and are considered likely to give rise to

direct increases in traffic on the local receiving road network in the short-term (over and above those traffic flows recorded in the September 2022 surveys). The application of TII growth rates to the receiving network is considered likely to account for the cumulative traffic arising as a result of economic growth and development locally over the specified assessment period.

- 10.5.2.3 The main corridor upon which the new traffic generated by the development will have an impact is R135 North Road accordingly the scope of future year assessments focuses on their operation and interaction with the junctions between M50 and The Ward. The future year assessments include for scenarios both with and without the proposed development so that the incremental impact of development traffic can be evaluated.
- 10.5.2.4 The TII Traffic and Transportation Assessment Guidelines 2014, Table 2.1 '*Traffic Management Guidelines Thresholds for Transport Assessments*' sets out the general threshold value of 10% to determine whether the preparation of a TTA is required to assess how development traffic might affect network operation. In congested or sensitive networks the threshold is typically lowered to 5%. The threshold values are a generally prompt for whether or not detailed junction modelling and a TTA is required. The threshold values are typically used as a reference to determine the significance of effects. It is standard practice in TTA to reference the scale of percentage increases in traffic flows when assessing the forecast long-term operational impact of proposed developments.
- 10.5.2.5 Detailed assessments of baseline and forecast future network traffic flows confirm that results of the preliminary scoping assessment. The incremental increase in traffic arising from the proposed development in the morning and evening peak hours is sub-threshold and less than 5% for all but for the section of North Road between the development access road and the access serving Huntstown Quarry.
- 10.5.2.6 Excluding the immediate southern section of North Road the average increase in the total traffic flow across the receiving road network in the morning peak hour is less than +1.0% whilst the increase in light vehicle traffic is less than +0.7% and for HGV the increase is forecast to be less than +2.1%. In the evening peak hour the forecast increase in total traffic flow is less than +1.8% whilst the increase in light vehicle traffic is less than +1.1% and for HGV the increase is forecast to be less than +3.8%. The forecast increase in AADT is less than +1.3%.

- 10.5.2.7 The only link in the road network to experience potential increases in traffic flow above the +10% threshold is Link 2 which is the section of North Road located to the south of the existing Huntstown Quarry site access. Link 2 is forecast to experience an increase in AADT in the order of +70%. The forecast increase in the total traffic flow on Link 2 in the morning peak hour is approximately +88% whilst the increase in light vehicle traffic approximately +60% and for HGV the increase is forecast to be approximately +130%. In the evening peak hour the forecast increase in total traffic flow is approximately +115% whilst the increase in light vehicle traffic is approximately +58% and for HGV the increase is forecast to be in the order of +364%. As set out above these percentages are set against a very low baseline flow on the existing cul-de-sac.
- 10.5.2.8 Save for the southern section of North Road at Link 2 the forecast increases in traffic on the receiving road network are significantly sub-threshold with all increases in traffic categorised as negligible based upon a threshold derived evaluation criteria.
- 10.5.2.9 With the exception of Link 2, the forecast increases in traffic flows are significantly less than half the lower +5% threshold value used for sensitive areas or where peak hour congestion exists. It follows that the impact of development generated traffic on the receiving road network will not have a significant impact upon capacity and operation of the links and junctions through which it is forecast to travel. Ordinarily increases in traffic of the order forecast do not warrant detailed computer modelling as the changes between the 'Do-Nothing' and 'Do-Something' Scenarios is such that it is highly unlikely that a capacity model will show an appreciable differential between the scenarios.
- 10.5.2.10 In the case of the southern part of North Road where the percentage increase in traffic flow is shown to exceed the threshold percentage values. Inspection of the numerical values shows that the increases are not significant especially in the context of the Fingal Development Plan 2023-2029 which seeks to make this part of North Road a through route connecting North Road to Cappagh Road in the west.
- 10.5.2.11 The baseline morning peak hour traffic flow on this section of road 2 at the year of opening 2025 is 20 no. vehicles of which 12 no. are light vehicles and 8 no. are HGV. The forecast average increase in the total traffic flow in the morning peak hour is +17 no. vehicles where the forecast increase in light vehicles is approximately +7 no. and the increase in HGV is +10 no.

- 10.5.2.12 The baseline evening peak hour traffic flow on Link 2 at the year of opening 2025 is 23 no. vehicles of which 19 no. are light vehicles and 4 no. are HGV. The forecast average increase in the total traffic flow in the evening peak hour is +27 no. vehicles where the forecast increase in light vehicles is approximately +11 no. and the increase in HGV is +16 no.
- 10.5.2.13 Based on the analysis and findings of the traffic impact assessment, it is anticipated that the proposed development would not have a significant adverse impact on the traffic flow or the road network, and the existing infrastructure would be able to accommodate the additional traffic generated by the development.

10.6 Construction Traffic

- 10.6.1 The construction works associated with the proposed development will involve normal construction activities such as excavation, filling, lifting, pumping, pipe laying, concrete works, mechanical installation etc. A detailed Construction Management Plan will be drawn up prior to the commencement of construction activities (typically prepared together with programme of works upon appointment of contractor), in order to minimize the impacts to the environment during construction. The Construction Management Plan will detail the allowable working day, construction traffic, parking arrangements and will incorporate environmental protection measures. Provisions to reduce the environmental impact of the construction activities will include the following:
- 10.6.2 The construction phase impacts will be short-term. It is expected that the construction period will be in the region of 14 months. It is proposed that construction traffic will access the site via North Road and the existing access road serving the ESB substation.
- 10.6.3 The average complement of construction staff is estimated to be in the region of 60 persons. Based upon an expected car occupancy of 1.8 persons per vehicle it is expected that light vehicle traffic generation during the construction phase will be on average approximately 32 trips per day.
- 10.6.4 Construction traffic will typically arrive at site prior to the traditional commuter peak hour in the morning and after the evening peak hour. There is a quantity of soil and subsoil which will need to be excavated to facilitate the proposed project.

- 10.6.5 The volume of material to be excavated has been estimated to be c. 29,000m³ and this material will be removed from the site for appropriate reuse, recycling or disposal.
- 10.6.6 Average HGV traffic generation arising during construction activities is expected to be in the region of 54 HGV per day. It is understood that the construction will require no movement of abnormal or accompanied loads to or from the site. It is anticipated that the generation of HGV's during the general construction period will be evenly spread throughout the day and as such will not impact significantly during the peak periods. An appropriate routing strategy for HGVs will be agreed and implemented as part of the Construction Management Plan. Construction light traffic is similar to staff traffic when operational whilst construction HGV traffic generation is likely to be less than one third of operational HGV traffic generation accordingly it is not considered likely that construction traffic to give rise to significantly reduced operational performance of the local road network. The impact upon the road network in the peak hours will be less than when the site is operational. Given the results of the traffic assessment of the operational phase, no specific analysis is considered for the construction phase.

10.7 Proposed Parking

- 10.7.1 In general, a MRF that handles 95,000 tonnes of materials per annum is likely to require a staff of 30 no. to 50 no. people. This number includes for supervisors, technicians, machine operators, quality control personnel, maintenance staff, and administrative staff. As set out the planning documents submitted with the application it is forecast that the full complement of staff will be 50 persons or less which includes all operatives and administration staff.
- 10.7.2 It is proposed to provide in total 58 no. car parking spaces which is considered consistent with the number of staff required to operate the facility and appropriate to servicing the needs of the proposed development. Of the total 6 no. spaces will be accessible and 14 no. will be fitted with the hardware required to re-charge electric vehicles.
- 10.7.3 It is proposed to provide a covered cycle parking facility with a total of 16 no. short stay parking spaces. To facilitate staff that may require greater security for their bicycles it is proposed to provide 8 no. cycle lockers within the proposed buildings. These can be used to secure cycles and cycling gear on a daily basis or could perhaps be used to store a bicycle when a staff member that has cycled to work

opts to take the bus or get a lift home due to inclement weather or some other reason, say personal injury or emergency.

- 10.7.4 As per the measures set out in **Section 9.0 'Mobility Management Plan'** parking demand and staff travel behaviour will be monitored and where demand for cycling increases further cycle parking facilities will be added. Provision will be made within the building for the charging of e-bicycles and e-scooters.

10.8 Mobility Management Planning

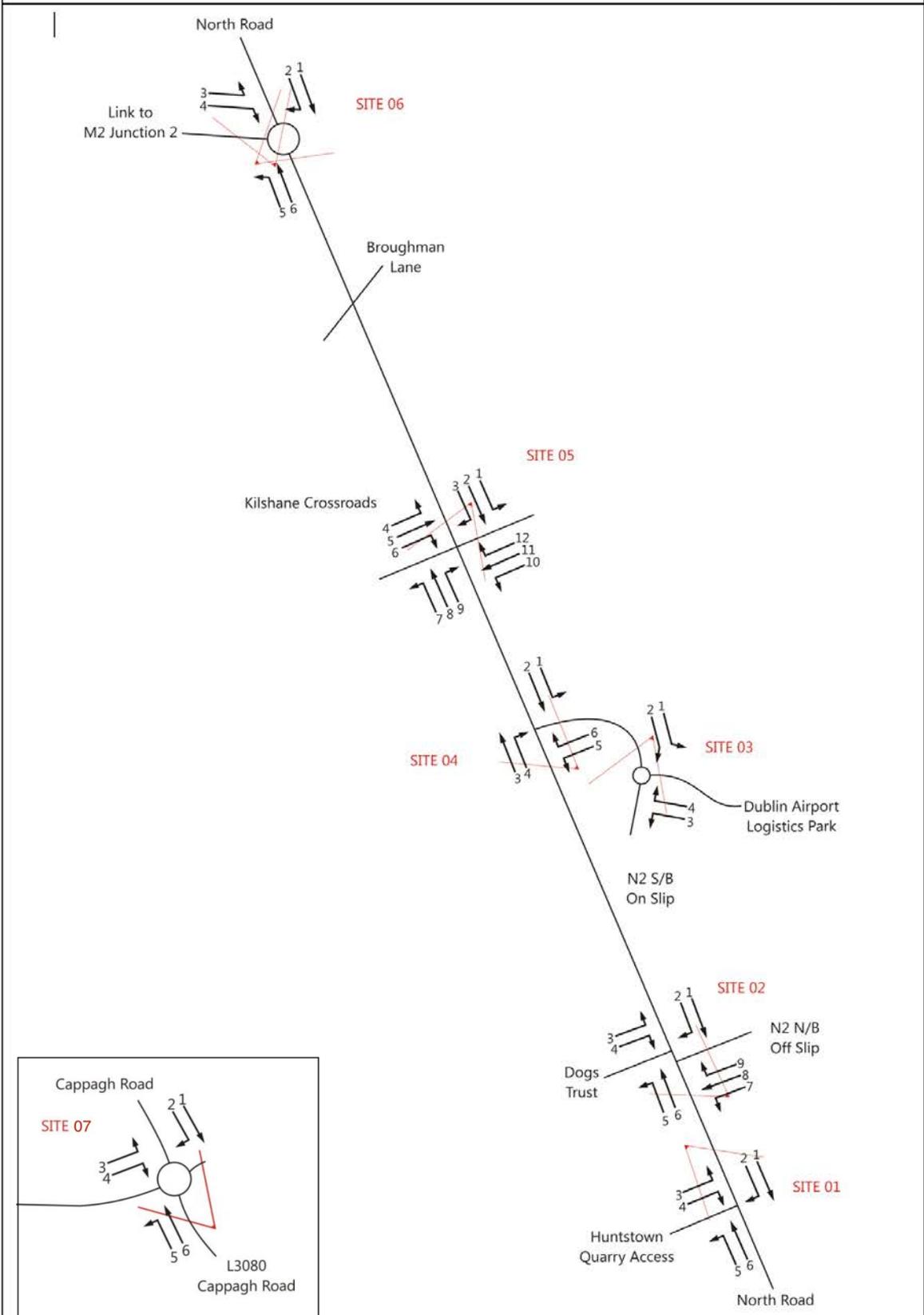
- 10.8.1 The application is accompanied by an outline mobility management plan. The purpose of a Mobility management Plan is to evaluate the accessibility of a development to the current and future transport infrastructure relative to the site location and to promote initiatives and to support and encourage future occupiers of the proposed development to use sustainable travel modes. The principal objective of a MMP is to reduce levels of private car use by encouraging people to walk, cycle, use public transport, car share or to reduce the frequency and/or length of trips.

APPENDICES**Appendix A** – Traffic Survey Data**Appendix B** – Network Traffic Flow Diagrams**Appendix C** – Haul Routes**Appendix D** – Road Safety Audit Report

Appendix A – Traffic Survey Data

Site Location Mapping – Junction Numbering & Turning Movements

Site Locations/Movement Numbering



	Job number: TRA/22/205	Job Date: 8th September 2022	Drawing No: TRA/22/205-02	
	Client: Trafficwise	Job Day: Thursday	Author: SPW	

Site 1 – North Road/Huntstown Quarry Access

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 01

DATE: 8th September 2022

LOCATION: North Road/Huntstown Quarry Access

DAY: Thursday

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	12	1	2	7	0	22	32	3	0	0	19	0	22	47
07:15	1	4	1	0	0	6	7	6	4	0	13	0	23	40	1	0	0	9	0	10	22
07:30	1	0	1	0	0	2	3	6	2	0	10	0	18	31	0	0	0	15	0	15	35
07:45	0	1	0	0	0	1	1	11	3	0	14	0	28	46	0	0	0	10	0	10	23
H/TOT	3	6	2	0	0	11	12	35	10	2	44	0	91	149	4	0	0	53	0	57	126
08:00	0	0	0	0	0	0	0	8	1	0	17	0	26	48	0	0	0	21	0	21	48
08:15	1	0	0	1	0	2	3	8	2	0	15	0	25	45	0	0	0	12	0	12	28
08:30	2	3	0	0	0	5	5	2	3	0	14	0	19	37	0	1	1	16	0	18	39
08:45	1	1	1	0	0	3	4	5	1	1	19	0	26	51	1	1	0	15	0	17	37
H/TOT	4	4	1	1	0	10	12	23	7	1	65	0	96	181	1	2	1	64	0	68	152
09:00	3	2	1	0	0	6	7	8	1	0	22	0	31	60	1	1	0	20	0	22	48
09:15	0	3	0	0	0	3	3	5	5	1	17	0	28	51	0	1	0	21	0	22	49
09:30	3	0	0	0	0	3	3	4	3	1	12	0	20	36	1	4	0	19	0	24	49
09:45	4	0	0	1	0	5	6	5	1	0	19	0	25	50	3	1	1	16	0	21	42
H/TOT	10	5	1	1	0	17	19	22	10	2	70	0	104	196	5	7	1	76	0	89	188
10:00	2	0	1	0	0	3	4	2	0	1	23	0	26	56	2	0	1	22	0	25	54
10:15	2	0	1	0	0	3	4	4	2	3	18	0	27	52	0	1	1	15	0	17	37
10:30	0	1	0	0	0	1	1	1	1	0	16	0	18	39	3	1	3	20	0	27	55
10:45	0	2	1	0	0	3	4	3	1	0	16	0	20	41	4	1	0	17	0	22	44
H/TOT	4	3	3	0	0	10	12	10	4	4	73	0	91	188	9	3	5	74	0	91	190
11:00	4	1	2	0	0	7	8	2	2	0	33	1	38	82	0	1	0	14	0	15	33
11:15	3	0	0	0	0	3	3	1	2	0	14	0	17	35	1	3	0	29	0	33	71
11:30	1	0	0	1	0	2	3	3	2	0	15	0	20	40	2	1	0	18	0	21	44
11:45	2	0	0	1	0	3	4	1	4	2	12	0	19	36	0	2	2	13	0	17	35
H/TOT	10	1	2	2	0	15	19	7	10	2	74	1	94	192	3	7	2	74	0	86	183
12:00	3	0	1	0	0	4	5	3	0	2	14	0	19	38	0	3	1	9	0	13	25
12:15	2	0	0	0	0	2	2	0	0	2	17	0	19	42	5	1	1	18	0	25	49
12:30	1	4	0	0	0	5	5	2	1	0	15	0	18	38	2	1	1	14	0	18	37
12:45	1	1	0	0	0	2	2	1	0	0	17	0	18	40	4	1	0	14	0	19	37
H/TOT	7	5	1	0	0	13	14	6	1	4	63	0	74	158	11	6	3	55	0	75	148

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 01

DATE: 8th September 2022

LOCATION: North Road/Huntstown Quarry Access

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6							
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	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
07:15	0	1	0	1	0	2	3	0	1	0	0	0	1	1	1	1	0	0	0	2	2	
07:30	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	2	0	0	0	2	2	
H/TOT	0	1	0	1	0	2	3	0	1	0	0	0	1	1	1	3	0	0	0	4	4	
08:00	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	1	0	1	2	0	0	0	1	0	1	2	0	0	0	1	0	1	2	
08:30	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	0	0	0	0	1	1	
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	4	
H/TOT	0	0	0	1	0	1	2	0	0	0	2	0	2	5	2	1	1	1	0	5	7	
09:00	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1	0	0	0	0	1	1	
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	4	5	
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	4	5	
H/TOT	0	0	0	0	0	0	0	0	0	1	0	0	1	2	4	4	2	0	0	10	11	
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	4	
10:15	1	0	0	0	0	1	1	1	0	0	0	0	1	1	4	1	0	0	0	5	5	
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	4	5	
H/TOT	1	0	0	0	0	1	1	1	0	0	0	0	1	1	9	2	1	1	0	13	15	
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	3	
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	7	
11:30	0	0	0	1	0	1	2	0	0	0	0	0	0	0	2	0	0	0	0	2	2	
11:45	0	0	0	0	0	0	0	0	0	0	2	0	2	5	3	0	0	0	0	3	3	
H/TOT	0	0	0	1	0	1	2	0	0	0	2	0	2	5	11	0	2	0	0	13	14	
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3	4	
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	
12:30	0	0	0	1	0	1	2	0	0	0	0	0	0	0	3	3	0	2	0	8	11	
12:45	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	2	0	0	0	2	2	
H/TOT	0	0	0	2	0	2	5	0	0	0	0	0	0	0	5	7	0	3	0	15	19	

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 01

DATE: 8th September 2022

LOCATION: North Road/Huntstown Quarry Access

DAY: Thursday

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	0	0	0	0	1	1	6	1	4	17	0	28	52	7	0	1	22	0	30	59
13:15	7	2	1	0	0	10	11	2	1	0	13	0	16	33	3	0	1	15	0	19	39
13:30	0	0	0	0	0	0	0	1	0	2	22	0	25	55	0	0	1	23	0	24	54
13:45	1	1	0	0	0	2	2	1	2	1	18	0	22	46	2	2	2	14	0	20	39
H/TOT	9	3	1	0	0	13	14	10	4	7	70	0	91	186	12	2	5	74	0	93	192
14:00	2	0	0	0	0	2	2	1	2	1	17	0	21	44	2	1	1	15	0	19	39
14:15	2	1	0	2	0	5	8	0	1	0	20	0	21	47	1	1	2	25	0	29	63
14:30	1	1	0	0	0	2	2	0	1	1	13	0	15	32	4	2	0	23	0	29	59
14:45	1	2	0	0	0	3	3	1	2	3	18	0	24	49	2	1	1	16	1	21	43
H/TOT	6	4	0	2	0	12	15	2	6	5	68	0	81	172	9	5	4	79	1	98	204
15:00	1	0	0	0	0	1	1	2	0	1	20	0	23	50	3	3	1	13	0	20	37
15:15	1	3	0	0	0	4	4	1	0	1	16	0	18	39	2	0	1	15	0	18	38
15:30	1	3	2	0	0	6	7	1	1	0	28	0	30	66	5	0	2	19	0	26	52
15:45	1	0	0	1	0	2	3	0	0	0	13	0	13	30	5	3	1	21	0	30	58
H/TOT	4	6	2	1	0	13	15	4	1	2	77	0	84	185	15	6	5	68	0	94	185
16:00	1	0	0	0	0	1	1	1	1	1	12	0	15	31	14	5	1	21	0	41	69
16:15	1	0	0	0	0	1	1	0	1	1	12	0	14	30	18	2	1	5	0	26	33
16:30	1	0	0	0	0	1	1	1	0	2	9	0	12	25	19	2	0	6	0	27	35
16:45	4	0	0	0	0	4	4	2	0	2	4	0	8	14	22	5	1	2	0	30	33
H/TOT	7	0	0	0	0	7	7	4	2	6	37	0	49	100	73	14	3	34	0	124	170
17:00	0	0	0	0	0	0	0	0	0	0	4	0	4	9	13	1	3	0	0	17	19
17:15	1	0	0	0	0	1	1	1	0	0	7	0	8	17	7	6	0	3	0	16	20
17:30	1	1	1	1	0	4	6	0	0	0	1	0	1	2	4	1	0	1	0	6	7
17:45	0	2	0	0	0	2	2	0	0	0	0	0	0	0	3	2	0	2	0	7	10
H/TOT	2	3	1	1	0	7	9	1	0	0	12	0	13	29	27	10	3	6	0	46	55
18:00	1	0	0	0	0	1	1	2	0	0	1	0	3	4	6	0	0	0	0	6	6
18:15	1	0	0	0	0	1	1	1	0	0	0	0	1	1	4	4	0	1	0	9	10
18:30	3	0	0	0	0	3	3	3	0	0	0	0	3	3	10	1	0	0	0	11	11
18:45	1	0	0	0	0	1	1	0	0	0	2	0	2	5	7	2	0	0	0	9	9
H/TOT	6	0	0	0	0	6	6	6	0	0	3	0	9	13	27	7	0	1	0	35	36
P/TOT	72	40	14	8	0	134	151	130	55	35	656	1	877	1748	196	69	32	658	1	956	1828

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 01

DATE: 8th September 2022

LOCATION: North Road/Huntstown Quarry Access

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2	2	1	0	0	5	6
13:15	0	0	0	1	0	1	2	0	0	0	0	0	0	0	3	1	0	0	0	4	4
13:30	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0
13:45	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	1	0	1	2	0	0	0	2	0	2	5	5	3	1	0	0	9	10
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	1	0	7	8
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	1	0	14	15
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	3	3
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	4	5
15:45	1	0	0	0	0	1	1	0	0	2	0	0	2	3	2	2	0	0	0	4	4
H/TOT	1	0	0	0	0	1	1	0	0	2	0	0	2	3	7	7	1	0	0	15	16
16:00	0	0	1	0	0	1	2	0	0	1	0	0	1	2	2	1	1	0	0	4	5
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	4
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	4
H/TOT	0	0	1	0	0	1	2	0	0	1	0	0	1	2	5	6	2	0	0	13	14
17:00	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	2	0	0	1	0	3	4
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	5
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	2	0	12	15
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	2	0	0	6	7
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
18:45	0	0	0	0	0	0	0	1	0	0	0	0	1	1	2	1	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	1	0	0	0	0	1	1	7	3	2	0	0	12	13
P/TOT	2	1	1	6	0	10	18	2	1	4	6	0	13	23	77	38	12	8	0	135	151

Site 2 – North Road/N2 Coldwinters Off-slip/Dogs Trust

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

TIME	MOVEMENT 1					TOT	PCU	MOVEMENT 2					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
07:00	6	1	1	5	0	13	20	1	0	0	0	0	1	1
07:15	3	3	1	4	0	11	17	0	0	0	0	0	0	0
07:30	3	1	1	4	0	9	15	0	1	0	0	0	1	1
07:45	3	1	0	9	0	13	25	3	0	0	0	0	3	3
H/TOT	15	6	3	22	0	46	76	4	1	0	0	0	5	5
08:00	4	2	0	9	0	15	27	1	0	0	0	0	1	1
08:15	5	2	0	5	0	12	19	1	1	0	0	0	2	2
08:30	6	2	1	6	0	15	23	1	0	0	0	0	1	1
08:45	6	3	2	7	0	18	28	0	0	0	0	0	0	0
H/TOT	21	9	3	27	0	60	97	3	1	0	0	0	4	4
09:00	3	1	1	8	0	13	24	0	0	0	0	0	0	0
09:15	3	8	1	7	0	19	29	0	0	0	0	0	0	0
09:30	6	3	0	4	0	13	18	0	0	0	0	0	0	0
09:45	3	0	0	7	0	10	19	1	0	0	0	0	1	1
H/TOT	15	12	2	26	0	55	90	1	0	0	0	0	1	1
10:00	3	0	2	6	0	11	20	0	0	0	0	0	0	0
10:15	5	2	3	5	0	15	23	0	0	0	0	0	0	0
10:30	0	2	0	7	0	9	18	1	0	0	0	0	1	1
10:45	2	2	0	6	0	10	18	0	0	0	0	0	0	0
H/TOT	10	6	5	24	0	45	79	1	0	0	0	0	1	1
11:00	8	1	2	8	0	19	30	0	0	0	0	0	0	0
11:15	4	2	0	5	0	11	18	1	0	0	0	0	1	1
11:30	2	2	0	2	0	6	9	0	0	0	0	0	0	0
11:45	6	2	3	5	0	16	24	0	1	0	0	0	1	1
H/TOT	20	7	5	20	0	52	81	1	1	0	0	0	2	2
12:00	5	0	4	4	0	13	20	1	0	0	0	0	1	1
12:15	2	0	0	4	0	6	11	0	0	0	0	0	0	0
12:30	2	4	2	4	0	12	18	0	0	0	0	0	0	0
12:45	2	1	0	4	0	7	12	0	0	0	0	0	0	0
H/TOT	11	5	6	16	0	38	62	1	0	0	0	0	1	1

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

TIME	MOVEMENT 3					TOT	PCU	MOVEMENT 4					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
07:00	1	0	0	0	0	1	1	0	0	0	0	0	0	0
07:15	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
07:45	3	0	0	0	0	3	3	0	0	0	0	0	0	0
H/TOT	4	0	0	0	0	4	4	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	1	0	0	0	1	1
08:30	1	0	0	0	0	1	1	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	1	1	0	1	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	0	1	0	0	1	2
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	1	0	0	0	1	1	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	1	0	0	0	1	1	0	0	1	0	0	1	2
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	1	1	0	0	0	2	2	0	0	0	0	0	0	0
10:30	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
H/TOT	1	1	0	0	0	2	2	0	0	0	0	0	0	0
11:00	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
11:30	1	0	0	0	0	1	1	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	0	0	0	1	1	0	0	0	0	0	0	0
12:00	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
12:30	0	0	0	0	0	0	0	3	0	0	0	0	3	3
12:45	0	1	0	0	0	1	1	0	0	0	0	0	0	0
H/TOT	0	1	0	0	0	1	1	3	0	0	0	0	3	3

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

TIME	MOVEMENT 5					TOT	PCU	MOVEMENT 6					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
07:00	0	0	0	0	0	0	0	3	1	0	19	0	23	48
07:15	0	0	0	0	0	0	0	2	3	0	11	0	16	30
07:30	0	0	0	0	0	0	0	3	0	2	15	0	20	41
07:45	0	0	0	0	0	0	0	0	3	0	10	0	13	26
H/TOT	0	0	0	0	0	0	0	8	7	2	55	0	72	145
08:00	0	0	0	0	0	0	0	2	3	1	20	0	26	53
08:15	0	0	0	0	0	0	0	3	0	0	14	0	17	35
08:30	0	0	0	0	0	0	0	4	2	4	26	0	36	72
08:45	0	0	0	0	0	0	0	4	4	1	16	0	25	46
H/TOT	0	0	0	0	0	0	0	13	9	6	76	0	104	206
09:00	0	0	0	0	0	0	0	2	2	2	18	0	24	48
09:15	0	0	0	0	0	0	0	3	2	0	22	0	27	56
09:30	0	1	0	0	0	1	1	7	6	2	20	0	35	62
09:45	0	0	0	0	0	0	0	9	4	2	19	0	34	60
H/TOT	0	1	0	0	0	1	1	21	14	6	79	0	120	226
10:00	0	0	0	0	0	0	0	6	2	0	25	0	33	66
10:15	0	0	0	0	0	0	0	8	2	2	16	0	28	50
10:30	0	0	0	0	0	0	0	4	3	3	19	0	29	55
10:45	0	0	0	0	0	0	0	10	6	2	19	0	37	63
H/TOT	0	0	0	0	0	0	0	28	13	7	79	0	127	233
11:00	0	0	0	0	0	0	0	2	1	2	15	0	20	41
11:15	0	0	0	0	0	0	0	6	4	2	27	0	39	75
11:30	0	0	0	0	0	0	0	7	3	1	17	0	28	51
11:45	0	0	0	0	0	0	0	6	4	6	15	0	31	54
H/TOT	0	0	0	0	0	0	0	21	12	11	74	0	118	220
12:00	0	0	0	0	0	0	0	7	5	1	9	0	22	34
12:15	0	0	0	0	0	0	0	9	2	3	18	0	32	57
12:30	1	0	0	0	0	1	1	10	5	2	13	0	30	48
12:45	0	0	0	0	0	0	0	9	4	1	14	0	28	47
H/TOT	1	0	0	0	0	1	1	35	16	7	54	0	112	186

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

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	8	2	1	3	0	14	18	2	0	0	0	0	2	2	44	34	8	5	1	92	104
07:15	6	5	0	9	0	20	32	0	0	0	0	0	0	0	37	30	14	12	1	94	118
07:30	10	2	1	6	0	19	27	5	0	0	0	0	5	5	59	27	8	8	1	103	118
07:45	11	3	0	8	0	22	32	3	0	0	0	0	3	3	50	24	3	5	1	83	92
H/TOT	35	12	2	26	0	75	110	10	0	0	0	0	10	10	190	115	33	30	4	372	432
08:00	11	0	1	9	0	21	33	1	0	0	0	0	1	1	48	22	9	6	1	86	99
08:15	10	0	1	10	0	21	35	0	0	0	0	0	0	0	59	19	7	2	1	88	95
08:30	2	5	0	11	0	18	32	0	0	0	0	0	0	0	51	16	3	9	0	79	92
08:45	5	5	1	12	0	23	39	0	0	1	0	0	1	2	77	28	7	5	1	118	129
H/TOT	28	10	3	42	0	83	139	1	0	1	0	0	2	3	235	85	26	22	3	371	416
09:00	6	4	0	12	0	22	38	0	0	0	0	0	0	0	57	26	10	11	2	106	127
09:15	8	2	1	12	0	23	39	0	1	0	0	0	1	1	48	20	10	6	1	85	99
09:30	7	2	1	6	0	16	24	0	1	0	0	0	1	1	54	18	9	10	1	92	111
09:45	5	1	2	13	0	21	39	0	0	0	0	0	0	0	34	20	9	12	0	75	95
H/TOT	26	9	4	43	0	82	140	0	2	0	0	0	2	2	193	84	38	39	4	358	432
10:00	2	2	1	17	0	22	45	1	0	0	0	0	1	1	34	18	14	11	1	78	100
10:15	6	2	1	14	0	23	42	2	0	0	0	0	2	2	43	21	8	11	1	84	103
10:30	2	3	0	8	0	13	23	1	1	0	0	0	2	2	31	21	6	10	1	69	86
10:45	5	1	1	13	0	20	37	1	0	0	0	0	1	1	42	22	15	15	2	96	125
H/TOT	15	8	3	52	0	78	147	5	1	0	0	0	6	6	150	82	43	47	5	327	415
11:00	3	3	0	24	1	31	63	0	0	0	0	0	0	0	38	21	11	20	2	92	126
11:15	5	2	2	9	0	18	31	3	1	0	0	0	4	4	33	17	16	10	1	77	99
11:30	2	1	0	16	0	19	40	0	0	0	0	0	0	0	39	18	4	12	1	74	93
11:45	3	5	3	5	0	16	24	0	0	0	0	0	0	0	32	17	13	12	1	75	98
H/TOT	13	11	5	54	1	84	158	3	1	0	0	0	4	4	142	73	44	54	5	318	415
12:00	7	0	1	10	0	18	32	0	0	0	0	0	0	0	31	18	12	11	0	72	92
12:15	3	0	2	12	0	17	34	1	0	0	0	0	1	1	27	18	9	13	2	69	92
12:30	3	2	0	12	0	17	33	2	0	0	0	0	2	2	32	18	10	13	1	74	97
12:45	2	1	0	14	0	17	35	0	0	0	0	0	0	0	31	20	12	11	0	74	94
H/TOT	15	3	3	48	0	69	133	3	0	0	0	0	3	3	121	74	43	48	3	289	376

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

TIME	MOVEMENT 1					TOT	PCU	MOVEMENT 2					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	6	2	1	4	0	13	19	1	0	0	0	0	1	1
13:15	3	3	2	3	0	11	16	0	0	0	0	0	0	0
13:30	3	0	2	6	0	11	20	0	0	0	0	0	0	0
13:45	3	5	1	5	0	14	21	0	0	0	0	0	0	0
H/TOT	15	10	6	18	0	49	75	1	0	0	0	0	1	1
14:00	2	0	1	4	0	7	13	3	0	0	0	0	3	3
14:15	3	1	0	4	0	8	13	0	0	0	0	0	0	0
14:30	3	2	1	4	0	10	16	0	0	0	0	0	0	0
14:45	2	2	2	7	0	13	23	0	0	0	0	0	0	0
H/TOT	10	5	4	19	0	38	65	3	0	0	0	0	3	3
15:00	3	1	0	6	0	10	18	0	0	0	0	0	0	0
15:15	3	2	1	6	0	12	20	1	0	0	0	0	1	1
15:30	0	3	1	8	0	12	23	1	0	0	0	0	1	1
15:45	1	0	0	5	0	6	13	1	0	0	0	0	1	1
H/TOT	7	6	2	25	0	40	74	3	0	0	0	0	3	3
16:00	3	1	0	6	0	10	18	0	0	0	0	0	0	0
16:15	1	1	1	2	0	5	8	1	0	0	0	0	1	1
16:30	2	0	1	2	0	5	8	0	0	0	0	0	0	0
16:45	4	0	1	0	0	5	6	0	0	0	0	0	0	0
H/TOT	10	2	3	10	0	25	40	1	0	0	0	0	1	1
17:00	1	1	0	1	0	3	4	0	0	0	0	0	0	0
17:15	3	1	0	1	0	5	6	0	0	0	0	0	0	0
17:30	1	0	0	1	0	2	3	0	0	0	0	0	0	0
17:45	2	2	0	0	0	4	4	0	0	0	0	0	0	0
H/TOT	7	4	0	3	0	14	18	0	0	0	0	0	0	0
18:00	1	1	0	1	0	3	4	0	1	0	0	0	1	1
18:15	2	0	0	0	0	2	2	0	0	0	0	0	0	0
18:30	5	0	0	1	0	6	7	0	0	0	0	0	0	0
18:45	2	1	0	0	0	3	3	1	0	0	0	0	1	1
H/TOT	10	2	0	2	0	14	17	1	1	0	0	0	2	2
P/TOT	151	74	39	212	0	476	771	20	4	0	0	0	24	24

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

TIME	MOVEMENT 3					TOT	PCU	MOVEMENT 4					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	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
13:30	0	0	0	0	0	0	0	1	0	0	0	0	1	1
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	1	0	0	0	0	1	1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	2	0	0	0	0	2	2	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	1	0	0	0	0	1	1
H/TOT	2	0	0	0	0	2	2	1	0	0	0	0	1	1
15:00	4	0	0	0	0	4	4	0	0	0	0	0	0	0
15:15	1	0	0	0	0	1	1	0	0	0	0	0	0	0
15:30	2	0	0	0	0	2	2	0	0	0	0	0	0	0
15:45	1	2	0	0	0	3	3	0	0	0	0	0	0	0
H/TOT	8	2	0	0	0	10	10	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	5	0	0	0	0	5	5	1	0	0	0	0	1	1
16:30	2	0	0	0	0	2	2	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	7	0	0	0	0	7	7	1	0	0	0	0	1	1
17:00	1	1	0	0	0	2	2	0	1	0	0	0	1	1
17:15	8	0	0	0	0	8	8	0	0	0	0	0	0	0
17:30	6	0	0	0	0	6	6	0	0	0	0	0	0	0
17:45	1	0	0	0	0	1	1	0	0	0	0	0	0	0
H/TOT	16	1	0	0	0	17	17	0	1	0	0	0	1	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	1	0	0	0	1	1	0	0	0	0	0	0	0
18:45	3	0	0	0	0	3	3	0	0	0	0	0	0	0
H/TOT	3	1	0	0	0	4	4	0	0	0	0	0	0	0
P/TOT	43	7	0	0	0	50	50	6	2	1	0	0	9	10

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

TIME	MOVEMENT 5					TOT	PCU	MOVEMENT 6					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	1	0	0	0	0	1	1	14	3	2	20	0	39	66
13:15	0	0	0	0	0	0	0	10	3	2	17	0	32	55
13:30	0	0	0	0	0	0	0	3	1	2	22	0	28	58
13:45	1	0	0	0	0	1	1	3	4	1	16	0	24	45
H/TOT	2	0	0	0	0	2	2	30	11	7	75	0	123	224
14:00	0	0	0	0	0	0	0	6	2	3	14	0	25	45
14:15	0	0	0	0	0	0	0	3	2	3	26	0	34	69
14:30	1	0	0	0	0	1	1	14	2	0	25	0	41	74
14:45	0	0	0	0	0	0	0	8	2	2	17	1	30	54
H/TOT	1	0	0	0	0	1	1	31	8	8	82	1	130	242
15:00	0	0	0	0	0	0	0	9	7	1	14	0	31	50
15:15	0	0	0	0	0	0	0	10	5	1	16	0	32	53
15:30	0	0	0	0	0	0	0	10	3	4	20	0	37	65
15:45	0	0	0	0	0	0	0	11	5	0	20	0	36	62
H/TOT	0	0	0	0	0	0	0	40	20	6	70	0	136	230
16:00	0	0	0	0	0	0	0	20	7	3	23	0	53	84
16:15	0	0	0	0	0	0	0	23	7	1	7	0	38	48
16:30	0	0	0	0	0	0	0	26	6	1	4	0	37	43
16:45	0	0	0	0	0	0	0	36	8	2	2	0	48	52
H/TOT	0	0	0	0	0	0	0	105	28	7	36	0	176	226
17:00	0	0	0	0	0	0	0	20	6	2	0	0	28	29
17:15	0	0	0	0	0	0	0	10	5	1	2	0	18	21
17:30	0	0	0	0	0	0	0	13	1	1	2	0	17	20
17:45	0	0	0	0	0	0	0	8	4	0	2	0	14	17
H/TOT	0	0	0	0	0	0	0	51	16	4	6	0	77	87
18:00	0	0	0	0	0	0	0	9	3	2	0	0	14	15
18:15	0	0	0	0	0	0	0	4	5	0	1	0	10	11
18:30	0	0	0	0	0	0	0	12	2	0	0	0	14	14
18:45	0	0	0	0	0	0	0	14	4	0	0	0	18	18
H/TOT	0	0	0	0	0	0	0	39	14	2	1	0	56	58
P/TOT	4	1	0	0	0	5	5	422	168	73	687	1	1351	2282

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  02

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters Off Slip/Dogs Trust

DAY: Thursday

TIME	MOVEMENT 7							MOVEMENT 8							MOVEMENT 9						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	5	0	2	16	0	23	45	0	0	0	0	0	0	0	35	14	20	13	1	83	111
13:15	10	2	0	7	0	19	28	1	0	0	0	0	1	1	33	27	11	21	2	94	129
13:30	2	0	1	18	0	21	45	0	0	0	0	0	0	0	38	12	6	13	1	70	91
13:45	1	2	1	14	0	18	37	0	0	0	0	0	0	0	43	18	11	8	0	80	96
H/TOT	18	4	4	55	0	81	155	1	0	0	0	0	1	1	149	71	48	55	4	327	427
14:00	2	1	1	13	0	17	34	0	0	0	0	0	0	0	28	20	11	14	1	74	99
14:15	3	2	0	18	0	23	46	0	0	0	0	0	0	0	33	15	13	15	1	77	104
14:30	4	2	0	11	0	17	31	0	0	0	0	0	0	0	35	20	11	8	1	75	92
14:45	2	1	2	13	0	18	36	0	0	0	0	0	0	0	42	26	15	15	0	98	125
H/TOT	11	6	3	55	0	75	148	0	0	0	0	0	0	0	138	81	50	52	3	324	420
15:00	5	2	2	14	0	23	42	1	0	0	0	0	1	1	33	20	9	7	1	70	85
15:15	4	3	1	14	0	22	41	0	0	0	0	0	0	0	26	17	13	11	2	69	92
15:30	4	1	1	17	0	23	46	0	0	0	0	0	0	0	33	22	17	14	1	87	115
15:45	2	0	1	8	0	11	22	0	0	0	0	0	0	0	20	23	15	12	1	71	95
H/TOT	15	6	5	53	0	79	150	1	0	0	0	0	1	1	112	82	54	44	5	297	386
16:00	2	1	1	9	0	13	25	1	0	0	0	0	1	1	38	21	14	9	1	83	103
16:15	1	1	1	9	0	12	24	0	0	0	0	0	0	0	29	21	14	12	1	77	101
16:30	1	0	2	5	0	8	16	0	0	0	0	0	0	0	33	12	9	9	0	63	79
16:45	3	1	1	3	0	8	12	2	0	0	0	0	2	2	39	17	13	12	1	82	105
H/TOT	7	3	5	26	0	41	77	3	0	0	0	0	3	3	139	71	50	42	3	305	388
17:00	1	0	0	3	0	4	8	0	0	0	0	0	0	0	39	11	12	7	1	70	86
17:15	0	0	1	6	0	7	15	0	0	0	0	0	0	0	32	9	10	5	2	58	72
17:30	1	1	0	1	0	3	4	1	0	0	0	0	1	1	47	15	3	7	1	73	85
17:45	1	0	0	0	0	1	1	1	0	0	0	0	1	1	37	13	9	13	1	73	95
H/TOT	3	1	1	10	0	15	29	2	0	0	0	0	2	2	155	48	34	32	5	274	338
18:00	2	0	0	0	0	2	2	0	0	0	0	0	0	0	31	15	9	9	2	66	84
18:15	1	0	0	0	0	1	1	0	0	0	0	0	0	0	30	11	10	9	0	60	77
18:30	1	1	0	0	0	2	2	0	0	0	0	0	0	0	25	8	1	5	2	41	50
18:45	1	0	0	1	0	2	3	0	0	0	0	0	0	0	35	9	5	9	0	58	72
H/TOT	5	1	0	1	0	7	8	0	0	0	0	0	0	0	121	43	25	32	4	225	283
P/TOT	191	74	38	465	1	769	1394	29	4	1	0	0	34	35	1845	909	488	497	48	3787	4725

Site 3 – North Road/N2 Coldwinters On Slip/Airport Logistics Park

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 03

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters On Slip/Airport Logistics Park

DAY: Thursday

TIME	MOVEMENT 1					TOT	PCU	MOVEMENT 2					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
07:00	13	12	2	5	0	32	40	34	24	8	19	1	86	116
07:15	15	8	5	3	0	31	37	38	25	16	19	3	101	137
07:30	13	12	5	1	0	31	35	30	13	17	15	2	77	107
07:45	14	10	0	5	0	29	36	41	19	15	7	2	84	103
H/TOT	55	42	12	14	0	123	147	143	81	56	60	8	348	462
08:00	15	3	5	6	0	29	39	25	24	14	20	1	84	118
08:15	24	3	2	3	0	32	37	40	21	12	12	1	86	109
08:30	14	2	2	6	0	24	33	48	29	14	11	1	103	125
08:45	25	2	0	3	0	30	34	33	20	8	19	0	80	109
H/TOT	78	10	9	18	0	115	143	146	94	48	62	3	353	461
09:00	8	4	1	4	0	17	23	26	24	13	27	2	92	136
09:15	12	0	1	3	0	16	20	38	27	9	23	1	98	133
09:30	8	5	3	6	0	22	31	39	22	6	14	1	82	104
09:45	4	3	2	6	0	15	24	50	25	8	14	1	98	121
H/TOT	32	12	7	19	0	70	98	153	98	36	78	5	370	494
10:00	4	1	2	2	0	9	13	32	31	11	24	1	99	137
10:15	4	0	3	1	0	8	11	33	27	8	33	1	102	150
10:30	8	4	1	5	0	18	25	27	24	11	21	0	83	116
10:45	3	4	1	6	0	14	22	34	25	9	25	1	94	132
H/TOT	19	9	7	14	0	49	71	126	107	39	103	3	378	534
11:00	5	5	1	9	1	21	34	41	29	3	14	1	88	109
11:15	1	2	0	9	0	12	24	30	23	8	26	1	88	127
11:30	4	0	3	5	0	12	20	30	15	9	17	1	72	100
11:45	5	1	0	4	0	10	15	38	24	13	15	0	90	116
H/TOT	15	8	4	27	1	55	93	139	91	33	72	3	338	451
12:00	6	4	2	7	0	19	29	32	17	8	13	1	71	93
12:15	6	5	1	6	0	18	26	35	17	10	15	1	78	104
12:30	5	2	4	5	0	16	25	28	23	10	20	1	82	114
12:45	3	2	0	3	0	8	12	47	21	5	13	1	87	107
H/TOT	20	13	7	21	0	61	92	142	78	33	61	4	318	418

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 03

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters On Slip/Airport Logistics Park

DAY: Thursday

TIME	MOVEMENT 3					TOT	PCU	MOVEMENT 4					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
07:00	2	2	2	2	0	8	12	2	3	2	1	0	8	10
07:15	1	1	0	3	0	5	9	3	5	1	1	0	10	12
07:30	5	2	6	4	0	17	25	4	3	0	1	0	8	9
07:45	2	4	2	3	0	11	16	2	0	2	1	0	5	7
H/TOT	10	9	10	12	0	41	62	11	11	5	4	0	31	39
08:00	3	4	3	11	0	21	37	5	4	5	0	0	14	17
08:15	3	5	5	5	0	18	27	4	1	5	1	0	11	15
08:30	2	5	10	5	0	22	34	3	3	2	1	0	9	11
08:45	4	28	3	1	0	36	39	4	15	0	1	0	20	21
H/TOT	12	42	21	22	0	97	136	16	23	12	3	0	54	64
09:00	9	7	1	3	0	20	24	5	7	1	0	0	13	14
09:15	2	5	4	9	0	20	34	1	6	2	1	0	10	12
09:30	0	1	6	3	0	10	17	3	5	0	2	0	10	13
09:45	6	4	4	6	0	20	30	2	6	3	4	0	15	22
H/TOT	17	17	15	21	0	70	105	11	24	6	7	0	48	60
10:00	2	1	3	1	0	7	10	1	1	1	2	0	5	8
10:15	4	3	3	6	0	16	25	5	4	1	3	0	13	17
10:30	3	1	0	7	0	11	20	5	3	1	2	0	11	14
10:45	5	2	6	2	0	15	21	4	5	1	2	0	12	15
H/TOT	14	7	12	16	0	49	76	15	13	4	9	0	41	55
11:00	4	5	0	3	1	13	18	4	5	1	1	0	11	13
11:15	1	4	3	10	0	18	33	2	6	0	1	0	9	10
11:30	5	3	5	9	0	22	36	3	1	1	2	0	7	10
11:45	4	1	1	8	0	14	25	1	2	0	2	0	5	8
H/TOT	14	13	9	30	1	67	112	10	14	2	6	0	32	41
12:00	3	1	0	3	0	7	11	6	2	2	2	0	12	16
12:15	4	4	1	5	0	14	21	4	1	0	1	0	6	7
12:30	4	2	4	7	0	17	28	5	0	0	0	0	5	5
12:45	13	0	1	6	0	20	28	3	1	1	1	0	6	8
H/TOT	24	7	6	21	0	58	88	18	4	3	4	0	29	36

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 03

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters On Slip/Airport Logistics Park

DAY: Thursday

TIME	MOVEMENT 1					TOT	PCU	MOVEMENT 2					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	7	0	3	5	0	15	23	57	17	10	26	0	110	149
13:15	4	2	1	9	0	16	28	46	15	13	26	1	101	142
13:30	11	2	4	4	0	21	28	38	20	16	25	1	100	142
13:45	16	2	2	7	0	27	37	32	13	5	13	1	64	84
H/TOT	38	6	10	25	0	79	117	173	65	44	90	3	375	517
14:00	2	7	1	4	0	14	20	41	18	14	22	1	96	133
14:15	8	3	5	6	0	22	32	34	18	9	20	1	82	114
14:30	4	1	7	8	0	20	34	46	24	5	25	1	101	137
14:45	5	9	2	7	0	23	33	36	15	6	21	2	80	112
H/TOT	19	20	15	25	0	79	119	157	75	34	88	5	359	495
15:00	7	6	4	3	0	20	26	57	17	6	16	0	96	120
15:15	3	4	3	4	0	14	21	52	28	4	20	1	105	134
15:30	3	5	4	6	0	18	28	55	19	10	17	1	102	130
15:45	13	4	12	3	0	32	42	52	14	4	23	0	93	125
H/TOT	26	19	23	16	0	84	116	216	78	24	76	2	396	509
16:00	6	7	2	5	0	20	28	69	39	4	14	1	127	148
16:15	5	6	3	4	0	18	25	60	24	9	10	1	104	123
16:30	3	3	3	2	0	11	15	91	17	3	5	2	118	128
16:45	9	3	8	9	0	29	45	93	22	8	4	0	127	136
H/TOT	23	19	16	20	0	78	112	313	102	24	33	4	476	535
17:00	1	3	2	4	0	10	16	102	24	2	2	3	133	140
17:15	5	7	0	3	0	15	19	90	18	5	5	1	119	129
17:30	5	7	0	3	0	15	19	77	12	1	4	0	94	100
17:45	1	4	4	1	0	10	13	52	8	2	2	1	65	70
H/TOT	12	21	6	11	0	50	67	321	62	10	13	5	411	438
18:00	4	3	5	2	0	14	19	42	8	2	2	1	55	60
18:15	3	2	1	0	0	6	7	42	10	2	1	1	56	59
18:30	2	6	2	3	0	13	18	42	8	1	4	1	56	63
18:45	0	3	0	3	0	6	10	64	8	4	0	0	76	78
H/TOT	9	14	8	8	0	39	53	190	34	9	7	3	243	260
P/TOT	346	193	124	218	1	882	1228	2219	965	390	743	48	4365	5574

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 03

DATE: 8th September 2022

LOCATION: North Road/N2 Coldwinters On Slip/Airport Logistics Park

DAY: Thursday

TIME	MOVEMENT 3					TOT	PCU	MOVEMENT 4					TOT	PCU
	CAR	LGV	OGV1	OGV2	BUS			CAR	LGV	OGV1	OGV2	BUS		
13:00	6	4	1	2	0	13	16	5	5	0	2	0	12	15
13:15	6	2	3	6	0	17	26	11	3	1	1	0	16	18
13:30	5	0	1	4	0	10	16	4	3	2	3	0	12	17
13:45	7	1	0	6	0	14	22	5	1	0	2	0	8	11
H/TOT	24	7	5	18	0	54	80	25	12	3	8	0	48	60
14:00	8	2	2	7	0	19	29	7	1	0	3	0	11	15
14:15	5	1	1	3	0	10	14	3	5	0	1	0	9	10
14:30	8	2	2	6	0	18	27	2	1	1	3	0	7	11
14:45	6	3	0	6	0	15	23	4	2	0	3	0	9	13
H/TOT	27	8	5	22	0	62	93	16	9	1	10	0	36	50
15:00	11	5	0	5	0	21	28	1	5	1	2	0	9	12
15:15	7	4	1	7	0	19	29	4	4	0	1	0	9	10
15:30	16	6	2	2	0	26	30	4	3	0	2	0	9	12
15:45	9	2	4	2	0	17	22	6	2	0	4	0	12	17
H/TOT	43	17	7	16	0	83	107	15	14	1	9	0	39	51
16:00	13	10	2	9	0	34	47	6	2	0	2	0	10	13
16:15	10	6	2	4	0	22	28	7	3	1	1	0	12	14
16:30	29	5	1	6	0	41	49	4	4	1	0	0	9	10
16:45	18	7	1	3	0	29	33	10	1	0	0	0	11	11
H/TOT	70	28	6	22	0	126	158	27	10	2	3	0	42	47
17:00	22	3	3	6	0	34	43	11	7	1	1	0	20	22
17:15	20	2	1	0	0	23	24	1	2	1	0	0	4	5
17:30	15	1	1	1	1	19	22	6	2	0	0	0	8	8
17:45	15	5	0	2	0	22	25	4	5	2	1	0	12	14
H/TOT	72	11	5	9	1	98	113	22	16	4	2	0	44	49
18:00	4	2	3	0	0	9	11	12	2	1	0	0	15	16
18:15	6	1	2	2	0	11	15	3	2	2	0	0	7	8
18:30	3	1	3	1	0	8	11	4	1	0	1	0	6	7
18:45	7	2	0	0	0	9	9	2	2	0	0	0	4	4
H/TOT	20	6	8	3	0	37	45	21	7	3	1	0	32	35
P/TOT	347	172	109	212	2	842	1174	207	157	46	66	0	476	585

Site 4 – North Road/Link to Airport Logistic Park

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  04

DATE: 8th September 2022

LOCATION: North Road/Link to Airport Logistic Park

DAY: Thursday

TIME	MOVEMENT 1							PCU	MOVEMENT 2							PCU	MOVEMENT 3							PCU
	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR		LGV	OGV1	OGV2	BUS	TOT	CAR	LGV		OGV1	OGV2	BUS	TOT				
07:00	26	21	10	8	1	66	82	6	1	1	6	0	14	22	24	18	6	12	1	61	81			
07:15	41	17	15	10	3	86	110	3	2	1	4	0	10	16	37	22	9	12	1	81	102			
07:30	28	17	17	6	2	70	88	4	1	1	4	0	10	16	42	15	4	10	1	72	88			
07:45	46	17	14	1	2	80	90	5	3	0	9	0	17	29	40	17	3	5	0	65	73			
H/TOT	141	72	56	25	8	302	371	18	7	3	23	0	51	82	143	72	22	39	3	279	344			
08:00	30	19	14	7	1	71	88	4	1	0	7	0	12	21	38	18	5	7	2	70	84			
08:15	43	21	12	6	1	83	98	8	3	0	4	0	15	20	43	14	4	7	1	69	81			
08:30	42	26	11	5	1	85	98	7	4	2	6	0	19	28	37	13	2	12	0	64	81			
08:45	34	16	8	10	0	68	85	6	3	1	6	0	16	24	58	26	7	7	1	99	113			
H/TOT	149	82	45	28	3	307	369	25	11	3	23	0	62	93	176	71	18	33	4	302	358			
09:00	21	23	11	15	2	72	99	4	1	0	8	0	13	23	46	23	10	13	2	94	118			
09:15	34	23	8	7	1	73	87	3	6	1	7	0	17	27	33	21	11	16	1	82	109			
09:30	33	21	5	3	1	63	70	6	3	0	4	0	13	18	42	16	3	10	0	71	86			
09:45	45	19	5	5	1	75	85	6	1	1	7	0	15	25	31	16	8	13	1	69	91			
H/TOT	133	86	29	30	5	283	342	19	11	2	26	0	58	93	152	76	32	52	4	316	404			
10:00	27	29	10	7	1	74	89	5	0	1	7	0	13	23	28	19	10	15	1	73	99			
10:15	23	22	8	16	1	70	96	6	2	3	4	0	15	22	32	23	8	7	1	71	85			
10:30	26	22	11	7	0	66	81	1	2	0	7	0	10	19	31	18	7	12	1	69	89			
10:45	25	20	8	10	1	64	82	3	1	1	6	0	11	19	28	19	16	11	1	75	98			
H/TOT	101	93	37	40	3	274	348	15	5	5	24	0	49	83	119	79	41	45	4	288	371			
11:00	36	25	2	5	1	69	78	8	2	3	8	0	21	33	28	14	15	17	1	75	106			
11:15	25	19	8	11	1	64	83	5	4	0	5	0	14	21	38	18	18	15	1	90	120			
11:30	24	12	10	7	1	54	69	3	1	0	3	0	7	11	37	16	3	15	1	72	94			
11:45	33	23	9	5	0	70	81	3	3	3	5	0	14	22	27	21	12	15	1	76	103			
H/TOT	118	79	29	28	3	257	311	19	10	6	21	0	56	86	130	69	48	62	4	313	422			
12:00	30	12	6	6	1	55	67	2	0	2	3	0	7	12	33	14	11	9	0	67	84			
12:15	33	17	7	5	1	63	74	3	1	1	4	0	9	15	27	17	6	11	2	63	82			
12:30	22	20	10	10	1	63	82	3	3	1	4	0	11	17	36	19	11	14	1	81	106			
12:45	36	18	5	5	1	65	75	7	3	0	5	0	15	22	26	18	12	11	0	67	87			
H/TOT	121	67	28	26	4	246	298	15	7	4	16	0	42	65	122	68	40	45	3	278	360			

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  04

DATE: 8th September 2022

LOCATION: North Road/Link to Airport Logistic Park

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	21	15	0	16	0	52	73	0	0	0	0	0	0	0	2	3	2	1	0	8	10
07:15	12	16	6	12	0	46	65	0	1	0	0	0	1	1	3	4	1	1	0	9	11
07:30	15	8	5	10	0	38	54	0	1	0	0	0	1	1	4	2	0	1	0	7	8
07:45	9	12	1	11	0	33	48	0	0	0	1	0	1	2	2	0	2	0	0	4	5
H/TOT	57	51	12	49	0	169	239	0	2	0	1	0	3	4	11	9	5	3	0	28	34
08:00	10	8	5	19	0	42	69	0	1	0	0	0	1	1	5	3	5	0	0	13	16
08:15	21	3	2	9	0	35	48	0	0	0	1	0	1	2	4	1	5	0	0	10	13
08:30	20	5	5	12	0	42	60	1	0	0	0	0	1	1	2	3	2	1	0	8	10
08:45	24	6	0	12	0	42	58	0	0	0	1	0	1	2	4	15	0	0	0	19	19
H/TOT	75	22	12	52	0	161	235	1	1	0	2	0	4	7	15	22	12	1	0	50	57
09:00	13	5	3	16	0	37	59	0	0	0	0	0	0	0	5	7	1	0	0	13	14
09:15	16	4	2	19	0	41	67	0	1	0	0	0	1	1	1	5	2	1	0	9	11
09:30	14	6	4	17	0	41	65	0	0	0	0	0	0	0	3	5	0	2	0	10	13
09:45	9	9	5	15	0	38	60	0	0	0	0	0	0	0	2	6	3	4	0	15	22
H/TOT	52	24	14	67	0	157	251	0	1	0	0	0	1	1	11	23	6	7	0	47	59
10:00	9	3	3	19	0	34	60	0	0	0	0	0	0	0	1	1	1	2	0	5	8
10:15	14	5	3	18	0	40	65	1	0	0	1	0	2	3	4	4	1	2	0	11	14
10:30	9	6	1	19	0	35	60	1	0	0	0	0	1	1	4	3	1	2	0	10	13
10:45	12	9	2	21	0	44	72	0	0	0	0	0	0	0	4	5	1	2	0	12	15
H/TOT	44	23	9	77	0	153	258	2	0	0	1	0	3	4	13	13	4	8	0	38	50
11:00	10	9	2	18	1	40	65	0	0	0	0	0	0	0	4	5	1	1	0	11	13
11:15	6	6	0	24	0	36	67	0	0	0	0	0	0	0	2	6	0	1	0	9	10
11:30	10	3	2	15	0	30	51	1	0	0	0	0	1	1	2	1	1	2	0	6	9
11:45	10	2	4	14	0	30	50	0	0	0	1	0	1	2	1	2	0	1	0	4	5
H/TOT	36	20	8	71	1	136	233	1	0	0	1	0	2	3	9	14	2	5	0	30	38
12:00	8	9	4	14	0	35	55	0	0	1	0	0	1	2	6	2	1	2	0	11	14
12:15	8	5	4	16	0	33	56	1	0	0	0	0	1	1	3	1	0	1	0	5	6
12:30	11	5	4	15	0	35	57	0	0	0	0	0	0	0	5	0	0	0	0	5	5
12:45	14	5	0	11	0	30	44	0	0	0	0	0	0	0	3	1	1	1	0	6	8
H/TOT	41	24	12	56	0	133	212	1	0	1	0	0	2	3	17	4	2	4	0	27	33

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  04

DATE: 8th September 2022

LOCATION: North Road/Link to Airport Logistic Park

DAY: Thursday

TIME	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	44	15	9	11	0	79	98	6	3	1	3	0	13	17	27	12	14	15	1	69	97
13:15	41	12	12	10	1	76	96	6	1	3	2	0	12	16	35	32	14	14	2	97	124
13:30	33	20	15	9	1	78	98	4	2	2	7	0	15	25	25	15	3	15	0	58	79
13:45	29	12	4	6	1	52	63	4	2	2	4	0	12	18	23	14	13	9	1	60	79
H/TOT	147	59	40	36	3	285	355	20	8	8	16	0	52	77	110	73	44	53	4	284	379
14:00	31	19	10	5	1	66	79	6	2	1	3	0	12	16	25	17	7	17	1	67	94
14:15	32	17	9	5	1	64	76	1	1	0	4	0	6	11	28	17	9	16	1	71	97
14:30	34	22	7	7	1	71	85	4	2	0	4	0	10	15	32	20	5	9	0	66	80
14:45	27	16	5	9	2	59	75	2	2	2	7	0	13	23	35	18	15	11	2	81	105
H/TOT	124	74	31	26	5	260	314	13	7	3	18	0	41	66	120	72	36	53	4	285	376
15:00	51	12	7	7	0	77	90	2	2	0	5	0	9	16	27	19	6	13	1	66	87
15:15	40	23	4	8	1	76	89	3	2	1	6	0	12	20	20	20	9	10	1	60	79
15:30	41	16	5	5	1	68	78	4	3	0	6	0	13	21	26	18	11	15	1	71	97
15:45	52	10	9	10	0	81	99	3	0	0	5	0	8	15	23	21	10	18	1	73	102
H/TOT	184	61	25	30	2	302	356	12	7	1	22	0	42	71	96	78	36	56	4	270	365
16:00	52	34	3	5	1	95	104	3	1	0	4	0	8	13	30	15	12	19	1	77	109
16:15	40	17	8	6	1	72	85	1	2	0	2	0	5	8	37	19	13	11	1	81	103
16:30	65	14	4	1	2	86	91	3	0	1	2	0	6	9	27	13	6	6	0	52	63
16:45	62	19	7	0	0	88	92	3	0	1	0	0	4	5	43	19	7	5	1	75	86
H/TOT	219	84	22	12	4	341	372	10	3	2	8	0	23	34	137	66	38	41	3	285	360
17:00	81	19	2	4	3	109	118	0	0	0	1	0	1	2	46	14	12	5	1	78	92
17:15	78	18	4	4	1	105	113	2	0	0	2	0	4	7	32	9	9	3	2	55	65
17:30	67	13	1	3	0	84	88	1	0	0	0	0	1	1	46	11	2	6	1	66	76
17:45	44	7	2	1	1	55	58	2	1	0	0	0	3	3	36	13	6	13	1	69	90
H/TOT	270	57	9	12	5	353	378	5	1	0	3	0	9	13	160	47	29	27	5	268	323
18:00	34	8	1	3	1	47	52	3	1	0	1	0	5	6	32	13	6	8	2	61	76
18:15	37	7	2	0	1	47	49	2	0	1	0	0	3	4	29	9	9	9	0	56	72
18:30	30	7	2	3	1	43	49	3	1	1	0	0	5	6	19	7	1	2	2	31	36
18:45	49	5	3	2	0	59	63	2	1	1	0	0	4	5	29	8	5	8	0	50	63
H/TOT	150	27	8	8	3	196	213	10	3	3	1	0	17	20	109	37	21	27	4	198	248
P/TOT	1857	841	359	301	48	3406	4025	181	80	40	201	0	502	783	1574	808	405	533	46	3366	4307

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  04

DATE: 8th September 2022

LOCATION: North Road/Link to Airport Logistic Park

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	20	2	4	20	0	46	74	0	0	0	0	0	0	0	5	5	0	2	0	12	15
13:15	9	5	2	25	0	41	75	0	0	0	0	0	0	0	11	3	1	1	0	16	18
13:30	16	2	5	20	0	43	72	1	0	0	1	0	2	3	3	3	2	2	0	10	14
13:45	19	3	3	14	0	39	59	0	0	0	0	0	0	0	5	1	0	2	0	8	11
H/TOT	64	12	14	79	0	169	279	1	0	0	1	0	2	3	24	12	3	7	0	46	57
14:00	12	6	5	21	0	44	74	0	0	0	1	0	1	2	7	1	0	2	0	10	13
14:15	10	4	5	21	0	40	70	0	2	0	0	0	2	2	3	3	0	1	0	7	8
14:30	16	3	5	26	0	50	86	1	0	1	0	0	2	3	1	1	0	3	0	5	9
14:45	14	8	3	19	0	44	70	0	0	0	0	0	0	0	4	2	0	3	0	9	13
H/TOT	52	21	18	87	0	178	300	1	2	1	1	0	5	7	15	7	0	9	0	31	43
15:00	13	11	3	12	0	39	56	0	0	0	1	0	1	2	1	5	1	1	0	8	10
15:15	15	9	3	16	0	43	65	0	0	0	0	0	0	0	4	4	0	1	0	9	10
15:30	17	8	9	18	0	52	80	0	0	0	2	0	2	5	4	3	0	0	0	7	7
15:45	13	8	7	16	0	44	68	0	0	0	0	0	0	0	6	2	0	4	0	12	17
H/TOT	58	36	22	62	0	178	270	0	0	0	3	0	3	7	15	14	1	6	0	36	44
16:00	23	12	3	14	0	52	72	1	0	0	2	0	3	6	5	2	0	0	0	7	7
16:15	25	13	4	8	0	50	62	3	0	0	0	0	3	3	4	3	1	1	0	9	11
16:30	29	6	2	6	0	43	52	0	0	0	0	0	0	0	4	4	1	0	0	9	10
16:45	40	6	9	13	0	68	89	1	0	0	0	0	1	1	9	1	0	0	0	10	10
H/TOT	117	37	18	41	0	213	275	5	0	0	2	0	7	10	22	10	2	1	0	35	37
17:00	22	8	2	2	0	34	38	1	0	0	0	0	1	1	10	7	1	1	0	19	21
17:15	17	7	1	4	0	29	35	0	0	0	0	0	0	0	1	2	1	0	0	4	5
17:30	15	6	0	4	0	25	30	0	0	0	0	0	0	0	6	2	0	0	0	8	8
17:45	9	5	4	2	0	20	25	0	1	0	0	0	1	1	4	4	2	1	0	11	13
H/TOT	63	26	7	12	0	108	127	1	1	0	0	0	2	2	21	15	4	2	0	42	47
18:00	12	3	6	1	0	22	26	0	0	0	0	0	0	0	12	2	1	0	0	15	16
18:15	8	5	1	1	0	15	17	0	0	0	0	0	0	0	3	2	2	0	0	7	8
18:30	14	7	1	4	0	26	32	0	0	0	0	0	0	0	4	1	0	1	0	6	7
18:45	15	6	1	1	0	23	25	0	0	0	0	0	0	0	2	2	0	0	0	4	4
H/TOT	49	21	9	7	0	86	100	0	0	0	0	0	0	0	21	7	3	1	0	32	35
P/TOT	708	317	155	660	1	1841	2778	13	7	2	12	0	34	51	194	150	44	54	0	442	534

Site 5 – Kilshane Crossroads

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 1							PCU	MOVEMENT 2							PCU	MOVEMENT 3							PCU
	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR		LGV	OGV1	OGV2	BUS	TOT	CAR	LGV		OGV1	OGV2	BUS	TOT				
07:00	18	9	3	1	2	33	38	10	8	4	8	1	31	44	3	1	0	0	0	4	4			
07:15	16	12	2	0	1	31	33	26	3	3	3	1	36	42	3	1	1	0	0	5	6			
07:30	26	11	3	2	2	44	50	10	8	3	3	2	26	33	5	7	0	0	0	12	12			
07:45	37	13	0	3	2	55	61	17	6	2	6	2	33	44	7	1	2	0	0	10	11			
H/TOT	97	45	8	6	7	163	182	63	25	12	20	6	126	164	18	10	3	0	0	31	33			
08:00	35	10	2	1	0	48	50	8	5	2	7	1	23	34	2	0	1	1	0	4	6			
08:15	33	5	6	1	1	46	51	13	6	2	2	1	24	29	8	5	0	1	0	14	15			
08:30	42	7	2	1	1	53	56	8	4	3	5	1	21	30	10	1	0	0	0	11	11			
08:45	32	4	1	2	0	39	42	11	4	2	6	0	23	32	7	2	0	0	0	9	9			
H/TOT	142	26	11	5	2	186	200	40	19	9	20	3	91	125	27	8	1	2	0	38	41			
09:00	23	10	3	1	1	38	42	3	5	4	3	1	16	23	6	5	2	1	0	14	16			
09:15	19	8	3	1	2	33	38	10	6	1	5	1	23	31	9	2	0	0	0	11	11			
09:30	25	6	1	5	1	38	46	5	9	1	5	1	21	29	11	1	3	1	0	16	19			
09:45	16	6	2	0	0	24	25	9	5	4	8	0	26	38	2	0	1	0	0	3	4			
H/TOT	83	30	9	7	4	133	151	27	25	10	21	3	86	121	28	8	6	2	0	44	50			
10:00	20	5	1	3	2	31	37	10	5	3	4	2	24	33	5	0	0	0	0	5	5			
10:15	18	7	3	1	0	29	32	10	4	2	2	0	18	22	7	2	1	2	0	12	15			
10:30	17	9	3	2	1	32	37	8	5	2	6	0	21	30	5	5	2	0	0	12	13			
10:45	13	7	3	2	0	25	29	8	7	1	3	1	20	25	0	3	0	0	0	3	3			
H/TOT	68	28	10	8	3	117	135	36	21	8	15	3	83	110	17	10	3	2	0	32	36			
11:00	14	5	2	3	2	26	33	18	6	2	3	2	31	38	4	2	0	0	0	6	6			
11:15	15	3	2	2	2	24	30	10	7	1	4	0	22	28	1	2	0	0	0	3	3			
11:30	21	4	1	0	0	26	27	9	3	1	2	1	16	20	2	2	0	0	0	4	4			
11:45	11	6	1	4	1	23	30	7	6	0	5	0	18	25	3	2	3	0	0	8	10			
H/TOT	61	18	6	9	5	99	119	44	22	4	14	3	87	110	10	8	3	0	0	21	23			
12:00	19	8	1	2	2	32	37	7	1	1	5	1	15	23	4	3	0	0	0	7	7			
12:15	23	7	5	2	0	37	42	11	6	2	2	1	22	27	0	2	1	0	0	3	4			
12:30	13	4	1	2	0	20	23	8	6	1	5	1	21	29	2	1	1	0	0	4	5			
12:45	16	1	0	0	0	17	17	17	3	2	5	1	28	37	5	1	0	0	0	6	6			
H/TOT	71	20	7	6	2	106	119	43	16	6	17	4	86	115	11	7	2	0	0	20	21			

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	1	1	0	0	0	2	2	22	5	2	1	0	30	32	5	4	7	3	0	19	26
07:15	0	0	3	0	0	3	5	12	7	3	0	0	22	24	5	8	11	5	1	30	43
07:30	3	0	0	1	0	4	5	10	3	10	1	0	24	30	6	4	12	4	0	26	37
07:45	1	0	0	0	0	1	1	19	1	3	0	0	23	25	4	9	7	11	0	31	49
H/TOT	5	1	3	1	0	10	13	63	16	18	2	0	99	111	20	25	37	23	1	106	155
08:00	0	0	1	2	0	3	6	29	11	6	1	0	47	51	5	5	8	4	0	22	31
08:15	2	1	2	0	0	5	6	28	9	6	3	0	46	53	5	10	7	2	0	24	30
08:30	1	1	1	0	0	3	4	15	9	4	1	0	29	32	3	9	4	3	0	19	25
08:45	1	5	0	1	0	7	8	16	5	2	0	0	23	24	13	7	5	8	0	33	46
H/TOT	4	7	4	3	0	18	24	88	34	18	5	0	145	161	26	31	24	17	0	98	132
09:00	1	3	0	0	0	4	4	16	10	5	2	0	33	38	6	14	3	7	0	30	41
09:15	4	1	1	0	0	6	7	13	9	4	0	0	26	28	14	13	4	7	0	38	49
09:30	5	3	1	1	0	10	12	17	11	2	1	0	31	33	10	11	3	0	0	24	26
09:45	1	3	1	0	0	5	6	16	11	6	3	0	36	43	10	7	3	4	0	24	31
H/TOT	11	10	3	1	0	25	28	62	41	17	6	0	126	142	40	45	13	18	0	116	146
10:00	2	3	1	0	0	6	7	12	8	7	1	0	28	33	6	8	5	3	0	22	28
10:15	1	2	1	0	0	4	5	13	13	0	2	0	28	31	10	10	6	11	0	37	54
10:30	6	4	0	0	0	10	10	13	8	5	2	0	28	33	10	15	4	8	0	37	49
10:45	2	1	0	1	0	4	5	12	8	4	2	0	26	31	12	13	8	3	0	36	44
H/TOT	11	10	2	1	0	24	26	50	37	16	7	0	110	127	38	46	23	25	0	132	176
11:00	3	3	0	2	0	8	11	12	10	6	0	0	28	31	15	17	3	4	0	39	46
11:15	1	4	1	1	0	7	9	16	11	0	2	0	29	32	12	8	7	9	0	36	51
11:30	5	4	0	0	0	9	9	9	6	2	1	0	18	20	14	14	6	4	0	38	46
11:45	4	1	0	0	0	5	5	12	9	3	0	0	24	26	14	15	9	3	0	41	49
H/TOT	13	12	1	3	0	29	33	49	36	11	3	0	99	108	55	54	25	20	0	154	193
12:00	3	1	0	0	0	4	4	21	4	3	3	1	32	38	13	9	3	1	0	26	29
12:15	7	1	2	0	0	10	11	25	10	6	0	0	41	44	13	13	7	2	0	35	41
12:30	7	0	0	0	0	7	7	22	3	9	4	0	38	48	12	10	5	5	0	32	41
12:45	7	1	1	1	1	11	14	21	11	2	1	0	35	37	17	13	4	5	0	39	48
H/TOT	24	3	3	1	1	32	36	89	28	20	8	1	146	167	55	45	19	13	0	132	158

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 7							MOVEMENT 8							MOVEMENT 9						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	15	8	5	3	0	31	37	3	6	1	6	1	17	26	9	3	1	2	0	15	18
07:15	22	9	2	6	0	39	48	4	8	4	4	1	21	29	12	3	2	1	0	18	20
07:30	36	12	4	6	0	58	68	2	5	2	4	1	14	21	11	4	2	4	0	21	27
07:45	30	10	3	1	0	44	47	3	0	2	1	0	6	8	12	5	0	3	0	20	24
H/TOT	103	39	14	16	0	172	200	12	19	9	15	3	58	85	44	15	5	10	0	74	90
08:00	29	14	6	3	0	52	59	3	2	4	3	2	14	22	11	5	0	1	0	17	18
08:15	30	7	3	4	0	44	51	5	3	3	2	1	14	19	8	3	2	1	0	14	16
08:30	25	11	1	5	0	42	49	6	0	2	6	0	14	23	11	8	0	1	1	21	23
08:45	44	16	4	3	0	67	73	2	10	1	2	1	16	20	10	9	2	2	0	23	27
H/TOT	128	48	14	15	0	205	232	16	15	10	13	4	58	84	40	25	4	5	1	75	85
09:00	31	18	4	6	1	60	71	10	8	4	7	1	30	42	12	5	3	3	0	23	28
09:15	27	18	5	4	0	54	62	4	6	3	9	1	23	37	9	3	3	4	0	19	26
09:30	19	6	1	3	0	29	33	12	7	2	5	1	27	36	16	7	1	4	0	28	34
09:45	13	8	4	4	0	29	36	9	8	1	5	0	23	30	9	5	3	8	0	25	37
H/TOT	90	50	14	17	1	172	202	35	29	10	26	3	103	145	46	20	10	19	0	95	125
10:00	17	11	12	4	0	44	55	8	5	1	7	1	22	33	7	2	1	5	0	15	22
10:15	19	10	6	3	0	38	45	15	9	2	4	1	31	38	7	5	0	1	0	13	14
10:30	16	11	5	2	0	34	39	15	5	4	3	1	28	35	6	6	4	8	1	25	38
10:45	12	13	6	3	0	34	41	12	5	3	3	0	23	28	5	6	3	6	0	20	29
H/TOT	64	45	29	12	0	150	180	50	24	10	17	3	104	134	25	19	8	20	1	73	104
11:00	16	10	11	5	0	42	54	11	3	1	9	1	25	38	6	4	3	2	0	15	19
11:15	17	11	11	4	0	43	54	13	6	0	8	1	28	39	9	5	4	8	0	26	38
11:30	13	12	4	5	1	35	45	12	3	1	6	0	22	30	16	3	0	5	0	24	31
11:45	12	7	6	4	0	29	37	6	4	2	4	1	17	24	6	8	4	6	0	24	34
H/TOT	58	40	32	18	1	149	189	42	16	4	27	3	92	132	37	20	11	21	0	89	122
12:00	18	9	8	7	0	42	55	17	5	1	4	0	27	33	9	4	2	2	0	17	21
12:15	11	13	5	4	0	33	41	10	2	1	4	2	19	27	10	4	1	3	0	18	22
12:30	13	6	8	5	0	32	43	18	9	0	4	1	32	38	10	4	2	7	0	23	33
12:45	10	9	11	3	0	33	42	9	5	1	3	0	18	22	12	4	1	5	0	22	29
H/TOT	52	37	32	19	0	140	181	54	21	3	15	3	96	120	41	16	6	17	0	80	105

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 10							PCU	MOVEMENT 11							PCU	MOVEMENT 12							PCU
	CAR	LGV	OGV1	OGV2	BUS	TOT	CAR		LGV	OGV1	OGV2	BUS	TOT	CAR	LGV		OGV1	OGV2	BUS	TOT				
07:00	17	6	2	3	0	28	33	20	6	3	4	0	33	40	15	1	0	0	1	17	18			
07:15	28	9	2	6	1	46	56	31	4	3	3	0	41	46	6	2	0	2	0	10	13			
07:30	14	6	5	2	0	27	32	43	18	4	2	0	67	72	5	2	2	1	1	11	14			
07:45	21	5	1	5	1	33	41	82	11	8	3	3	107	118	18	4	4	2	0	28	33			
H/TOT	80	26	10	16	2	134	162	176	39	18	12	3	248	276	44	9	6	5	2	66	78			
08:00	20	6	4	2	0	32	37	73	9	3	4	0	89	96	10	2	3	1	0	16	19			
08:15	34	9	6	4	0	53	61	78	18	3	4	0	103	110	9	4	2	1	0	16	18			
08:30	35	18	3	3	0	59	64	82	19	7	3	0	111	118	17	4	3	3	0	27	32			
08:45	12	4	1	7	0	24	34	81	13	5	3	1	103	110	15	3	2	0	1	21	23			
H/TOT	101	37	14	16	0	168	196	314	59	18	14	1	406	434	51	13	10	5	1	80	93			
09:00	12	5	3	11	1	32	49	68	15	6	2	0	91	97	15	4	1	3	3	26	33			
09:15	12	6	5	1	0	24	28	67	15	5	1	0	88	92	21	1	1	3	0	26	30			
09:30	29	7	1	1	0	38	40	56	17	5	3	1	82	89	20	5	4	2	0	31	36			
09:45	30	6	1	1	1	39	42	30	12	7	4	0	53	62	24	9	4	2	2	41	48			
H/TOT	83	24	10	14	2	133	158	221	59	23	10	1	314	340	80	19	10	10	5	124	147			
10:00	16	15	3	7	0	41	52	35	12	2	1	0	50	52	11	10	1	3	2	27	33			
10:15	9	4	1	6	0	20	28	23	10	1	0	0	34	35	14	4	3	1	1	23	27			
10:30	4	7	3	4	0	18	25	19	12	7	1	0	39	44	10	7	2	1	1	21	24			
10:45	10	3	3	4	0	20	27	8	7	2	2	0	19	23	12	2	2	1	2	19	23			
H/TOT	39	29	10	21	0	99	131	85	41	12	4	0	142	153	47	23	8	6	6	90	108			
11:00	14	4	0	6	0	24	32	12	8	1	0	0	21	22	14	6	1	1	1	23	26			
11:15	5	4	1	4	0	14	20	20	9	4	2	0	35	40	9	3	2	2	0	16	20			
11:30	7	1	5	2	0	15	20	10	8	6	2	0	26	32	11	3	6	2	1	23	30			
11:45	7	3	4	1	0	15	18	22	5	7	1	0	35	40	13	5	3	1	2	24	29			
H/TOT	33	12	10	13	0	68	90	64	30	18	5	0	117	133	47	17	12	6	4	86	104			
12:00	15	2	2	3	0	22	27	13	12	5	0	0	30	33	9	7	0	2	1	19	23			
12:15	12	4	1	6	0	23	31	15	5	4	0	0	24	26	10	5	1	1	0	17	19			
12:30	3	6	2	4	0	15	21	16	5	7	2	0	30	36	18	3	4	2	2	29	36			
12:45	12	5	0	1	0	18	19	12	10	11	2	0	35	43	10	3	1	2	1	17	21			
H/TOT	42	17	5	14	0	78	99	56	32	27	4	0	119	138	47	18	6	7	4	82	98			

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 1						PCU	MOVEMENT 2						PCU	MOVEMENT 3						PCU
	CAR	LGV	OGV1	OGV2	BUS	TOT		CAR	LGV	OGV1	OGV2	BUS	TOT		CAR	LGV	OGV1	OGV2	BUS	TOT	
13:00	17	1	3	2	0	23	27	14	4	4	1	0	23	26	3	0	0	0	0	3	3
13:15	19	7	0	0	2	28	30	14	2	3	2	1	22	27	5	3	1	0	0	9	10
13:30	21	3	1	0	0	25	26	11	3	3	9	1	27	41	5	1	0	0	0	6	6
13:45	19	4	2	0	0	25	26	5	3	1	1	0	10	12	4	4	3	0	0	11	13
H/TOT	76	15	6	2	2	101	109	44	12	11	13	2	82	106	17	8	4	0	0	29	31
14:00	26	6	4	0	2	38	42	12	4	0	4	1	21	27	2	2	0	0	0	4	4
14:15	18	2	1	2	0	23	26	10	5	1	1	1	18	21	1	0	0	0	0	1	1
14:30	28	6	7	2	0	43	49	14	6	4	6	1	31	42	6	2	0	1	0	9	10
14:45	14	2	5	1	0	22	26	10	2	1	10	1	24	39	3	0	0	0	0	3	3
H/TOT	86	16	17	5	2	126	143	46	17	6	21	4	94	128	12	4	0	1	0	17	18
15:00	16	4	2	2	1	25	30	10	1	3	4	0	18	25	1	2	0	0	0	3	3
15:15	20	2	0	0	0	22	22	15	3	1	2	1	22	26	1	2	1	0	0	4	5
15:30	21	7	3	3	0	34	39	12	2	2	2	1	19	24	2	1	2	0	0	5	6
15:45	15	5	0	4	1	25	31	10	2	3	5	0	20	28	3	3	0	1	0	7	8
H/TOT	72	18	5	9	2	106	122	47	8	9	13	2	79	102	7	8	3	1	0	19	22
16:00	19	3	1	2	1	26	30	11	5	1	6	1	24	33	4	1	0	0	0	5	5
16:15	17	2	2	1	1	23	26	3	2	0	4	1	10	16	1	2	0	0	0	3	3
16:30	26	5	0	2	1	34	38	8	1	0	1	2	12	15	3	1	1	1	0	6	8
16:45	15	7	2	0	1	25	27	17	4	0	1	0	22	23	1	1	2	0	0	4	5
H/TOT	77	17	5	5	4	108	121	39	12	1	12	4	68	88	9	5	3	1	0	18	21
17:00	19	3	0	1	2	25	28	8	0	0	2	2	12	17	3	1	1	0	0	5	6
17:15	28	3	2	2	0	35	39	9	2	0	2	1	14	18	2	3	2	0	0	7	8
17:30	36	7	1	2	1	47	51	4	3	0	1	0	8	9	1	1	0	1	0	3	4
17:45	15	2	0	0	0	17	17	5	2	0	0	1	8	9	2	1	0	0	0	3	3
H/TOT	98	15	3	5	3	124	135	26	7	0	5	4	42	53	8	6	3	1	0	18	21
18:00	8	4	4	2	1	19	25	9	0	0	2	1	12	16	5	1	1	0	0	7	8
18:15	22	2	1	2	0	27	30	11	2	1	0	1	15	17	3	2	2	0	0	7	8
18:30	18	1	0	2	0	21	24	10	3	1	2	1	17	21	2	0	0	0	0	2	2
18:45	18	3	2	0	0	23	24	14	0	1	2	1	18	22	1	0	0	0	0	1	1
H/TOT	66	10	7	6	1	90	102	44	5	3	6	4	62	75	11	3	3	0	0	17	19
P/TOT	997	258	94	73	37	1459	1638	499	189	79	177	42	986	1298	175	85	34	10	0	304	334

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	5	0	0	0	0	5	5	28	12	9	3	0	52	60	22	11	7	5	0	45	55
13:15	3	2	0	0	0	5	5	21	8	8	3	0	40	48	23	11	8	7	0	49	62
13:30	2	0	0	0	0	2	2	28	8	5	1	0	42	46	15	12	7	3	0	37	44
13:45	4	5	1	2	0	12	15	20	6	7	2	0	35	41	25	9	4	3	0	41	47
H/TOT	14	7	1	2	0	24	27	97	34	29	9	0	169	195	85	43	26	18	0	172	208
14:00	4	2	0	1	0	7	8	20	5	6	0	0	31	34	19	12	7	1	0	39	44
14:15	7	0	2	0	0	9	10	16	5	1	2	0	24	27	16	10	2	5	0	33	41
14:30	3	0	1	0	0	4	5	23	9	4	5	0	41	50	14	21	4	6	0	45	55
14:45	4	2	0	0	0	6	6	23	7	2	2	0	34	38	14	14	4	1	0	33	36
H/TOT	18	4	3	1	0	26	29	82	26	13	9	0	130	148	63	57	17	13	0	150	175
15:00	3	3	0	0	0	6	6	23	10	5	4	0	42	50	33	11	3	4	0	51	58
15:15	2	1	1	0	0	4	5	26	8	3	2	0	39	43	15	18	2	8	0	43	54
15:30	4	2	0	1	0	7	8	25	10	5	0	0	40	43	34	14	3	5	0	56	64
15:45	4	1	0	0	0	5	5	28	11	0	1	0	40	41	32	4	4	5	0	45	54
H/TOT	13	7	1	1	0	22	24	102	39	13	7	0	161	177	114	47	12	22	0	195	230
16:00	8	1	1	0	0	10	11	38	7	5	0	0	50	53	29	19	0	2	0	50	53
16:15	7	1	0	0	0	8	8	44	8	2	1	0	55	57	25	9	5	2	0	41	46
16:30	8	1	0	0	0	9	9	44	14	2	1	0	61	63	44	8	5	1	0	58	62
16:45	3	4	0	0	0	7	7	56	6	5	2	0	69	74	38	12	5	1	0	56	60
H/TOT	26	7	1	0	0	34	35	182	35	14	4	0	235	247	136	48	15	6	0	205	220
17:00	3	2	0	0	0	5	5	66	6	1	1	1	75	78	56	12	2	2	0	72	76
17:15	6	3	0	2	0	11	14	57	5	5	4	0	71	79	49	15	4	2	0	70	75
17:30	6	0	1	0	0	7	8	56	5	2	1	0	64	66	49	2	0	2	0	53	56
17:45	7	3	1	0	0	11	12	47	7	0	0	0	54	54	31	4	2	0	0	37	38
H/TOT	22	8	2	2	0	34	38	226	23	8	6	1	264	277	185	33	8	6	0	232	244
18:00	6	3	0	0	0	9	9	36	9	1	1	0	47	49	21	7	1	1	0	30	32
18:15	5	0	0	0	0	5	5	18	6	1	0	0	25	26	17	3	1	0	0	21	22
18:30	1	0	0	0	0	1	1	22	2	0	0	0	24	24	11	4	2	2	0	19	23
18:45	3	0	0	0	0	3	3	17	5	0	0	0	22	22	10	3	3	1	0	17	20
H/TOT	15	3	0	0	0	18	18	93	22	2	1	0	118	120	59	17	7	4	0	87	96
P/TOT	176	79	24	16	1	296	330	1183	371	179	67	2	1802	1981	876	491	226	185	1	1779	2134

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 7						PCU	MOVEMENT 8						PCU	MOVEMENT 9						PCU
	CAR	LGV	OGV1	OGV2	BUS	TOT		CAR	LGV	OGV1	OGV2	BUS	TOT		CAR	LGV	OGV1	OGV2	BUS	TOT	
13:00	11	15	9	5	0	40	51	7	3	3	5	1	19	28	13	3	2	5	0	23	31
13:15	17	16	9	10	0	52	70	13	3	3	1	1	21	25	10	7	2	4	1	24	31
13:30	7	11	5	6	0	29	39	11	4	1	6	0	22	30	14	3	0	5	0	22	29
13:45	13	7	9	4	0	33	43	12	4	1	4	1	22	29	5	7	2	3	0	17	22
H/TOT	48	49	32	25	0	154	203	43	14	8	16	3	84	112	42	20	6	17	1	86	112
14:00	10	10	4	7	0	31	42	12	4	0	4	1	21	27	9	2	2	2	0	15	19
14:15	14	11	5	4	0	34	42	10	6	4	11	1	32	49	8	7	2	4	0	21	27
14:30	9	9	6	3	0	27	34	14	4	0	6	0	24	32	9	4	1	2	0	16	19
14:45	12	18	9	4	0	43	53	22	3	4	6	2	37	49	11	3	0	7	0	21	30
H/TOT	45	48	24	18	0	135	170	58	17	8	27	4	114	157	37	16	5	15	0	73	95
15:00	10	13	4	4	0	31	38	8	5	1	6	1	21	30	7	2	2	3	0	14	19
15:15	10	17	8	3	0	38	46	14	6	0	3	1	24	29	4	5	2	5	0	16	24
15:30	11	13	3	4	1	32	40	9	1	5	6	0	21	31	11	6	3	4	0	24	31
15:45	5	9	5	7	0	26	38	15	8	3	8	1	35	48	7	6	1	4	0	18	24
H/TOT	36	52	20	18	1	127	161	46	20	9	23	3	101	138	29	19	8	16	0	72	97
16:00	10	7	12	4	0	33	44	13	7	0	12	1	33	50	12	5	2	3	0	22	27
16:15	19	7	11	4	0	41	52	13	2	1	3	0	19	23	11	8	1	3	0	23	27
16:30	10	12	4	4	0	30	37	17	3	1	1	2	24	28	13	3	2	2	0	20	24
16:45	10	3	5	2	0	20	25	19	9	0	2	1	31	35	18	6	2	3	0	29	34
H/TOT	49	29	32	14	0	124	158	62	21	2	18	4	107	135	54	22	7	11	0	94	112
17:00	14	8	8	5	1	36	48	19	5	1	0	0	25	26	24	5	1	1	0	31	33
17:15	5	2	7	0	0	14	18	11	5	1	1	1	19	22	20	2	3	1	0	26	29
17:30	12	5	5	3	0	25	31	18	1	0	1	2	22	25	30	6	1	1	0	38	40
17:45	8	6	6	4	0	24	32	17	5	1	4	1	28	35	19	7	0	8	0	34	44
H/TOT	39	21	26	12	1	99	129	65	16	3	6	4	94	107	93	20	5	11	0	129	146
18:00	4	2	2	4	0	12	18	20	6	0	3	2	31	37	18	7	2	3	0	30	35
18:15	7	2	8	1	0	18	23	13	5	4	3	0	25	31	12	4	0	5	0	21	28
18:30	8	2	0	0	0	10	10	8	2	0	1	2	13	16	11	3	0	2	0	16	19
18:45	5	2	3	2	0	12	16	10	6	0	2	0	18	21	14	3	2	4	0	23	29
H/TOT	24	8	13	7	0	52	68	51	19	4	9	4	87	105	55	17	4	14	0	90	110
P/TOT	736	466	282	191	4	1679	2072	534	231	80	212	41	1098	1455	543	229	79	176	3	1030	1301

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 05

DATE: 8th September 2022

LOCATION: Kilshane Crossroads

DAY: Thursday

TIME	MOVEMENT 10						PCU	MOVEMENT 11						PCU	MOVEMENT 12						PCU
	CAR	LGV	OGV1	OGV2	BUS	TOT		CAR	LGV	OGV1	OGV2	BUS	TOT		CAR	LGV	OGV1	OGV2	BUS	TOT	
13:00	10	5	1	6	0	22	30	18	12	5	2	0	37	42	18	4	3	4	0	29	36
13:15	8	5	3	5	0	21	29	20	11	2	3	0	36	41	16	4	3	2	1	26	31
13:30	7	0	7	1	0	15	20	20	4	4	2	0	30	35	18	2	3	1	1	25	29
13:45	4	3	0	7	1	15	25	20	9	5	2	0	36	41	17	2	2	0	1	22	24
H/TOT	29	13	11	19	1	73	104	78	36	16	9	0	139	159	69	12	11	7	3	102	120
14:00	7	2	5	4	0	18	26	13	11	1	2	0	27	30	18	2	3	0	1	24	27
14:15	8	4	1	2	1	16	20	15	8	7	4	0	34	43	23	4	2	1	0	30	32
14:30	4	0	0	0	0	4	4	14	6	3	0	0	23	25	8	3	0	2	0	13	16
14:45	8	1	2	6	0	17	26	18	8	6	3	0	35	42	14	4	1	1	1	21	24
H/TOT	27	7	8	12	1	55	76	60	33	17	9	0	119	139	63	13	6	4	2	88	98
15:00	4	2	1	3	0	10	14	21	3	5	0	0	29	32	25	2	2	1	0	30	32
15:15	10	4	0	6	0	20	28	21	5	2	1	0	29	31	27	4	3	2	1	37	42
15:30	5	4	2	4	0	15	21	18	5	7	2	0	32	38	11	3	3	3	0	20	25
15:45	10	2	1	4	0	17	23	19	8	3	1	0	31	34	10	8	3	3	2	26	33
H/TOT	29	12	4	17	0	62	86	79	21	17	4	0	121	135	73	17	11	9	3	113	133
16:00	12	9	1	2	0	24	27	30	11	5	2	0	48	53	32	9	0	4	2	47	54
16:15	14	8	2	2	0	26	30	29	4	4	1	0	38	41	26	7	0	3	1	37	42
16:30	13	4	0	0	0	17	17	27	8	4	2	0	41	46	23	6	1	1	2	33	37
16:45	12	3	1	0	0	16	17	26	10	4	0	0	40	42	21	6	2	3	3	35	43
H/TOT	51	24	4	4	0	83	90	112	33	17	5	0	167	182	102	28	3	11	8	152	176
17:00	24	7	1	2	1	35	39	21	9	5	1	0	36	40	35	9	2	1	0	47	49
17:15	15	3	0	0	1	19	20	28	6	2	0	0	36	37	39	9	1	2	0	51	54
17:30	8	3	0	1	0	12	13	25	2	1	1	0	29	31	23	3	2	2	0	30	34
17:45	9	1	0	0	0	10	10	35	4	1	2	0	42	45	25	3	3	1	1	33	37
H/TOT	56	14	1	3	2	76	82	109	21	9	4	0	143	153	122	24	8	6	1	161	174
18:00	6	3	0	0	0	9	9	21	4	1	0	0	26	27	28	2	0	1	1	32	34
18:15	12	3	1	0	0	16	17	21	4	2	0	0	27	28	26	5	1	0	3	35	39
18:30	9	0	0	0	0	9	9	12	2	1	0	0	15	16	20	3	0	1	3	27	31
18:45	20	2	0	0	0	22	22	10	2	1	0	0	13	14	15	2	1	3	2	23	29
H/TOT	47	8	1	0	0	56	57	64	12	5	0	0	81	84	89	12	2	5	9	117	134
P/TOT	617	223	88	149	8	1085	1331	1418	416	197	80	5	2116	2324	834	205	93	81	48	1261	1461

Site 6 – North Road/Link to N2 Junction 2 (Corduff)

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  06

DATE: 8th September 2022

LOCATION: North Road/Link to N2 Junction 2 (Corduff)

DAY: Thursday

TIME	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	19	7	3	3	1	33	39	19	12	4	4	2	41	50	14	4	1	0	0	19	20
07:15	16	11	1	2	1	31	35	22	13	5	2	2	44	51	14	4	0	0	2	20	22
07:30	32	8	3	1	2	46	51	27	11	7	1	1	47	53	14	6	1	1	0	22	24
07:45	30	10	0	1	3	44	48	36	7	6	1	3	53	60	13	10	6	1	0	30	34
H/TOT	97	36	7	7	7	154	174	104	43	22	8	8	185	214	55	24	8	2	2	91	100
08:00	31	11	2	1	3	48	53	24	4	5	0	1	34	38	16	8	1	1	0	26	28
08:15	29	3	5	4	0	41	49	28	8	7	1	0	44	49	18	6	0	1	0	25	26
08:30	19	9	1	0	1	30	32	29	6	6	1	1	43	48	10	2	2	1	0	15	17
08:45	36	5	0	2	1	44	48	23	6	2	0	1	32	34	17	4	1	1	0	23	25
H/TOT	115	28	8	7	5	163	181	104	24	20	2	3	153	169	61	20	4	4	0	89	96
09:00	19	13	4	2	1	39	45	28	10	0	5	0	43	50	16	5	1	1	0	23	25
09:15	17	3	1	5	1	27	35	19	3	3	0	0	25	27	9	6	2	1	1	19	22
09:30	23	2	0	1	2	28	31	26	4	4	0	0	34	36	15	9	2	0	1	27	29
09:45	9	5	4	0	0	18	20	14	2	3	1	0	20	23	20	8	1	1	0	30	32
H/TOT	68	23	9	8	4	112	131	87	19	10	6	0	122	135	60	28	6	3	2	99	108
10:00	19	2	3	3	3	30	38	14	9	1	0	0	24	25	19	7	2	1	1	30	33
10:15	21	6	2	1	0	30	32	15	4	1	2	0	22	25	16	3	1	0	0	20	21
10:30	8	7	5	1	0	21	25	17	5	3	0	0	25	27	10	5	1	2	0	18	21
10:45	12	6	2	2	0	22	26	13	10	7	0	0	30	34	12	3	1	1	0	17	19
H/TOT	60	21	12	7	3	103	121	59	28	12	2	0	101	110	57	18	5	4	1	85	94
11:00	9	3	2	1	4	19	25	19	8	4	1	1	33	37	15	4	4	1	1	25	29
11:15	12	9	1	1	0	23	25	7	6	0	1	0	14	15	17	3	2	2	0	24	28
11:30	14	8	0	0	1	23	24	17	3	2	0	1	23	25	9	6	4	0	0	19	21
11:45	14	7	2	2	1	26	31	12	4	5	0	1	22	26	21	6	2	4	0	33	39
H/TOT	49	27	5	4	6	91	105	55	21	11	2	3	92	103	62	19	12	7	1	101	117
12:00	16	5	3	0	1	25	28	11	7	3	0	1	22	25	16	2	2	0	0	20	21
12:15	11	5	4	2	1	23	29	20	2	3	2	0	27	31	16	11	2	2	1	32	37
12:30	16	2	2	2	1	23	28	19	9	3	2	0	33	37	21	11	3	1	0	36	39
12:45	23	3	1	0	1	28	30	20	3	5	2	0	30	35	12	7	4	4	0	27	34
H/TOT	66	15	10	4	4	99	113	70	21	14	6	1	112	128	65	31	11	7	1	115	131

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  06

DATE: 8th September 2022

LOCATION: North Road/Link to N2 Junction 2 (Corduff)

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	19	9	4	3	2	37	45	13	1	1	7	0	22	32	2	2	0	1	2	7	10
07:15	16	3	2	2	0	23	27	8	1	4	4	0	17	24	7	3	0	1	2	13	16
07:30	21	11	5	4	2	43	53	2	0	1	3	1	7	12	6	0	3	0	0	9	11
07:45	30	6	1	7	1	45	56	9	1	1	4	0	15	21	8	2	1	0	1	12	14
H/TOT	86	29	12	16	5	148	180	32	3	7	18	1	61	89	23	7	4	2	5	41	51
08:00	23	8	4	4	0	39	46	13	2	2	9	0	26	39	8	2	1	0	1	12	14
08:15	36	5	4	1	0	46	49	7	5	2	3	0	17	22	7	4	4	0	3	18	23
08:30	31	4	1	7	1	44	55	10	6	5	5	0	26	35	10	1	0	1	0	12	13
08:45	33	8	2	5	0	48	56	9	9	3	4	0	25	32	6	3	0	0	2	11	13
H/TOT	123	25	11	17	1	177	206	39	22	12	21	0	94	127	31	10	5	1	6	53	63
09:00	20	6	1	4	1	32	39	24	7	0	5	3	39	49	16	3	3	5	1	28	37
09:15	23	10	3	3	1	40	46	15	5	0	8	0	28	38	7	3	2	0	0	12	13
09:30	13	4	4	8	0	29	41	12	6	0	6	0	24	32	12	7	5	1	1	26	31
09:45	11	3	1	7	0	22	32	20	9	3	6	2	40	51	7	10	1	0	1	19	21
H/TOT	67	23	9	22	2	123	158	71	27	3	25	5	131	170	42	23	11	6	3	85	101
10:00	19	5	1	2	1	28	32	8	9	5	11	1	34	52	17	12	1	3	2	35	41
10:15	8	5	1	1	0	15	17	6	5	2	3	0	16	21	16	2	2	3	2	25	32
10:30	13	4	2	8	0	27	38	14	7	1	3	2	27	33	19	6	5	1	0	31	35
10:45	15	4	3	3	1	26	32	5	4	0	5	1	15	23	12	0	2	0	1	15	17
H/TOT	55	18	7	14	2	96	120	33	25	8	22	4	92	129	64	20	10	7	5	106	125
11:00	15	7	0	6	0	28	36	11	0	2	7	2	22	34	11	10	3	0	0	24	26
11:15	10	1	1	5	2	19	28	13	5	2	7	1	28	39	11	9	0	0	0	20	20
11:30	14	3	3	0	0	20	22	5	5	3	8	0	21	33	22	4	4	0	1	31	34
11:45	13	4	0	7	2	26	37	10	6	4	4	1	25	33	14	0	0	0	2	16	18
H/TOT	52	15	4	18	4	93	122	39	16	11	26	4	96	139	58	23	7	0	3	91	98
12:00	13	7	0	8	0	28	38	4	9	0	6	0	19	27	21	0	0	1	0	22	23
12:15	13	7	4	4	0	28	35	9	5	3	9	0	26	39	13	0	1	0	2	16	19
12:30	14	3	2	3	0	22	27	9	8	2	6	2	27	38	27	4	1	2	1	35	39
12:45	17	1	1	4	0	23	29	3	5	1	4	0	13	19	15	1	2	1	2	21	25
H/TOT	57	18	7	19	0	101	129	25	27	6	25	2	85	123	76	5	4	4	5	94	106

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE:  06

DATE: 8th September 2022

LOCATION: North Road/Link to N2 Junction 2 (Corduff)

DAY: Thursday

TIME	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	16	3	2	2	0	23	27	13	3	0	1	0	17	18	22	2	0	0	0	24	24
13:15	12	6	1	1	2	22	26	24	3	3	1	1	32	36	13	6	6	3	0	28	35
13:30	19	2	3	0	1	25	28	25	3	3	3	1	35	41	23	5	4	1	0	33	36
13:45	13	7	1	1	0	22	24	9	4	3	1	1	18	22	23	6	2	4	0	35	41
H/TOT	60	18	7	4	3	92	104	71	13	9	6	3	102	117	81	19	12	8	0	120	136
14:00	24	6	6	2	2	40	48	16	5	5	1	2	29	35	16	9	0	3	0	28	32
14:15	30	0	2	0	1	33	35	18	13	0	1	0	32	33	15	7	0	2	0	24	27
14:30	17	4	0	1	1	23	25	19	2	4	0	1	26	29	23	10	2	1	1	37	40
14:45	16	2	1	1	1	21	24	18	11	4	2	0	35	40	24	8	6	1	1	40	45
H/TOT	87	12	9	4	5	117	132	71	31	13	4	3	122	137	78	34	8	7	2	129	144
15:00	19	3	6	0	1	29	33	16	5	2	2	0	25	29	25	7	8	0	0	40	44
15:15	15	1	0	0	1	17	18	16	4	0	2	0	22	25	21	6	4	2	1	34	40
15:30	19	1	2	1	1	24	27	19	5	2	1	0	27	29	14	6	4	2	2	28	35
15:45	19	4	0	0	1	24	25	18	4	2	0	0	24	25	21	12	4	2	2	41	48
H/TOT	72	9	8	1	4	94	103	69	18	6	5	0	98	108	81	31	20	6	5	143	166
16:00	15	4	1	0	2	22	25	25	9	2	1	1	38	41	25	16	6	0	2	49	54
16:15	10	2	0	0	1	13	14	26	9	1	1	1	38	41	21	9	4	1	0	35	38
16:30	18	8	0	0	2	28	30	25	8	2	1	0	36	38	27	11	6	2	0	46	52
16:45	16	4	0	0	0	20	20	25	13	0	0	0	38	38	21	12	3	2	0	38	42
H/TOT	59	18	1	0	5	83	89	101	39	5	3	2	150	158	94	48	19	5	2	168	186
17:00	15	5	2	2	1	25	30	38	10	3	1	0	52	55	28	9	1	4	1	43	50
17:15	23	2	1	4	2	32	40	18	5	0	2	0	25	28	29	10	1	1	2	43	47
17:30	8	1	0	0	0	9	9	23	6	1	0	0	30	31	39	14	4	1	0	58	61
17:45	11	1	1	1	2	16	20	21	4	0	2	0	27	30	21	6	5	4	1	37	46
H/TOT	57	9	4	7	5	82	98	100	25	4	5	0	134	143	117	39	11	10	4	181	204
18:00	25	5	1	2	1	34	38	18	10	0	1	0	29	30	37	5	3	2	0	47	51
18:15	13	0	3	0	1	17	20	27	4	0	0	0	31	31	35	3	0	4	0	42	47
18:30	22	1	1	1	1	26	29	20	4	2	1	0	27	29	21	4	1	2	1	29	33
18:45	13	1	0	1	1	16	18	13	1	1	3	0	18	22	20	4	4	1	1	30	34
H/TOT	73	7	5	4	4	93	105	78	19	3	5	0	105	113	113	16	8	9	2	148	166
P/TOT	863	223	85	57	55	1283	1455	969	301	129	54	23	1476	1634	924	327	124	72	22	1469	1647

TRAFFINOMICS LIMITED

**NORTH ROAD, FINGLAS TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 06

DATE: 8th September 2022

LOCATION: North Road/Link to N2 Junction 2 (Corduff)

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	15	1	3	2	0	21	25	14	4	1	11	0	30	45	13	0	2	0	1	16	18
13:15	14	5	2	3	1	25	31	13	6	4	2	0	25	30	23	0	2	1	2	28	32
13:30	23	4	0	6	0	33	41	11	6	0	5	0	22	29	28	0	7	0	1	36	41
13:45	14	5	2	1	0	22	24	13	6	0	5	1	25	33	17	1	2	0	1	21	23
H/TOT	66	15	7	12	1	101	121	51	22	5	23	1	102	135	81	1	13	1	5	101	114
14:00	15	6	1	3	2	27	33	15	7	1	5	0	28	35	20	2	1	0	2	25	28
14:15	12	7	4	2	0	25	30	9	2	1	10	0	22	36	29	4	4	1	1	39	43
14:30	23	4	7	6	0	40	51	9	6	0	8	0	23	33	24	0	2	1	0	27	29
14:45	14	2	5	7	0	28	40	18	5	0	3	0	26	30	22	4	3	0	2	31	35
H/TOT	64	19	17	18	2	120	154	51	20	2	26	0	99	134	95	10	10	2	5	122	135
15:00	13	4	1	7	0	25	35	13	9	0	6	1	29	38	30	4	5	2	1	42	48
15:15	9	3	0	2	0	14	17	13	4	3	4	1	25	33	27	6	3	0	1	37	40
15:30	15	4	3	4	0	26	33	12	7	3	5	0	27	35	19	0	2	0	0	21	22
15:45	7	1	1	6	1	16	25	12	5	2	9	1	29	43	17	6	6	1	2	32	38
H/TOT	44	12	5	19	1	81	109	50	25	8	24	3	110	148	93	16	16	3	4	132	148
16:00	16	7	1	6	0	30	38	26	6	1	8	2	43	56	24	4	0	1	0	29	30
16:15	17	4	0	5	1	27	35	24	10	0	10	1	45	59	42	7	0	0	1	50	51
16:30	14	5	1	2	1	23	27	29	6	1	2	2	40	45	37	4	0	1	2	44	47
16:45	12	10	2	2	1	27	32	21	5	1	1	1	29	32	26	9	1	3	3	42	49
H/TOT	59	26	4	15	3	107	132	100	27	3	21	6	157	192	129	24	1	5	6	165	178
17:00	24	1	0	3	2	30	36	28	14	3	1	0	46	49	44	7	0	0	1	52	53
17:15	20	6	3	1	0	30	33	25	5	1	3	0	34	38	34	6	0	1	1	42	44
17:30	27	4	0	4	0	35	40	19	5	3	2	0	29	33	24	0	2	0	1	27	29
17:45	12	3	0	1	0	16	17	19	6	2	2	1	30	35	38	2	1	2	2	45	50
H/TOT	83	14	3	9	2	111	126	91	30	9	8	1	139	155	140	15	3	3	5	166	176
18:00	11	0	4	2	0	17	22	27	3	2	1	0	33	35	33	5	0	0	3	41	44
18:15	21	3	2	1	0	27	29	29	4	2	3	3	41	49	20	6	2	0	0	28	29
18:30	7	3	2	1	0	13	15	10	3	1	2	2	18	23	15	1	1	0	3	20	24
18:45	14	1	2	1	0	18	20	14	6	2	2	2	26	32	18	2	0	0	0	20	20
H/TOT	53	7	10	5	0	75	87	80	16	7	8	7	118	139	86	14	3	0	6	109	117
P/TOT	809	221	96	184	23	1333	1643	662	260	81	247	34	1284	1680	918	168	87	34	58	1265	1411

Site 7 – Cappagh Road/Ballycoolin Road Roundabout

TRAFFINOMICS LIMITED

**BALLYCOOLIN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 07

DATE: 8th September 2022

LOCATION: Cappagh Road/Ballycoolin Road Roundabout

DAY: Thursday

TIME	MOVEMENT 1							MOVEMENT 2							MOVEMENT 3						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	27	9	3	0	0	39	41	8	0	5	6	0	19	29	2	2	1	3	0	8	12
07:15	39	9	5	1	0	54	58	13	3	5	3	0	24	30	4	2	2	3	0	11	16
07:30	34	8	5	0	0	47	50	2	3	4	6	0	15	25	2	5	3	3	0	13	18
07:45	36	14	3	2	2	57	63	8	0	2	1	0	11	13	7	3	3	1	0	14	17
H/TOT	136	40	16	3	2	197	211	31	6	16	16	0	69	98	15	12	9	10	0	46	64
08:00	36	8	5	1	1	51	56	6	5	3	5	0	19	27	5	1	5	5	0	16	25
08:15	37	9	4	1	1	52	56	8	5	4	5	0	22	31	1	4	0	2	0	7	10
08:30	37	6	3	1	0	47	50	11	5	1	4	0	21	27	2	1	0	1	0	4	5
08:45	27	7	2	1	2	39	43	14	1	3	3	0	21	26	4	4	6	4	0	18	26
H/TOT	137	30	14	4	4	189	205	39	16	11	17	0	83	111	12	10	11	12	0	45	66
09:00	34	13	3	1	0	51	54	6	3	3	3	0	15	20	9	5	2	4	0	20	26
09:15	22	8	4	5	1	40	50	10	8	3	3	0	24	29	7	5	1	8	0	21	32
09:30	29	14	6	1	1	51	56	7	3	1	8	0	19	30	3	4	4	5	0	16	25
09:45	10	8	4	3	0	25	31	4	4	8	0	0	16	20	9	5	3	4	0	21	28
H/TOT	95	43	17	10	2	167	191	27	18	15	14	0	74	100	28	19	10	21	0	78	110
10:00	14	10	4	1	1	30	34	5	6	5	5	0	21	30	5	6	6	6	0	23	34
10:15	17	11	3	4	0	35	42	9	6	3	3	0	21	26	3	1	3	3	0	10	15
10:30	19	9	2	1	1	32	35	6	0	7	6	0	19	30	8	6	3	3	0	20	25
10:45	10	8	4	2	0	24	29	4	3	3	5	0	15	23	5	4	3	7	0	19	30
H/TOT	60	38	13	8	2	121	140	24	15	18	19	0	76	110	21	17	15	19	0	72	104
11:00	23	6	2	1	1	33	36	6	5	4	6	0	21	31	8	5	13	8	0	34	51
11:15	12	11	3	2	0	28	32	3	4	4	6	0	17	27	4	6	9	6	0	25	37
11:30	14	6	6	3	1	30	38	1	2	3	2	0	8	12	5	4	3	10	0	22	37
11:45	9	4	4	3	0	20	26	4	4	4	5	0	17	26	7	3	4	6	0	20	30
H/TOT	58	27	15	9	2	111	132	14	15	15	19	0	63	95	24	18	29	30	0	101	155
12:00	14	4	1	0	1	20	22	2	4	5	3	0	14	20	9	3	9	5	0	26	37
12:15	15	5	3	1	1	25	29	2	3	5	5	0	15	24	2	3	4	8	0	17	29
12:30	17	3	3	1	2	26	31	4	3	4	3	0	14	20	5	6	5	7	0	23	35
12:45	10	9	1	3	0	23	27	9	3	7	5	0	24	34	15	1	5	3	0	24	30
H/TOT	56	21	8	5	4	94	109	17	13	21	16	0	67	98	31	13	23	23	0	90	131

TRAFFINOMICS LIMITED

**BALLYCOOLIN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 07

DATE: 8th September 2022

LOCATION: Cappagh Road/Ballycoolin Road Roundabout

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
07:00	83	22	1	1	4	111	117	45	12	2	0	2	61	64	20	9	2	0	1	32	34
07:15	94	24	4	2	1	125	131	60	6	3	1	3	73	79	21	7	2	1	0	31	33
07:30	98	16	5	0	4	123	130	69	12	1	1	2	85	89	31	4	2	2	1	40	45
07:45	94	18	1	1	3	117	122	106	10	4	0	4	124	130	55	14	2	1	0	72	74
H/TOT	369	80	11	4	12	476	499	280	40	10	2	11	343	362	127	34	8	4	2	175	186
08:00	88	18	3	0	5	114	121	105	10	1	1	3	120	125	44	8	2	4	2	60	68
08:15	74	8	5	0	5	92	100	99	6	3	0	2	110	114	42	11	2	2	0	57	61
08:30	75	12	0	1	4	92	97	90	11	4	0	4	109	115	38	9	0	1	0	48	49
08:45	75	8	5	1	2	91	97	104	11	4	0	2	121	125	51	5	0	1	1	58	60
H/TOT	312	46	13	2	16	389	414	398	38	12	1	11	460	478	175	33	4	8	3	223	238
09:00	60	13	1	0	4	78	83	90	15	3	1	2	111	116	45	7	4	0	1	57	60
09:15	56	16	3	1	2	78	83	81	10	4	0	3	98	103	31	7	6	1	1	46	51
09:30	47	13	6	0	1	67	71	75	11	2	3	2	93	100	19	7	3	5	1	35	44
09:45	30	11	1	1	2	45	49	64	7	1	0	2	74	77	14	8	1	0	0	23	24
H/TOT	193	53	11	2	9	268	285	310	43	10	4	9	376	395	109	29	14	6	3	161	179
10:00	46	13	0	0	1	60	61	50	7	5	0	2	64	69	17	4	4	1	1	27	31
10:15	33	17	8	1	4	63	72	39	9	3	6	2	59	70	12	7	4	4	0	27	34
10:30	42	9	4	1	2	58	63	52	10	3	1	3	69	75	18	5	8	2	1	34	42
10:45	54	8	1	0	2	65	68	43	6	4	2	1	56	62	19	11	8	1	0	39	44
H/TOT	175	47	13	2	9	246	264	184	32	15	9	8	248	275	66	27	24	8	2	127	151
11:00	35	12	0	0	0	47	47	39	3	0	2	1	45	49	13	9	7	4	0	33	42
11:15	35	11	5	0	6	57	66	49	8	2	2	3	64	71	10	9	5	0	1	25	29
11:30	40	12	6	0	1	59	63	34	9	6	0	1	50	54	17	3	2	1	1	24	27
11:45	32	15	3	0	1	51	54	54	12	1	0	2	69	72	15	9	5	5	0	34	43
H/TOT	142	50	14	0	8	214	229	176	32	9	4	7	228	245	55	30	19	10	2	116	141
12:00	36	8	3	0	3	50	55	40	11	3	0	3	57	62	19	3	3	3	1	29	35
12:15	55	12	0	2	3	72	78	43	8	4	1	2	58	63	13	7	5	2	0	27	32
12:30	52	7	3	0	1	63	66	47	5	6	1	0	59	63	20	8	2	1	0	31	33
12:45	34	5	1	3	1	44	49	51	13	0	0	5	69	74	18	6	2	1	1	28	31
H/TOT	177	32	7	5	8	229	247	181	37	13	2	10	243	262	70	24	12	7	2	115	132

TRAFFINOMICS LIMITED

**BALLYCOOLIN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 07

DATE: 8th September 2022

LOCATION: Cappagh Road/Ballycoolin Road Roundabout

DAY: Thursday

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	33	7	2	0	1	43	45	6	3	5	6	0	20	30	11	6	0	9	0	26	38			
13:15	15	7	2	1	0	25	27	4	6	6	5	0	21	31	5	2	7	7	0	21	34			
13:30	10	6	1	1	1	19	22	7	4	6	3	0	20	27	3	2	2	7	0	14	24			
13:45	17	9	1	2	0	29	32	3	4	3	5	0	15	23	7	5	2	3	0	17	22			
H/TOT	75	29	6	4	2	116	126	20	17	20	19	0	76	111	26	15	11	26	0	78	117			
14:00	25	6	0	1	1	33	35	7	6	6	5	0	24	34	3	5	4	5	0	17	26			
14:15	17	8	3	2	1	31	36	8	0	4	9	0	21	35	5	5	7	6	0	23	34			
14:30	12	8	3	0	0	23	25	6	2	3	4	0	15	22	6	5	3	3	0	17	22			
14:45	25	5	1	0	1	32	34	6	4	2	5	0	17	25	7	2	6	5	0	20	30			
H/TOT	79	27	7	3	3	119	129	27	12	15	23	0	77	114	21	17	20	19	0	77	112			
15:00	20	4	0	1	1	26	28	6	7	3	10	0	26	41	7	3	4	6	0	20	30			
15:15	13	5	1	1	1	21	24	6	2	2	4	0	14	20	9	7	4	4	0	24	31			
15:30	23	10	0	2	1	36	40	5	6	2	6	0	19	28	5	7	6	2	0	20	26			
15:45	19	4	1	2	0	26	29	4	1	5	4	0	14	22	5	1	3	3	0	12	17			
H/TOT	75	23	2	6	3	109	121	21	16	12	24	0	73	110	26	18	17	15	0	76	104			
16:00	37	9	4	1	1	52	56	12	5	2	5	0	24	32	16	0	6	2	0	24	30			
16:15	29	4	0	0	0	33	33	9	2	1	2	0	14	17	11	2	7	2	0	22	28			
16:30	45	7	3	1	0	56	59	10	4	3	1	0	18	21	14	3	2	1	0	20	22			
16:45	35	9	2	2	0	48	52	3	1	3	4	0	11	18	11	2	3	5	0	21	29			
H/TOT	146	29	9	4	1	189	200	34	12	9	12	0	67	87	52	7	18	10	0	87	109			
17:00	66	9	2	3	1	81	87	7	1	0	4	0	12	17	8	1	0	2	0	11	14			
17:15	56	5	1	2	0	64	67	6	0	2	1	0	9	11	7	2	0	1	0	10	11			
17:30	53	7	0	0	1	61	62	5	3	1	2	0	11	14	3	1	1	2	0	7	10			
17:45	21	6	2	0	0	29	30	5	0	0	0	0	5	5	8	2	3	2	0	15	19			
H/TOT	196	27	5	5	2	235	246	23	4	3	7	0	37	48	26	6	4	7	0	43	54			
18:00	28	2	0	0	1	31	32	8	2	2	2	0	14	18	8	3	1	3	0	15	19			
18:15	25	5	0	1	0	31	32	10	0	1	2	0	13	16	10	0	2	1	0	13	15			
18:30	14	1	0	0	1	16	17	1	3	0	1	0	5	6	10	0	1	1	0	12	14			
18:45	9	2	0	0	0	11	11	4	0	0	1	0	5	6	6	0	0	2	0	8	11			
H/TOT	76	10	0	1	2	89	92	23	5	3	6	0	37	46	34	3	4	7	0	48	59			
P/TOT	1189	344	112	62	29	1736	1902	300	149	158	192	0	799	1128	316	155	171	199	0	841	1185			

TRAFFINOMICS LIMITED

**BALLYCOOLIN TRAFFIC COUNTS
MANUAL CLASSIFIED JUNCTION TURNING COUNTS**

**SEPTEMBER 2022
TRA/22/205**

SITE: 07

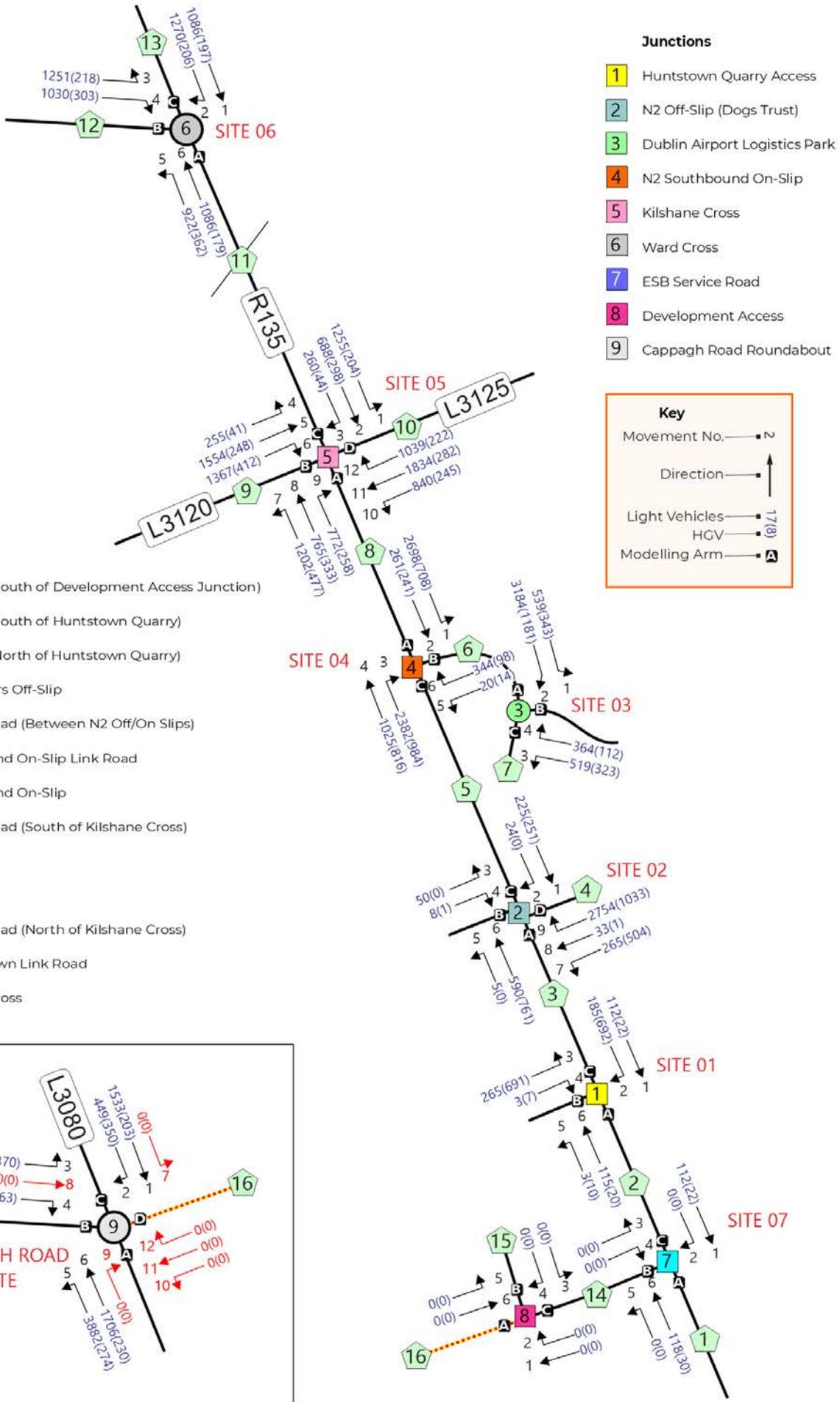
DATE: 8th September 2022

LOCATION: Cappagh Road/Ballycoolin Road Roundabout

DAY: Thursday

TIME	MOVEMENT 4							MOVEMENT 5							MOVEMENT 6						
	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU	CAR	LGV	OGV1	OGV2	BUS	TOT	PCU
13:00	57	5	6	1	7	76	87	58	20	2	3	2	85	92	16	10	3	2	0	31	35
13:15	55	9	5	1	3	73	80	57	3	3	1	2	66	71	18	5	3	1	1	28	32
13:30	49	4	4	0	2	59	63	54	10	3	0	2	69	73	21	10	5	0	1	37	41
13:45	55	3	3	0	2	63	67	65	4	5	0	2	76	81	18	2	2	2	0	24	28
H/TOT	216	21	18	2	14	271	297	234	37	13	4	8	296	316	73	27	13	5	2	120	135
14:00	65	13	1	1	2	82	86	54	19	0	3	1	77	82	20	15	3	2	0	40	44
14:15	50	5	1	0	2	58	61	73	17	3	1	2	96	101	16	7	5	0	2	30	35
14:30	53	12	5	0	0	70	73	58	7	2	0	2	69	72	25	10	3	1	0	39	42
14:45	53	9	0	1	3	66	70	54	6	1	0	4	65	70	15	6	1	0	1	23	25
H/TOT	221	39	7	2	7	276	289	239	49	6	4	9	307	324	76	38	12	3	3	132	145
15:00	60	5	2	0	3	70	74	76	5	4	1	1	87	91	24	16	4	2	1	47	53
15:15	49	5	0	3	2	59	65	50	14	3	2	4	73	81	15	10	2	1	1	29	32
15:30	73	9	2	0	3	87	91	40	13	0	0	4	57	61	21	10	2	0	0	33	34
15:45	83	11	0	0	3	97	100	68	11	0	2	1	82	86	31	14	2	1	1	49	52
H/TOT	265	30	4	3	11	313	330	234	43	7	5	10	299	319	91	50	10	4	3	158	171
16:00	64	12	1	0	2	79	82	87	19	4	0	4	114	120	54	10	5	1	0	70	74
16:15	63	11	1	1	2	78	82	90	21	2	4	2	119	127	47	16	3	1	2	69	74
16:30	70	10	4	1	2	87	92	101	18	0	0	2	121	123	59	16	0	0	0	75	75
16:45	77	12	0	0	1	90	91	78	13	3	2	2	98	104	47	13	0	1	1	62	64
H/TOT	274	45	6	2	7	334	347	356	71	9	6	10	452	474	207	55	8	3	3	276	287
17:00	109	13	4	0	3	129	134	146	26	3	0	2	177	181	53	7	1	3	0	64	68
17:15	69	11	4	1	4	89	96	91	15	0	1	3	110	114	45	11	1	3	1	61	66
17:30	73	8	0	0	2	83	85	110	14	5	0	2	131	136	50	11	4	2	0	67	72
17:45	60	3	2	0	1	66	68	88	18	2	0	2	110	113	32	4	0	0	1	37	38
H/TOT	311	35	10	1	10	367	383	435	73	10	1	9	528	543	180	33	6	8	2	229	244
18:00	68	4	2	0	2	76	79	90	14	1	1	3	109	114	28	4	0	1	0	33	34
18:15	61	2	1	0	2	66	69	77	15	2	0	2	96	99	27	5	0	0	1	33	34
18:30	51	4	0	2	3	60	66	81	18	1	1	3	104	109	21	2	0	2	0	25	28
18:45	51	0	1	0	0	52	53	63	2	0	0	2	67	69	8	2	0	2	1	13	17
H/TOT	231	10	4	2	7	254	266	311	49	4	2	10	376	391	84	13	0	5	2	104	113
P/TOT	2886	488	118	27	118	3637	3849	3338	544	118	44	112	4156	4384	1313	393	130	71	29	1936	2122

Appendix B – Network Flow Diagrams



- Junctions**
- 1 Huntstown Quarry Access
 - 2 N2 Off-Slip (Dogs Trust)
 - 3 Dublin Airport Logistics Park
 - 4 N2 Southbound On-Slip
 - 5 Kilshane Cross
 - 6 Ward Cross
 - 7 ESB Service Road
 - 8 Development Access
 - 9 Cappagh Road Roundabout

Key

Movement No. → N

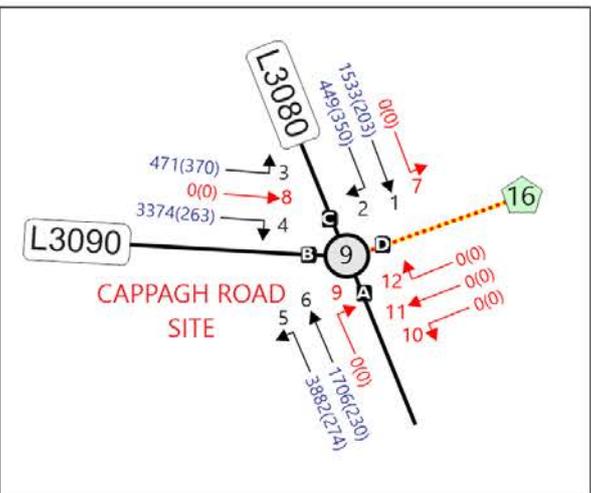
Direction → ↑

Light Vehicles → 17(8)

HGV → 17(8)

Modelling Arm → A

- Links**
- 1 North Road (South of Development Access Junction)
 - 2 North Road (South of Huntstown Quarry)
 - 3 North Road (North of Huntstown Quarry)
 - 4 N2 Coldwinters Off-Slip
 - 5 R135 North Road (Between N2 Off/On Slips)
 - 6 N2 Southbound On-Slip Link Road
 - 7 N2 Southbound On-Slip
 - 8 R135 North Road (South of Kilshane Cross)
 - 9 L3120
 - 10 L3125
 - 11 R135 North Road (North of Kilshane Cross)
 - 12 Blanchardstown Link Road
 - 13 R135 Wards Cross



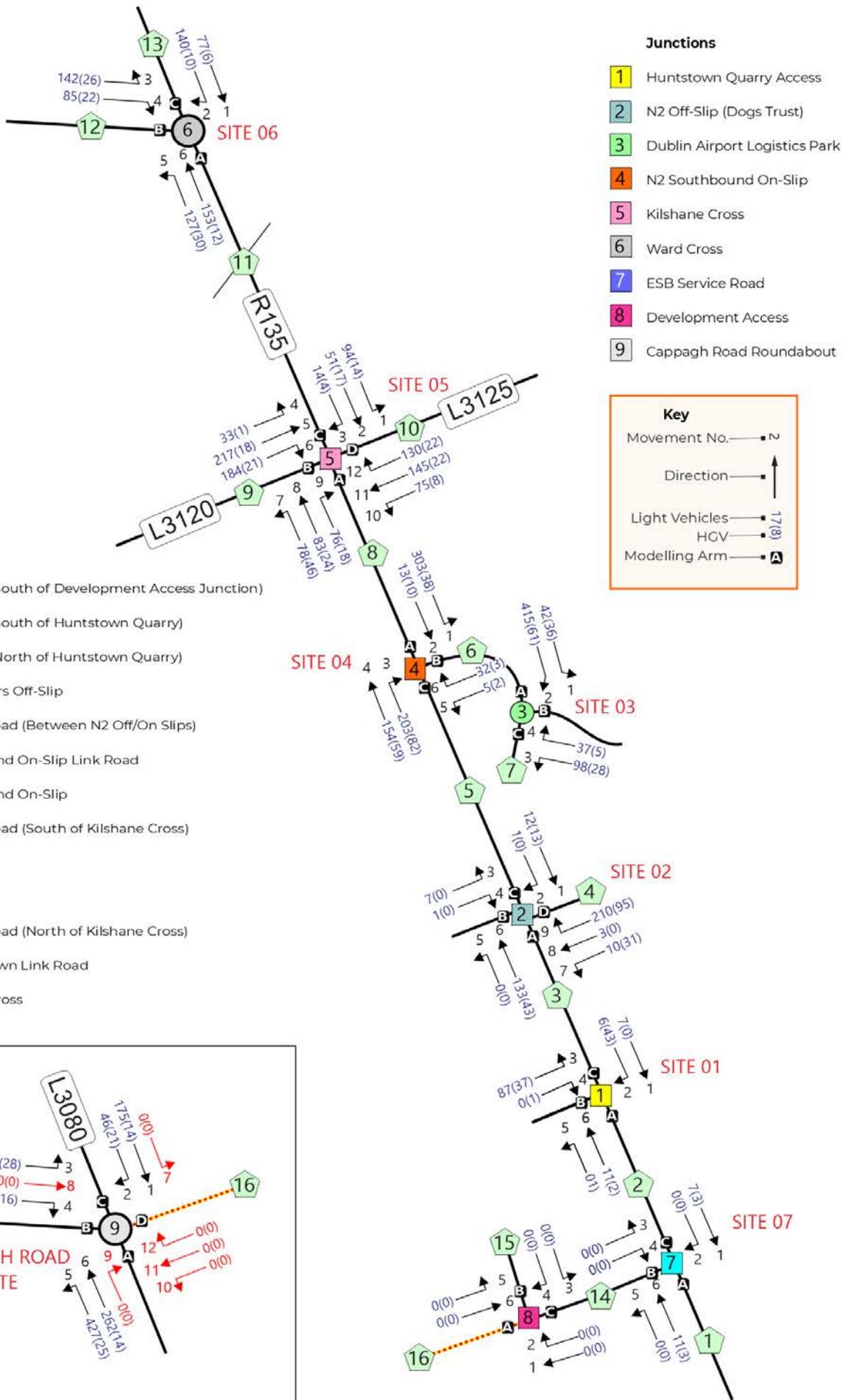
TRAFFICWISE
traffic & transportation solutions

Suite 9, Gowna Plaza,
Blanchardstown Business Park
D15 D59T

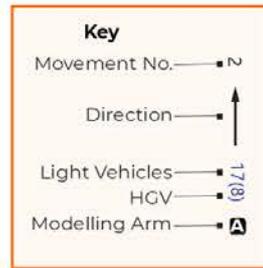
Telephone: +53 (0)1 853015
Website: www.trafficwise.ie
E-mail: info@trafficwise.ie

Project Title	Huntstown, North Road, Fingal
Drawing Title	Surveyed Daily Traffic Flows - September 2022 07:00-19:00hrs

Prepared:	TWL	Checked:	JMK	Approved:	JMK
Date:	Feb 2023	Date:	Feb 2023	Date:	Feb 2023
Scale:	NTS	Project No.:	03167	Figure 1	
Appendix B					

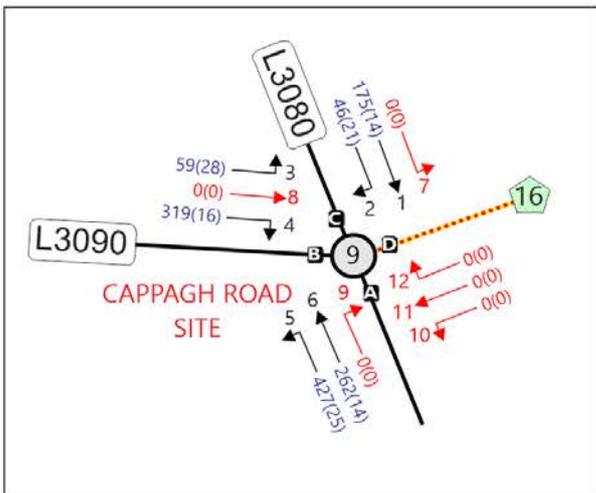


- Junctions**
- 1 Huntstown Quarry Access
 - 2 N2 Off-Slip (Dogs Trust)
 - 3 Dublin Airport Logistics Park
 - 4 N2 Southbound On-Slip
 - 5 Kilshane Cross
 - 6 Ward Cross
 - 7 ESB Service Road
 - 8 Development Access
 - 9 Cappagh Road Roundabout



Links

- 1 North Road (South of Development Access Junction)
- 2 North Road (South of Huntstown Quarry)
- 3 North Road (North of Huntstown Quarry)
- 4 N2 Coldwinters Off-Slip
- 5 R135 North Road (Between N2 Off/On Slips)
- 6 N2 Southbound On-Slip Link Road
- 7 N2 Southbound On-Slip
- 8 R135 North Road (South of Kilshane Cross)
- 9 L3120
- 10 L3125
- 11 R135 North Road (North of Kilshane Cross)
- 12 Blanchardstown Link Road
- 13 R135 Wards Cross



TRAFFICWISE
traffic & transportation solutions

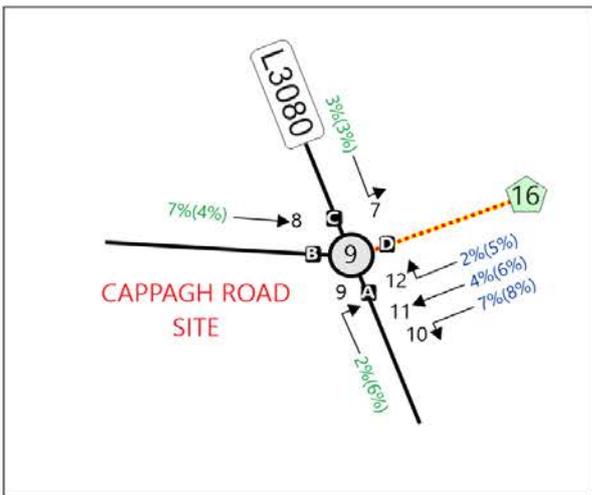
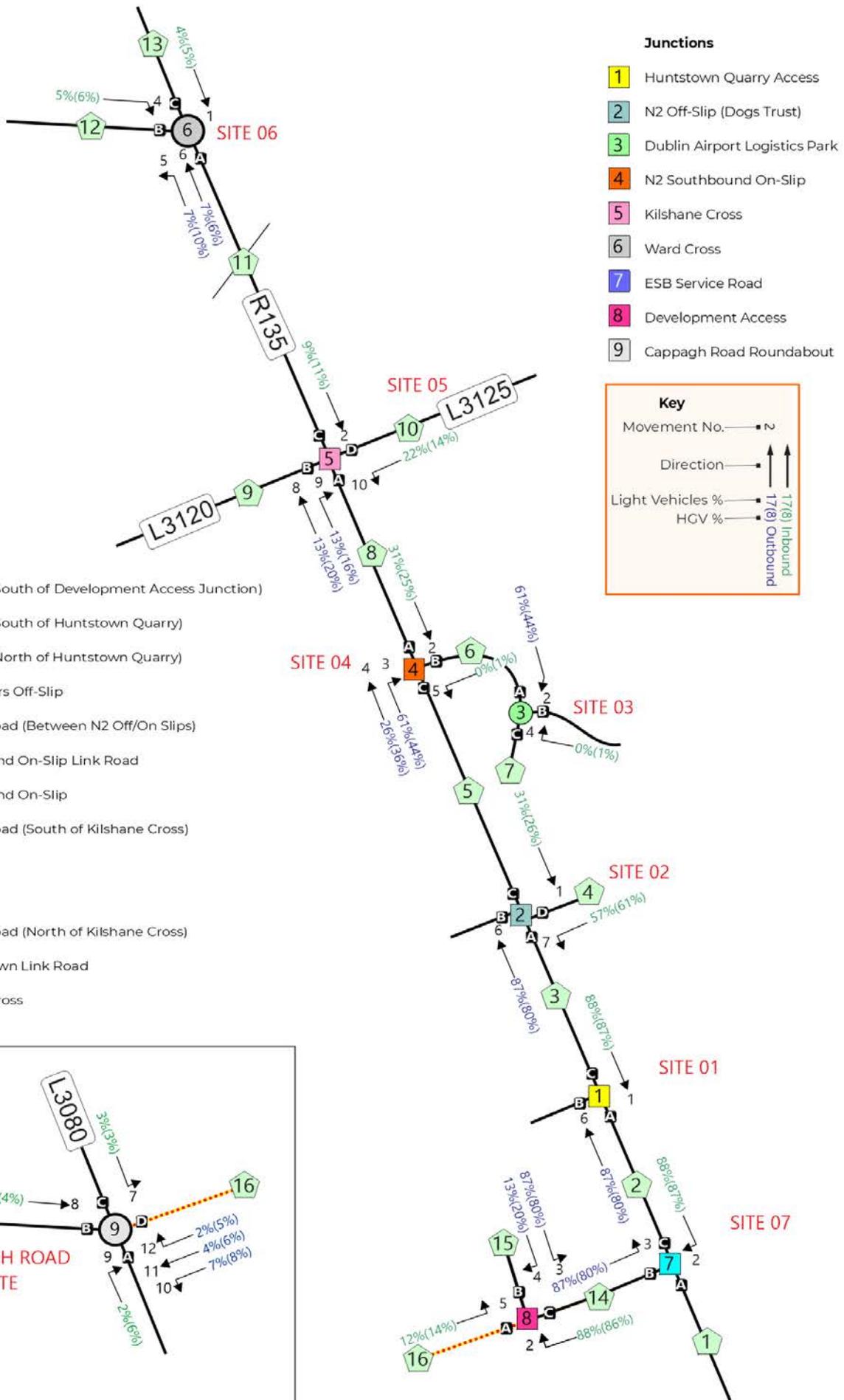
Suite 9, Govina Plaza,
Blanchardstown Business Park,
D15 R597

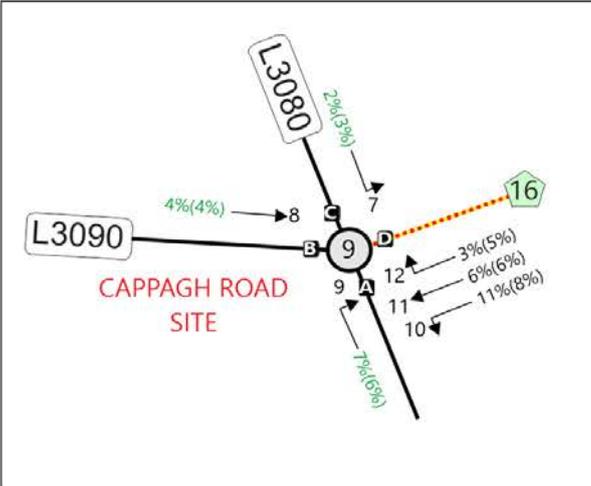
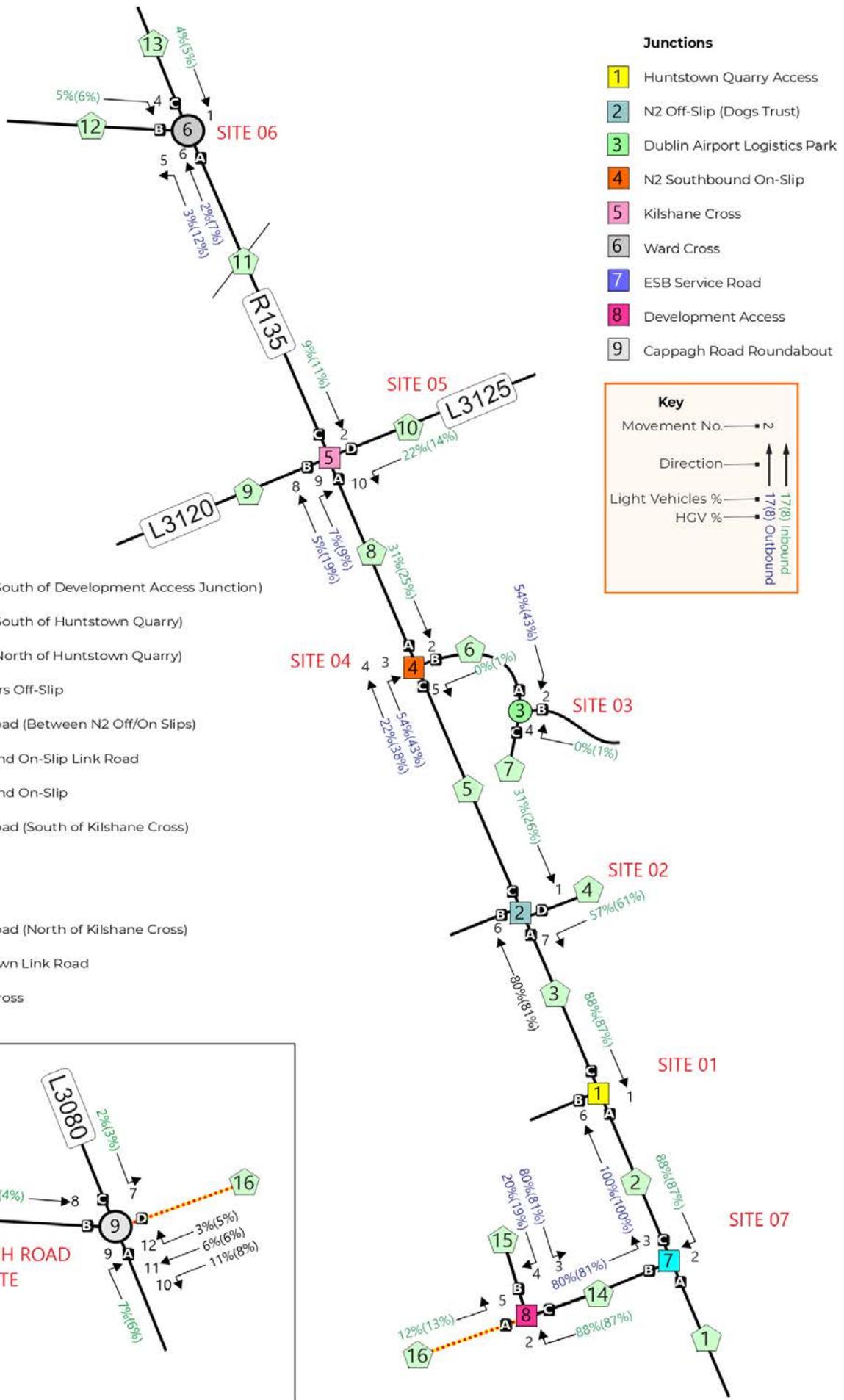
Telephone: +353 (0)1 8233016
Website: www.trafficwise.ie
E-mail: info@trafficwise.ie

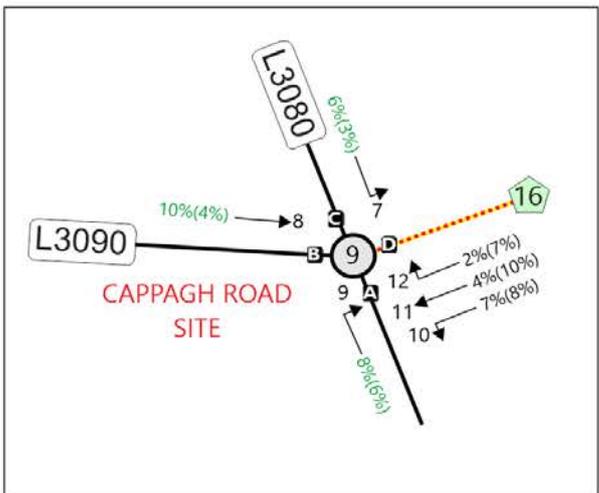
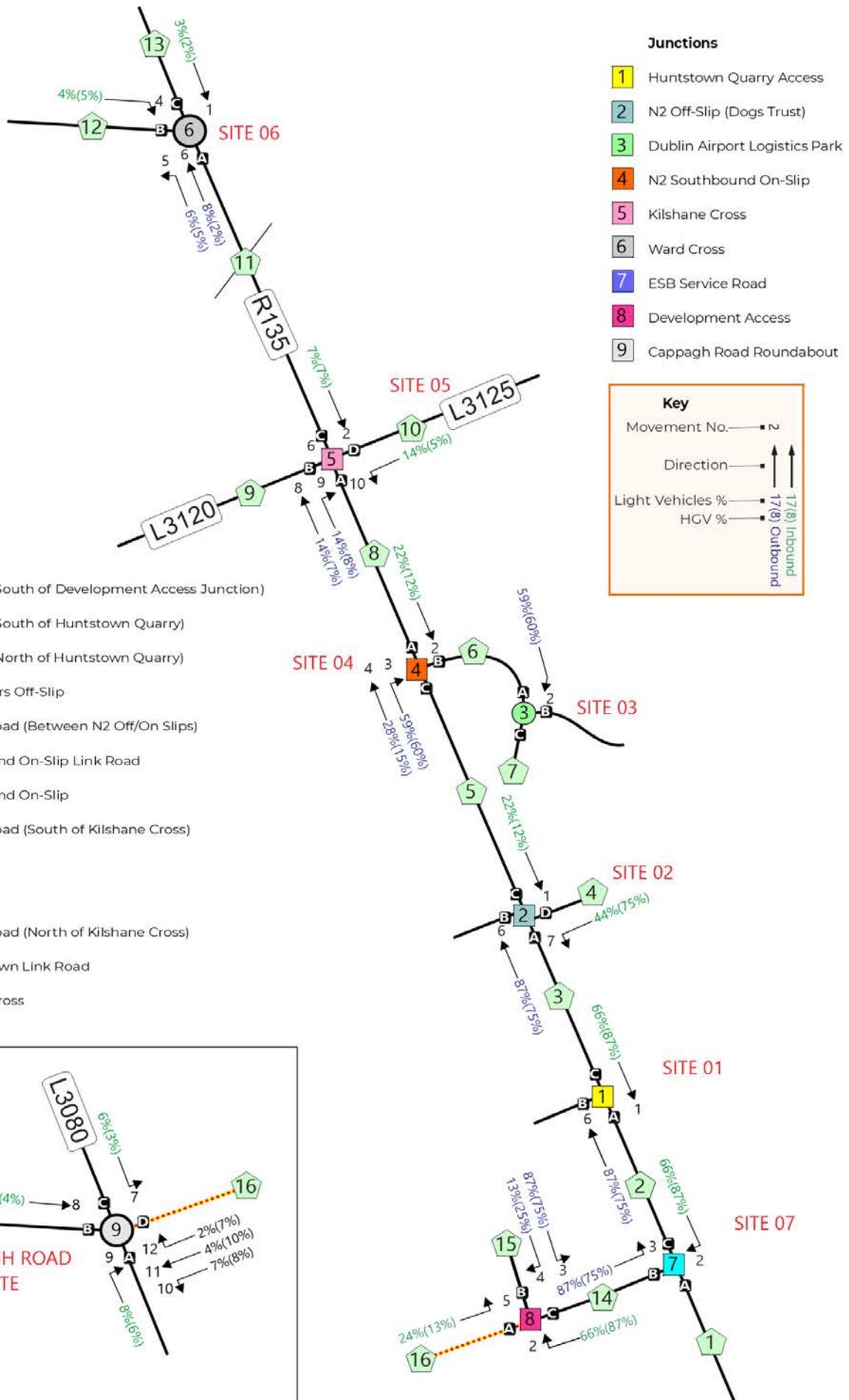
Project Title **Huntstown, North Road, Fingal**

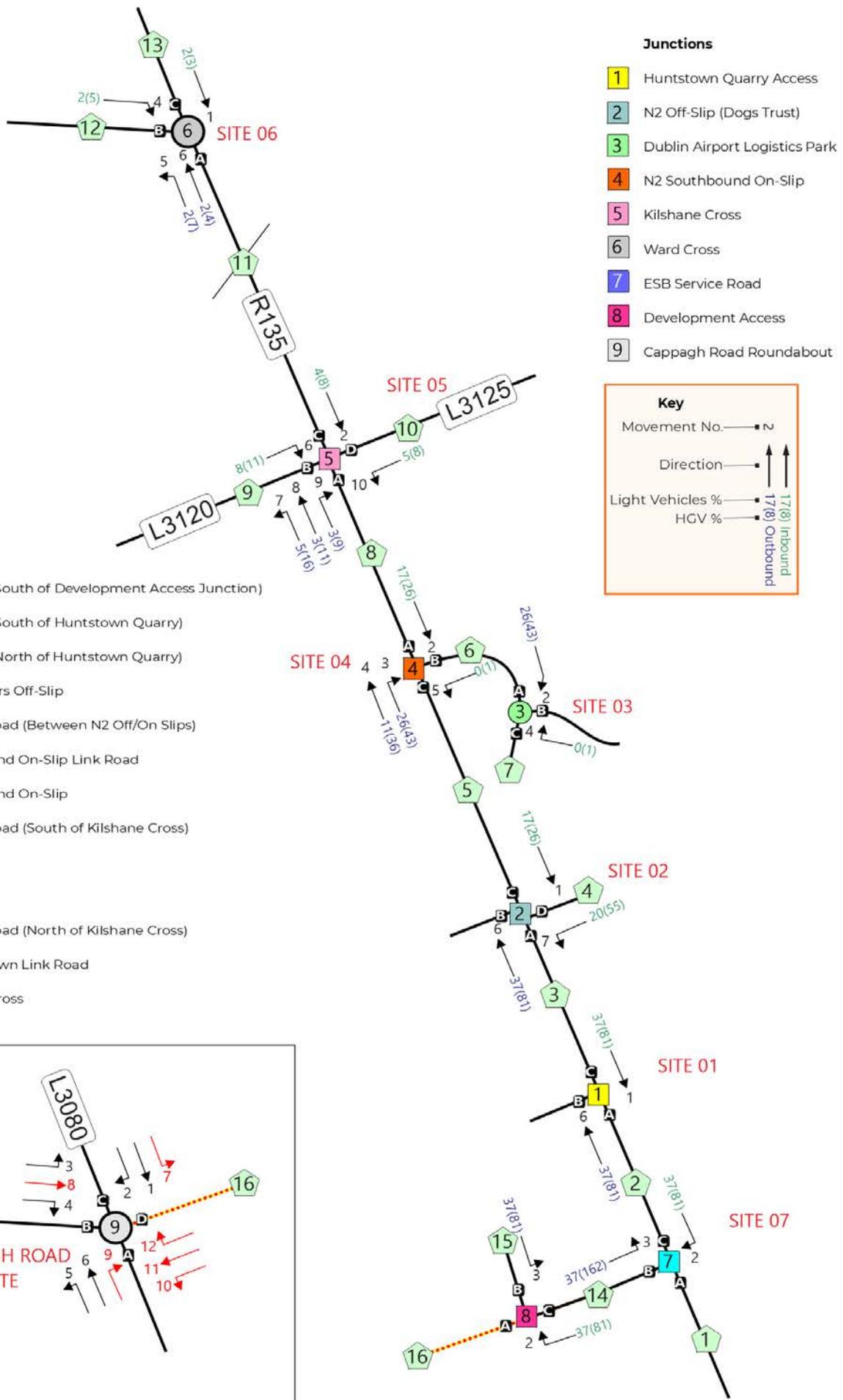
Drawing Title Surveyed Traffic Flows - September 2022
Evening Peak Hour
16:00-17:00hrs

Prepared: TWL	Checked: JMK	Approved: JMK
Date: Feb 2023	Date: Feb 2023	Date: Feb 2023
Scale: NTS	Project No: 03167	Figure 3
Appendix B		









- Junctions**
- 1 Huntstown Quarry Access
 - 2 N2 Off-Slip (Dogs Trust)
 - 3 Dublin Airport Logistics Park
 - 4 N2 Southbound On-Slip
 - 5 Kilshane Cross
 - 6 Ward Cross
 - 7 ESB Service Road
 - 8 Development Access
 - 9 Cappagh Road Roundabout

Key

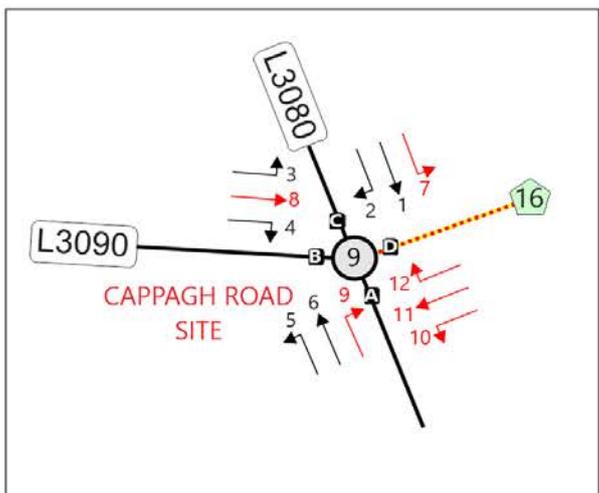
Movement No. → N

Direction → ↑ ↑

Light Vehicles % → 17(8) Inbound
17(8) Outbound

HGV % →

- Links**
- 1 North Road (South of Development Access Junction)
 - 2 North Road (South of Huntstown Quarry)
 - 3 North Road (North of Huntstown Quarry)
 - 4 N2 Coldwinters Off-Slip
 - 5 R135 North Road (Between N2 Off/On Slips)
 - 6 N2 Southbound On-Slip Link Road
 - 7 N2 Southbound On-Slip
 - 8 R135 North Road (South of Kilshane Cross)
 - 9 L3120
 - 10 L3125
 - 11 R135 North Road (North of Kilshane Cross)
 - 12 Blanchardstown Link Road
 - 13 R135 Wards Cross



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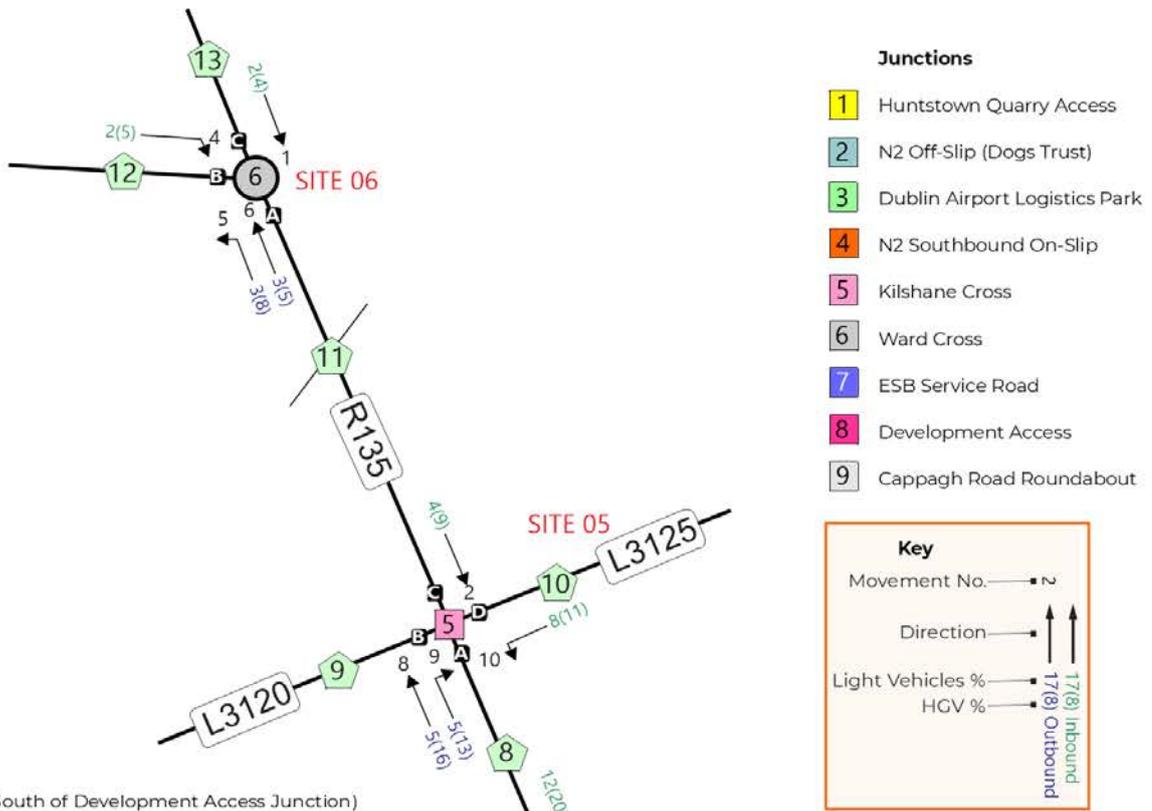
Suite 5, Gowna Plaza,
Bracktown Business Park,
D15 R597

Telephone: +353 (0) 8253015
Website: www.trafficwise.ie
E-mail: info@trafficwise.ie

Project Title **Huntstown, North Road, Fingal**

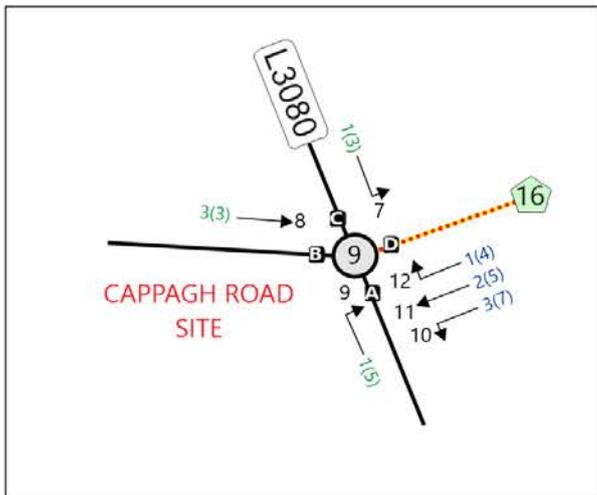
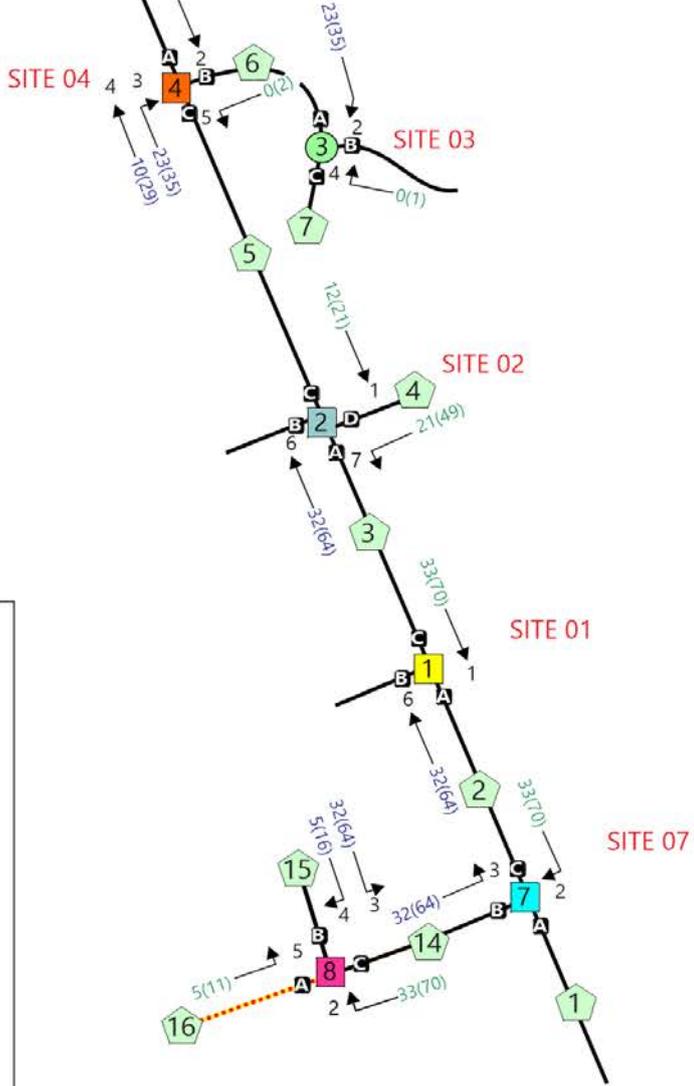
Drawing Title Forecast Development Traffic Generation
Phase 1 - Daily Flows
07:00-19:00hrs

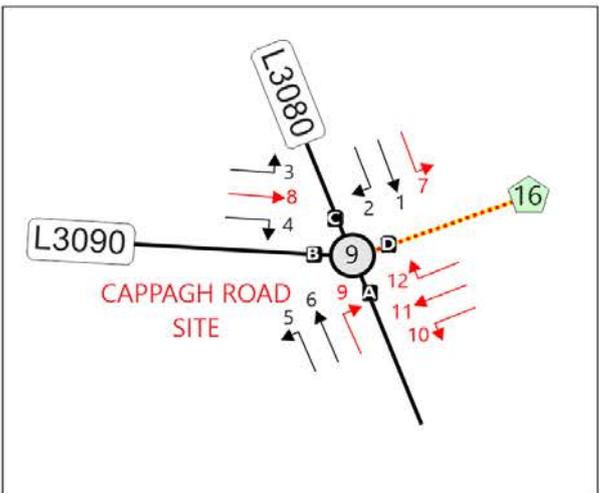
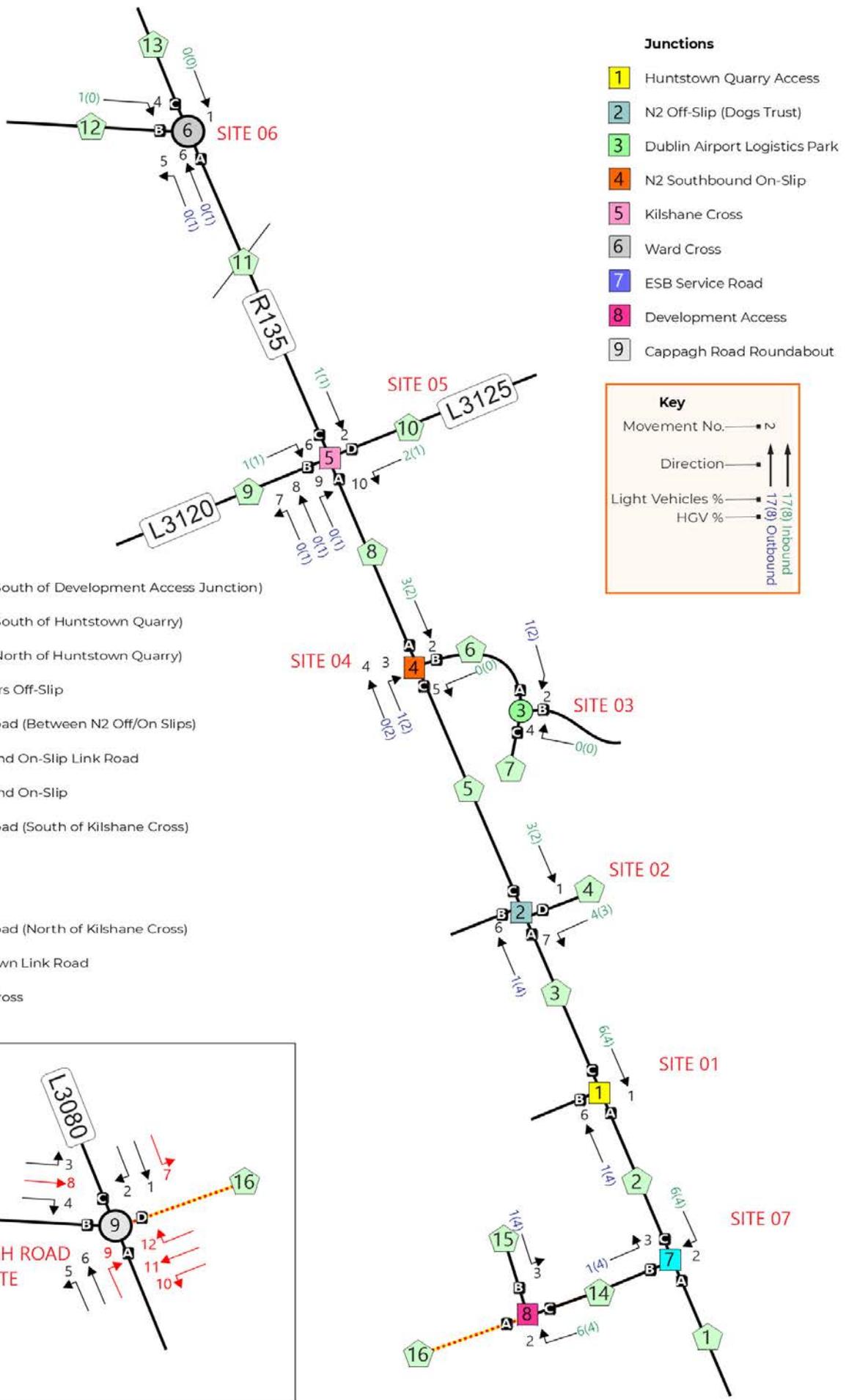
Prepared: TWL	Checked: JMK	Approved: JMK
Date: Feb 2023	Date: Feb 2023	Date: Feb 2023
Scale: NTS	Project No: 03167	Figure 10
Appendix B		

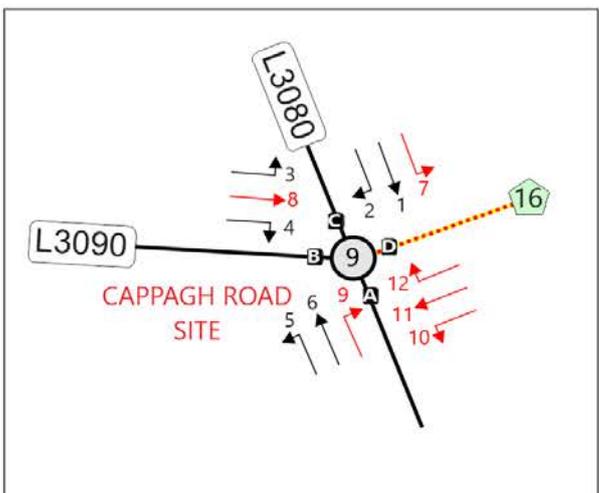
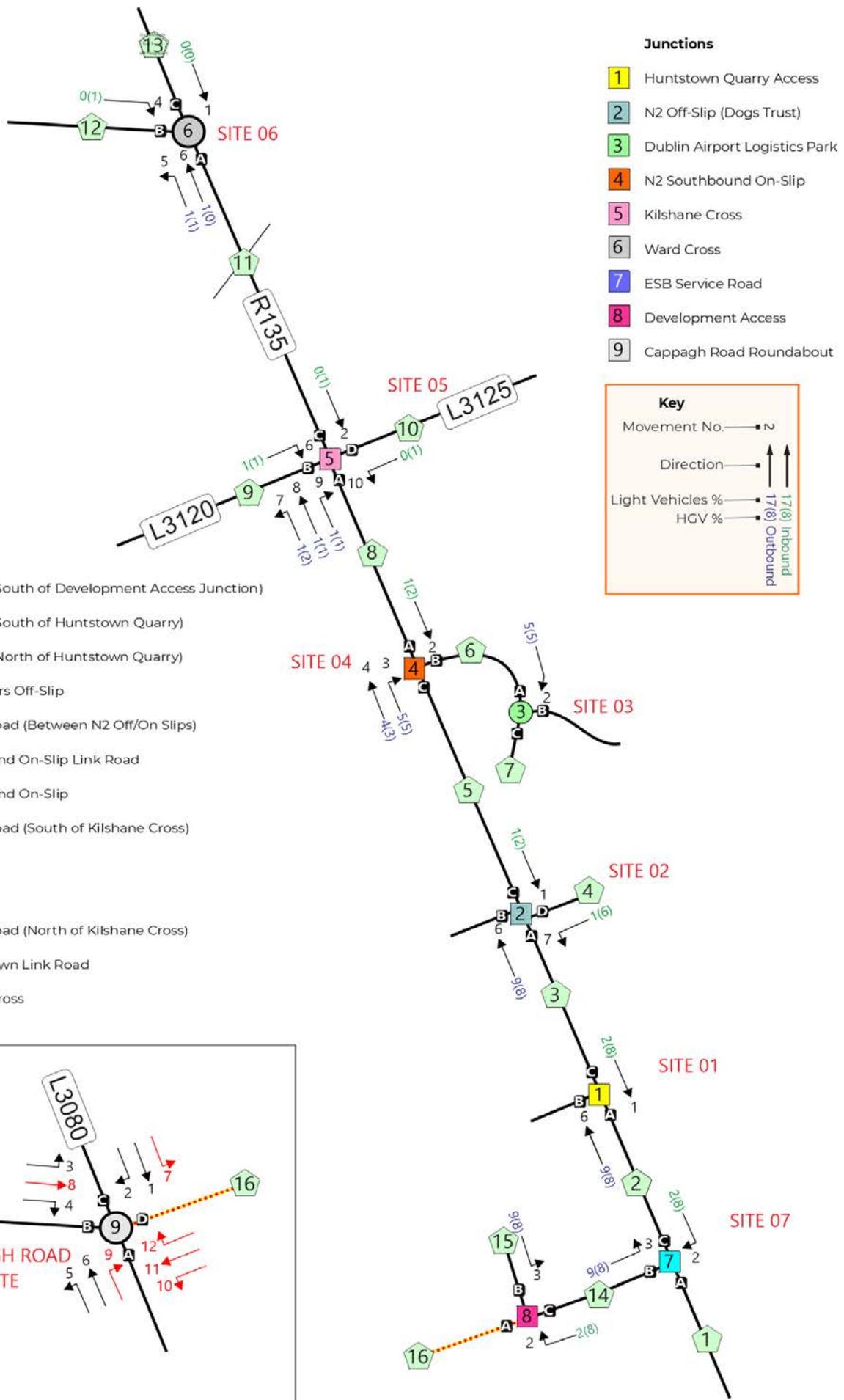


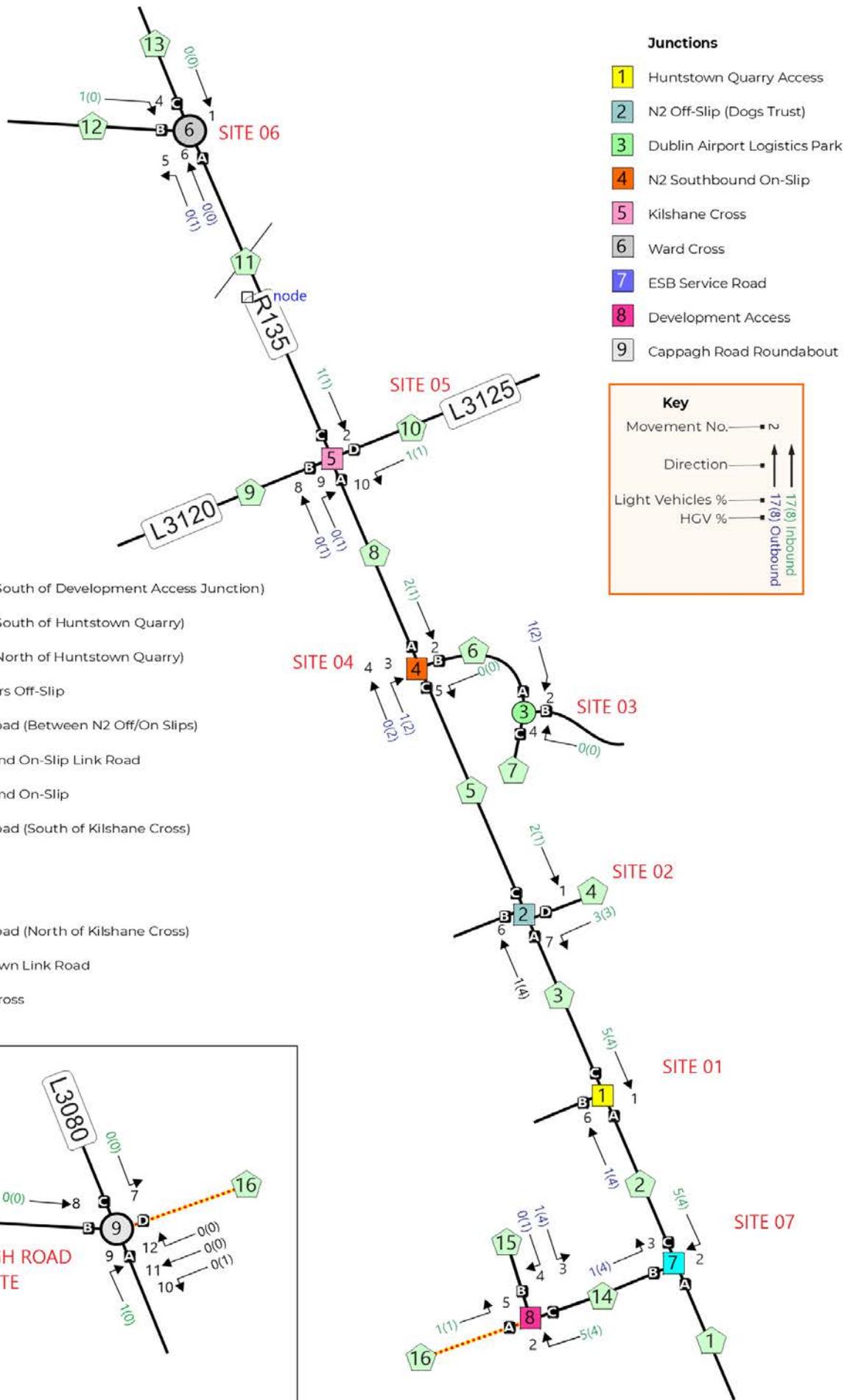
Links

- 1 North Road (South of Development Access Junction)
- 2 North Road (South of Huntstown Quarry)
- 3 North Road (North of Huntstown Quarry)
- 4 N2 Coldwinters Off-Slip
- 5 R135 North Road (Between N2 Off/On Slips)
- 6 N2 Southbound On-Slip Link Road
- 7 N2 Southbound On-Slip
- 8 R135 North Road (South of Kilshane Cross)
- 9 L3120
- 10 L3125
- 11 R135 North Road (North of Kilshane Cross)
- 12 Blanchardstown Link Road
- 13 R135 Wards Cross









- Junctions**
- 1 Huntstown Quarry Access
 - 2 N2 Off-Slip (Dogs Trust)
 - 3 Dublin Airport Logistics Park
 - 4 N2 Southbound On-Slip
 - 5 Kilshane Cross
 - 6 Ward Cross
 - 7 ESB Service Road
 - 8 Development Access
 - 9 Cappagh Road Roundabout

Key

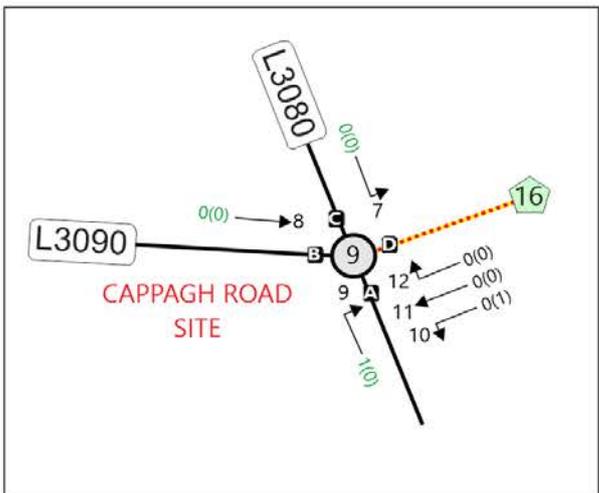
Movement No. → 12

Direction → ↑ ↑

Light Vehicles % → 17/8 Inbound

HGV % → 17/8 Outbound

- Links**
- 1 North Road (South of Development Access Junction)
 - 2 North Road (South of Huntstown Quarry)
 - 3 North Road (North of Huntstown Quarry)
 - 4 N2 Coldwinters Off-Slip
 - 5 R135 North Road (Between N2 Off/On Slips)
 - 6 N2 Southbound On-Slip Link Road
 - 7 N2 Southbound On-Slip
 - 8 R135 North Road (South of Kilshane Cross)
 - 9 L3120
 - 10 L3125
 - 11 R135 North Road (North of Kilshane Cross)
 - 12 Blanchardstown Link Road
 - 13 R135 Wards Cross



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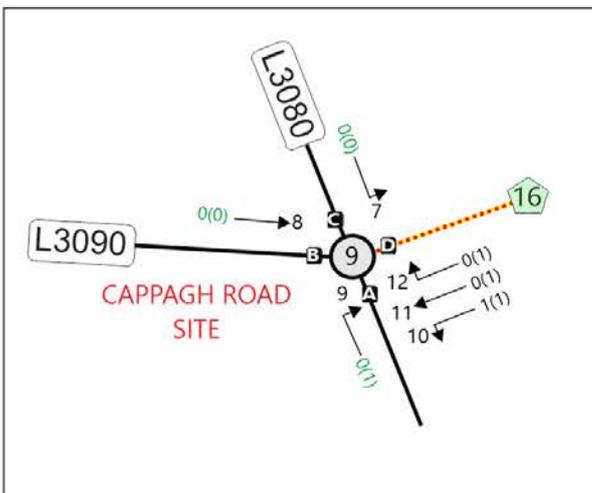
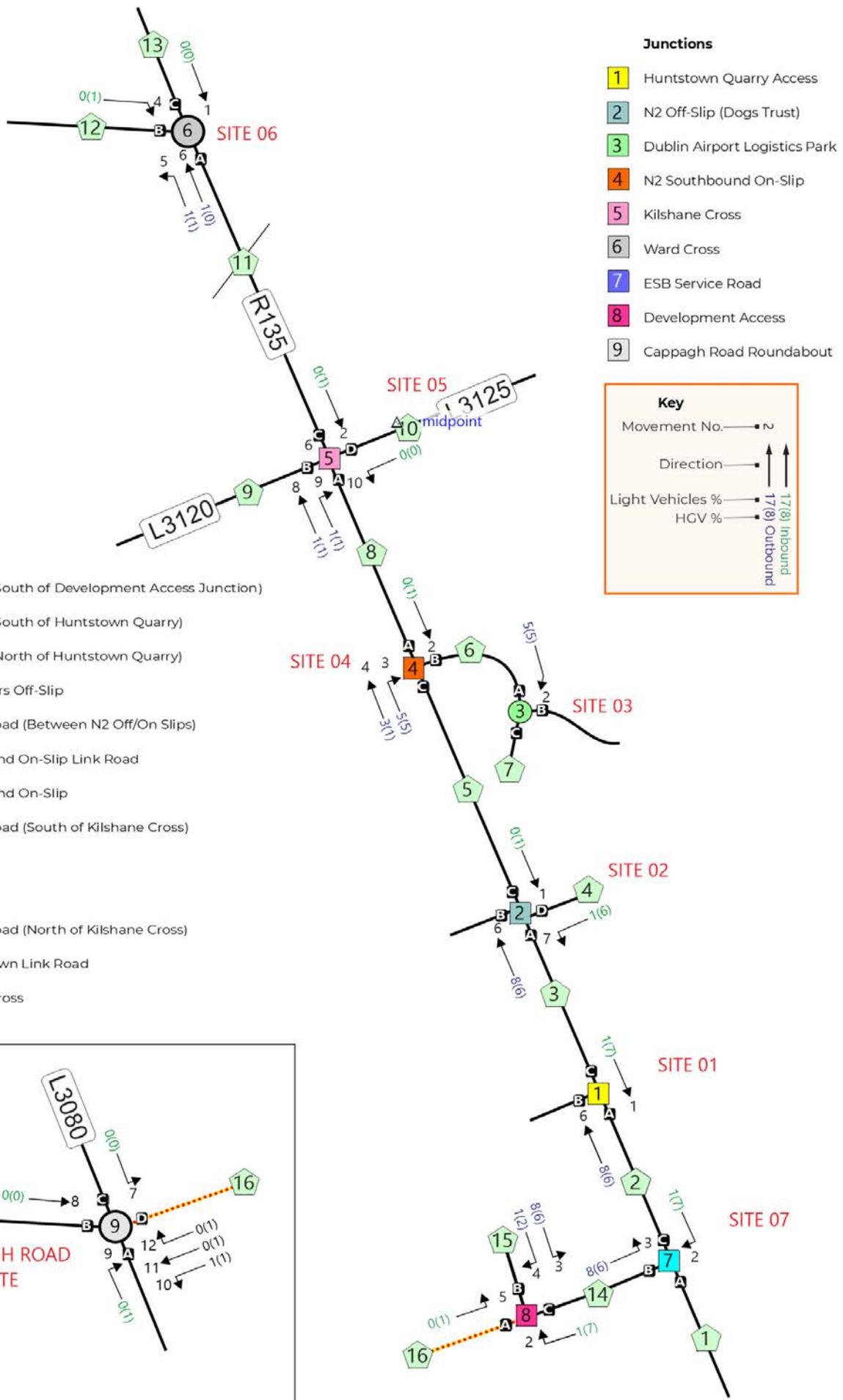
Suite 9, Govina Plaza,
Blanchardstown Business Park,
D15 R297

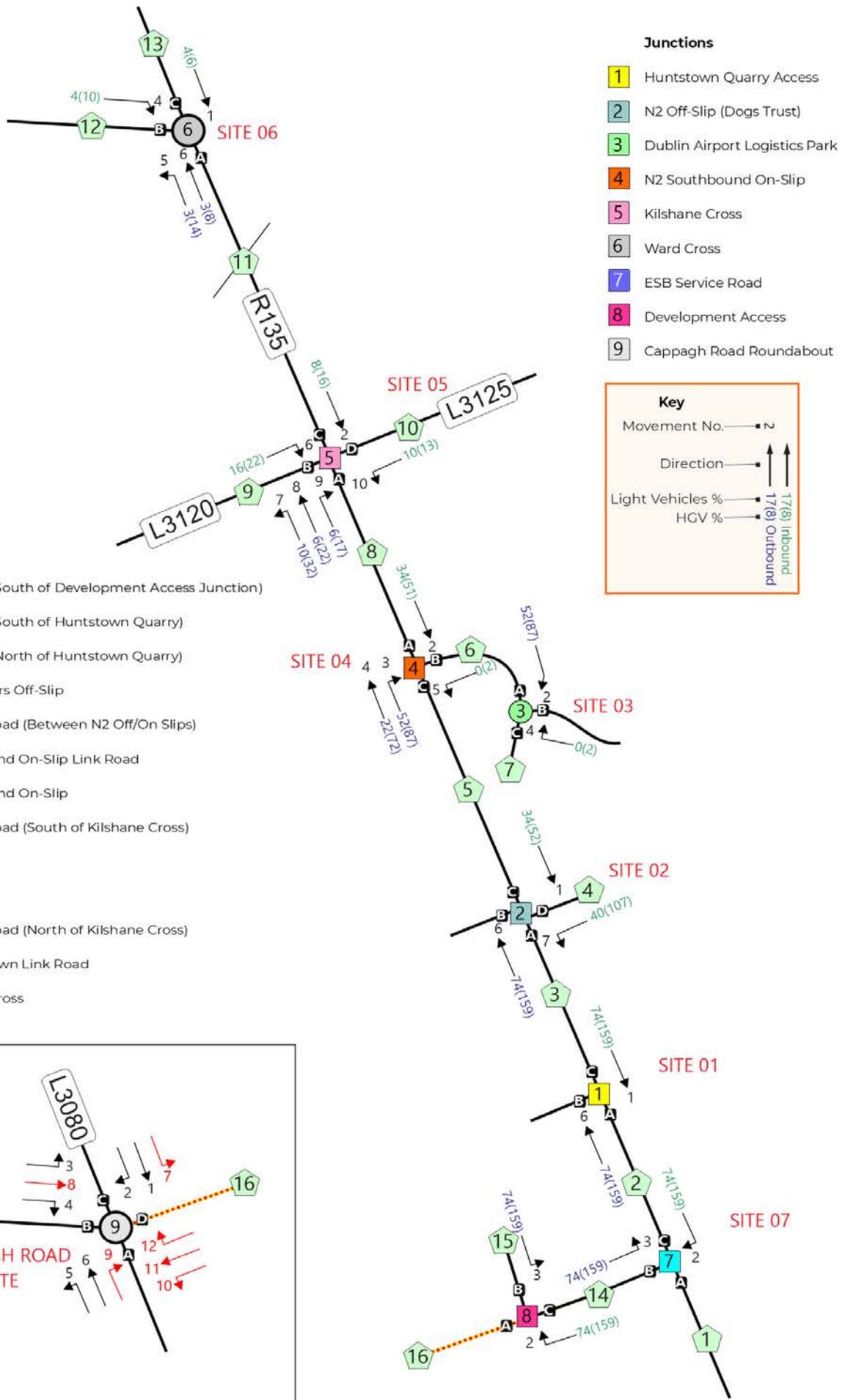
Telephone: +353 (0)1 8263016
Website: www.trafficwise.ie
E-mail: info@trafficwise.ie

Project Title **Huntstown, North Road, Fingal**

Drawing Title **Forecast Development Traffic Generation
Phase 1 - AM Peak Hour (Cappagh Road Link)
08:00-09:00hrs**

Prepared: TWL	Checked: JMK	Approved: JMK
Date: Feb 2023	Date: Feb 2023	Date: Feb 2023
Scale: NTS	Project No: 03167	Figure 14
Appendix B		





- Junctions**
- 1 Huntstown Quarry Access
 - 2 N2 Off-Slip (Dogs Trust)
 - 3 Dublin Airport Logistics Park
 - 4 N2 Southbound On-Slip
 - 5 Kilshane Cross
 - 6 Ward Cross
 - 7 ESB Service Road
 - 8 Development Access
 - 9 Cappagh Road Roundabout

Key

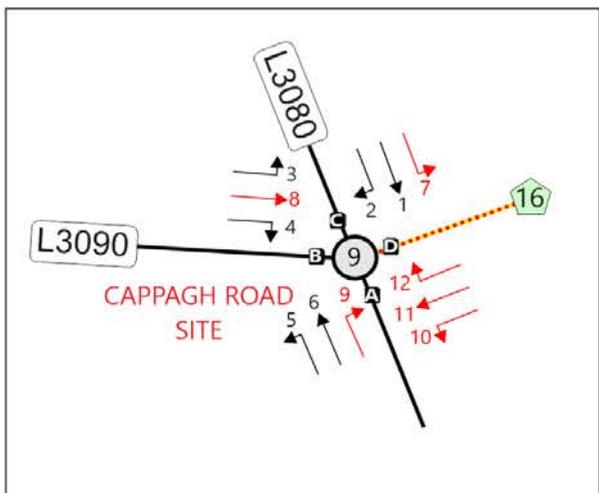
Movement No. → A, B, C, D

Direction → ↑ ↑

Light Vehicles % → 17(8) Inbound / 17(8) Outbound

HGV % → 17(8) Inbound / 17(8) Outbound

- Links**
- 1 North Road (South of Development Access Junction)
 - 2 North Road (South of Huntstown Quarry)
 - 3 North Road (North of Huntstown Quarry)
 - 4 N2 Coldwinters Off-Slip
 - 5 R135 North Road (Between N2 Off/On Slips)
 - 6 N2 Southbound On-Slip Link Road
 - 7 N2 Southbound On-Slip
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 - 9 L3120
 - 10 L3125
 - 11 R135 North Road (North of Kilshane Cross)
 - 12 Blanchardstown Link Road
 - 13 R135 Wards Cross



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Suite 5, Gowna Plaza,
Bracktown Business Park,
D15 R597

Telephone: +353 (0)1 8253015
Website: www.trafficwise.ie
Email: info@trafficwise.ie

Project Title **Huntstown, North Road, Fingal**

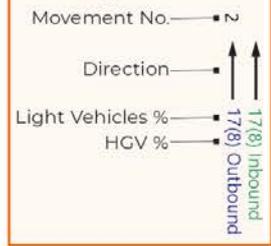
Drawing Title **Development Traffic Generation**
Masterplan Daily Flows
07:00-19:00hrs

Prepared: TWL	Checked: JMK	Approved: JMK
Date: Feb 2023	Date: Feb 2023	Date: Feb 2023
Scale: NTS	Project No: 03167	Figure 16
Appendix B		

Junctions

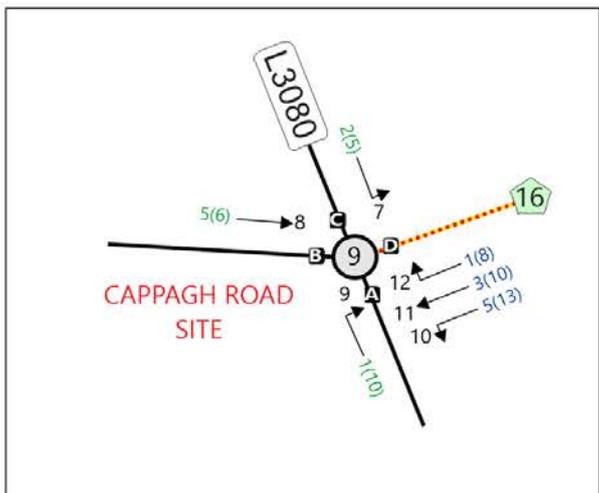
- 1 Huntstown Quarry Access
- 2 N2 Off-Slip (Dogs Trust)
- 3 Dublin Airport Logistics Park
- 4 N2 Southbound On-Slip
- 5 Kilshane Cross
- 6 Ward Cross
- 7 ESB Service Road
- 8 Development Access
- 9 Cappagh Road Roundabout

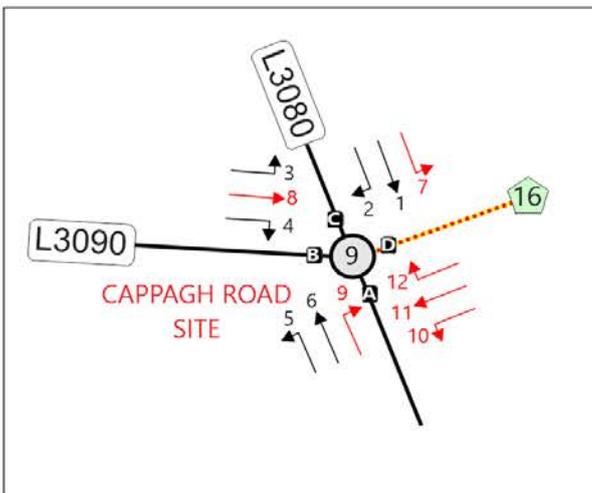
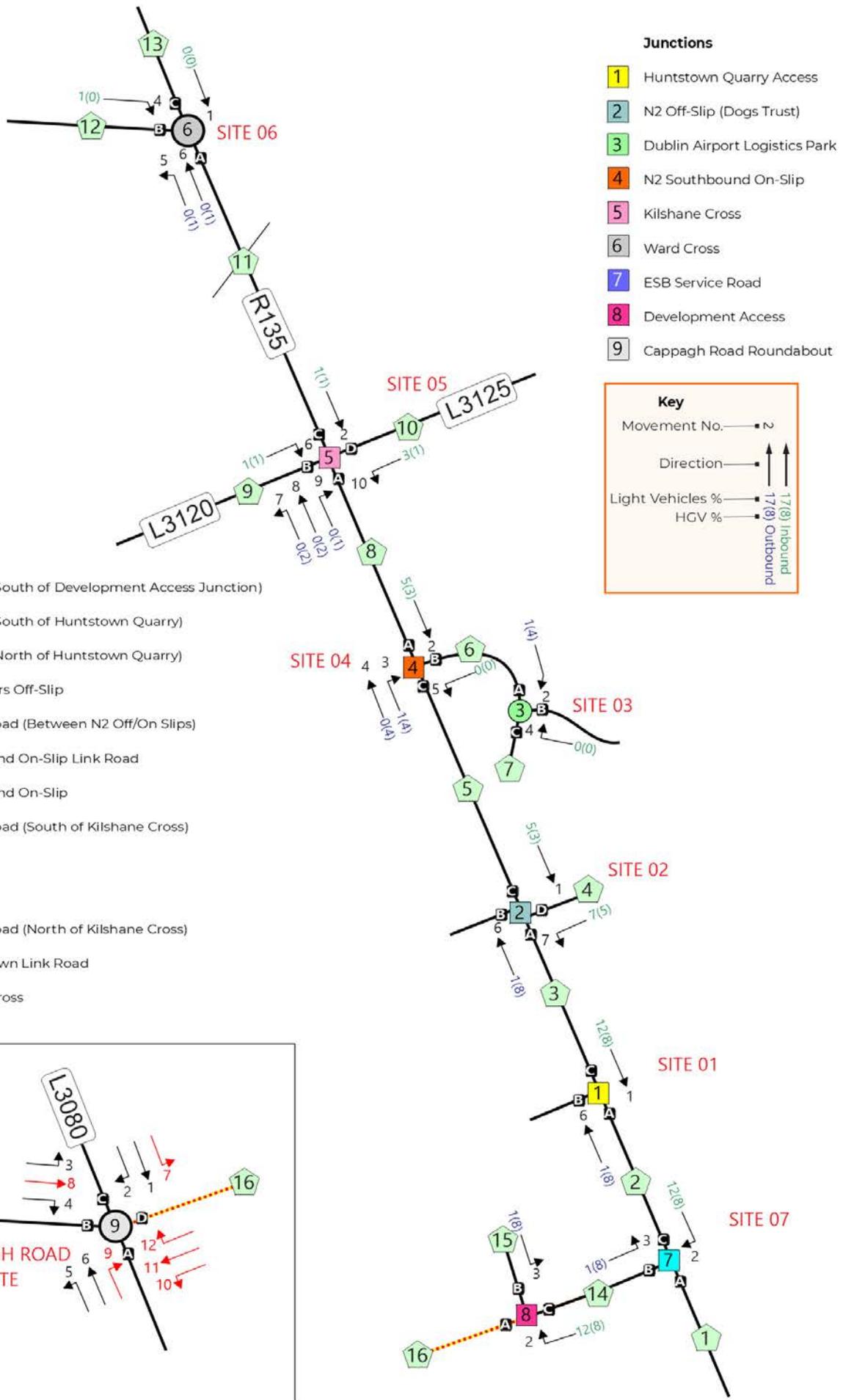
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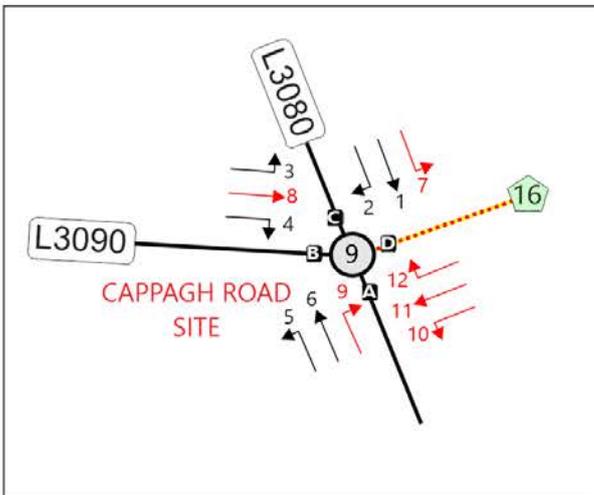
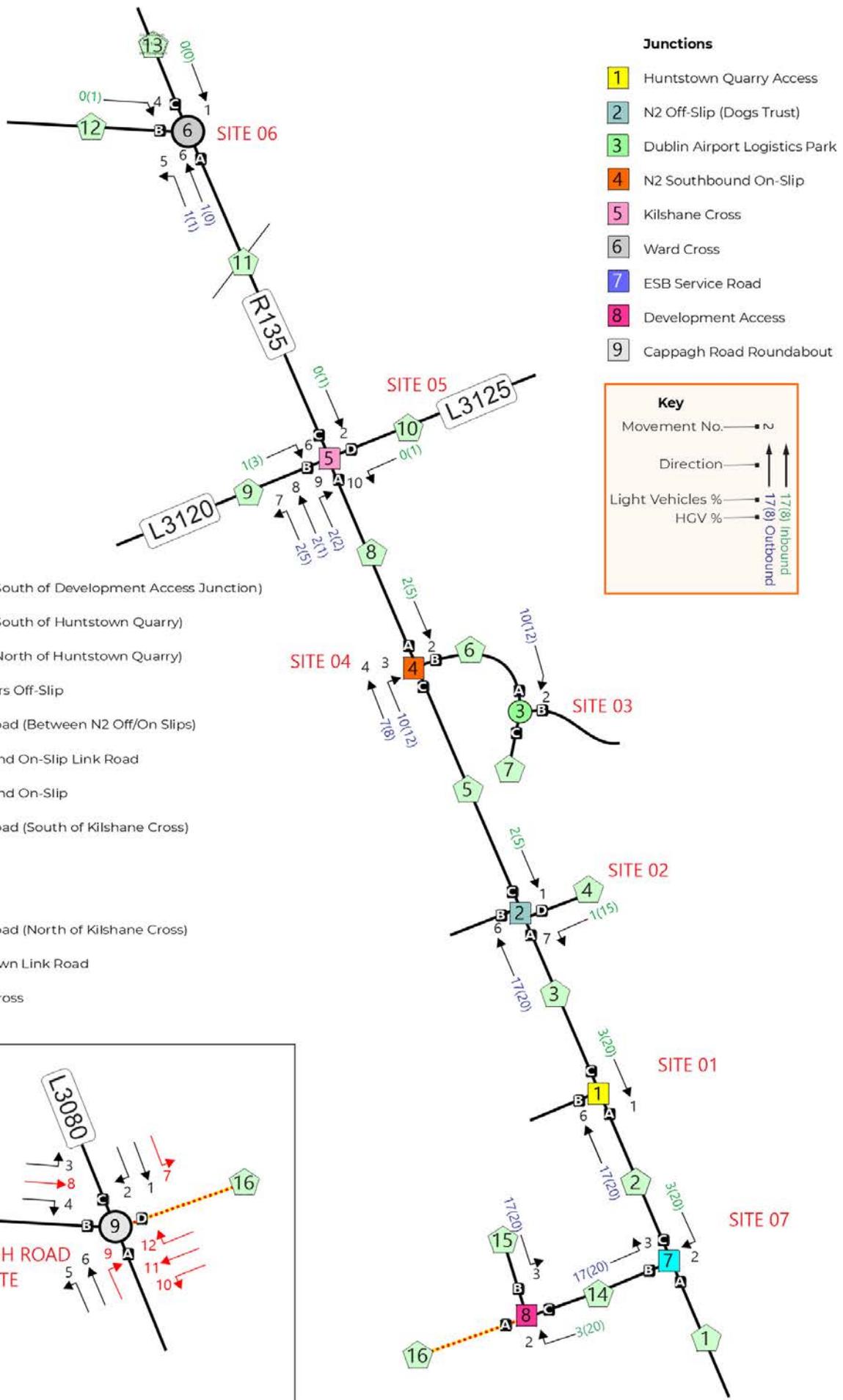


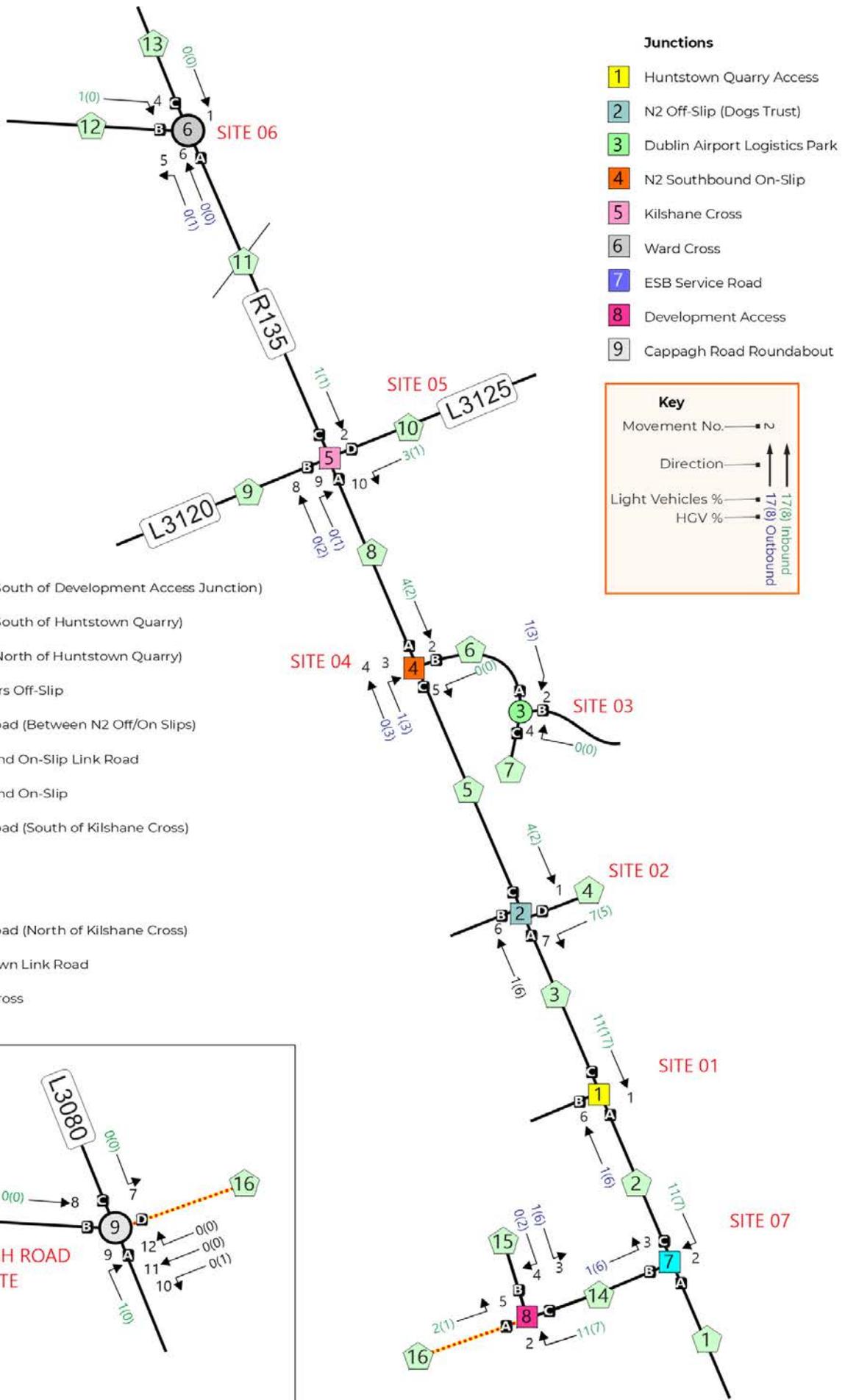
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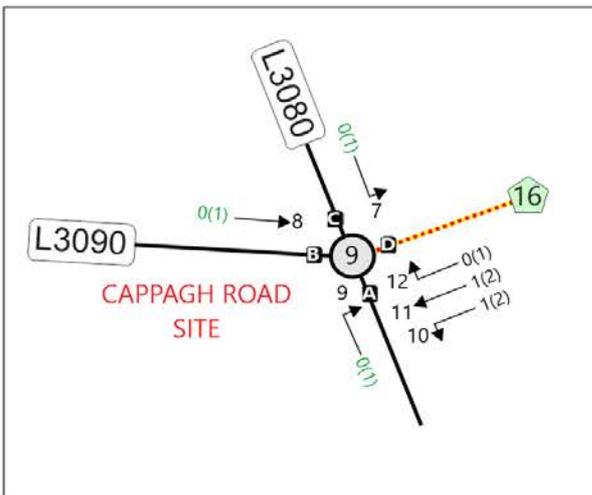
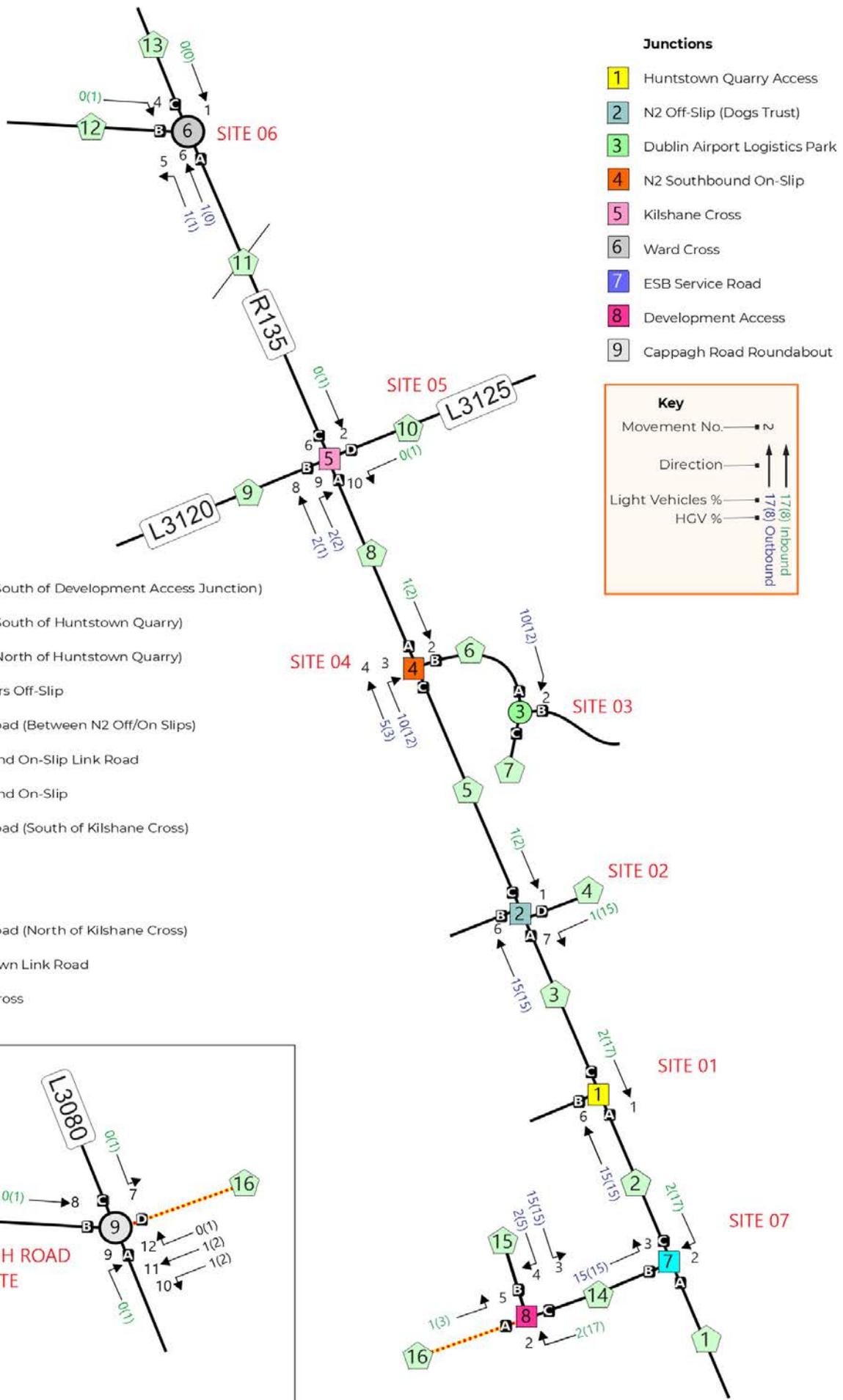
- 1 North Road (South of Development Access Junction)
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- 3 North Road (North of Huntstown Quarry)
- 4 N2 Coldwinters Off-Slip
- 5 R135 North Road (Between N2 Off/On Slips)
- 6 N2 Southbound On-Slip Link Road
- 7 N2 Southbound On-Slip
- 8 R135 North Road (South of Kilshane Cross)
- 9 L3120
- 10 L3125
- 11 R135 North Road (North of Kilshane Cross)
- 12 Blanchardstown Link Road
- 13 R135 Wards Cross

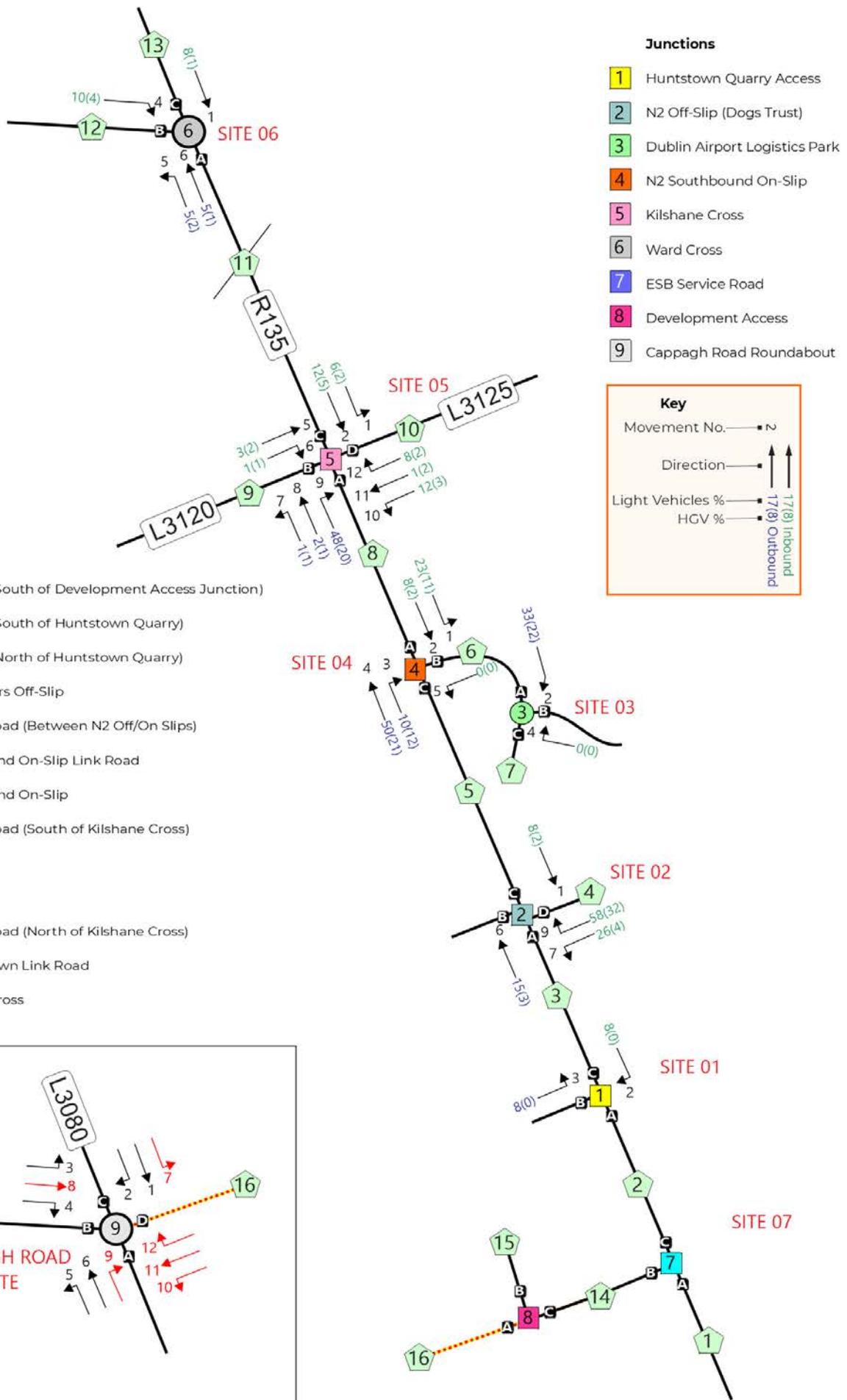












- Junctions**
- 1 Huntstown Quarry Access
 - 2 N2 Off-Slip (Dogs Trust)
 - 3 Dublin Airport Logistics Park
 - 4 N2 Southbound On-Slip
 - 5 Kilshane Cross
 - 6 Ward Cross
 - 7 ESB Service Road
 - 8 Development Access
 - 9 Cappagh Road Roundabout

Key

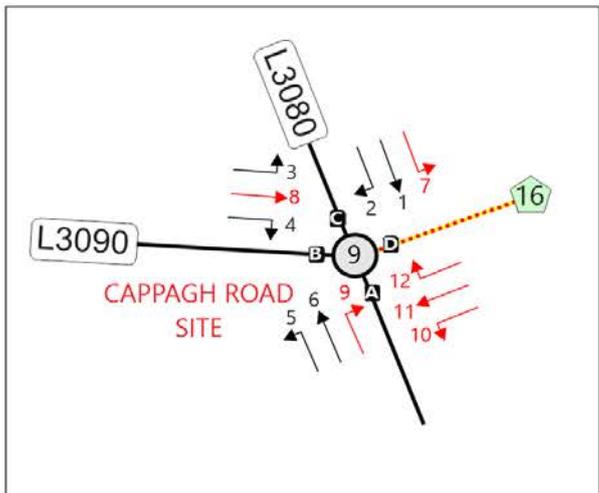
Movement No. → N

Direction → ↑ ↑

Light Vehicles % → 17(8) Inbound
17(8) Outbound

HGV % →

- Links**
- 1 North Road (South of Development Access Junction)
 - 2 North Road (South of Huntstown Quarry)
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 - 10 L3125
 - 11 R135 North Road (North of Kilshane Cross)
 - 12 Blanchardstown Link Road
 - 13 R135 Wards Cross



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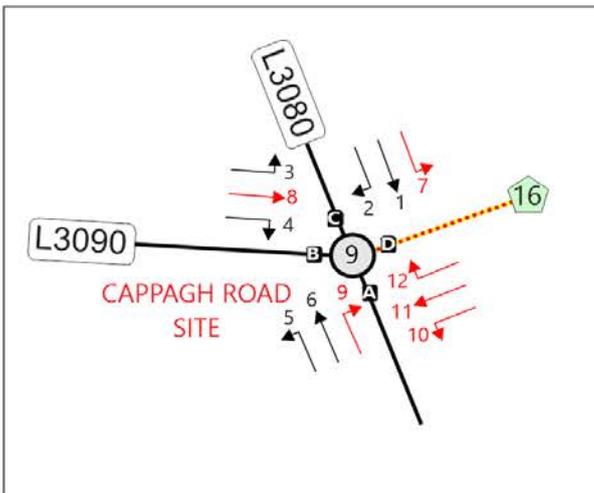
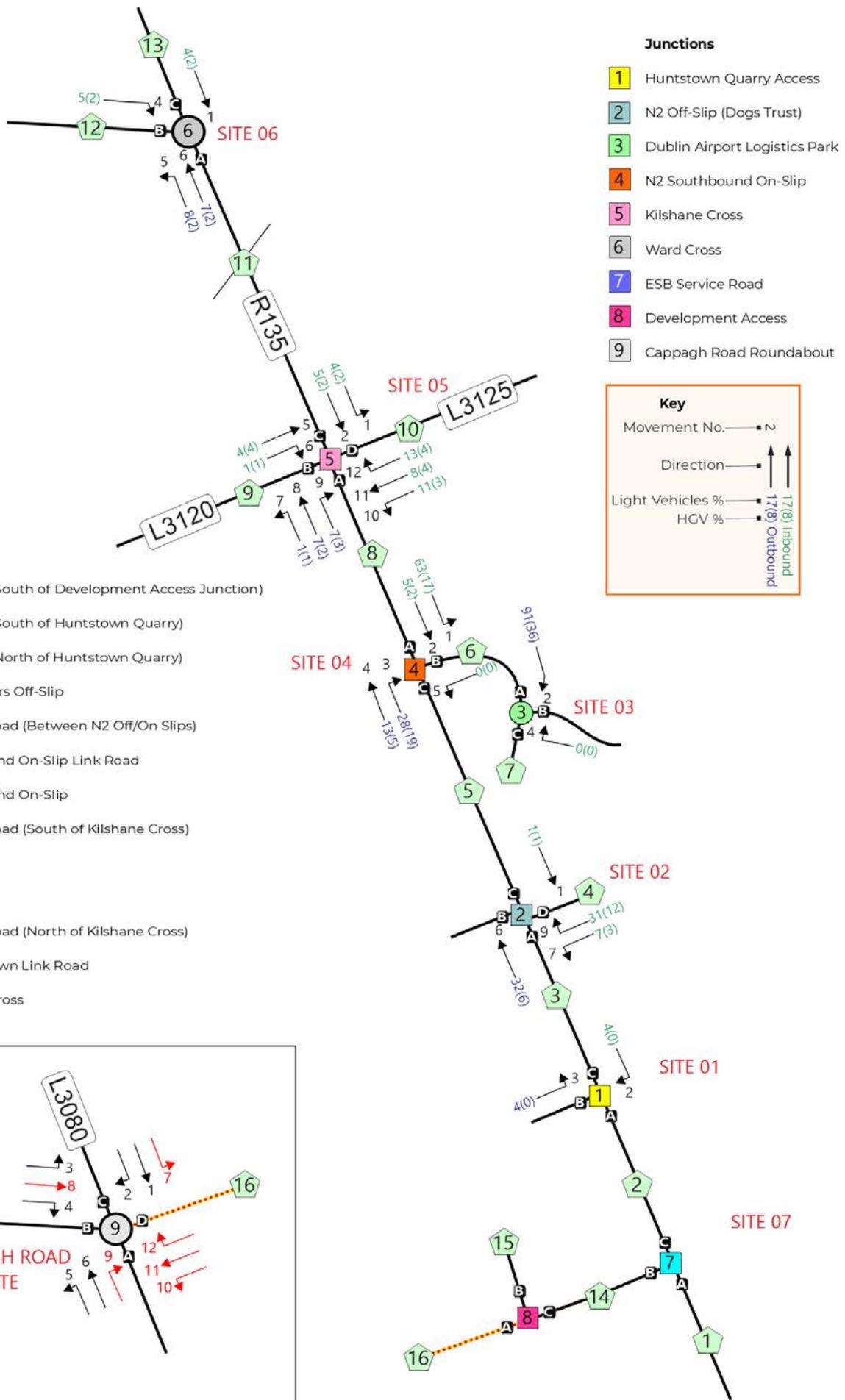
Suite 9, Gowra Plaza,
Blanchardstown Business Park,
D15 R59T

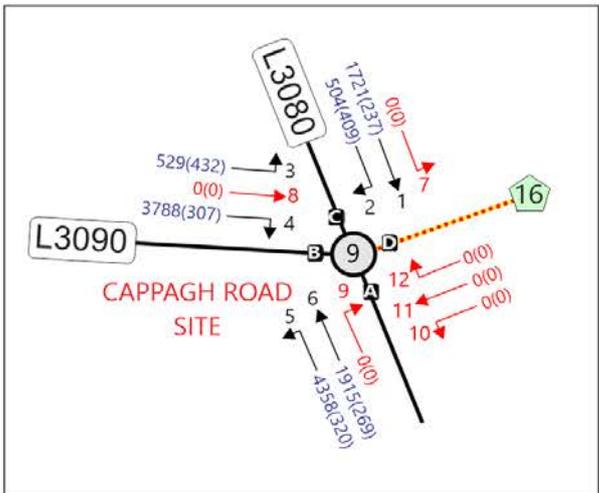
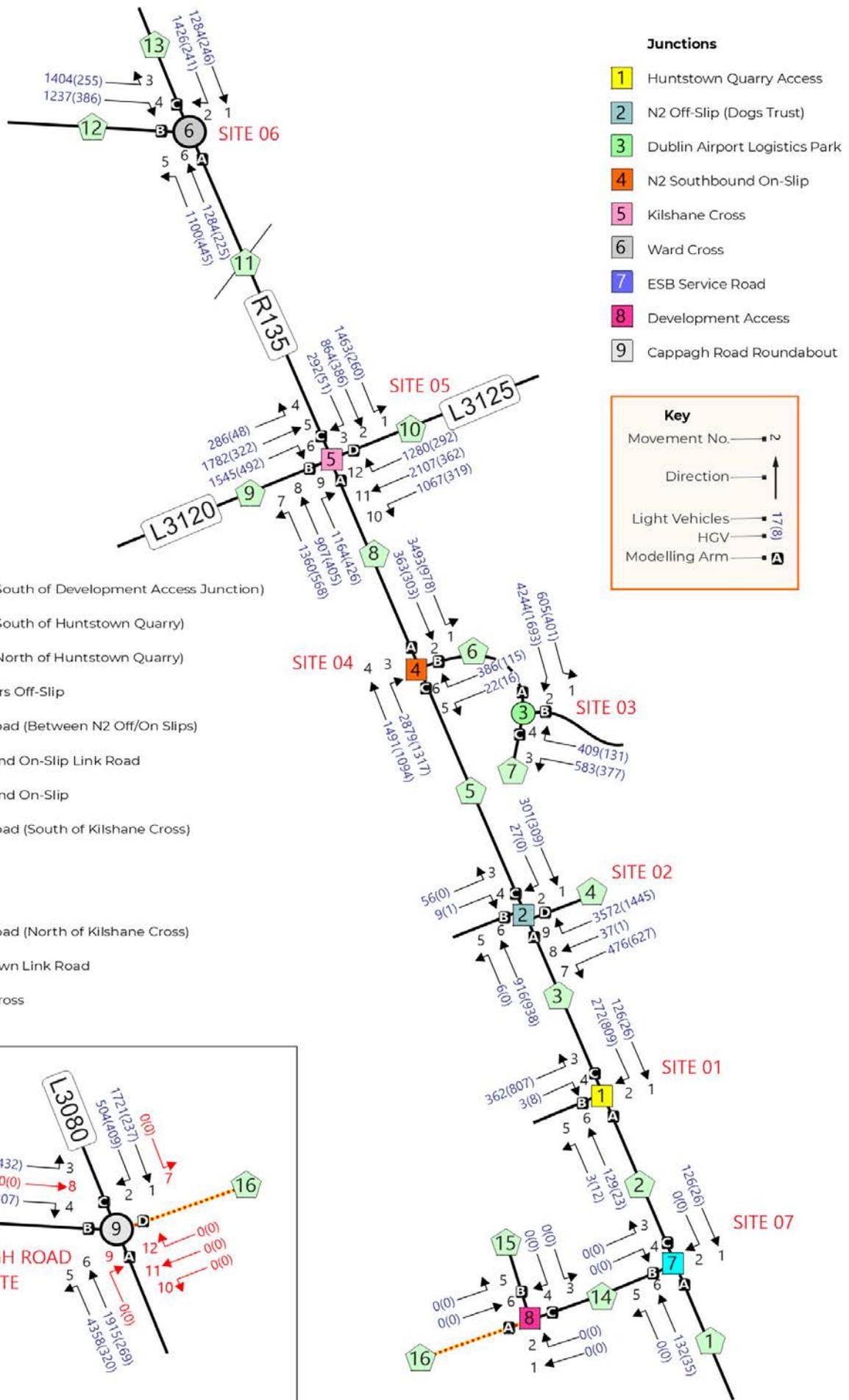
Telephone: +353 (0)1 4253016
Website: www.trafficwise.ie
E-mail: info@trafficwise.ie

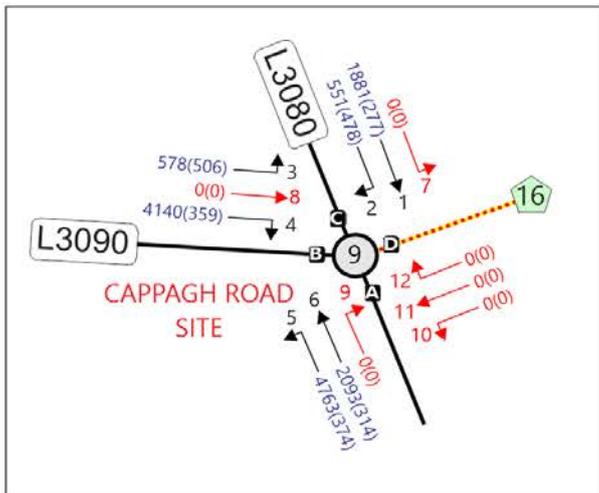
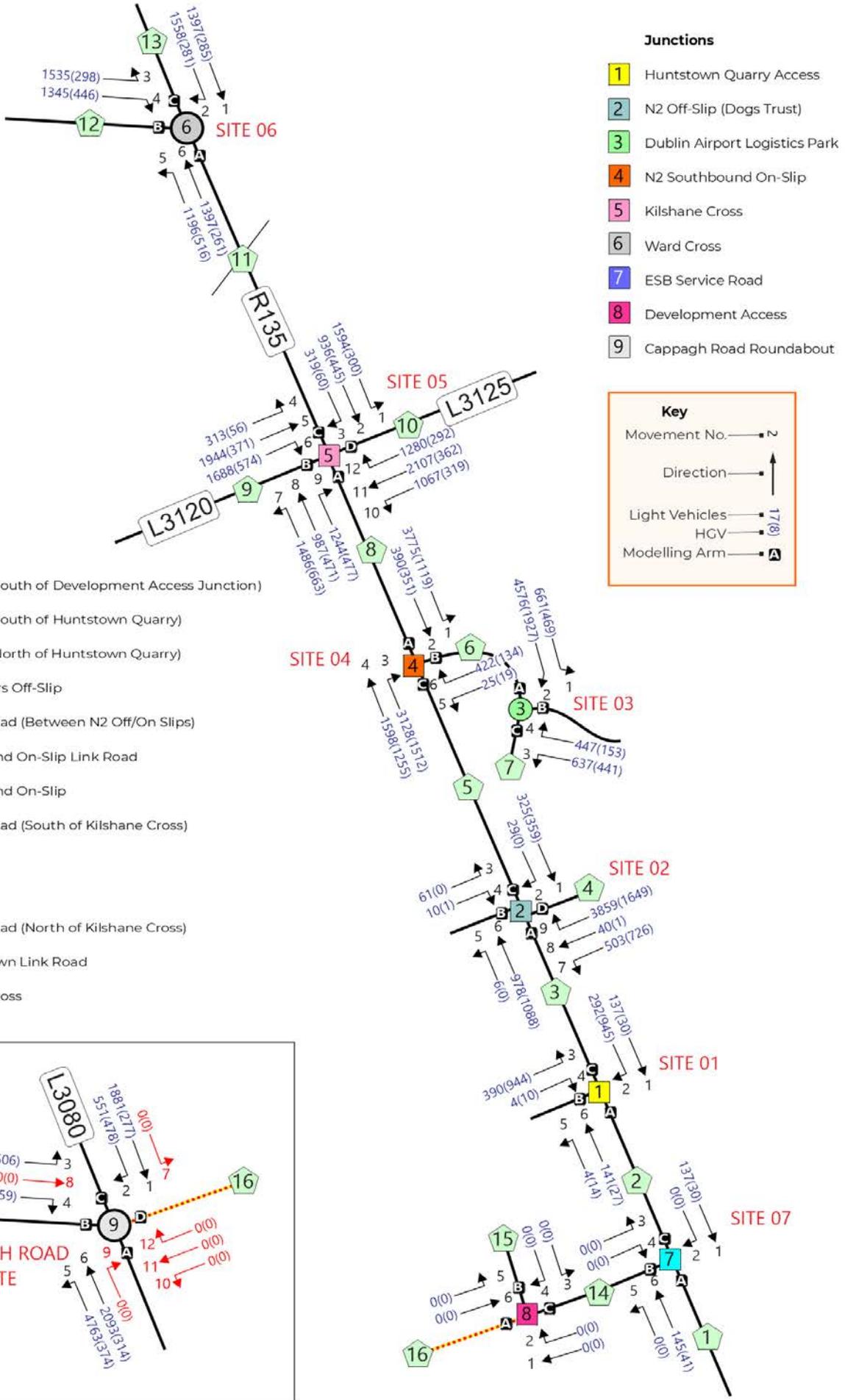
Project Title **Huntstown, North Road, Fingal**

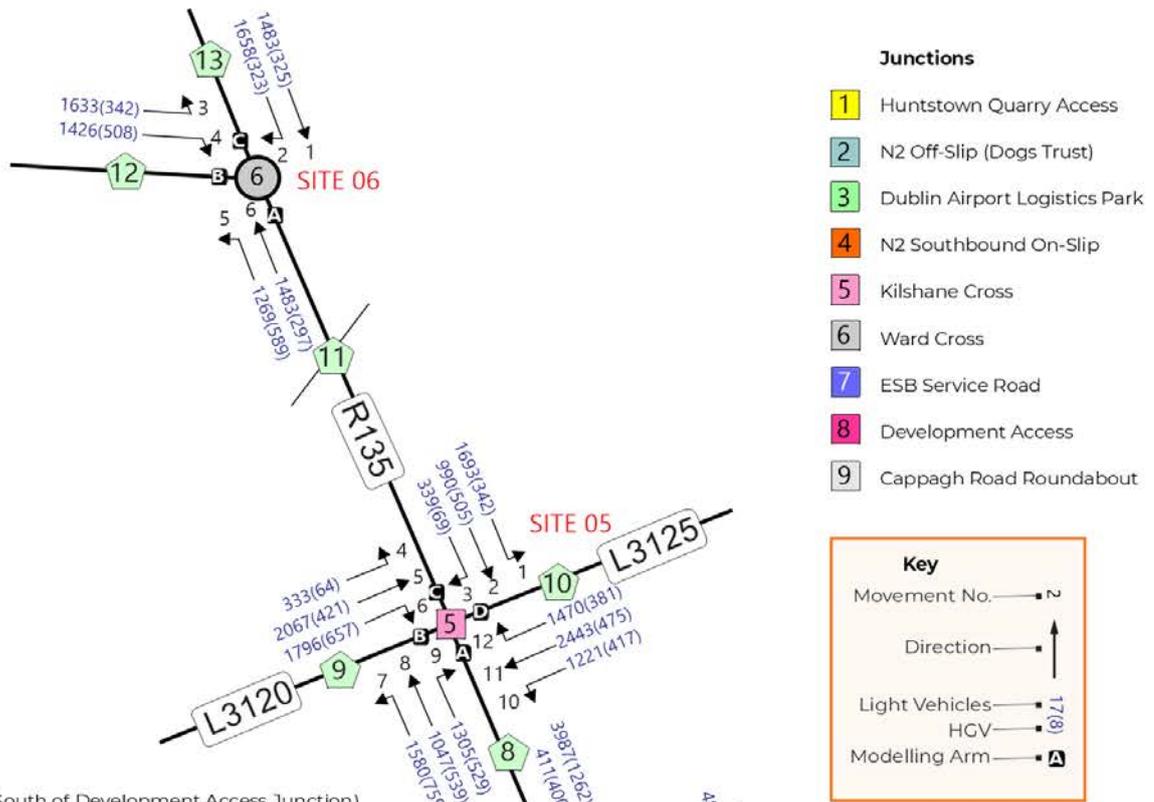
Drawing Title **Comitted Development Traffic Generation**
Morning Peak Hour
08:00-09:00hrs

Prepared: TWL	Checked: JMK	Approved: JMK
Date: Feb 2023	Date: Feb 2023	Date: Feb 2023
Scale: NTS	Project No: 03167	Figure 22
Appendix B		



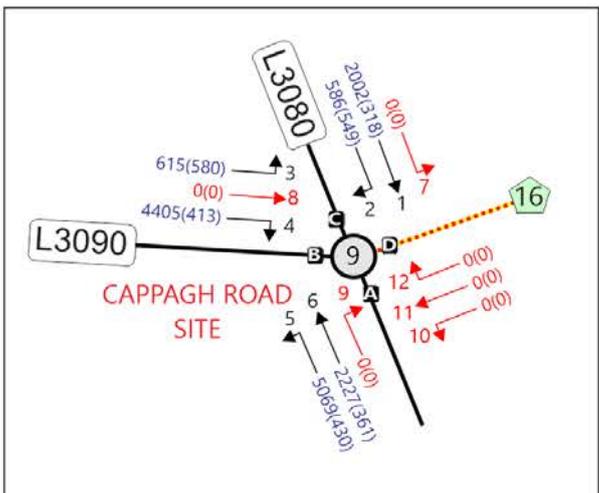
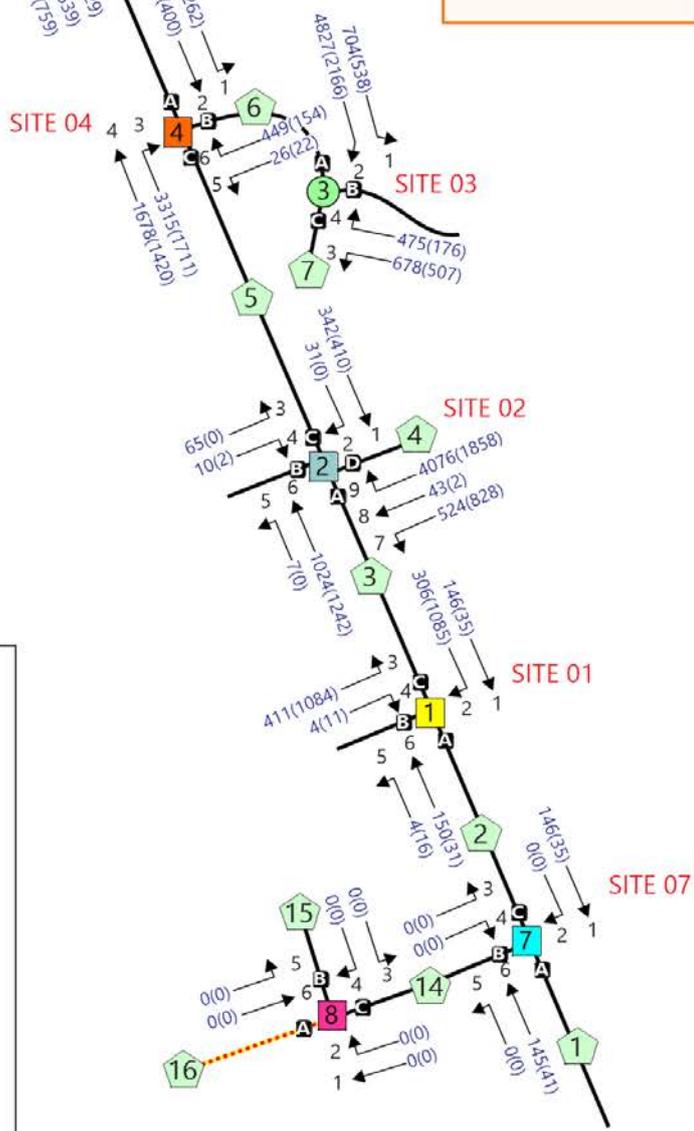


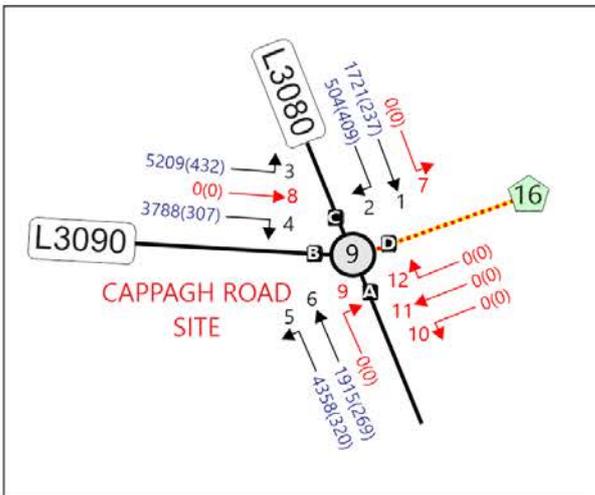
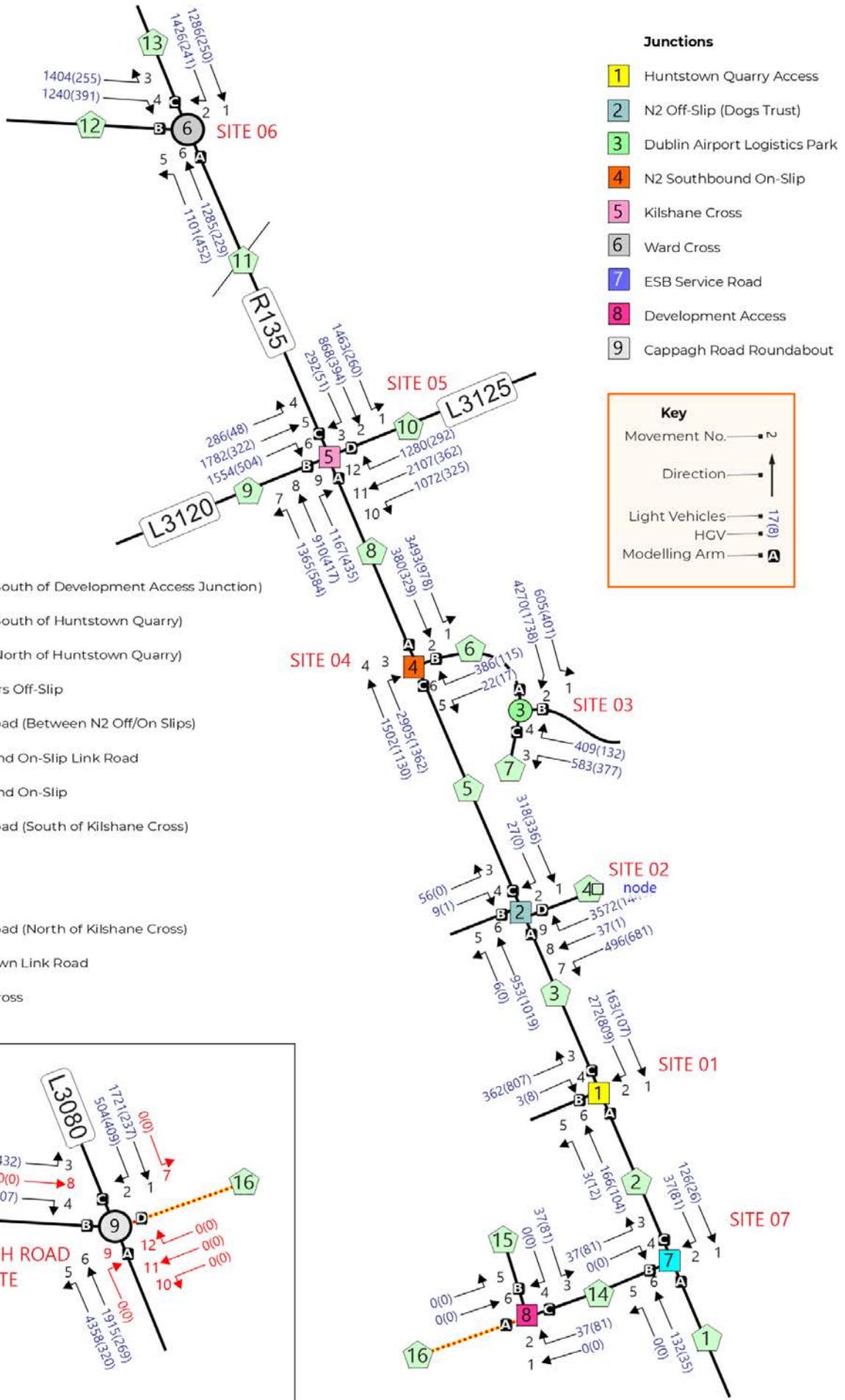


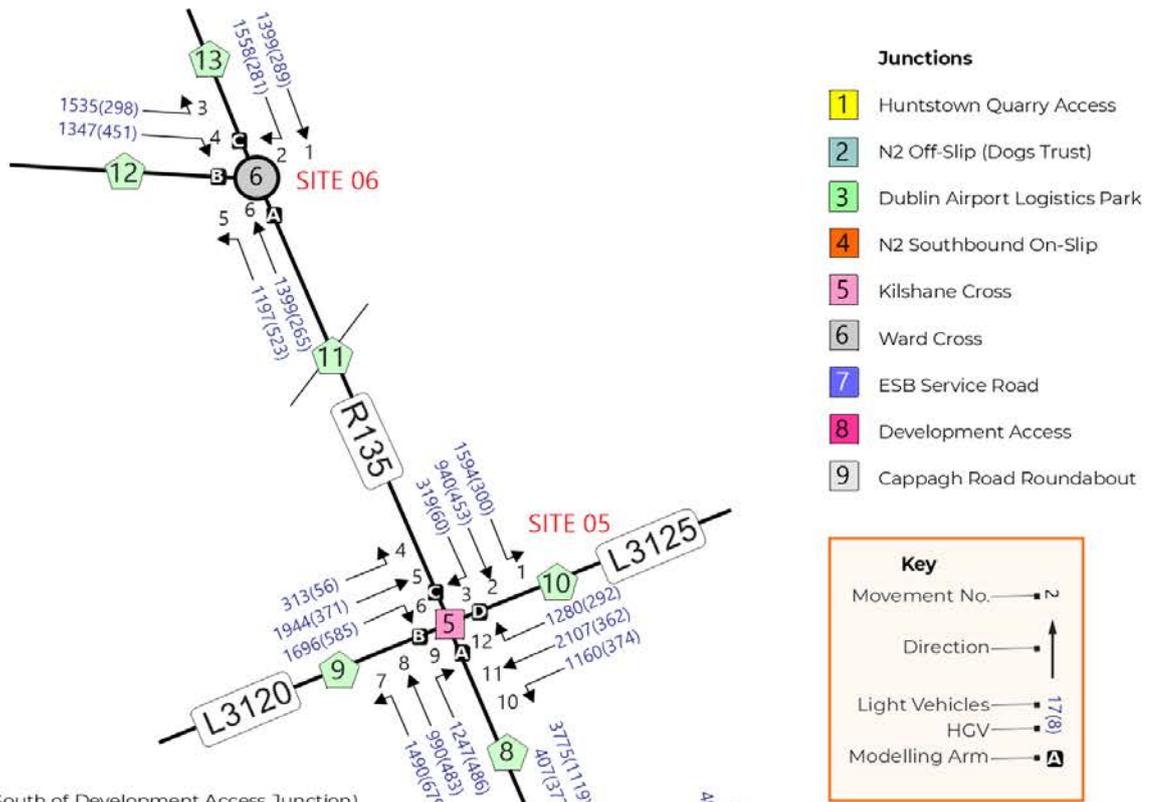


Links

- 1 North Road (South of Development Access Junction)
- 2 North Road (South of Huntstown Quarry)
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- 4 N2 Coldwinters Off-Slip
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- 7 N2 Southbound On-Slip
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- 9 L3120
- 10 L3125
- 11 R135 North Road (North of Kilshane Cross)
- 12 Blanchardstown Link Road
- 13 R135 Wards Cross

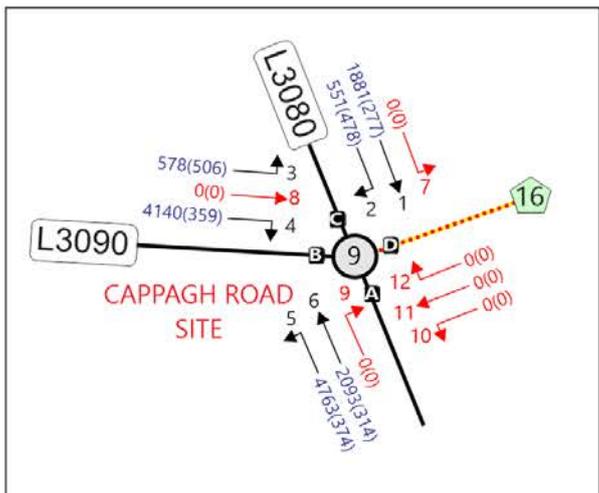
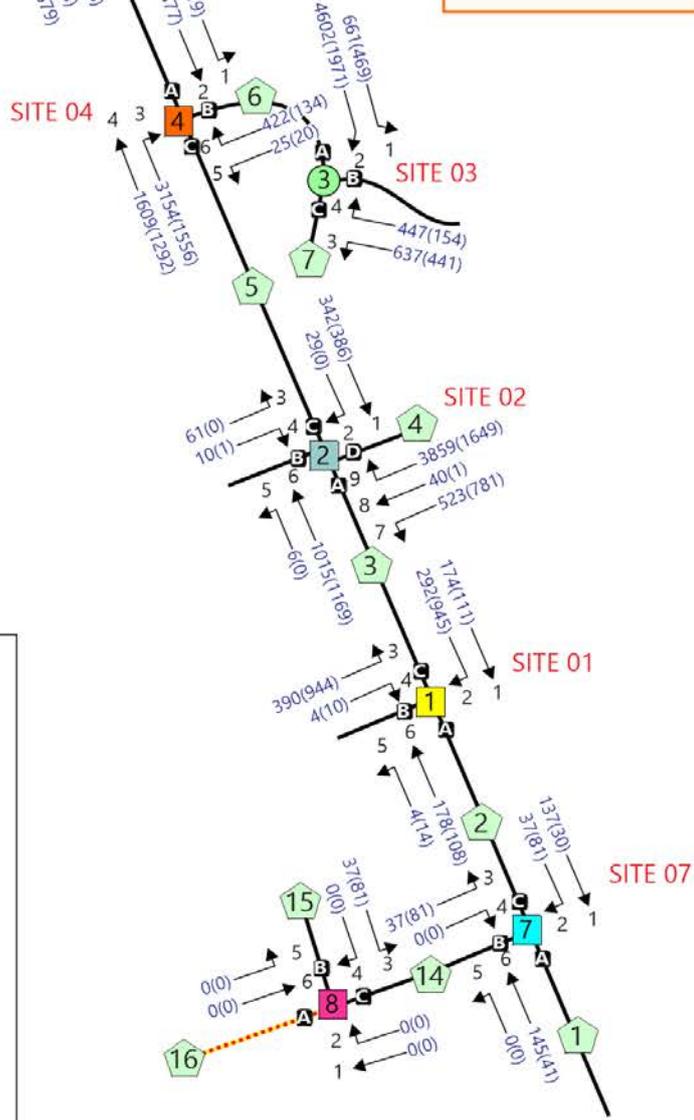


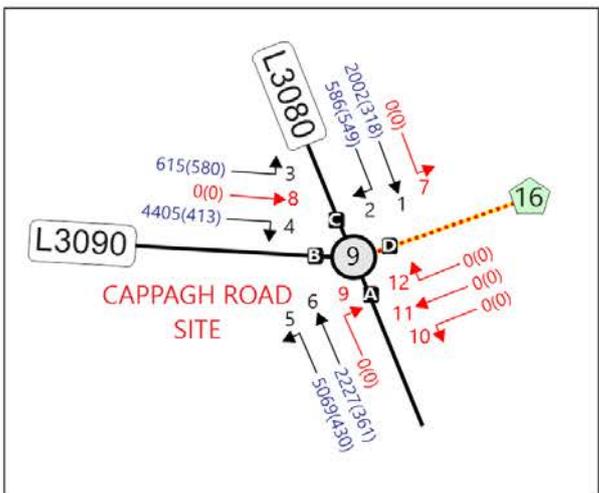
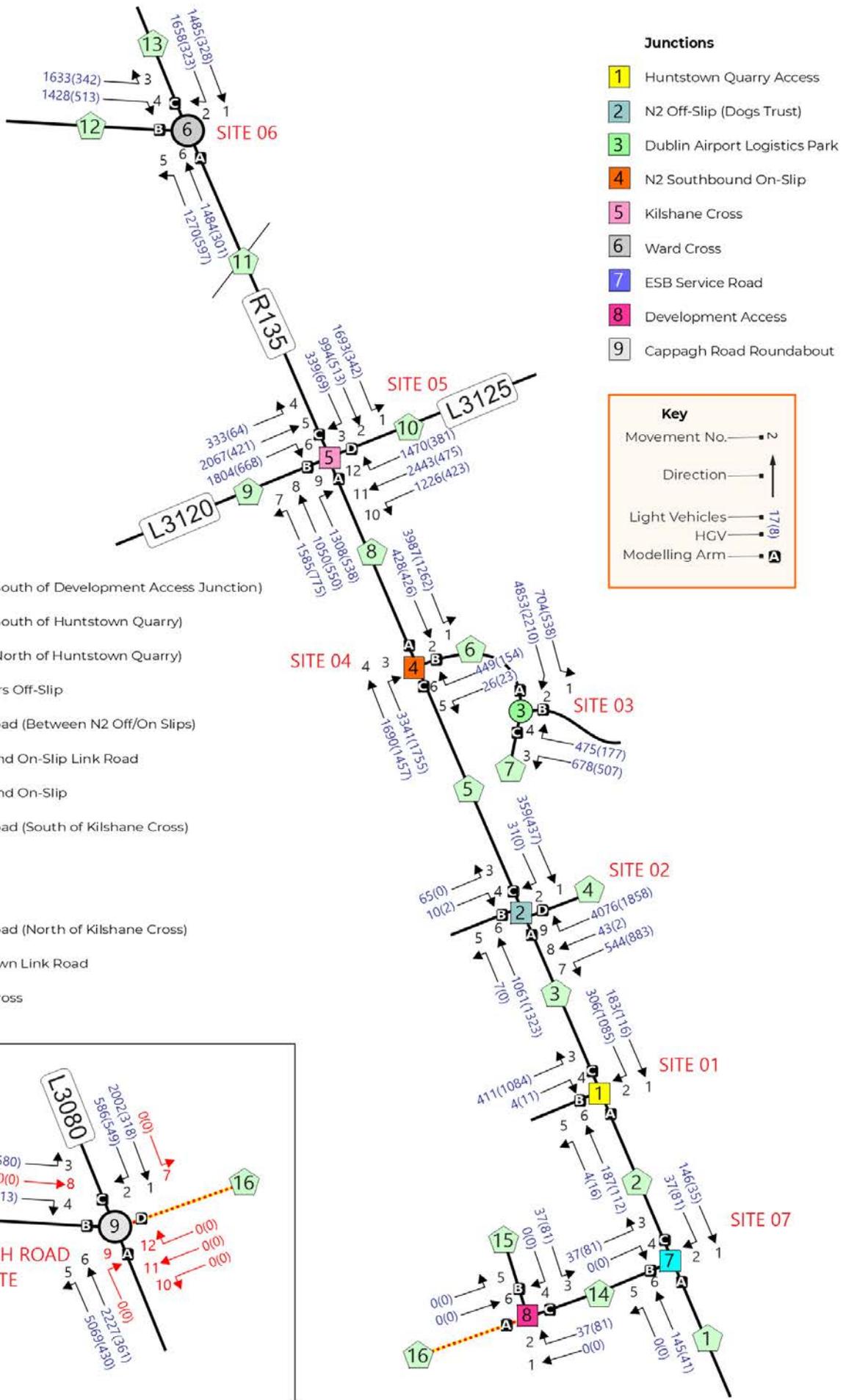


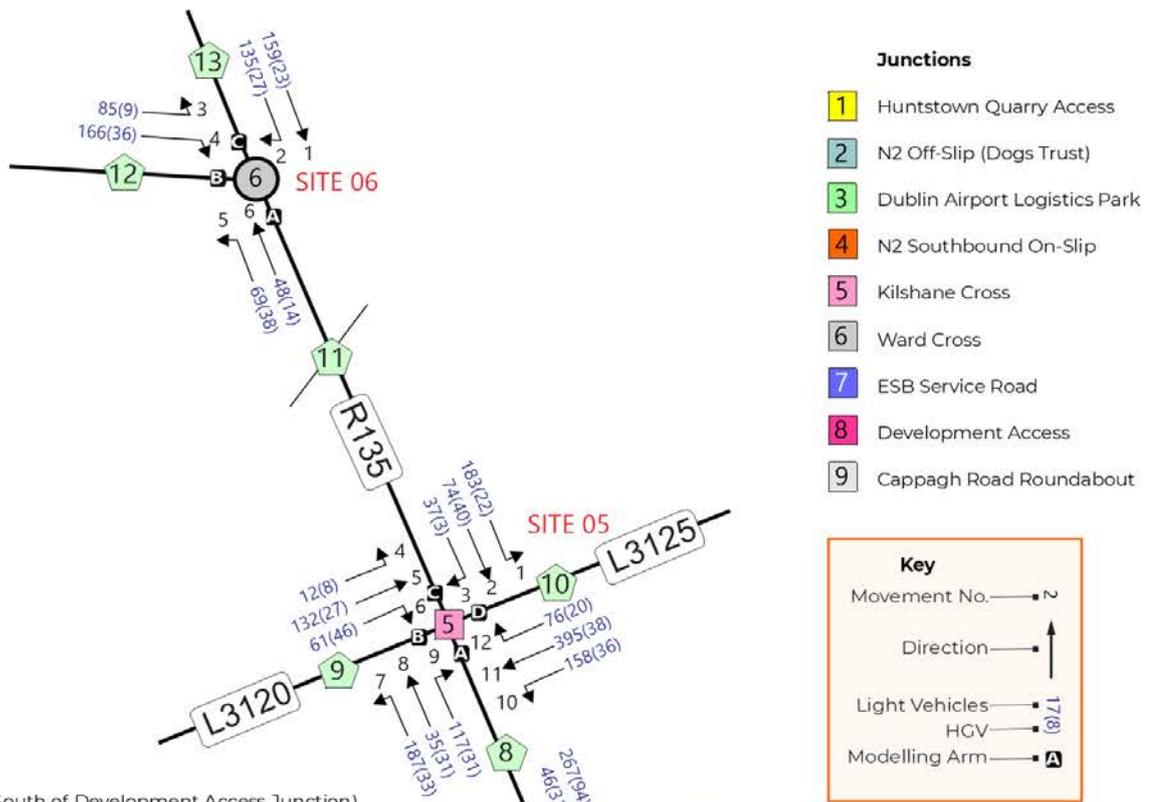


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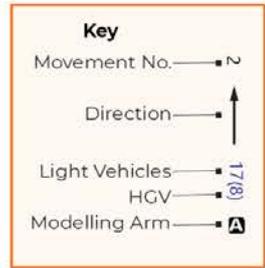
- 1 North Road (South of Development Access Junction)
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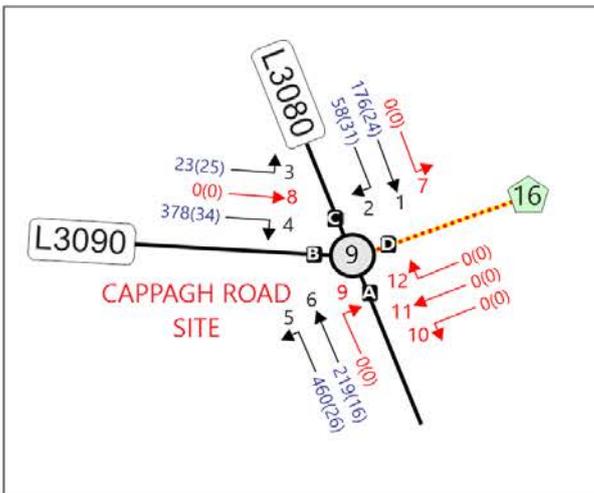
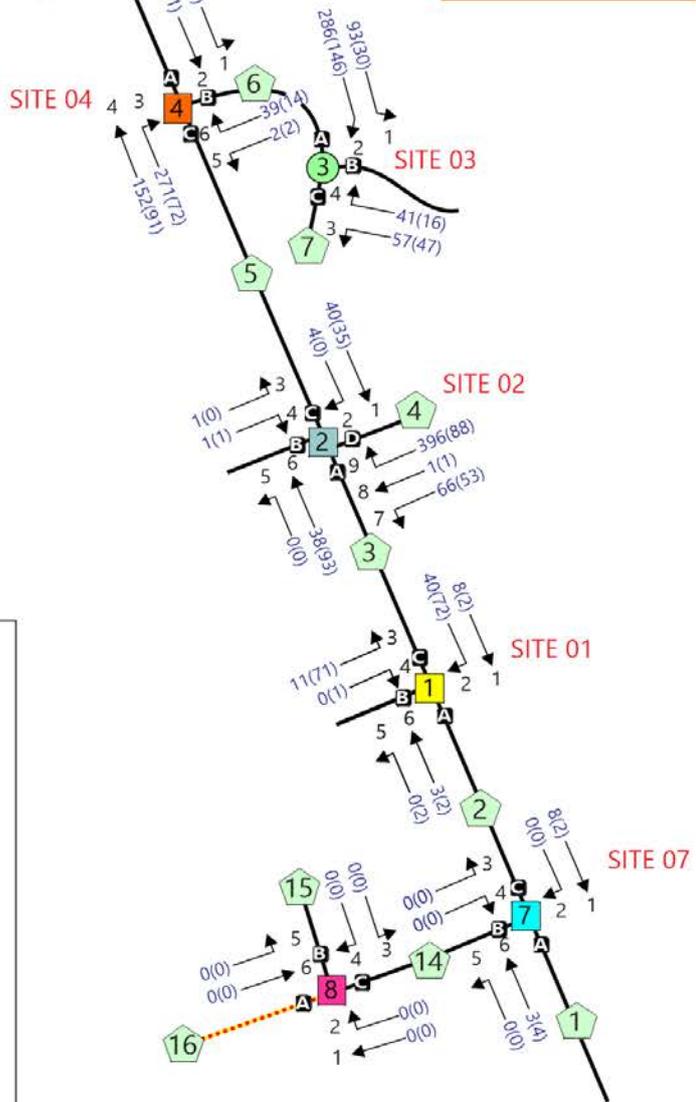


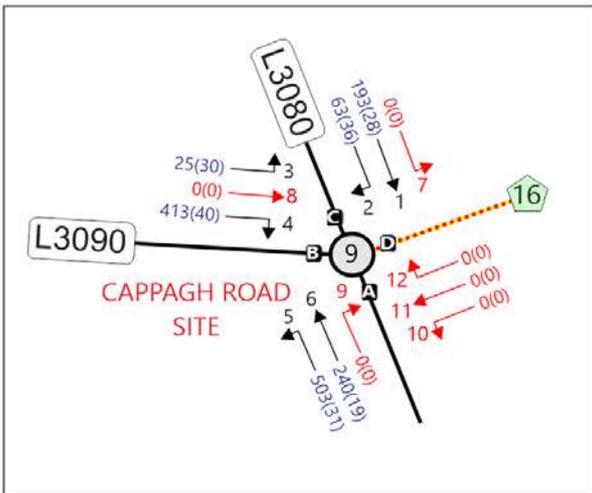
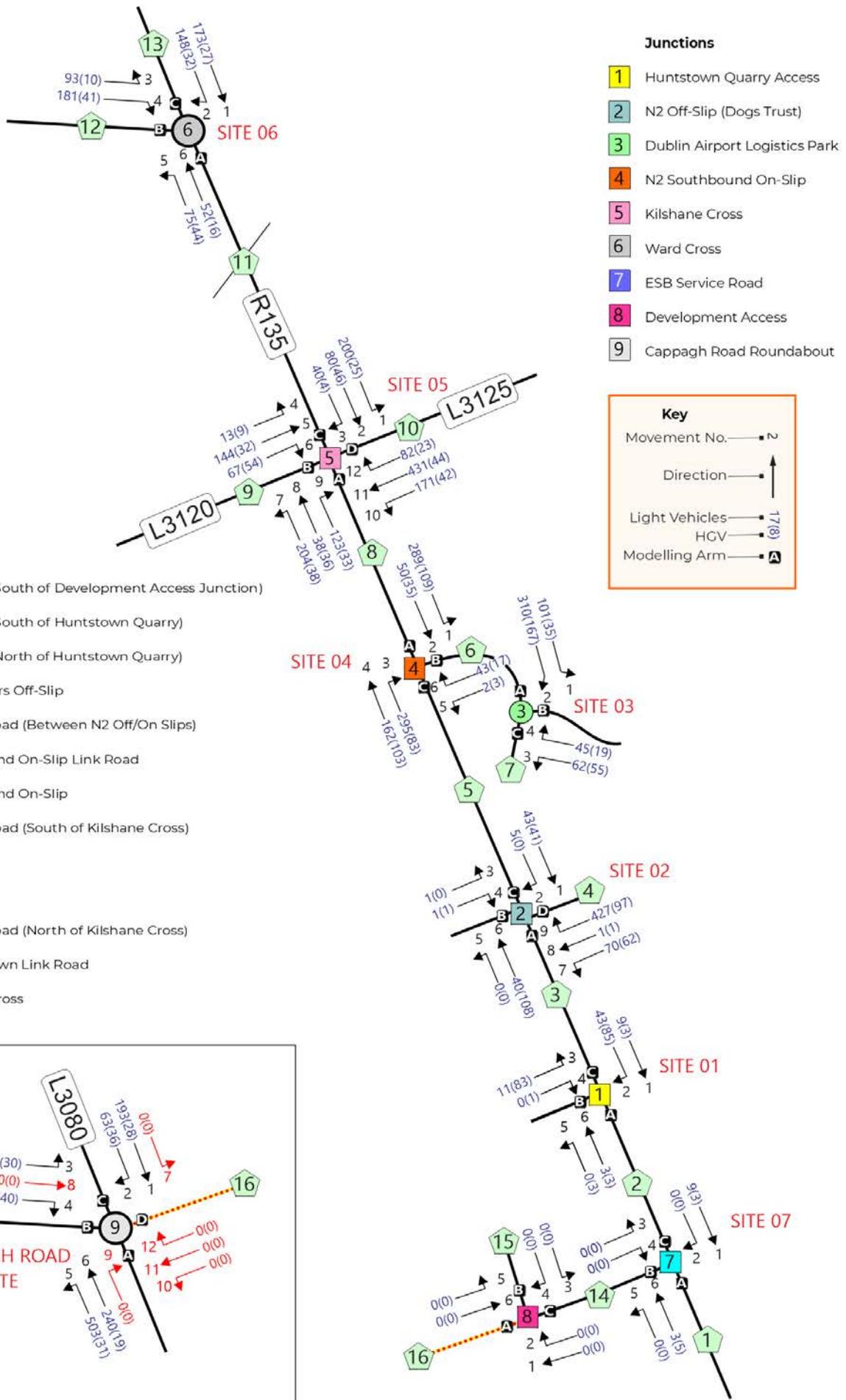
- Junctions**
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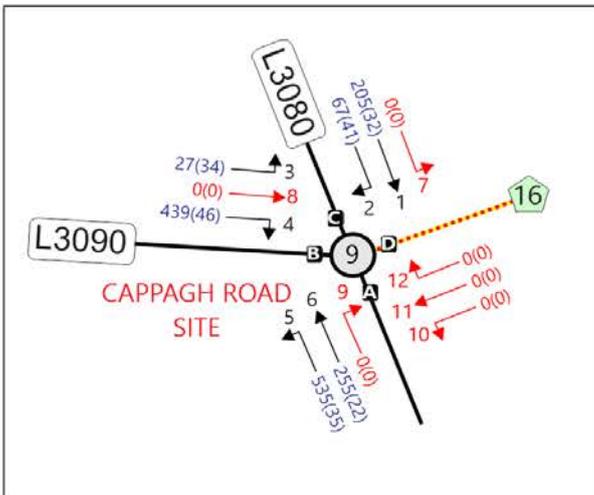
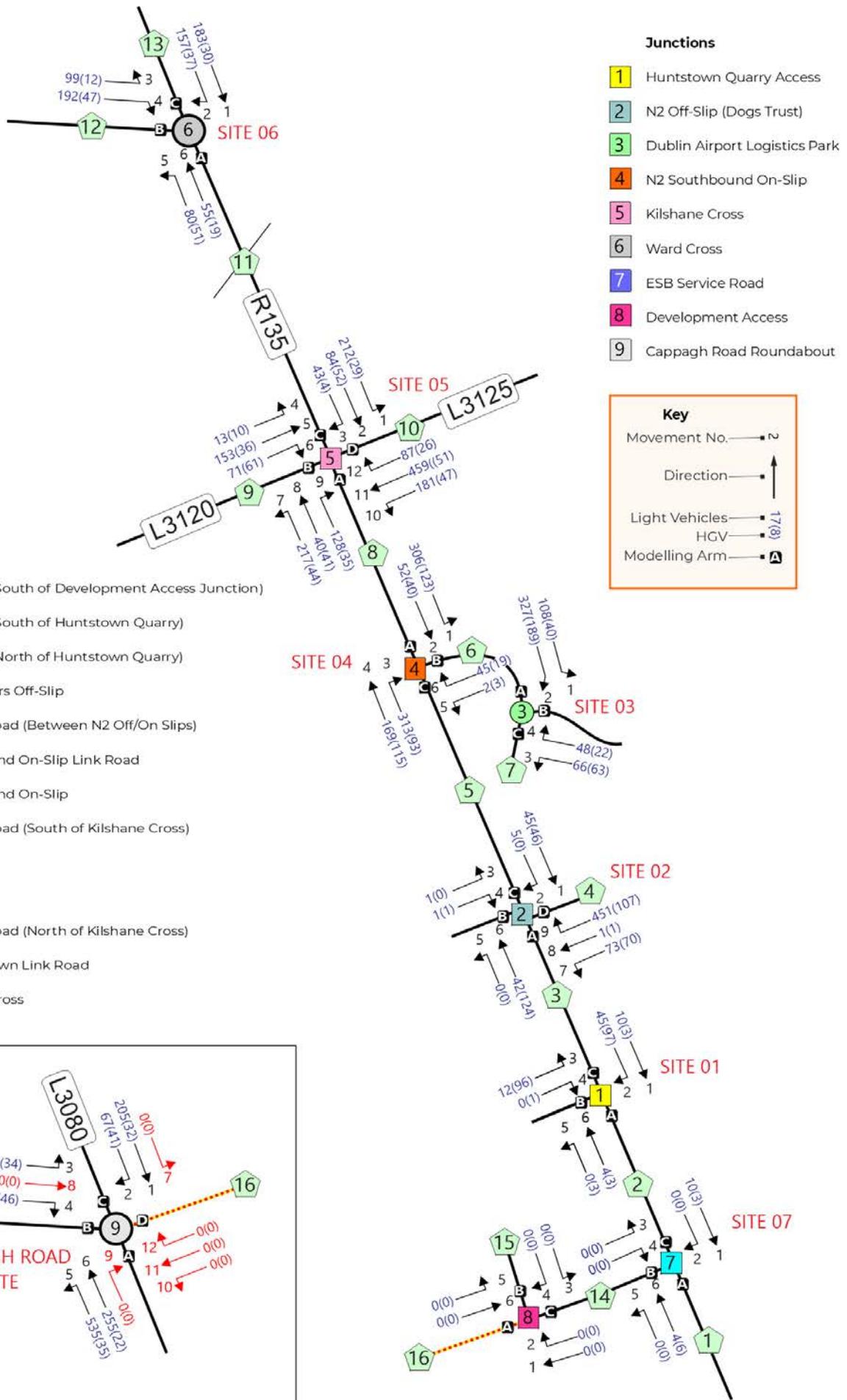


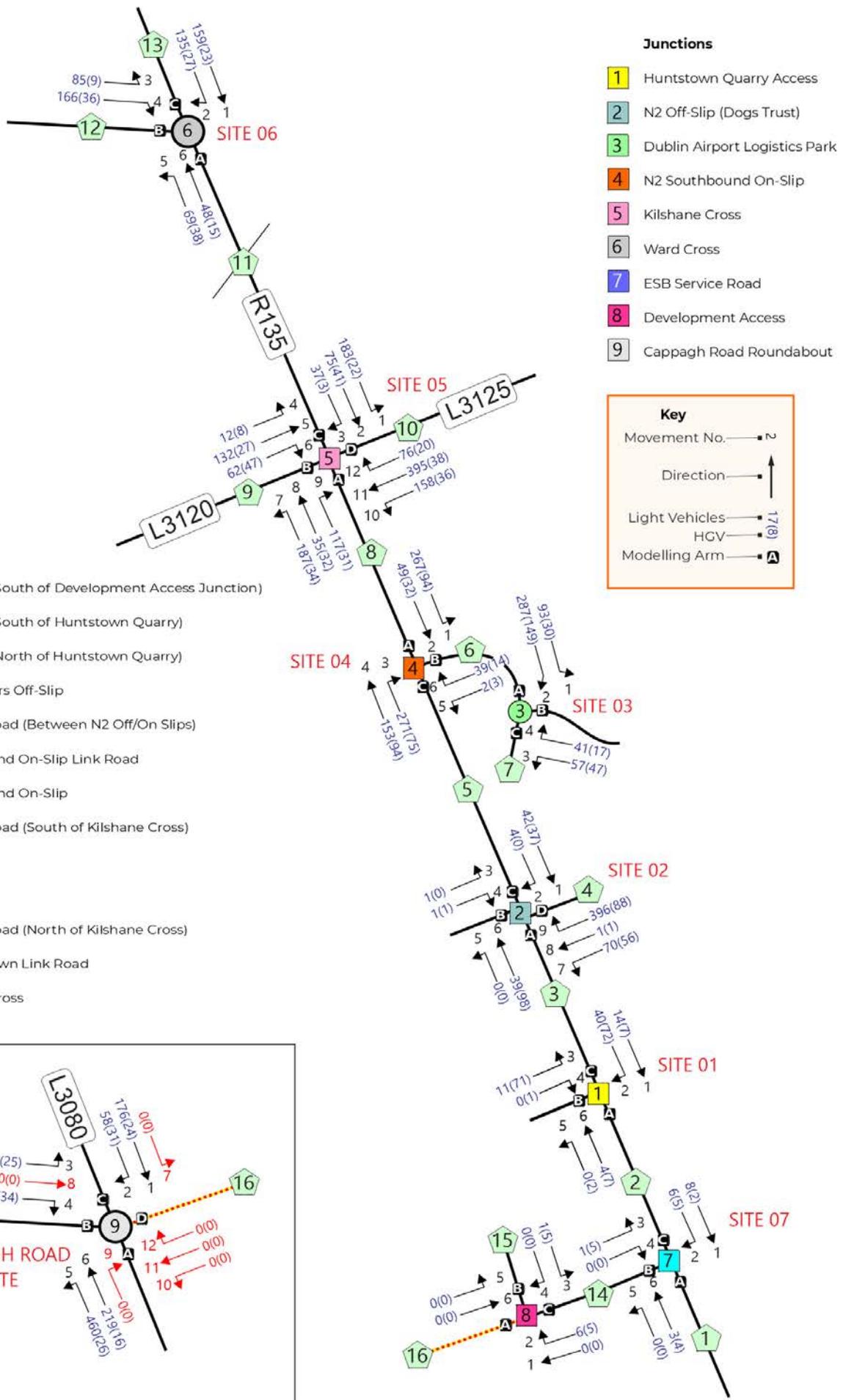
Links

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- 9 L3120
- 10 L3125
- 11 R135 North Road (North of Kilshane Cross)
- 12 Blanchardstown Link Road
- 13 R135 Wards Cross

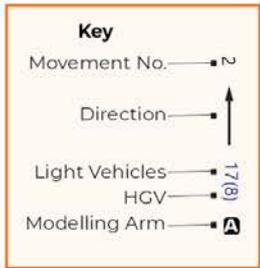






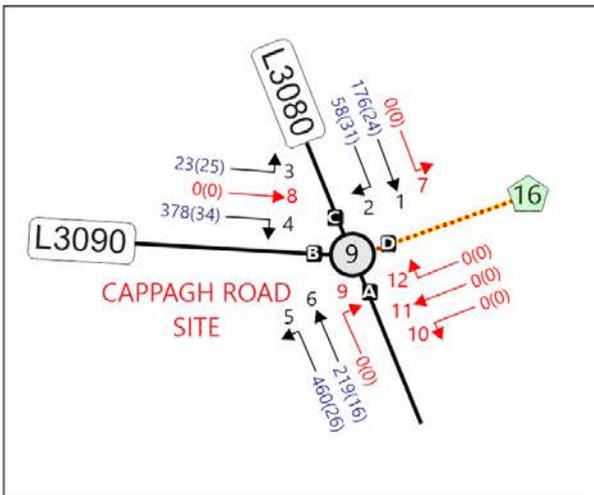


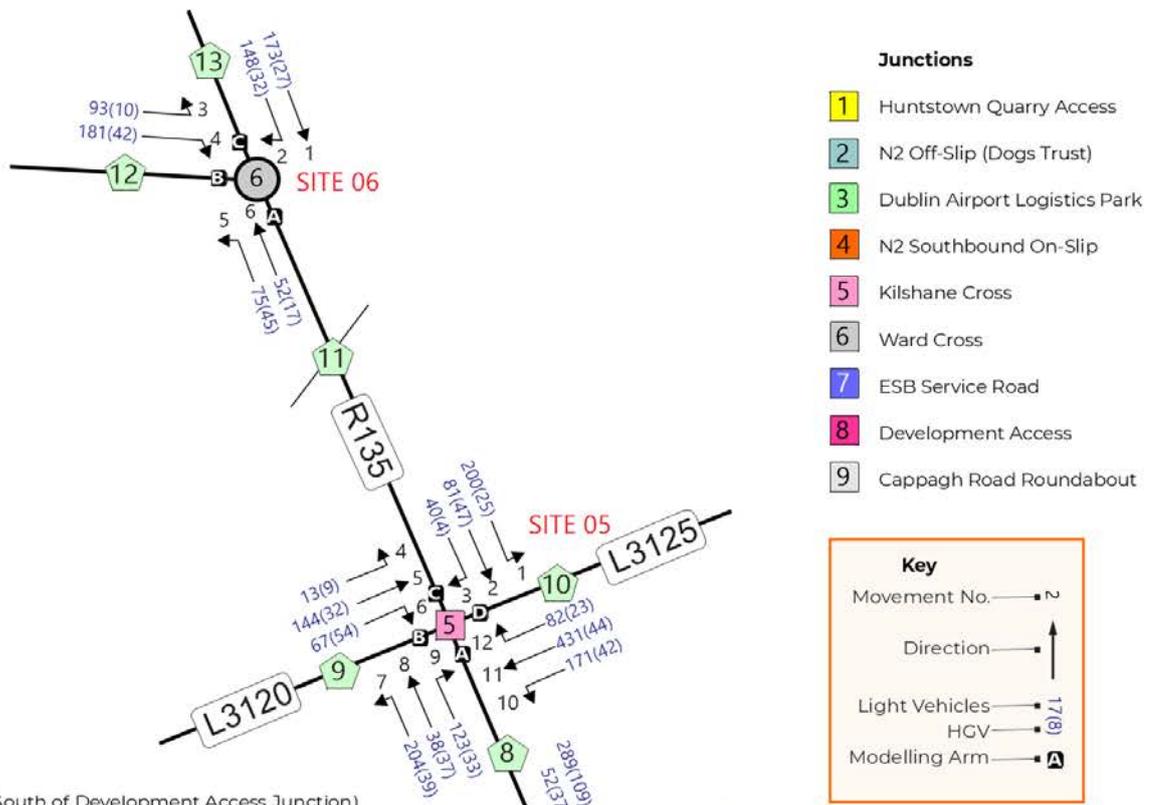
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Links

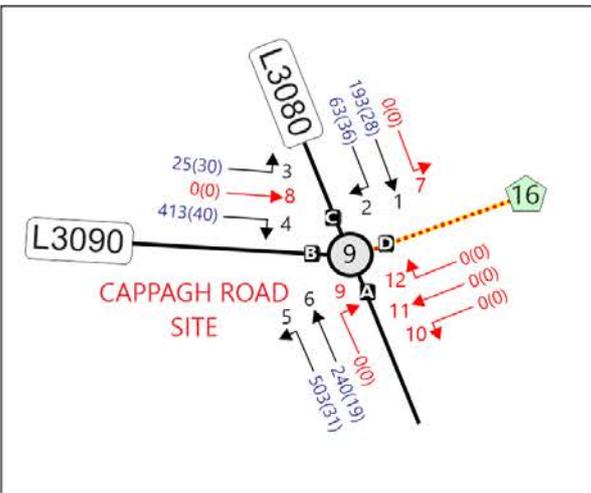
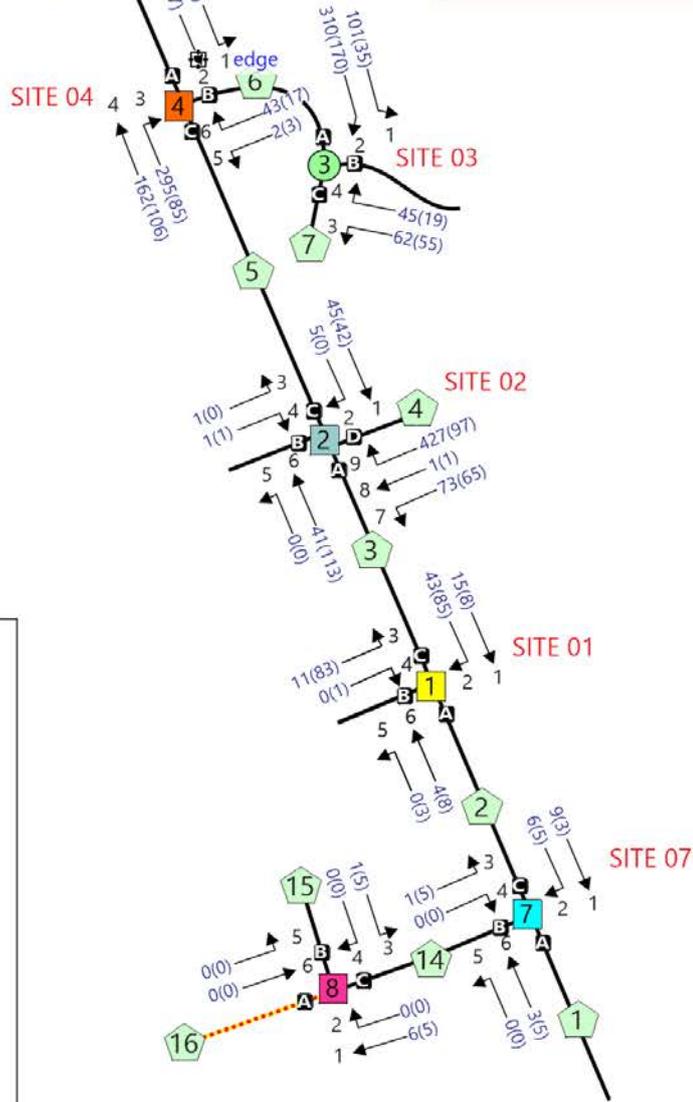
- 1 North Road (South of Development Access Junction)
- 2 North Road (South of Huntstown Quarry)
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- 5 R135 North Road (Between N2 Off/On Slips)
- 6 N2 Southbound On-Slip Link Road
- 7 N2 Southbound On-Slip
- 8 R135 North Road (South of Kilshane Cross)
- 9 L3120
- 10 L3125
- 11 R135 North Road (North of Kilshane Cross)
- 12 Blanchardstown Link Road
- 13 R135 Wards Cross

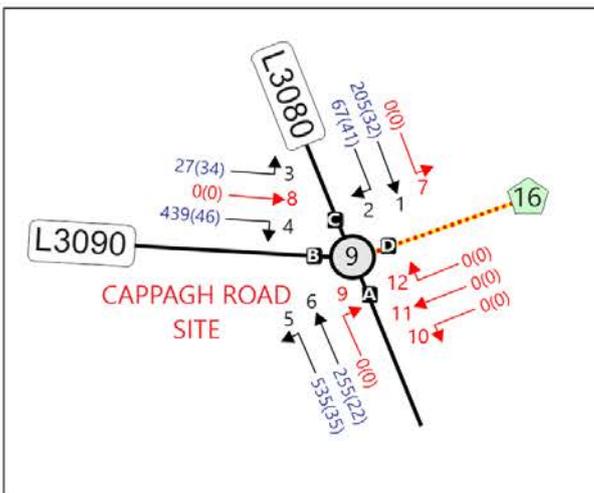
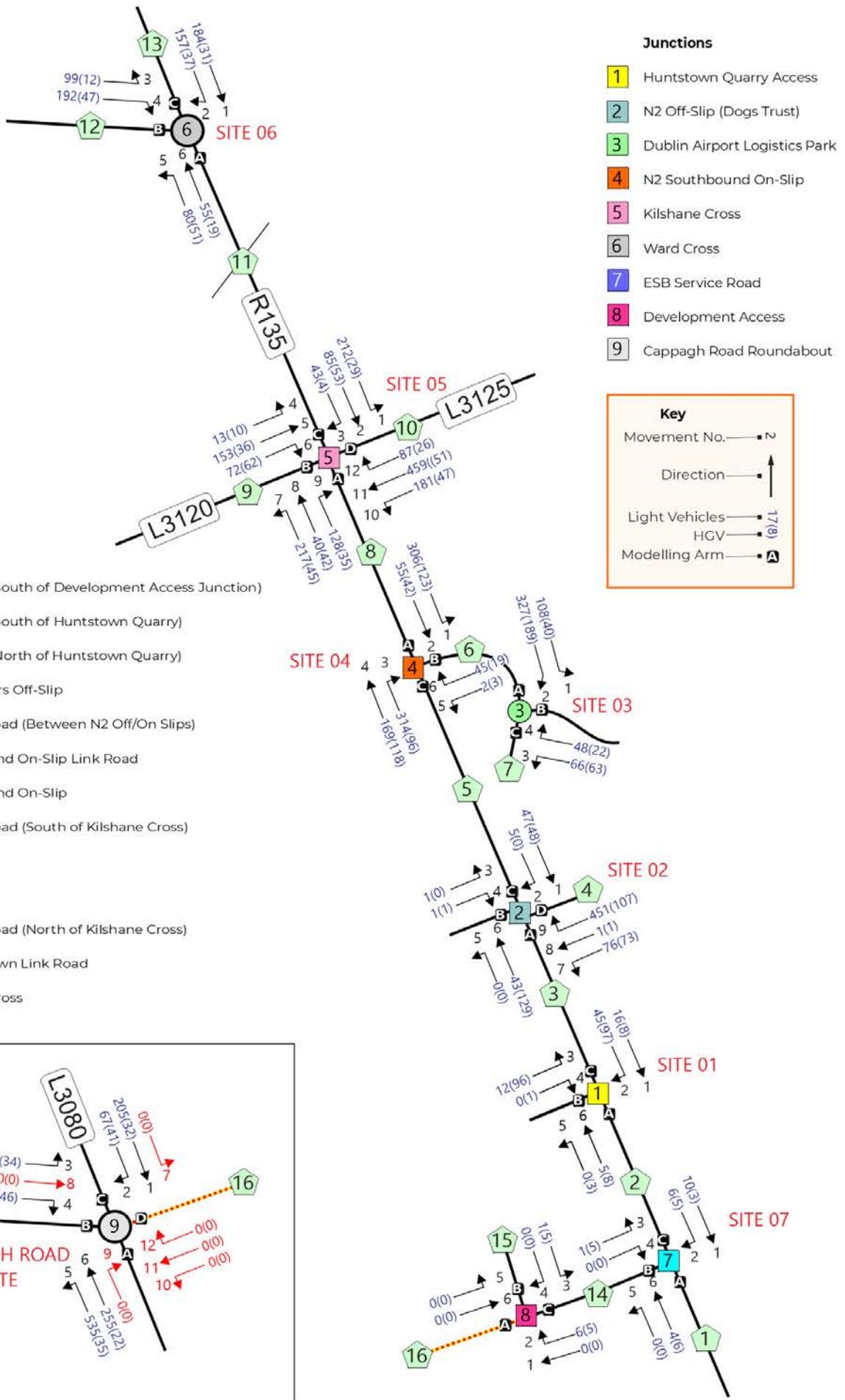


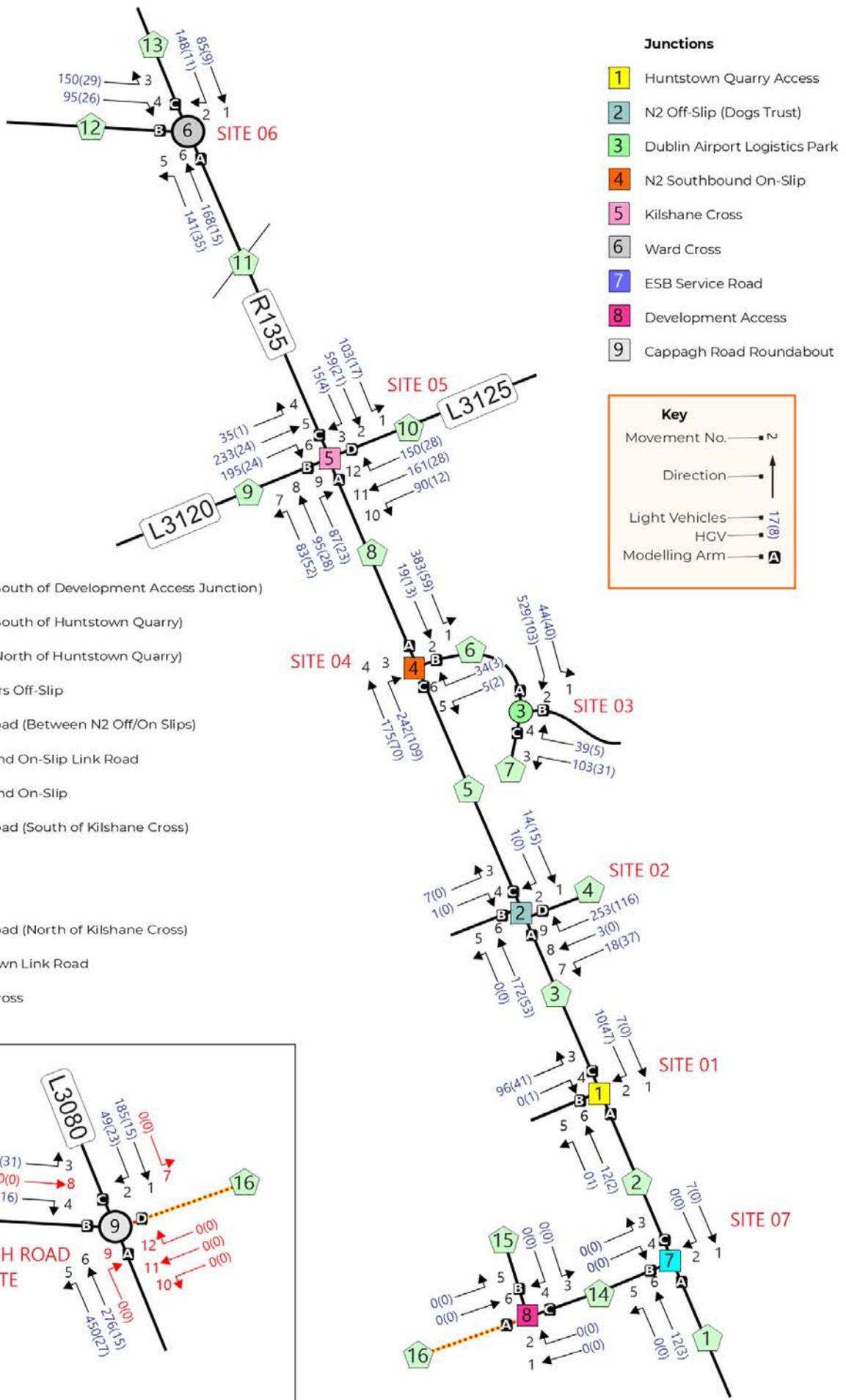


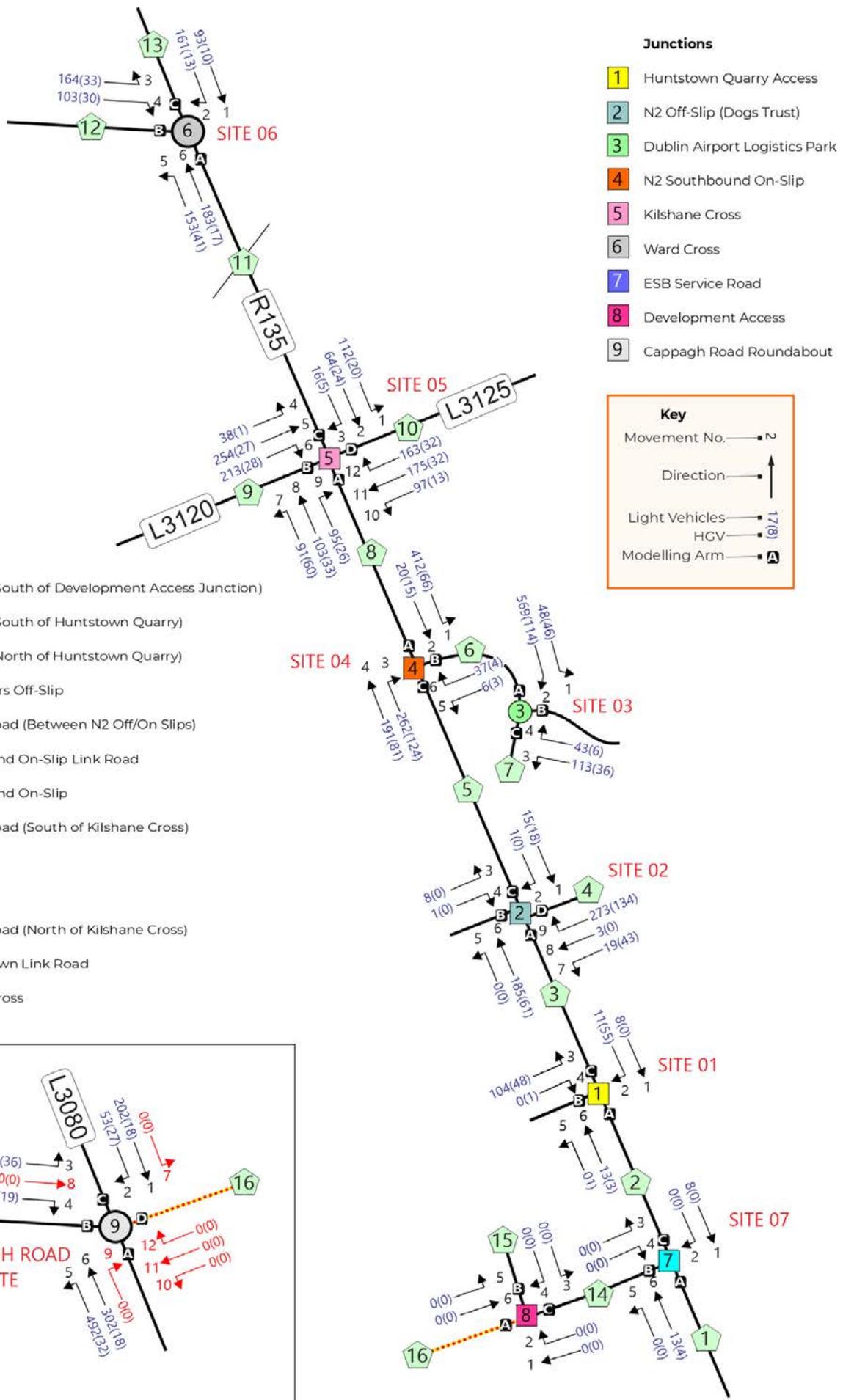
Links

- 1 North Road (South of Development Access Junction)
- 2 North Road (South of Huntstown Quarry)
- 3 North Road (North of Huntstown Quarry)
- 4 N2 Coldwinters Off-Slip
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Links

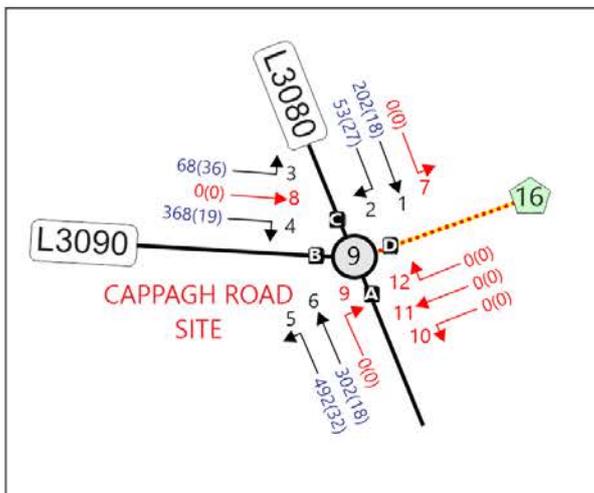
- 1 North Road (South of Development Access Junction)
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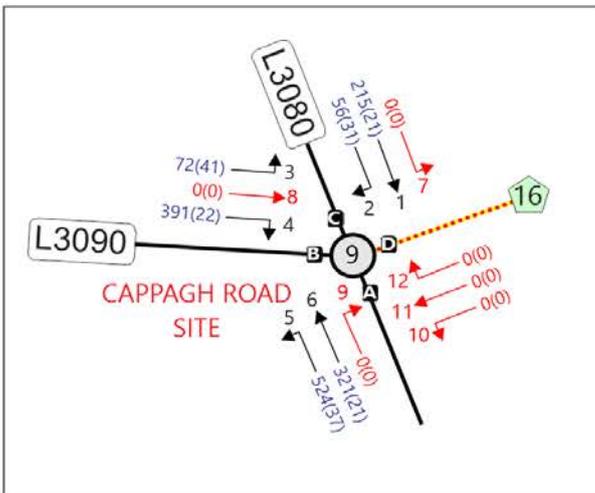
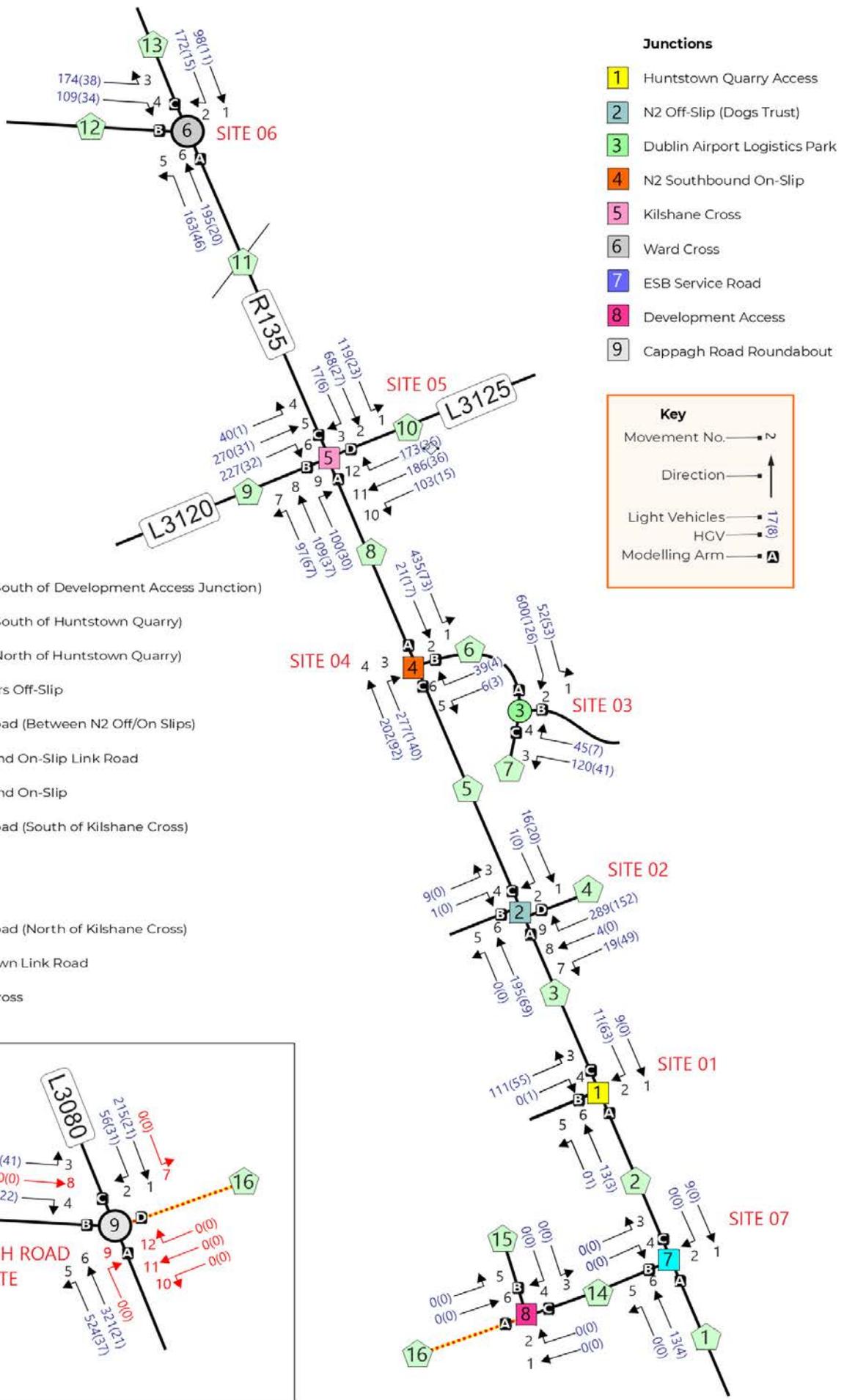
Junctions

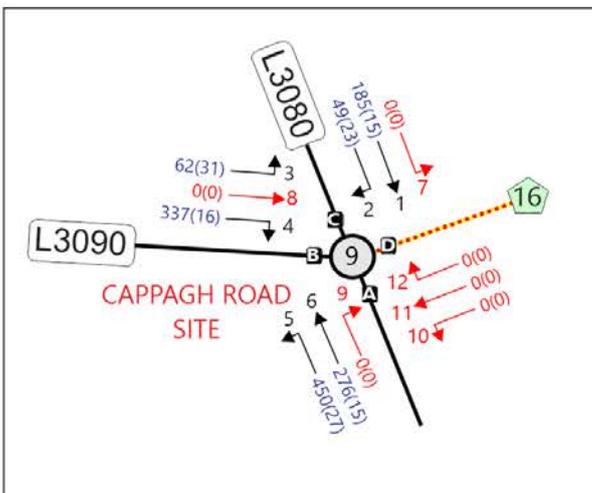
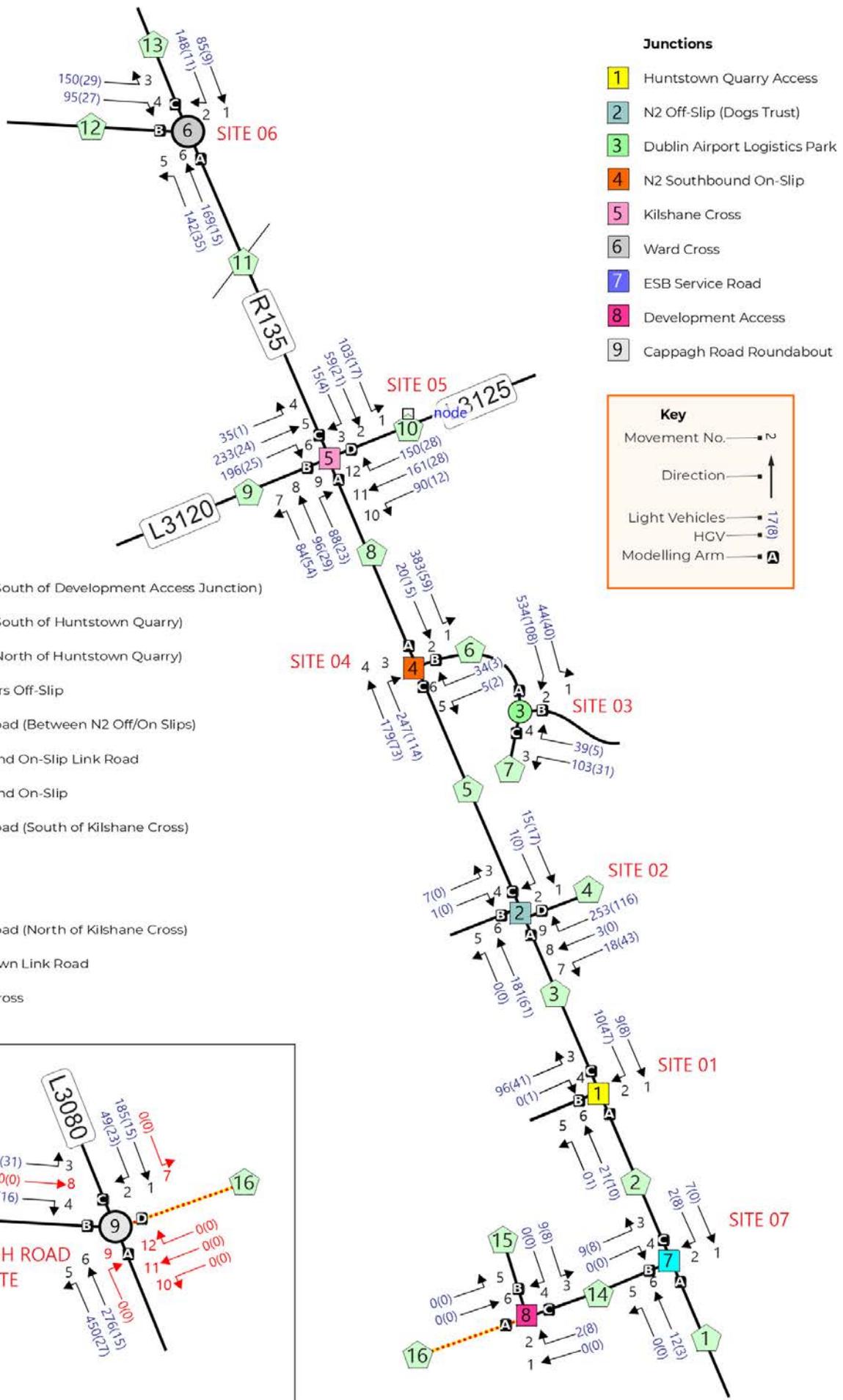
- 1 Huntstown Quarry Access
- 2 N2 Off-Slip (Dogs Trust)
- 3 Dublin Airport Logistics Park
- 4 N2 Southbound On-Slip
- 5 Kilshane Cross
- 6 Ward Cross
- 7 ESB Service Road
- 8 Development Access
- 9 Cappagh Road Roundabout

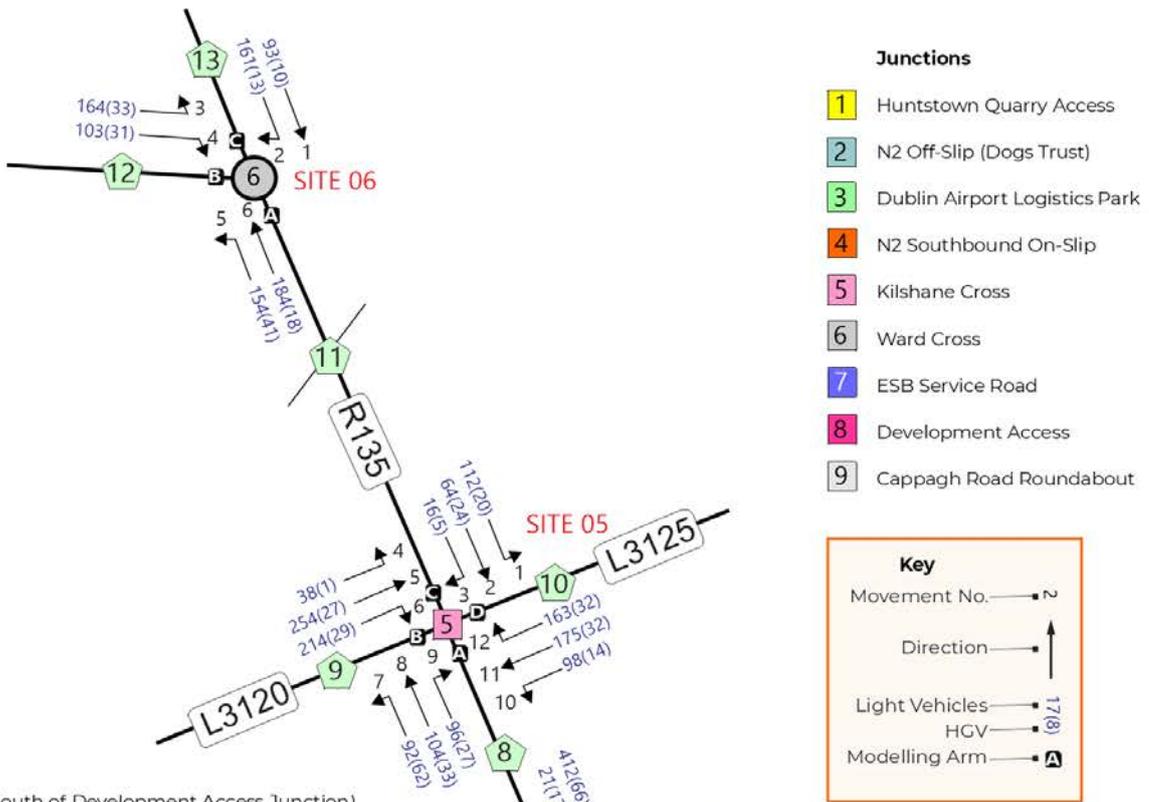
Key

- Movement No. →
- Direction →
- Light Vehicles → 17(8)
- HCV → 6(3)
- Modelling Arm → A



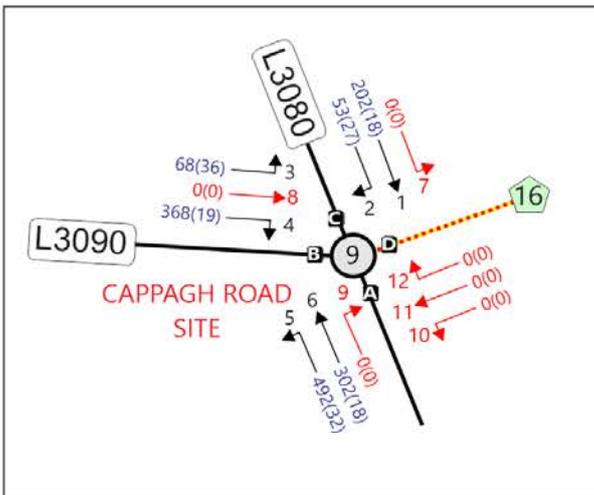
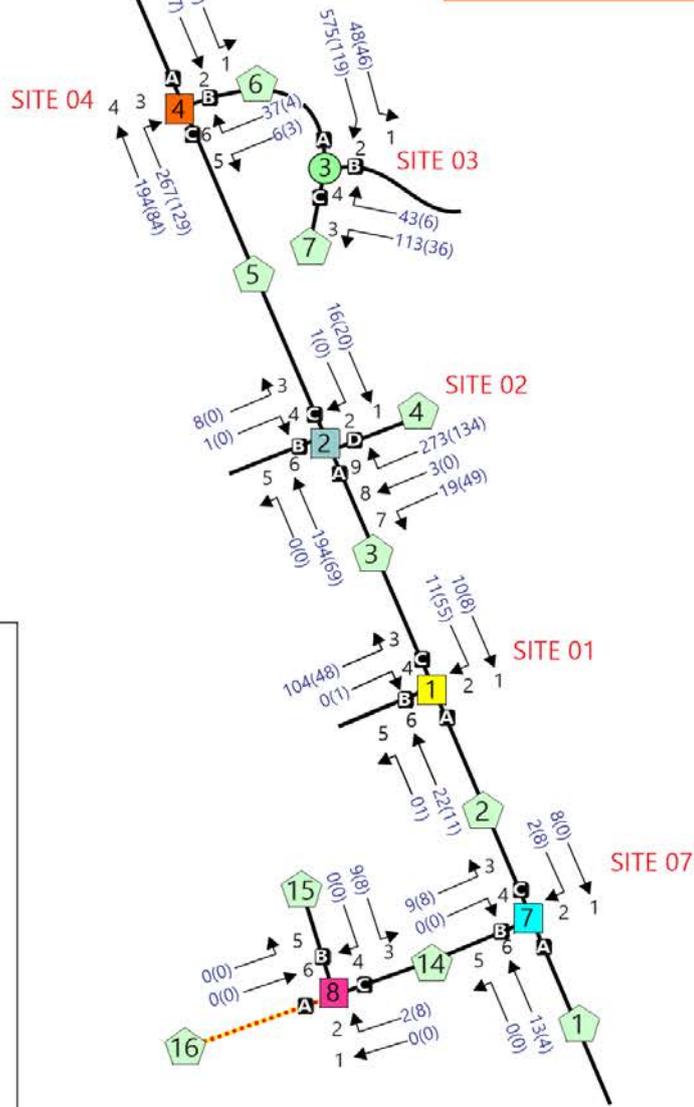


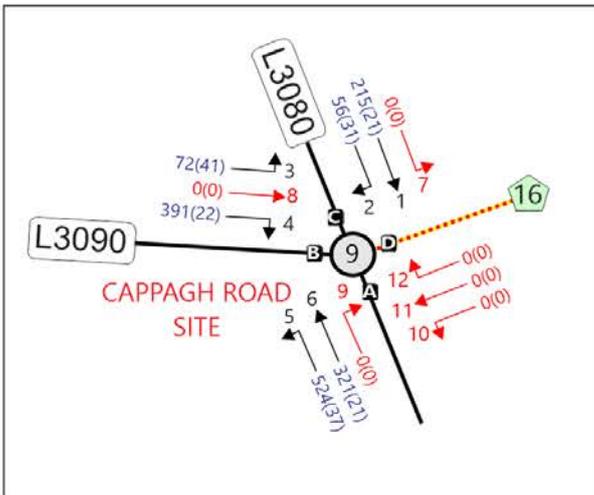
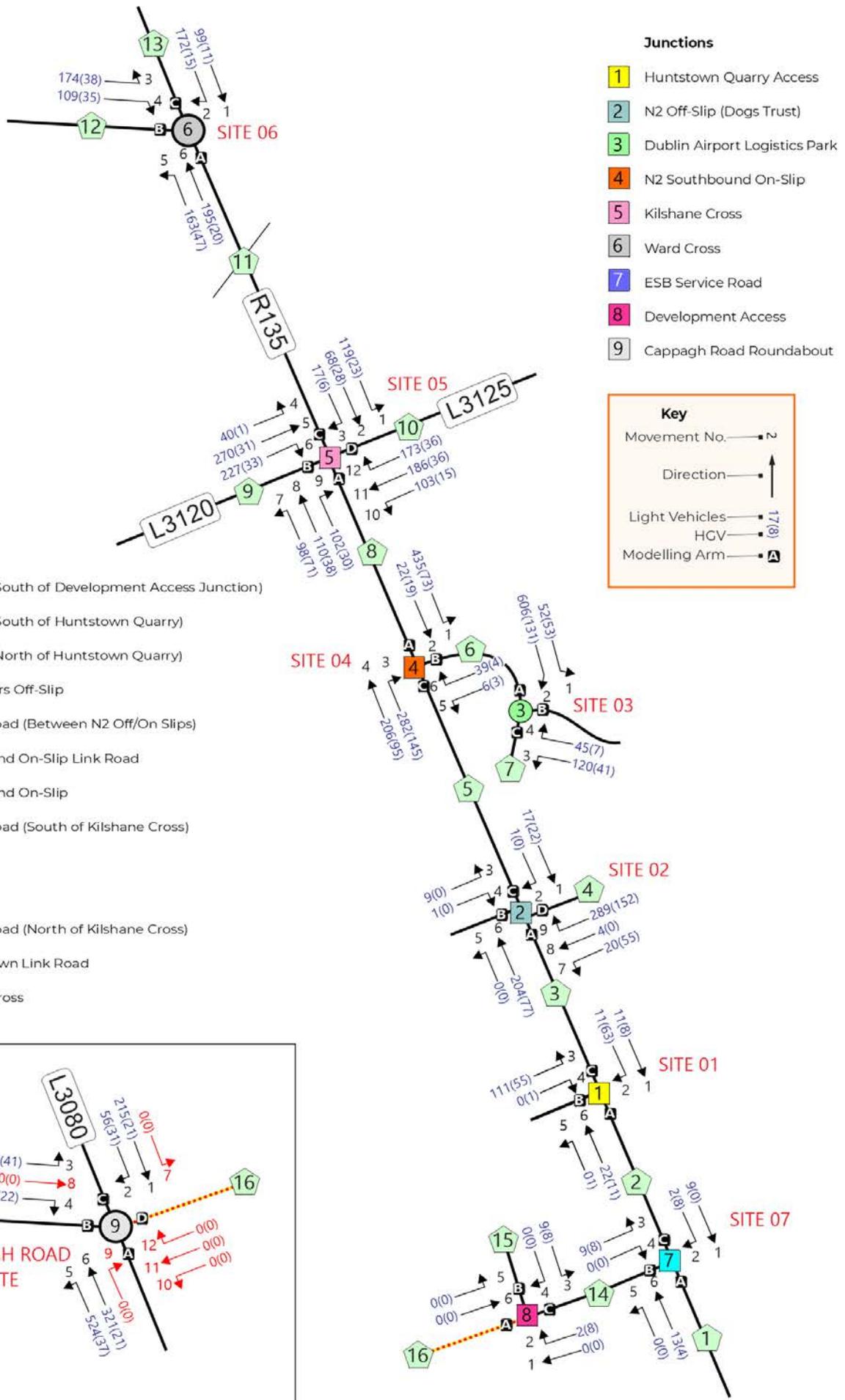




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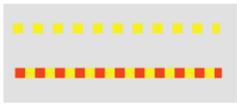


Appendix C – Haul Routes



Huntstown Circular Economy Hub - Phase 1 - General Haul Routes

Existing Routes from National Primary Roads
 Future Connection to Cappagh Road



TRAFFICWISE
 traffic & transportation solutions

Suite 5, Gowna Plaza,
 Bracetown Business Park,
 D15 R59T

Telephone: +353 (0)1 8253015
 Website: www.trafficwise.ie
 E-mail: info@trafficwise.ie

Drawn by: TWL	Checked by: JMK	Approved by: JMK
Date: February 2023	Date: February 2023	Date: February 2023
Scenario: Haul Routes	Job No: 03088	Figure 1
Appendix C		

Appendix D – Road Safety Audit Report

Huntstown Serviced Industrial Units

Stage 1 Road Safety Audit

Trafficwise

March 2023

Huntstown Serviced Industrial Units

Stage 1 Road Safety Audit

March 2023

Notice

This document and its contents have been prepared and are intended solely for Trafficwise's information and use in relation to the Huntstown Serviced Industrial Units.

Traffico assumes no responsibility to any other party in respect of or arising out of or in connection with this document and / or its contents.

Document History

JOB NUMBER: 230014			DOCUMENT REF: 230014RPT001_RSA1_Rev_0			
0	Draft Issue	MD	MD	CP	MD	29 Mar 2023
Revision	Purpose Description	Originated	Checked	Reviewed	Authorised	Date

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1. Introduction

1.1 Report Context

This report describes the findings of a Stage 1 Road Safety Audit associated with Huntstown Serviced Industrial Units.

The Audit has been completed by Traffico Ltd. on behalf of Trafficwise.

1.2 Details of Site Inspection

Date	Daylight / Darkness	Weather & Road Conditions
Tuesday 7 th February 2023	Daylight	Cloudy with dry pavements.

Table 1.1 – Site Inspection Details

1.3 The Road Safety Audit Team

The members of the Road Safety Audit Team have been listed following:

Status	Name / Qualifications	TII Auditor Reference No:
Audit Team Leader (ATL)	Martin Deegan BEng(Hons) MSc CEng MIEI	MD101312
Audit Team Member (ATM)	Colin Prendeville BEng(Hons) CEng MIEI CIHT	CP3369500
Audit Trainee (AT)	-	-

Table 1.2 – Audit Team Details

1.4 Design Drawings Examined as Part of the Audit Process

The following drawing(s) were examined as part of the Road Safety Audit (RSA) process:

Drawing No.	Drawing Title	Revision
P001	Site Plan	L
P007	Site Cross Sections	-
P008	Road Cross Sections & General Details	-
P009	Site Location Map	-

Table 1.3 – Designers Drawing List

1.5 Road Safety Audit Compliance

Procedure and Scope

This Road Safety Audit has been carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 - Road Safety Audit.

As part of the road safety audit process, the Audit Team have examined only those issues within the design which relate directly to road safety.

Compliance with Design Standards

The road safety audit process is not a design check, therefore verification or compliance with design standards has not formed part of the audit process.

Minimizing Risk of Collision Occurrence

All problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise the risk of collision occurrence.

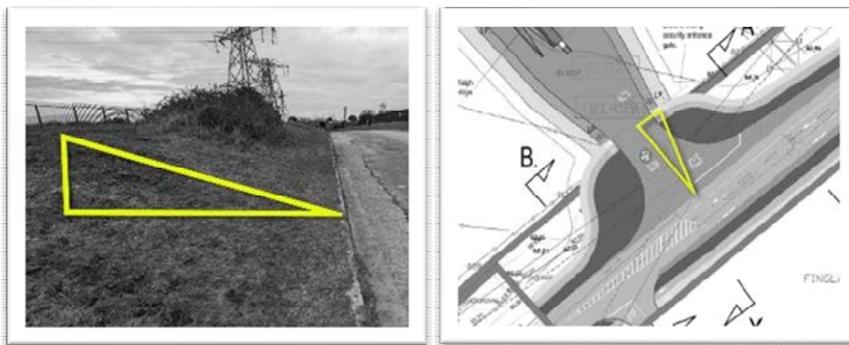
2. Road Safety Issues Identified

2.1 Problem: Vertical Gradient Leading to Stop Line ‘Over-Shoots’

Location: New Access Junction on Existing Spine Road

The significant level difference between the subject lands and the existing spine road has been managed with the creation of an earth embankment. The presence of this embankment could result in a steep approach gradient on the internal road as it nears the Stop line. This could lead to an increase in vehicle speeds and vehicles ‘overshooting’ the Stop line.

Figure 2.1 – Steep Embankment at Site of New Access Junction



Recommendation

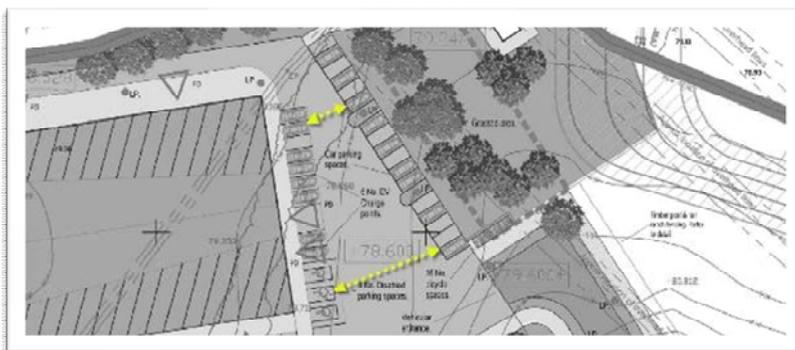
A dwell area should be provided on the new access road as it approaches the Stop line. The vertical gradient of the dwell area should be reduced locally to mitigate the risks described. The dwell area should be large enough (in plan) to accommodate an appropriate design vehicle.

2.2 Problem: Tapering Lane Width Leading to Conflicts

Location: Internal Circulation Road Serving Front of Tray Washing & Baling Facility

The unusual tapering road layout is likely to be confusing for drivers. It could increase the risk of opposition type conflicts at the narrow end. Whilst at the wider end, it is likely to encourage higher vehicle speeds and inconsiderate parking within the expanse of unmanaged road pavement.

Figure 2.2 – Unusual Section of Tapered Internal Road



Recommendation

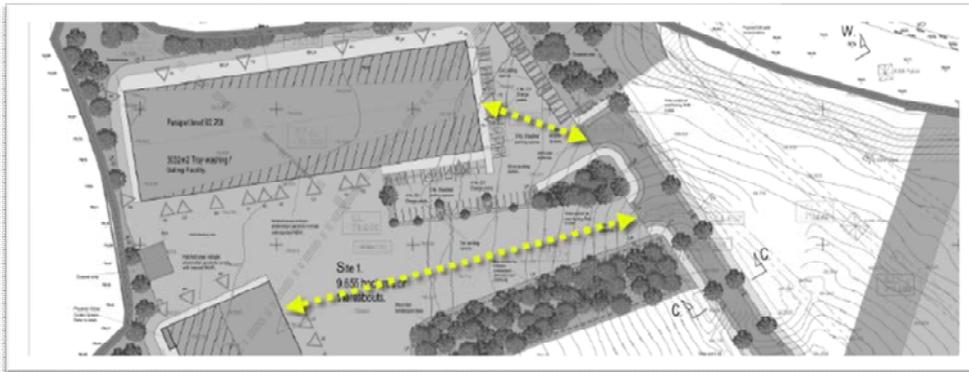
A consistent (and appropriate) lane width should be applied to the area described.

2.3 Problem: Pedestrian Connections - Accesses to Buildings

Location: Connections Between Each Site Access & Building Entrances

Provision for pedestrians (including those who are mobility impaired) to connect safely between the site access points and each main building does not appear to have been considered. This could lead to conflicts between vulnerable road users and HGV's.

Figure 2.3 – Pedestrian Desire Lines (Footpaths currently Terminate at Each Access)



Recommendation

An appropriate network of footpaths and crossing points should be provided between each site access point and the main building entrances to manage pedestrian / HGV conflict risks.

2.4 Problem: Side by Side HGV & Pedestrian Access

Location: Access to Both Buildings

The drawings indicate a number of locations where pedestrian access doors are proposed alongside or in between HGV access doors (footpaths do not appear to have been provided here). If not carefully managed, this could lead to conflicts between HGV's and pedestrians.

Figure 2.4 – Locations Where Pedestrian Access is Proposed Alongside HGV Access



Recommendation

Appropriate measures should be set in place for pedestrians to connect with each pedestrian access door whilst being segregated from the risk of conflict with HGV's entering or leaving the buildings.

3. Team Statement

3.1 Certification & Purpose

We certify that we have examined the drawing(s) listed in Chapter 1 of this Report.

Sole Purpose of the Road Safety Audit

The Road Safety Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified to improve the road safety aspects of the scheme.

3.2 Implementation of RSA Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for road safety improvements.

We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

Audit Team's Independence to the Design Process

No member of the Audit Team has been otherwise involved with the design of the measures audited.

3.3 Road Safety Audit Team Sign-Off

Martin Deegan

Audit Team Leader
Road Safety Engineering Team

traffico

Signed:



Date:

29th March 2023

Colin Prendeville

Audit Team Member
Road Safety Engineering Team

traffico

Signed:



Date:

29th March 2023

4. Designers Response

4.1 How the Designer Should Respond to the Road Safety Audit

The Designer should prepare an Audit Response for each of the recommendations using the Road Safety Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team for consideration. See flow-chart following for further description.



Figure 4.1 – Road Safety Audit Sign-Off and Completion Process

4.2 Returning the Completed Feedback Form

The Designer should return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email address:

- Email address: martin@traffico.ie

The Audit Team will consider the Designer’s response and reply indicating acceptance or otherwise of the Designers response to each recommendation.

Triggering the Need for an Exception Report

Where the Designer and the Audit Team cannot agree on an appropriate means of addressing an underlying safety issue identified as part of the audit process, an Exception Report must be prepared by the Designer on each disputed item listed in the audit report.

Appendix A

A.1 Road Safety Audit Feedback Form

Road Safety Audit Feedback Form

Scheme: Huntstown Serviced Industrial Units

Audit Stage: Stage 1 Road Safety Audit

Audit Date: 29th March 2023

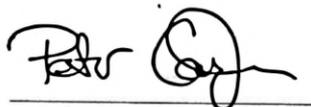
Problem Reference (Section 2)	Designer Response Section			Audit Team Response Section
	Problem Accepted (yes / no)	Recommended Measure Accepted (yes / no)	Alternative Measures or Comments	Alternative Measures Accepted (yes / no)
2.1	Y	Y	Dwell area to be incorporated in accordance with DN-GEO-03060, Section 5.6.4 'Approach Gradients'.	Comment noted.
2.2	Y	Y	A standard aisle width of 6.0m to be provided and parking to be re-orientated to achieve two opposing rows of car parking spaces both parallel to the adjacent building façade.	Comment noted.
2.3	Y	Y	Access roads to be provided with footways on both sides with dropped crossings located at key points. Connections to be provided to pedestrian entrances of both buildings.	Comment noted.
2.4	Y	Y	A footway will be provided along the entire perimeter of both buildings. At vehicle entrances to the buildings the footway may be maintained at 50mm upstand or alternatively full kerb upstand can be combined with dropped crossings at the vehicle entrances. Pedestrian routes across yard areas will be clearly defined with appropriate markings and signing.	Comment noted.

*The Designer should complete the Designer Response Section above, then fill out the designer details below and return the completed form to the Road Safety Audit Team for consideration and signing.

Designer's Name:

Peter Coyle

Designer's Signature:

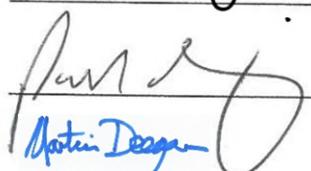


Date: 17.04.23

Employer's Name:

PAUL MCCARTHY FOR RATHFRINAGH LAND LLC

Employer's Signature:



Date: 3/4/23

Audit Team's Name:

Martin Deegan

Audit Team's Signature:



Date: 19th April 2023



traffico

e: hello@traffico.ie

w: www.traffico.ie